OPPORTUNITY SITES
OPPORTUNITY SITES

UWM’s academic and research mission is driving the need for new types of academic, research, campus life and support facilities. At the same time, there are significant space deficits for existing activities. The Master Plan provides recommendations for transforming the Kenwood Campus and east side landholdings to address these needs. However, as has been demonstrated in the Master Plan, there are limitations on what can be accommodated on the landlocked Kenwood Campus and at UWM’s current East Side locations, especially for facilities that require large areas of land for practical needs such as athletic fields and parking.
In addition to the above noted practical needs, there are strategic objectives associated with the research, community engagement and economic mission, which some members of the University community believe would best be located adjacent to existing and emerging private sector and institutional partners. To that end, several Opportunity Sites were identified prior to commencing the Master Plan. Notably, the County Grounds at Wauwatosa was being considered as a location for academic and research activities in engineering that could be aligned with the endeavors of the adjacent Milwaukee Regional Medical Center which includes the Medical College of Wisconsin among other potential partners. A location in the downtown Brewery District (former Pabst Brewery) was also under consideration as a potential home for the new School of Public Health. These proposals were the source of considerable debate during the planning process. Many members of the UWM community believe that proximity to private sector and institutional partners is less important than proximity to their fellow academic and research colleagues on the Kenwood Campus.

To this group, the former Columbia St. Mary’s hospital site, located directly north of the Kenwood Campus, looked to be an appropriate location for academic and research expansion. Given the continued debate on these strategic moves, the Master Plan includes a number of Opportunity Sites that could potentially accommodate the practical needs of the University as well as provide options for addressing the strategic academic and research objectives. Discussions regarding the ultimate plans for sites such as the Brewery, Innovation Park, and Columbia St. Mary’s was still ongoing at the conclusion of the Master Plan process.

The sites documented herein include those initially under consideration by the University prior to commencing the Master Plan as well additional sites identified during the planning process. By providing information on each, the intent is to establish a framework for accommodating future program needs in a variety of ways and in response to opportunities that may arise as the acquisition and partnership agreements are resolved. The decision to utilize any of the sites will be the subject of continued discussion in the campus community and will be subject to evolving strategic and practical objectives as well as financial, partnership and programmatic considerations.

UWM’s academic and research mission is driving the need for new types of academic, research, campus life and support facilities. At the same time, there are significant space deficits for existing activities.

The Opportunity Sites addressed in the Master Plan include:

- **The Harbor**—located in the Fifth Ward of Milwaukee on the Kinnickinnick / Milwaukee Rivers, the Harbor site is the current home of the Great Lakes Research Facility (GLRF) and the University’s research vessel. The surrounding context presents significant opportunities for regeneration and redevelopment for activities associated with the new School of Freshwater Science as well as private sector or institutional partners interested in locating adjacent to the new school.

- **The Brewery**—the former Pabst Brewery site in downtown Milwaukee has been master planned by a private developer who has offered an existing historic building to UWM.

- **Innovation Park**—the County Grounds in Wauwatosa has been identified as a location for UWM research and academic activities that would benefit from proximity to potential institutional partners at the Milwaukee Regional Medical Center. The UWM Foundation is currently engaged in comprehensive planning for the Innovation Park site.

- **Columbia St. Mary’s**—the existing CSM site and buildings located directly adjacent to the Kenwood Campus are being vacated by the hospital and potentially will be available for UWM expansion.

- **Lincoln Park**—currently the location of the UWM baseball facilities, Lincoln Park has been identified as a potential expansion location for a UWM athletics district.

This section of the report provides a site description, rationale for UWM presence, vision and goals for development, program fit and research partnerships, accessibility, feasibility and implementation, financial considerations and general design guidance for each one of the Opportunity Sites.
WAUWATOSA COUNTY GROUNDS
THE HARBOR
The creation of the new School of Freshwater Sciences (SFS) presents an opportunity for the University to be a leader in the international, national and regional push for increased focus on the health of the Great Lakes and on development of water-based industries. The School is being created at a time when water manufacturing and research strengths are expanding in the Milwaukee region; over 120 water-related companies are located in southeastern Wisconsin, and five of the top ten national companies who focus on water products are located in the area.

The existing Greenfield Avenue site, and parcels surrounding, is a growth opportunity for UWM. The site, located at 600 East Greenfield Avenue in Milwaukee’s Fifth Ward, just east of First Street, is approximately two miles from the center of downtown Milwaukee and five miles from UWM’s Kenwood campus. The existing Great Lakes Research Facility sits on 6.375 acres that are owned by the State. The site has water frontage to the east on the Kinnickinnic River in Milwaukee’s Inner Harbor, and is bordered to the north by a 1,250’ long boat slip, to the west by a railroad right-of-way owned by the Chicago and Northwestern Railway System, and to the south by Greenfield Avenue.

Neighboring the site, across the slip to the north, is a tank farm owned by Construction Resources of Waukesha, and across Greenfield to the south is a coal transfer site owned by the City of Milwaukee and leased to a coal handling company which serves We Energies’ Menomonee Valley power plant.

The Great Lakes Research Facility occupies an existing building on the site that was constructed by the Allen Bradley Company in 1965 as a ceramic tile factory. The three-story 130,000 gross square foot facility is located on the east end of the property with frontage along the boat slip. The State took ownership of the building in 1973 and performed renovations immediately after taking occupancy (and over time) to create research laboratory space within the building. Office and storage spaces are used primarily in the configurations that were left by the previous owner.

Rationale
GLRF and the new School of Freshwater Science require access to Lake Michigan. The essential value of the existing GLRF site is its protected riverfront location, the docking facilities, and convenient access to Lake Michigan - a condition that would be difficult to replicate elsewhere in the near term. The new School requires expanded facilities in the next three to five years and the GLRF site is immediately available.

Vision and Goals
The vision for the Harbor Campus is to house the new School of Freshwater Science in a state-of-the-art facility, which could act as an anchor for a new science district that is created in partnership with the City, adjacent landowners, and the business community. Located along the Kinnickinnic River, the district could serve as a catalyst for urban regeneration in the Fifth Ward with water, energy and advanced manufacturing being the focus. There is also potential for connection to amenities and housing within the Third Ward, reinforcing the success of this adjacent historic district.

In the long term, a vision exists to develop the existing GLRF location and surrounding parcels into a Harbor Campus that would provide more comprehensive services and facilities for its users.

To fulfill UWM’s mission, the School of Freshwater Science also has plans to include an outreach component in the future facility, which could be co-located with the educational and research center proposed for the GLRF site. This center would provide a public face for the School of Freshwater Science, offering visitors the opportunity to learn about the School and its activities.

Anticipated Population

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<tr>
<th>Short-term (approx 5 years)</th>
<th>GSF</th>
<th>FACULTY</th>
<th>POST DOC/ VISITING</th>
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<th>GRADS/ RA</th>
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Note: population counts are cumulative.
Program Fit, Research, Partnerships

The pre-design process for the new SFS facility has indicated a projected need for approximately 85,000 gsf for an initial Phase I addition to the existing building. This is above and beyond the space provided in the existing facility. The program identified for the School of Freshwater Sciences includes space for research labs, teaching labs, classrooms, shared core facilities, collaboration and team science, and office spaces. Future program projections indicate a need for additional facilities and growth beyond the existing footprint of the site. Therefore, opportunities to expand to the west or south of the current site may be explored.

SFS intends to expand existing research areas and develop new research strengths. Five research themes have been identified that would have the best synergy at a Harbor Campus location. The synergy between the five research themes develops a rich interdisciplinary community:

Climate and Forecasting
Environmental Health
Ecosystem Management
Integrated Technologies & Engineering
Economics Policy & Management

In the context surrounding the GLRF site, collaboration and research partnership opportunities exist on parcels north and south of Greenfield Avenue as it extends westward to First Avenue. In addition, the Rockwell Automation Building, located at First and Greenfield, may offer space for partnership. Combined, these existing and proposed buildings could accommodate water-related research collaboration, business, and industry, establishing a Harbor Campus district. Other sites include those located further north of the existing GLRF site along the Milwaukee River. Redevelopment of the Greenfield Avenue context will require partnerships with the City and landowners to provide public realm improvements, environmental clean-up and new infrastructure. Given the nature of the program, regeneration of the area provides an excellent opportunity to demonstrate best management practices in sustainable urban regeneration and economic development.
Accessibility

The GLRF site is located on a relatively peripheral and remote site and has limited visibility from regional roads. Current access is primarily vehicular, although bus transit does extend to the site from both Kenwood and downtown via the Route 15 bus. In the long-term, one of the city’s planned north/south transit corridors would run along First Avenue, thereby providing efficient and direct transit access to the site. In the short-term, however, UWM should continue its shuttle service to the site. Because of the distance from Kenwood and lower ridership due to a relatively small population of 235-343 people, shuttle headways will likely be less frequent. Logistically, UWM should aim to limit the need for students and faculty travel to and from Kenwood through scheduling and by other strategies.

Feasibility and Implementation

Infrastructure

Existing infrastructure on the site is in place as are roads; however, streetscape improvements are required. As noted, the potential for urban regeneration in the surrounding context would require partnerships between the University, the city, private landowners, and businesses to carryout necessary improvements.

Financial

The pre-design process for the facility will need to consider the anticipated GLRF population and the level of support spaces that can be feasibly provided. While some study and library space may be needed, as well as small-scale food service, many student services, such as advising and scheduling, will remain at Kenwood. Other services, such as record-keeping, can be done virtually.

Aside from the cost of expanding the current GLRF facility, there are also potential costs for infrastructure extension and environmental clean-up, which may be eligible for DOC grants. There will also be some additional costs associated with transportation, particularly if the University elects to provide shuttle service until such time that a viable transit corridor is established as proposed on nearby First Avenue. In the short-term, auto access will be critical and adequate space exists for surface lots to meet the parking demand. As the district undergoes development, however, the University may wish to provide structured parking in association with private sector partners that may locate in the surrounding context.
Design Guidelines
The exact nature of uses and facility expansion at the Harbor will be the subject of future architectural and master planning studies for the existing GLRF site as well as the surrounding district. The following guidelines for the GLRF site are provided as the basis for the development of more detailed guidance that will be the outcome of future design phases.

Architectural Expression
Future buildings on the GLRF site should be contemporary and express the nature of the academic and research activities defined by the mission of the new School of Freshwater Science. They should be high performance buildings and an expression of sustainable practices for urban rainwater harvesting and stormwater management.

Building Placement
The placement of new buildings should respond to the existing building on the GLRF site, the urban street grid, and views of the river. Future buildings or additions should be placed to achieve maximum use of the site area and to improve the quality of the streetscape as well as establish a positive image for the new School of Freshwater Science.

Building Orientation
Buildings should assume an east-west orientation, where possible, to create opportunities for passive or active solar strategies. In some instances, buildings may need to be oriented north-south due to site configuration, program requirements or other reasons such as creating a street wall or defining an outdoor space. In these instances, the east and west facades should include shading devices and landscape strategies to minimize any adverse heat gain or glare issues within the buildings.

Building Setbacks and Build-To Lines
Proposed additions to the GLRF building should be set back from the street to allow for generous sidewalks, landscape treatment, and a limited but well designed parking area featuring sustainable stormwater management strategies. Buildings should be situated in a manner that balances security, while maintaining an open and welcoming atmosphere.

Building Form and Massing
Buildings should be simple in geometry. Uninterrupted façade lengths should not exceed 125 to 150-feet to ensure a pedestrian scale to buildings. Public functions, such as the main entrance, should be located on the south or east façade of the building.

Building Heights and Roof Form
Building heights should be a minimum of two floors on the GLRF site to maximize use of the land. Roofs can be low-slope (flat) or sloped depending on programmatic needs and desired expression. Green roofs and rainwater harvesting systems are encouraged and, therefore, will influence the design of the roofs. Natural daylighting of the facilities and the installation of thermal or photovoltaic solar demonstration projects are also encouraged to the degree they are compatible with research activities. This too will influence roof design on proposed structures.

Facades and Fenestrations
Façade composition and articulation should be restrained, balanced, and function as an expression of programmatic elements within the building. A new façade should be considered for the existing GLRF facility to better align it with new development, as well as to provide a new “face” for the School of Freshwater Science.

Façade treatments should respond to the solar orientation of the building. North-facing facades, for example, should contain less glass due to heat loss, while east and especially west-facing facades should use louvers or shading devices to mitigate direct sunlight. In general, buildings should follow performance based requirements, such as LEED, for building skin and windows.

Ground Level Treatment
The ground floor of future buildings should contain the most active and public uses. The aim should be to provide an attractive and inviting public face for the School of Freshwater Science. Views to the research vessel and surrounding river context should be considered.
Building Entrances
The building entrance should be aligned with outdoor paths, and reflect the unique or memorable qualities of the functional uses. Entrances should create fluid connections between interior rooms and exterior spaces, and provide both physical and visual access to buildings through transparent materials and clarified circulation. Building entries should be defined by building massing, roof, and façade articulation and contain canopies and overhangs for climate protection. Entrances and access points should be limited along the north facade where ice will form unless design properly addresses these safety concerns.

Service and Delivery Areas
Loading docks and service areas should be visually screened from view by walls / fences of a minimum of six (6) feet in height. The walls/fences should be designed to complement the primary building materials utilized. Where such areas are visible from pedestrian or vehicular circulation routes, they are to incorporate gates to screen all equipment and loading docks.

Mechanical Equipment
Mechanical and service equipment should be properly screened and mechanical stacks should be grouped together to minimize audible and visual impediments. Building equipment should be integrated in the roof structure and coordinated with strategies for rainwater harvesting, green roofs and daylighting concepts. When flat roofs are employed, mechanical equipment should not be visible from ground level or adjacent buildings, unless designed as feature elements and as an expression of the technical aspects of the building.

Urban Landscape and Stormwater Management
Given the mission of the School of Freshwater Sciences, the proposed water-related activities at the Harbor and the riverfront setting, rainwater harvesting, green roofs, bioswales and other stormwater best management practices outlined in the sustainability chapter of this report are recommended for the GLRF site. Extending beyond the GLRF site, it is recommended that a district-wide approach to urban stormwater management be explored in future planning, design and engineering processes; an approach that demonstrates the best practices for urban stormwater management appropriate for the climate and soil conclusions. The intent is to create an urban version of the “working landscape” concept where landscape features are functional in terms of water management, shade and wind protection. Impervious surfaces should be kept to a minimum and, where possible, permeable paving should be considered as an option, soil conditions permitting.

Signage and Wayfinding
A comprehensive signage system is recommended for the Harbor to reinforce a sense of place and UWM identity.
THE BREWERY

The Brewery site is located on over 20 acres of land in downtown Milwaukee, immediately east of Interstate 43 and along an important gateway into downtown. The site currently contains several vacant sites and over 26 buildings, many of which are historic, for a total of 1.2 million existing square feet of space. The Brewery is approximately 3.3 miles from the Kenwood campus, or 10 minutes driving time. A master plan, envisioning a future district of institutional, residential and commercial uses, has been developed for the Brewery by the owners.

At this writing, the Brewery was being considered as the downtown location for the UWM Health Campus, accommodating the public, community, and clinical health functions of Nursing, Public Health and Social Welfare. Specifically, Building 29, part of the former Pabst Brewery, was being considered as a potential location for UWM programs.

Rationale

The Brewery site provides immediate opportunities for development as well as opportunities for future expansion. The location is close to the downtown core as well as nearby residential areas of the city, and provides accessible amenities such as parking facilities, dining, and retail. The significant outreach programs provide the opportunity to participate in the redevelopment of part of the City appropriate for the School of Public Health. Other supporting reasons identified for this location include the proximity to Aurora Sinai Medical Center, Milwaukee Area Technical College (MATC) and numerous government agencies, institutions, and businesses, including the Milwaukee Health Department. Perhaps the most significant reason for a downtown location is to serve UWM’s mission of access and outreach by distributing University programs in the City. The Master Plan addresses this goal of establishing a critical mass of activity and presence in downtown Milwaukee, which can be accomplished through the presence of programs identified in this document along with the potential future co-location of clinical programs in Education and Psychology. Additionally, specific to the Brewery site, a Higher Education Collaborative could be created by forming partnerships with MATC, the Milwaukee School of Engineering (MSOE), Cardinal Stritch and other area colleges and universities.

Vision and Goals

The vision for the Brewery is to create a health presence for University-wide programs within a potentially vibrant, urban district in downtown Milwaukee. The location will be comprised of public, community, and clinical health programs. Combined, these programs will serve UWM’s access and outreach mission by distributing University programs in the City. By collocating programs, UWM can establish a critical mass of activity and identity in the downtown area. Clinical programs from Education, Psychology, and Social Welfare could also be located at the Brewery with the undergraduate portions of each remaining at Kenwood.

A presence at the Brewery will require UWM to be an active participant in urban regeneration, furthering the goals of the institution, the city, and the state of Wisconsin. As a downtown constituent, UWM must be concerned with and involved in the development that occurs around the proposed location. By reutilizing a historic building, combined with new development, UWM can serve as a link to Milwaukee’s past and future.

Program Fit

The Brewery site provides opportunities for accommodating the needs of a Health Campus through a combination of adaptive reuse and new construction on available parcels, the details of which will be the subject of future studies. The existing Building 29 site offers approximately 200,000 gross square feet (gsf) of space. The pre-design process projected a need of approximately 96,000 GSF in an initial phase, with an outlook toward a total program of 217,000 GSF. The potential of locating in an existing historic building such as Building 29 provides some opportunities and some challenges. The site provides visibility and opportunities for collaboration, as well as an existing core and shell. However, there are programmatic fit challenges with a dense existing column grid, floor-to-floor heights, and window layouts. Over the long term, the building offers expansion potential. The site will also require adequate parking and accessible amenities, such as dining and retail.

Research and Partnerships

The Brewery site provides great potential for partnership opportunities. Centrally positioned between the Aurora Sinai Medical Center to the west and MATC and MSOE to the east, the Brewery provides opportunities for both academic program and research collaboration. Other institutions such as Cardinal Stritch have also expressed desire or are planning a presence in the Brewery district.

Anticipated Population

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Note: population counts are cumulative
A downtown location also provides the opportunity to collaborate with surrounding government agencies, as well as other downtown institutions and businesses. An urban location affords the best opportunity to meet and serve the UWM access and outreach mission.

The pre-design study for this location suggested several research themes that could find a home at the Brewery site. These include: Environmental and Occupational Health, Health Informatics, Community and Behavioral Health Promotion, Epidemiology and Biostatistics, and Policy, Administration and Health Services.

**Accessibility**

The Brewery site is located approximately three miles from the Kenwood campus and is accessible from the freeway, city street system, and public transportation. Located just east of Interstate 43, the primary north-south corridor through Milwaukee, the Brewery is visible to over 200,000 vehicles per day. The site is connected to Milwaukee’s urban core via the street grid system, providing direct access for both vehicles and pedestrians.

The site is currently served by the MCTS bus system; however, plans to strengthen Milwaukee transit could improve service frequency. The proposed north/south transit corridor through the city and an associated streetcar loop will provide enhanced access to the Brewery. As a key constituent and user of this enhanced transit service, UWM will need to coordinate with transit officials and advocate for preferred routes and levels of service. Until such time that these improvements are made, UWM could expand its existing East Side shuttle system to provide a comprehensive transit option serving Kenwood, Riverview, Kenilworth, and the Brewery. Because of the Brewery’s proximity to the East Side, a University-controlled system could be utilized to maintain relatively short travel times and headways, thereby maximizing efficiency and ridership. Please see the transportation chapter of this report for more details.
Feasibility and Implementation

Infrastructure
Due to its urban location, infrastructure for the Brewery is largely in place, with recent improvements completed to expand the capacity for new development. Many of the roads exist as well, with streetscape improvements already underway.

Financial
Due to the critical mass of students, faculty, and staff who will be located at the Brewery, student services and amenities will need to be provided. Duplication of some student amenities, such as retail, restaurants and housing, can be minimized through partnerships with the private sector. In the short-term, the pre-design process for these facilities should consider the anticipated student population and provide appropriate support spaces, such as small-scale food service and potentially library/study space.

There will also be some additional costs associated with an expanded shuttle service. The University will need to negotiate for, and potentially lease, space in the centralized parking structures that are part of the Brewery master plan, as parking will be important to serve the clinical activities.

Feasibility and Timing
Building 29 and the supporting infrastructure are immediately available, allowing UWM to move forward as soon as funding is in place. However, substantial work is needed to make the building ready for occupancy. The University will need to work with the Brewery administration to influence the pace and quality of development with the aim of establishing a vibrant mixed-use district. The presence of UWM will provide value and stability to the area that will facilitate the development of support facilities and amenities.

Design Guidelines
The master plan for the Brewery serves as a reference point for design decisions within the district. The following design guidelines pertain to those items that the University may be able to influence, however, UWM would need to coordinate its vision with those of the Brewery master plan. It is noted that the central challenge of the Brewery site will be to complete renovations to Building 29 and other buildings that respect the district’s architectural integrity while, at the same time, accommodating the modern program requirements. While the future of Building 29 will be largely determined in feasibility and architectural planning studies, the following guidelines are provided to ensure that UWM can effectively integrate its facilities into the Brewery district.

Architectural Expression and Historic Significance
The master plan recommends a coherent, complementary, and contextual integration of building design and streetscape with the historically significant structures of the Brewery district. Renovation of structures such as Building 29 should be conducted sensitively. While the integrity of the building should be preserved, contemporary design expressions and materials are encouraged to provide a distinctive address for UWM and express programmatic requirements.

Roof Form
The extensive roof area of Building 29 provides the opportunity to explore natural daylighting strategies (especially at the center of the building) or incorporate thermal or photovoltaic solar demonstration projects. The incorporation of such features is encouraged to the degree they are compatible with the programmatic requirements and renovation budgets.

Facades and Fenestrations
The fenestration pattern of Building 29 should be maintained; solid infill of windows should be avoided if possible. The aim is to preserve the natural daylighting in interior spaces. New windows should be compatible with the original design intent of the building, avoiding, in general, the use of reflective or bronze colored glass that would limit opportunities to view the activities within the building.

Ground Level Treatment
The ground floor of Building 29 should contain the most active and public uses and be made as visible as possible while respecting the historic character of the building. Transparent materials should provide visual access to these areas.

Materials and Color
Brick is the primary material on Building 29 which should be cleaned, repaired and re-pointed as necessary. Historic architectural features and details should be restored. New materials should be selected to complement the original color and texture of the brick and other original materials.

Service Access
Service areas should not be located near building entrances or public gathering areas. They should be properly screened by walls at least six (6) feet in height. The walls/fences should be designed to complement the primary building materials utilized. Where such areas are visible from pedestrian or vehicular circulation routes, they are to incorporate gates to screen all equipment and loading docks. Given the size of Building 29, it may be possible to incorporate the service and loading areas within the footprint of the building.

Mechanical Equipment Screening
Mechanical and service equipment should be properly screened and mechanical stacks should be grouped together to minimize audible and visual impediments. Building equipment should be integrated in the roof structure and should not be visible from ground level. Exhaust vents should not be located on the facades of the building unless they are incorporated in a manner that complements the brick or fenestration pattern of the building.

Signage and Wayfinding
A comprehensive signage system is recommended for the Brewery to reinforce a sense of place and UWM identity.
INNOVATION PARK

Innovation Park is a proposed 87-acre research park to be developed by the UW-Milwaukee Real Estate Foundation. A detailed master plan for Innovation Park is currently being drafted and is anticipated to be completed in 2010. The proposed site is located approximately 12 miles west of the Kenwood campus on land known historically as the Milwaukee Country Grounds. The development site is bounded by Swan Boulevard to the north and west, Watertown Plank Road to the south and adjoined on the east by a WE Energies power plant. Access from I-41/45 is easy and the area is served by the Milwaukee County Transit System. The development site is adjacent to a preserve to the northeast and a future Milwaukee County Park to the east. This piece of real estate is one of the last and largest parcels of undeveloped contiguous land in the County.

The site is predominantly undeveloped, with the exception of six existing buildings occupying the far north and south edges. The Milwaukee County Parks Department currently occupies an existing building located on the southern portion of the site. Five unoccupied buildings are located on the northern portion of the site. The re-use of these historic buildings is a part of the Innovation Park master plan.

The initial phase of the Innovation Park development is expected to be on the southern portion of the site closest to Watertown Plank Road and the Milwaukee Regional Medical Center.

Rationale

Development at the Innovation Park is intended to foster partnerships and emphasize the critical role of adjacency in forming productive collaboration between UWM programs, private sector businesses and institutions located on the adjacent Milwaukee Regional Medical Center as well as in the western suburbs. By locating adjacent to these institutions, the aim is to establish relevant research clusters and partnership opportunities leading to both academic and translational opportunities.

Vision and Goals

The vision for the Innovation Park is to create a cluster research district that encourages partnership and collaboration with the goal of advancing the significant research goals of the University. By locating close to viable partners, UWM can establish itself as a relevant and active leader in the research growth of the Milwaukee region and state of Wisconsin. The Innovation Park will provide academic and research opportunities primarily for engineering, with the bulk of undergraduate work continuing at the Kenwood campus. Development of the Innovation Park will be directed by the UW-Milwaukee Foundation and will include partners such as the Medical College of Wisconsin (MCW), the Children’s Research Center, GE Medical, the Milwaukee County Research Park, and the Blood Center.

Program Fit, Research, and Partnerships

With ample land, the Innovation Park offers the long-term capacity to meet future research partnership opportunities related to engineering and advanced science. Potential research themes identified for the Innovation Park include those focused in BioEngineering including BioMechanics, Ergonomics and Imaging; Industrial Innovation; Informatics; and Rehabilitation Science and Technologies. The pre-design process revealed an initial first phase of approximately 166,000 GSF with a future academic and research need exceeding 250,000 GSF, including interdisciplinary research space, flexible teaching labs, and collaborative space. Depending on partnerships and funding, development capacity exists over and above the known space need. The total development capacity for the site is approximately 1,000,000 gsf.

Anticipated Population

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Note: population counts are cumulative
OPPORTUNITY SITES

EXISTING ESCHWEILER BUILDINGS

EXISTING PARKS BUILDING
Accessibility
The Innovation Park site has good visibility and access from the regional road network. The site is, however, located a considerable distance from both Kenwood and downtown and suggests that individual vehicular travel will be the primary mode of transport to and from the campus at least until a critical mass of population and activity is established. Public transportation services are limited and, due to the distance from Kenwood, a University shuttle system would not be efficient in terms of maintaining headways and ridership in the near term. As the population increases over time, transit may be a viable option. Course offerings and other activities should be scheduled so as to minimize daily back and forth travel between campuses for students and faculty.

Feasibility and Implementation

Infrastructure
The site currently has limited infrastructure resulting in the need to extend new services onto the site including water, sewer, electrical, and telecom. New roadways are also necessary.

Financial
The County Grounds site will be purchased and developed by the UWM Foundation. Cost considerations include the need for infrastructure extensions. There is also a cost associated with providing student services.

Design Guidelines

Architectural Expression and Historic Significance
The architecture of the Innovation Park should be an expression of contemporary sustainable design, revealing the nature of the advanced academic and research activities occurring within the facilities. The buildings should be designed in response to climate and environmental conditions of the site. High-performance buildings that incorporate passive strategies, new technologies, and energy efficient systems are envisioned. This will be essential, since labs are expected to be a major component of the proposed buildings.

The historic County Parks building should be sensitively renovated and repurposed for uses appropriate for the structure, such as offices and meeting / conference spaces. In replacing windows and repairing original materials, emphasis should be placed on protecting the integrity of the original design. Additions to the building to accommodate vertical circulation or other programmatic elements should be designed to complement the original materials, color, and proportions of the building.
Building Orientation
Buildings should assume an east-west orientation to create opportunities for passive and active solar design strategies. In some instances, buildings are oriented north-south to achieve placemaking objectives, such as creating a street wall or defining an outdoor space. In these instances, east-west facades should be designed to minimize excessive solar heat gain through shading devices and landscape strategies. façade designs for all buildings should be responsive to the orientation with energy efficiency and daylighting being key objectives.

Building Setbacks and Build-To Lines
The general arrangement of buildings should establish a pattern of alignment and defines exterior spaces. As the Innovation Park buildings will be constructed in phases, each building should respond to and anticipate future buildings. Fenestration, entrances, pedestrian connections (interior and exterior) and service areas should acknowledge the possibility of future buildings.

Building Form and Massing
Buildings should be simple in geometry and avoid excessive widths. Uninterrupted façade lengths should not exceed 125 to 150-feet to ensure a pedestrian scale to buildings. The public functions of each building, such as the main entrance, should be highlighted in the composition, but its proportions should be appropriate to the building’s use and scale.

Building Heights
Building heights should be a minimum of 3 to 4 floors to create a consistent massing and efficiently utilize the land resources of the Innovation Park. Building heights on the north end of the site should take into consideration the height of the historic Eschweiler complex of buildings.

Roof Treatment
Roofs should be low slope (flat). Green roofs and solar demonstration (thermal or photovoltaic) are encouraged on all buildings.

Building entrances and ground level treatment
Building entries should be defined by canopies, roofs, or façade articulation and should be located along major pedestrian routes. To ensure an active exterior campus environment evolves, the ground level façade treatment should incorporate transparency, especially where major social or group gathering spaces are possible.

Facades and Fenestrations
Façade composition and articulation should be restrained, balanced, maintain a human scale, and function as an expression of programmatic elements within the building.

No more than a third of the façade length should be recessed or brought forward from the main plane of the façade. These variations should not project more than twelve feet from the main façade alignment and should be used to mark special façade elements and articulate building entrances.

All façades should incorporate horizontal divisions that highlight a well defined base, a mid-section that encompasses the majority of the façade, and a top where the building facade terminates. The level of expression of the horizontal divisions may vary to respond to adjacent open space, the level of public uses within the building, and the height of the building itself.

The vertical structure of the building should be expressed in the façade and openings. Windows should be regularly arranged along the façade and aligned on a vertical axis. Windows should be grouped to express program, create larger elements on facades, and decrease the scale of buildings, while the use of strip or ribbon windows and dark or reflective glass is not recommended.

Facade treatments should respond to the solar orientation of the building. North-facing facades, for example, should contain less glass due to heat loss, while east and especially west-facing facades should use louvers or shading devices to mitigate direct sunlight. In general, buildings should follow performance based requirements, such as LEED, for building skin and windows.

Mechanical Equipment Screening
Mechanical and service equipment should be properly screened and mechanical stacks should be grouped together to minimize audible and visual impediments. Building equipment should be integrated in the roof structure. When flat roofs are employed, mechanical equipment should not be visible from ground level or adjacent buildings.

All ground equipment such as communication devices and transformers should be screened from view and should be located remotely from major pedestrian routes and building entrances.

Energy Performance
Buildings in the Innovation Park are expected to be models of high performance sustainable design for lab and research facilities. To that end, the energy usage intensity (EUI) of the buildings, as measured on a BTU per square foot per year basis, should meet or exceed the state mandates for energy performance as documented in the Sustainability chapter of this report.
Site and Landscape Guidelines

The landscape guidelines for the Innovation Park are intended to inform future and more detailed landscape planning, design, and engineering studies. The general intent is to create a "working landscape" that preserves and enhances natural systems and habitats, employs low-impact strategies for stormwater management, reduces the need for irrigation, and decreases the overall reliance on fossil fuel for landscape maintenance.

To ensure that a coordinated and sustainable site emerges over time, it is recommended that a comprehensive grading plan be developed for the site along with a comprehensive stormwater management concept well in advance of constructing the initial infrastructure and building projects.

The following summarizes the landscape and site recommendations:

Habitats / Natural Systems
The Innovation Park site is located adjacent to a unique habitat environment for Monarch Butterflies. The master plan includes a zone to protect this special place and ensure its long term preservation. No development will be permitted within the habitat delineation zone.

Water Resource Management
The opportunity exists to design and plan the Innovation Park as a model of sustainable stormwater management practices as noted in the Sustainability chapter of this report which encourage the utilization of the landscape features to filter runoff and the on-site treatment of stormwater. On-site treatment offers several benefits:

- Removal of pollutants
- Reduction in volumes and velocity of runoff
- Reduction in watercourse erosion, sediment suspension and loss of aquatic habitats
- Conversion of runoff to evapotranspiration via the use of vegetated infiltration systems

Specific design recommendations include utilization of rain gardens, green roofs, pervious paving and techniques which facilitate infiltration and onsite treatment of stormwater as appropriate given soil and topographic conditions.

Irrigation
Native plant materials and small areas of turf grass are proposed in order to limit the need for irrigation at the Innovation Park. Irrigation is recommended only to establish new plant materials or if grey water or rainwater harvesting systems are employed.

Landscape Zones
The following general landscape zones are proposed for the Innovation Park:

- A central academic-focused quad has been discussed for the site master plan. This quad is envisioned as the most manicured and maintained landscape of the Innovation Park as it will serve as the central gathering space for the surrounding research and lab facilities. Subject to further study, the Plan incorporates rain gardens or other stormwater management strategies.
- The gateway landscape encompasses the frontage of Watertown Plank Road and is envisioned as a meadow-like environment with a naturalistic pattern of tree planting.
- Development patterns should carefully consider the relationship of this site to the parcel to the east which is envisioned by the County to become a recreational park. Ties between the two sites through pedestrian linkages and other natural features are encouraged.
- Roadways, within the academic and research zone, are envisioned as landscape corridors featuring street trees.

Pedestrian network
Pedestrian connections should be emphasized throughout the site development to encourage a walkable development pattern.
Bike trails
A designated bike / pedestrian trail should be incorporated into the site master plan. This will not only connect development on the site but also provide linkages to the neighboring future park area to the east.

Transit Stops
Transit stops should be coordinated with building entrances and other gathering spaces to facilitate the use of transit services. A central transit portal is proposed in association with a primary building lobby to ensure that a conditioned waiting space can be provided in association with restrooms and convenience services.

Road Right-of-Ways
The proposed central access road through the Innovation Park will link Watertown Plank Road and Swan Blvd to the north.

The roadway cross section is envisioned as a continuous landscape zone where street trees provide shade and establish a unified and coordinated arrival sequence into the Innovation Park. Traffic Calming is recommended to slow traffic at key crossing points including the use of narrowed road widths and changes in pavement. The exact details of the central access road will be the subject of more detailed site studies.

Parking Lots
Parking is viewed comprehensively on the site. A mix of green surface lots and structured parking are proposed to address the parking demand on site. To that end, parking for individual buildings is provided in a combination of proximate and remote parking lots in order to develop the site in a compact, pedestrian friendly manner. Parking ratios of 2.5 spaces per 1000 gsf are proposed for academic uses, and 3.5 spaces per 1000 gsf for private development. Landscaped medians and trees are proposed in the parking lots. Subject to appropriate soil conditions, bioswales should be considered to detain and treat runoff from the parking lots.

Service and Delivery Areas
The service areas are to be visually screened from view by walls / fences of a minimum of six (6) feet in height. The walls/fences should be designed to complement the building materials utilized. Where such areas are visible from pedestrian or vehicular circulation routes, they should incorporate gates to screen all equipment and loading docks.

Utilities
All utilities within the Innovation Park should be located underground in consolidated in corridors established as part of future engineering studies. A central boiler and chiller plant should be considered as development expands.

Signage and Wayfinding
A comprehensive signage system is recommended for the Innovation Park to reinforce a sense of place and UWM identity. Special gateway signage is proposed for the main entrance on Watertown Plank Road and at the north entrance on Swan Boulevard.

Street furnishings and lighting
As the initial facilities are developed in the Innovation Park, standards should be established for lighting, seating, trash receptacles and bike racks, etc.
COLUMBIA ST. MARY’S

Columbia St. Mary’s (CSM) is located immediately west of Maryland Avenue, between Hartford and Newport Avenues and contains 10.9 acres of space in a variety of historic and contemporary hospital buildings. The site includes a central plant and an 800 car parking garage and 175 surface spaces. The hospital plans to combine its operations at a new facility along East North Avenue and is anticipated to vacate the site in late 2010 or early 2011.

At this writing, CSM was being considered as a potential expansion site for future UWM academic facilities, support services, housing, parking and recreational space. Funds were also being allocated to purchase and redevelop the property.

Rationale
The proximity of the Columbia St. Mary’s (CSM) parcel to the Kenwood campus presents a strategic opportunity to expand the land-locked Kenwood campus and incorporate an additional 850,000 gsf into the campus.

Vision
The preliminary vision for the CSM site is to provide additional academic space. The site may also accommodate student life and parking facilities to meet critical shortfalls at the Kenwood Campus. The potential for student housing provides the opportunity to incorporate living-learning opportunities into the campus environment.

Program Fit
The existing CSM office building presents an opportunity for academic uses that are adjacent to the academic core of the Kenwood campus, as well as back-office administrative uses. The existing hospital bed towers offer a building typology appropriate for student housing, with an estimated potential of 1,200 beds. In addition to housing, dining and recreation would support an increased student residential component. Finally, due to good pick-up/drop-off access, CSM may be appropriate for the relocated Children’s Center or a new Student Health Center.

Feasibility and Implementation
Utilization of the CSM for UWM expansion will require further study to determine how existing buildings can best be re-purposed to accommodate programmatic needs. A thorough facilities conditions assessment is required to categorize buildings and determine those suitable for renovation and those which should be considered for demolition. Several buildings have historic value and will therefore need to be re-purposed in an appropriate manner.

Design Guidelines
A future architectural master plan and feasibility study is recommended to determine how to best utilize the CSM site in support of the UWM mission. Specific design guidelines should be an outcome. Key campus and urban design concerns to be addressed in the guidelines include:

- Pedestrian connectivity between CSM and Englemann and between CSM and the Sandburg Towers.
- Pedestrian connectivity through existing and proposed buildings to ensure ease of movement and to provide convenient connections to the parking garages.
- Architectural definition of the street edge conditions along Hartford and Maryland.
- Active uses located on the ground floor of existing and proposed facilities. The corner of Maryland and Hartford is a key opportunity for a public use.
- A comprehensive stormwater strategy is required for the site utilizing the techniques outlined in the Sustainability chapter of this report.
LINCOLN PARK

Lincoln Park is located approximately four miles northwest of the Kenwood campus, bounded to the east by Highway 43, to the west by Green Bay Avenue, and to the south by Glendale Drive. UWM has had a presence at Lincoln Park since it began playing its home baseball games at the park’s Henry Aaron Field in 1994. UWM leases the facility from Milwaukee County and pays for the necessary maintenance required to comply with Horizon League standards. The current baseball field includes lighting but does not have indoor locker room facilities, an adequate press box, or permanent seating and, therefore, is not eligible to host Horizon League Championship events.

Vision

The UWM Athletics Department envisions an Athletic Village at Lincoln Park to accommodate much needed expansion, particularly for baseball, tennis, soccer, track, and a practice facility. By clustering athletics venues, the Athletics Department can realize efficiencies through shared usage.

Rationale

The master plan recommendations include a re-imagining of Englemann Field, which is currently home to the men’s and women’s soccer team. Over time, Englemann Field could become a passive recreation quad for use by the entire UWM community. In the short term, Englemann Field can continue hosting collegiate soccer; however, if it was determined to be advantageous to relocate the soccer competition field to another site, Lincoln Park could provide the opportunity to accommodate such a need.

UWM has made recent investments at Lincoln Park baseball facility including new dugouts prior to the 2004 season and adding a new scoreboard in 2008. UWM has also taken on maintenance duties at the facility and continues to do work on the infield grass and dirt surfaces.

Feasibility and Implementation

Future utilization of Lincoln Park should be the subject of a detailed programming and master plan study for Athletics and recreation. Should the University maintain interest in Lincoln Park, it will need to pursue discussions with the County regarding the development potential.

Design Guidelines

Design guidelines for the Lincoln Park site should be developed as part of a comprehensive master plan and feasibility study.
OPPORTUNITY SITES

- 125 N GREEN BAY AVE
- 43 N MILWAUKEE RIVER PKWY
- W GLENDALE DRIVE
- W HAMPTON DRIVE

CONTEXT MAP

KENWOOD CAMPUS
LINCOLN
PAR
K
AREA OF CUR
RENT
UWM PRESENCE
HENRY AARON
FIELD

AREA OF CURRENT
UWM PRESENCE
HENRY AARON
FIELD

LINCOLN PARK
GOLF COURSE

MEAUX PARK