UNIVERSITY of WISCONSIN
GREEN BAY

Campus Master Plan Update

DFD PROJECT NO. 21C1U

FEBRUARY 19, 2024

This page is intentionally left blank.

Table of Contents

Preface **i**

Purpose
Process
Acknowledgements
Letter from the Chancellor
UW-Green Bay Mission, Vision, and Values

1. Executive Summary **1**

1.1 General Background & Context
1.2 Goals & Guiding Principles
1.3 Space Needs Analysis
1.4 Physical Environment Analysis
1.5 Synthesis
1.6 Recommendations
1.7 Implementation Plan

2. General Background & Context **19**

2.1 Context & History
2.2 Geographical & City Context
2.3 Previous Planning Efforts
2.4 Campus Enrollment
2.5 Project Originators & Drivers
2.5.1 Project Drivers
2.5.2 Goals & Guiding Principles

3. Space Needs Analysis **33**

3.1 Assessment Methodology
3.2 Classroom Utilization
3.3 Lab Utilization
3.4 Assessment Conclusions

4. Physical Environment Analysis **35**

4.1 Campus Boundaries
4.2 Natural Features & Topography
4.3 Campus Organization & Major Entry Points
4.4 Open Spaces
4.5 Pedestrian Circulation
4.6 Parking & Pavement
4.7 Vehicular Circulation
4.8 Utilities
4.8.1 Water, Sanitary, & Storm
4.8.2 Steam
4.8.3 Chilled Water
4.8.4 Electrical Power
4.8.5 Telecommunications
4.8.6 Fiber Optics
4.9 Conclusions

5. Synthesis **64**

6. Recommendations **68**

- 6.1 Goals & Guiding Principles
- 6.2 Concept Diagrams
- 6.3 Campus Organization
- 6.4 Open Spaces
- 6.5 Entry & Arrival
- 6.6 Pedestrian Circulation
- 6.7 Vehicular Circulation
- 6.8 Utilities
  - 6.8.1 Water, Sanitary, & Storm
  - 6.8.2 Steam
  - 6.8.3 Chilled Water
  - 6.8.4 Electrical Power
  - 6.8.5 Telecommunications
- 6.9 Composite Plan

7. Implementation Plan **108**

- 7.1 Near-Term Master Plan Proposals (0-6 Years)
- 7.2 Mid-Term Master Plan Proposals (7-12 Years)
- 7.3 Long-Term Master Plan Proposals (13-18 Years)

Appendix (Bound Separately)

- A. Utility System Projections and Diagrams
- B. Core Team Meeting Minutes
- C. Focus Group Meeting Minutes
- D. Campus Space Assessment
- E. Space Use Type Plans
- F. Functionality and Physical Condition Assessment
- G. Instructional Space Utilization Analysis

This page is intentionally left blank.

Preface

Purpose

Established in 1965, UW-Green Bay is entering its second half century at the current location. The nature of higher education and the role of the University in the regional economy has evolved from that envisioned in the original campus plan of 1969.

In 2018, as part of a UW System restructuring, UW-Green Bay took responsibility for the former UW-Marinette, UW-Sheboygan, and UW-Manitowoc two-year institutions, turning them into University of Wisconsin—Green Bay Marinette, Sheboygan, and Manitowoc campuses. The University serves 9,614 undergraduate, graduate, and doctoral students and 79,604 continuing education enrollees each year across four campus locations.

Enrollment includes students from pre-college through retirement and offer 200+ degrees, programs, and certificates. In 2020, UW-Green Bay was the fastest growing UW school in Wisconsin. UW-Green Bay saw gains in several key areas:

- Graduate Studies: 12% increase
- New Freshmen: Four percent increase at Green Bay Campus; three percent gain at Marinette, Manitowoc, and Sheboygan Campuses
- Total Enrollment (four locations): Increase of 313 students or three percent gain

Figure 1: UW-Green Bay campus location in Wisconsin

This recent growth, continued projections for growth, systemic changes in higher education, the increased demand for access to education by non-traditional students and the current state of the campus, all necessitate a proactive approach managing the physical assists of the University. This is part of a broader need on the part of all institutions to maintain a planning framework that organizes drivers and factors into one cohesive

document to lead orderly programmatic and physical development of the institution.

The University of Wisconsin – Green Bay Campus Master Plan Update is that framework for facility decisions which can accommodate the growth, development, and emerging opportunities that will be part of the future of the main Green Bay campus. This framework anticipates specific space needs from 2022 through 2032 but is also positioned to accommodate future capabilities beyond this near-term planning horizon. As envisioned by campus leadership this is the first step in the future campus rather than the most recent step of the original plan. As such, the Master Plan Update sets goals that expand the connectivity within the boundaries of the campus and reach beyond to the immediate surroundings, the City of Green Bay, and to the residents of northeast Wisconsin.

Process

This Master Plan Update follows state guidelines. Through an interactive and inclusive planning process, the Master Plan Update represents the consensus direction of multiple stakeholders within the institution and community.

Beginning with the assembling of a core master planning team consisting of institution, agency and state experts, and private consultants, the master planning team helped the various stakeholders understand the pressing issues, analyze facilities and site, interpret the university's strategic plans, analyze existing and future space needs, and determine how best to meet current and future programs.

The campus planning process was a collaboration between University of Wisconsin – Green Bay (UWGB), University of Wisconsin System Administration (UWSA), and the State of Wisconsin Division of Facilities Development (DFD). Integrated into the process were the Master Plan Core Team, faculty, staff, administration, students, community, and local business and governmental officials. The planning process included workshop sessions with the Core Team and group discussions with all pertinent campus constituents. Milestone presentations of the analysis, findings, and various planning scenarios were given along the way.

Building on input and analysis, the master planning team prepared a preliminary master plan for stakeholder input. That input enabled the refinement of guiding principles and concepts which lead to the creation of an implementation plan with broad stakeholder support – the road map going forward.

Obtaining input was accomplished by interviewing dozens of people and campus and community focus groups. While these types of engagements would typically occur in-person through workshops and open houses, COVID-19 prevented all in-person meetings and presentation. Therefore, all engagement activities were held virtually.

Acknowledgements

Department of Administration

Division of Facilities Development

Robert L. Hoffmann, AIA, Project Manager

University of Wisconsin System Administration

Office of Capital Planning & Budget

Tom Bittner, Capital Planning Assistant Director
Maura Donnely, Senior Architect

University of Wisconsin – Green Bay

Michael Alexander, Chancellor
Kathleen Burns, Provost
Sheryl Van Gruensven, CBO/Senior VC Inst Strategy

Facilities Planning & Management

Paul Pinkston, Former Director
Jeffery Jacobs, Chief Facilities Officer
Jeffrey W. Schulz, AIA, Facilities Architect

Focus Groups

Athletics
Austin E. Cofrin School of Business
Brown County
Campus Administration
City of Green Bay
Cofrin Center for Biodiversity
College of Arts, Humanities, and Social Sciences
College of Health, Education, and Social Work
College of Science, Engineering, & Technology
Council of Trustees
Enrollment Services
Intramurals
Information Technology
Office of the Chancellor
Police / Parking
Provost
Residence Life
Student Affairs
Sustainability
University Union
Weidner Center

Design Team

Engberg Anderson, Inc.
Architecture

Joseph M. Huberty, AIA, Partner
James F. Brown, Jr., AIA, Principal
C. Drew Kemp-Baird, RA, Architect

Saiki Design, Inc.
Campus Planning & Landscape Architecture

Jared Vincent, LA
Rebecca de Boer, PLA, ASLA, LEED AP

Ayres Associates, Inc.
Civil & Transportation Engineering

Craig Schuh, PE
Mathew Litchfield, PE

Ring & DuChateau Consulting Engineers
MEP & Technology Engineering

Chris Ulm, PE, LEED AP
Holly Blomquist, LC, LEED GA
Frank Lopez
Patrick Stiemke
Robert Novak
Josh Nickols, PE

Comprehensive Facilities Planning, Inc.
Classroom Utilization

Brian L. Bell
JoEllen H. Baldwin, AIA
Dave Marsh
James Palavin

Letter from the Chancellor

Dear UW-Green Bay Community,

The original Master Planning document for UW-Green Bay was created in 1968. It was aspirational and showed the potential of how a new university in Northeast Wisconsin can be a key part of the region's growth and development. The next Master Plan for UW-Green Bay was not published until 38 years later in March of 2006. Chancellor Shepherd explained the need for the new plan in the following way:

While the original comprehensive development plan provided a general conceptual scheme, it ceased to provide sufficient guidance. Many of the assumptions on which it was based have changed, including fundamental assumptions about how large the campus would become. Since we are facing decisions about critical issues like sites for new facilities and enrollment growth, and since the environment around us has changed significantly in the past 35 years, it is time to reconsider our Master Plan.

This current Master Planning document has been in development since 2020 and reflects the current aspirations of UW-Green Bay as higher education is in the midst of historic shifts in the way that we serve students and help our communities. It is interesting that the work to create this document has occurred during a global pandemic and at a time of declining participation nationally in higher education. Given these circumstances, UW-Green Bay sees opportunity in reimaging the role of a regional comprehensive university at this time. We aspire to honor the lofty ambitions of how UW-Green Bay began, the unique qualities of our physical space, and the immense opportunities we have to evolve it to meet the current needs of our students and community.

Like each of the previous plans, this document also prepares us for growth. The original vision of UW-Green Bay was to have 20,000 students. The 2006 plan again acknowledged the community's desire for UW-Green Bay to grow and planned for 7,500 students. Due to the restructuring of the UW Colleges in 2018, UW-Green Bay now also has campuses in Manitowoc, Marinette, and Sheboygan. This allows us to have a regional focus as Wisconsin's coastal university that serves a 16-county footprint from just north of Milwaukee to the top of the state. We also have expanded our presence in serving pre-college students and adult learners with the idea that the future of education will show UW-Green Bay being involved in educating people throughout their lives. While 20,000 students at UW-Green Bay still seems aspirational, the spirit of wanting to grow to meet the economic and cultural needs of our region remains.

The world is changing quickly and thus it is essential that we evolve with it in order to meet our access mission. Like the plan in 2006, this document shows where we have potential, but it correctly does not prescribe every decision we should make in our physical infrastructure. With the help of our community, faculty, staff, and students, this plan shows what is possible as UW-Green Bay continues to grow to meet the needs of the

region we proudly serve. It reflects our desire to welcome our community to us, utilize our outdoor spaces in new ways, and continue to simplify the ability to navigate our physical space. Importantly, this plan also comes at a time when, for the first time in our history we will be replacing an original building, the Cofrin Library, with the Cofrin Technology and Education Center. This shift is important as we honor the past and build for the future.

A Master Planning document marks a moment of time and how an institution is thinking about its physical infrastructure. It is exciting to dream about what is possible and how to further enhance what is already a spectacularly beautiful campus. Given the acceleration of change in the world, I look forward to ongoing conversations that will cause us to revisit this plan more frequently than perhaps we have in past iterations. Thanks to the many people who contributed their thoughts and talents to this plan. As any great public institution, we are fortunate to benefit from the expertise and guidance of so many talented and dedicated individuals that create a dynamic and energized whole.

Michael Alexander

Chancellor

.....

University of Wisconsin – Green Bay

Office of the Chancellor

UNIVERSITY of WISCONSIN GREEN BAY

The Select Mission

The University of Wisconsin – Green Bay is a multi-campus comprehensive university offering exemplary undergraduate, master's, and select doctoral programs and operating with a commitment to excellence in teaching, scholarship and research, and service to the community. The University provides a problem focused educational experience that promotes critical thinking and student success.

The culture and vision of the University reflect a deep commitment to diversity, inclusion, social justice, civic engagement, and educational opportunity at all levels. Our core values embrace community-based partnerships, collaborative faculty scholarship and innovation.

Our commitment to a university that promotes access, career success, cross-discipline collaboration, cultural enrichment, economic development, entrepreneurship, and environmental sustainability is demonstrated through a wide array of programs and certifications offered in four colleges: College of Arts, Humanities and Social Sciences; College of Science, Engineering and Technology (including the Richard Resch School of Engineering); College of Health, Education and Social Welfare; and the Austin E. Cofrin School of Business, leading to a range of degrees, including AAS, BA, BAS, BBA, BM, BS, BSN, BSW, MS, MSW, MSN, and Ed.D.

UNIVERSITY of WISCONSIN GREEN BAY

The Core Mission

UW-Green Bay shares the core mission with other comprehensive institutions in the University of Wisconsin System. This core mission statement reflects a unique role and articulates a common mission.

1. Offer associate and baccalaureate degree level and selected graduate programs within the context of its approved select mission.
2. Offer an environment that emphasizes teaching excellence and meets the educational and personal needs of students through effective teaching, academic advising, counseling, and through university-sponsored cultural, recreational, and extracurricular programs.
3. Offer a core of liberal studies that support university degrees in the arts, letters, and sciences, as well as for specialized professional/technical degrees at the associate and baccalaureate level.
4. Offer a program of pre-professional curricular offerings consistent with the university's mission.
5. Expect scholarly activity, including research, scholarship and creative endeavor that supports its programs at the associate and baccalaureate degree level, its selected graduate programs, and its approved mission statement.
6. Promote the integration of the extension function, assist University of Wisconsin-Extension in meeting its responsibility for statewide coordination, and encourage faculty and staff participation in outreach activity.
7. Participate in inter-institutional relationships in order to maximize educational opportunity for the people of the state effectively and efficiently through the sharing of resources.
8. Serve the needs of women, minority, disadvantaged, disabled, and nontraditional students and seek racial and ethnic diversification of the student body and the professional faculty and staff.
9. Support activities designed to promote the economic development of the state.

The System Mission

The University of Wisconsin – Green Bay shares in the mission of the University of Wisconsin System. The mission to develop human resources, to discover and disseminate knowledge, to extend knowledge and its application beyond the boundaries of its campuses, and to serve and stimulate society by developing in students heightened intellectual, cultural, and humane sensitivities; scientific, professional, and technological expertise; and a sense of value and purpose. Inherent in this mission are methods of instruction, research, extended education, and public service designed to educate people and improve the human condition. Basic to every purpose of the System is the search for truth.

Urban-Serving Strategic Vision

The University of Wisconsin – Green Bay is an access-driven, urban-serving comprehensive university that provides a world-class education and promotes economic growth and sustainability as well as health, wellness and social equity in Green Bay and the surrounding areas through a commitment to interdisciplinary learning, scholarship and problem-solving. To realize this vision, UW-Green Bay must be:

- A university that makes student success its highest priority.
- A large university approaching 15% out-of-state students with one of the highest proportions of international students in the UW System.
- A diverse university that reflects the community.
- A leading comprehensive, Division I university recognized for connecting community partners in innovative programs of development, education, and sustainability.
- An internationally recognized university that instills the benefits of interdisciplinary thinking and learning.
- A university known for distinctive programs, including traditional and professional graduate programs.
- A university that invests in its people, values innovation, and creativity, and strives to create a work environment that supports personal and professional growth.

Strategic Priorities

To think broadly about what we want to achieve together as University, the Chancellor's Cabinet created the following six strategic priorities.

1) Student Success

UW-Green Bay promises every student the opportunity to engage in learning experiences that help them cultivate their sense of belonging, discover their purpose, and develop the skills and perspectives to earn a degree or credential and positively impact their communities.

Support the whole student from their experience in the classroom to co-curricular activities. Student success is our top priority regardless if the student is residential or a commuter, traditional age or starting later in life.

- Improve achievement in retention, graduation, and time to degree.
- Improve student engagement and satisfaction.
- Offer distinctive academic programs of interest to students and meet the needs of the communities we serve.
- Implement an open access mission to meet the needs of the region.
- Remove institutional roadblocks to Academic Affairs taking advantage of programming resources of the Weidner Center.

2) Advance Inclusivity

Provide a robust university community that is inclusive through the creation of a welcoming and equitable environment. Inclusivity becomes inherently part of everything we do at UW-Green Bay.

- Create a welcoming and equitable environment.
- Ensure a diverse faculty, staff, and student body.
- Integrate Diversity, Equity, and Inclusion (DEI) within curriculum and support services.

3) Digitally Transform Learning and Working

Evolve our foundational business practices with technology and data. Rethink, reimagine, and reinvent how we operate.

- Evolve foundational business practices and processes.

- Develop the strategy and process for the preservation of digital documents, intellectual products, performances, and other university-produced content.
- Recognize the ways that emerging technologies can enhance or amplify mission aligned activities.
- Be a leader in using technology to connect with our students in learning in and outside the classroom.

4) Enhance Community Connections and University Philanthropy

Articulate and demonstrate our value and the potential to better serve our community, through increased connections with alumni, area businesses, community organizations, and the public.

- Build long-lasting connections and university philanthropy.
- Tell the story of UW-Green Bay to the community.
- Increase resources for Academic Affairs.

5) Increase Our Visibility and Leadership in Sustainability and Environmental Work

Return to our roots as the initial Eco U, by making a profound impact on the environment and our region through our environmental partnerships and research.

- Increase the amount of environmental partnerships and research.
- Achieve gold standard from the Association for the Advancement of Sustainability in Higher Education (AAASHE).
- Receive designation as a National Estuarine Research Reserve System (NERR).

6) Focus on Holistic Development for Faculty and Staff

Create an environment that allows, encourages, and supports faculty and staff to grow both professionally and personally.

- Strengthen the culture of continuous improvement.
- Create training and leadership opportunities for faculty and staff.

1 Executive Summary

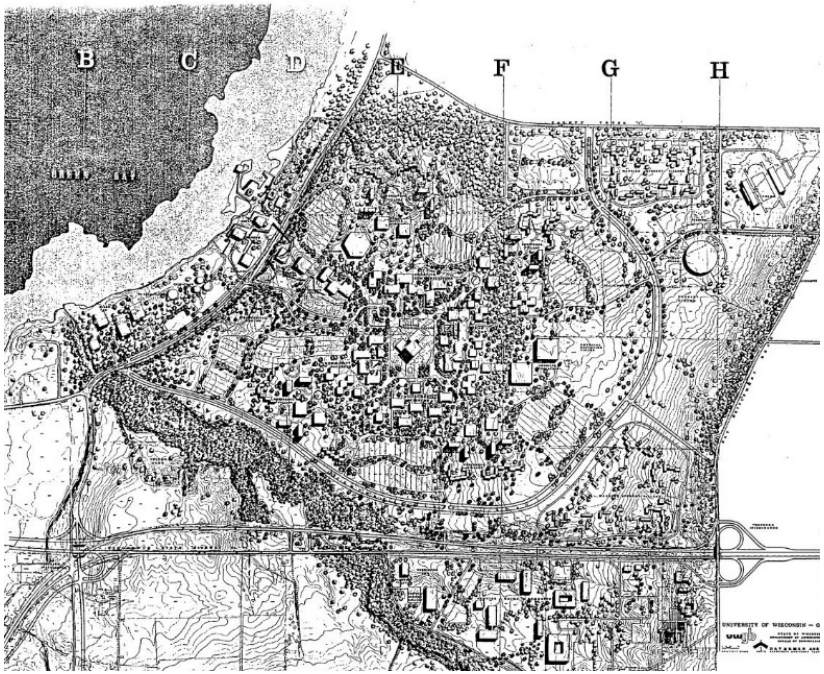
1.1 General Background & Context

The University of Wisconsin-Green Bay was established as a four-year UW System institution for the Fox Valley in 1965. Classes began in 1968 and moved to the current campus in 1969. As of 2022, UW-Green Bay has a total student headcount of 8,561 (up 25.2% since 2012) with 5,581 full-time enrolled students (up 5.7% since 2012). UW-Green Bay projects future growth by an average of 2% each year until 2025.

Figure 1.1-1: UW-Green Bay campus location in Wisconsin

Shortly after the land purchase for the new campus, a Comprehensive Development Plan was prepared which envisioned a central library/learning center, theme colleges arranged radially, and clusters for housing and athletics along the periphery all connected via “learning streets”. That master plan projected growth to 20,000 students; while this size of a student body has not materialized, the tenets of that plan are still relevant to the current campus makeup.

Figure 1.1-2: 1968 Comprehensive Development Plan



1.2 Goals & Guiding Principles

After surveying the campus and meeting with focus groups, the design team presented the following goals to the core team to inform the master plan's proposals.

1) **Forward Facing Campus**
    a. Create bold gestures with an eye to the future through campus improvement projects.
    b. Transition the physical identity of campus to focus on campus location along Lake Michigan's shoreline.
2) **Welcome Visitors to Campus**
    a. Create a working landscape at the entry to campus that removes the invasive understory and welcomes biodiversity while opening up views to the lakeshore.
    b. Strengthen the identity of the arrival at campus through intentional emphasis of main entrance through signage, landscape and roadway alignments and de-emphasis of these items at secondary entries.
    c. Strengthen circulation and wayfinding within campus.
3) **Community Connectivity**
    a. Plan for amenities which bring the community onto campus for business partnerships, events, and enjoyment of the natural setting.
4) **Transportation – Walk, Bike, Park**
    a. Provide ample and well-designed physical sidewalks and roadways that support connections to the campus core.
    b. Reduce amount of pavement in parking lots and redundant roadways.
5) **Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus**
    a. Celebrate the significance of the open spaces within campus lands.
    b. Strengthen identity of the lakeshore as an integral part of campus.
    c. Strengthen the notion of campus "zones" connected intentionally with exterior greenspaces and campus landscapes.
    d. Integrate Phoenix Innovation Park into the physical setting of campus.
6) **Enhance / Activate the Quad while Reinforcing the Academic Core**
    a. Provide additional opportunities for chance interaction by focusing attention on developing high-quality exterior spaces between and around existing and new buildings.
    b. Consider the location of the new Cofrin Technology & Education Center in relation to the Quad, academic core, and visitor entry.

7) **Embrace, Protect, and Enhance the Arboretum and Natural Setting**
    a. Celebrate the natural resources and open spaces that have been preserved through the lakeshore lands and the arboretum.
    b. Re-envision new and flexible/adaptive reuses for the former golf course.
8) **Respect and Enhance the Campus Ecology**
    a. Respond to current and future environmental change through adaptive, flexible, and resilient design of campus spaces.
    b. Integrate stormwater management into parking lots, new buildings, and greenspaces.
    c. Plant more trees, but intentionally to support holistic wellness and campus identity.
9) **Identifiable Concourse Entries**
    a. Acknowledge the impact of previous planning efforts and campus growth on the evolution of campus, both positive and challenging.
    b. Analyze the physical, budgetary and operational challenges associated with a full concourse system.
10) **Update On-Campus Living Accommodations**
    a. Strengthen the notion of inclusivity, diversity, and social justice in physical campus spaces.
    b. Provide new programmed activities for students: disc golf, running/walking courses, lakeshore activities (rentals) and support with those relocated, new, or adapted physical structures.
    c. Use the replacement of aging housing stock as an opportunity to create intentional outdoor spaces and connections.
11) **Accommodate Emerging and Growing Academic Programs**
    a. Design adaptive and flexible buildings which can be renovated and/or added onto as academic program needs change.

1.3 Space Needs Analysis

The design team reviewed space inventory maintained by UW-Green Bay Facilities Planning & Management and the schedule of class files maintained by UW-Green Bay Office of the Registrar to assess space utilization of existing classrooms and labs. The assessment found that the existing spaces could feasibly support considerable growth of the student body—80% growth among classrooms and 71% growth among labs. A review of building physical and functional condition found no imminent need to renovate or replace academic buildings; reconfiguring existing spaces to better suit the needs of campus is appropriate.

1.4 Physical Environment Analysis

The UW-Green Bay campus is 4.7 miles northeast of the Green Bay city center and abuts the bay to the northwest, Sturgeon Bay Road (State Highway 54-57) to the south, and Bay Settlement Road to the east. Cofrin Arboretum, a 290-acre protected natural boundary, encircles the campus to the outer loop of Nicolet Drive and South/East Circle Drive. The campus sits on a bluff that drops off at Nicolet Drive and the bayfront.

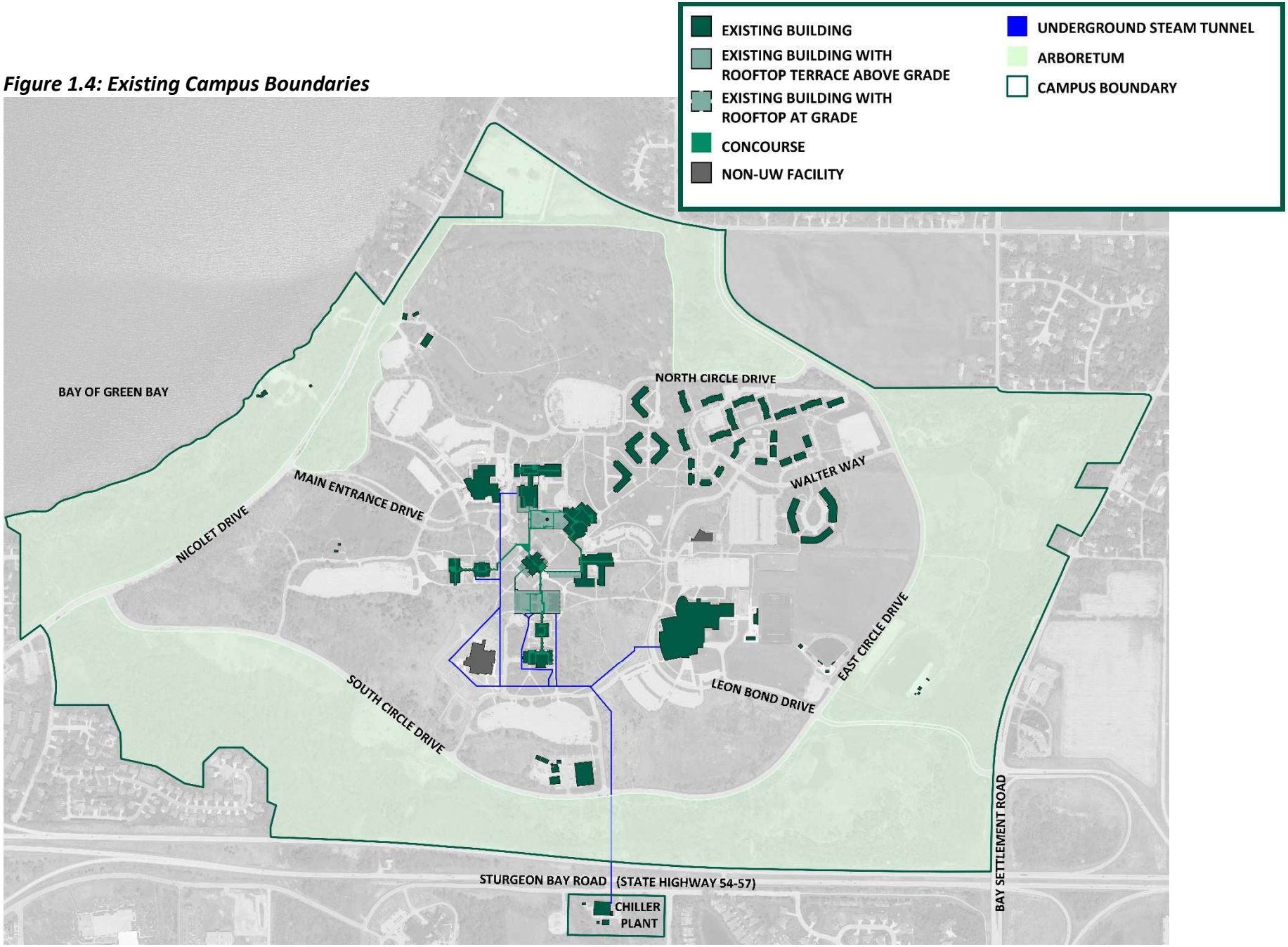
The academic core sits at the center of campus with Cofrin Library, the Quad, and the University Union at its heart. Quadrants for performing arts, housing, athletics, and facilities/maintenance border the academic core. The Shorewood Golf Course on the north end of campus was maintained from university founding until 2020 when the course was permanently closed. Lambeau Cottage and Communiversity Park sit on campus along the bay, but do not offer many amenities for the student body or the public.

Vehicular circulation and parking are not conducive to a streamlined visitor experience. Monument signs at the corners of Nicolet Drive and both South Circle Drive and Main Entrance Drive blur the true arrival point to campus. Visitor parking on the north side of the Weidner Center is isolated from the destination for those visitors (Student Services if they are coming for a tour). Signage is difficult to read/interpret for those unfamiliar with the campus layout. The campus has ample parking, but most is not close to building entrances.

Pedestrian circulation is split between outdoor pathways and the indoor concourse that connects the academic buildings. Building entrances are difficult to find at the ends of the academic "spokes" due to obscure locations and grade changes. Exterior stairs and ramps are roped off during the winter to reduce maintenance associated with snow removal, greatly limiting opportunities to use outdoor pathways and terraces for a considerable portion of the academic year. The grade changes created by the original building construction and concourse connections particularly affect the Quad, which is a bowl flanked on all sides by academic buildings or concourses and cannot be accessed without going through a building. The location and grade change limits opportunities for engagement and interaction in the heart of campus.

Steam and chilled water are distributed from the chiller plant south of Sturgeon Bay Road via roughly 5,200 lineal feet of walkable steam tunnel. The steam tunnel is large enough to service future building growth, but the steam equipment can not provide the redundancy expected of a campus of this size and layout. The campus electrical service was replaced in 2011 and is served by two utility services, which are designed to be redundant. The optical fiber network comes into Cofrin Library and Instructional Services and extends out through the concourse. Per the findings of the Municipal Separate Storm Sewer System (MS4) Renewal Study, additional measures are needed to meet higher water quality goals listed in the Wisconsin Pollutant Discharge Elimination System permit.

Figure 1.4: Existing Campus Boundaries



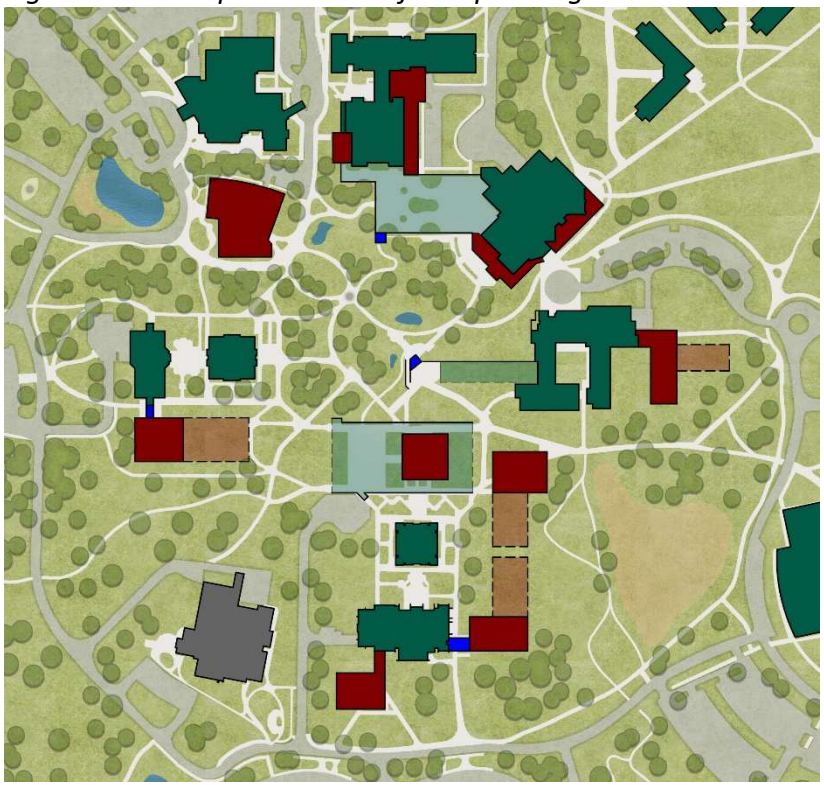
1.5 Synthesis

The master plan takes recommendations into account from three pre-design studies of note which focus on sub-units of the campus: the University Housing Master Plan (DFD project #17J1Q), Cofrin Pre-Design (DFD project #18D2W), and University Union Pre-Design (DFD project #19L1J). Each of these studies includes detailed descriptions on phasing and space allocation, and this master plan considers how those proposals fit into a cohesive campus vision.

Figure 1.5-1: Proposed Housing diagram

The master plan pays particularly close attention to Cofrin Technology & Education Center, which will replace Cofrin Library and has been enumerated as DFD project #21E2W. The demolition of Cofrin Library presents an opportunity to re-imagine the Quad and the concourse system. The design team explored opportunities to site the new building while opening up the Quad and creating more of an arrival point at the terminus of Main Entrance Drive. Options were presented and discussed with the core team; the preferred option has been included in the composite plan.

Figure 1.5-2: Proposed Heart of Campus diagram



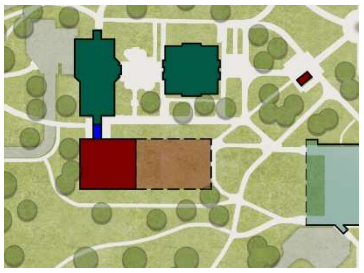


Figure 1.5-3: Wood Hall

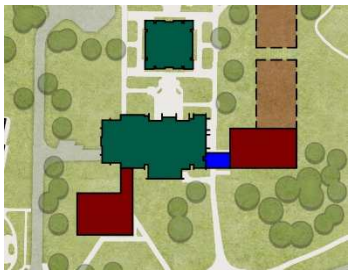


Figure 1.5-4: Laboratory Sciences

1.6 Recommendations

The design team established an overall conceptual framework based on the tenets of the 1968 Comprehensive Development Plan: a heart of campus, a bustling academic core, and "learning streets" leading out to the campus periphery which connect the variety of colleges and campus uses. Interconnected zones around the academic core provide space for housing, athletics, maintenance, campus recreation, performing arts, the main entrance, and Phoenix Innovation Park.

Figure 1.6-1: Establish Central Pedestrian Core

Figure 1.6-2: Central Core Connection to Arboretum

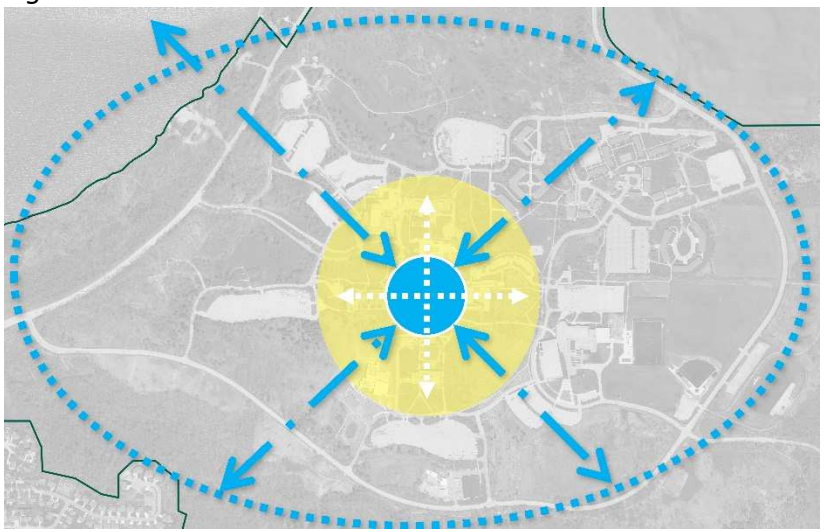
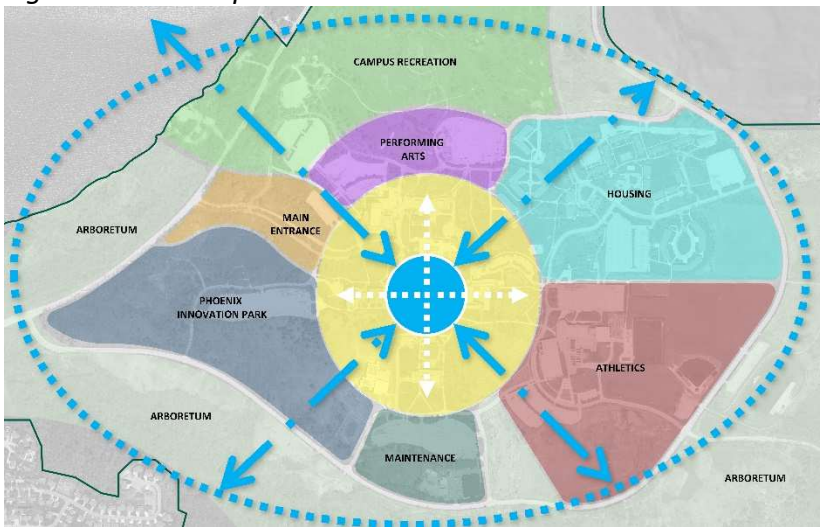


Figure 1.6-3: Campus Uses



The largest proposed change occurs in the heart of campus, where Cofrin Library is slated to be demolished and replaced. The plan shifts Cofrin Technology & Education Center to the west side of an existing steam tunnel for a prominent position along Main Entrance Drive with views of the bay. The Quad is made larger, flattened out, and connected via outdoor pedestrian pathway to academics, housing, athletics, performing arts, and Phoenix Innovation Park. The University Union is reconfigured to create a welcoming entry from Phoenix Park and housing.

The master plan proposes only maintaining concourses to connect theme colleges at the ends of the academic core. Exterior pathways connect all colleges across the Quad, shortening travel distances and improving wayfinding. Grade changes allow for exterior circulation into the Quad and create captivating outdoor spaces between academic buildings.

Academic buildings are to be added as campus space needs dictate. Their additions should coincide with major building entrances from the Studio Arts, Wood Hall, and Laboratory Sciences parking lots to create a “front door” at each end of the spokes through the academic core. An expanded Theatre Hall and new amphitheater in Shorewood Park complete the performing arts district to the north.

Vehicular circulation is overhauled to streamline visitor access to the heart of campus while removing unnecessary pavement (and maintenance costs along with it). Removing South Circle Drive creates two main entry points into campus, which are connected via a completed inner loop road. Suggest completing a traffic study to gage impact on campus. Parking for on-campus residents shifts outward to East Circle Drive and the connection between Leon Bond Drive and Walter Way is removed per the Housing master plan proposal. New residence halls will replace an aging housing stock. Kress Events center is updated to include a larger turf gym and room for sports science programs.

The bayfront is energized through the introduction of programming at Communiversity Park and pedestrian connections back to Housing. Lambeau Cottage becomes the primary trail head for Cofrin Arboretum. Shorewood Clubhouse is repurposed as the hub for recreation and outdoor activities like disc golf, skating, skiing, and cross country.

Phoenix Innovation Park, a public/private partnership development envisioned as an extension of campus, serves to connect academics with the professional sphere. The existing Brown County STEM Innovation Building was the first parcel of the project to be developed, but future developments will fill in the southwest quadrant of campus as well as along the main entrance drive.

The existing steam tunnel and ductbank systems are sized adequately to meet this increase in demand, but completing the loop around the academic core will help create a truly redundant system. It is also advised to develop new telecommunications pathways as independent signal duct. Replace MultiMode fiber with SingleMode. Establish a fiber optic master plan.

Figure 1.6-4: Composite Plan

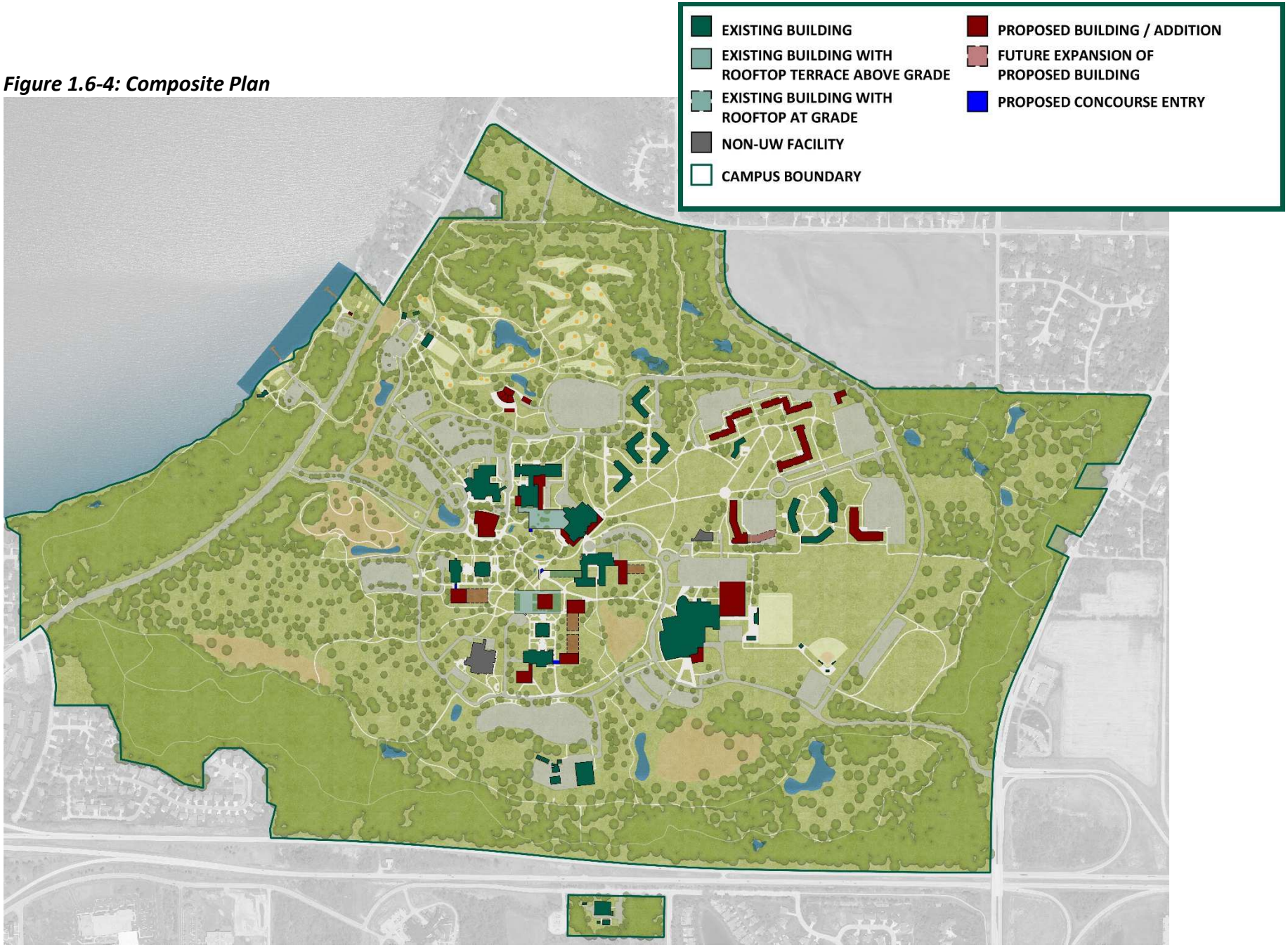


Figure 1.6-5: Campus Detail

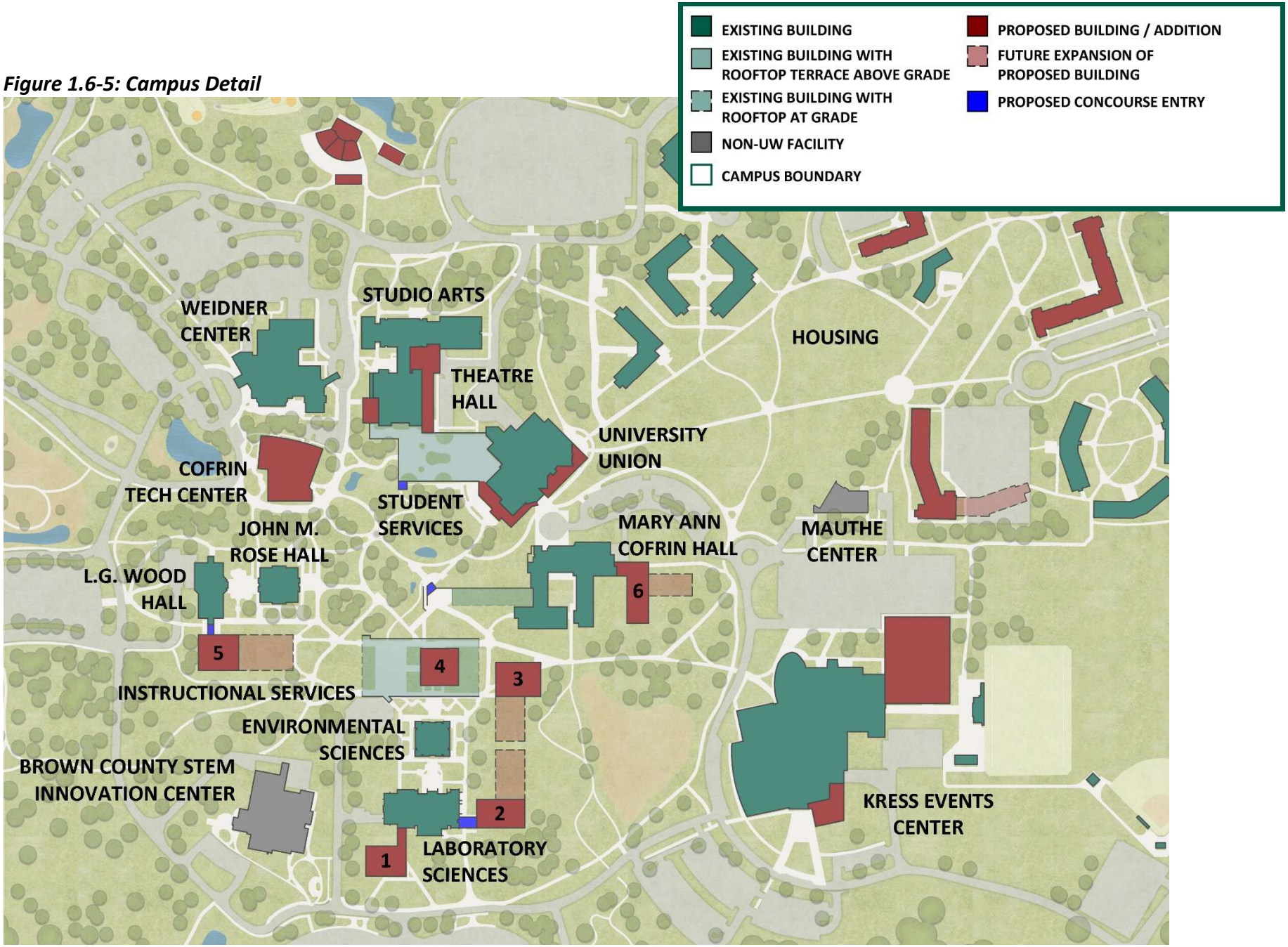


Figure 1.6-6: Main Entrance Drive, Looking East Toward Cofrin Technology & Education Center

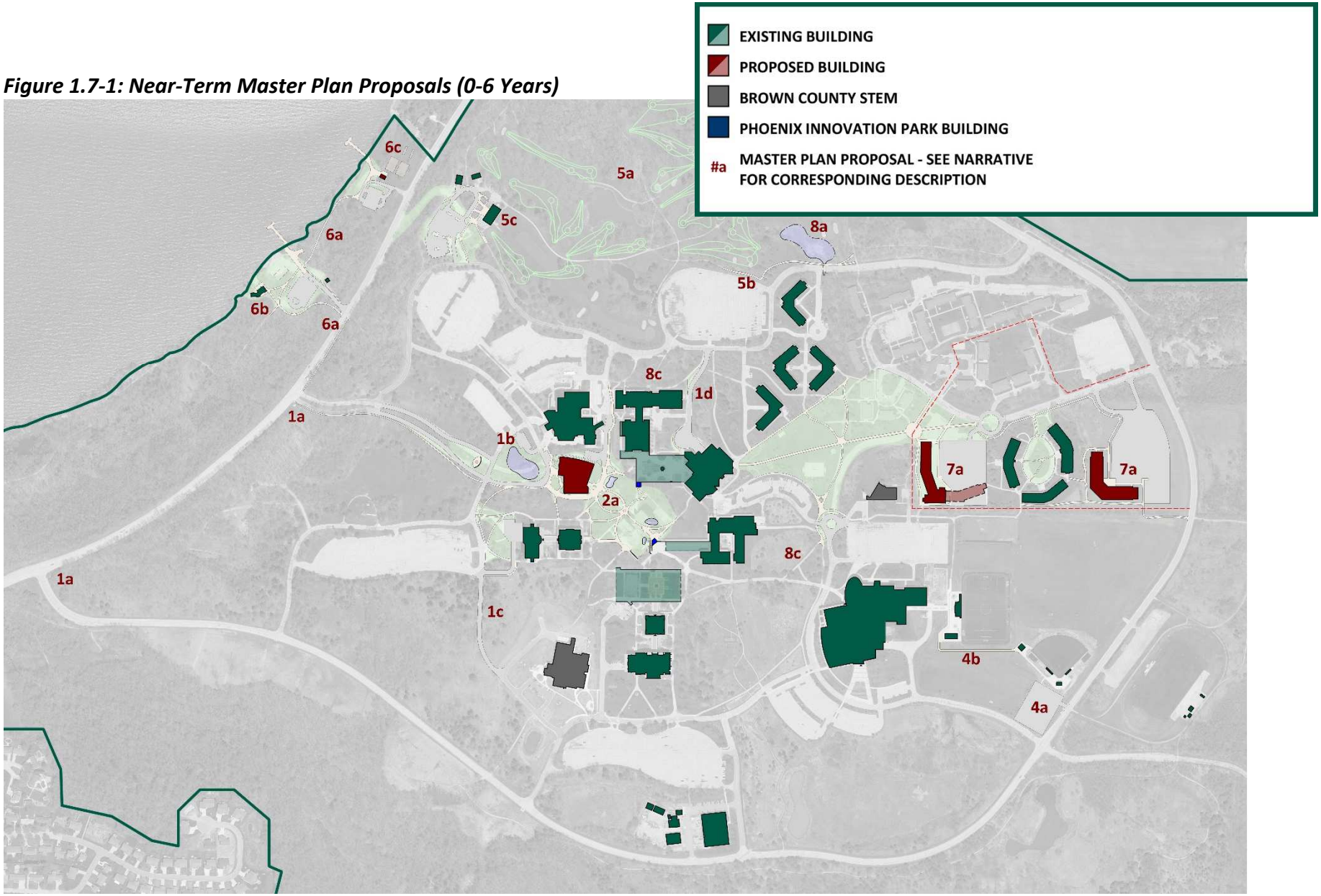
Figure 1.6-7: Quad, Looking West Toward Cofrin Technology & Education Center

1.7 Implementation Plan

Near-Term Master Plan Proposals (0-6 years):

1. Visitor Approach/Experience
    a. Remove entry signage at Nicolet Drive and South Circle Drive and add signage to emphasize campus entry at Main Entrance Drive
    b. Relocate visitor parking at Weidner Center to a more visible location with clear signage indicating direction to Student Services.
    c. Complete inner loop by connecting Wood Hall Drive and Technology Way to simplify wayfinding and because of de-emphasized South circle Drive entry.
    d. Adjust service drive routing to University Union; provide dedicated address to loading dock for ease of wayfinding
2. Heart of Campus
    a. Re-imagined Cofrin Technology & Education Center (DFD project #21E2W), Quad, Main Entrance Drive approach, and Theatre Drive roundabout
    b. Disconnect Cofrin from the concourse system
3. Academic Core
    a. Improve near-term signage and wayfinding to and through the concourse system in conjunction with CTEC construction
    b. Renovate existing classroom and lab space to accommodate changing academic needs
4. Athletics
    a. Repave softball stadium parking lot
    b. Add pathway between soccer and softball stadiums
5. Campus Recreation
    a. Convert Shorewood Park into cross country course; move disc golf course to Shorewood Park
    b. Create path through cross country course to connect housing to bayfront
    c. Repurpose Shorewood Clubhouse as campus recreation space for meetings and equipment storage/rentals
6. Arboretum
    a. Create arboretum pathway connecting Shorewood Clubhouse, Lambeau Cottage, and Communiversity Park
    b. Establish Lambeau Cottage as the Arboretum trail head
    c. Provide amenities for students and the community at Communiversity Park
7. Housing
    a. Implement Phase One and Two of Housing Master Plan
8. Utilities
    a. Expand stormwater ponds to meet Total Maximum Daily Load (TMDL%) and Total Phosphorus (TP%) percentages.
    b. Develop fiber optic master plan
    c. Complete steam tunnel loop for serviceability and redundancy.

Figure 1.7-1: Near-Term Master Plan Proposals (0-6 Years)



Mid-Term Master Plan Proposals (7-12 years)

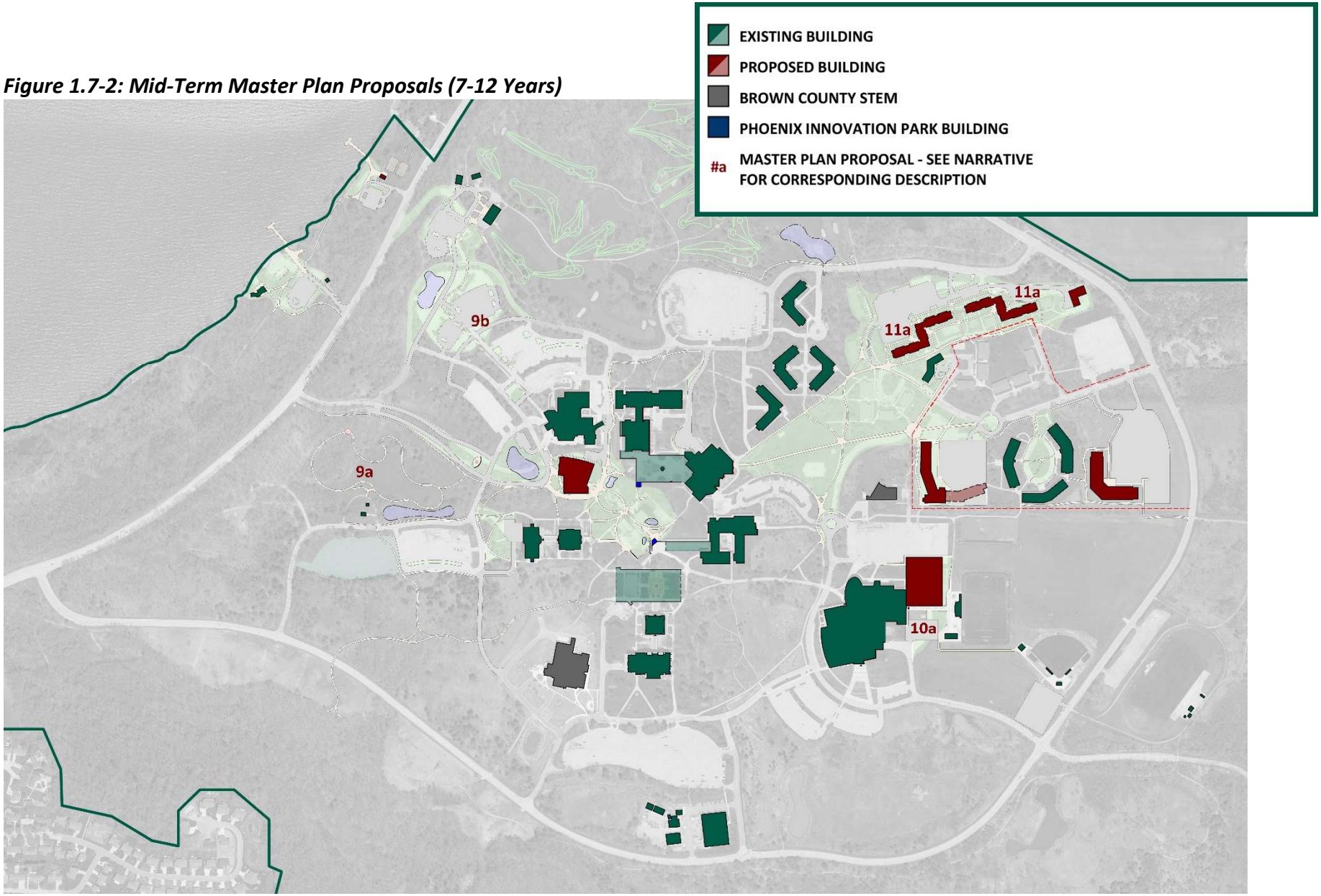
9. Visitor Approach/Experience
    a. Complete Park along Main Entrance Drive
    b. Reroute North Circle Drive and reconfigure overflow parking
    c. Complete traffic study exploring closure of South Circle Drive

10. Athletics
    a. Expand turf gym and relocate booster parking

11. Housing
    a. Implement Phase Three and Four of Housing Master Plan

12. Utilities
    a. Replace MultiMode fiber with SingleMode fiber
    b. Create an independent fiber optic signal duct

Figure 1.7-2: Mid-Term Master Plan Proposals (7-12 Years)



Long-Term Master Plan Proposals (13-18 years)

13. Visitor Approach/Experience
    a. Close South Circle Drive (pending result of traffic study)

14. Heart of Campus
    b. Implement University Union expansion

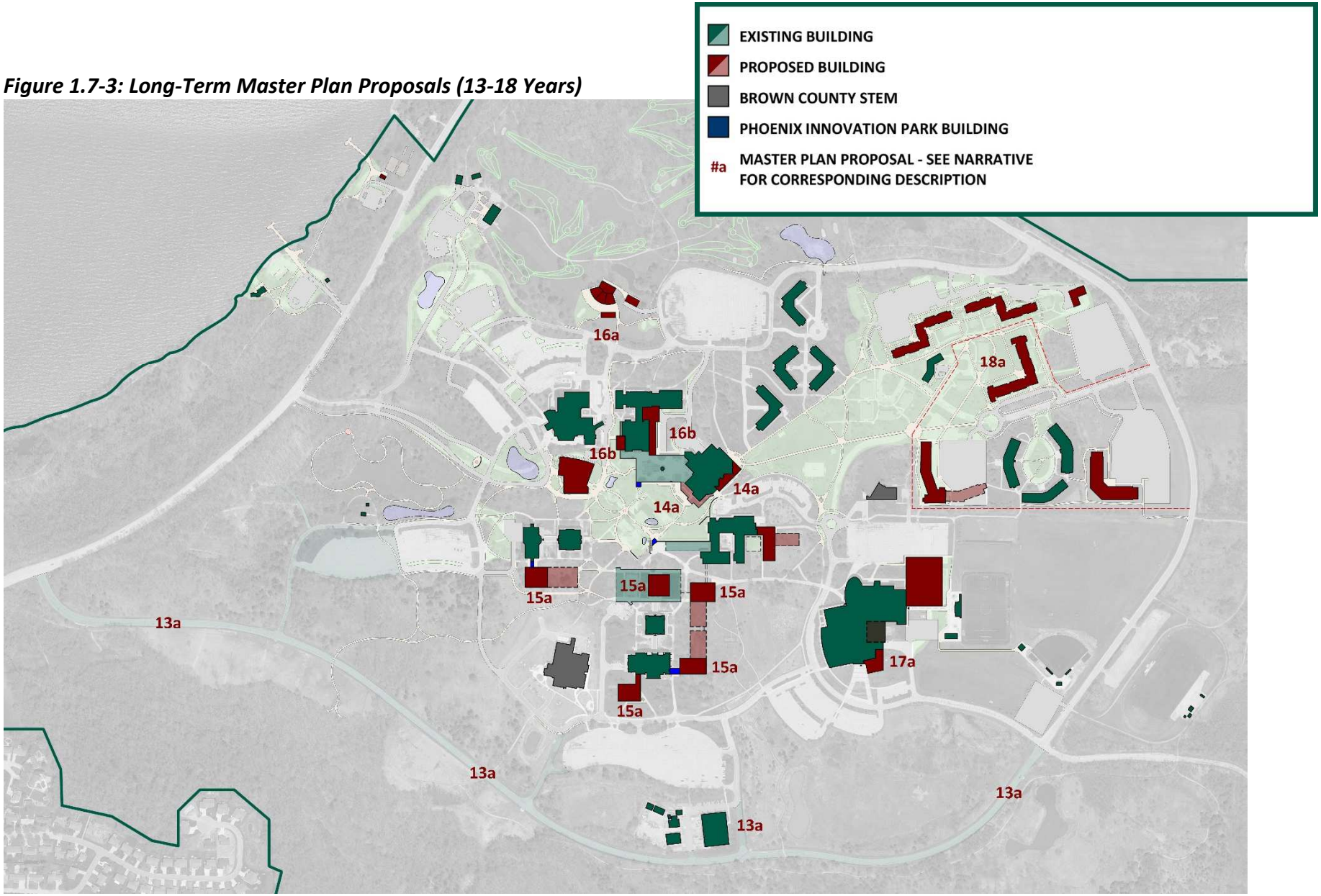
15. Academic Core
    a. Evaluate academic building expansion as necessitated by program growth

16. Performing Arts
    a. Construct amphitheater at Shorewood Park
    b. Implement Theatre Hall expansion

17. Athletics
    a. Expand sport science program space

18. Housing
    a. Implement Phase Five of Housing Master Plan

Figure 1.7-3: Long-Term Master Plan Proposals (13-18 Years)



2 General Background & Context

2.1 Context & History

The University of Wisconsin – Green Bay has always been regionally focused in practice and locale. Situated on the northeast outskirts of Green Bay, Wisconsin, the institution was created when Governor Warren Knowles signed a bill on September 2, 1965, authorizing third- and fourth-year instruction in the Fox Valley and Racine-Kenosha institutions (the latter would become the University of Wisconsin-Parkside). Committees began a Chancellor search and started scoping out potential properties in Brown County and the vicinity shortly thereafter. In March 1966, a 535-acre tract of farmland north of Highway 54-57 which included the Shorewood Country Club was purchased by Brown County and conveyed to the State of Wisconsin for the new University. In the fall of 1966, Dr. Edward W. Weidner was appointed Chancellor and Daverman Associates Inc. began working on the Comprehensive Development Plan.

Groundbreaking for the first buildings to be constructed on the new site took place on November 3, 1967, while classes started in the Deckner Avenue building (now Sullivan Elementary School) on the east side of Green Bay in fall 1968. By the fall of 1969, classes moved into three buildings on the current campus for the first time: Laboratory Sciences, Environmental Sciences, and Instructional Services.

The new University began to develop its academic goals and programs resulting in a unique philosophy and undergraduate program focusing on the relationship between humanity and the physical and social environments. Special attention was to be given to the geological location of the new University – the Northern Great Lakes Area. The novel approach to campus planning that joined together academic programs, residential life, and the physical campus environment was heralded at the time for its environmental ethic and earned UW-Green Bay the nickname “Eco U”.

The central academic core was established by the end of the 1970s as were the housing, athletics, and facilities/maintenance quadrants of campus. Except for the Weidner Center and Mary Ann Cofrin Hall, the majority of standalone new construction since that initial push has been for new student housing. Multiple renovations and additions have been completed for the University Union, Laboratory Sciences, and Kress Events Center. The Brown County STEM Innovation Building, a joint project between the university and Brown County, became the first project of planned public/private partnership development on the west side of campus named the Phoenix Innovation Park.

Figure 2.1-1: Construction of Laboratory Sciences, Environmental Sciences, and Instructional Services circa 1967-69, looking east-northeast.

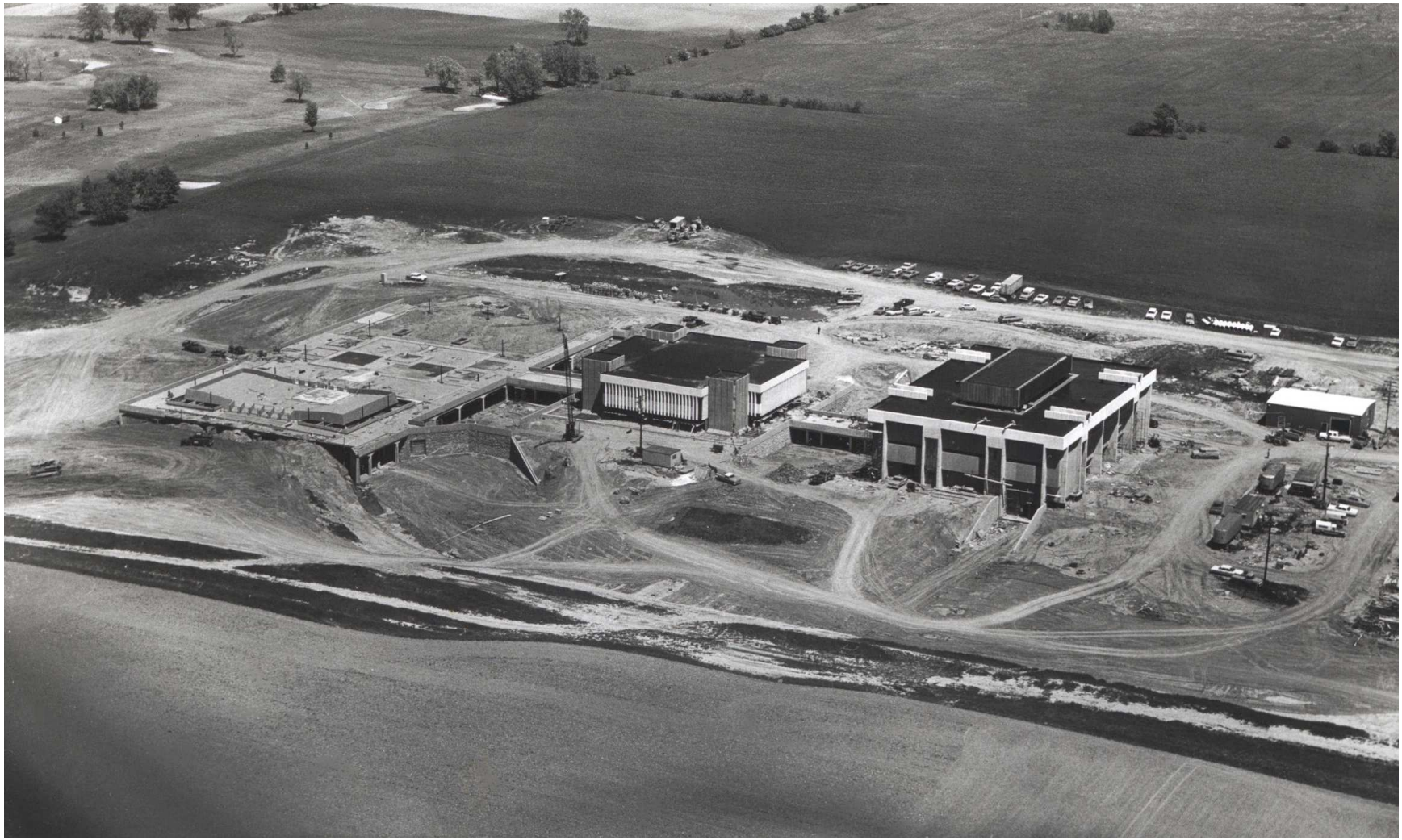


Figure 2.1-2: Campus Aerial, 1960

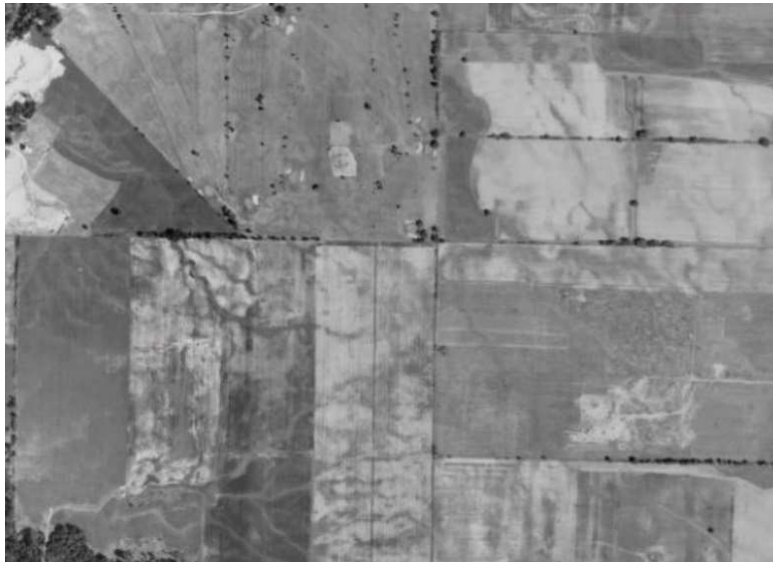


Figure 2.1-3: Campus Aerial, 1978

Figure 2.1-4: Campus Aerial, 2005

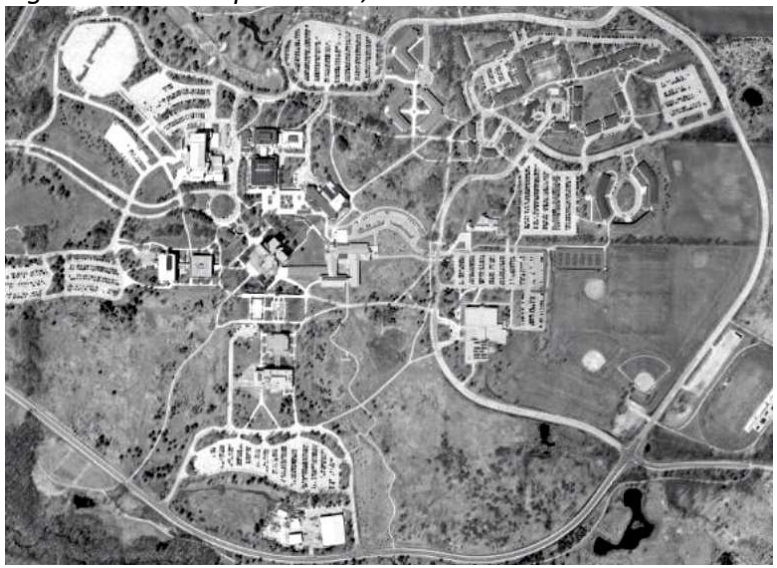
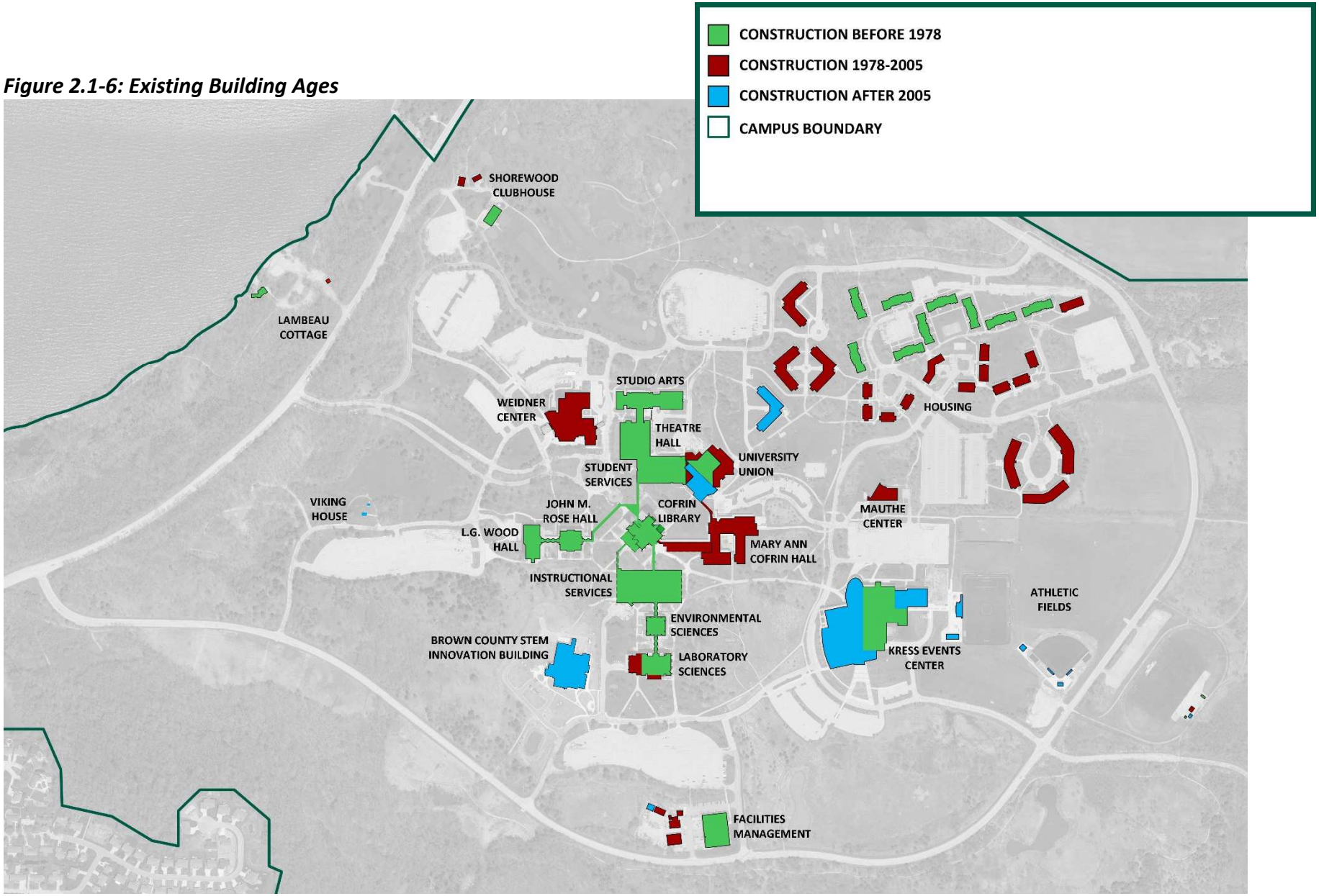


Figure 2.1-5: Campus Aerial, 2020

Figure 2.1-6: Existing Building Ages



2.2 Geographical & City Context

The UW-Green Bay main campus is 4.7 miles northeast of downtown Green Bay. Positive attributes of this location in the greater Green Bay area include the natural setting which is paramount to the mission and vision of the University, as well as unheralded access to the bayfront. Conversely, the University lacks exposure and community connection due to its isolated location. Colleges within the University, such as the Austin E. Cofrin School of Business, are working to build partnerships with local businesses and create a future, physical presence in more central parts of Green Bay. The vision of this effort may include creating campus space downtown or bringing private businesses closer to campus.

In 2018, as part of a UW System Administration restructuring that paired UW's two-year schools with four-year universities, UW-Green Bay took responsibility for the former UW-Marinette, UW-Sheboygan, and UW-Manitowoc institutions, turning them into University of Wisconsin – Green Bay Marinette, Sheboygan, and Manitowoc campuses.

Campus	Fall 2022 Headcount	% of Total
Green Bay	8,561	89.0%
Marinette	242	2.5%
Sheboygan	438	4.6%
Manitowoc	373	3.9%
Total	**9,614**	**100.0%**

Figure 2.2-1 (top): Green Bay site map
Figure 2.2-2 (bottom): UW-Green Bay campus locations

Figure 2.2-1: UWGB proximity to downtown Green Bay

Figure 2.2-2: UW-Green Bay and 2-year institution locations

2.3 Previous Planning Efforts

As noted in the 1968 Comprehensive Development Plan, "The academic plan of the University of Wisconsin – Green Bay is based upon a specific educational philosophy. In essence, it begins with people – especially students – and the world in which they live. Such an approach leads to a highly inter-related program, one that can be advantageously carried out by theme colleges in a multi-campus environment in the Northern Great Lakes Region."

The key element of the originally planned theme colleges was the ability of students and staff to move under cover within the complex. This was the genesis of the concourse system. Casually referred to as "tunnels" by the students, the concourse system is a series of underground corridors linking most campus buildings.

The concourses were originally envisioned to allow lateral pedestrian movement while not barring radial pedestrian movement between buildings while passing into or out of the academic core. The inter-connected buildings were envisioned as a mega-building or building "continuum" which formed a visual (but by no means impenetrable) barrier defining the limits of the academic core. The academic plaza surrounding Cofrin Library was seen as a pedestrian gathering space with benches and sitting areas for small groups and larger open spaces for group discussions and outdoor learning when weather permits.

Located directly below the plaza is flexible surge space. These spaces are currently identified as Student Services and Instructional Services. Originally identified as permanent space for temporary use, it was planned to inter-connect the theme colleges and the library. As campus has grown, the surge space has evolved as planned, into permanent use spaces. As such, campus does not have the amount of surge space nor dedicated surge space that it had grown accustom to.

Learning streets were envisioned as radiating out from the academic plaza towards the extremities of campus, permitting students and faculty to move easily into and out of the academic core. These pedestrian pathways linked the library at the center of campus with the residential villages outside the core, as well as a connection to the bay.

The Comprehensive Development Plan envisioned that the residential villages would be located at the termination of the learning streets with each village comprising of approximately an equal number of residents. A mix of low-rise and high-rise structures were planned to provide variety, interest, and density within each village thereby providing adequate open space for non-programmed or intermural activities.

The Comprehensive Development Plan framework was developed envisioning enrollment of 20,000 students by the year 2000. While actual enrollment has fallen well short of this mark, primary tenets of the plan still hold true.

Figure 2.3-1: Diagram and inset from 1968 Comprehensive Development Plan (Learning Streets highlighted in yellow)

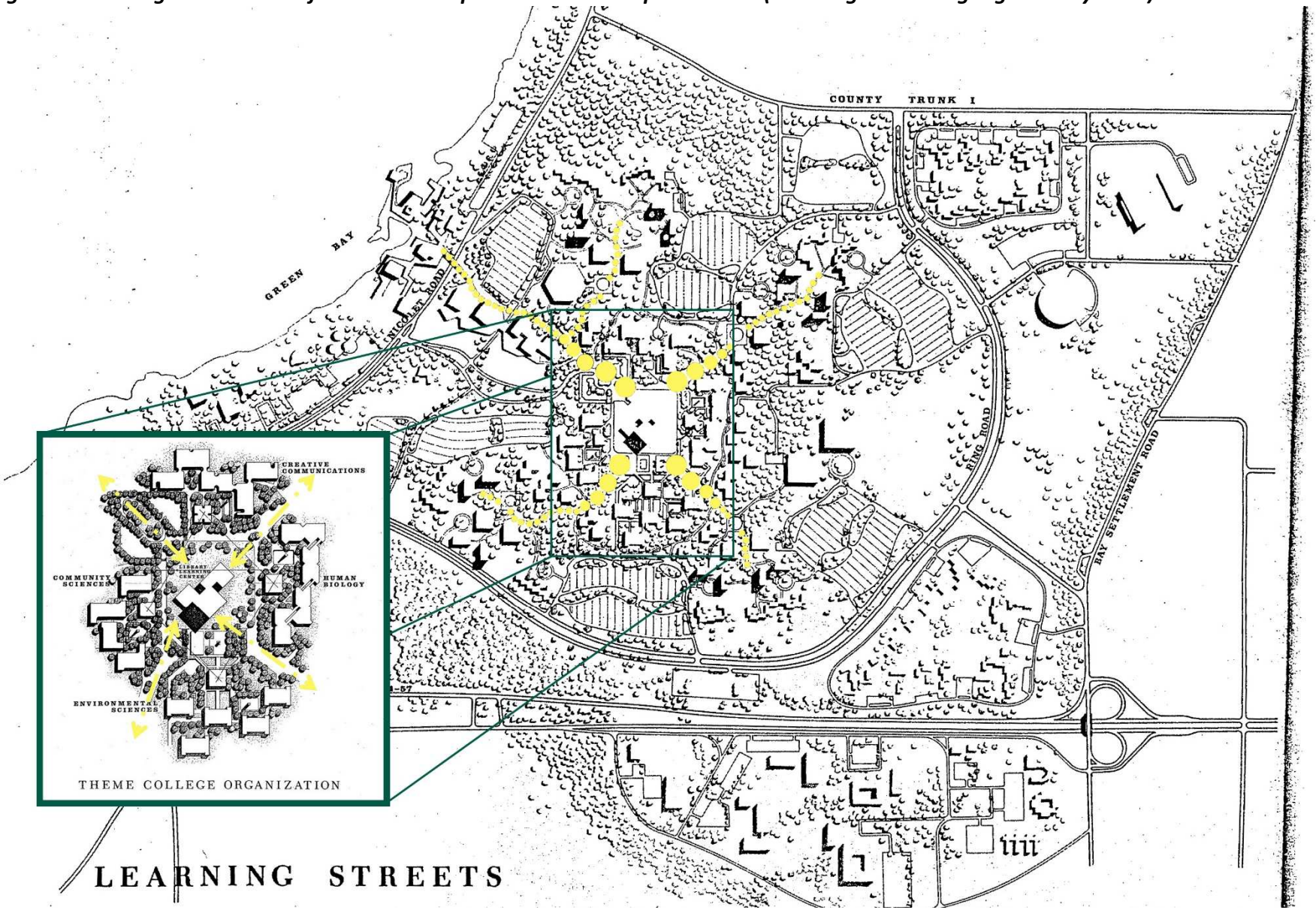
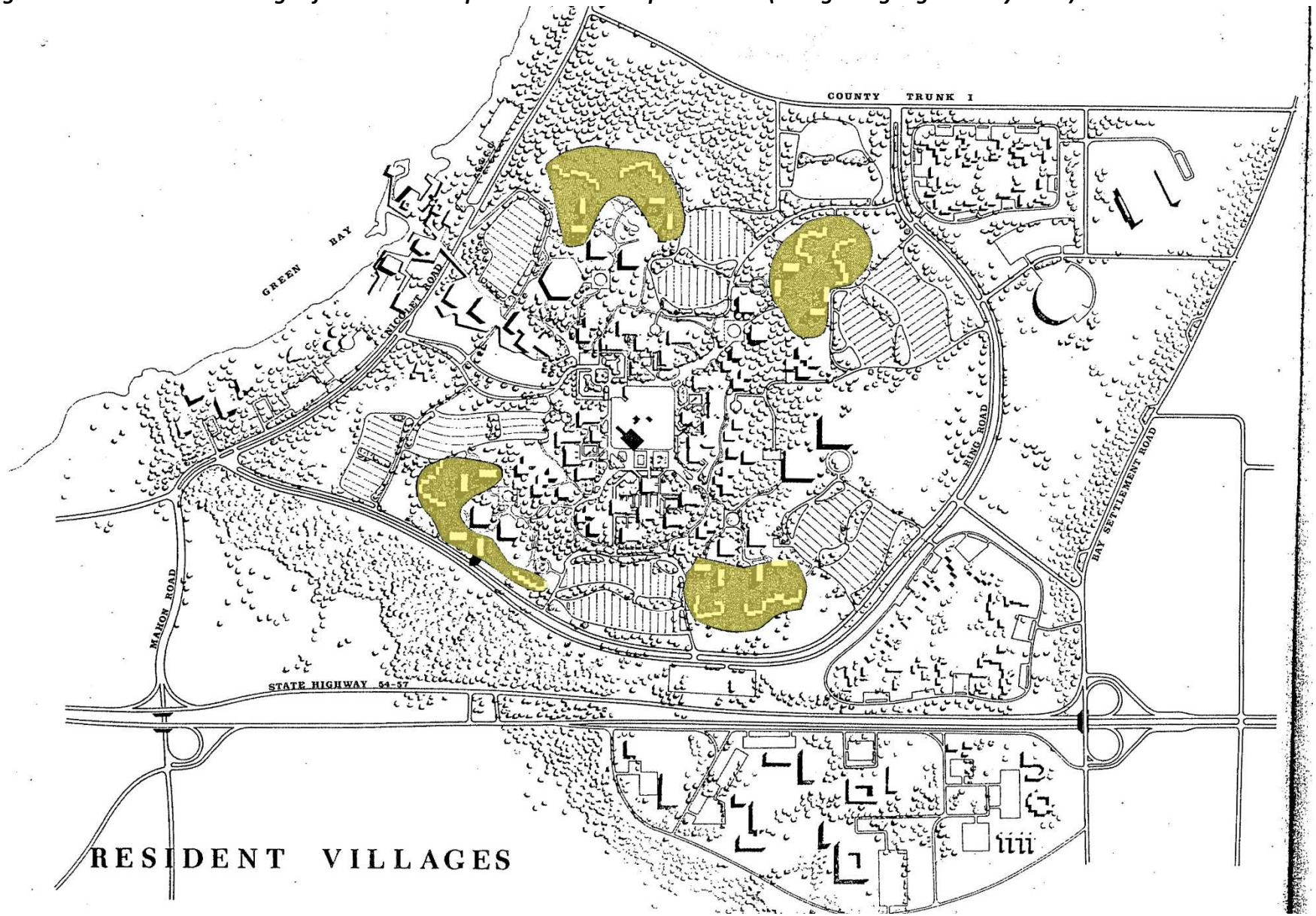


Figure 2.3-2: Residential villages from 1968 Comprehensive Development Plan (Villages highlighted in yellow)



UW-Green Bay last completed a Master Plan in 2006. This plan guided the campus through several primary planning issues Including:

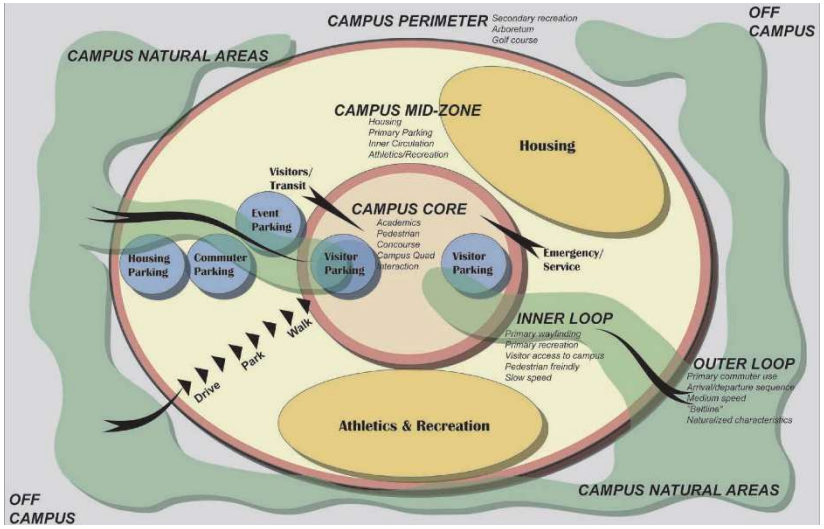
Circulation and Wayfinding – While there is a strong desire to maintain the park-like quality of the campus, roadway configurations, lack of visual connection to the campus core, and multiple entry points make it difficult to navigate the campus.

Parking – While there is an abundance of parking and a desire to keep parking lots out of the campus core, existing parking lots are frequently filled to capacity. It is difficult for campus visitors to find parking close to their destination.

Building Opportunities – While the campus has excess physical capacity in terms of land and much of the infrastructure, increased enrollment, program expansion or updated building space may require expansion of academic and residential facilities.

Context/Community – While the campus seeks to enhance its tradition of connecting to the community, there is also a strong desire to maintain its identity and boundary.

Sustainability – While sustainable campus design and growth is valuable it must continually be evaluated against UW-Green Bay's specific needs and constraints.



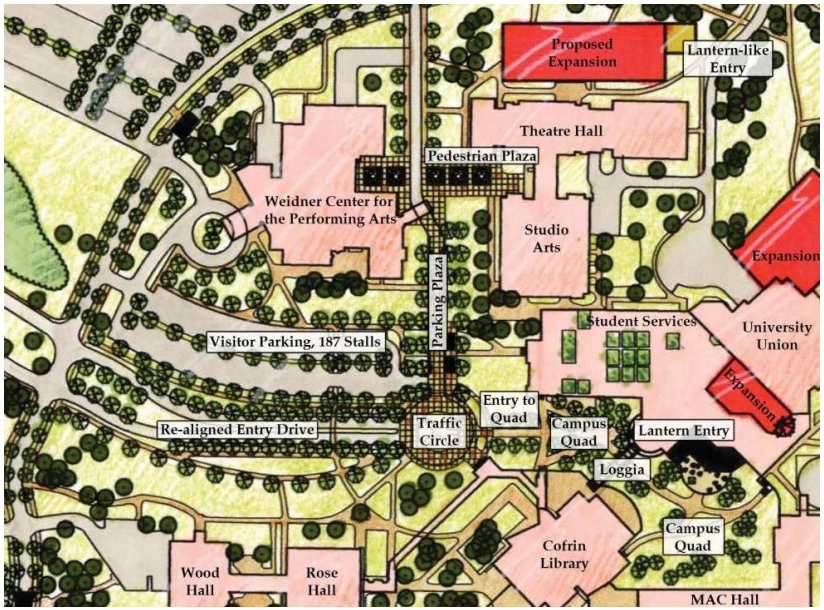
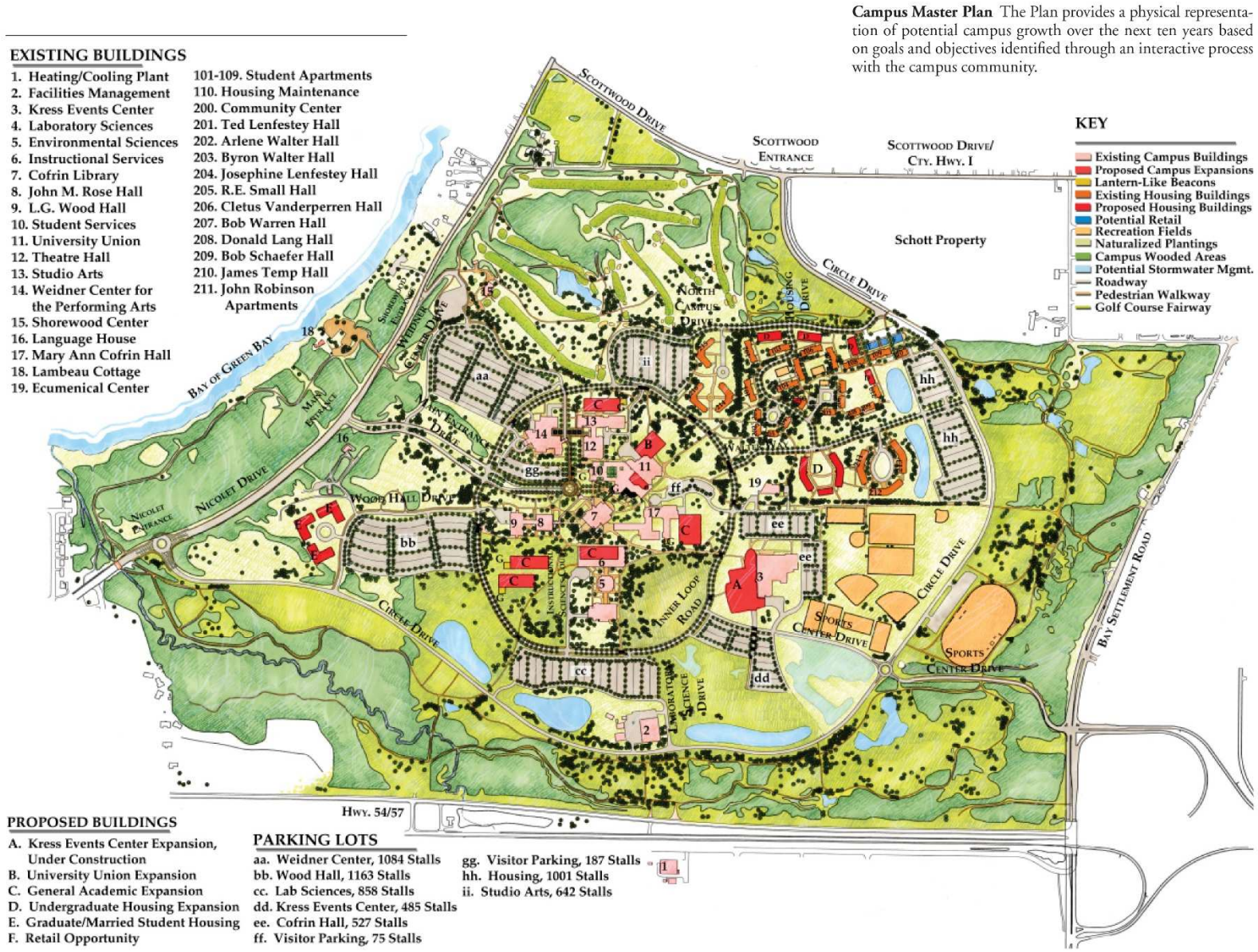


Figure 2.3-3 (Top): Spatial diagram from 2006 Master Plan
Figure 2.3-4 (Bottom): Campus detail from 2006 Master Plan

Figure 2.3-5: Composite Plan from 2006 Master Plan



2.4 Campus Enrollment

UW-Green Bay's 1968 Comprehensive Development Plan laid out the land mass, buildings, and infrastructure for an eventual population of 20,000 students, which has never been realized.

The 1969 academic year began with 1,981 students traveling by shuttle bus between classes on campus and the Deckner Avenue building, where the freshman-sophomore center had been located for almost a decade. By 1989, the campus enrollment had grown to 4,700-plus students.

The following enrollment numbers are pulled from the Fact Book of the UW-Green Bay Office of Institutional Strategy and Effectiveness. These numbers are for the Green Bay campus only and do not include satellite campuses.

Year	Headcount (% Increase)	FTE (% Increase)
2022 (fall)	8,561 (-2.4)	5,581 (-1.2)
2021 (fall)	8,773 (8.9)	5,648 (4.4)
2020 (fall)	8,057 (0.9)	5,412 (-1.0)
2019 (fall)	7,982 (8.7)	5,468 (6.5)
2018 (fall)	7,344 (2.0)	5,135 (3.0)
2017 (fall)	7,198 (2.0)	4,986 (1.0)
2016 (fall)	7,054 (3.8)	4,935 (2.1)
2015 (fall)	6,798 (-2.2)	4,834 (-3.1)
2014 (fall)	6,954 (4.0)	4,991 (-1.2)
2013 (fall)	6,687 (-2.2)	5,051 (-4.2)
2012 (fall)	6,836	5,272
2012 – 2022	**(25.2% increase)**	**(5.7% increase)**

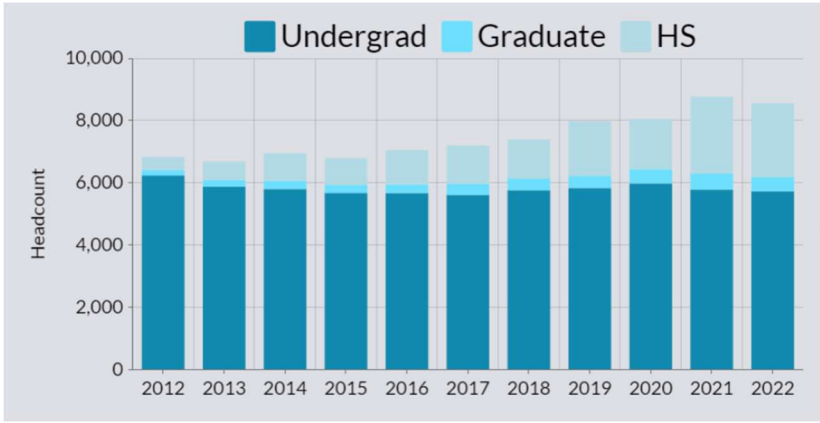


Figure 2.4-1: UW-Green Bay total campus enrollment

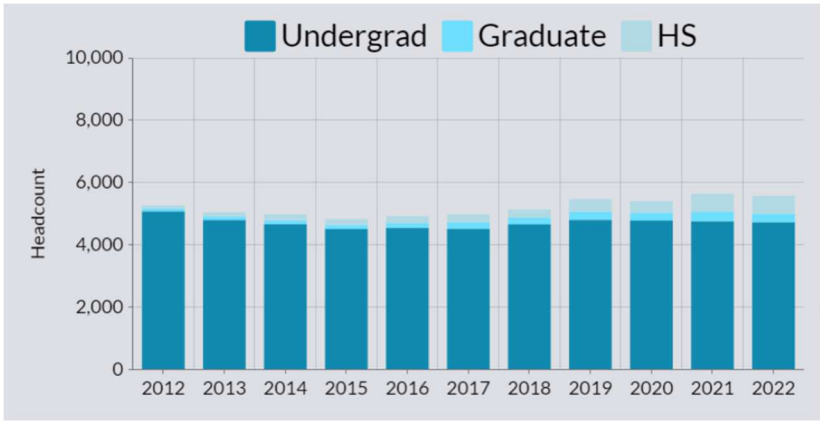


Figure 2.4-2: UW-Green Bay FTE campus enrollment

Enrollment growth over the past decade can be attributed to an increased number of high school students taking college credits either on-campus or virtually. High school enrollment numbers increased from 422 in 2012 to 2,378 in 2022. During this same timeframe, undergraduate enrollment has remained relatively flat—6,235 in 2012 to 5,730 by 2022. Graduate enrollment has seen a steady increase from 179 in 2012 to 508 in 2021.

Year	Undergraduate (% Increase)	% of Headcount
2022 (fall)	5,730 (-0.9)	66.9
2021 (fall)	5,780 (-3.4)	65.9
2020 (fall)	5,983 (2.6)	74.3
2019 (fall)	5,834 (1.2)	73.1
2018 (fall)	5,765 (2.7)	78.6
2017 (fall)	5,614 (-1.1)	78.0
2016 (fall)	5,674 (-0.1)	80.4
2015 (fall)	5,680 (-2.1)	83.5
2014 (fall)	5,803 (-1.3)	83.4
2013 (fall)	5,878 (-5.7)	87.9
2012 (fall)	6,235	91.2

2012 – 2022 (-8.1% decrease)

UW-Green Bay projects future growth by an average of 2% each year until 2025. This projection is based on steady growth between the years 2017-2020, the fact that the region has a growing demographic, the mission to provide access to students in order to complete an undergraduate education, and continued application increases.

Academic Programs

Four Colleges

- College of Science, Engineering, and Technology
- College of Health, Education, and Social Work
- Austin E. Cofrin School of Business
- College of Arts, Humanities, and Social Sciences

55 undergraduate majors with 47 undergraduate minors

14 graduate programs

1 doctoral program

Employment

153 faculty (143 full-time)
146 instructional staff (33 full-time)

Accreditation

Full accreditation from the Higher Learning Commission of the North Central Association of Colleges and Universities.

2.5 Project Originators & Drivers

2.5.1 Project Drivers

One of the facets of the university is unending improvement. Recognizing that as times change, so must UW-Green Bay. The following is a summary of the project drivers around which the master plan has been prepared. The master plan connects these drivers to campus via the recommendations.

The master planning process began in late spring of 2020 and concluded in the summer of 2022. UW-Green Bay's administration, staff, faculty, and students defined the campus's physical future through a forward-thinking, interactive, and inclusive planning process. Through a series of listening sessions with a broad cross-section of the campus community, the master planning team gained an understanding of the pressing campus needs. When combined with the analysis of the campus buildings and site, interpretation of the University's academic plan, and analysis of the classroom and lab utilization, the team crafted a campus concept while developing a phased implementation plan. The team then refined and illustrated the concept.

The master planning was inclusive and transparent at all stages. The team began with interviewing dozens of campus and community leaders. Scores more faculty, staff, and students participated in focus groups designed to direct future decisions. Several significant themes emerged throughout these sessions. These themes were adapted into the principles that guided the process of developing the master plan.

2.5.2 Goals & Guiding Principles

1) **Forward Facing Campus**
    a. Create bold gestures with an eye to the future through campus improvement projects.
    b. Transition the physical identity of campus to focus on campus location along Lake Michigan's shoreline.
2) **Welcome Visitors to Campus**
    a. Create a working landscape at the entry to campus that removes the invasive understory and welcomes biodiversity while opening up views to the lakeshore.
    b. Strengthen the identity of the arrival at campus through intentional emphasis of main entrance through signage, landscape and roadway alignments and de-emphasis of these items at secondary entries.
    c. Strengthen circulation and wayfinding within campus.
3) **Community Connectivity**
    a. Plan for amenities which bring the community onto campus for business partnerships, events, and enjoyment of the natural setting.
4) **Transportation – Walk, Bike, Park**
    a. Provide ample and well-designed physical sidewalks and roadways that support connections to the campus core.

b. Reduce amount of pavement in parking lots and redundant roadways.

5) **Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus**
   a. Celebrate the significance of the open spaces within campus lands.
   b. Strengthen identity of the lakeshore as an integral part of campus.
   c. Strengthen the notion of campus "zones" connected intentionally with exterior greenspaces and campus landscapes.
   d. Integrate Phoenix Innovation Park into the physical setting of campus.
6) **Enhance / Activate the Quad while Reinforcing the Academic Core**
   a. Provide additional opportunities for chance interaction by focusing attention on developing high-quality exterior spaces between and around existing and new buildings.
   b. Consider the location of the new Cofrin Technology & Education Center in relation to the Quad, academic core, and visitor entry.
7) **Embrace, Protect, and Enhance the Arboretum and Natural Setting**
   a. Celebrate the natural resources and open spaces that have been preserved through the lakeshore lands and the arboretum.
   b. Re-envision new and flexible/adaptive reuses for the former golf course.
8) **Respect and Enhance the Campus Ecology**
   a. Respond to current and future environmental change through adaptive, flexible, and resilient design of campus spaces.
   b. Integrate stormwater management into parking lots, new buildings, and greenspaces.
   c. Plant more trees, but intentionally to support holistic wellness and campus identity.
9) **Identifiable Concourse Entries**
   a. Acknowledge the impact of previous planning efforts and campus growth on the evolution of campus, both positive and challenging.
   b. Analyze the physical, budgetary and operational challenges associated with a full concourse system.
10) **Update On-Campus Living Accommodations**
   a. Strengthen the notion of inclusivity, diversity, and social justice in physical campus spaces.
   b. Provide new programmed activities for students: disc golf, running/walking courses, lakeshore activities (rentals) and support with those relocated, new, or adapted physical structures.
   c. Use the replacement of aging housing stock as an opportunity to create intentional outdoor spaces and connections.
11) **Accommodate Emerging and Growing Academic Programs**
   a. Design adaptive and flexible buildings which can be renovated and/or added onto as academic program needs change.

3 Space Needs Analysis

Following focus group meetings and initial composite plan reviews with the core team, Engberg Anderson, Inc. and Comprehensive Facilities Planning, Inc. were tasked with completing a campus space assessment to evaluate the general access classrooms and instructional laboratories and provide a comprehensive space needs/use analysis of current needs. The full findings of the assessment can be found in the Appendix; selections and summaries are reprinted in this chapter.

3.1 Assessment Methodology

Weekly Room Hours (WRH) is the number of minutes a class meets each week, including class change time, converted to hours. The sum for all sections in a classroom is the WRH utilization for that room. UW System includes evenings and weekends, and the UW System guideline considers all scheduled hours when determining availability.

- UW System standards for instructional labs is 32 periods per week of scheduled use (32 WRH).
- UW System standards for classroom use is 40 periods per week of scheduled use (40WRH).

Station Occupancy Percent (SO%) is the percentage of the number of seats or stations occupied when the room is in use divided by the teaching capacity of the classroom or laboratory as based on daytime instruction. UW System guidelines suggest that on average 67% (Station Occupancy) of classroom seats should be filled.

3.2 Classroom Utilization

Supply (as of fall 2021)

- 54 classrooms, 2,841 seats, and 63,195 square feet with scheduled use.
- Average square foot allocation per seat 22.2 which is slightly below the 24 square foot guideline.

Utilization

- Fall 2019 – Classroom utilization rate of 25.5 WRH.
- Spring 2020 – Classroom utilization rate of 23.8 WRH.
- Fall 2021 – Classroom utilization rate of 22.2 WRH.

Station Occupancy

- Fall 2019 – Classroom station occupancy of 63.2 SO%.
- Spring 2020 – Classroom station occupancy of 58.2 SO%.
- Fall 2021 – Classroom station occupancy of 48.7 SO%.

Calculated Classroom Needs

Using national daytime use guidelines (26.8 WRH), calculates a need for 40 (39.2) classrooms, 1,563 seats, and 37,517 ASF to support the instructional classroom activity.

The Fall 2019 calculation (pre-covid) suggested a need for 47 classrooms.

Using UW System guidelines (40 WRH), calculates a need for 37 classrooms to support the instructional classroom activity.

3.3 Lab Utilization

Supply (as of fall 2021)

- 62 labs, 1,473 teaching stations (seats), and 75,462 square feet with scheduled use.
    - Total square footage including support spaces and the like total 108,870 square feet.

The Laboratory Station Modules (average square foot allocation per seat) plus Service Factor (support spaces) vary by discipline and type of equipment required for each teaching station. Laboratory Service Factors can range from 0% to 40% of the total teaching laboratory space.

Utilization

- Fall 2019 – Lab utilization rate of 12.6 WRH.
- Spring 2020 – Lab utilization rate of 11.7 WRH.
- Fall 2021 – Lab utilization rate of 11.8 WRH.

Station Occupancy

- Fall 2019 – Lab station occupancy of 61.0 SO%.
- Spring 2020 – Lab station occupancy of 52.0 SO%.
- Fall 2021 – Lab station occupancy of 56.0 SO%.

3.4 Assessment Conclusions

Enrollment Growth Potential is an estimate of potential enrollment growth percent that a classroom or lab could handle if it was scheduled at the upper limit of the ideal utilization guidelines.

Based on Station Occupancy rates, Classroom Utilization rates, and the number and size of classrooms, **the current total supply of classrooms can feasibly support an 80% enrollment growth potential.**

Based on Station Occupancy rates and Lab Utilization rates, **the current total supply of labs can feasibly support a 71% enrollment growth potential.**

The current physical and functional condition assessments did not reveal any imminent need to renovate or replace any academic buildings due to unsatisfactory physical or functional defects. Some facilities and spaces are showing signs of deterioration due to their age or changing needs over time, presenting opportunities to reconfigure existing spaces to better suit the needs of campus.

The recommendations of the master plan still identify potential sites for future academic buildings which are selected with entry points, connections to existing buildings and concourses, and existing underground utilities in mind rather than specific academic programs. Size and location of academic buildings should be considered further when exploring renovation and expansion options as academic program needs dictate.

4 Physical Environment Analysis

4.1 Campus Boundaries

UW-Green Bay is in a suburban setting on the eastern outskirts of Green Bay and abuts the Bay of Green Bay to the northwest. Cofrin Arboretum encircles campus along its boundaries and campus buildings are set within a loop formed by Nicolet Drive, South Circle Drive, and East Circle Drive. The only portion of the main campus outside the Arboretum is the chiller plant on the south side of Sturgeon Bay Road (State Highway 54-57). A steam tunnel runs north from the chiller plant into the heart of campus, terminating at Theatre Hall and the Kress Events Center. Cofrin Arboretum functions as an effective campus border and sets the academic core apart from its surroundings while creating a unique ecological setting. However, it also blurs the actual campus boundary, making it difficult for visitors to determine when they have "arrived" on campus.

The design team found that there is no immediate need to purchase additional properties to solve campus deficiencies. The conversion of the former golf course into Shorewood Park allocates further space for university-focused activities. The Brown County STEM Innovation Building was built in cooperation with Brown County on a parcel leased from the University; this project is envisioned as the first parcel within the Phoenix Innovation Park.

Figure 4.1-1: Existing Center Core Detail

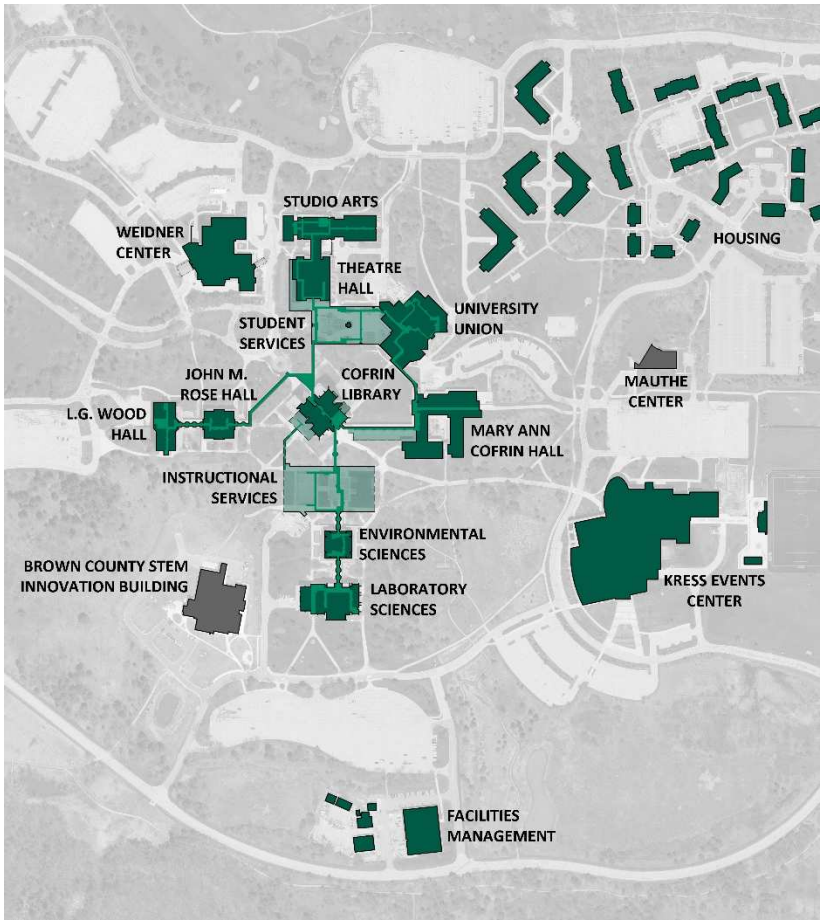
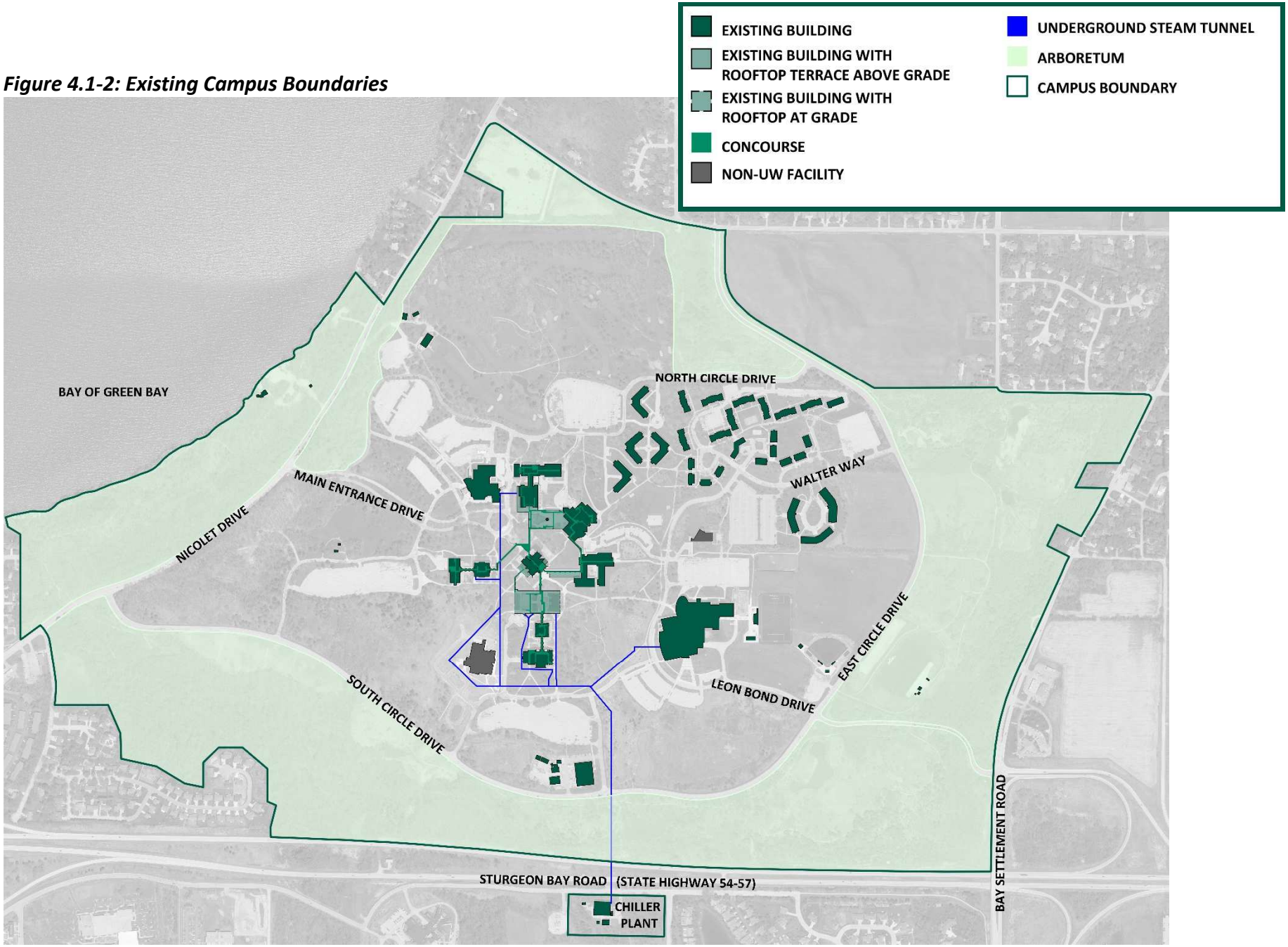


Figure 4.1-2: Existing Campus Boundaries



4.2 Natural Features & Topography

The pastoral setting and proximity to the water's edge make UW-Green Bay unique and unlike most college campuses. Most of the campus sits on a bluff with steep slopes leading down to Nicolet Drive and the bayfront to the northwest. The academic portion of campus is roughly 70 feet above the bay; the housing portion, roughly 90 feet. Main Entrance Drive was constructed along an existing depression where a gravel pit was once located. While the natural slope across campus is very gradual and steady, building construction in the academic core has interrupted the grade (some buildings, such as Instructional Services, are partially or completely below grade). Some building and concourse entrances are at grade and enter directly into the concourse at the concourse level; other building entrances are a level above the concourse and users need to descend a level to access the concourse and walk between buildings.

Two examples of building entrances being disconnected from the concourse system are the University Union and Cofrin Library. The University Union has entrances at two different levels of the building. The Housing entrance and the Student Services plaza entry are at the first-floor elevation while entrances into the building and concourse from the Quad are at the basement elevation. The main entrances for Cofrin Library are located on the first floor of the building (one level above the concourse and Quad), with secondary concourse entries at basement elevation while also opening into the Quad.

Another unique feature of UW-Green Bay is Cofrin Arboretum, a natural area encircling campus to help preserve, study, and enjoy the local ecology. Pathways connect all segments of the Arboretum and lead to the bayfront, where Lambeau Cottage (once belonging to Curly Lambeau of Packers fame) and Communiversity Park offer direct access to the bay. While Lambeau Cottage has been used as a meeting space and event venue in the past, both the cottage and Communiversity Park are largely underutilized as campus property in their present state.

Due to the proximity to the water and steep slope along the east side of Nicolet Drive, most of the bayfront is in an environmentally sensitive area (ESA) and part of a designated wetland. Shoreland zoning off the Bay of Green Bay extends beyond Nicolet Drive inside the outer campus loop. While construction in shoreland zoning areas is allowed, a Shoreland Zoning permit and Shoreland Vegetation Buffer Agreement would be required.

Figure 4.2-1: Existing Center Core Topography

Figure 4.2-2: Existing Campus Topography

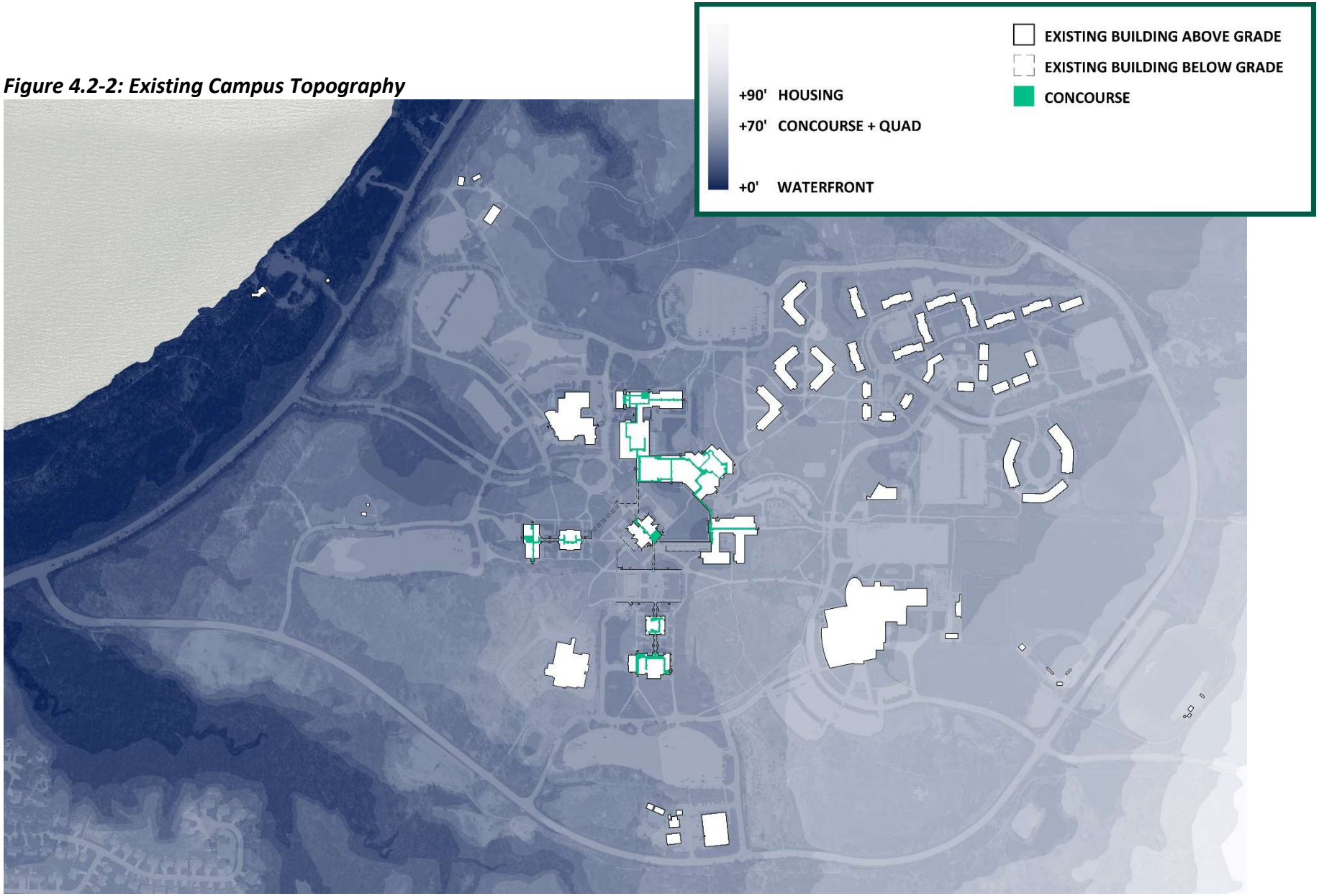
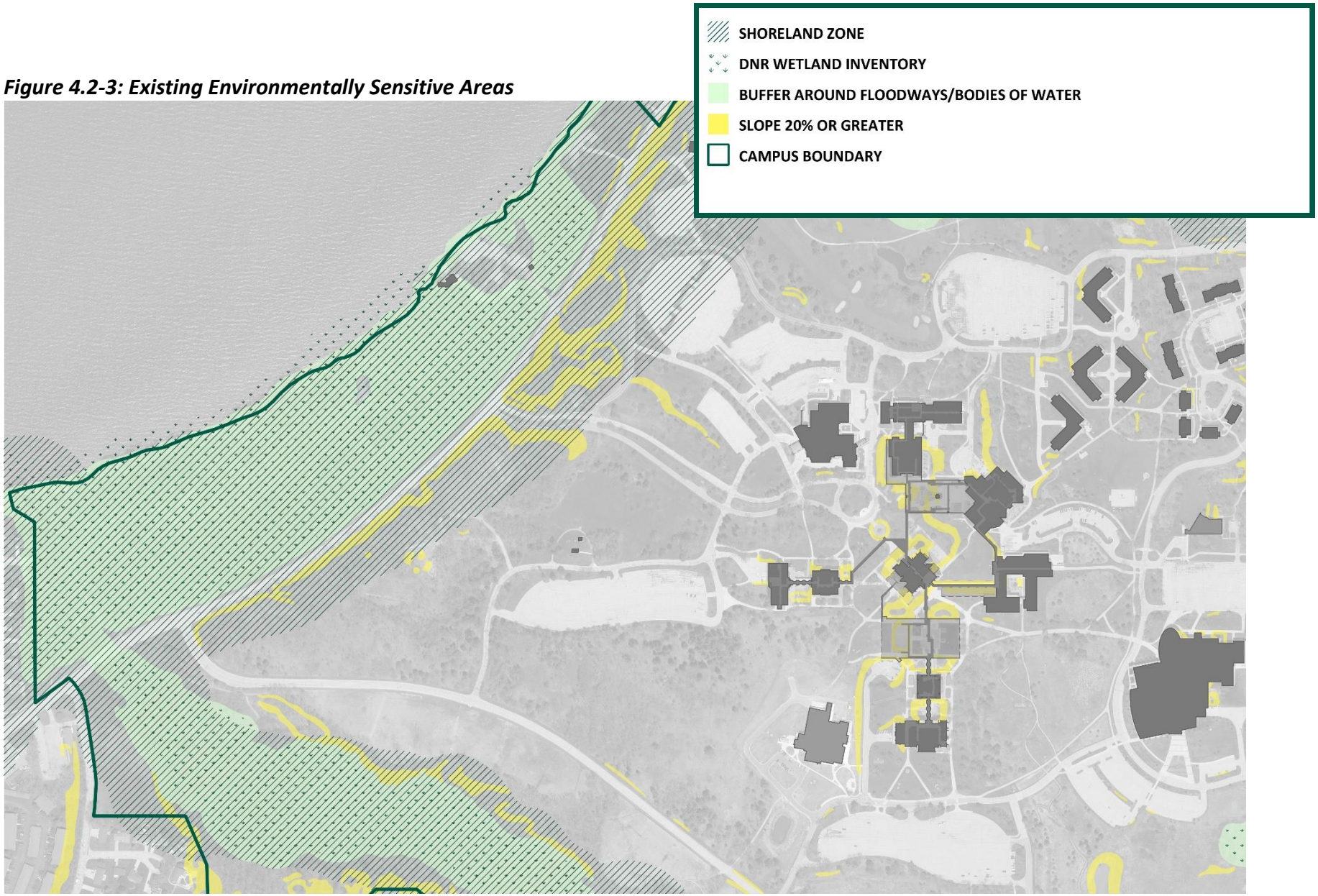


Figure 4.2-3: Existing Environmentally Sensitive Areas



4.3 Campus Organization & Major Entry Points

The campus is still largely organized according to the 1968 Comprehensive Development Plan. Academic buildings radiate out from Cofrin Library at the center with performing arts spaces (Weidner Center and Theatre Hall) to the north. Housing fills in the northeast quadrant and athletics are to the southeast. Facilities and maintenance, including a chiller plant on the south side of Sturgeon Bay Road, occupy the south end of campus. Small structures devoted to campus recreation dot the periphery along and within the Arboretum.

Access and entry into the heart of campus is disjointed and confusing, and there are no signs indicating where visitors are to park. Cofrin Library has no visible entrances when approaching on Main Entrance Drive; the lone entrance into Cofrin is a hardscape dip directly into the concourse. The concourse at this location is disorienting and has no clear guidance from the entry lobby to any other buildings. Cofrin Library is not the only spot where building entry is unclear: the common Wood Hall entry is through a loading dock, and concourse access through Laboratory Sciences is around the east side on the building and through a stairway. The Student Services entrance is only identifiable with a “green awning” and markings on the sidewalk.

Academic buildings are connected via concourse, increasing the total square footage of finished interior building space that must be maintained and conditioned for occupancy. Some sections of the concourse offer natural daylight and open to small outdoor sunken pavilions. However, these pavilions cannot be accessed during the winter months as stairs and ramps are roped off to prevent slipping on ice and interior entries are locked to prevent access. The plethora of ramps, stairs, and hills create a confusing pedestrian experience, especially for those who are not familiar with the campus.

Figure 4.3-1: Existing Campus Organization

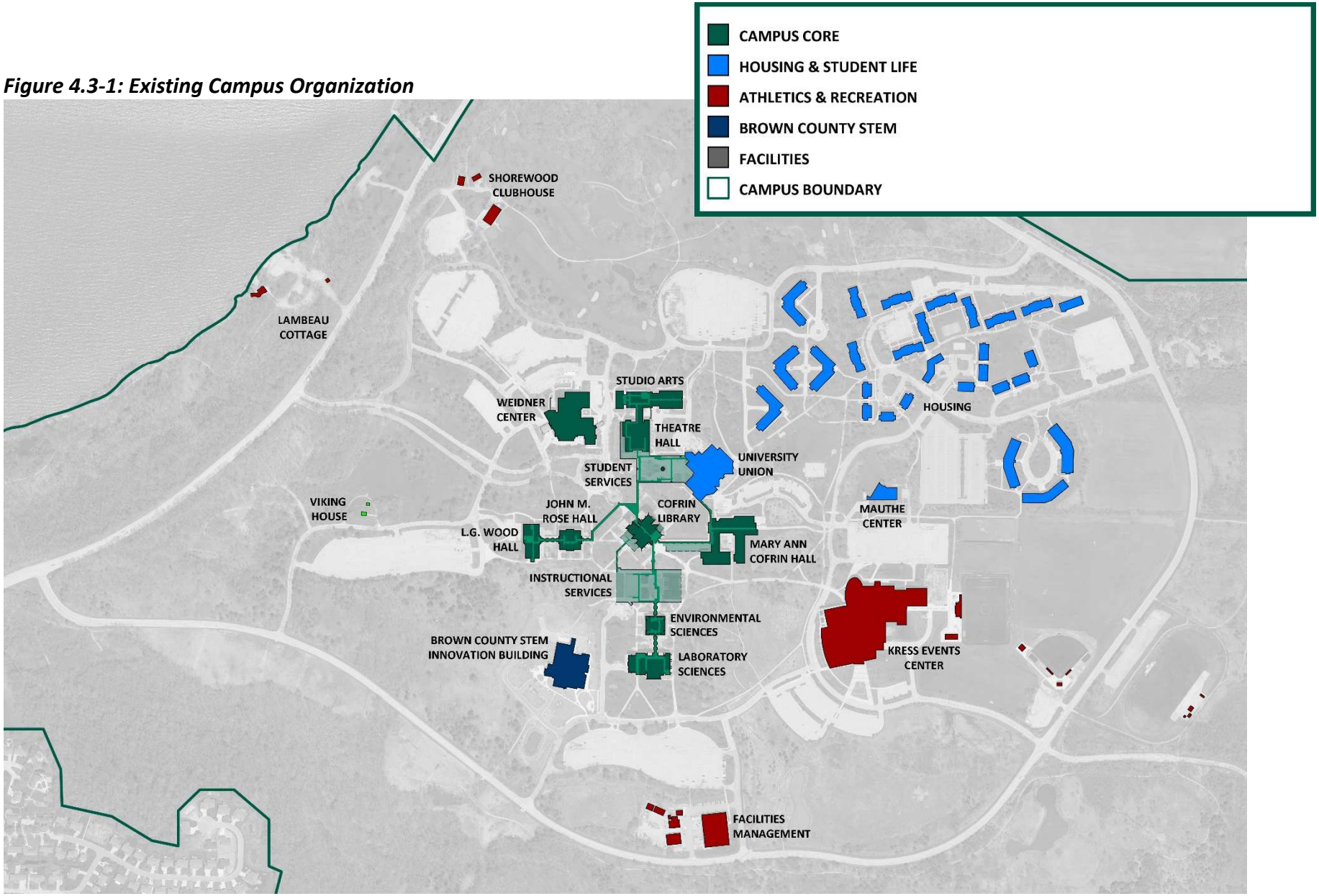
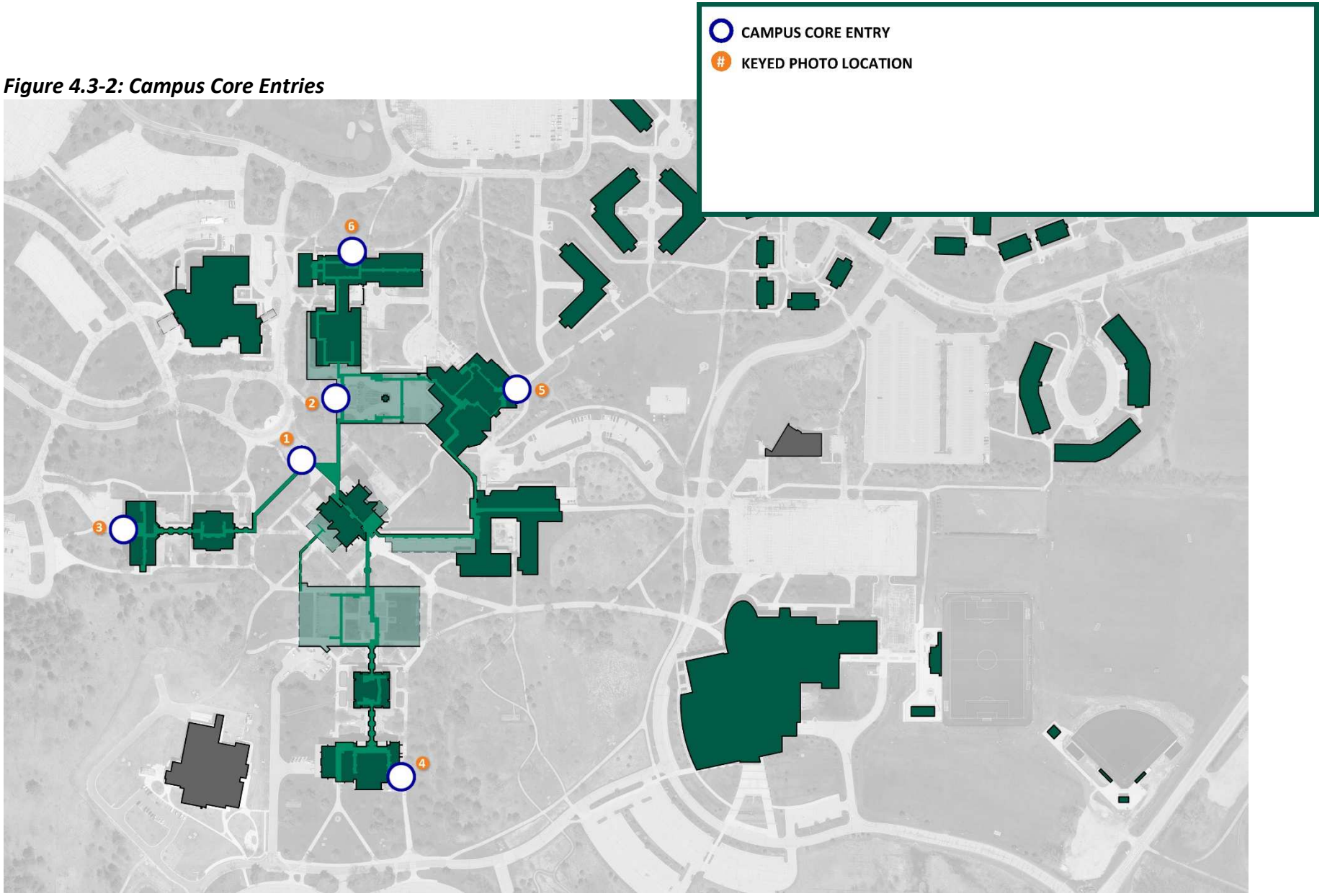


Figure 4.3-2: Campus Core Entries



Figures 4.3-3 through 4.3-8: Keyed Entry Photos

(1) Entry to Cofrin Library

(2) Entry to Student Services

(3) Entry to Wood Hall

(4) Entry to Lab Sciences

(5) Entry to University Union

(6) Entry to MAC Hall

4.4 Open Spaces

The Quad and Phoenix Park are solely outdoor spaces between buildings. They offer little to no program amenities which encourage interaction or cross-disciplinary collaboration as intended in the 1968 Comprehensive Development Plan. The artificial raising and lowering of the topography create accessibility and usability challenges for the Quad in particular:

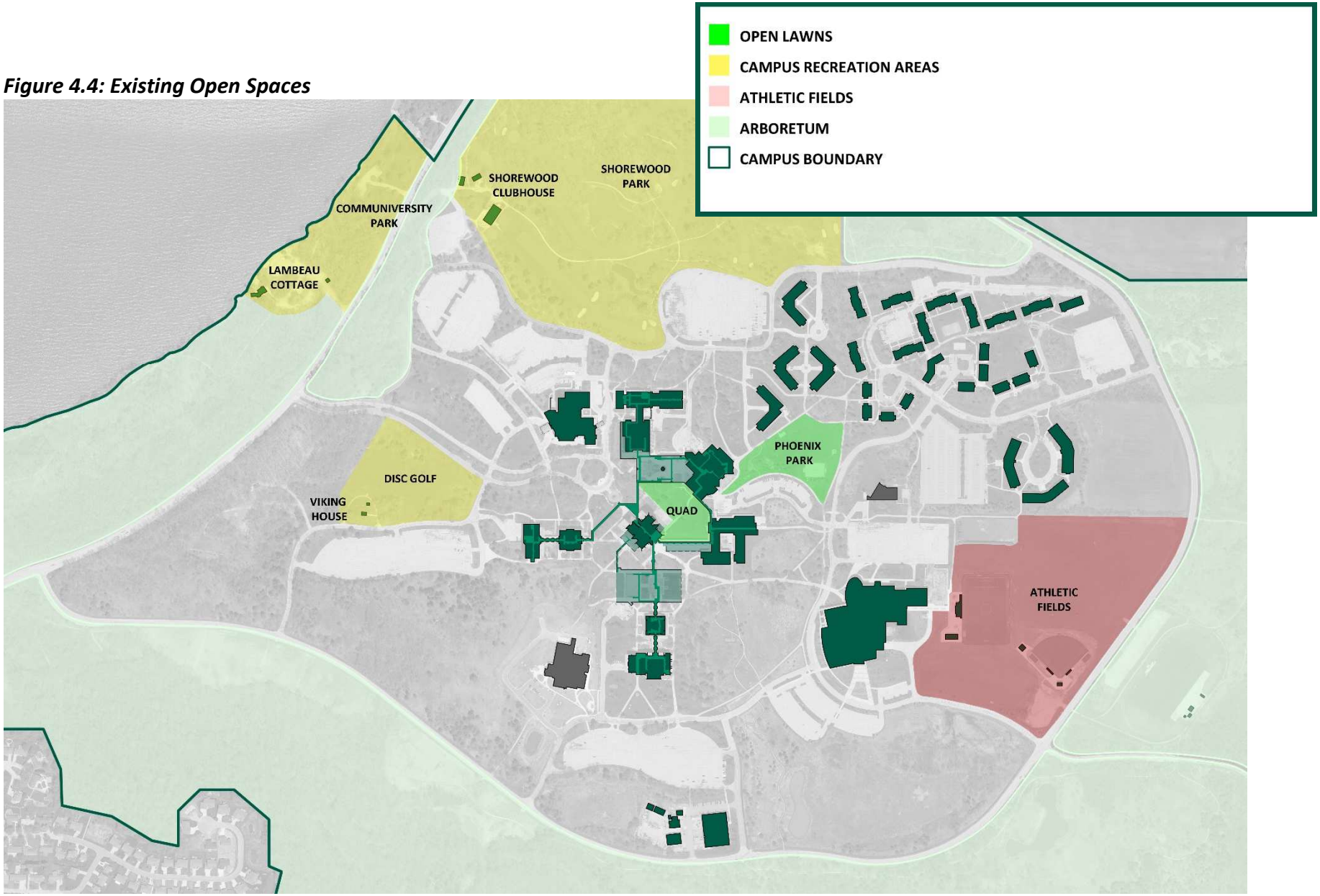
- The Quad is at concourse level and the Union entrance from Housing is a level above. Therefore, students cannot access the Quad without going through the Union.
- The concourse between Cofrin Library and Student Services prevents vehicles from accessing the Quad, limiting the ability for programming that would require a stage or other large equipment.
- The grade change within the Quad greatly limits its usability for anything other than walking between the Union and Cofrin Library, hampering student interaction in what should be one of the most active parts of campus.
- Concourses and grade changes make it difficult to access the Main Entrance Drive bus stop (the only bus stop on campus), particularly for those with accessibility needs.

Shorewood Golf Course anchored the north side of campus for its entire history. Once an 18-hole golf course, the course was reduced to nine holes shortly after the State acquired the property. The course was operated by the University until its permanent closure in 2020. The clubhouse sits atop the bluff and has a direct connection to Communiversity Park and the Arboretum pathways via paved roadway.

A disc golf course fills in the swath of land between Main Entrance Drive and Wood Hall Drive along with the Viking House, an authentic Norwegian timber-framed structure donated to campus in 2017.

Open spaces on campus are largely under-programmed and underutilized. Many lack a sense of place or an organic reason for students to pass through them. It is appropriate to leave the Arboretum untouched for study of and connection to nature, but park-like settings within the academic core and outer loop of campus should serve as functional campus spaces. Improvements to the campus will need to strike the proper balance between a pastoral setting and an appropriate level of density and activity to encourage interaction.

Figure 4.4: Existing Open Spaces



4.5 Pedestrian Circulation

Given the prominence of the concourse system which connects the academic buildings, outdoor pedestrian circulation faces challenging physical and visual barriers. Sidewalks wind their way to major building entry points, which funnel pedestrians into the concourse system. The concourse system serves as the primary means of circulation for the entire academic core. Pathways outside of academic buildings which do not lead directly into the concourse are not used as frequently, resulting in a lack of connection between open spaces and/or non-adjacent theme colleges.

While the campus has a handful of outdoor terraces, there are barriers in accessing them if approaching from the outdoors due to the grade changes. The only at-grade destinations for outdoor pedestrian walkways through and around the academic core are building entry points; patios and terraces are raised or lowered and accessible only by ramp or stair, which are roped off during the winter due to slipping hazards. As a result, the spaces are merely accessories to the adjacent buildings and are not adequately programmed for consistent or year-round use. Two pathways from the Wood Hall parking lot to Wood Hall lot are steep enough to render them unusable during winter.

The Instructional Services plaza, while being at grade, does not provide appropriate elements of scale, shade, or flexibility in seating choices that would make this space more inviting. The concrete surfaces are blinding in direct sunlight. While pavilions along concourses provide protection from direct sunlight, they too come with an element of isolation as they are sunken below grade on the outside.

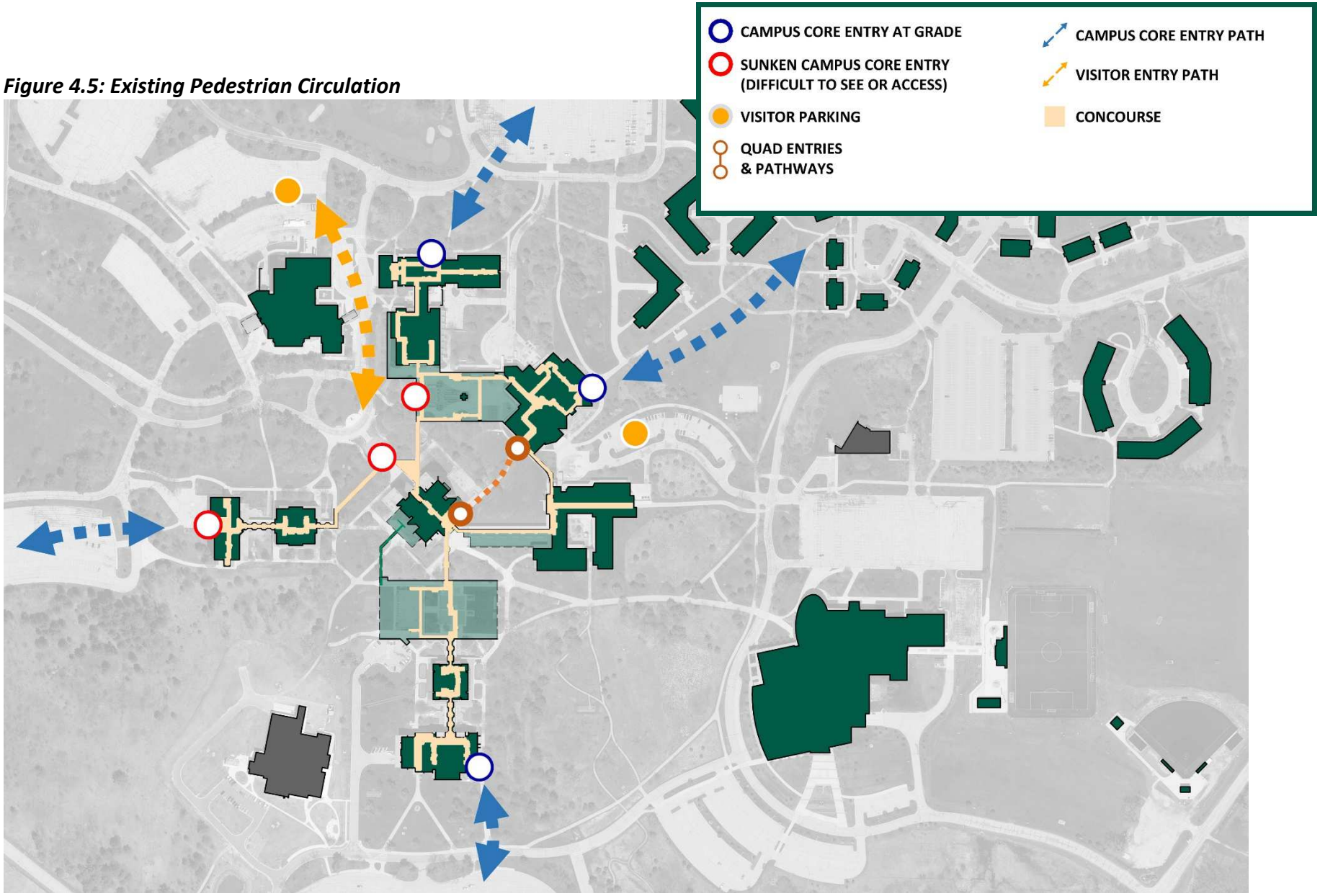
One Arboretum path extends into campus, terminating at the south end of Mary Ann Cofrin Hall. The remainder of Arboretum pathways form a network with a handful of small parking areas along South and East Circle Drive.

There are only a handful of significant campus buildings that are not interconnected via the concourse system. These include the Kress Events Center, the Brown County STEM Innovation Center, and the Weidner Center for the Performing Arts.

Connecting the STEM building to the concourse system was a reoccurring comment heard during the focus group meetings. This is partially due to the building layout and main entry points which are not conveniently located for access from the adjacent Lab Sciences.

The Weidner Center while located within the campus Arts district containing Studio Arts, Theatre Arts, and the Weidner Center. Weidner is physically separated from the other two facilities by Theater Drive and although it's a short at-grade walk from the other facilities it is not thought of as part of campus (by students) due to its disconnection from the concourse system and limited educational use.

Figure 4.5: Existing Pedestrian Circulation



4.6 Parking & Pavement

UW-Green Bay has 4,935 total campus parking stalls as of December 2018. 310 of these stalls have special designations:

- 114 handicapped accessible (40 van accessible)
- 38 service vehicle
- 96 time restricted
- 62 specialty permit

1,029 of the total stalls are in the housing quadrant.

The University sells parking permits to students, employees, and visitors. An internal Parking and Roadways Committee study estimates that 3,902 student/staff permits, 1,048 LLI/KEC/Snowbird permits for specific events, and 535 general parking permits will be sold by the 2024-25 academic year.

Commuter parking, Kress event parking, and Weidner event parking rarely if ever overlap so not every permit will be used simultaneously. Additionally, students move vehicles from housing lots to academic lots throughout the day and Wood Hall parking is cordoned off during the winter. Therefore, the current number of stalls exceeds campus needs and many could be removed.

While the number of parking stalls is more than adequate for the current and future demand, campus does receive complaints that there is not enough parking in close proximity to the building entrances. The outskirts of parking lots are removed from building entrances and therefore creates the illusion that not enough parking is available. The westernmost stalls in the Wood Hall lot are approximately 1,300 feet from the Wood Hall building entry; faculty and staff park in the Baird Foundation Lot to the South of Kress Events Center and have an even longer walk to their destination.

All roads through campus are on campus property and therefore campus is responsible for maintenance. Unlike most UW System schools, the City of Green Bay does not maintain or assist in maintaining any campus roads - that responsibility falls on the university. The cost to maintain existing infrastructure exceeds the revenue generated by parking fees and campus is reluctant to raise parking rates.

UW-Green Bay completed a pavement maintenance study in May 2020 (DFD project #15I2A-04) to create a prioritized project list for repair of existing campus roadways and parking lots, dividing the areas explored into immediate, secondary, and long-term priority for repaving. The study did not evaluate the Wood Hall or Laboratory Sciences parking lots due to recent repaving.

The deterioration of existing roadways and inconvenience of existing parking lot locations and configurations present and opportunity to reshape the campus experience and increase the efficiency in the paved areas of campus. New projects should seek out ways to minimize new pavement, find more effective uses of existing pavement, or remove underutilized pavement.

Figure 4.6-1: Pavement Maintenance Study Findings (DFD Project #15I2A-04)

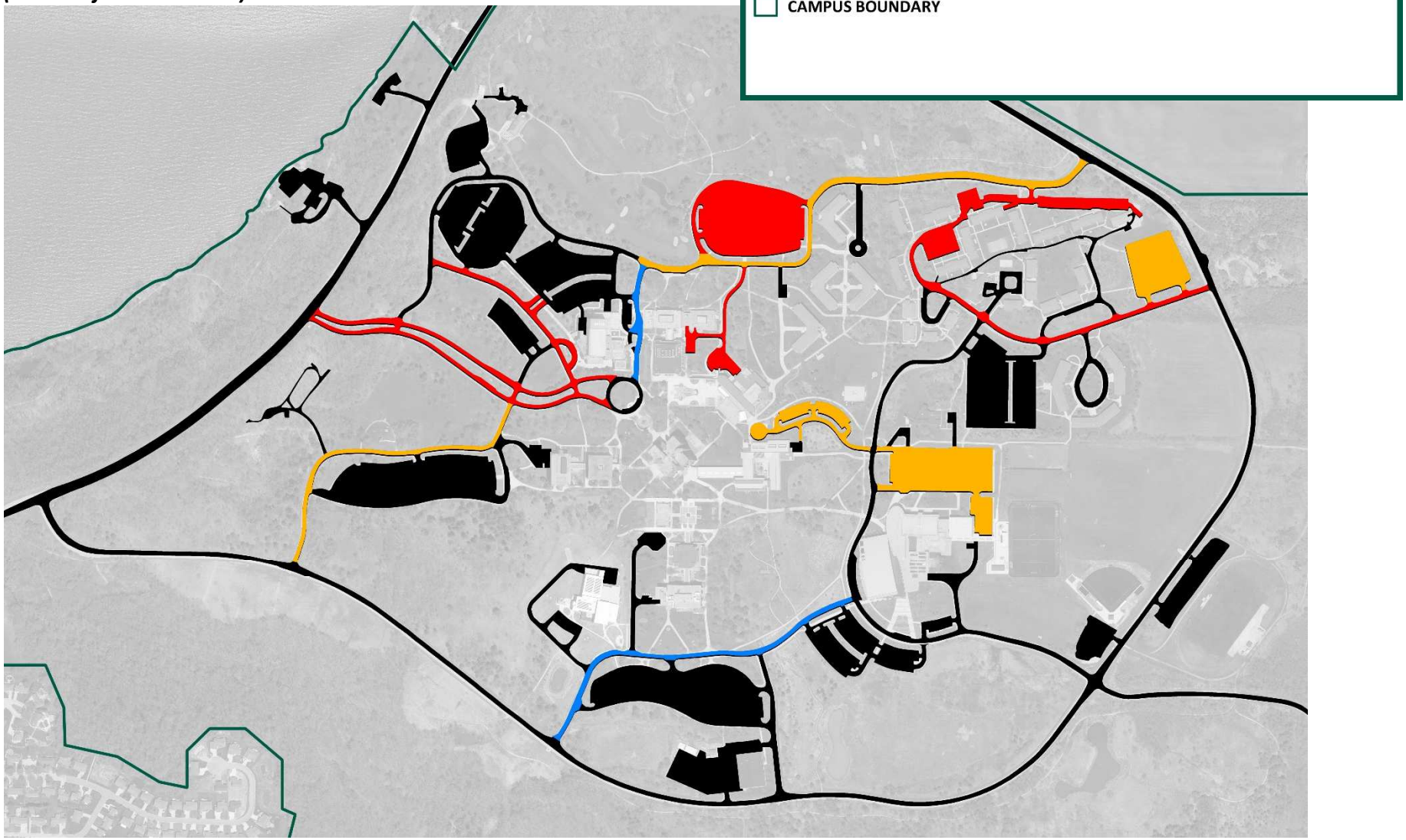
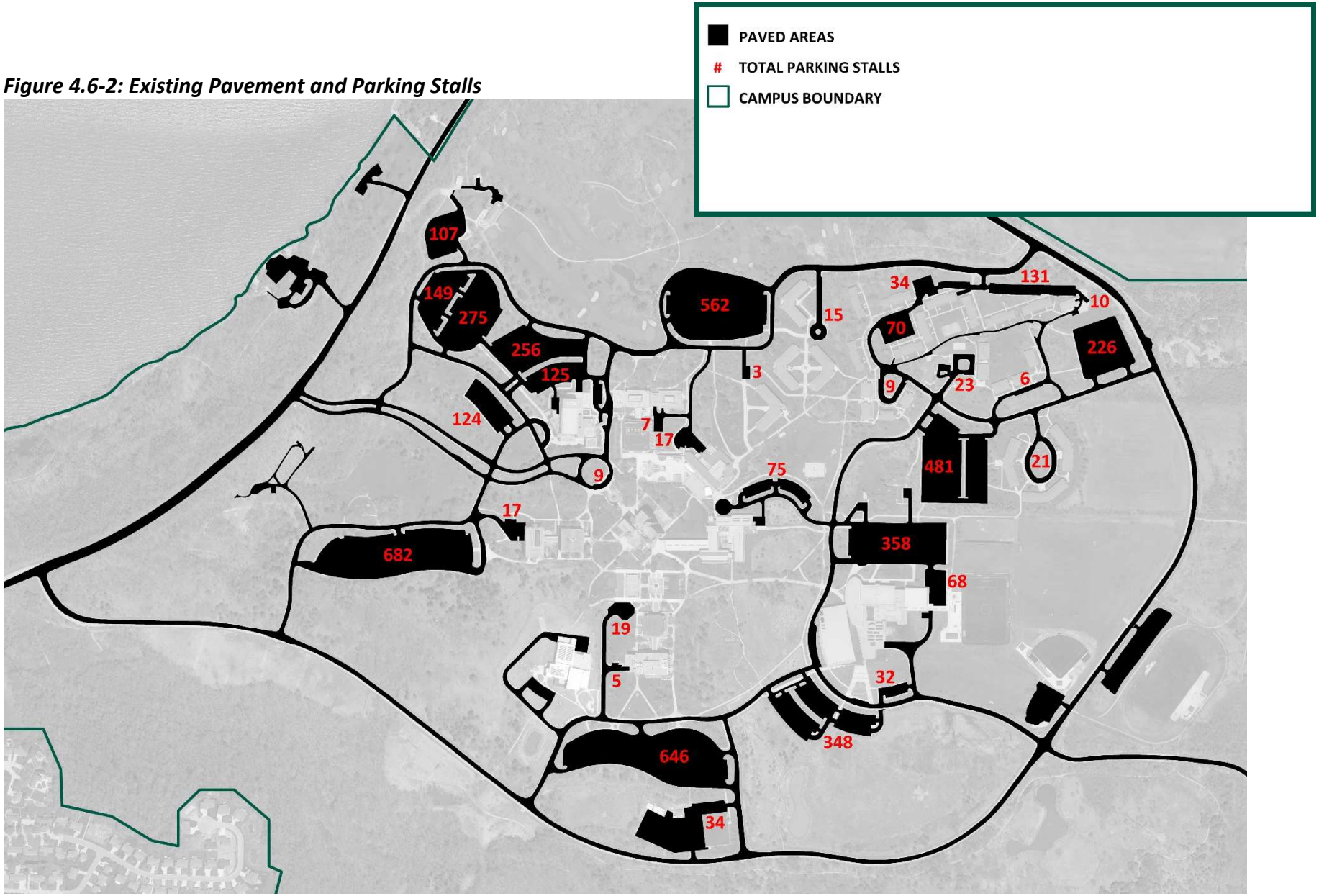


Figure 4.6-2: Existing Pavement and Parking Stalls



4.7 Vehicular Circulation

Vehicular traffic is by far the dominant method of reaching the UW-Green Bay campus due to its location away from the center of Green Bay and the large commuter presence among its student body. The campus is flanked by three public roadways: Nicolet Drive (County Highway A) to the west, Sturgeon Bay Road (State Highway 54-57) to the south, and Bay Settlement Road to the east. The Green Bay Metro bus line 7 stops in front of Cofrin Library every half hour Monday through Friday (every hour on Saturday). Some bike racks are available outside academic buildings, but the lack of proximity to off-campus housing or businesses and lack of bicycle infrastructure on regional roadways makes commuting to campus by bike very challenging.

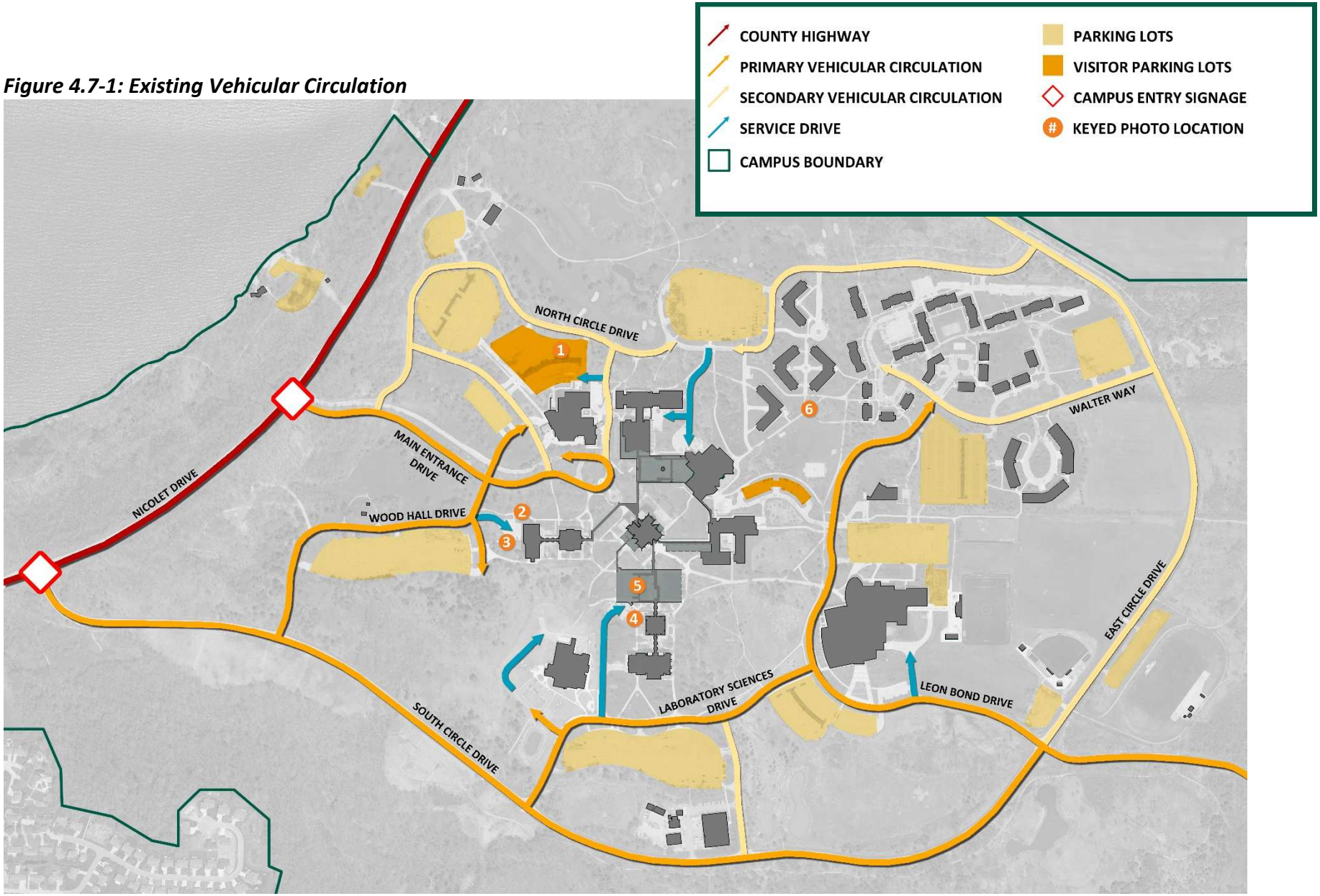
There are two monument signs along Nicolet Drive on the approach to campus: one at South Circle Drive and one at Main Entrance Drive. Another monument sign sits at the intersection of Bay Settlement Road and Leon Bond Drive. Smaller signs dot street corners along South and East Circle Drive indicating building access along interior campus roadways.

The monument sign at the corner of Nicolet Drive and South Circle Drive is particularly problematic for visitors to campus, as it suggests an arrival point when one has only arrived at the outer loop road. The primary approach into campus then runs along South Circle Drive without clear sight lines into the heart of campus. Signs marking destinations along Wood Hall Drive and Laboratory Sciences Drive have small text and are difficult to read. Cofrin Library is visible up the hill along Main Entrance Drive, but parking and drop-off are not easily identifiable. The University Union is not visible at all until nearly reaching the front door. Visitor parking outside the University Union is along a primary drive, but visitor parking for prospective students is on the north side of the Weidner Center. Neither of these visitor parking locations are indicated on any entrance drive signage.

Prospective students and their families are provided directions before arriving on campus. Once on campus, the directions lead them on a secondary road, turned away from campus, and end up at the back of the Weidner Center – not very intuitive. Phoenix markings on the sidewalk provide the only direction to Student Services and a tour starting point.

Secondary roads, primarily for on-campus residents and delivery drivers, occupy the north and east portions of campus. North Circle Drive leads from Main Entrance Drive to University Union Court, which is the primary drop-off point for delivery trucks. Both the drive and the destination are unclear; many drivers get turned around because the path is difficult to find/maneuver or their GPS takes them to the front door of the Union. Walter Way provides vehicular access to Housing via East Circle Drive but can get backed up with postgame traffic from the Kress Events Center.

Figure 4.7-1: Existing Vehicular Circulation



Figures 4.7-2 through 4.7-7: Keyed Photos of Circulation Issues

(1) Visitor parking on north end of Weidner Center, looking south. Signage and wayfinding to Student Services entrance is poor.

(2) Wood Hall/Rose Hall/Cofrin Library, looking east down Main Entrance Drive. No clear points of entry or visitor parking along entrance.

(3) Wood Hall lot access, looking west. Ramp is roped off during the winter. Half of Wood Hall lot is not plowed during the winter.

(4) Concourse outside Instructional Services, looking east. Vertical circulation is roped off during the winter; no amenities provided.

(5) Instructional Services plaza, looking east. No amenities or clear destinations provided. Quad and Student Services plaza are similarly underutilized.

(6) Phoenix Park, looking southwest toward University Union. Park lacks programmed space, amplifying the distance to the destination.

4.8 Utilities

4.8.1 Water, Sanitary, & Storm

The UW-Green Bay campus generally drains from east to west, ultimately draining to Green Bay (Lake Michigan). Urban roads with storm sewer infrastructure capture the majority of stormwater through the academic portion of campus with numerous discharge locations to the north, south and west. The housing portion of campus has rural roads with drainage ditches and culverts that primarily drain north. Cofrin Arboretum is located around the outside of campus and drains either north or south before draining west via overland flow or through small gullies, rivulets, and streams.

General drainage for the University Union is north and west and is collected by storm sewer. Storm sewer for the eastern portion of the building drains to Golf Pond #2, storm sewer for the west half to the Main Entrance Drive storm sewer. General drainage for Cofrin Library is north and west to the Main Entrance Drive sewer.

Water, sanitary and storm utilities have been constructed throughout campus to provide the necessary utilities for campus needs. Known concerns with existing water utilities have been recently fixed or are in design phase. There are no known sanitary or storm utility concerns at this time. Televising of the sanitary and storm utilities on campus is recommended for inspection of the sewer systems. If clay storm sewer pipes are located with the construction limits of future projects, the pipes should be replaced.

Stormwater Solution for Smart Growth Planning

An analysis was conducted in fulfillment of the UWGB Municipal Separate Storm Sewer System (MS4) General Permit (DFD Project #16H1R) in March 2018. UWGB must work towards meeting the Total Maximum Daily Load (TMDL) requirements of the Lower Green Bay basin as they are currently falling short.

UWGB is currently reducing its Total Suspended Solids (TSS) pollutant load by 15.21 tons per year (41.46%). Therefore, UWGB is below the TMDL reduction goal of 52% set by the Wisconsin Department of Natural Resources (WDNR).

UWGB is currently reducing its Total Phosphorus (TP) pollution load by 89.15 pounds (29.23%). Therefore, UWGB is below the TMDL reduction goal of 41% set by the WDNR.

UWGB shall improve existing conditions and implement new Best Management Practices (BMP) to work towards water quality goals listed in the Wisconsin Pollutant Discharge Elimination System permit. Recommendations include; regrading existing swales, modifications to Golf Course #1, Teal, and Dragonfly ponds, elimination of existing pavement (parking and drives), and install a stormwater treatment chamber in Basin 3. Effectively treating the stormwater from Basin 3, the University would be near a campus wide reduction of approximately 54% TSS and 40% TP removal.

Figure 4.8-1: Existing Campus Stormwater Ponds

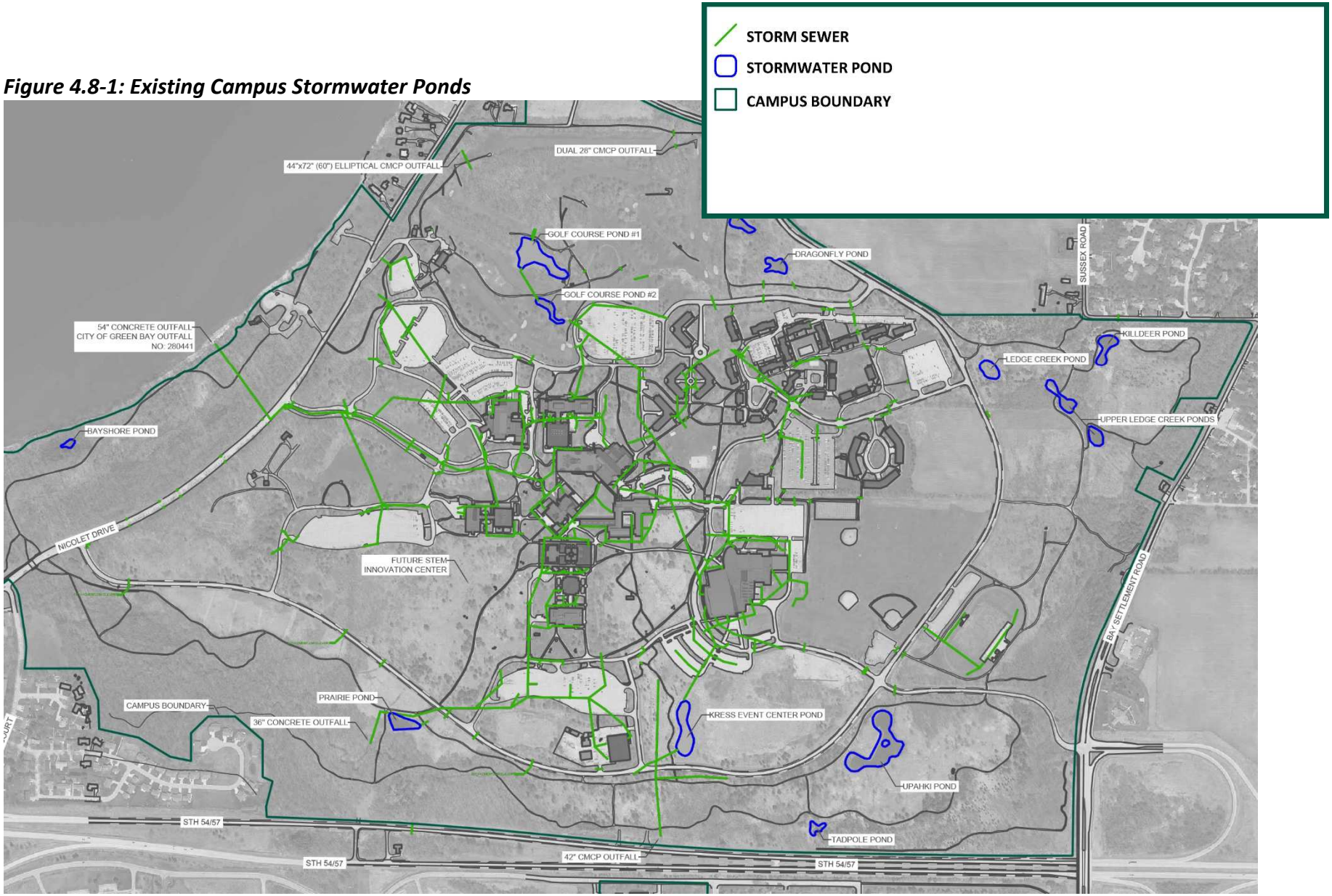
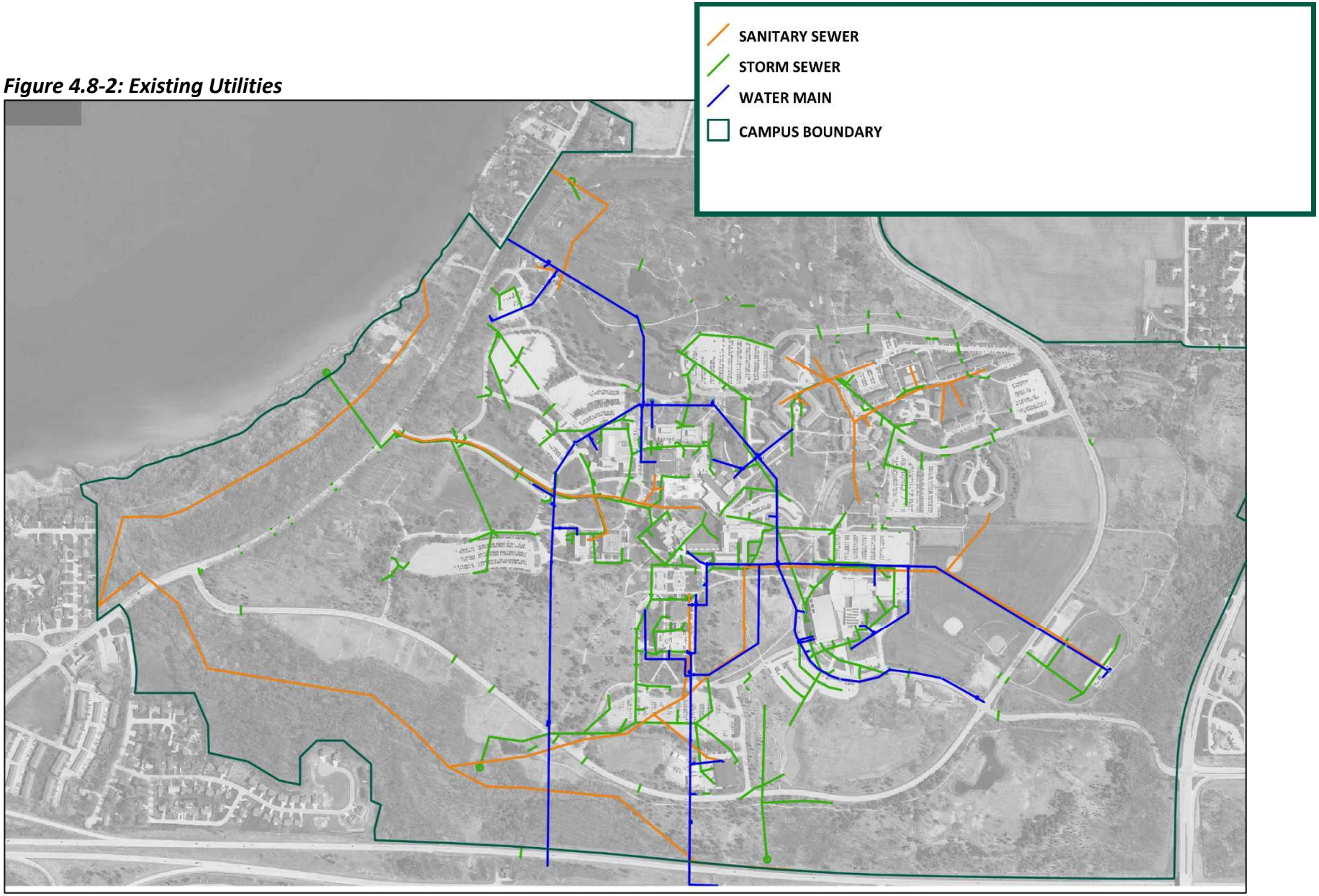


Figure 4.8-2: Existing Utilities



4.8.2 Steam

The campus currently consists of 1,299,032 gross feet of building area which is provided steam from the central steam system. Estimated building demands are included in the Campus Central Steam System Analysis (See Appendix A – Campus Steam Load Projections).

Generation

The UW-Green Bay Heating and Chiller Plant distributes steam to connected buildings on campus. The Heating and Chiller Plant consists of the following boilers (PPH = Pounds Per Hour):

- Boiler-1 (1971) Offline for 40 years
- Boiler-2 (1971) 49,300 PPH Gas fired
- Boiler-3 (1971) 29,000 PPH Gas fired
- Boiler-4/5 (2006) 15,000 PPH each Gas fired.

All boilers operating can yield 109,300 PPH for the campus.

All boilers are dual fuel natural gas and No. 2 fuel oil. The chiller plant is equipped with an above ground fuel oil tank (20,000 gallons) and associated pumping system.

The current peak steam demand is 56,600 PPH based daily boiler input logs. This demand equates to an average use of 22 BTU/GSF of connected building. The future peak steam demand is projected to increase 63% or 29,000 PPH. This would bring the campus load demand to 74,729 PPH.

Boiler-1 remains off-line and has not run since 1981 and is considered non-functional. Boiler-2 was tested in January 2021, steam output was verified at approximately 52,000 PPH. Boiler-2 currently operates to meet campus peak load during heating season. Boiler-3 is not sized to handle peak heating load for campus. If Boiler-2 would go down in the winter the plant could utilize one or both of the summer boilers Boiler 4 or Boiler-5 to help meet campus demands. Based on the future load projection if Boiler-2 would go down Boiler 3, 4 and 5 would not be large enough to handle the projected demand. A more detailed review of plant should be conducted to establish a consistent redundant capacity going forward between the existing boilers and a new boiler(s) layout.

Boiler-4 and Boiler-5 are sized to handle campus heating load during the summer. One boiler can meet the daytime load of approximately 9,000 PPH and the nighttime load of approximately 6,000 PPH.

The plant steam header operates at 125 psig and provides 125 psig to the underground campus distribution system to campus buildings.

Existing plant equipment such as the boiler feed water pumps, deaerator and condensate tank are original and in good working condition. Individual buildings are equipped with condensate meters and information is transferred to the Campus Building Automation system for recording. Kress

Center and the Student Union are equipped with steam meters, but neither is online.

Distribution

The steam distribution system consists of approximately 5,200 lineal feet of walkable steam tunnel, 300 lineal feet of concrete box conduit and 620 lineal feet of direct buried conduit. The distribution system is made up of high-pressure steam pipe and pumped condensate return piping. The existing layout of the steam distribution system, Existing Steam Distribution Layout (See Appendix A - Existing Steam Distribution Layout).

The utility tunnel was upgraded in 2011 to minimize water infiltration and upgrades existing failing piping, pipe insulation and support systems. There have been ongoing upgrades to the steam distribution system since it was first installed in the 1960s and the current distribution system is in good working order.

The campus experiences an approximate 7-8 psig pressure drop at the far south end of the campus on a peak day. Campus steam is distributed at 125 psig from the Heating Plant.

Condensate is returned to the Heating and Chiller Plant in the same pipe route as the steam system. There are no known issues with the condensate return system.

The existing pipe sizes and routing are adequate for the existing loads and future campus growth to maintain steam velocities below 10,000 FPM for normal operating conditions.

4.8.3 Chilled Water

The campus currently consists of 988,966 gross square feet (GSF) of buildings which are provided with chilled water for cooling. Estimated building demands are included in the Campus Chilled Water Load Projections (See Appendix A - Chilled Water Load Projections).

Generation

The original central heating and chiller plant was constructed in 1963. Current chiller plant has (3) chillers:

- Chiller-1 1400 ton (2000)
- Chiller-2 725 ton (1972 - Not Operable)
- Chiller-3 1200 ton (1982)

The current total operable plant capacity is 2,600 tons. Actual performance is significantly less. The chillers are currently set to provide a supply water temperature of 41 degrees with a 10-degree temperature difference.

Existing 2-cell cooling tower is original to the plant and provides condensing water for chillers and condenser water pumps.

Each chillers have a primary chilled water pump. Chilled water is distributed to the campus with electrically driven secondary pump with a variable frequency drive. A bypass/decoupler line is installed between the supply and return line upstream of the campus distribution pumps which creates a primary-secondary pumping arrangement.

The system distribution pumping differential pressure is approximately 12 psig on a design day at the far end of the distribution system measured at Theatre.

Metering of chilled water is provided at each building connected to the distribution system. Metering information is brought back through the campus building automation control system.

Distribution

The chilled water distribution system consists of approximately 5,200 lineal feet of walkable steam tunnel and 1,350 lineal feet of direct buried pipe (ductile iron). The existing layout of the chilled water distribution system is provided in Appendix A.

The utility tunnel was upgraded in 2011, existing failing piping, pipe insulation and support systems were removed and upgraded. The distribution system is in acceptable working order.

There is currently only a radial route from the plant to feed the campus connected buildings. This presents issues when isolation is needed in any area of the current system while trying to maintain full campus service.

The estimated and future loads were input into the hydraulic model. Advanced Flow Technologies (AFT) was used as the hydraulic modeling software. The model analyzes incompressible pipe flow addressing open and closed loop systems. AFT includes a built-in library of fluids and fittings, variable model configurations, pumps and control valve modeling. The model was revised based on understanding of existing pipe and future building additions along with the following assumptions:

- Chilled water temperature differential of 10°F
- Existing building peak loads indicated in Chilled Water Load Projection Worksheet
- Future building peak loads indicated in Chilled Water Load Projection Worksheet
- 12 PSID was set as the minimum pressure drop across most critical buildings.

The Chilled Water System Hydraulic Calculations for the output report and velocity profile results for each scenario are provided in Appendix A. The model was setup using the two (2) existing distribution pumps currently at the Central Heating and Cooling Plant.

From the analysis the current main tunnel pipe sizing is adequate to handle current and planned growth on campus. The only time where there begins to be an issue with the distribution pumping size is at the 13+ year implementation. The ideal plan would be to review the distribution pump sizing when a new chiller is recommended for incorporation into the existing system sometime following the New Residence Hall #1 coming online.

4.8.4 Electrical Power

The campus currently consists of 1,317,800 gross feet of building area served by the campus electrical service. Estimated building demands are included in the Campus Future Electrical Load Projections (See Appendix A).

The average total demand on main campus distribution system between 2012 and 2023 is 3,754 kW, or 18.1% of total 20,700 kW system capacity. Refer to Campus Yearly Electrical Demand below.

Academic Year	Actual Utility Demand Load (kW)
2022-23	3542
2021-22	2972
2020-21	2625
2019-20	3957
2018-19	3669
2017-18	3680
2016-17	3761
2015-16	3718
2014-15	3994
2013-14	4406
2012-13	4474
2011-12	4252
Average	**3754**

There is an existing ATC power transmission line buried in a Right-of-Way running from the southeast corner of the Nicolet Drive / South circle Drive intersection and runs outside Circle Drive until it exits campus across from the Residence Life Maintenance building along East Circle Drive.

Generation

The campus electrical service was replaced in 2011. The service consists of 1200A, 12.47 kV switchgear served by two Utility services. Power is distributed from the switchgear at 12.47 kV to the various buildings on campus. The two Utility services are designed to be redundant, should one fail the other system can handle the entire campus load. The existing 4.16 kV switchgear has one (1) spare circuit breaker and one (1) space that can be utilized to supply future load growth.

Distribution

The 12.47 kV power is distributed to the various buildings via underground ductbanks. The distribution system is a modified loop concept so each building can be served from a number of different feeders depending upon the loop switch or padmount switch configuration. The switching feeder sources of a building in various pad mounted switchgear units around the campus and/or switches internal to buildings. The feeders indicated in the Campus Future Electrical Load Projections matrix are the feeders from which the buildings are normally fed and are expected to be fed in the future.

The original and subsequent ductbank installations were quite generous and forward-thinking of future capacity. As a result, the primary ductbank system is has a large number of spare conduits at any given place in the system. Most areas have 3-7

spare conduits in the main trunk of the system. Less spare conduits serve individual buildings.

4.8.5 Telecommunications

Based on initial building entrance surveys it appears the majority of the optical fiber network is fed through both Cofrin and Instructional Services. A full optical fiber survey or optical fiber master plan of the campus to include optical fiber both inter- and intra-building fiber backbones and all signal pathways should be executed to provide a comprehensive plan for campus growth, network growth, redundancy and survivability.

4.8.6 Fiber Optics

Existing fiber cabling is routed through existing steam tunnels as well as concourse pathways.

4.9 Conclusions

The design team's extensive review of existing conditions and conversations with stakeholders reveal a set of primary deficiencies which the recommendations will resolve:

- **Entry and arrival experience is confusing.** This is especially true for visitors.
- **There is no "front door" or sense of arrival.** Building entries are difficult to locate, as are destinations and resources once inside.
- **Vehicular circulation lacks organization.** Coordinate parking locations with vehicular circulation and the entry/arrival experience.
- **Outdoor spaces lack amenities and connection to the rest of campus.** The Quad, Phoenix Park, plazas outside concourses and on top of Student Services and Instructional Services, and the former Shorewood Golf Course can all contribute more to the campus experience.
- **There is not enough engagement with the bayfront.** Lambeau Cottage and Communiversity Park offer untapped potential to draw the student body and community to the water's edge.
- **Pedestrian circulation is complicated by grade changes on the exterior and level changes on the interior.** Rethink the balance between concourse circulation and outdoor pathways with clear destinations.
- **There is not enough informal meeting/lounge space along indoor and outdoor circulation paths.** This concept was a key component of the 1968 Comprehensive Development Plan.
- **There are few connections between campus and the community.** Utilizing and amplifying natural settings and open areas can be at the forefront of building those relationships.
- **Find ways to create redundancy in mechanical, electrical, and optical fiber utility systems.** This will provide a safety net and allow for future building growth on campus.

5 Synthesis

The design team focused on several recently completed studies for coordination with the master plan effort: University Housing (DFD project #17J1Q), University Union (DFD project #19L1J), Cofrin Library (DFD project #18D2W), and the Phoenix Innovation Park study. The Pre Design Study for New Health Sciences and Clinical Practice Building (DFD project 20A1V) was running concurrent with the Master Plan process. The master plan recommendations implement the programmatic requirements and general design direction of the studies in ways that fit holistically in the campus makeup.

Additional studies reviewed by the design team and incorporated into the master plan recommendations include:

- Stormwater Pollution Analysis (DFD #16H1R)
- Resident Life Storm Water Study (DFD #16J2B)
- Outdoor Athletics and Intramural Facilities (DFD #08K2B)

University Housing Master Plan (DFD project #17J1Q)

The study proposed a phased transformation of the housing quadrant from its current assortment of smaller units into larger residence halls. The plan proposes to add a net total of 703 beds to the university's housing stock. It also identifies which entity is responsible for each phase given that UW-Green Bay and University Village Housing, Inc. (UVHI), a non-profit corporation, own land on which they operate.

- Phase One: Land swap between UVHI and UWGB Housing. UWGB Housing builds a 400-bed freshman style traditional residence hall. Sitework includes placing roundabouts at the ends of Leon Bond Drive and Walter Way.
- Phase Two: UVHI demolishes four traditional residence halls and builds a 300-bed freshman style traditional residence hall.
- Phase Three: UWGB Housing demolishes three shared bedroom apartment-style residence halls and builds a 400-bed sophomore residence hall.
- Phase Four: UWGB Housing demolishes six shared bedroom apartment-style residence halls and builds a 400-bed sophomore residence hall.
- Phase Five: UVHI demolishes six traditional residence halls and builds a 370-bed residence hall.

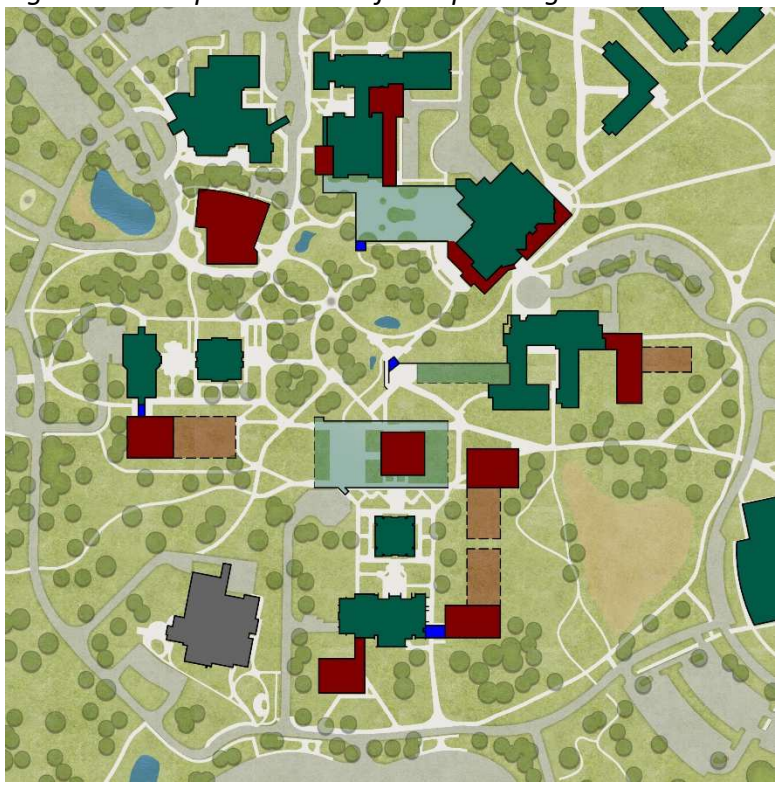
The master plan shifts one freshman residence hall to the eastern edge, which extends Phoenix Park and connects each residence hall back to the University Union via learning street.

Figure 5-1: Proposed Housing diagram

University Union Pre-Design (DFD project #19L1J)

The University Union was originally constructed in 1975; three additions since bring its current size to 108,167 GSF. The pre-design study explored options for partial demolition and replacement of varying degrees and building footprint sizes, ranging from maintaining the existing square footage to a 46% increase in square footage. All options modify the entrance from Housing and place more forward-facing uses overlooking the Quad and other adjacent exterior areas.

Figure 5-2: Proposed Heart of Campus diagram



The master plan implements the adjusted Union layout, and also extends the learning street connection from Phoenix Park into the Quad. The concourse between the Union and Mary Ann Cofrin Hall is broken to craft a path sloping down from Phoenix Park. This will eliminate the need to go into the Union in order to get down to the Quad level.

Cofrin Pre-Design (DFD project #18D2W)

The initial goal of the study was to design a renovation of the existing Cofrin Library. The envelope assessment revealed that the exterior barrier wall system is failing due to corrosion of masonry ties, and this corrosion process will continue to accelerate. Since remediation measures would require full exposure of the wall from inside the building, the study concluded that a building replacement is necessary. Funding was ultimately enumerated (DFD project #21E2W) to demolish Cofrin Library and replace it with the Cofrin Technology & Education Center.

The master plan design team explored and presented multiple options for placement of the new Cofrin Technology & Education Center, as its location and relationship to the Quad will be highly consequential to the success of the master plan's proposals. The design team utilized a similar footprint to that explored during the pre-design study and sought ways to make a bold expression and truly re-imagine how the heart of campus operates while keeping existing underground utilities in mind.

Figure 5-3: Cofrin/Quad Redesign Option #1

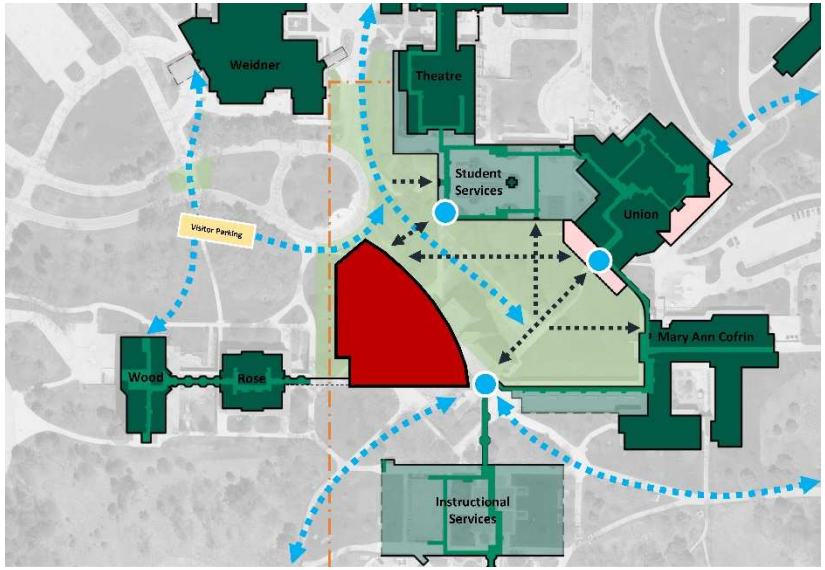


Figure 5-4: Cofrin/Quad Redesign Option #2

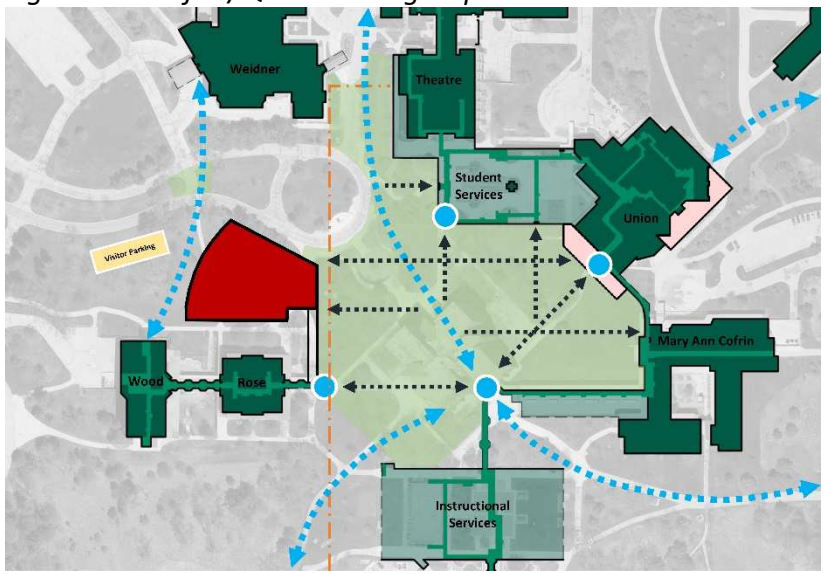
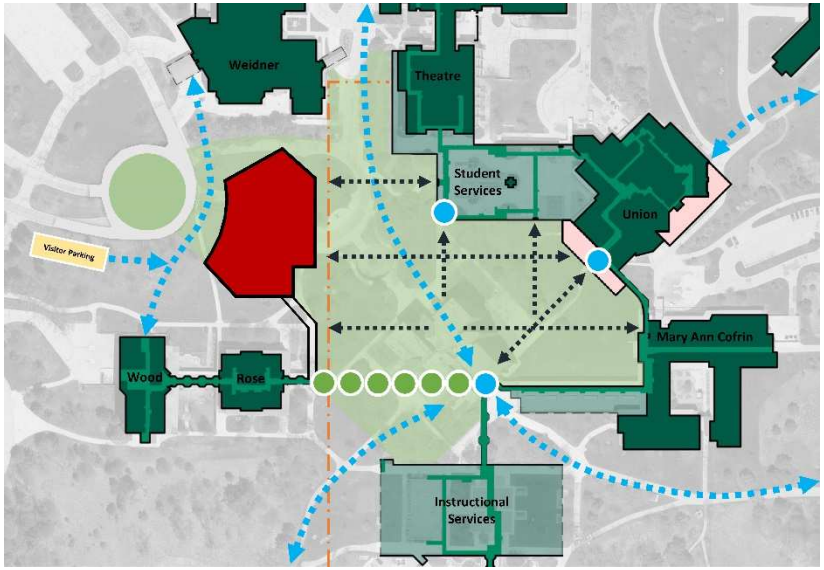


Figure 5-5: Cofrin/Quad Redesign Option #3



The options were reviewed with representatives from DFD, UW-Green Bay, and UW System, who preferred Option 3 which makes the Quad as large as possible and gives the Cofrin Technology & Education Center a prominent physical and visual placement at the terminus of Main Entrance Drive. See the presentation slides and meeting minutes in the appendix for further information on proposals discussed with the core team.

Phoenix Innovation Park (PIP)

The goal of the study was to provide an opportunity to enliven campus by engaging both the UW-Green Bay community and the greater Green Bay community more intentionally on campus. Create exposure to the innovation, ideation, research, and scholarship activity occurring on campus, as well as creating more intentional opportunities for recreation, events, gathering, and visible activity on campus. The PIP is envisioned as a unique resource for the community while advancing the mission and economic strength of the University with a clear and executable plan to bring the District to Life.

The Vision includes:

- Developing a vibrant campus experience – create density & attractive 24/7 experiences.
- Create a locus of new activity on campus, becoming a hub on campus and in Green Bay.
- Assist in creating a single, distinctive main entry to campus.
- Create a campus within a campus feel for the Innovation Park.
- Develop/Enhance community relationships.

New Health Sciences and Clinical Practice Building Study

The Health Sciences and Clinical Practice facility will serve as the foundation to support educational excellence, interprofessional discourse between colleges and departments, and serve as a bridge to the community. The facility will support innovation, leverage state-of-the-art technology, and encourage collaborative research and practice. The facility will be a showcase on campus, enhancing the human experience, building on the University of Wisconsin - Green Bay's focus on the importance of the connection to the environment, campus, and responsiveness to the equitable needs of society.

Project Drivers:

- Support Educational Excellence
- Encourage Interprofessionalism
- Advance knowledge and research through innovative practice
- Accommodate Growth and Flexibility
- Foster Collaboration and Partnerships with community Partners
- Elevate the Human Condition

The master plan has identified multiple locations for potential future buildings and/or additions to existing buildings connected via new entry gateways. These locations were selected based on connectivity to the existing facilities, topography, and utility corridors.

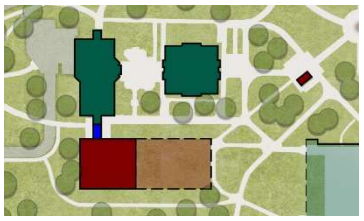


Figure 5-6: Wood Hall

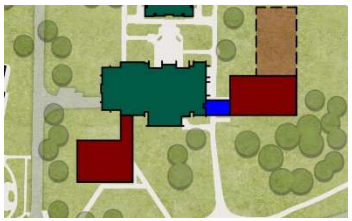


Figure 5-7: Laboratory Sciences

6 Recommendations

This section describes the campus master plan's project recommendations. The detailed projects directly advance the campus goals and principles listed below.

6.1 Goals & Guiding Principles

Several key themes became apparent through conversations with focus groups and site surveys. The master plan proposes small-scale and large-scale improvements to the campus's physical presence and ties the campus experience into the overall mission of UW-Green Bay by addressing the following principles:

1) **Forward Facing Campus**
2) **Welcome Visitors to Campus**
3) **Community Connectivity**
4) **Transportation – Walk, Bike, Park**
5) **Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus**
6) **Enhance / Activate the Quad while Reinforcing the Academic Core**
7) **Embrace, Protect, and Enhance the Arboretum and Natural Setting**
8) **Respect and Enhance the Campus Ecology**
9) **Identifiable Concourse Entries**
10) **Update On-Campus Living Accommodations**
11) **Accommodate Emerging and Growing Academic Programs**

6.2 Concept Diagrams

The UW-Green Bay campus has been organized around a central academic core since its inception per the conceptualizations of the original Comprehensive Development Plan. The buildings within that core are aligned in the cardinal directions with circulation passing through the heart: Cofrin Technology & Education Center, the Quad, and the University Union. The heart of campus houses basic services for the student body and serves as a main entry point for visitors to campus.

The open spaces between academic buildings form "learning streets" which connect spaces at the periphery to the academic core and heart of campus via the outdoors. These learning streets extend to Cofrin Arboretum at the boundary of campus, linking natural spaces with campus amenities and the existing physical environment.

Also, per the Comprehensive Development Plan, the campus is divided based on general uses of building and space. Housing, athletics, and maintenance currently take up the western and southern portions of the campus loop. Cofrin Arboretum wraps around the campus and abuts its property lines. The proposals of this master plan will maintain this model by shifting, strengthening, and adding space uses to fill in the campus boundaries. Campus recreation is consolidated on the former Shorewood Golf Course property and extends to the bayfront through the activation of Communiversity Park and Lambeau Cottage. The existing performing arts facilities on the north end of the academic core bleed into a district with dedicated parking and a new amphitheater. The main entrance sequence is streamlined, with its own visitor parking at the terminus. Phoenix Innovation Park, the public/private partnership development envisioned as an extension of campus fills in the southwest quadrant of campus as well as along the main entrance drive.

While each use has its established zone, connections between zones and back to the heart of campus improve wayfinding, establish a sense of place, and create a cohesive whole which will serve the student body and community at-large. This organization creates a web which will inform placement of future buildings, circulation routes/methods, and future growth.

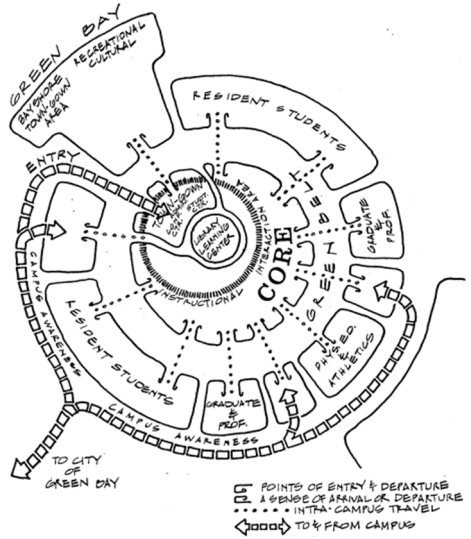


Figure 6.2-1: Concept Diagram from 1968 Comprehensive Development Plan

Figure 6.2-2: Concept – Establish Central Pedestrian Core

Figure 6.2-3: Concept – Central Core Connection to Arboretum

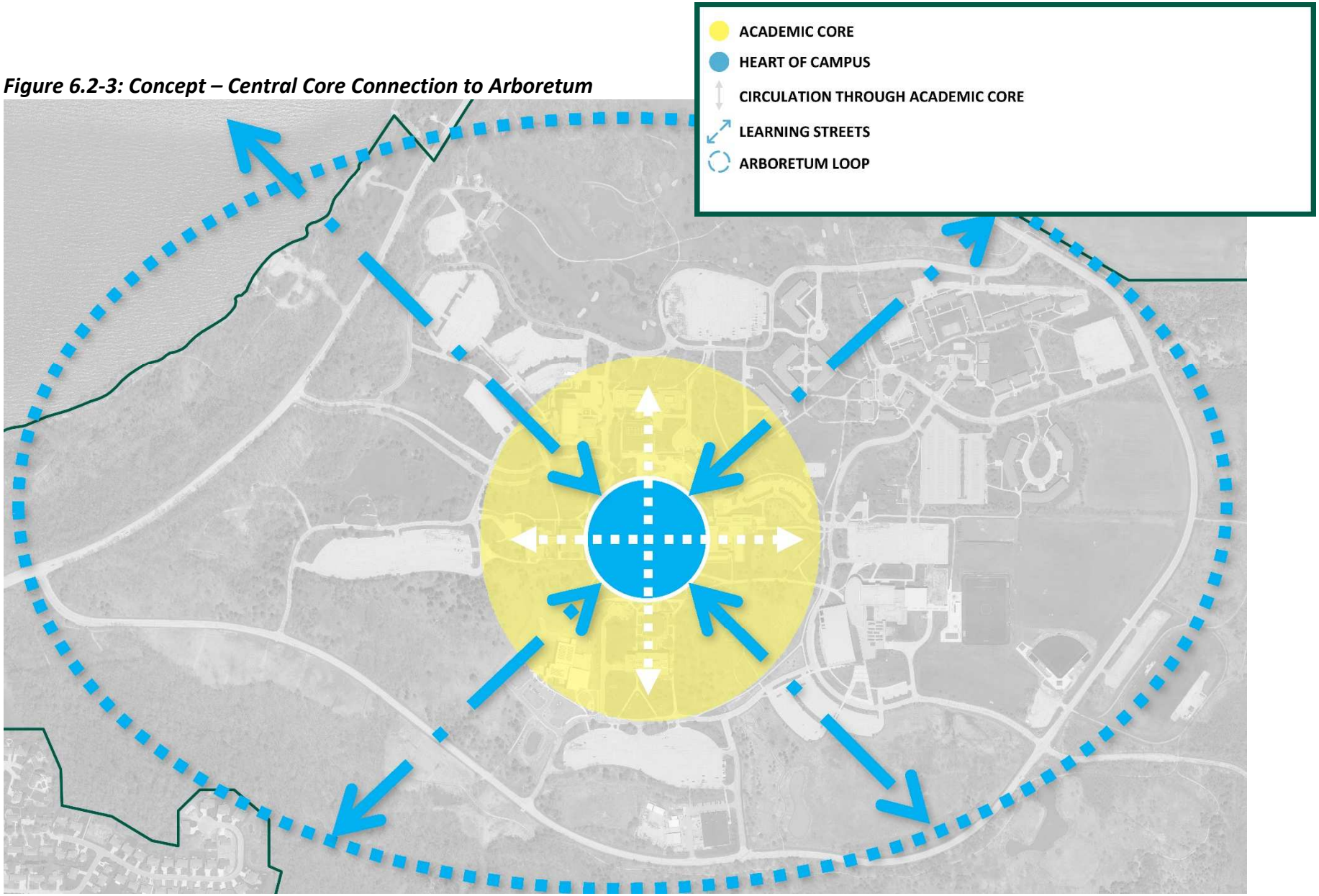
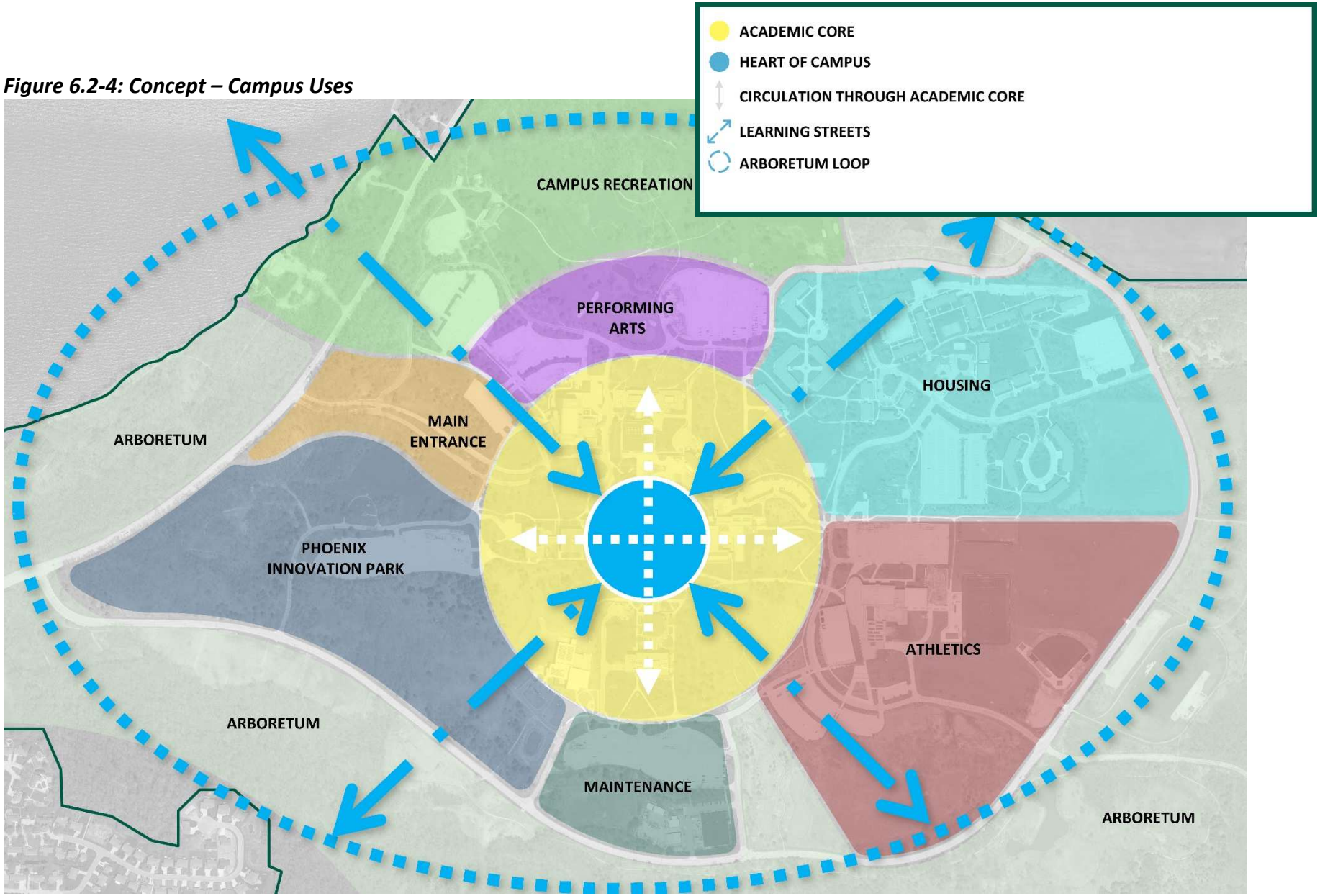


Figure 6.2-4: Concept – Campus Uses



6.3 Campus Organization

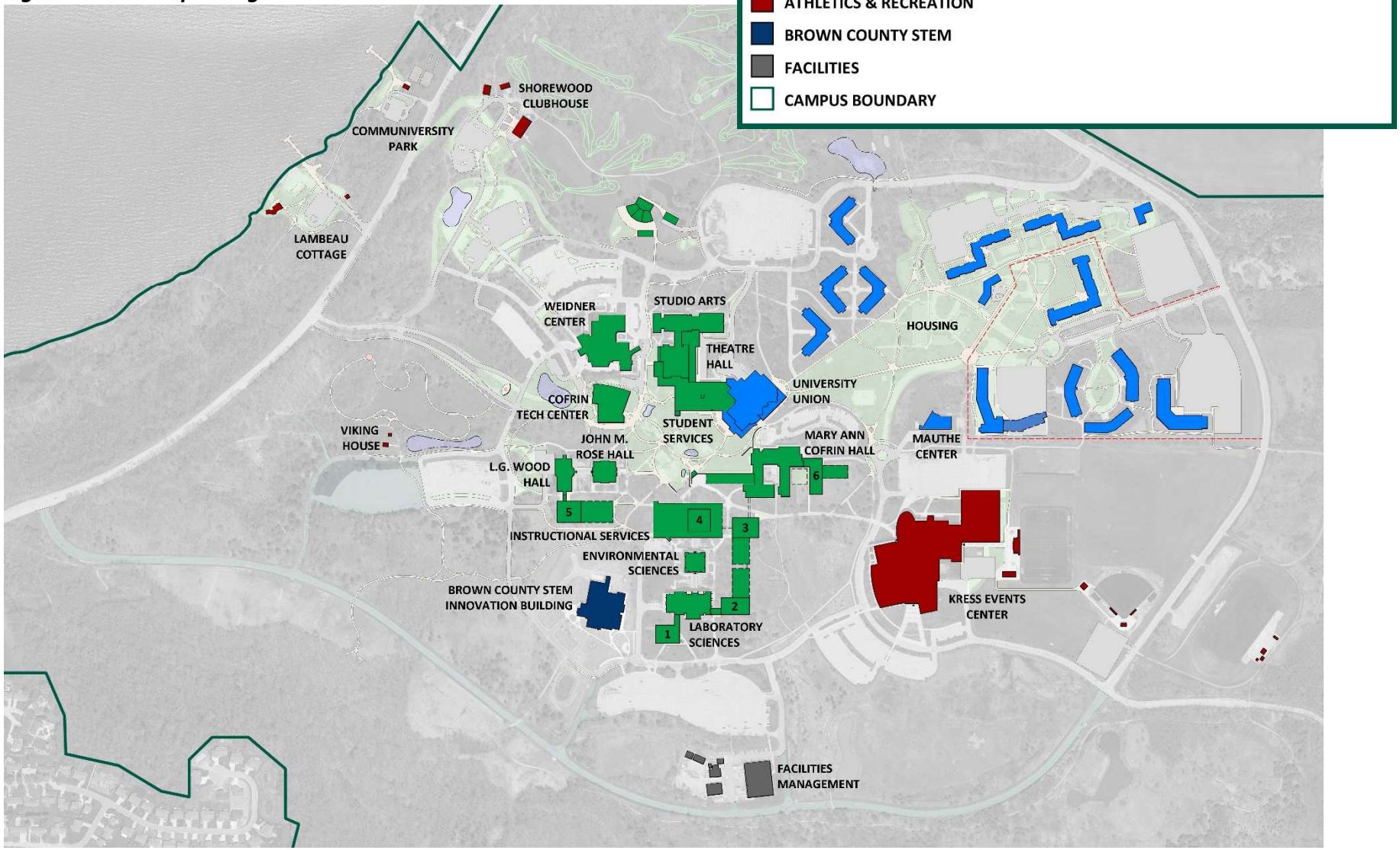
The UW-Green Bay campus has been divided into distinct zones based on building use for its entire existence per the original 1968 Comprehensive Development Plan. This proposal strives to reinforce the existing building and land use through the placement of new construction and by developing clearer pathways and connections between those zones while generally maintaining the same distinct neighborhoods.

Since the original construction of the academic core, Cofrin Library has sat at the heart. However, it is not the only building that serves as the campus's connection to the community; visitors to campus also utilize services and attend events at the University Union, Weidner Center, and Kress Events Center. Both the expanded Union and relocated Cofrin Technology & Education Center are connected through an enlarged outdoor Quad to create a dynamic heart of campus. Building placement, wayfinding, and parking is organized so visitors are brought directly to the center of campus and know exactly where to go.

Academic buildings are maintained along the existing spokes, in line with the original Master Plan. Locations for proposed academic buildings align with the spokes, reinforce the center of campus as the academic core, and create "mini-quads" within the spokes that offer indoor-outdoor circulation within the colleges. The northern spoke maintains a performing arts focus, strengthened by the placement of the amphitheater at the northern end.

The northeast quadrant of campus remains devoted to housing, with the primary entrance into the academic core coming through the University Union. The region due north of the academic core, formerly the golf course, is now reserved for campus recreation; pedestrian connections to Housing, the bayfront, and the Arboretum extend through this zone. Athletics remain the focus of the southeast corner of campus, with facilities and maintenance remaining due south of the academic core. The southwest quadrant then becomes Phoenix Innovation Park, still connected to campus but with its own distinct use and operation.

Figure 6.3-1: Campus Organization



Cofrin Technology & Education Center

The design implications of the replacement for Cofrin Library will have the greatest impact on the public's perception and interaction with the central core of campus of any project proposed by the master plan. The entry to the proposed Cofrin Technology & Education Center is adjacent to the relocated terminus of Main Entrance Drive. Visitors will be able to drop off directly at the front door. The adjacent visitor parking lot is clearly identifiable and provides sightlines and pathways to Cofrin, Wood Hall, and the Weidner Center. The building footprint is placed to the west of an existing steam tunnel. The concourse is intentionally disconnected from Rose Hall to the proposed site, demonstrating how new building projects or major renovations can work to achieve the goal of creating a more permeable Quad.

The Cofrin Technology & Education Center will have ideal vantage points to look down Main Entrance Drive toward the bay. The new Cofrin, Weidner Center, and the recently re-finished façade of Wood Hall will create a strong visual point of arrival for visitors as they turn the corner on Main Entrance Drive.

Our Strategic Priorities:
2: Advance inclusivity by creating a welcoming, accessible, and equitable environment.
5: Increase visibility and leadership in sustainability.
6: Strengthen the culture of continuous improvement.

Our Goals and Principles:
1(a): Forward facing campus with a bold gesture while transitioning the physical identity and entry to campus.
2(b): Welcome visitors and strengthen the identity of campus arrival.
6(a): Enhance interior/exterior connections by creating an open and visible quad while reenforcing the academic core.
8(b): Integrate additional stormwater management measures while reinforcing the campus ecology.
8(c): Eliminate the invasive, existing understory entry.

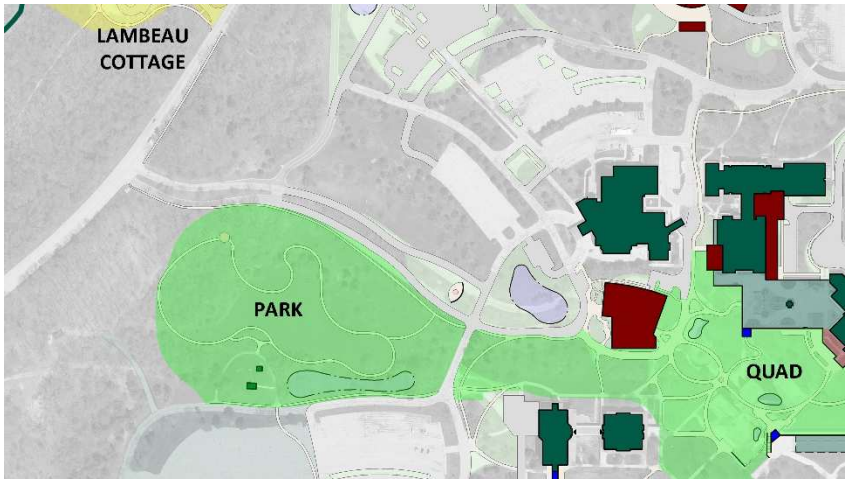


Figure 6.3-2: Main Entrance Drive detail

Quad and Union

Locating the new Cofrin Technology & Education Center northwest of its existing location provides opportunities to re-imagine the Quad. Much of the existing terrain and topography currently in the Quad will go away along with the existing Cofrin Library, as will the concourses connecting Main Entrance Drive, Cofrin Library, and Student Services. At-grade permeability, visible pathways and building entries, and more usable space within the Quad will create a cohesive central outdoor space that connects all wings of the academic core.

Concourses connecting theme colleges remain (Wood-Rose, Laboratory Sciences-Environmental Sciences-Instructional Services, Theatre-Studio Arts), but connections into and through the Quad are moved outdoors. Breaking the concourse will create opportunities for cross-disciplinary interaction, and clearly marked building entries will be in line with pathways. Outdoor pathways will also provide quicker routes to destinations and section off portions of the Quad for different activities.

The entry to the University Union from Housing is reconfigured to align with Phoenix Park pathways. Direct outdoor connections are created from the Union into the Quad by removing the concourse to May Ann Cofrin Hall, and to the Student Services plaza by expanding the Union on the southwest side.

Our Strategic Priorities:

1: Support the whole student from their experience in the classroom to co-curricular activities. Improve student engagement and satisfaction.
2: Advance inclusivity by creating a welcoming, accessible, and equitable environment.
5: Increase visibility and leadership in sustainability.
6: Strengthen the culture of continuous improvement.

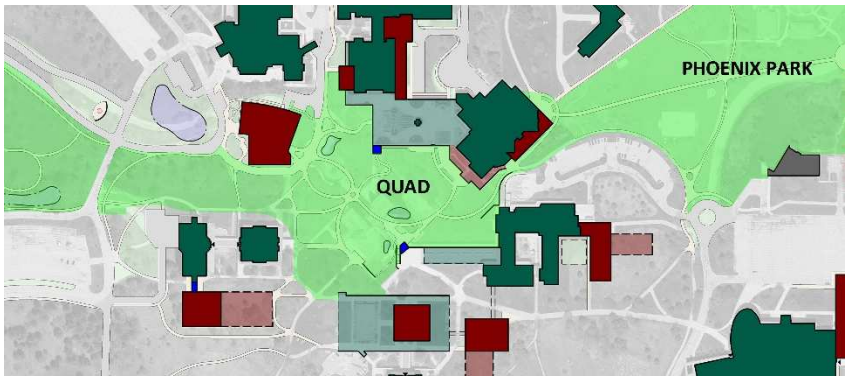
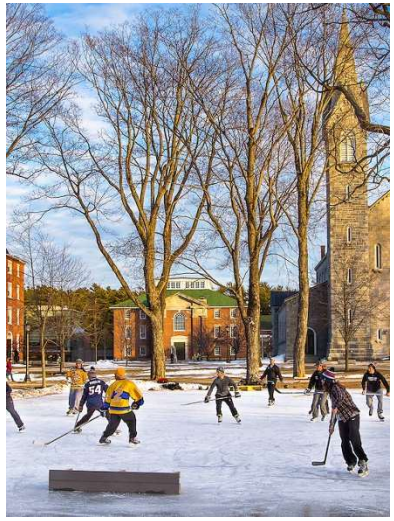


Figure 6.3-3: Campus Core/Quad detail

Our Goals and Principles:

2(c): Strengthen circulation and wayfinding within campus.
4(a): Provide ample and well-designed physical sidewalks and roads that support connections to the campus core.
5: Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus
6: Enhance / Activate the Quad while Reinforcing the Academic Core.
9: Identifiable Concourse Entries from within the Quad



Figures 6.3-4 to 6.3-7: Examples of engaging college campus Quad activities. These central outdoor spaces can be hubs for learning, studying, engaging with the campus community, physical activities, and college campus traditions in all seasons and weather conditions.

Performing Arts

Theatre Drive becomes pedestrian-focused when the Quad expands, as the connection to Main Entrance Drive is replaced with a roundabout to serve the Weidner Center and an expansion to Theatre Hall. The two entries are connected via covered walkway. Another expansion on the east side of Theatre Hall provides loading dock, scene shop, and classroom spaces and connects to the reconfigured service drive to the University Union loading dock.

Part of the former golf course is reimagined as an outdoor amphitheater to be used by UW-Green Bay and the community for summer performances and events. Pathways connect to existing Weidner Center parking and to the Quad, with a backstage area accessed from the Studio Arts parking lot. The amphitheater is placed to the south of existing stormwater retention basins which will remain in use.

Our Strategic Priorities:

1: Support the whole student with co-curricular activities. Improve student engagement and satisfaction. Take advantage of programming resources of the Weidner Center.
4: Enhance community connections

Our Goals and Principles:

2: Welcome visitors to campus.
3: Community Connectivity
4: Reduce pavement and redundant roadways.
5: Enhance the Interior / Exterior connections

Figure 6.3-8: Quad, Looking West Toward Cofrin Technology & Education Center

Housing

The Housing master plan was used as the guiding principle behind this portion of campus. Aging small-scale structures are replaced by more traditional residence hall-style buildings. Pedestrian connections from residence halls to the University Union are prioritized over vehicular traffic, with parking lots and roads shifted closer to East Circle Drive. Leon Bond Drive and Walter Way are still connected through parking lots, but roundabouts are placed at the ends of the streets to discourage non-student vehicular traffic through the housing end of campus. There are 2, 079 existing beds. 460 beds will be added in phase 1 of the housing master plan and 703 total long term.

Our Strategic Priorities:
1: Improve student engagement and satisfaction. Support the whole student with co-curricular activities.
2: Create a welcoming and equitable environment.

Our Goals and Principles:
1(a): Forward facing campus through campus improvement projects.
4(a): Provide ample and well-designed physical sidewalks that support connections to the campus core.
5(a): Celebrate the significance of the open spaces within campus lands.
6(a): Provide additional opportunities for chance interaction by focusing attention on developing high-quality exterior spaces between and around existing and new buildings.
10: Update On-Campus Living Accommodations

Athletic Facilities

A replacement turf gym is proposed in the same location as the existing turf gym. The footprint, which is half the size of a soccer field, grows into the parking lot on the north side of Kress. New booster parking is created to the south of the turf gym. The existing softball field parking lot is to be paved, and a new path between the softball and soccer fields is added.

Space in Kress Events Center is also considered for the sports sciences program and a new weight room. This can be housed in the existing building footprint by repurposing the pool, or in an addition on the southeast side of the building adjacent to the main entry.

Our Strategic Priorities:
Support the whole student with co-curricular activities.
Improve student engagement and satisfaction.
Create a welcoming and equitable environment.

Our Goals and Principles:
1(a): Forward facing campus through campus improvement projects.
4: Reduce pavement and redundant roadways.
4(a): Provide ample and well-designed physical sidewalks that support connections to the campus core.
5(a): Celebrate the significance of the open spaces within campus lands.
6(a): Provide additional opportunities for chance interaction.

Phoenix Innovation Park

The southwest quadrant of campus is to be redeveloped as a series of public/private parcels (the initial parcel is the completed and operational Brown County STEM Innovation Building). Completing the inner loop road from the STEM Building to Wood Hall and removing South Circle Drive intersections establishes Main Entrance Drive as the primary entrance to campus. Each parcel is roughly 3.5 acres for a building and dedicated parking. Parking could be shared across multiple parcels, depending on the developer's intentions. Multiple parcels could also be sold to the same developer—doing so should be done in a way that holistically considers proposed vehicular/pedestrian circulation paths and utility easements. Utilities should be installed ahead of time to create an organizational framework for the park's growth.

Existing open space is preserved and extended beyond the existing Viking House, strengthening the connection between the academic and professional sides of campus. Between Rose Hall and Cofrin Technology & Education Center, serving as a visible destination and connecting the academic and professional spheres of campus activities. The proposed park along Main Entrance Drive will provide a series of restored prairies, removal of invasive understory, preservation of existing large trees, and mowed walking paths. Stormwater management for Phoenix Innovation Park is separate from the rest of campus and is controlled at locations along the periphery of the properties.

Sizing and parceling of Phoenix Innovation Park properties will be driven by the market of prospective developers. Connecting the inner loop would create the eastern boundary of the park, so the logical direction of growth would be from east to west. Roads could be added and some of the more difficult terrain on the west side of the park could be adjusted as lots are sold.

Our Strategic Priorities:

2: Provide a robust university community that is inclusive through the creation of a welcoming and equitable environment.
3: Evolve foundational business practices and processes.
4: Enhance Community Connections and University Philanthropy.
5: Increase the amount of environmental partnerships and research.
6: Strengthen the culture of continuous improvement.

Our Goals and Principles:

1(a): Forward facing campus through campus improvement projects.
1(b): Transition the physical identity of campus to focus on campus location along the bayfront.
3(a): Plan amenities which bring the community onto campus for business partnerships, events, and enjoyment of the natural setting.
5: Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus

Academic Buildings and/or Building Additions

New academic buildings and/or building additions should be placed at the ends of the "spokes" making up the academic core as program growth dictates. The new building / addition provides a clear entry point at its connection to the existing adjacent building. Proposed new building locations are coordinated with existing underground utilities; opportunities for future expansion of the new buildings are also identified.

If new academic buildings are to be placed on the concourse system, the circulation pathways should be integrated with true "people pockets" for conversation and interaction as opposed to the narrow alcoves which are in the current concourses. These pockets can become formal meeting spaces or informal lounge spaces and should provide views to the outdoors; they can even be part of the new building entry. Entry into the concourse should be clearly defined and accessible from the building entrance.

Our Strategic Priorities:
2: Provide a robust university community that is inclusive through the creation of a welcoming and equitable environment.
6: Strengthen the culture of continuous improvement.

Our Goals and Principles:
1(a): Create bold gestures with an eye to the future through campus improvement projects.
2(a): Create a working landscape at "spoke" entries to campus that removes the invasive understory through campus improvement projects.
2(b): Strengthen the identity of campus arrival
5: Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus
9: Identifiable Concourse Entries
9(b): Analyze the physical, budgetary and operational challenges associated with a full concourse system.
11(a): Design adaptive and flexible buildings which can be renovated and/or added onto as academic program needs change.

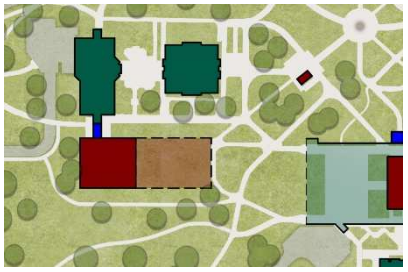


Figure 6.3-9: Wood Hall

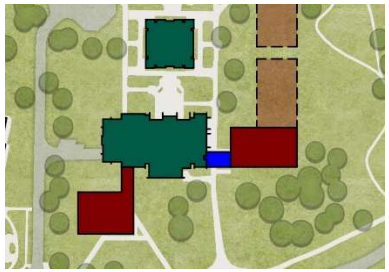


Figure 6.3-10: Laboratory Sciences

Figure 6.3-11: Connector/Building Entry Between Laboratory Sciences and Proposed Academic Building

6.4 Open Spaces

One aspect of UW-Green Bay that sets it apart from most college campuses is its natural setting. The proposals of the master plan seek to remove barriers to accessing the outdoors and utilize as much outdoor space as possible for students, the community, and to serve as a symbol of environmental and ecological resilience.

Our Strategic Priorities:
1: Support the whole student from their experience in the classroom to co-curricular activities.
2: Create a welcoming and equitable environment.

Our Goals and Principles:
5: Enhance the Interior / Exterior connections while Creating a Sense of Place Throughout Campus
6: Enhance / Activate the Quad while Reinforcing the Academic Core
7: Embrace, Protect, and Enhance the Arboretum and Natural Setting
8: Respect and Enhance the Campus Ecology
10(b): Provide new programmed activities for students

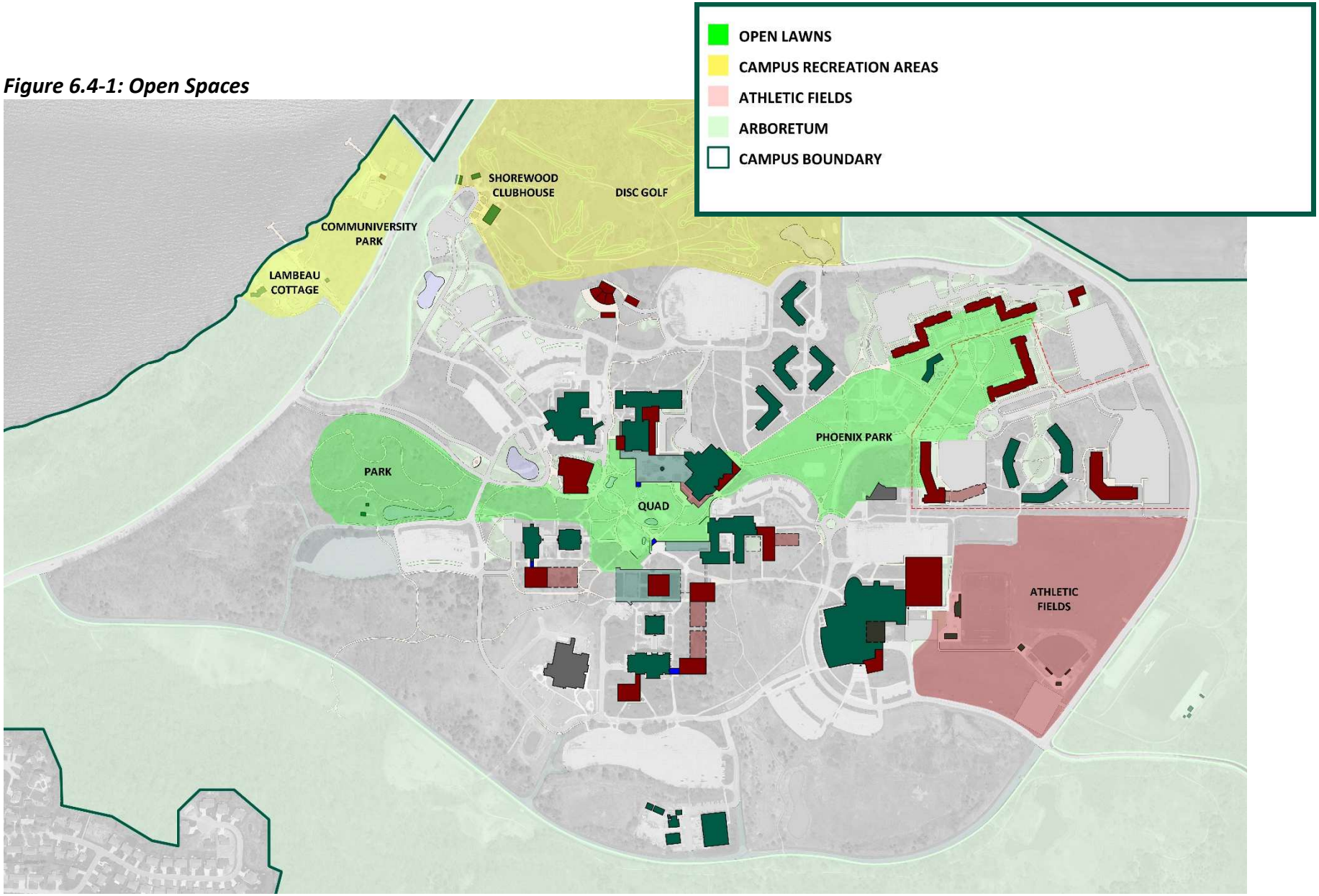
Open Lawns: Quad, Phoenix Park, Main Entrance Drive Park

The terrain which currently reins in the Quad is all manmade, built up to cover concourse tunnels or adhere to building level changes. By opening the northern entry from the performing arts wing and shifting learning streets to outdoor pathways, the Quad is fully accessible without having to enter a building. The placement of Cofrin Technology & Education Center and elimination of concourse tunnels allows for direct entry into the Quad from Rose Hall, Mary Ann Cofrin Hall, and Instructional Services. Logical pathways connecting academic buildings across the Quad encourage students, staff, faculty, and visitors to go outside. Zones within the Quad are conducive to patio seating, group gatherings, and year-round events.

The layout of Phoenix Park was taken into account as part of the Housing master plan equally to the placement of new residence halls. Phoenix Park is envisioned as an interactive space for the student body, effectively an outdoor extension of the meeting and lounge space provided in the University Union. Athletic fields are maintained in their existing location in the southeast quadrant of campus. The Viking House remains in its current location, but becomes the anchor for a proposed park along Main Entrance Drive at the connection to Phoenix Innovation Park from the heart of campus. Lower, cleaner landscaping in this park allows for expansive views from Main Entrance Drive and creates view corridors to the bay from Cofrin Technology & Education Center.

Other sculptural landmarks on campus are shifted to prominent locations in these proposed lawns. The “Phoenix Rising” sculpture currently at the Cofrin Library entrance is shifted to a terrace within the Main Entrance Drive roundabout, where it greets visitors as they reach the inner loop road. The carillon bell tower currently outside the University Union entrance is placed at the center of the Quad.

Figure 6.4-1: Open Spaces



Rec Sports Zone in Shorewood Park

The closing of the Shorewood Golf Course after 90 years of operation created a significant opportunity for this planning effort to re-envision the area as a recreation sports hub and a destination for campus and the community at large. The plan responds to the existing layout of fairways, tees and greens to take advantage of infrastructure and vegetation massing already in place to re-create a diverse recreation sports hub, connected physically and visually to Communiversity Park and student housing. A renovated roadway approach puts the existing clubhouse building at the terminus of the vehicular route to the center of this new rec sports hub, allowing users to locate the destination at the end of the roadway. Renovation of the existing parking lots could provide bus drop-off and short-term parking, visitor drop-off, user and staff parking, and overflow parking; located between the rec sports lot and the Weidner Center lot offers proximate overflow parking for events.

The clubhouse is repurposed as a multi-use building that could serve as the face of the rec sports program but also provide modest concessions, restrooms, warming shelter services for winter skiing, rec sports staff offices, student rec organization spaces, materials storage and sales for access passes if the University chooses to require fees for disc golf course and/or skiing trail usage.

A large, gently sloping lawn would extend from the clubhouse to the east, providing a footprint for hosted or programmed events that could include table/chair sets ups, large event tents, or a series of smaller event tents. This zone could also function as the starting line for cross country running or Nordic skiing race events if the University was interested in hosting either local school district or collegiate events.

Two separate 9-hole disc golf courses are laid out within the compact footprint of the central area of the former 9-hole golf course. Both courses locate beginning and ending holes close to the clubhouse or connected via the existing path north of the stormwater pond. Each hole offers a short and long course option for players of all abilities to be able to play together but within varying levels of rigor and experience. Sequentially connected holes offer a diversity of user experiences while minimizing conflicts between users walking from one hole to the next and those playing through on any given hole. The overall layout organically responds to the existing vegetation and current trail and path networks, integrating them into the hole and overall course layout.

A series of regulation-distance cross country running courses extend from the proposed starting line on the large lawn space east of the repurposed clubhouse and traverse a network of existing paths or new mowable edges along historic fairways to provide a full looping series of distances. The female high school 2.5-mile course and male high school 3.1-mile courses loop through a series of open, semi-open and wooded areas north and east of the clubhouse within the core footprint of the new rec sports zone, finishing along the length of an existing fairway adjacent to the clubhouse, offering spectators the

ability to watch the start and finish from the same location, proximate to parking and the club house. The collegiate female 3.7 and male 6.2-mile courses extend farther to the east along existing campus trails and paths, crossing East Circle Drive, looping to the south and west before connecting to the core running trail network that finishes in the same location as the high school distance courses.

The rec sports zone takes advantage of the varying seasonal recreation opportunities offered by Green Bay's climate and provides winter skiing and snowshoeing opportunities that utilize a number of the same trail and path networks utilized by rec sports participants during the shoulder seasons and summer. A skate skiing course loops from the clubhouse around the large, central stormwater pond and back, providing skate skiers with a flat, wide, looping course that is easy to access by grooming equipment staged at the rec sports clubhouse ancillary buildings. Nordic trails also extend from the clubhouse, offering looping variations of distances within the core of Shorewood Park but extending out to encompass existing Nordic trails that are already being utilized through the arboretum zone to the west and southwest. Moving the visitor arrival, equipment rental and hub of skiing activity from its current location at Kress Center to the renovated Shorewood Recreation Building provides a singular hub for all recreation sports, is located near the main entry to welcome visitors and users from the broader neighborhood and community, and provides a singular location for outdoor recreation sports activities, equipment, offices, and maintenance.

Figures 6.4-2 through 6.4-5:
Examples of campus recreation and bayshore activities

Figure 6.4-6: Disc Golf, Skate Skiing, Nordic Trails

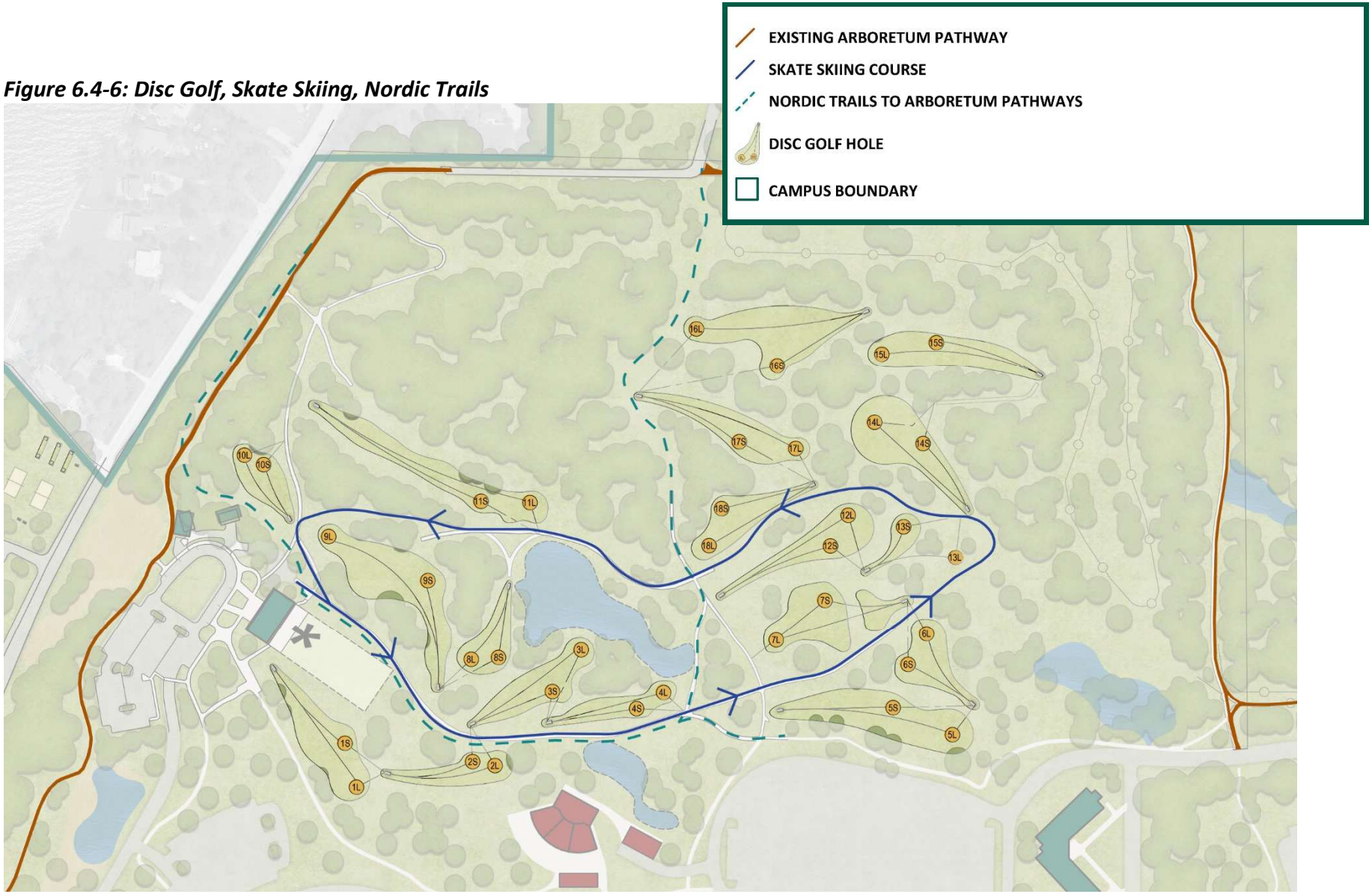
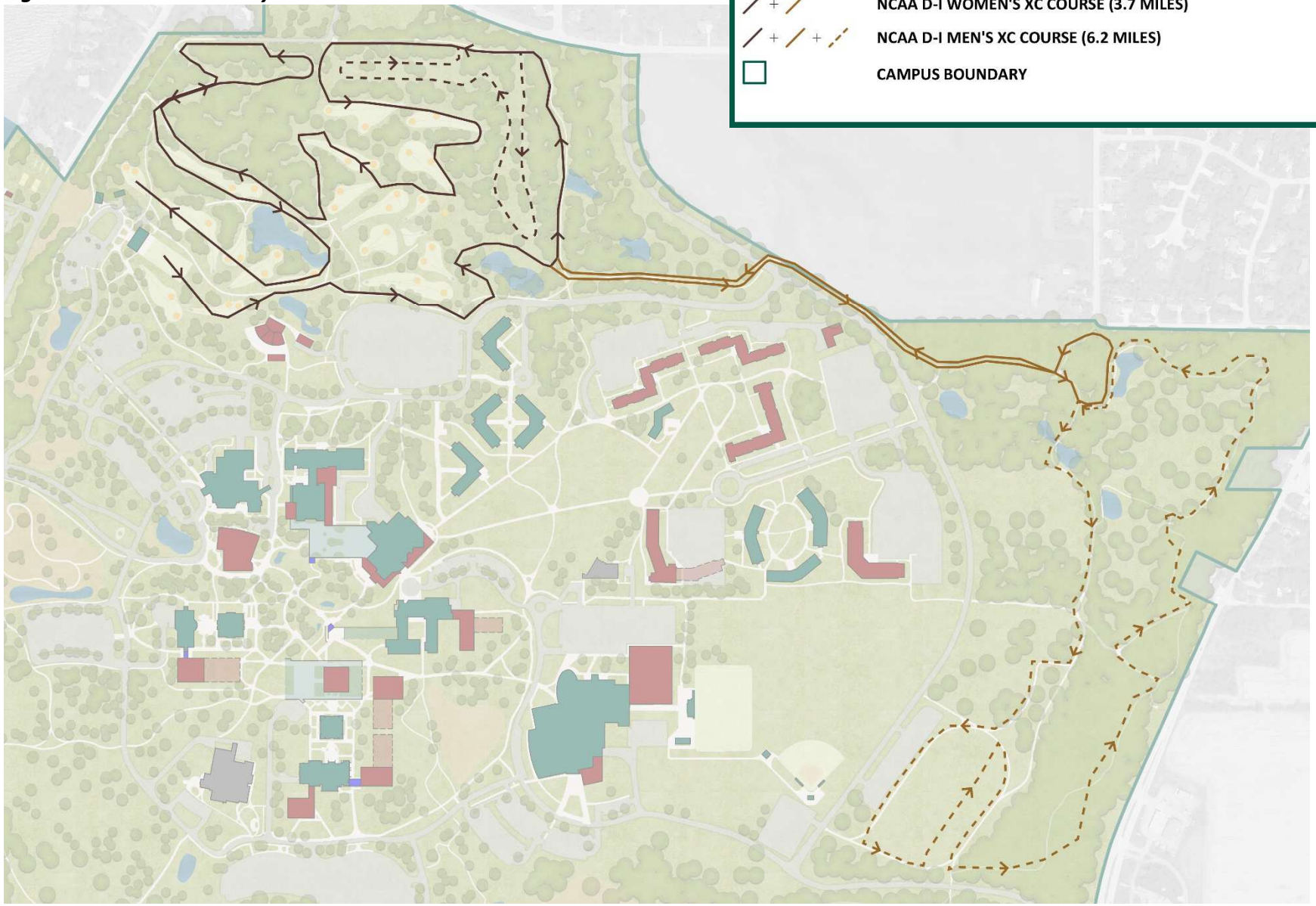


Figure 6.4-7: Cross Country Courses



Bayfront Enhancements: Recreation Sports Satellite Location

A careful balance of active, recreation-focused areas and passive green infrastructure at Communiversity Park preserves much of the existing open space sacred to this area of campus, maintains and enhances the ability to provided vegetative buffers to minimize the impacts of stormwater on the lakeshore hydrology, and provides parking, access and amenities to encourage wider use among campus and community visitors. New sand volleyball courts, horseshoe pits and picnic tables radiate from a relocated parking lot that moves existing pavement away from the shoreline, reducing the negative environmental consequences of paved parking adjacent a lakeshore edge and providing a visible destination from Nicolet Drive to the parking lot. A new shelter structure, envisioned to be partially enclosed and partially open-air, provides a covered spot for picnics and rec sports gatherings but could also provide restrooms and a satellite location for rec sports to operate modest concessions and rentals for kayaks, canoes, SUPs and other equipment associated with the lakefront location. A modest seasonal pier, vehicular access path and turn-around provides the ability for users to transport, store and/or launch small, unmotorized watercraft from this activated shoreline area.

Land and Water Conservation Fund act of 1965 (LAWCON)
Land development – eligible types of projects for development include but are not limited to: boating facilities, such as launching ramps and docks; swimming, bathing and water sports facilities, including beaches, swimming areas and bathhouses but require a comprehensive planning process.

A kayak launch will require a pier/dock/wharf individual permit from the Wisconsin Department of Natural Resources only if any of the following apply:

- The main stem of the pier is wider than 6’.
- The loading platform at the end of the pier is greater than 200 square feet.
- The pier exceeds the number of boat slips allowed. The stretch of shoreline making up Communiversity Park is roughly 700’ which would allow (15) boat slips.

The renovated and re-envisioned Communiversity Park extends to the southwest along the shoreline, transitioning in character from the existing rubble fill that protects the shoreline from ice and wave action to a sandy beach that extends all of the way to the more passive Lambeau Cottage zone. Pathways through the wooded shoreline transition zone link the more active rec sports zone with the passive Lambeau Cottage and surroundings. A large lawn space adjacent Lambeau Cottage is framed by the new sand beach to the north and a paved path to the south and provides a flexible, open lawn space for events hosted at the Cottage or ad hoc user activities. The existing parking lot is relocated to be more proximate to Nicolet Drive and provide an important physical and visual buffer between paved parking and the shoreline. A public boat launch with turn-around space and a seasonal dock support the re-envisioned Lambeau Cottage zone as a university asset, a community destination, the new and intentional access point to Cofrin Arboretum, and one of the few accessible open spaces along the shores of the Bay of Green Bay.

Figure 6.4-8: Communiversity Park and Lambeau Cottage

6.5 Entry & Arrival

Future building and grounds projects at UW-Green Bay should be implemented with an eye toward improving the entry and arrival experience. Clearly identifiable and readable entry signage, circulation pathways, and destinations will make the campus more forward-facing and welcoming to current users, prospective students, and visitors from the community.

Primary campus entry signage is placed at two intersections: Nicolet Drive/Main Entrance Drive and East Circle Drive/Leon Bond Drive. Visitors to campus are greeted with a clear view of their destination from either entry point, regardless of their purpose for coming. Driving up Main Entrance Drive reveals the Weidner Center (performing arts), Cofrin Technology & Education Center (heart of campus), and Wood Hall (academics); driving up Leon Bond Drive reveals the Kress Events Center (athletics) and curves around to the University Union (meetings, events, and services). Additional campus signage should be clear and easy to read from a distance, simplified by placing all academic buildings along the inner campus loop.

Major entry points are as close to parking as possible and easy to identify from a distance. The entry points at the ends of the academic spokes are envisioned as light, airy structures with informal lounge space and direct connection to the concourse system.

Figure 6.5-1: Major Entry Points

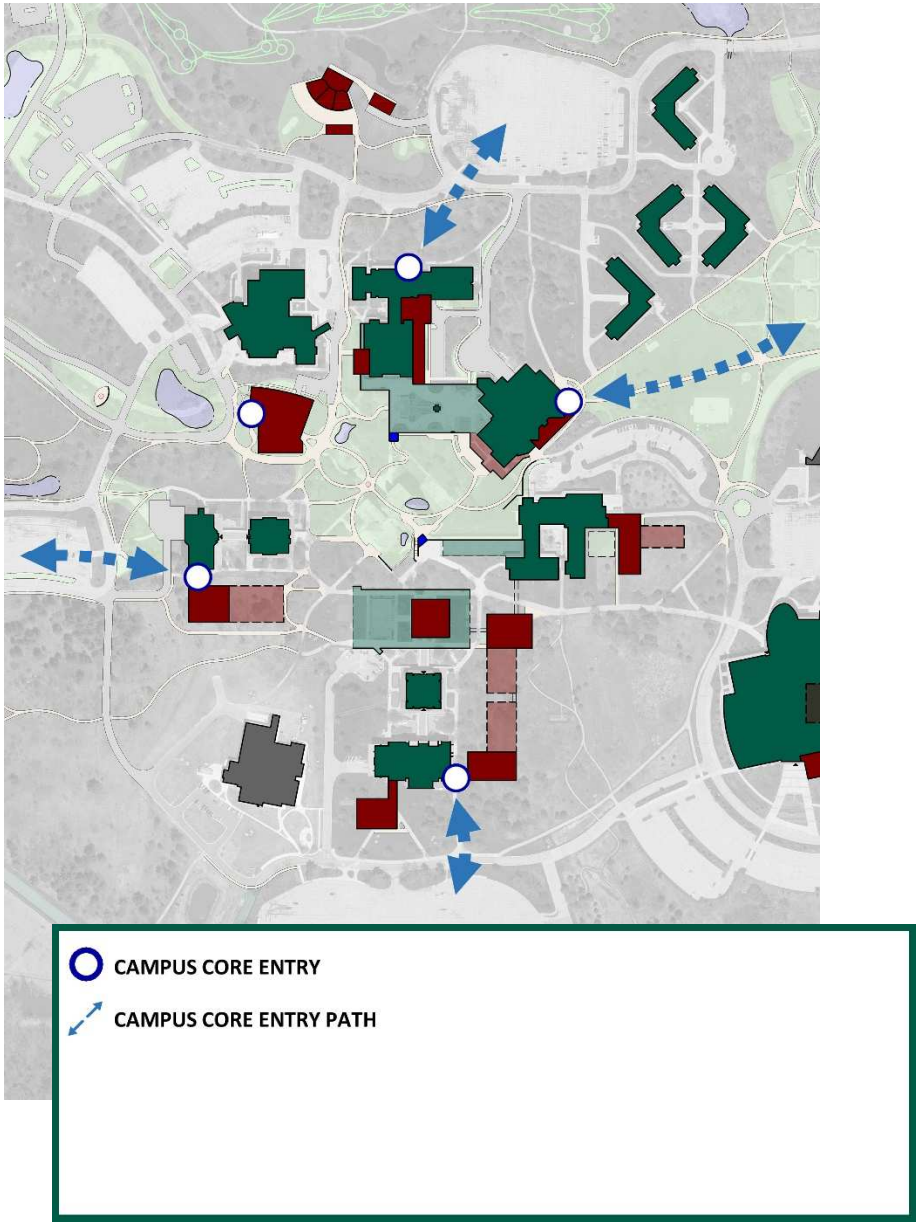
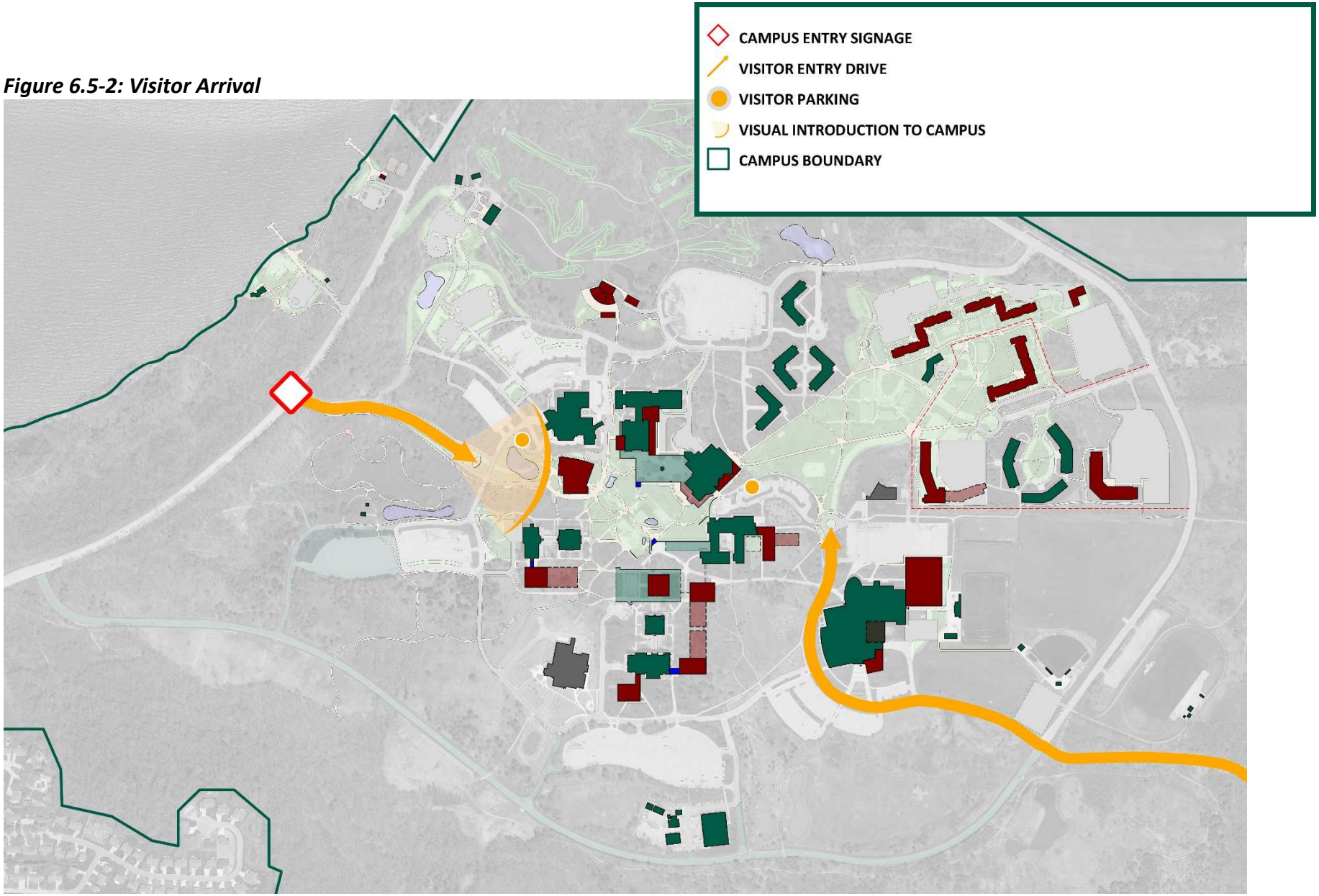


Figure 6.5-2: Visitor Arrival



6.6 Pedestrian Circulation

Where changes to building locations and open spaces are proposed, improvements to pedestrian circulation are to be made in conjunction. Outdoor circulation is used as a tool to strengthen the "learning streets" concept from the original master plan. Where renovations impact pedestrian circulation, pathways are aligned with major entries and coordinated to provide quick access to the different campus zones.

Pathways should be developed with connections between building and land uses in mind and should have a clear destination at a major entry point. When crossing through open areas, pathways should help to divide outdoor spaces. These areas, coupled with landscaping and placement of other outdoor amenities, create a dynamic experience that brings people outside and engages them with their natural surroundings.

Arboretum pathways are existing, but connections to campus elements should be considered. With South Circle Drive's conversion back into greenspace, vehicular access is shifted to Lambeau Cottage. Connection points to the Arboretum are introduced at the Shorewood Clubhouse and both north and east ends of Housing. Existing Arboretum connections on the south end of the academic core are maintained.

Figure 6.6-1: Pedestrian Circulation in Academic Core

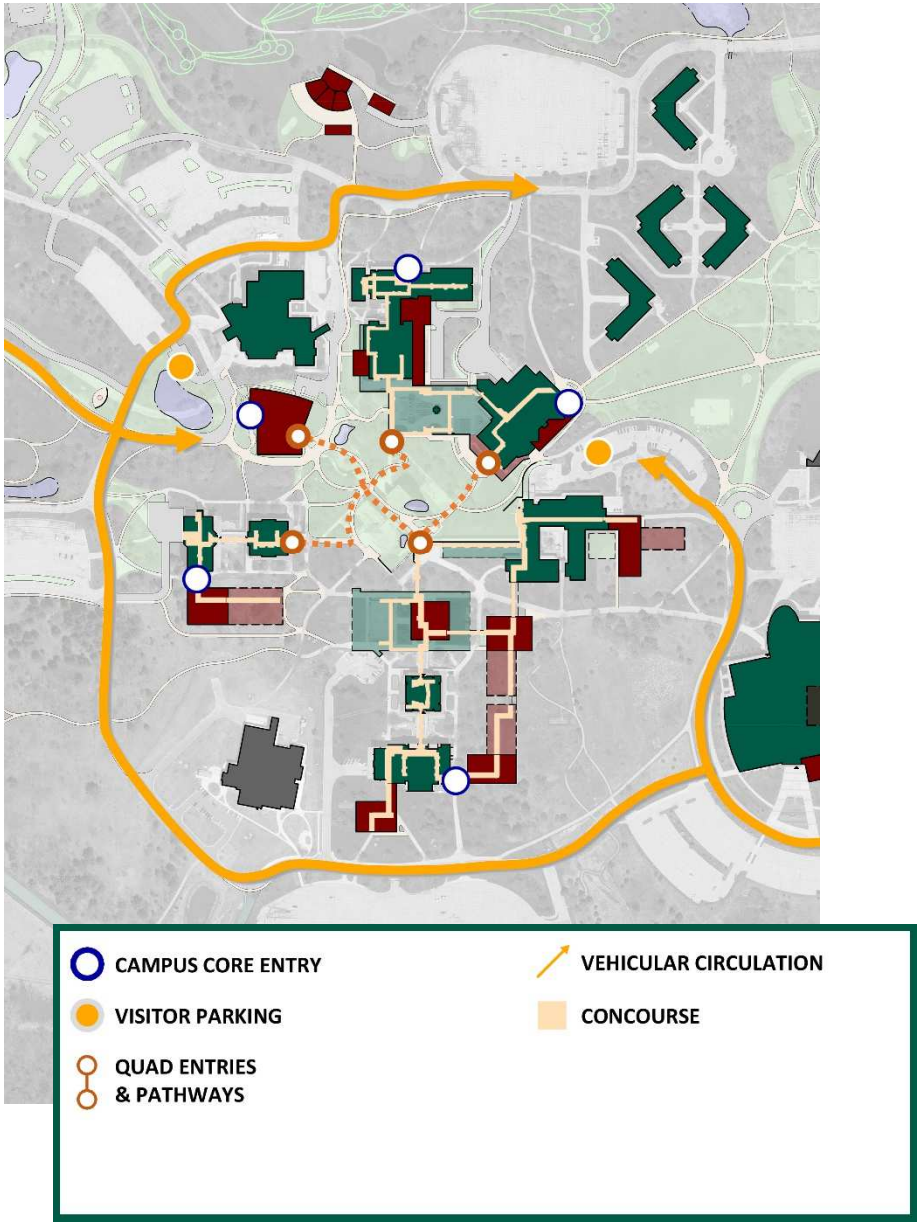
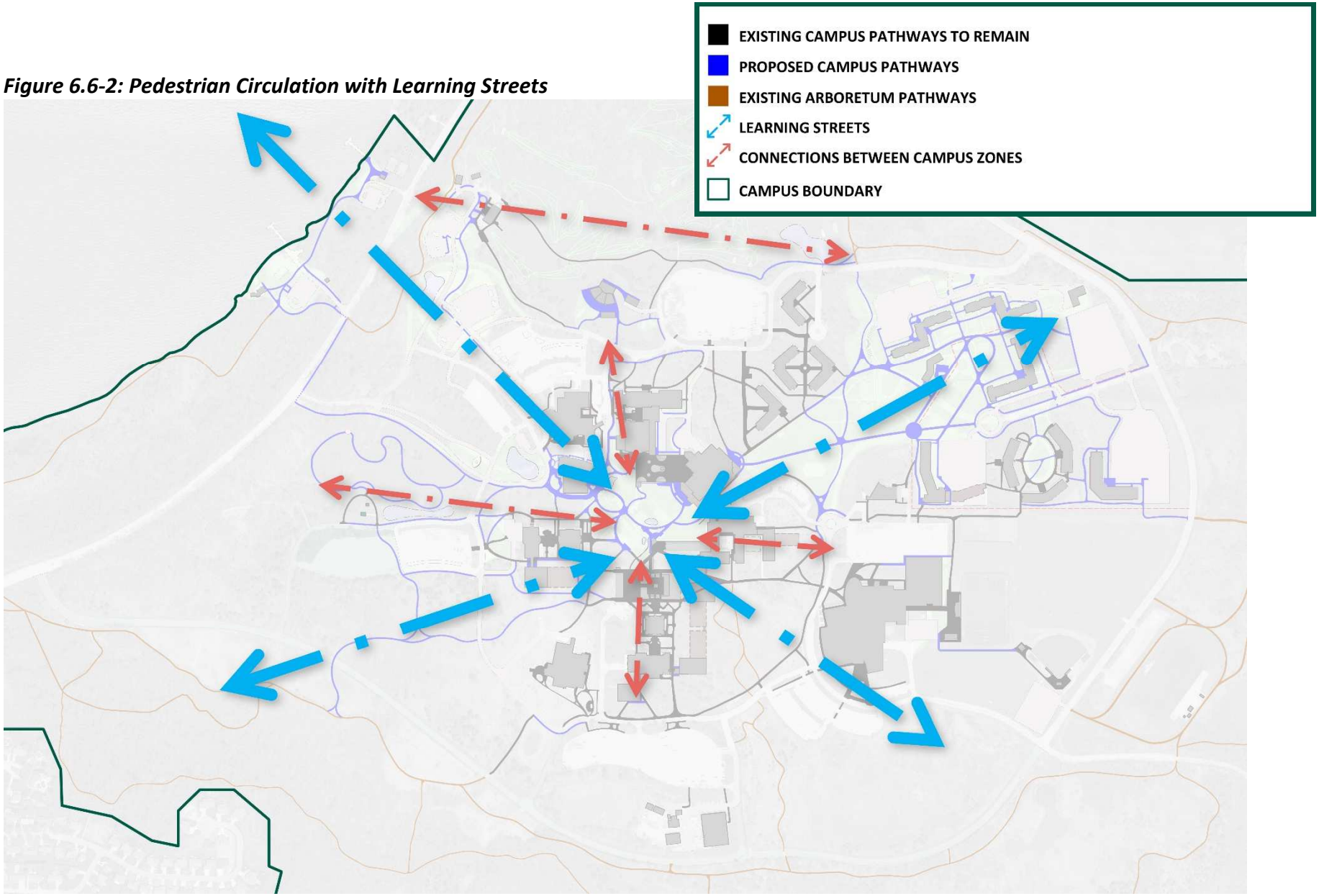


Figure 6.6-2: Pedestrian Circulation with Learning Streets



6.7 Vehicular Circulation

There are two primary drivers behind the master plan's proposal for vehicular circulation improvements: visitor experience and campus maintenance. Eliminating South Circle Drive along the outer loop creates two clear entry points into campus: Main Entrance Drive from the west and Leon Bond Drive from the east. Both entry points lead drivers to an inner loop which wraps around the academic core with visitor parking situated at either end of the loop. The inner loop is filled in by connecting Technology Way between the Brown County STEM Innovation Building and Wood Hall. North and East Circle Drive then become secondary roads primarily serving the student body (the connection between Walter Way and Leon Bond Drive is removed as part of the Housing Master Plan). North Circle Drive and the service drive leading to the University Union loading dock are also reworked to improve turning radii for delivery drivers.

The master plan proposes reducing the overall amount of pavement over the long term. The largest decrease is due to the removal of South Circle Drive and the west end of the Wood Hall parking lot where Phoenix Innovation Park is created. The proposed improvements to vehicular circulation will both improve wayfinding and reduce the total amount of paved area by roughly 11 acres.

While the current quantity of parking stalls is sufficient, their locations are reconfigured to provide clearly visible pathways to building entries. Visitor parking is placed nearest to the academic core for ease of wayfinding. Parking around the academic core remains intact with the exception of removing the west end of the Wood Hall lot. Housing parking is shifted to the periphery, leaving the center open for pedestrian circulation and Phoenix Park.

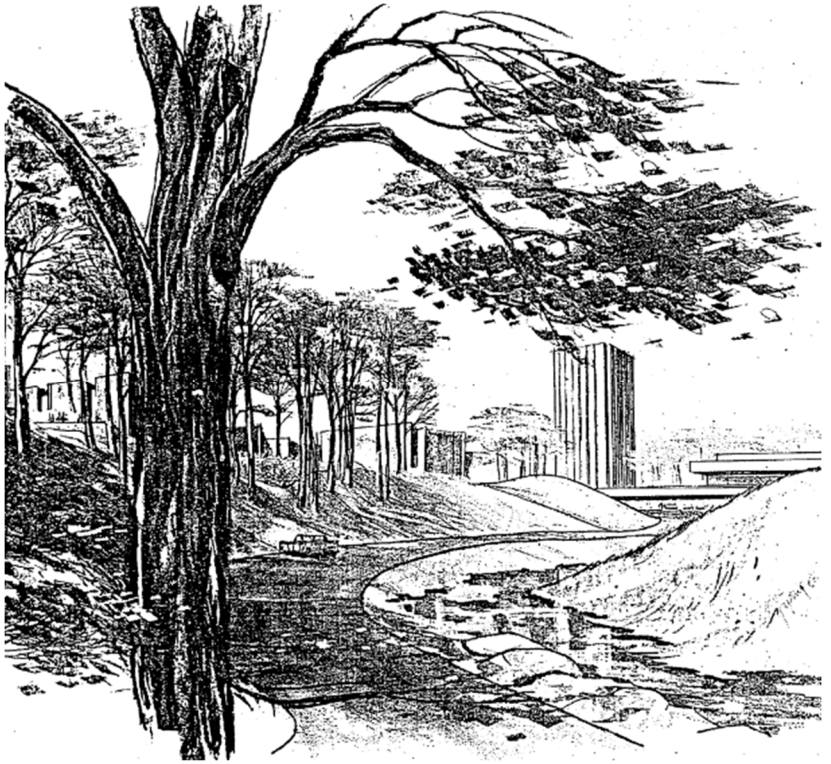


Figure 6.7-1: Campus Entrance rendering from 1968 Master Plan

Figure 6.7-2: Existing, Proposed, and Removed Pavement

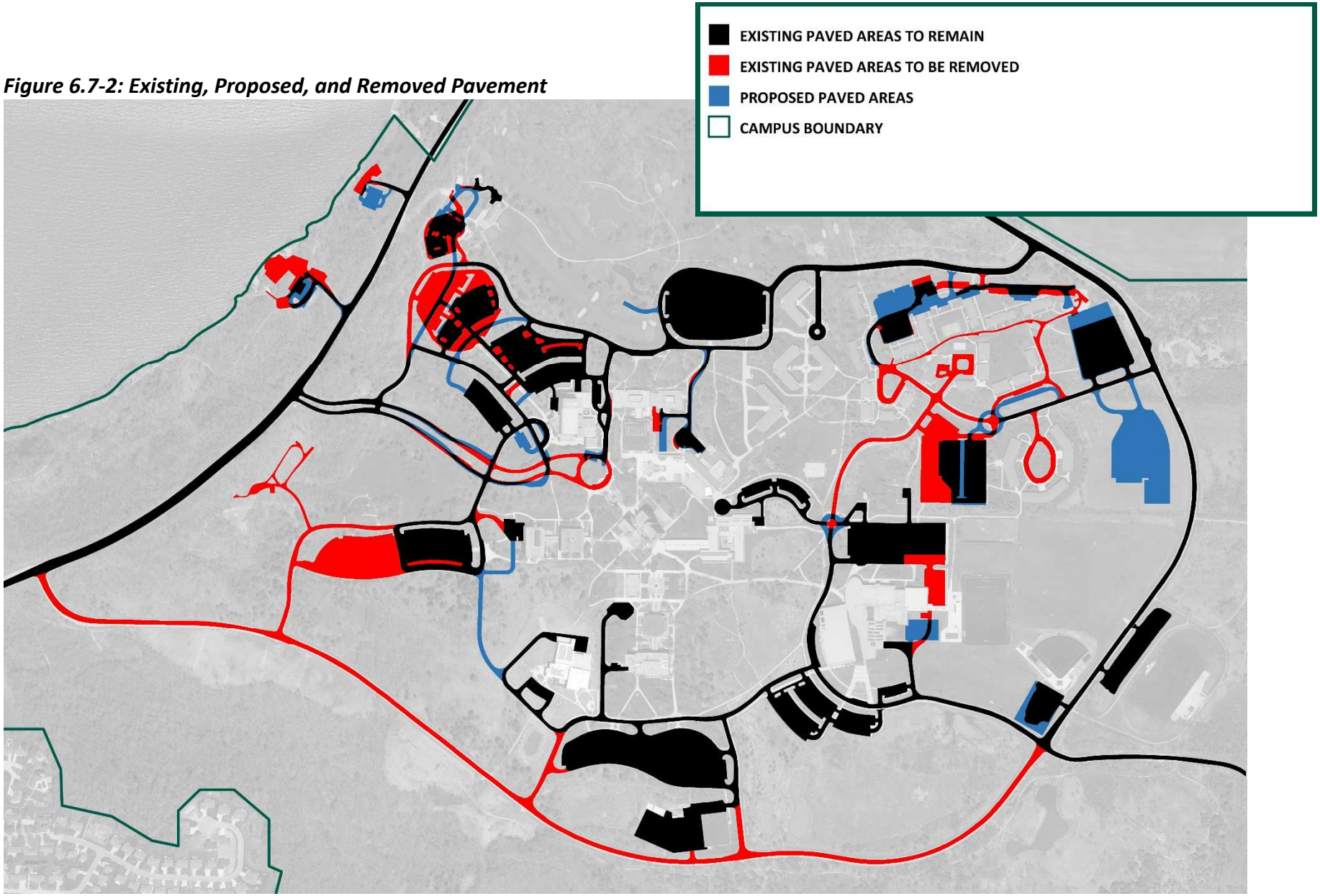


Figure 6.7-3: Vehicular Circulation

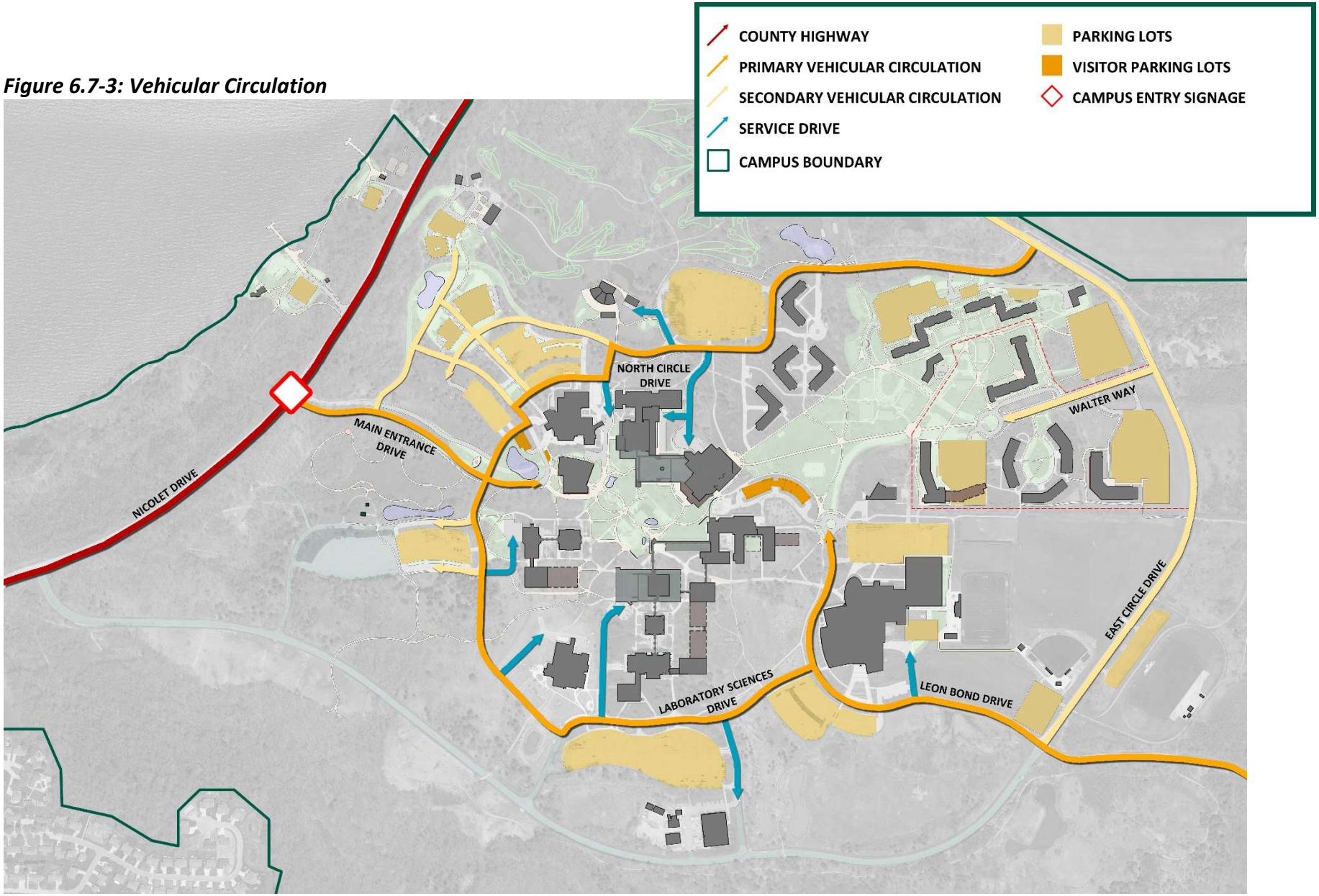


Figure 6.7-4: Main Entrance Drive, Looking East Toward Cofrin Technology & Education Center

6.8 Utilities

This campus assessment reviews the overall condition, capacity and layout of the utilities and the ability of the utilities to meet the needs of the campus for a minimum of the next 20 years to coincide with the master plan. Strategies and upgrades are based on new proposed buildings, buildings being remodeled, and buildings proposed for demolition as identified in the master plan. Strategies also consider the impact of the building changes to the boilers, chillers, electric services, and other underground utilities.

6.8.1 Water, Sanitary, & Storm

Future buildings on the UW-Green Bay campus consist of a building addition to the University Union, Cofrin Technology & Education Center, and residence halls in the housing quadrant. A potential future addition to campus is the Phoenix Innovation Park that will utilize roughly 40 acres for private businesses to open a location on campus. These 40 acres are expected to be split up into 12 lots extending from Main Entrance Road, South to South Circle Drive, then cutting east to STEM Building while staying south of the Wood Hall lot. New water, sanitary, storm utilities will be required for each lot.

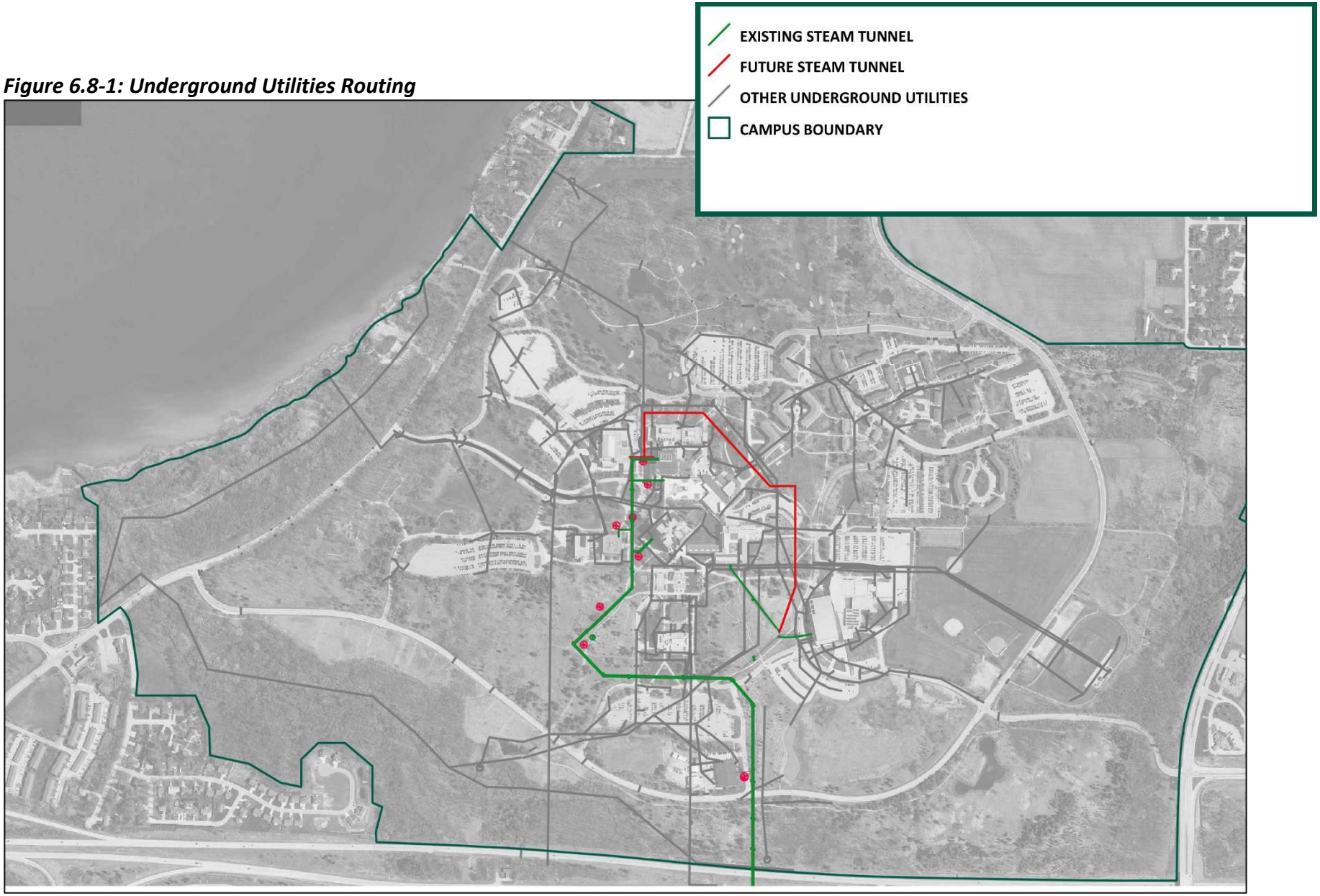
University Union

Water utility lines are located northeast of the University Union and service a water hydrant at the northeast corner of the loading dock cul-de-sac. The water line for the hydrant service is located within the future Union addition footprint. This connection is proposed to be shifted northeast, outside of the footprint, with the hydrant service line routed north around the future footprint. The hydrant has been relocated to accommodate adjustments to University Union Court.

Sanitary sewer for the building currently connects to the Union from the Quad (southwest corner of the building). This line drains to the west though campus infrastructure. At this point, there are no known new sanitary connections associated with the building addition that will require additional sanitary sewer on site. Sanitary sewer was not located during the site survey but has been added to the survey based on campus utility records and mapping.

Storm sewer has two main areas of review within the project limits. The first storm sewer area is located in the patio area and along the north side of the Union. A new storm sewer line is proposed from near the east Union entrance, along the east side of the building, then along the north side of the building before connecting into a manhole located along the east side of University Union Court. A separate storm sewer main north of the future water main connection will require storm manhole and main removal and replacement. These storm mains are proposed to remain separate systems to maintain similar drainage patterns to existing conditions.

Figure 6.8-1: Underground Utilities Routing



The second storm sewer area is University Union Court. Widening the road will require relocating the inlets along the road. Storm sewer west of University Union Court, as noted in the Proposed Utility Exhibit, will be removed and replaced to accommodate drainage for the new parking lot. The majority of the catch basins in this vicinity have clay pipes that will require removal and replacement between structures to ensure the pipes are structurally sufficient with an increased lifespan.

Cofrin Technology & Education Center

Existing water, sanitary and storm services are expected to be sufficient to handle needs for the new building in its proposed location.

Housing

The proposed residence hall to the east of Mauthe Center will require new utilities branching off of the campus loop. The location of this residence hall will relocate parking stalls to an expansion of the East Housing Parking Lot, approximately 600 feet east of the Housing Parking Lot. These parking lots each generally drain from southeast to northwest. However, the Residence Hall and Housing Parking Lot drain to Golf Pond #1, where drainage from the East Housing Lot drains to Dragonfly Pond.

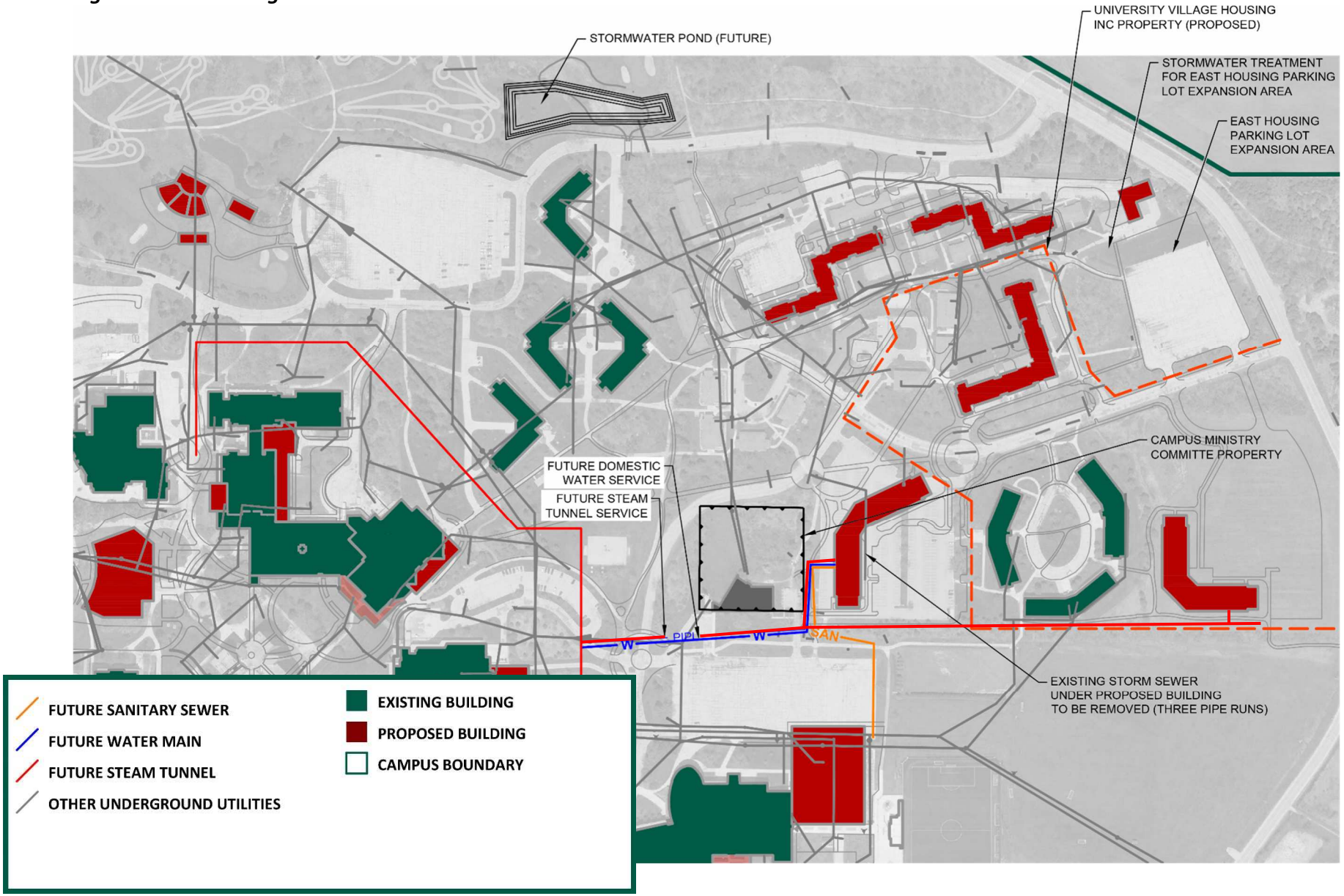
The steam tunnel is proposed to branch off to the east between the Mauthe Center and the Kress Parking Lot. This portion of the steam tunnel will provide hot and chilled water to the new residence hall. A water utility line is proposed to follow the steam tunnel system and to service the residence hall.

Sanitary sewer for the new residence hall is proposed to connect to an existing sewer line northeast of the Kress Events Center. The sanitary line will follow the east side of the Kress Parking Lot, then turn west, then north along the west side of the Housing Parking Lot before connecting into the future Residence Hall.

A retention pond is proposed on the north side of North Circle Drive near Thompson for future residence halls proposed on campus. Under existing conditions, drainage for the Residence Hall and Housing Parking Lot drain through this area before draining northwest to Golf Pond #1. The future pond will follow this existing drainage pattern. Options were reviewed for sizing the pond. Per discussion with UW-Green Bay Facilities staff, it was determined that the most cost-effective option would be to size the pond for future loading based on three additional residence hall buildings / parking lots with similar footprints as the building and parking lots in the Housing master plan. This pond area will require a wetland determination and/or delineation and review for stream navigability.

Until the future residence halls are implemented, a small stormwater treatment device is proposed at the south corner of the Walter Way and Leon Bond intersection. The future expansion of the East Housing Parking Lot also has a stormwater treatment device proposed on the north side of the lot.

Figure 6.8-2: Housing Utilities



6.8.2 Steam

Over the time of the master plan the gross building square footage (GSF) of heated space on campus is projected to increase by approximately 77% (1,009,893 GSF) to 2,308,075 GSF.

There is currently only one steam route from the plant to feed the campus. The 12" main is adequately sized to handle proposed future steam loading. Based on the planned growth of Campus and need to keep steam services operational at all times its recommended to add an additional leg of 12" steam service and 8" condensate to the north end of campus. This leg of distribution would connect the west distribution arm with the east and a looped system around the main campus area a (see Appendix A - Steam Distribution Plan-New A.2). This leg of distribution allows provides the campus with ability to bring the Residence buildings on to the central distribution system.

6.8.3 Chilled Water

Over the time of the master plan the building gross square footage of air-conditioned space is projected to increase by approximately 57% (556,100 GSF) to 1,555,066 GSF.

The current plant equipment is old and nearing the end of useful life, its recommended to remove and replace existing chillers and cooling towers. The chilled water pumping system should be reviewed for implementation of a vari-prime distribution system to enhance energy optimization of the cooling plant.

Based on the campus growth plan it's recommended that a new larger tonnage electrical centrifugal chiller be implemented at the plant with associated equipment following the connection of New Residence Hall #1 to the system. This unit along with the current two machines that operate can provide adequate cooling needs for campus through the next 12 years of planned growth.

Based on the planned growth of Campus and need to keep chilled water services operational at all times its recommended to add an additional leg of 12" chilled water service to the north end of campus this is shown. This leg of distribution would connect the west distribution arm with the east and a looped system around the main campus area as shown Chilled Water Distribution Plan-New B.3. The current plant secondary pump sizing is of adequate size to handle the project growth for the next 12 years. However, once the year 13 plus implementation period where to be added to the system the pumps would not be sized to handle the load and require replacement.

6.8.4 Electrical Power

Over the time period of the master plan the gross building square footage served by the Campus electrical system is projected to increase by approximately 36% (,687) to 1,794,487 gross square feet.

The projected future demand for the facilities listed is 8,703 kW, or 42% of total system capacity. Capacity calculation is based upon Estimated Demand Load from similar facilities with centralized utilities.

The intent of a future primary system expansion is to connect the loop of the East and West Ductbank route via a north connector. The new ductbank would route North of Studio Arts and route South, East of the Union, Mary Ann Cofrin and connect at the Kress Center. Refer to the Primary and Signal Ductbank Plans, Appendix A.

6.8.5 Telecommunications

Most UW campuses are installing new OS2 optical fiber and migrating away from the use of multimode optical fiber as bandwidth requirement increase across the campus. A plan should be developed going forward to install new redundant Singlemode OS2 optical fiber and gradually move away from the older 62.5 micron and 50 micron multimode systems.

Based on Master plan building changes, it would be suggested to develop a burial signal duct pathways for redundancy vs. depending on steam tunnels and Skywalk pathways. On many of the UW campuses the steam tunnels were originally used for optical fiber backbone pathways and are now being replaced so the optical fiber in those Steam Tunnels is now forced to be replaced as well and installed in a proper signal duct pathway in many cases.

This would also be an opportunity to explore new system infrastructure technologies. As the campus grows, it is suggested to explore “Air Blown Fiber Systems” which allow for rapid infrastructure adds and changes.

Optical Fiber Pathway

- Recommend new pathways as an independent signal duct to serve the campus buildings. Possible new signal ductbank system is indicated in Appendix A.
- Recommend new ductbank pathways for new cabling where possible to remove cabling dependency on building existence.
- Recommend to identify and remove existing cables not in use.

Recommended Steps for Future Planning

- Develop a fiber optic master plan.
- Identify, map and catalogue pathways and type of existing site fiber optic and copper cables.
- Identify cabling that is obsolete, damaged and not in use with the intent to prepare the camps as it moves forward.
- Review existing and suggested site pathways with the intent to create redundancy in pathways and cabling.
- Upgrade fiber optic cables, specifically replacing 62.5 MultiMode fiber with OS2 SingleMode fiber.

6.9 Composite Plan

Full implementation of the proposed improvements will dramatically change the perception and experience of studying, visiting, and working at UW-Green Bay. Improvements to the built environment, connections to nature, and streamlining of pedestrian and vehicular circulation will go a long way to satisfying the guiding principles which were established early in the design process.

Figure 6.9-1: Composite Plan

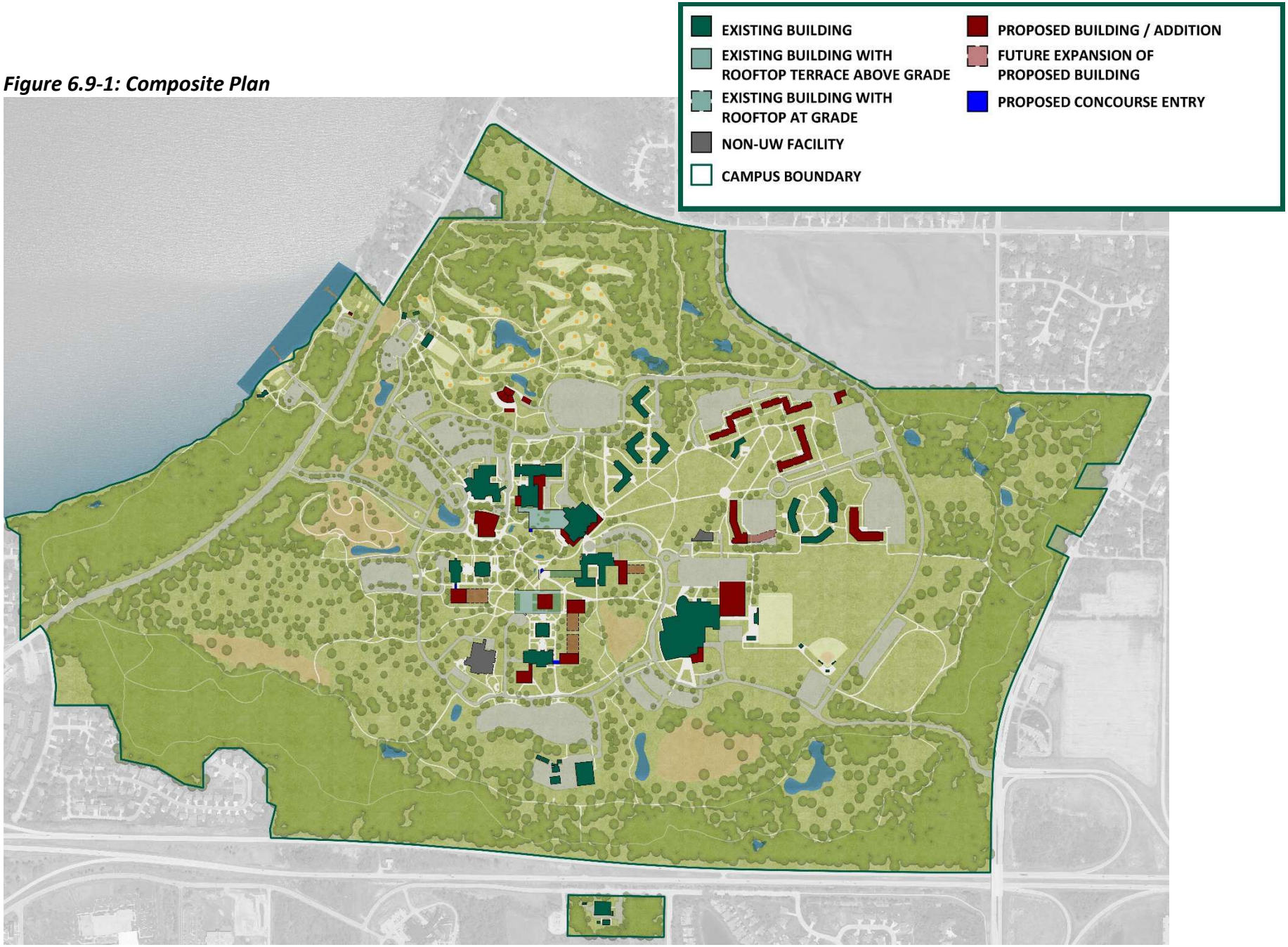
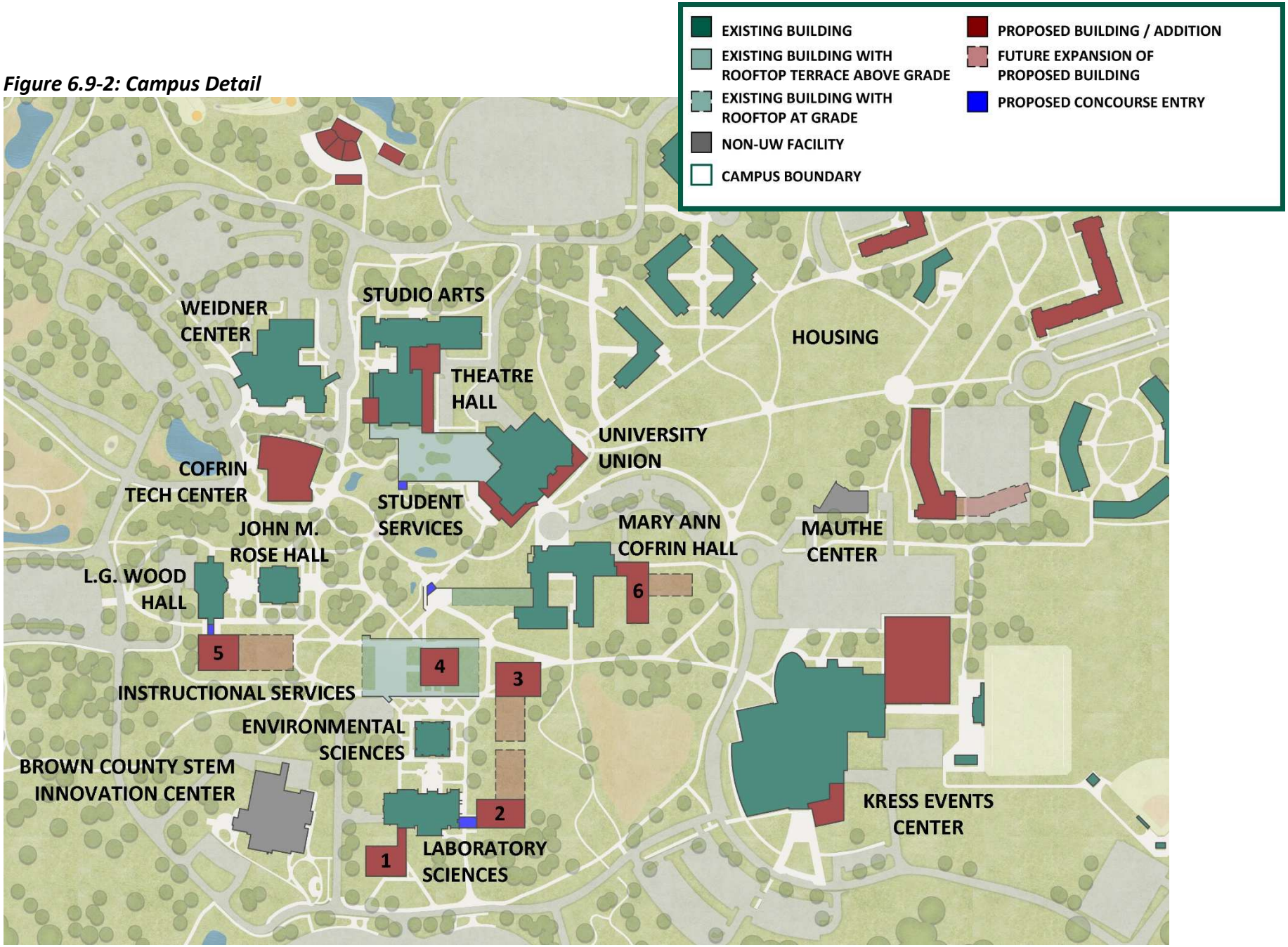


Figure 6.9-2: Campus Detail



7 Implementation Plan

The proposals of this master plan are far-reaching and will make significant improvements to campus operations. These proposals will need to be implemented over time and through several projects of varying sizes. Fortunately, the Cofrin Technology & Education Center project has been enumerated as DFD project #21E2W and design work has already begun—this provides the greatest opportunity to re-imagine the heart of campus since the initial building boom of the 1970s.

This implementation plan provides a logical sequence of projects that will allow UW-Green Bay to bring the master plan proposals to life in phases. It takes into account what needs to be completed first for other projects to proceed as well as the availability of funding. Still, future capital planning will reflect evolving conditions and priorities over time.

Near-term, mid-term, and long-term master plan proposals are identified on the corresponding plan diagrams by the numbers and letters listed in the descriptions.

7.1 Near-Term Master Plan Proposals (0-6 years)

1. Visitor Approach/Experience
    a. Remove entry signage at Nicolet Drive and South Circle Drive and add signage to emphasize campus entry at Main Entrance Drive
    b. Relocate visitor parking at Weidner Center to a more visible location with clear signage indicating direction to Student Services.
    c. Complete inner loop by connecting Wood Hall Drive and Technology Way to simplify wayfinding and because of de-emphasized South circle Drive entry.
    d. Adjust service drive routing to University Union; provide dedicated address to loading dock for ease of wayfinding

2. Heart of Campus
    a. Re-imagined Cofrin Technology & Education Center (DFD project #21E2W), Quad, Main Entrance Drive approach, and Theatre Drive roundabout
    b. Disconnect Cofrin from the concourse system

3. Academic Core
    a. Improve near-term signage and wayfinding to and through the concourse system in conjunction with CTEC construction
    b. Renovate existing classroom and lab space to accommodate changing academic needs

4. Athletics
    a. Repave softball stadium parking lot
    b. Add pathway between soccer and softball stadiums

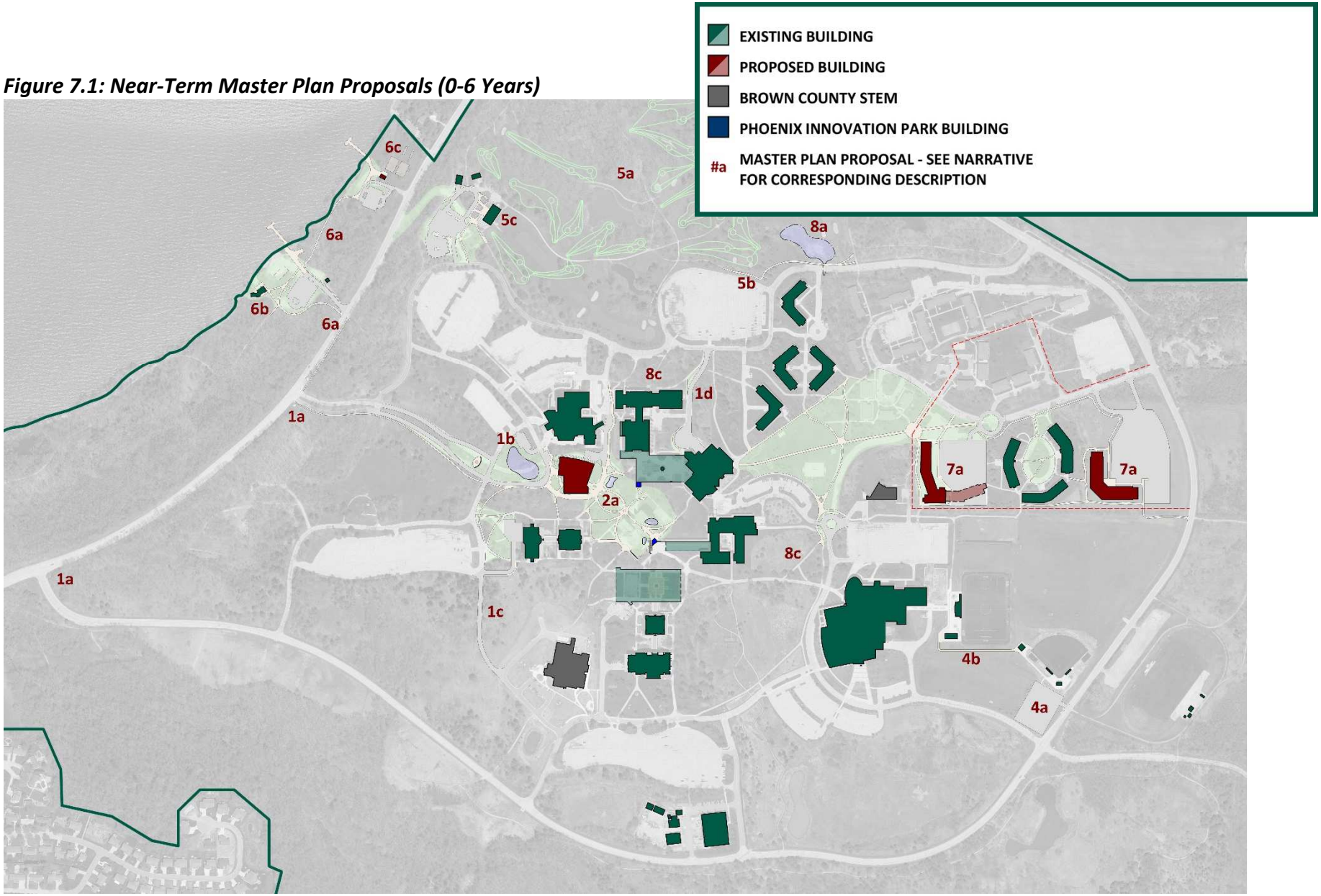
5. Campus Recreation
    a. Convert Shorewood Park into cross country course; move disc golf course to Shorewood Park
    b. Create path through cross country course to connect housing to bayfront
    c. Repurpose Shorewood Clubhouse as campus recreation space for meetings and equipment storage/rentals

6. Arboretum
    a. Create arboretum pathway connecting Shorewood Clubhouse, Lambeau Cottage, and Communiversity Park
    b. Establish Lambeau Cottage as the Arboretum trail head
    c. Provide amenities for students and the community at Communiversity Park

7. Housing
    a. Implement Phase One and Two of Housing Master Plan

8. Utilities
    a. Expand stormwater ponds to meet Total Maximum Daily Load (TMDL%) and Total Phosphorus (TP%) percentages.
    b. Develop fiber optic master plan
    c. Complete steam tunnel loop for serviceability and redundancy.

Figure 7.1: Near-Term Master Plan Proposals (0-6 Years)



7.2 Mid-Term Master Plan Proposals (7-12 years)

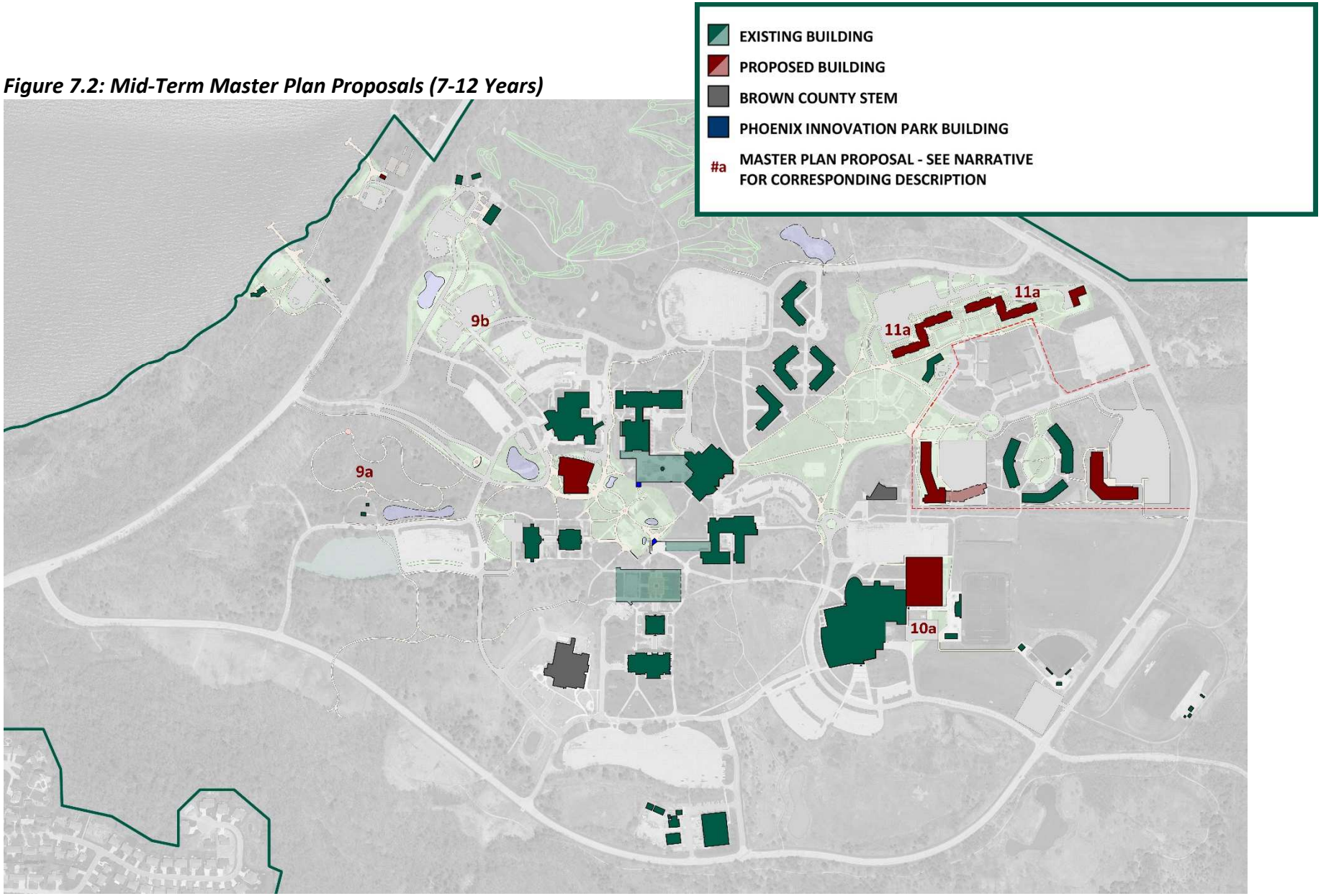
9. Visitor Approach/Experience
    a. Complete Park along Main Entrance Drive
    b. Reroute North Circle Drive and reconfigure overflow parking
    c. Complete traffic study exploring closure of South Circle Drive

10. Athletics
    a. Expand turf gym and relocate booster parking

11. Housing
    a. Implement Phase Three and Four of Housing Master Plan

12. Utilities
    a. Replace MultiMode fiber with SingleMode fiber
    b. Create an independent fiber optic signal duct

Figure 7.2: Mid-Term Master Plan Proposals (7-12 Years)



7.3 Long-Term Master Plan Proposals (13-18 years)

13. Visitor Approach/Experience
    a. Close South Circle Drive (pending result of traffic study)

14. Heart of Campus
    b. Implement University Union expansion

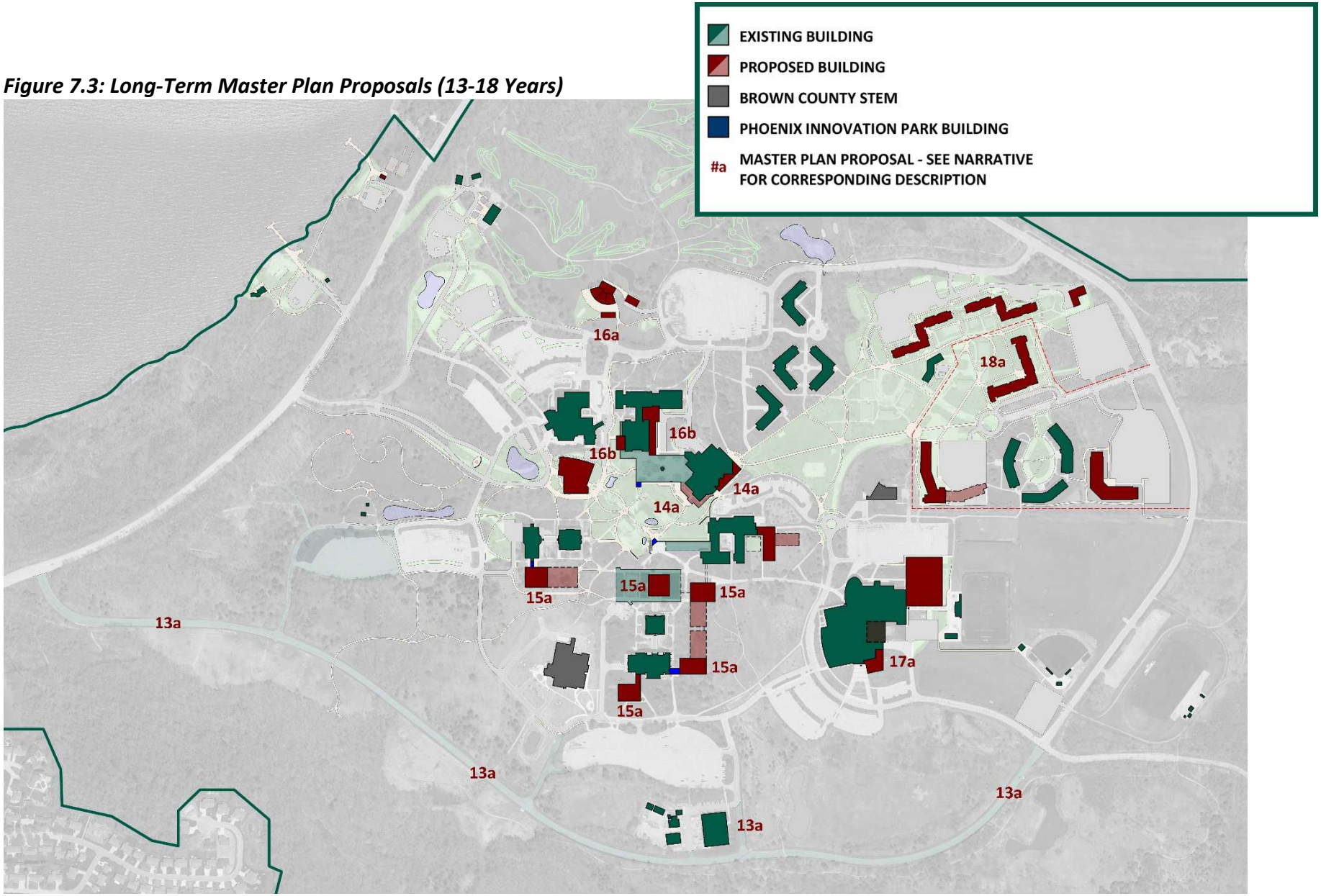
15. Academic Core
    a. Evaluate academic building expansion as necessitated by program growth

16. Performing Arts
    a. Construct amphitheater at Shorewood Park
    b. Implement Theatre Hall expansion

17. Athletics
    a. Expand sport science program space

18. Housing
    a. Implement Phase Five of Housing Master Plan

Figure 7.3: Long-Term Master Plan Proposals (13-18 Years)



MILWAUKEE | MADISON | CHICAGO