



# UWM Innovation Park Master Plan & Design Guidelines

DRAFT Document: February 17, 2010





## TABLE OF CONTENTS

### **Section 1: Planning Context**

- 1.1 Mission & Vision
- 1.2 Background and Process
- 1.3 Park Features
- 1.4 Value Proposition
- 1.5 Goals and Objectives

### **Section 2: Physical Planning Background**

- 2.1 Site Context
- 2.2 Site Attributes
- 2.3 Planning Parameters
  - Habitat Area
  - DOT Outlot
  - Residential area
  - Primary Road Configuration
  - Development Density
- 2.4 Environmental Stewardship

### **Section 3: The Master Plan**

- 3.1 Development Strategy
- 3.2 Land Use Organization
- 3.3 Landscape Structure
- 3.4 Master Plan Development
  - Capacity
  - Parking
- 3.5 Phasing

### **Section 4: Development Guidelines**

- 4.1 Site Design Guidance
  - Site Planning and Design
  - Open Space and Streetscape
  - Transportation, Parking and Service
  - Landscape
  - Stormwater Management
  - Signage and Wayfinding
  - Site Lighting

4.2 Architectural Guidance

- Building Placement and Orientation
- Form and Scale
- Envelope and Architectural Features
- Environmentally Preferable Materials
- Daylighting
- Historic Buildings – note height of existing Eschweiler and matching height
- LEED

**Section 5: Acknowledgements**

Appendix A: Alternative Master Plan Development Options

Appendix B: County Habitat Plan

## **Section 1: Planning Context**

The master planning process for Innovation Park began in 2009 under the direction of the UWM Foundation and has included several phases from initial studies to more detailed planning and development strategy. Throughout the process, plans were reviewed to evaluate how the mission and goals of the University could be met through this development, while at the same time responding to the interests of the many stakeholders.

The site, located on the Milwaukee County Grounds property, has been discussed as a development opportunity for many years and is the source of several previous studies. In particular, a plan was completed in 2004 for the Milwaukee County Grounds Northeast Quadrant, which included the parcel that is the subject of this master plan. This plan was adopted by the City of Wauwatosa, and several of the key design principles and development strategies proposed in that report are also included in this master plan.

### **1.1 Mission & Vision**

The UWM Foundation's acquisition of the property was driven by a desire to grow the University in key research areas and support the regional economy. To that end, the mission of Innovation Park, is to provide an environment that:

- Supports the mission of the University of Wisconsin--Milwaukee and encourages the development of research strengths through partnership
- Strengthens the research industry in the region and encourages economic development
- Fosters collaboration between UWM and other institutions and private partners
- Provides an exemplary environment for research and academics

This mission suggests that the University play an active role in encouraging interaction and collaboration in the region through a growth in research activity. The environment will therefore need to support shared research, office and support facilities in a context that encourages both formal and informal interaction.

### **1.2 Background and Process**

The proposed master plan for Innovation Park is the result of a cooperative planning effort between the UWM Foundation, the City of Wauwatosa, Milwaukee County and other key stakeholders. The physical master plan takes into account a multitude of important issues including existing historic buildings, development density, natural site features, proposed modifications to the interchange and Watertown Plank Road, and access to and through the site. The planning team has consulted on numerous occasions with the City of Wauwatosa and Milwaukee County, as well as other stakeholders to verify that the physical plan is responsive to these critical issues.

**1.3 Park Features**

The development land is located approximately 12 miles west of the Kenwood campus on land known historically as the Milwaukee County Grounds. The development site is bound 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 (MCTS). The development site is adjacent to a preserve to the northeast, and a future Milwaukee County Park to the northeast. 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 of the site. Historically, the site has had other buildings and program located here. 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 side of the site. The adaptive reuse of these historic buildings is an important part of the Innovation Park master plan.

The Innovation Park land, referred to historically as the Milwaukee County Grounds, enjoys distant views of downtown Wauwatosa and Milwaukee from its elevated topography. In addition to being generally on high ground, portions of the site are more than 30 feet above the grade of the surrounding roads. The site's topography, historically flat, was altered by fill placement in the past five years. This fill has produced rolling topography in parts of the site.

The site has also taken on recreational use and is also home to some key habitat areas. The preservation of these critical habitat areas, notably for the Monarch Butterfly, is an important element of the plan. The County worked closely with stakeholders and other experts to identify key areas and create a Habitat Restoration Landscape Plan (see Appendix B), and the final plan is reflected in the master plan for Innovation Park.

Six historic structures on the National Register of Historic Places exist on the site and are incorporated into the Master Plan. The complex on the north of the site was designed by a notable local architect, Alexander C. Eschweiler, and constructed in 1929 as a school for agricultural studies. These buildings have been in disrepair for over 10 years. The sixth building currently houses the Milwaukee County Parks Department and is located on the southern portion of the parcel.

**1.4 Value Proposition**

Strategically located on the Northeast Quadrant of the Milwaukee County Grounds, the UWM Innovation Park will be perfectly positioned to exponentially increase the research productivity of the University of Wisconsin–Milwaukee (UWM) and all of the major institutions located in the Milwaukee County Regional Medical Center. It will also be the largest driver of economic development for Southeastern Wisconsin in the 21<sup>st</sup> Century knowledge-based economy.

The UWM Innovation Park will serve as the setting for strong and enduring partnerships between UWM, the Medical College of Wisconsin (MCW), Froedtert and Children's Hospitals, the Blood Research Institute, GE Healthcare and a wide range of other research intensive businesses located in the Milwaukee County Research Park. UWM will bring the basic and applied sciences needed to support the clinical research of the other partners. To anchor the Park, UWM plans to construct a \$75 million interdisciplinary research facility for scientists and engineers interested in collaborations with institutions at the Regional Medical Center. In addition, the UWM Foundation and the City of Wauwatosa are jointly pursuing a grant for federal funding to build a facility that would house both university researchers and private sector researchers in a new business accelerator building.

As a so-called "third generation" research park, the UWM Innovation Park will be at the vanguard of research park development nationally. First generation research parks, such as the Research Triangle Park in North Carolina, were developed before 1980. These parks, located some miles from their parent institutions, were essentially real estate ventures associated with research universities primarily through administration and name branding. The second generation of research parks, such as the Rensselaer Polytechnic Institute Research Park in New York, evolved throughout the 1980's and 1990's. These parks had closer ties to the research campuses through technology transfer offices and business incubation programs, but still kept the business and academic sectors very separate. Both of these models have had success in locations with internationally renowned research universities, but have not had a significant impact in communities such as Milwaukee.

Third generation research parks are being developed in the 21<sup>st</sup> Century and incorporate the academic and research enterprise of the university directly into the development of a private sector park. This powerful combination of industry and university working in true partnership at the same location both attracts companies to the region and produces companies directly from the university. This new paradigm is taking hold even in regions of the country that have successful first and second generation parks. The new Centennial Park at North Carolina State, for example, is being developed as a third generation park in the heart of the Research Triangle.

The value of the Innovation Park development is that it will provide space for first-class, leading edge interdisciplinary research facilities combined with educational space.

### **1.5 Goals and Objectives**

The master plan for Innovation Park relies on a clear set of goals and objectives which guide the planning. Innovation Park aims to promote quality design and development to support research, while considering a sustainable approach at each step along the way. As an overall goal, Innovation Park will make a positive contribution to the City of

Wauwatosa and the greater Milwaukee region and serve as an example of functional and smart development.

To that end, several goals guided the development of the master plan:

- **Research & Partnerships** – Development of a campus environment that sparks disciplinary and interdisciplinary innovation, connected to the community in which it resides, and leading to new knowledge, economic and technological growth, and a contemporary workforce for the knowledge-based economy. Facilities and infrastructure will enable university researchers to readily partner with private industry, community-based organizations, the City and other regional groups, colleagues at other universities, and governmental agencies, completing the innovation cycle and positioning the region as a global competitor.  
*(portions excerpted from UWM Master Plan Guiding Principles)*
- **Respect Existing Ecological Systems** – The master plan will consider the existing ecological systems on the site and propose development opportunities that respond in a sensitive fashion to these systems. Dialogue between the County, key stakeholders, the City of Wauwatosa and the UWM Foundation will support the creation of naturalized areas that will support key habitat.
- **Focus on Sustainable Planning** – Sustainable design principles will be emphasized throughout the master plan. Adherence to these ideals provides social, economic and environmental benefits that have a positive impact that reaches well beyond the boundaries of the development. The focus on sustainability will help to create a campus environment that is supportive, safe and secure; and delivers a high quality campus life and student experiences.  
*(portions excerpted from UWM Master Plan Guiding Principles)*
- **Responsible Development Density** – Planning for the appropriate development density on the site assists not only with creating a visually appealing plan, but furthers the notion of sustainable development. The plan will examine the appropriate balance between development and open space, as well as locations for shared resources.
- **Plan for Flexibility and Growth** - A master plan serves as a conceptual framework for development. As development occurs, additional patterns and details will manifest themselves. Therefore, the master plan will describe both in illustration and narration, how development might occur on the property while at the same time allowing for flexibility and change.
- **Support rehabilitation of Historic Structures on site** – There are several key historic structures on the property. The master plan will take into account development patterns that will encourage the rehabilitation of these structures and uses that would be appropriate to suit their redevelopment.

**Section 2: Physical Planning Background**

The Innovation Park master plan was guided by an understanding of existing site conditions, site history, and surrounding context. This section summarizes considerations of site and program.

**2.1 Site Context**

**IN PROGRESS**

**2.2 Site Attributes**

**IN PROGRESS**

The site has been divided into parcels:

Main Parcel	59.5 acres
Outlot 1 (Habitat Area)	11.4 acres
<u>Outlot 2 (DOT Zone)</u>	<u>17.5 acres</u>
Total Site:	88.4 acres

The Main Parcel includes the entire developable area of the site. Outlot 1 or the Habitat Area is the area on the north side of the site which has been defined as key habitat for the Monarch butterfly. Outlot 2 is reserved for future sale to the WisDOT for interchange/Swan Boulevard repositioning. An area on the north side of the site has been defined as a zone where residential development will be permitted. This zone is indicated on the diagram...

The site, except the Milwaukee County Parks building and its surrounds, is currently used as an informal recreation area. It is covered largely in short grasses and has established walking trails in this grassy area. The site has a stand of mature trees near each of the historic building areas. Portions of the site on the west and north have become roosting and nectaring spots on the Monarch butterfly’s migratory route. To preserve this rare phenomenon, a Habitat Landscape Preservation Plan has defined the critical areas to protect this migratory route. Roosting and nectaring areas have been identified, with the intent that development will have no impact these areas. It is expected that a long term habitat for the butterflies will be incorporated into the public county park to the east and that the butterflies will transition their route to this resource.

The site has a current operating access point on Watertown Plank Road to the south, which services the County Parks Building. It has emergency vehicle access on the west off of Swan Boulevard. For optimal traffic planning, any future access points for the site will be located east on Swan Boulevard, and 500’ east of the future Swan/41/45 intersection on Watertown Plank Road.

### Transportation

The Innovation Park site is directly adjacent to I-41/45, north of the Zoo Interchange connecting I-41/45 to I-94. In addition to this close and convenient freeway access, the site is directly across the freeway from the Watertown Plank Road WI Dot Park'nRide. Currently, three bus lines pass the southern edge of the site on Watertown Plank Road. These routes connect the site to the northern and southern parts of Milwaukee County including downtown Milwaukee.

Innovation Park will support access to several modes of transportation, including automobile, bus and bike and pedestrian. Over the long term, UWM may examine the feasibility of extending shuttle service to support connectivity between this location and the Kenwood Campus.

The location of the Innovation Park site provides for good connections to existing bicycle trails. Several paved bike paths pass near the northern edges of the site at Hansen and Hoyt Parks (Milwaukee County Parks). These paved bike paths are part of the Milwaukee County Oak Leaf trail and are well connected to all areas surrounding the County Grounds.

## 2.3 Planning Parameters

### IN PROGRESS

- Content for this section will include:
  - Habitat Area – will use some text from Habitat Plan by County
  - DOT Outlot – will explain that this is still under development. Communication during process, however DOT has not reached a conclusion on preferred option yet. Two alternatives on table, explain that one is more “severe” in terms of proximity to site...
  - Primary Road Configuration – explain that Wauwatosa desired that roadway not be a “short cut”, traffic calming measures, configuration of road to slow traffic. Discuss location of entry points to site at both Watertown Plank and Swan. Emphasize connection on Swan was the recommended location by the City of Wauwatosa. Potential future connection to Urban Forestry Center across street.
  - Development Density – discuss development density, compare to development density at MRMC and neighboring research park, etc..

## 2.4 Environmental Stewardship

### IN PROGRESS

### Section 3: The Master Plan

#### IN PROGRESS

#### 3.1 Development Strategy

#### 3.2 Land Use Organization

#### 3.3 Landscape Structure

#### 3.4 Master Plan Development

##### Development Density

The development density of the site is an expression of the ratio of building square footage to the total land acreage (floor area ratio = FAR). In addition, in determining density on the site, the physical plan accounts for the amount of parking necessary to support the square footage of space. The land area taken into account is approximately 59.5 acres, which is the Main Parcel or developable area on the site. The proposed plan currently shows a floor area ratio (FAR) of 0.46, which is approximately 1.2 million square feet of development including existing buildings. The earlier Northeast Quadrant Plan prepared in 2004 has a development density of approximately 0.46 based on area of developable parcels as well. Therefore, the density proposed in this master plan is approximately equal to that shown in the earlier plan. (Further explanation will be provided)

##### Parking

The master plan proposes a range of parking density to accommodate various uses, from a minimum of 2.5 spaces/1,000 SF in the academic intensive areas to 3.5 spaces/1,000 SF in the corporate/private. Based on the total development shown, the result is approximately 2,500-3,000 parking spaces, which are addressed through a combination of structured, street, and surface parking. Where possible, the master plan sites parking structures to utilize natural topography on the site so that the structures have a minimal visual impact. Surface parking lots are proposed to use pervious pavement to reduce surface run-off. In addition, shared parking accommodations are encouraged on the site to limit the number of surface lots or individual structures, lessening the impact on the site.

##### Storm Water Management

Storm Water Management for the UWM Innovation Park site is regulated by the City of Wauwatosa, using the criteria established by the MMSD. Two methods have been prescribed by MMSD for determining the size of storm water management facilities: the release rate method, and the volumetric method. The volumetric will be used to compute the storm water storage volume for the approximately 80-acre UWM Innovation Park site. The volumetric method requires that the volume of storm water leaving the developed site

be equal to or less than the volume leaving the site under existing conditions, for the critical watershed duration.

A storm water management plan and cost/capacity allocation system similar to the system currently in place for the Milwaukee Regional Medical Center (MRMC) will be developed. This system will establish a baseline discharge for the site, and will track the impacts of proposed developments while determining the additional storm water control measures required to stay within the City and MMSD criteria.

The UWM Innovation Park site is divided, based on topography, into three drainage watersheds. The attached figure shows the three watersheds. The east watershed, which includes the Park's Administration Building and the southeast corner of the site, drains to storm sewer in Watertown Plank Road, discharging to Milwaukee County's Detention Basin No. 1, east of N. 87<sup>th</sup> Street. The north watershed, which includes the majority of the site, drains overland to the MMSD's County Grounds Storm Water Management Facility. The west watershed, which primarily includes the area to be dedicated to WisDOT for Highway 45 improvements, drains through a culvert beneath Highway 45, to Underwood Creek.

The storm water management strategy for each of these watersheds, under developed conditions, is as follows:

- Developed East Watershed – some onsite storm water management features, such as rain gardens and pervious pavements, will be installed to reduce peak flow rate and volumes from the area. The remaining areas, such as the existing lawn areas and the proposed entrance roadway, will drain to storm sewer in Watertown Plank Road, discharging to Milwaukee County's Detention Basin No. 1. Recent improvements to the detention basin and a portion of the storm sewer system were designed to accept this additional flow.
- Developed North Watershed – green infrastructure features, such as bio-infiltration basins, pervious pavements, and green roofs will be used to store, infiltrate, or evaporate collected stormwater from roadways, parking lots and buildings. Several bio-infiltration areas will be used to accomplish the goal of limiting the volume of runoff to the volume prior to development.
- Developed West Watershed – similar measures to the north watershed will be used for development within the west watershed, such that the volume of runoff to the culvert beneath Highway 45 will be less than under existing conditions. Changes will be made to the watershed boundary to divert pavement and building areas within the west watershed to the bio-infiltration basins within the north watershed.

Major storm water management facilities, such as the bio-filtration basins, will be installed as part of the initial infrastructure construction. These storm water facilities will then be in place to handle the runoff from the new roadway and other initial improvements, as well as a portion of the runoff from future developments. Storm water features associated with individual development projects, such as green roofs, rain gardens, and pervious pavements, will be installed on a project specific basis, and credited towards the developer's cost for overall storm water management facilities.

### 3.6 Phasing

**IN PROGRESS**

## Section 4: Development Guidelines

**IN PROGRESS**

### 4.3 Site Design Guidance

- Site Planning and Design
- Open Space and Streetscape
- Transportation, Parking and Service
- Landscape
- Stormwater Management
- Signage and Wayfinding
- Site Lighting

### 4.4 Architectural Guidance

- 1.1.1 Building Placement and Orientation
- 1.1.2 Form and Scale
- 1.1.3 Envelope and Architectural Features
- 1.1.4 Environmentally Preferable Materials
- 1.1.5 Daylighting
- 1.1.6 Historic Buildings
- 1.1.7 LEED

## Section 5: Acknowledgements

**INCOMPLETE**

Prepared for:  
UWM Foundation  
3230 East Kenwood Boulevard  
Milwaukee, WI 53211

Prepared by:



Architecture | Engineering | Planning

Hammel, Green & Abrahamson, Inc  
333 East Erie Street  
Milwaukee, WI 53202  
414.278.8200  
www.hga.com



GRAEF  
One Honey Creek Corporate Center  
125 South 84th Street, Suite 401  
Milwaukee, Wisconsin 53214  
414.259.1500 direct  
www.graef-usa.com

