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SMITHGROUP

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I. INTRODUCTION AND OVERVIEW

Aerial Photo of IUPUI Campus, 2018

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1 | PRESIDENT'S LETTER



In September 2007 I announced that Indiana University would begin the process of producing a master plan for the IU Bloomington and IUPUI campuses to guide the future physical development of both campuses. At the time I noted that "in coming years, we will face many decisions with respect to construction of new facilities, and renovation and repurposing of existing structures. It is critical that we have a well-thought out master plan to guide us." I added "that a single plan integrating the needs of the two campuses will enable the university to maximize collaborative possibilities and minimize duplicative efforts."

Given the scale of investment in projects that were then planned or foreshadowed on both campuses and the complexity and inter-dependence of many of them, a plan of this quality and detail was deemed absolutely essential to allow IU and the campuses to make the best decisions about the development of these projects and to make the most effective possible use of the resources the university receives from the state, internal sources and through private philanthropy.

To this end the SmithGroup was selected to develop this master plan and David King from this company was selected as the university's master planner.

The master plan comprising master plans for the IUB and IUPUI campuses was completed under King's visionary direction and with input from hundreds of faculty, staff, and students on both campuses, and in February 2009 was approved by the IU Board of Trustees. The full IUB master plan was released in March 2010. However, after nearly 10 years of the implementation and use of this plan in the development of the IUB campus, it was clear an update to it was necessary. This was again produced by the SmithGroup under David King's direction and approved by the IU Board of Trustees in October 2018. The full version was released in June 2020.

The situation with the IUPUI master plan was more complicated. First 2009 saw the negotiation of an agreement between IU and the Health and Hospital Corporation of Marian County to swap the parcel of land on which the then Wishard hospital was located at West 10th Street and University Boulevard adjacent to the IUPUI campus, for another parcel of land on the north west corner of the campus on which a new Wishard hospital could be built. This agreement was signed in November 2009.

This then raised the issue for the IUPUI master plan as to how this new parcel of land would be used by IU and what the future would be of all the buildings on it that would become IU's when the new Wishard hospital opened, in particular which would be repurposed and which would be demolished in whole or part. In addition, planning had also begun for the construction of a building to house the IU School of Medicine's neurosciences programs to be located off the IUPUI campus on the main IU Health campus in the area bounded by I-65 north and east, and by Capitol Avenue and 21st Street (Clarian Health having changed its name to IU Health during this period).

All of this in turn led to the decision to produce an integrated master plan for both the IUPUI campus and the IU Health Campus including the additional IU and IUH sites at the head of the canal bounded by 10th and 11th Streets.

This was done in two volumes – Volume 1 covered principally the IUPUI campus and was a revision and expansion of the original 2009 master plan, while Volume 2 called the "Integrated Plan for the Academic Medical Center Campus" covered in more detail the IU and IU Health hospital and health sciences facilities on the IUPUI campus north of Michigan Street, those at the head of the canal, and those on the main IU Health campus.

These were approved by the IU Board of Trustees in February 2011 and released in February 2012.

However, around this time discussions had begun between IU and IU Health as to the future of the IU Hospital on the IUPUI campus and the Methodist Hospital on the main IU Health campus, and their replacement by a single academic health center including a new hospital on one of these sites. It was eventually agreed that this should be on the main IU Health campus site and this was approved in April 2015.

Work on this new multi-billion dollar facility will commence later this year. This clinical, education, and research campus will dramatically transform the present site into a major new world-class academic health center (AHC). A new IU Medical Education Building will be constructed and co-located with a new IU Health Hospital as part of this AHC, and this will become the center of the education of future doctors in Indiana. IU will also construct a large research facility to be collocated with this building as part of the overall AHC.

However, a migration of this size of personnel and facilities from the IUPUI campus has in turn implications for the IUPUI master plan. In fact 2014 had already seen the opening on the AHC site of the School of Medicine's Neurosciences Research Building in conjunction with IUH's Neuroscience Center. Further, with the opening in 2013 of Eskenazi Health Hospital adjoining the IUPUI campus, all of the former Wishard Hospital buildings became IU property which required the development of a plan for the comprehensive repurposing and renovation of this space and all these buildings, and where necessary, their demolition in a coherent way in line with the IUPUI master plan and the emerging IUH plans for the AHC. This in turn meant that the work of both 2012 master plan volumes would need further updating and development.

Over this period too, the IUPUI campus was also becoming rapidly transformed, this development being guided by the core principles of the IUPUI master plan and, in many cases, by its recommendations concerning specific projects. As these projects have been completed one by one, the full substance, depth, and wisdom embodied in the master plan has been steadily and fully revealed.

But this extensive development has in turn created new opportunities and opened up new possibilities related to the development of the campus. In addition, the master planners and university and campus administrators have learned a great deal over the last decade as recommendations of the master plan have been steadily implemented.

Hence given all these developments, and given that it had been around a decade since the completion of the original IUPUI master plan, it became clear that a major update of the 2009 master plan as revised in 2012 was necessary. The university master planner David King and the SmithGroup were tasked with preparing this update. It focuses on districts and areas of the campus for near- and longer-term future development. It provides a framework for future land development, transportation, open space, and campus modifications to guide critical campus planning and facilities decisions. It concentrates on parts of the campus that hold potential for the construction of additional student housing, sites for additional athletics and recreation facilities, future renovation and reuse of legacy buildings, and the continued development of the IUPUI campus as a place of academic and research excellence.

This update was approved by the IU Board of Trustees in February 2020 and was completed in June 2020.

There have been numerous trends and developments that have contributed to the need for this update. As IUPUI has continued to grow and mature, more and more students were coming to IUPUI seeking the classic on-campus experience that helps shape lives, strengthen education, and allows students to achieve at the highest levels. Consequently, the demand for on-campus accommodation continued to grow.

To meet this need, University Place Hotel and Conference Center was converted into a residence hall in 2013, and the first new residence hall on campus in nearly 90 years —North Hall—was opened in 2016. As I write, we are nearing completion of a spectacular renovation of Ball Hall, IUPUI's very first residence hall dating from 1928, a major project that has preserved a window into the history of the campus.

With all of these changes, IUPUI has more than doubled the number of beds on campus, going from 1,100 in 2007 to 2,400 in 2021. These developments along with the opening of the new Campus Center in 2007, have dramatically changed the character of the campus, making it a vibrant hub of student life at all hours. But the demand for on-campus accommodation will only but increase.

IUPUI has been further transformed by the conversion of New York and Michigan Streets into safer, slower two-way streets, almost instantly turning the campus into a much friendlier and more welcoming place and strengthening the connection of the campus to downtown Indianapolis. This was one of the most important and transformative recommendations of the original IUPUI master plan. The impact of this in turn has influenced thinking about the future development of the campus.

As part of the "Welcoming Campus Initiative," trees and greenery have been planted to soften the lines of campus hardscaping, and to create enjoyable and comfortable spaces that enhance and improve the student experience. The impact of this has, in a few short years, been considerable with the campus becoming progressively more attractive as a place to live and work.

But even more importantly, the functionality of the whole campus and all of its components has been greatly improved, in turn contributing in major ways to enhancing and expanding the university's fundamental education and research missions. With the recent dedication of Innovation Hall, the schools of Engineering and Technology, Science, and Informatics and Computing have a superb new state-of-the-art facility designed to meet the evolving teaching and research in the STEM fields. University Hall, dedicated in 2015, provides a home for of one of IU's newest schools—the Lilly Family School of Philanthropy—as well as critically needed additional space for the IU School of Social Work, the oldest program of its kind in the United States.

We have also seen the extensive renovation of the iconic IUPUI Natatorium in 2016, the restoration of the beautiful and historic Ball Gardens in 2016, and the recently completed renovation of the Madam Walker Theater in partnership with Lilly Endowment, Inc. and the Madam Walker Legacy Center.

The well-designed buildings, living and gathering spaces, and campus green spaces that grew out of the IUPUI master plan foster an enhanced sense of community and connection, provide inspiration and space for collaboration, and contribute to improved academic outcomes. This update highlights most of these major construction and renovation projects that have been completed on the campus since 2009 or soon will be.

Consequently, this volume contains

- the 2012 version of the IUPUI master plan, and
- the 2020 IUPUI master plan update

Though the 2012 version of the IUPUI master plan refers in places to the then second 2012 volume, these references should be taken as having been superseded either by the 2020 IUPUI master plan update volume, or IU Health's recently released 2021 document, "Indiana University Health Medical Center Campus. Volume 1: Concept Design and Master Planning Summary" both of which build on and further develop the work of the second 2012 volume.

I fully expect however, that a further update will be needed in another 10 years, and perhaps 10 years after that. After all, this plan was developed to be a living document, providing a flexible and adaptable guide for the development of the campus over many decades, and one that can be readily adjusted to meet the evolving needs of the campus, the university, the community, the state, the nation, and the world.

One need only look at the cities of Chicago and Los Angeles, where the impact of the development of the campuses of the University of Chicago and the University of Southern California illustrate the transformative impact a great residential, urban campus can have on a city. This is now the future that is emerging in Indianapolis.

This update, which builds upon and expands the vision of the original 2009 campus master plan, will help to guide IU's efforts in the coming years to ensure the continued growth and development of what is becoming one of America's leading residential urban research campuses.

Michael A. McRobbie President Indiana University June 2021

2 | MASTER PLAN IMPLEMENTATION SINCE 2012

Between 2009 and 2021, Indiana University Purdue University Indianapolis has completed numerous capital projects addressing the full diversity and needs of the university. The investment has paid dividends by providing new and refreshed learning and research environments, as well as addressing the needs of students outside of the classroom. The result reinforces Indiana University's core mission and maintains its status as a world class institution.

The following is a list of projects which begin to illustrate the breadth and scope of change which has occurred on the campus over the last decade.

ACADEMIC AND RESEARCH

Investments in new and existing academic facilities are a key part of the President and Chancellor's mission to improve student success. These teaching and research facilities incorporate emerging technologies and promote interdisciplinary collaboration through group work and active learning.







Eugene and Marilyn Glick Eye Institute (September 2011)

The institute brings together healthcare, research, and education. The first-floor clinic serves patients suffering from vision loss and eye disease, along with a conference room and optical shop. The three floors above are dedicated to administration, learning, and research. It is the first building to achieve LEED Gold certification on the Indiana University campuses.

Science and Engineering Laboratory Building (September 2013)

The building, the first nonmedical science academic building to open on the IUPUI campus in 20 years, contains about 35,000 assignable square feet for research and teaching spaces. The high-tech building provides needed facilities for interdisciplinary education and research that contributes to the economic vitality of the state of Indiana.

Innovation Hall (Multidisciplinary Research and Classroom Building) (August 2020)

Innovation Hall accommodates the evolving teaching and research needs for programs in the School of Science, School of Engineering and Technology, and School of Informatics and Computing. The much-needed research and instruction facility will promote interdisciplinary collaboration, interaction, and active learning.

SPACES FOR STUDENT SUCCESS

A wide variety of new learning, recreational, and event spaces enliven the campus and exemplify the university's commitment to student success. Revitalized facilities create welcoming experiences for students with different backgrounds.







University Library Renovation (December 2017)

The University Library had not had a significant update since it was opened in 1993. The third and fourth floor renovations provided private, quiet study spaces, and an increase in the amount and quality of collaborative, group study spaces reinforcing the library's function as the informal learning hub of the campus.

Campus Recreation Center (August 2018)

The 10,000 square foot facility, which opened in March 2018, offers workout space containing cardio equipment, weight machines, free weights, studios for group fitness classes, and an MX4 studio.

Hine Hall Classroom and Conference Room Renovation (August 2017)

The conversion of the former University Place Conference Center and Hotel into a multi-use facility is a recent example of adaptive reuse on the IUPUI campus. Hine Hall offers active learning and event opportunities with its renovated classrooms, ballroom, banquet rooms as well as a 370-seat auditorium.

HOUSING

Recently completed projects integrate dining, gathering, and recreational uses into residence halls to build a stronger sense of community and campus identity. Redesigned courtyard spaces in the residential neighborhoods reinforce a collaborative collegiate experience. New and renovated residential facilities in the heart of the campus improve student retention and graduation rates.







University Place Conference Center and Hotel Food Court Renovation (August 2013)

The renovation of the former University Place Conference Center and Hotel into University Tower is home to 600 firstyear students. With private bathrooms in every room and quick access to three dining options in the building, students can enjoy traditional residence hall life with non-traditional amenities.

North Hall (August 2016)

North Hall is the university's newest residential facility, which combines traditional style living with modern convenience. It offers single rooms, singles with bathrooms, and double rooms for 680 students. The building features a computer laboratory, student lounges, game room, fitness area, laundry facility, a large programming area, and two classrooms.

Ball Residence Hall Renovation (July 2021)

Preserving a piece of IUPUI history, the renovation of Ball Residence Hall replaced the mechanical, electrical, plumbing, and fire protection systems; remodeled current restrooms; added universally accessible student rooms and single-use restrooms; added a new laundry room; updated student rooms and access controls; and, made improvements to the south entry exterior.

ATHLETIC AND COMMUNITY FACILITIES

Renovated athletic and recreational facilities enhance the student experience with diverse campus activities and events. Recent accomplishments promote healthy lifestyle and vibrant social interactions on campus.







IU Natatorium Renovation (May 2016)

The Natatorium has been renovated to better serve the local, regional, and national communities. After 34 years of productive use, the facility needed major improvements to help ensure its esteemed presence continues well into the 21st Century. The project was completed in time to host the 2016 U.S. Olympic Team Trials for Diving.

Sports Complex Parking Garage Expansion (April 2012)

This expansion includes an additional 1,300 parking spaces directly south of the current garage. It provided additional space for the IUPUI campus, as well as additional space for permanent tenants.

Walker Theatre Renovation (November 2019)

The renovation ensures the legacy of Madam C.J. Walker by reinvigorating this historic facility. Renovations includes interior updates to create classrooms, conference and seminar rooms, and community gathering spaces. Through partnerships, the planned renovation will support new university programs and community activities.

LANDSCAPE AND STREET IMPROVEMENTS

IUPUI implemented multiple initiatives to improve signage and landscape on campus. New outdoor amenities enliven the campus and create comfortable spaces for student interactions. New gateway improvements announce the campus edges and are compatible with the surrounding urban and architectural context.

The character of the urban streetscape is a key component of the campus experience at IUPUI. Recent initiatives, including the Michigan and New York Streets two-way conversion and the Indianapolis Cultural Trail, have reshaped the pedestrian realm by enhancing the pedestrian experience with more landscape and amenities.







New York and Michigan Streets Conversions

The important multi-phase projects converted Michigan and New York Streets from a one-way pair into two-way roads which greatly improves vehicular circulation and access on campus. Grassy medians and protected two-way bicycle lanes contribute to a healthy and sustainable campus environment.

Campus Gateway Improvement

Five new campus gateway markers are planned for the campus. One at each end of Michigan Street and one at each end of New York Street. The fifth gateway will be at the intersection of Indiana Avenue and 10th Street. The gateways are composed of limestone, stainless steel, precast concrete, and glass. Nighttime illuminations will clearly mark these entries into the campus.

West Street Powerlines and Landscape Improvements

Landscape improvements and the removal of overhead powerlines along West Street updated systems and greatly enhanced the arrival experience from downtown Indianapolis.

II. 2020 Master Plan Update

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1 | MASTER PLAN SUMMARY AND THEMES



A TRADITION OF PLANNING

The 2020 Campus Master Plan Update (Master Plan) is the composite of multiple planning efforts spanning nearly a decade. Its purpose is to support the mission and vision of Indiana University Purdue University Indianapolis (IUPUI) and establish a framework for decision making and strategic development for the next 20 plus years.

For Indiana University, thoughtful planning has been a long standing tradition. Throughout this continuum of change, one element has remained constant—the desire for IUPUI to remain the premier health sciences and urban research campus supporting the academic, research, and healthcare objectives for the State of Indiana.

PREPARING FOR CHANGE: PROGRAM MIGRATION

At its essence, the Master Plan serves two functions. First, it has been developed to address traditional physical planning issues including land use, capacity, transportation, academic and research futures, and the student experience.

Second, and more importantly, this Master Plan responds to new strategic opportunities for both Indiana University and IU Health. These include program migration from the IUPUI campus to the IU Health Academic Health Campus (Academic Health Campus) at 16th Street and Capitol Avenue in Indianapolis. The specific program migration opportunities relate to a new medical education future in conjunction with a major multi-billion dollar investment in patient care at the Academic Health Campus at 16th Street and Capitol Avenue.







A CRITICAL TIME TO PLAN

Taken collectively, these changes effect IUPUI and IU Health in important and different ways. It is the intent of this Master Plan to highlight the planning framework required to achieve these strategic objectives.

Moreover, the Master Plan allows the institutions to reexamine facilities, consider shared resources, realign programmatic functions, and redefine connectivity between the academic, research, and clinical platforms. This Master Plan offers a compelling vision that reflects the needs of faculty, staff, students, researchers, clinical healthcare employees, patients, and visitors.



KEY PLAN DRIVERS FOR THE NEXT TEN YEARS

- 1. Enrollment expected to be steady
- 2. Improve the look and feel of the campus
- 3. Improve the first-time visitor experience
- 4. Address deferred maintenance
- 5. Increase in research space capacity
- 6. Identify possible sites for on campus student housing, if needed

THE PROPOSED PLAN THE INDIANAPOLIS CAMPUS: CONNECTIVITY AND CHARACTER

Thematically, the Master Plan strives to better link the campus at the building, the precinct, and at the campus scales. Further, it recommends incremental renovation of existing buildings with deliberate landscape and placemaking interventions to enhance the overall campus experience. With program migration to the Academic Health Campus, the IUPUI can develop and redevelop parts of the academic campus and patient care core and evaluate the long-term efficacy of several aging facilities. Finally, the campus could leverage the programmatic intersection of undergraduate and graduate health sciences education through strategic facility reuse.

Additional planning objectives include:

- Integrate living, learning, and social environments to improve the student experience
- Develop additional housing and dining assets, as needed
- Enhance campus image through placemaking and civic realm improvements
- Create outdoor spaces that link academic programs to exterior environments







The Master Plan is based on several major planning themes. These have helped guide the process and should serve as a guidepost for strategic decision making. They include:

- Connect Campus Districts
- Engage the City
- Animate the Campus
- Redefine the Public Realm
- Integrate the Academic Health Campus

CONNECT CAMPUS DISTRICTS

The IUPUI campus has historically suffered from an 'identity crisis', the result of physical campus fragmentation, administrative organizational divisions, and program separation between the medical/research/healthcare focus and the academic core. This perception has been physically evident by dispersed academic, medical, undergraduate and professional facilities across the peninsula.

Today, the IUPUI campus is host to a greater diversity of campus users than any other IU campus. Indiana University and the campus must not only focus on its core academic, research, and healthcare functions, but also present a clear and organized environment for its many visitors.

The Master Plan proposes to connect undergraduate programs, professional schools, and medical and health sciences research. The new planning model recommends a crosspollination of programs, schools, and centers to facilitate the exchange of ideas, provide greater mentoring opportunities, and foster interdisciplinary learning.

Orientations

- Integrate academic, research, and medical environments through physical, social, and programmatic mechanisms
- Promote the integration of professional and undergraduate student learning opportunities
- Facilitate a model of interdisciplinary learning
- Encourage the development of shared multiuser facilities



ENGAGE THE CITY

IUPUI is an important partner of the City of Indianapolis and host to many civic activities ranging from cultural to athletic events. One of the recommendations of the Master Plan is to meaningfully connect the campus and the City of Indianapolis. This includes extending physical connections to cultural attractions, athletic facilities, government operations, the White River, and adjacent neighborhoods.

Deliberate engagement will allow the campus community to fully take advantage of its position in the heart of Indianapolis and the Indianapolis community to realize the many benefits of being adjacent to worldclass academic, cultural, research and medical facilities. More effective connections will be accomplished, in part, by strengthening and expanding linkages along traditional networks including the street grid, transit corridors, bikeways, open spaces, and pedestrian systems.

Orientations

- Connect the fabric of the campus to the city
- Leverage campus and city venues including cultural, athletic, academic, medical, research, and civic amenities
- Improve all transportation networks and connections
- Reconnect the campus with all its neighbors
- Engage the White River open space
- Explore shared community amenities and neighborhood alliances

ANIMATE THE CAMPUS

The proposed Master Plan envisions the campus with connected, cohesive, and engaging outdoor spaces which extend the educational and community building mission of IUPUI. Several strategies can be used to improve the scale, identity, and functionality of the campus, including:

- New gateways at the edge of campus clarify its boundaries and announce IUPUI
- Campus residential neighborhoods can be augmented with useful and programmable outdoor spaces which can accommodate scales of uses ranging from quiet study to larger residence hall events
- The entire campus community can take advantage of recreation, event spaces, food venues, retail, and services
- The health sciences and research quadrant can be rethought to bring researchers and students together creating opportunities for collaboration and discoveries
- The landscape can be transformed into a woodland campus with tall canopy trees which will soften and unite the campus









IUPUI

REDEFINE THE PUBLIC REALM

Big Returns For Modest Investments

IUPUI can be repositioned for the future through transformative building and landscape interventions. These proposed modification examples are intended to humanize the scale and planning foundation established by the original IUPUI plan of Edward Larrabee Barnes. In addition, these changes are intended to augment the architectural legacy and rescale the monumental open spaces. The Master Plan recommends outdoor spatial connectivity, human scaled environments, and programmable civic and institutional event spaces.

Further, the Master Plan introduces several enhancements intended to create significant impact for modest financial investments. The following pages highlight multiple improvements ranging from placemaking initiatives, adding tree canopy, creating first-floor building transparency, and introducing public realm improvements. Thematically, each of these investments refocus on student needs—celebrating the confluence of campus living, learning, and socialization.



Taylor Hall Quadrangle

The proposed Taylor Hall quadrangle intervention frames the space with canopy trees, improves campus lighting, and develops new active edges to the space in front of the buildings. This new edge could have collaboration stations, as well as loose tables and chairs which will allow students to work individually or socialize with their peers in groups. The central green could be retained for large events such as convocation and festivals.





Core Campus - New Amphitheater

A possible revitalized quadrangle on the south side of University Library could be transformed by activating the monumental stairs into an amphitheater which could bring events to the core of campus, as well as provide a comfortable outdoor space for students to gather, socialize, and relax.

A new south entrance to University Library will connect this renovated courtyard to other important campus destinations.





Breezeway - Proposed Coffee Shop

There are two "breezeways" or "underpasses" on campus which can be reimaged by creating activity hubs, meeting space, and food/coffee venues. The location of these hubs serve two adjacent quadrangles each. This transparent and welcoming space could have strong indoor/ outdoor relationships with patio seating and landscaping engaging each quad.





INTEGRATE THE ACADEMIC HEALTH CAMPUS

Medical education, research, and patient care have been centered on the campus in aging facilities with no room for expansion, limited renovation potential, and challenging access for the patients, visitors, faculty, staff, and students. The IU Health plan calls for the University Hospital, medical education, and portions of medical research to relocate to the new Academic Health Campus at West 16th Street and North Capitol Avenue, which will see a multi-billion dollar investment in new health and medical facilities.

Relocating these functions to this new area also opens the IUPUI campus for potential expansion of health sciences education, research, and blends the undergraduate experience with graduate-level study and research thorough interdisciplinary education.



Proposed Development Massing Diagram - Academic Health Campus 2020

Orientations

- Relocate the University Hospital and medical education to the new IU Health Academic Health Campus
- Expand research and health sciences education on the IUPUI campus
- Create an interdisciplinary "hinge" which links the undergraduate experience to research
2 | CAMPUS EVOLUTION



CAMPUS HISTORY

Over the last fifty years IUPUI has rapidly progressed and expanded, as an institution and as a campus. The origins and influences for its development extend further back into the past than IUPUI's formal establishment in 1969. As an urban campus, IUPUI's development is tied to Indianapolis' continuing evolution and several factors are especially relevant to key Master Plan principles.

Perhaps the most fundamental goal is to capitalize on IUPUI's urban context. The Master Plan strategies are rooted in an understanding of the campus and Indianapolis' historical and physical developments over time. Examples include:

• The presence of Fall Creek and the White River led, in part, to the selection of the specific site for the capital city. The watercourses have impacted development in significant and diverse ways. As the Master Plan sets forth strategies to improve the relationship of the campus to natural systems, Fall Creek and the White River continue to play an important role toward enhancing the quality of campus experience and the environment for members of the IUPUI and Indianapolis communities.

- The Indiana Avenue district has a rich heritage and vibrant cultural history. The Master Plan seeks to recapture historic qualities and establish a revitalized campus neighborhood seamlessly integrated into the life of the city.
- The IU School of Medicine and hospital complexes substantially pre-date the formation of IUPUI. The Master Plan seeks to create a more unified campus environment that eliminates the sense of physical and programmatic dislocation between academic and medical precincts.
- The most influential previous plan for the IUPUI campus was the work of the architect Edward Larrabee Barnes and the landscape firm Zion and Breen. The Master Plan will extend positive aspects of that plan

while introducing a new district framework for development. Each district plan draws upon campus and city history, in order to shape and establish individual character and sense of place.

The Master Plan provides guidance for future campus growth and expansion by considering Indianapolis and IUPUI's history and development. The following summary places its recommendations in the context of continuous evolution.

IUPUI



View towards White River over New York Avenue, 1905-1930



Indiana Avenue Street Scene



Medical Center, 1937

'THE PLACE OF NOISY WATER'1

In the early 1800s the "land of Indians" was a U.S. territory, and the Miami and Delaware tribes inhabited this area of the future State of Indiana. Fall Creek flowed directly south and its tributaries spread out along what would later be the western half of IUPUI's campus. The creek, a popular fishing spot of the local tribes, was named Chank-ti-nun-gi which meant "The Place of Noisy Water." The adjacent White River was also a Native fishing spot and was known as "White Waters" due to its clarity. Although the Natives frequented the site that would be IUPUI for fishing, they did not settle there because frequent flooding made the site unattractive for habitation.

Due to its proximity to the geographic center of the state, as well as to the Fall Creek and White River, this area was chosen as the site for the capital city. The initial thought was that the river would serve as a valuable trade route; however, it proved unsuitable for navigation. In order to solve the problem, the state authorized the Indiana Central Canal project in 1835. Intended to run 296 miles, the canal was to connect Lake Erie to the Ohio River in Southern Indiana. Only the 8 mile portion connecting downtown Indianapolis with Broad Ripple to the North was ever operational. The original vision for a transportation hub became a reality with the Madison and Indianapolis Railroad in 1847.

The city's founders were inspired by L'Enfant's plan for Washington D.C. Alexander Ralston designed the city as a grid of streets radiating outward from a central circle and West Street formed the boundary of the 'mile square' city. West Street is now the IUPUI campus' eastern edge. Military Park, at West and New York Streets, dates from Indianapolis' founding. Originally called Military Ground, the Park has seen various uses: militia training for the Black Hawk War in 1836, site of the first Indiana State Fair in 1852, and a camp for Union soldiers during the Civil War.

Proximity to both the river and the creek proved to create problems for development. Flooding



Historical Map of Indianapolis, Circa 1876

was continual until the 20th Century when the modern levees were put in place. Water-borne illnesses were also prevalent before the advent of modern vaccines for such illnesses as typhoid fever. At the time of European settlement of the area the orientation of Fall Creek and its tributaries was just to the west of the former site of Wishard Hospital. The Wishard Hospital site was also the site of the city's first hospital. The hospital was located on a bluff above Fall Creek - its riverbed lying between the city hospital site on the east and the White River on the west. In the 1870s efforts were made to realign Fall Creek and its riverbed began to be filled with urban debris and trash. The mill race that ran from the Wishard Hospital site down to the area currently occupied by the NCAA complex was an early attempt at controlling and using the waters of Fall Creek; however, the race was eventually filled in around 1900.

Given the undesirable conditions, the earliest settlers tended to be those at the fringes of society. In the 19th Century the area was populated by immigrants from Ireland and

Eastern Europe. In the early 20th Century, thousands of blacks came to the North in what has become known as the Great Migration and the area became a predominately African American neighborhood. The Indiana Avenue neighborhood was a center of African American heritage and cultural, music, and spiritual life. The Bethel African Methodist Episcopal Church began services in 1869. The church played a role in the Underground Railroad movement and Civil War recruitment, and housed the first NAACP chapter in the city. In 1916 the area had numerous businesses that served its predominately African American residents who were restricted from white neighborhoods. On a national level, Indiana Avenue was the place for jazz; JJ Johnson, Duke Ellington, Ella Fitzgerald, Dinah Washington, and Count Basie were among the many notable jazz greats performing at the Walker Theater, constructed in 1927. Indiana Avenue has been designated a Cultural District by the City of Indianapolis.

The first hospital for the city was built on the Wishard Hospital site in 1859 and immediately

became known as "Dunlap's Folly" because the exorbitant cost of construction left no money for furnishings or operating the hospital. The location was chosen because it was on the far western edge of Indianapolis and, an area deemed unfit for human habitation, a good place to send contagious patients who were not wanted in other areas. Shortly after the hospital was built it was abandoned and in the intervening 20 years it was used for a variety of purposes. In the 1880s, a new hospital founded by Dr. William Niles Wishard was built on the site. The new hospital, dubbed "Wishard's Wisdom," hosted the first nursing training program in the state and became the cornerstone on which the Medical Center at Indianapolis was built.



Walker Theater, 1928



Wishard Hospital Site and White River

"SIX YEARS AGO WE UNDERTOOK TO ESTABLISH AN ADEQUATE MEDICAL SCHOOL IN CONNECTION WITH INDIANA UNIVERSITY"²

Although a formal medical department was founded at IU Bloomington in 1903, in the first decade of the 20th Century discussions began for a combined Medical Center in Indianapolis. The Medical Center brought together the interests and resources of Indiana University and Purdue University, which had recently merged with the Indiana Medical College. On April, 4, 1908 an agreement was reached to form a new medical teaching institution under the direction of the Trustees of Indiana University. The new Medical Center was located adjacent to the city hospital.

Long Hospital was the first of many buildings in the Medical Center – it was constructed in 1914, just south of Wishard Hospital along West Michigan Avenue. The Medical School Building (now Emerson Hall) was the next constructed, opening in 1919. That building was followed in the 1920s by the James Whitcomb Riley Memorial Hospital (1924) and the Ball Residence for Nurses (1928). Several additions to Riley Hospital continued during the depression years of the 1930s, including: Kiwanis Unit (1930), Rotary Convalescent Home (1931), and the Hydrotherapeutic Pool (1935). A clinical building was added to the Medical School in 1938.

The rapid development of the Medical Campus was guided by a plan produced by the Olmsted Brothers in the 1920s. Extensive improvements to the landscape were undertaken between 1934 and 1937: between 5,000 and 10,000 trees were planted on the 35 acre campus. Grading and filling of this area which was once the bed of Fall Creek was carried out per the Olmsted Brothers Plan. Many improvements were completed with manpower provided by the Works Progress Administration with tools, supervision, and technical assistance provided by Indiana University and the Riley Memorial Association. By the end of the Bryan Administration the IUPUI Medical Campus consisted of nearly 50 acres and by the 1950s the historian Burton Dorr Myers remarked that "The campus is now the most beautifully landscaped area in the west part of Indianapolis."



Long Hospital, 1920



Ball Residence Hall



Riley Hospital, 1930s



EXPANSION DURING THE SECOND HALF OF THE 20TH CENTURY AND BEYOND

Indiana University began formal Extension courses in Indianapolis in 1891. In 1943, Purdue University initiated its Division of Technical Studies. Although the official establishment of IUPUI, Indiana University Purdue University Indianapolis, as an undergraduate academic institution occurred in 1969; plans for the merger were in the works for most of the 1960s. Indiana University, under the direction of President Wells and through the Hoosier Realty Corporation, began buying up property as it became available adjacent to the Medical Center as early as the 1950s.

Land acquisition activities and consolidation of property in this area occurred during the 1950s and 1960s to facilitate the new interstate highway system and growth of the university. The university was assisted in its consolidation efforts by the City of Indianapolis Redevelopment Corporation and the process for creating the interstate highway system.

Regional Plan-circa 1940

These properties were largely African-American neighborhoods.

The City of Indianapolis classified the neighborhoods south and east of the Medical Center as deteriorated or in need of major rehabilitation, allowing the land to be acquired under the auspices of urban renewal and revitalization. Over the two decades preceding the formation of IUPUI, Indiana University obtained hundreds of acres in the newly coined 'University Quarter' of Indianapolis.

Hardly a trace of the neighborhood that was the Old Fourth Ward is visible today. Neighborhood streets have disappeared with the advent of the superblock. Other major changes to the neighborhood were the partial demolition of Lockefield Gardens, one of the nation's first public housing developments, and the addition of University Boulevard in the 1980s.

This progress in the development of IUPUI did not come without a cost. Families and residents of the west side of Indianapolis's felt displaced by the



Regional Plan-circa 1980

IUPUI



expansion of the state government, the Interstate, and IUPUI's growth in the name of urban renewal. As a result, rebuilding community relationships has been a hall mark characteristic of IUPUI's outreach programs since the early days of existence.

The earliest buildings that defined the new IUPUI campus include the library (now Taylor Hall), Lecture Hall, and Cavanaugh Hall from the early 1970s. These structures, with exteriors of brick and precast concrete, were admittedly 'utilitarian' given economic employed in their design and construction. The original Law School Building was dedicated in 1970 and was considered an extremely well functioning, modern facility. That building has been renovated for the Herron School of Art and Design and a new law school building opened for use in 2001.

Edward Larrabee Barnes served as the campus planner in the late 1970s and 1980s and was the design architect for the Engineering and Technology (1975), Education/Social Work Building (1981), the Business/SPEA Building (1981), the Natatorium/Physical Education

Regional Plan-circa 1990



Barnes and Zion and Breen Associates Inc. Master Plan, 1991

Building (1982), the University Hotel and Conference Center (1982), University Tower (1987), the Engineering Science and Technology Buildings (1991) and the University Library (1993).

Barnes' campus plan, which he refined into the early 1990s with the landscape firm Zion and Breen Associates Inc., can be considered primarily responsible for the overall character of the campus today. It established the campus' large superblocks, the generous setbacks along West, New York, and Michigan Streets, and the placement and location of parking garages. These aspects of the planning relate to commuter, non-residential, vehicle-based functions and experience, likely to transform with current recommendations for a more characteristically urban, pedestrian-oriented campus design approach. Barnes' architecture and planning expressed a precise, modern, forwardlooking identity for IUPUI.

The emergence of IUPUI's sport facilities paralleled developments in Indianapolis, which in the late 1970s adopted a strategy of achieving

growth by becoming a center for sporting events. Indianapolis has been home of the Indianapolis 500, a premier international event, since it was inaugurated at the Motor Speedway in 1911. Construction of the 61,000 seat Hoosier Dome in 1984 for the Indianapolis Colts was followed by additional investments in sports, arts, and entertainment facilities. The Conseco Fieldhouse, now Bankers Life Fieldhouse opened downtown in 1999, home to the Indiana Pacers. In 1987 IUPUI and Indianapolis hosted both the World Indoor Track and Field Championships and the Pan American Games. In the 1990s IUPUI was admitted into Division 1 membership of the NCAA.

Projects that mutually benefit the university and the city will continue to be identified. The proximity of White River State Park to IUPUI provides a potential opportunity and suggests the direction of future campus growth and expansion in this area. The Park, the nation's only urban cultural state park, offers a wide variety of cultural, educational, and recreational attractions. These include the Eiteljorg Museum of American Indians and Western Art, a subtle and powerful Kasota stone structure that was designed by Jonathan Hess in 1989 and expanded in 2005. The NCAA Hall of Champions and National Headquarters occupy a structure designed in 2002 by the nationally prominent architect, Michael Graves. The Indiana State Museum, which opened in 2002, was designed by Indianapolis' Ratio Architects and is an elegant museum constructed of Indiana limestone, sandstone, steel, brick, and glass. Plans for IUPUI's future development capitalize on White River Park's rich diversity of urban attractions and amenities.

Other recent campus buildings include the Campus Apartments on Riverwalk (2003), designed by Ratio Architects, which initiated IUPUI's commitment to provide significant residential facilities for undergraduates. The Informatics and Communications Technology Complex (2004) by Robert A. M. Stern Architects joins with Inlow Hall (McKinney School of Law) (2001) by SmithGroup, to form a unified, monumental limestone ensemble and a strong presence for the university along West Street.



Informatics and Communications Technology Complex





University Library

The Campus Center (2007), by SmithGroup, fulfills the 1960s vision for a student services building (never realized) as part of IUPUI's original Downtown Campus. Not far from its original proposed site, the Campus Center is located at the geographic center of the campus, at the busy corner of Michigan Street and University Boulevard. The Campus Center is an extremely active hub and brings together all members of the diverse IUPUI community, including those from the Medical School and hospital complexes. The design is highly transparent, connects interior and exterior activities and spaces, and offers a wide variety of lounges, meeting rooms, and activity areas to enhance student life and experience. During their shared history and development, both IUPUI and Indianapolis have faced challenges and obstacles, overcome with energy, creativity, and vision. Aspects of the past will continue to influence future development especially as IUPUI capitalizes on its urban context and position in Indianapolis.

- 1 Thurman B. Rice, M.D., "History of the Medical Campus," Monthly Bulletin Indiana State Board of Health, (January 1947), 13.
- 2 Burton Dorr Myers, M.D., History of Indiana university Volume II The Bryan Administration, Ivy L. Chamness and Burton D. Myers, eds.



Regional Plan-circa 2008

IUPUI





ARCHITECTURAL EVOLUTION



1920 - 1960: CAMPUS FOUNDATIONS

Classes in Indianapolis were first offered in 1891 on an informal basis for IU alumni residing in Indianapolis. This "extension movement" was held in the Extension Center downtown. Popularity of these programs led to the sporadic spread of educational spaces across the city. More permanent programs were established in 1916 with the founding of the IU Indianapolis Extension Center. The present IUPUI campus began in the western portion, in the area surrounding Ball Gardens and what is now Riley Hospital. The era from 1920-1960 defined the campus's architectural foundations as more properties were acquired. Building materials consisted of a mix of brick and limestone. To fit the housing needs of the nursing school, Ball Residence was built in 1928. Development subsequently continued primarily as small scale row housing along the periphery of the initial core.

CAMPUS EVOLUTION

IUPUI





1960 - 1980: IUPUI CAMPUS ESTABLISHED

IUPUI was established in 1969 with the merging of IU-I and PU-I. The decades from 1960 to 1980 were marked by the development of the central campus. Building materials remained a mix of brick and limestone with the addition of concrete. University Hospital in 1970 began to define the medical campus. The center of campus shifted towards the east with the early projects of Edward Larrabee Barnes including Cavanaugh Hall in 1971 and Business/SPEA Building in 1981. Building proportions became more monumental, and buildings began to form unified enclosures around defined exterior campus space.





1980 - 2000: CORE INFILL

The period of 1980-2000 was marked by the infill of the core area of the campus. Barnes's later work, including the Natatorium in 1982, Engineering, Science and Technology (1991) and the Science Building in (1992), established a unified architectural complex. Building materials were predominantly a mixture of limestone, brick, and concrete. Another development during these decades was the establishment of a cultural district along the canal. The district runs from 11th Street to the White River State Park, drawing activity to the southern portion of the campus. Building projects included the NCAA headquarters and Eiteljorg American Indian Museum.

IUPUI





2000 - 2012: NEW CAMPUS GATEWAYS

IUPUI's campus continues to evolve architecturally. A connection to downtown has been established with the development of the eastern campus edge. Projects including Inlow Hall (McKinney School of Law) in 2001 and the Informatics and Communications Technology Complex in 2004 create a gateway to the campus. Building materials continue to be largely limestone, brick, and concrete. The Health Information and Translational Sciences Building, completed in 2006, contributes to the revitalized Indianapolis canal district. The addition of the Campus Center to the west in 2008 has created an active campus hub.

3 | SITE ANALYSIS SUMMARY



CAMPUS ANALYSIS

Land Form and Hydrology

Indianapolis in Central Indiana is part of the Tipton Till Plain, a thick layer of glacial till remaining from the last ice age. As the glacier retreated, meltwater poured through the White River drainage basin, creating its low-lying, meandering floodplain. IUPUI is located within the geological formation of the West Fork Outwash Plain. The underlying bedrock consists of dolomites, shale, sandstone, limestone, anhydrite, and gypsum.

The ridge line in the northeast quadrant of the campus divides the land into two drainage basins: The Fall Creek-Minnie Creek watershed is located on the northern portion of campus and the White River-Indianapolis watershed is located on the southern portion of campus. Stormwater run-off in both drainage basins feed into City of Indianapolis storm sewers that discharge into the Fall Creek or the White River.



Floodplain and Site Drainage

After the Indianapolis flood of 1913, earthen levees were constructed along the banks of the White River and Fall Creek from the 1920s through the 1960s. The levees redefined the floodplain boundary, holding both the 100-year floodplain and the floodway within man-made channels on the White River and Fall Creek.

The White River and Fall Creek

The White River drainage basin is approximately 5,746 square miles, and drains most of the central part of Indiana. The West Fork of the White River is 273 miles long, flowing southwest where it drains to the Wabash River. 27 miles of the West Fork of the White River flows through Marion County, forming the western boundary of the IUPUI campus. Fall Creek is a tributary stream of the West Fork and forms the northern boundary of the campus.

Prior to European settlement, the White River was a clear, cool water river with an abundant fish population, flowing through a dense





White River Riverwalk



White River at Bush Stadium



Fall Creek

IUPUI

hardwood forest. Over time, forests were cleared, and run-off from agriculture, urban development, and industrial discharge has severely degraded the water quality and stream condition of both the White River and Fall Creek. Both water bodies still receive sewage overflow during major storm events from combined storm and sanitary sewer systems.

The city and county's efforts to improve the water quality and habitat of the river have been successful. Studies have shown improvements to water quality and fish populations within the river, but more remains to be done. The City of Indianapolis is implementing a long-term plan to separate the combined storm and sanitary sewer system, so that sanitary sewage waste no longer discharges to the river. This will have some of the most positive impacts on water quality in Indianapolis.

Significant portions of the White River and Fall Creek also lack woody vegetation. This is causing bank slumping and erosion during flooding. Flooding along Fall Creek in particular has caused scouring along its banks, impeding the growth of natural vegetation.

Wetlands

The National Wetlands Inventory map for the IUPUI campus indicates three types of wetlands within the floodplain boundaries of Fall Creek and the White River: floodplain forested wetlands susceptible to temporary flooding, seasonally flooded areas with emergent vegetation, and areas of river floodplain with no vegetation definition.

Soils and Urban Fill

A large part of the IUPUI campus was forested wetland and floodplain for the White River and Fall Creek. In the early 1800s Fall Creek flowed directly south, its creek bed and tributaries fanned out through the area that is now the western half of campus. Over time, the area has been greatly altered and filled. Two urban soil types are therefore found on campus: the Urban Land - Fox Complex, and Urban Land – Genesee Complex, both typical of urban fill soils and debris found in disturbed and/or developed areas. The constraints for the Urban land – Genesee Complex are primarily due to frequent flooding, although this soil type is not listed as hydric. The water table depth is given as 48 to 72 inches. No hydric soils are found within the IUPUI campus.

It is interesting to note the close correspondence between the lowest areas of campus – west of the former mill race location – and the area with lesser quality urban fill soils, located in the western third of the peninsula. This difference in soil type and elevation indicates that deep pile foundations may be required for construction in this area.





Riparian Vegetation



West Street Landscape



Library Green

IUPUI

Vegetation and Land Cover

Central Indiana was originally part of a vast deciduous forest that covered most of the state. Pre-settlement Marion County consisted of deciduous forest, streams and wetlands, with no prairie openings. Dominant tree species included Sugar Maple, American Beech, Ash, Chinquapin and White Oak, and Shagbark Hickory in upland areas, with Swamp White Oak, Silver Maple, Black Willow and Sycamore in floodplain forests. It is estimated that by 1876, forest cover in Marion County was down to 40% of land area, decreased to 10% in 1952, and down to 1% of land area by 1986. Forest cover has been replaced by agricultural fields, lawns, parks, and urban development.

Wildlife habitat or areas with natural vegetation on the campus is almost nonexistent. Areas with natural vegetation are found along the banks of the White River and Fall Creek, although most of this vegetation is impacted by flooding and scouring. There are a few good quality pockets of vegetation with intact riparian forest and natural undergrowth along the eastern shore of the White River near the confluence with Fall Creek.

On the IUPUI campus, the majority of pervious land cover is open, mown lawn. In fact, lawn accounts for 100 acres of the 520 acre campus. Approximately 9% of the total campus property is covered by tree canopy from street trees and more formally planted bosques. Although not fully realized, one of the earliest master plans by the Olmstead Brothers called for planting 5,000 to 10,000 trees. The Zion and Breen landscape master plans in the late 20th Century identified Michigan and New York Streets as significant gateway streets. Portions of these streets were planted with multiple rows of trees on either side, forming dense allees.

LANDSCAPE CHARACTER

The character of campus is defined by the urban grid of streets and superblocks, with a formal landscape geometry responding to the orthogonal layout of the streets and buildings. Open space on campus is comprised of a hierarchy of four types: the linear, tree-lined setbacks along Michigan and New York Streets; the historic Ball Gardens and Military Park; the large Academic Quadrangle that surrounds the University Library; and a few smaller courtyards and pedestrian spaces such as the pedestrian walk at Riley Children's Hospital and the Hine Hall courtyard. Although the campus has a formal geometry in response to the street grid, it lacks a level of organization and detail that is scaled to the pedestrian, and connected back to the city.



Memorable Spaces

Existing memorable spaces – outdoor places with a unique character, spatial quality or trait – are limited to a few notable places on campus. They include:

Existing Spaces

1. Ball Gardens

- 2. Pedestrian Mall at Riley Children's Hospital
- 3. Hine Hall Courtyard
- 4. Wood Plaza and Fountain
- 5. Lockefield Green
- 6. Outdoor Terraces at Inlow, ICTC
- 7. University Quadrangle
- 8. Military Park
- 9. Open Space Along the White River

The scale and mature landscape of Ball Gardens makes it one of the most memorable and iconic spaces on campus. Smaller spaces such as the Hine Hall Courtyard and the Wood Plaza and Fountain create high quality, pedestrian-scaled outdoor environments with a rich landscape texture, site furnishings, and amenities. The



IUPUI



Ball Gardens



Hine Hall Courtyard



Lockefield Green



Pedestrian Mall at Riley Children's Hospital



Wood Plaza and Fountain



Outdoor Terraces at Inlow, ICTC

outdoor terraces at the Campus Center, Inlow Hall, and ICTC are also models of more successful urban spaces. Lockefield Green and the University Quadrangle are two undefined open spaces on campus. Although they provide open space, they lack spatial definition or a clear program for use. Other than these notable spaces, IUPUI lacks sufficient memorable spaces at a variety of scales.

The campus is in close proximity to city and state parks and cultural resources, such as Military Park and the White River State Park, and museums to the south. However, visibility and accessibility to White River State Park and museums are almost nonexistent from the campus. Visibility and connections to these important civic and open space resources are important considerations for the Master Plan, scaled to either a vehicular scale or a pedestrian scale, depending on the mode of arrival and surrounding context.

CIRCULATION AND PARKING

Roads and Vehicular Traffic

IUPUI is served by a roadway network and hierarchy of streets that include regional arterials, city and campus collectors, and local roads.

The landscape improvements at gateways on West Street create welcoming experiences for vehicles traveling from Downtown Indianapolis. Michigan and New York Streets are major collectors that provide east-west linkages through campus to downtown. New York Street is currently operating as a two-way street through campus, and one-way eastbound through the CBD. University Boulevard is the only north-south roadway that travels all the way through the central campus area.

With the development of the 16 Tech Innovation District, enhanced connections should be considered north of 10th Street across Fall Creek.



IUPUI

Existing Parking

The 2019 parking supply on campus is 19,326 spaces. The location of the majority of parking facilities on campus creates significant circulation and pedestrian safety issues. Parking distribution on campus is not balanced, leading to increased traffic congestions at certain spots, and underutilized land assets at other locations. Future parking demand and locations of new facilities to support the growth of campus are key concerns.



Transit/Alternate Transportation

The IUPUI campus is served by six JAGLINE shuttle routes. One of the routes is connected with IndyGo's Red Line. Four additional IndyGo bus routes also make stops at the central part of the campus, and some of the stops are coordinated with the campus shuttles. Most of the campus destinations are covered by transit systems, but the service frequency could be increased, especially during evenings and weekends. At this time, the people mover is not in operation, however the guideway still remains.



Bicycle Use

Bicycle circulation and facilities on campus have been greatly improved. The City of Indianapolis has added designated bicycle lanes on Michigan and New York Streets in the last decade.

The campus also has connection to the 5-mile long White River Wapahani Trail that follows the top of the levee along the White River, connecting the White River State Park and the campus across the footbridge over Fall Creek. The White River Wapahani Trail connects to the regional greenways of Fall Creek Trail and the Central Canal Towpath to the north. The Cultural Trail along Blackford Street ties in Military Park and the White River State Park south of campus, creating a fully connected, regional greenway and recreational trail system.

Three bicycle stations and 109 bicycle racks are available on campus. Additional bicycle routes and more bicycle racks are needed to increase local bicycle use as an alternative to vehicular circulation.



Pedestrian Circulation

The basic pedestrian flow on campus is east-west along Vermont Street and through the center of the academic core. Secondary pedestrian routes include Barnhill Drive and the pedestrian malls within the medical campus.

The primary pedestrian circulation issue is the north-south access across campus and the location of parking on the opposite side of Michigan Street from medical or academic destinations. East of University Boulevard, decks and surface parking lots that serve the academic core are north of Michigan Street, causing pedestrians to cross multiple lanes of traffic. West of University Boulevard, parking decks serving the medical campus are south of Michigan Street, creating significant pedestrian volumes at the intersection of Michigan Street and Barnhill Drive, adding to this already congested intersection.

A number of overhead skywalks serve the medical campus, connecting it to the hotel,

conference center, academic campus (through SPEA) to the Natatorium and its sports medicine facilities. This skywalk system does not connect the rest of academic destinations. Brief observations of pedestrian movements revealed that a slight majority of pedestrians still crossed at grade rather than use the overhead skywalk on Michigan Avenue at Blackford Drive or Blake, even if it meant jaywalking.

A number of the regional and city arterial streets are very wide, including West Street (94 to 104 feet), 10th Street (60 feet), and Michigan and New York Streets (approximately 55 feet). Street widths, the volume and speed of traffic, and long blocks without any signalized pedestrian crossings make these streets barriers to pedestrian movement to or across campus. University Boulevard, with street widths ranging from 50 to 60 feet, has a number of signalized intersections, making it easier for pedestrians to cross.

West Street poses the biggest barrier to pedestrian movement from downtown to



Pedestrian Mall at Riley Children's Hospital



Wood Plaza and Fountain

IUPUI

campus. Pedestrian access across West Street is only at the signalized intersections at New York and Michigan Streets. Signal timing and the width of pavement does not easily accommodate pedestrians crossing West Street.

The outdoor environment at IUPUI needs better scale and landscape definition to create more comfortable outdoor spaces and walkways. The formal bosques of trees within the academic quadrangle do not shade pedestrians moving between classes, and the main east-west pedestrian route has no tree cover. The large open spaces around University Library are uninviting, open to the extremes of the climate and weather. Campus streets lack activity and vibrancy to attract students and visitors to stay on campus for longer periods.

Walkways within the medical campus have received better landscape treatment. The eastwest pedestrian mall on the former Middle Drive next to Riley Hospital is an excellent example of an appropriately scaled and designed outdoor space.



INFRASTRUCTURE

Chilled Water System

The IUPUI campus is currently served by Citizens Energy Group (CEG), Thermal Division, the Indianapolis district energy company. In addition, IUPUI owns a 5,500 Ton chiller plant which CEG maintains and operates. The plant was relocated to the new Riley Facility Building (North Plant) located at Wishard Boulevard and Wilson Street. This chiller plant is located on the north end of the Chilled Water distribution system and assists with maintaining capacity and hydraulic pressure differential on campus. In addition to IUPUI buildings, there are several IU Health buildings which are connected to the district cooling system that share the same distribution piping with IUPUI. The total load on the main piping which serves the IUPUI campus is projected to be 23,628 Tons. The majority of the cooling load is generated at CEG's West Street plant facility, and the balance is generated at the **IUPUI** North Plant.

The main chilled water piping service to campus originates at the CEG West street plant. A set of 42-inch mains enter the campus from the south near the White River canal. Several distribution additions were recently added to the IUPUI campus to support the new buildings that are operational or under construction. The largest piping installation was a set of 24-inch mains that started in University Boulevard north of Michigan Street, and connected to the existing piping in Walnut Street. This extension facilitated the connections to Cancer Research II and III, and provided a second feed into the 18-inch chilled water loop, originally installed by IUPUI.

Steam and Condensate System

The IUPUI campus steam system is supplied by the CEG from the Perry K steam plant. Steam is delivered to the IUPUI campus from the 'O'-Vault where the pressure is reduced from a supply pressure of 250 psig to 150 psig for distribution to IUPUI and to the hospitals (Veterans Administration, Eskenazi Health, and Riley) on the north side of campus. The steam supplied to the hospitals is delivered through the IUPUI steam system but metered at the hospitals, deducted from the campus use, and billed separately.

The overall capacity of the pressure reducing valves (PRVs) and safety relief valves (SRVs) at 'O'-Vault is 440,000 lbs/hr. There are three PRVs in the vault, with two of them normally activated. The third PRV in the vault is intended for use as an in-line spare should either of the two active PRVs require replacement or maintenance. The current usage as of February 2020, including the hospitals, is approximately 262,000 lbs/hr.

IUPUI



Existing Chilled Water and Steam System



Substation A



Substation C

The steam distribution system is owned by IUPUI and is maintained by CEG. Steam is distributed through the campus at 150 psig with any further pressure reduction occurring at the individual buildings as required for each user. There are some distribution sections that supply steam to multiple users at 50 psig. The distribution system consists of both directburied pipe and a system of utility tunnels. It is generally in good condition and meets the existing demand for both IUPUI and the hospitals.

Electrical System

The campus electrical distribution system supplies academic buildings, research facilities, and IU Health Methodist hospital and VA hospital loads. AES/IPL is the electrical utility provider for the campus. Peak consumption is 38MW. AES/IPL provides a total of twelve circuits to three utility switchyards. IUPUI operates and maintains circuits that originate in these switchyards. IUPUI campus Substation A, on the north side of the campus, is fed from three circuits. Substation B, on the west side of the campus, is fed from one circuit. The university should consider emphasizing the importance of a second circuit to this substation from IPL in the future to offer as much redundancy and flexibility for the campus electrical distribution as possible. Substation C, on the southeast side of the campus, is fed from two circuits. Each of the three AES/IPL utility switchyards provides 13.8KV to the substations maintained and operated by campus facilities services. The 13.8KV electrical distribution system is mainly underground radial and loop


Existing Electrical System



16th Street Levee



Michigan Street Median



Stormwater outfall at White River

feeds distributed throughout the campus. The existing duct bank distribution system and cable capacity is currently satisfactory. Each building has distribution equipment that can be fed from two different radial feeds. This redundancy is critical for system reliability and planned maintenance.

Currently there is an AES/IPL 13.2KV circuit in the Substation B switchyard for emergency feed of the AES/IPL loads (apartments and small offices). There is a manual switch for this emergency circuit with a sign that highlights the fact that the IUPUI feed is provided at 13.8KV and AES/IPL loads are based on 13.2KV. AES/ IPL would only need the emergency backup if the existing service feed from across the bridge was out of service.

Stormwater and Sanitary Systems

The main campus drainage system improvements can be broken down into four main drainage corridors. These corridors were identified based on the four main combined sewer lines which convey stormwater runoff and sanitary discharge from campus property; West Drive corridor, University Boulevard corridor, Blackford Street corridor, and Indiana Avenue corridor.

CEG is responsible for the maintenance and upgrades of a majority of the stormwater and sanitary systems on campus. DigIndy and other infrastructure projects helped to reduce combined sewer overflows and have contributed to a healthy and sustainable campus environment.



Existing Combined Sewer System

PROGRAM ENROLLMENT HISTORY

The headcount enrollment at IUPUI has remained near 30,000 students for the last 10 years, which is anticipated to continue over the near term. In the Fall of 2019, approximately 70% of the students were undergraduates and 30% were graduate students.

With 2,965 faculty on the campus, there is a 15 to 1 student to faculty ratio which is below the national average for large public universities.



Undergraduate

LEARNING ENVIRONMENT ASSESSMENT

Many of the academic buildings built on the IUPUI campus were designed at a time when the prominent instructional pedagogy was the lecture format. Since that time, research has shown that students learn better and retain more knowledge when they are engaged in a more active style of learning..

Active and Informal Learning

Creating a flexible and adaptive learning environment allows for a variety of teaching modes from traditional lecture to peer-topeer learning within the same space. These active learning spaces typically have movable furniture and ubiquitous technology which fosters collaborative work in the classroom. These learning environments typically require more area per student than a typical lecture classroom to allow for room reconfiguration and collaboration which can have an effect on the capacity of the classroom. As new classrooms are built or renovated, classrooms could be sized to accommodate larger section sizes if desired. To facilitate this type of collaborative work during the class time, the instructors record their lectures and provide them to the students prior to the class. The students arrive prepared to engage with their peers during class time to explore themes or problem solve. This flipped classroom mode has been used successfully for decades and is becoming more and more common.

To support faculty in the development of curriculum, additional training and equipment is needed so faculty can produce their lectures in an efficient manner with the appropriate level of visual resources needed to convey the educational concepts. In addition, the classroom may need to be designed with the ability to broadcast from the room to students who may be remote. This may lead to the incorporation of enhanced technology in certain spaces.

In addition to the need for active learning spaces, students may need to collaborate with their peers or instructors outside of the classroom. This has led to the need to create





Traditional Lecture Format Classroom



Immersive Showcase Classroom (University Hall)



Informal Learning Space



Proposed Breezeway Coffee Shop

IUPUI

accessible and unscheduled spaces adjacent to classroom clusters to facilitate informal learning. These spaces can be furnished with movable furniture or niches with fixed tables and chairs. Access to technology both wired and wireless are important, as well as access to food and beverages. These informal learning spaces provide important collaboration or touch-down spaces students and faculty can use outside of the classroom.

Social and Collaborative Spaces

Creating social and collaborative spaces in the center of the academic core offers the opportunity to create active first floor spaces which can spill out onto the campus quadrangles in good weather. The underutilized spaces on the first floor of the north and south wings of the Business/SPEA Building offer a prime opportunity to integrate food with collaborative space adjacent to Taylor Quadrangle and University Library.

Aging Legacy Buildings

The IUPUI campus buildings were built primarily in the 1970s, 1980s, and 1990s. While the buildings have been well maintained, many of the buildings have not been updated to meet the needs of current pedagogy or technology. Of the 168 general use classrooms on the IUPUI campus, 43 have been updated, 3 are considered satisfactory, and 99 need renovation. This may be an opportunity to reimagine the learning environment in the legacy buildings on campus to foster more active and informal learning spaces. The classrooms that need renovation are generally located in the following buildings:

- Business/SPEA Building
- Cavanaugh Hall
- Education/Social Work Building
- Engineering/Technology Building
- Eskenazi Hall
- Lecture Hall
- Natatorium and Physical Education Building
- School of Nursing Building

The Master Plan identifies the need for phased renovation of these legacy buildings. Feasibility studies for the renovation of these buildings should be conducted.



Cavanaugh Hall



School of Nursing Classroom



Education/Social Work Building



Unit Type Distribution, Fall 2019 --- Majority of units are traditional and semi-suite unit types which are appropriate for first- and second-year undergraduates. On-campus student housing fosters the development of networks of friends and stronger connections to IUPUI.

TOTAL	25,400	9.6 %	
Graduate Students	7,100		
Undergraduates	18,300		
Enrollment Fall 2019 (FTE)		% Housed	

RESIDENCE LIFE

IUPUI has made major recent investments in on-campus student housing to offer more variety in unit types and address the needs of first- and second-year students. The renovation of Ball Hall and the construction of North Hall has significantly increased the number of traditional beds on campus. The renovation of University Tower from a hotel to student housing has offered semi-suite style units to the campus. All three of these buildings are relatively close to the academic core. Previously, the campus housing inventory was primarily apartments and townhouses on the west side of the campus, which will need eventual renovation or replacement.

Trends In Public Institution Residence Life

Match demographics to unit type

On-campus housing can create a shared experience for students where they build lifelong friends especially during their freshman and sophomore years. These students can benefit from an environment where they meet more of their peers and develop a network of connections to each other, faculty, and staff. To achieve this, a more communal living environment such as traditional or semi-suites units which have common living, dining, meeting, and play spaces outside of the unit. Currently the campus has over 1,600 units or about 2/3 of the housing inventory of this type.

As students progress through their collegiate careers, they may seek more independent living arrangements such as apartments or townhouses where the living space, kitchen, and dining are contained within the unit. Currently the campus has a little over 800 units or about 1/3 of the housing inventory of this type. As Indiana University considers adding more housing to the campus, a study of the demographics by level compared to the distribution of unit types should be considered.

Blend living and learning

To support the first- and second-year experiences, space is needed to conduct residence life programs. Ideally these spaces would be built within the residence halls and may include common kitchens, study areas, lounges, meeting and social spaces. Some of these spaces can also be used for instruction which blends living and learning. Depending on the configuration of the building, these spaces could be scheduled by the registrar during the academic day and scheduled by residence life and student life in the evenings and weekends. These spaces allow the campus to incrementally add flexible, technology rich, and active learning academic spaces to the campus without the need to build large academic buildings. North Hall and University Tower have built in these types of spaces which are good examples of integrating living and learning.



North Hall



University Tower



Indiana Farmers Coliseum



The Jungle



IU Natatorium

ATHLETICS, RECREATION, AND PHYSICAL EDUCATION

In the 2012 Master Plan, needs for athletic, recreation, and physical education space were identified. A follow-up 2019 study identified the needs of the campus, as well as the needs of the Indianapolis amateur sports community which are lacking on campus and in the community. A flexible, multi-sport fieldhouse which could accommodate competition basketball, hockey, and gymnastics, as well as other sports was proposed south of the Herron School of Art and Design. The location reinforces the Sports District along the White River and offers great community access. The 2019 study also identified the need to improve Carroll Stadium with amenities, support spaces, and improved service. The study also identified the opportunity to develop an improved image and access to the stadium from the White River Trail which could flip the "front door" of the stadium towards the river and the trail. A new event plaza is proposed which can be used before events at the stadium and used as a space for the community who are using the trail.

Together these two projects would greatly improve access to sporting events and personal wellness for the campus and the Indianapolis community.

4 | THE MASTER PLAN



The Master Plan represents an ideal future campus configuration, translating the principles and key planning themes into implementable solutions. It illustrates opportunities for new development and provides a guide for growth, representing future building envelopes, their relative scale, and how they shape space. It introduces a spatial order between the physical elements of campus.

The Master Plan is supported by a series of recommendations for campus-wide systems:

- Sustainable Planning
- Building and Land Use
- Landscape and Open Space
- Circulation and Parking



PROPOSED CAMPUS MASTER PLAN



SUSTAINABLE PLANNING

This Master Plan is focused on a purposeful and strategic incorporation of both quantitative and qualitative improvements to the setting of the academic mission to promote a campus that manifests sustainable planning principles. Implicit in the plan is the goal of developing the campus as a learning environment where innovation is promoted, implemented, and celebrated.

Overlaid on the key themes of the Master Plan, the recommendations are grouped under several broad sustainable planning principles:

Adopt environmentally sensitive land use

IUPUI is an urban campus, but can do much to conserve, protect, and restore natural resources in Indianapolis. The riparian corridors along the White River and Fall Creek should be restored in order to improve water quality and habitat, with bank stabilization, vegetated buffers, and the removal of invasive species. The reduction of impervious surfaces, pre-treatment of stormwater before discharge, and the separation of combined storm and sanitary sewers can have a big impact on water quality and habitat in the watershed. Increasing the tree canopy on campus and building an urban forest will absorb runoff, sequester carbon, improve air quality, and mitigate the heat island effect of the urban environment. More compact development and minimizing the amount of impervious surfaces will also help conserve land and water resources.

Ensure a range of transportation options

The Master Plan proposes multiple solutions that help reduce the almost exclusive reliance on the private automobile on campus including campus bus routes, adding bicycle infrastructure, and encouraging carpooling. Increased student housing on campus and more compact development will encouraging walking rather than driving to class.

Plan for innovative sustainable buildings and landscapes

The Master Plan anticipates new buildings will be constructed, and several older, inefficient buildings will be renovated or removed. The university has set LEED[®] GOLD certification as a benchmark to be considered for all new construction. In addition, the university is incorporating strategies to build on significant past water conservation initiatives to further reduce potable water use, even while increasing the overall built square footage on campus.

BUILDINGS AND LAND USE

The Master Plan proposes a future campus that is invigorated by multiple-use districts and buildings, woven together through increased connectivity. The Master Plan promotes flexibility and a mixing of programs, disciplines, and campus uses within districts and vertically within buildings.

The core campus supports academic, administrative, and student life uses and are overlaid with specialty focused districts for health sciences, research, and mixed-use. Linear north-south open spaces and the Cultural Trail on Blackford Street link districts to each other, the White River, and cultural destinations.

The proposed Mixed-Use District on Indiana Avenue is intended to help revitalize the neighborhood, bringing IUPUI programs, offices, community outreach, housing, and retail to an important edge of campus across from the Madam Walker Legacy Center.

Proposed research incubator facilities could be developed as university/private sector



partnership opportunities. Leveraging access and proximity to both IUPUI and IU Health functions, near- and mid-term developments are planned along Indiana Avenue north of Fall Creek in the 16 Tech Innovation District.

Administrative offices (for both IU School of Medicine and IU Health), research, and research

incubator uses are clustered in the Canal District, in an urban mixed-use pattern.

The IU School of Medicine and research centers along with a new replacement IU Health Hospital are planned for the Academic Health Campus on 16th Street and Senate Boulevard.



PROPOSED CAMPUS MASTER PLAN

ACADEMIC AND RESEARCH

- Renovation of Health Sciences and Dunlap Buildings
- B Renovation of Bryce/Ott Buildings
- C Potential Reuse of Simon Cancer Center as Interdisciplinary Center
- D Potential Research/Academic Buildings
- School of Medicine and Research Relocated to Academic Health Campus

STUDENT LIFE

- Enhance Student Dining
- ⁽⁶⁾ Opportunity for Additional Housing
- (H) Sports Fieldhouse
- Convert Medical Research and Library to Student Center
- Future Campus Student Facility

CAMPUS IMPROVEMENTS

- 16 Tech Bridge
- Phased Core Buildings Renovations
- M Phased Core Campus Landscape Improvements
- 🔃 Extension of Riley Hospital Drive to New York Street
- Mixed-Use along Indiana Avenue
- P University Boulevard Streetscape Improvements
- New Campus Quadrangle
- **®** Determine Status of the University Hospital
- S Determine Status of Emerson, Coleman and Gatch
- Gateway Parking Garage Expansion

PATIENT CARE

- University Hospital Relocated to Academic Health Campus
- V Cancer Center Relocated to Academic Health Campus

LANDSCAPE AND OPEN SPACE

The landscape of the IUPUI campus has been shaped by large-scale urban development in the past century. Western parts of the IUPUI peninsula are highly artificial, created through the construction of levees and the fill of lowlying and wet areas, over time. The Master Plan sets forth recommendations for humanizing the urban environment and creating connections to nature.

Two overarching goals established at the beginning of the planning process are:

- 1. Support Academic Excellence
- 2. Create a Vibrant Urban Campus

Recommendations for enhancements to the pedestrian realm and improved connections to natural systems, greenways, and the city's larger open space network are natural outcomes of the second goal. The Master Plan proposes a green network that includes riparian corridors and tree cover forming a campus urban ecosystem; new memorable spaces; improvements to campus edges and gateways; and, enhancements to the pedestrian realm.

The Master Plan builds on the open space framework established by prior master plans, including those by Zion and Breen Associates, through the late 20th Century. It considers the relationships between natural systems, new and existing open spaces, streetscape corridors, and pedestrian spaces to physically organize the campus and as a framework for articulating future growth.

An Urban Ecosystem

Lying at the confluence of the White River and Fall Creek, the campus landscape and riparian corridors can contribute to the regional ecosystem. The riparian corridors along the White River and Fall Creek should be restored in order to improve water quality and habitat. Re-vegetation and bioengineering techniques are recommended for stabilization of the riverbanks and to reduce bank sloughing and siltation in the waterways. Native trees and woody vegetation will absorb runoff, silt, and pollutants and slow runoff. Vegetated buffers and the removal of invasive species along the river corridors will also create habitat for wildlife species. The existing landscape of the levee embankments consists of mown lawn and little tree cover. Establishing a remnant woodland edge and a no-mow zone near the embankments will help filter surface runoff and create more habitat contiguous with the two largest natural systems on campus.

Increasing the tree canopy and building an urban forest will also provide habitat, shade, climate control, and stormwater management benefits. Currently the percentage of tree canopy to land area on the IUPUI campus is 10%. Good urban forestry practice recommends a minimum 15% tree cover for urban areas. The Master Plan recommends more than doubling the existing tree canopy to at least 28% of land area. At this level and density of tree cover, the campus will realize numerous environmental benefits.

New tree cover is proposed to continue the shaded paths initiated with the Zion and Breen Associates landscape plan, as well as adding denser arrays of trees along north-south corridors. Increasing the number of street trees and providing parking lots with a tree canopy cover will have a significant effect on the microclimate and will mitigate heat islands. Additional tree canopy is also proposed along the riverfront, in new open spaces, within existing quadrangles, and along major pedestrian walks.

Selection of species for future tree plantings should carefully consider the type of space they will occupy, such as urban streetscape conditions or broader quads. For either circumstance, a diversity of tree species will minimize the risk of loss due to pests or disease. Diversity of trees will also encourage diverse campus habitat.





A Green Network

The Master Plan proposes a green network of new memorable spaces, attractive urban streetscapes, and green linear corridors that connect to the larger ecosystem of the White River and Fall Creek, and to the cultural facilities of Military Park and White River State Park. Memorable spaces proposed range from larger one-of-a-kind spaces such as Ball Gardens and improved riverfront to smaller quadrangles and intimate campus spaces.

Overall, the green network of the Master Plan provides 153 acres of re-fashioned parks, quadrangles, plazas, and social gathering spaces. New spaces include:

- Linear green spaces near the Ball Gardens from Fall Creek to the White River
- 2. A new Campus Quadrangle from University Library to White River State Park
- 3. An enhanced riverfront for athletics, recreation, and passive use
- 4. Enhanced urban streetscapes
- 5. New and renovated quadrangles throughout the main campus

CIRCULATION AND PARKING

Campus Gateways

The university has initiated a new campus gateway program to make the first-time visitor experience more intuitive and delineate the campus edges. Currently several types of visitors use the campus, including those seeking healthcare, admission to the university, event attendees, athletics, festivals, and cultural offerings. Understanding how to access the campus, find parking, and pathways to their final destinations is important to make the campus accessible to the larger community. Continued deployment of the updated wayfinding is important.

West Michigan Street and University Boulevard are key gateways to the academic campus core. Key connections to University Hospital include West New York and West 10th Streets that provide direct linkage to the highway.



Vehicular FlowCampus Gateway

Parking

As an urban commuter and academic medical campus, parking supply is a priority concern for IUPUI. Of the surface lots and decks allocated for campus users, parking utilization is generally high.

Implementing Transportation Demand Management (TDM) to create a more sustainable transportation policy and reduce the need for future structured parking is recommended. TDM strategies provide incentives to students, faculty, and staff to use alternatives to single occupancy vehicles to travel to campus and could lower parking demand by nearly 3,000 parking spaces. Such strategies could include:

- 1. Review of current parking pricing policies for changes that could help reduce demand
- 2. Subsidies and improved facilities for transit and bicycle use
- Increased marketing of the carpooling program, and reservation of priority parking spaces for participants

- 4. Increased marketing of the Guaranteed Ride Home program
- 5. Establishment of car-sharing and/or bicycle sharing programs on campus
- 6. Improved inter-and intra-campus shuttle systems, including stops serving the larger academic medical center campus
- 7. Coordination between IUPUI, IU Health and IndyGo to revise regional transit routes that directly serve campus and IU Health destinations

In addition to the TDM strategies above, the proposed move of the University Hospital, medical education, and some research centers to the new Academic Health Campus, the overall parking demand on the peninsula will reduce by an additional 1,600 to 2,000 parking spaces. Combined with the TDM strategies, overall parking demand could reduce by nearly 5,000 spaces.

The existing campus, with University Hospital and the IU School of Medicine in the core campus, has a small demand for additional



3,000 Space Demand Reduction without Hospital Removal 1,600-2,000 Space Additional Demand Reduction with Hospital Removal

parking. However, proposed new construction and open spaces will displace existing surface parking, creating additional demand for replacement spaces. The total of current parking spaces being displaced by this plan is estimated at just over 4,800 spaces. To anticipate this projected loss in parking, TDM strategies to reduce parking demand, and the relocation of University Hospital and the IU School of Medicine, the Gateway Parking Structure is proposed to be expanded to the north. Longterm, the parking supply and demand should be in balance.

Anticipated changes in academic growth, healthcare service, research, or in the amount of on-campus housing will affect the need for future parking. Parking demand should be reevaluated, as needed, in the future as programs shift.



Existing Surface Parking Removal for New Development

Proposed Parking Garage Expansion



Transit

The campus transit system has several loops serving the academic core, health campus, research centers, and IU Health administration. In addition, the campus is part of the IndyGo system which provides access off-campus to the City of Indianapolis. The commuter shuttle offers connections between the IUPUI and IU Bloomington campuses.

With the relocation of University Hospital, medical education, and some research centers to the Health District, the shuttle system may need to be modified or expanded to provide a link between the existing clinical, research, and administrative centers. The People Mover has proven to be impractical in the winter months and has been discontinued in its current form. The connections to the new Academic Health Campus are currently being studied and specific recommendations will follow.

Bicycle

The Master Plan proposes a comprehensive network to expand the existing on-street bicycle lanes, off-street bicycle paths, and bike-friendly streets that connect to existing city routes and the regional greenway trails along the White River. Development of this alternative transportation infrastructure will reduce the amount of campus vehicular movement.





Existing Bicycle Pathway Existing Multi-use Pathway Indianapolis Cultural Trail Proposed Bicycle Pathway Pacers Bikeshare Station



Pedestrian Realm

Improved campus streetscapes and pedestrian corridors are elements of an enhanced pedestrian realm for IUPUI. A finer network of campus pedestrian walks at the ground-level is proposed to serve future development.

On the main campus, more north-south pedestrian walks will overcome the lack of circulation options created by the earlier superblock plan of the campus. Recommendations include:

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- Provide a hierarchy of sidewalks to link major destinations across campus
- Increase plantings of deciduous canopy trees along major pedestrian routes for more shade and wind protection
- Improve and increase site furniture, lighting, and amenities along major pedestrian routes on campus
- Locate outdoor gathering spaces along major campus pedestrian routes



5 | CAMPUS DISTRICTS





The organization of the IUPUI campus can be understood as a collection of distinctive districts stitched together by a network of memorable pedestrian and vehicular corridors. Each of the six districts identified in the Master Plan is unique in its programmatic function, spatial character, and level of activity.





Existing Conditions

Proposed Conditions

CORE CAMPUS

The Core Campus includes the area from the White River on the west, to West Street on the east, to south of the Sidney and Lois Eskenazi Hall, and north of North Hall. This district's primary focus is on academic, administrative, and student life of the campus. The Master Plan proposes improvements to connectivity, increased density of active uses, and improvements to the collegiate character of the campus. A mix of uses are proposed to activate interior and exterior spaces with a transformation of the large steps southwest of University Library into an outdoor amphitheater and gathering space. The breezeways under the Education/Social Work Building and the Business/SPEA Building will be enclosed to create a coffee/food/meeting venue which serves the quadrangles on both sides of the buildings. The main quadrangle north of Taylor Hall will be improved with outdoor collaboration spaces, new site furnishings, lighting, banners, and large shade trees. New housing south of the School of Dentistry will provide a new residential neighborhood and anchor the Vermont Street corridor. The North Hall neighborhood will be enriched with additional housing, academic, and program space. Potential academic buildings are proposed to connect the Robert H. McKinney School of Law and Informatics and Communications Technology Complex to the core, as well as sites north of Taylor Hall and southeast of University Library.





Existing Conditions

Existing Conditions



Proposed Conditions



Proposed Conditions

CULTURAL DISTRICT

The Cultural District integrates the university with the larger Indianapolis community. Starting at the north with the newly renovated Madam Walker Legacy Center, the Cultural District extends south along the Cultural Trail to the Military Park, Indiana State Museum, the NCAA Hall of Champions, and the White River State Park. The Cultural District will be enhanced with the addition of retail, housing, and parking south of Indiana Avenue and the Madam Walker Legacy Center.





Proposed Conditions

BALL GARDENS

The Ball Gardens was developed based on the design of the Olmsted Brothers. The gardens have been recently restored. The much-loved space shows the potential of significant landscaped open spaces on campus. The Master Plan proposes to create a series of green spaces and recreational fields south of West Michigan Street to West New York Street, connecting Ball Gardens to the White River State Park. The enhanced campus green spaces will be flanked by a new mixed-use housing neighborhood on the east and the existing housing and Ronald McDonald House districts on the west. This new north-south connection will create a new eco-corridor connecting the White River to Fall Creek, as well as provide additional space for gatherings and events on campus.



Existing Conditions



Proposed Conditions



Existing Conditions



Proposed Conditions

ATHLETICS AND RECREATION

Athletics and Recreation provides school pride, engages the larger community, and promotes wellness. The Master Plan proposes improved and expanded facilities with a new Sports Fieldhouse south of Sidney and Lois Eskenazi Halls. This venue will provide indoor practice facilities for athletics, as well as a new events venue for the community. A new Recreation Center and synthetic turfed recreation field are proposed south of the Campus Center. Its adjacency to the Campus Center, the academic core, and student housing will provide an active center on campus.

HEALTH SCIENCES

The Health Sciences District will be transformed when University Hospital, medical education, and select research units move to the new Academic Health Campus. This move will provide the opportunity to link undergraduate and graduate research with the academic core. Given its strategic location across from the Campus Center and adjacent to a reimagined Medical Research and Library, the Simon Cancer Center is envisioned as a new interdisciplinary hub bringing the campus community together. University Hospital is planned to be removed and new interdisciplinary academic and research are proposed in its place creating a new quadrangle within this district. The condition of Coleman, Gatch, and Emerson Halls will be further studied, and the feasibility of an extended green corridor connecting to Ball Gardens will be evaluated. The Health Sciences and Dunlap Buildings will be renovated and updated giving them many more years of service. The area north of the Dunlap Building is reserved for future research institutes and incubator space. The Service Building may also be removed making way for more development.



Existing Conditions



Proposed Conditions


ACADEMIC HEALTH CAMPUS

The new Academic Health Campus will encompass the former Methodist Hospital site, as well as the Canal District. This new district will accommodate the replacement of University Hospital, relocation of medical education, and incorporation of select research centers. The district will more easily engage the larger Indianapolis community by improving access to needed clinical services. The new district will also be a catalyst for investments in the adjacent neighborhoods providing housing, retail, and services needed in this area. The Canal District will continue to provide administrative support functions for IU Health and research centers. New transit routes will be developed, connecting the new Health District to the Health Sciences District near the Core Campus.

Proposed Conditions

6 | IMPLEMENTATION



UPCOMING INITIATIVES

In the near-term, several projects are proposed which address needed renovations, improved campus connectivity, and enhancements to campus character and usability. These projects include:

- A Renovation of Health Sciences and Dunlap Buildings
- **B** Renovation of Bryce/Ott Buildings
- **C** 16 Tech Bridge
- D Phased Core Buildings Renovations
- E Phased Core Campus Landscape Improvements





MID-TERM DEVELOPMENTS (3-10 YEARS)

Mid-term developments will focus on improving the student experience with additional housing, improved dining, enhanced open spaces, expanded athletics, and mixed-use supporting the Cultural Corridor near the Madam Walker Legacy Center. In addition, out-of-date academic facilities will be renovated bringing them up to 21st Century standards. These projects include:

- A Extension of Riley Hospital Drive to New York Street
- B Enhance Student Dining
- **C** Opportunity for Additional Housing
- D Mixed-Use along Indiana Avenue
- **E** Sports Fieldhouse
- F Phased Core Buildings Renovations
- **G** Phased Core Landscape Improvements
- H University Boulevard Streetscape Improvements
- **I** New Campus Quadrangle





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MID- TO LONG-TERM DEVELOPMENTS (7-20 YEARS)

The mid- to long-term developments focus on the Academic Health Campus. During this time frame the new replacement hospital, medical school, and select research centers will move to the new Academic Health Campus. At this point an assessment will be made of the existing University Hospital building for reuse or removal. This also presents the opportunity to reimagine how the Simon Cancer Center and the Medical Research and Library can be reused as interdisciplinary centers. Potentially, additional building constructions could be Coleman, Gatch, and Emerson Halls. New research facilities could be developed north of the Dunlap Building.

- A University Hospital, Simon Cancer Center, and School of Medicine Research Institute relocated to Academic Health Campus
- Determine Status of the University Hospital
- Potential Reuse of Simon Cancer Center as Interdisciplinary Center



- D Determine Status of Emerson, Coleman, and Gatch Halls
- Convert Medical Research and Library to Student Center
 - Potential Research Building

F



IUPUI

LONG-TERM DEVELOPMENTS

Long-term development addresses the build-out potential of the campus. Additional student housing neighborhoods, student recreation, additional academic buildings, as well as an expansion of the Health Sciences academic, clinical, and research facilities. Continued renovation of the campus legacy buildings will preserve previous investments and reinforce the campus as a leader in delivering cutting-edge education and research.

- A Future Academic Building Sites
- **B** Future Housing Sites
- C New Research/Academic Buildings
- D Phased Core Buildings Renovations
- E Phased Core Landscape Improvements
- **F** Dining Enhancements
- **G** Future Campus Facility





7 | DESIGN GUIDELINES



INTRODUCTION

The Design Guidelines are a companion set of performance criteria to the Master Plan. Whereas the role of the Master Plan is to provide a framework for open space, circulation, use relationships, and building placement, the role of the Design Guidelines is to ensure that specific designs implemented within the Master Plan framework will be of consistent high quality. These guidelines are not intended to be so constraining as to stifle analysis and judgment or to strictly determine design solutions; however, they should not be interpreted so loosely as to permit entirely different initiatives and/or conceptual directions, from the key principles of this master plan.

The Design Guidelines consist of broad design strategies applicable to the IUPUI campus as a whole, as well as specific formal and functional objectives adapted to each campus district. The Design Guidelines reflect primary principles of enhancing academic excellence and urban experience by guiding creation of distinctive, quality learning environment. On every project, Indiana University is committed to further enhancing the campus environment through:

Design Excellence – All new facilities must project an aesthetic identity and uniqueness appropriate to its function while also integrating into the overall campus framework.

Universal Design – All new development must create an equal access campus environment with a well integrated design that fosters pedestrian travel, the predominant mode in and around campus.

Sustainability – Campus spaces must be designed to promote the most environmentally and financially responsible construction, maintenance, and use.

Technical Innovation – As appropriate, all new facilities must, through carefully and aesthetically considered design, incorporate technologies that might promote the Design Guidelines. The Master Plan breaks down the scale of the large IUPUI campus by proposing six distinct districts, each with an individual, memorable character. The intention is to create a strong identifiable character for each district, while maintaining a unified sense of campus and physical identity for the university. This will be achieved by physically reinforcing the core design principles that remain consistent from district to district. The following general guidelines therefore apply to the design of campus spaces in all of the campus districts.

The Design Guidelines reinforce IUPUI's essential connection to its urban Indianapolis context. They focus on fundamental physical qualities of urbanism: diversity, pedestrian experience, civic engagement, and presence. They are not prescriptive in nature, and are directed toward furthering the high-quality, inventive modern spirit that has led to much of the campus' development to date. Application of the Design Guidelines is meant to capitalize on each individual designer's intellect, each contributing to the forward-looking dynamic physical environment that facilitate IUPUI's rigorous, forward-looking academic programs.

The Design Guidelines are also meant to unify the design of individual spaces into a coherent larger pattern expressive of the enduring qualities of Indiana University. Rather than a collection of individual objects, the recommended design approach connects buildings with one another and with the landscape to form an integrated and architecturally rich campus context.



Outdoor Courtyard



Student Resources at the IUPUI Campus Center

ARCHITECTURAL DESIGN GUIDELINES

GENERAL DESIGN GUIDELINES

The campus development methodology encourages diversity among its districts and programs. While each building should reflect its own time and place; it should also reflect the enduring values of Indiana University: quality, durability, commitment to academic excellence. Each building design should contribute to the identity of the campus while reinforcing the architectural and landscape pattern of its individual district.

CITY INTERFACE

Campus development should celebrate and connect to IUPUI's urban setting, in terms of program, activity and building form. Campus edges are considered porous with seamless and natural visual and physical connections to Indianapolis. Buildings should be designed as welcoming to the larger community. Maintaining security and necessary privacy may be achieved with clear organization for visitors: clear means of access, wayfinding, signage, etc. Diverse uses are encouraged to promote activity and urban vitality.



Diverse Campus Resources



Public Space



Pedestrian Connectivity

The edges that define the limits of campus at its urban interface must also present a character and identity appropriate to a leading academic institution. Opportunities for the university to visually announce itself should be incorporated – these may include signage, architectural expression of programmatic activities and purpose, and/or transparency.

EXPRESSION

IUPUI has a legacy of notable architectural design and planning. From 1976-1993, the architect Edward Larrabee Barnes worked for Indiana University on three campuses as a master planner and architect. At IUPUI he built ten buildings including Business/SPEA, the University Library, and the Natatorium. Barnes had a long and influential career and is considered a modern master.

Distinguishing characteristics of his work for IUPUI include clarity, monumentality, and comprehensible distinction between object, landmark structures versus background buildings whose primary role is to define campus spaces. However, some buildings and spaces have a scale that is too large and appears grand and corporate rather than appropriately institutional and collegiate. New buildings should achieve a more human-scale presence and relationship to their setting as the campus transitions to a more urban, pedestrian oriented character.

More positive attributes should be extended with the design of new buildings and spaces: clarity, precise building forms, and a simple, direct emphasis on campus space making. Two principles should underlie the design of new buildings. Buildings should clearly communicate their purpose and their time period. Each new building should address its context and district, and contribute a spirit of invention and intellect to the campus's architectural expression.



University Library, Edward Larrabee Barnes



SPEA / Business School, Edward Larrabee Barnes



Glick Eye Institute



IUPUI University Library

MATERIALITY

The existing IUPUI campus has a varied palette of building materials consisting of Indiana limestone, brick, precast concrete, metal panel, and glass. While no one building material predominates, Indiana limestone in various forms has been used to convey physical identity for landmark academic and student life structures: the University Library, the McKinney School of Law, the Informatics and Communications Technology Complex, and the Campus Center. While this approach shall be extended with the design of new campus landmarks, the use of a variety of materials expressive of forward-looking dynamism is also encouraged, either in combination with or in lieu of Indiana limestone. These materials may include glass and/or terra-cotta panels. Materials will be varied within each district to contribute to their individual character. Selection of durable materials will convey permanence and quality, appropriate attributes for Indiana University.

SCALE

Large buildings should incorporate design features to reduce their perceived mass, creating a human scale for the campus. Such features may include articulated masses, façade treatments, changes in vertical height, and/or incorporating a variety of materials.

ENTRANCES

Entrances to buildings should be considered a major design feature, easily identifiable and expressive of the activities of building programs and activities. Entrances should be located along prominent open spaces or primary pedestrian and vehicular routes to maximize visibility and identity. Projecting, recessing or otherwise articulating entrances is encouraged. Buildings should be sited and designed to create gathering places adjacent to their entrances.

ACTIVE SPACES AND STREETS

Campus development will maximize opportunities to create active campus spaces.

Streets must be pedestrian-oriented in order to take full advantage of IUPUI's distinctly urban environment. Building forms should define appropriately-scaled campus spaces. Ground level interiors in each building facing a campus space or a street should house active functions and should be transparent and visually accessible. Canopies, colonnades, and other ground level articulations and integrated, adjacent site and seat walls are encouraged. Ground level spaces in blocks along Indiana Avenue, as well as at other locations should include retail or storefront services.

HEIGHT/DENSITY

Building heights and development density should be established to fully recognize the value of urban land. Buildings should take full advantage of opportunities for integration of functions, mixing retail, office, academic, housing and research functions vertically, as well as horizontally. To ensure adequate height for anticipated and future uses, floor-to-floor heights should be approximately 17 feet at ground level and no less than 15 feet above ground level. Building widths should be limited to 70 feet where permanent staff and faculty workspaces are located to maximize access to daylight and views.

ORIENTATION AND EXPOSURE

Buildings should be oriented and designed in response to solar angles and wind direction to reduce energy consumption. Appropriate shading should be incorporated including architectural and landscape elements. Measures to optimize natural airflow and ventilation should be integrated.

PROGRAM

Building design should provide for flexibility as programs and program requirements change over time. Internal partitions should be easy to reconfigure while maintaining the visual character of permanence and enduring quality. Floor-to-floor heights should allow for flexible, adaptable building systems. Net building area to gross building area ratios must be carefully established to ensure adequate unprogrammed casual/communal spaces that are conducive to informal, unstructured interaction.

SERVICE POINTS

Building service points and discrete connections to utilities must be carefully integrated into a building's design without compromising visual integrity. Loading docks must be fully enclosed or visually screened and accessible from predefined service corridors. Exterior rooftop equipment must be fully concealed with integral architectural building elements. Pad mounted equipment at grade must be similarly screened.

All exterior equipment on grade must be located in a designated service yard area and must be visually screened architecturally or with landscape elements. Screening must be continuous on all sides and extend to the top of the equipment. Alternate screening configurations that include landscape and/or topography may be considered.



Neuroscience Research Building (LEED Gold Certified)

SUSTAINABILITY

All new buildings and renovation projects shall incorporate sustainability design and building practices. IUis committed to achieving LEED Gold Certification as defined by the United States Green Building Council for all new construction projects.

LANDSCAPE DESIGN GUIDELINES



Passive recreation on campus



Active recreational opportunities

While streets and buildings define the basic open space framework of campus, its character and the way it is perceived are largely determined by the treatment of the campus landscape. Just as each new campus building must establish clear and enduring ties to existing and planned facilities, new site developments must connect with current and proposed campus surroundings. To visually reinforce the connectedness and permanence of the landscape throughout campus, common site design qualities (defined in terms of color, form, shape, size, and texture) should be arranged to achieve the desired visual continuity and spatial definition. Site design qualities are found and managed in the elements that comprise campus landscape and open spaces. Plantings and pavements offer the biggest visual impact, but other elements (e.g. gateways, lighting, sculpture, fountains, signage, site furnishings, topography, and walls) also play an important role in how the campus is ultimately perceived.

OPEN SPACE

Spacious and centrally-located open spaces on campus offers tremendous opportunity to reinforce a consistent campus identity and memorable student experience. In order to strengthen the pedestrian and open space network, the Master Plan recommends establishing a series of new green spaces and pedestrian walks in strategic locations throughout campus. The following objectives should be considered:

- Future development should be centered on green space, public streets, and urban amenities
- Open spaces should connect to each other, to larger natural systems, and to cultural destinations through pedestrian-scaled streetscapes, walks, and linear corridors
- Break down the scale of larger open spaces with a series of outdoor rooms, recreation fields, rain gardens, and pathways
- Protect views and celebrate arrivals at the riverfront from all street ends



Academic Quadrangle



Existing Tree Cover

- Create new quadrangles as semi-enclosed space (enclosed on at least three sides), but with many entry points
- Design future development and quadrangles with a strong sense of spatial definition (typically a proportion of 1:2 to 1:4 ratio of architectural height to horizontal width of the space)
- Create a change of scale in the entry sequence to quadrangles, moving from narrow portals into broad open space
- Use landscape and tree masses to delineate boundaries and break down the scale of existing quadrangles on campus

ECOLOGICAL LANDSCAPE

IUPUI is situated in a unique urban ecosystem, at the confluence of the White River and Fall Creek, and directly adjacent to the largest and densest urban core in the state. The following general principles will be used to guide campus landscape design:

• Create native habitat on campus and along riparian corridors

- Create a range of urban ecosystems from traditional "turf and tree" campus environments to woodland fragments along riparian edges
- Connect landscape fragments to form continuous corridors across the peninsula from the White River to Fall Creek
- Establish a no-mow zone along the levee embankments and plant with a native seed mix to gradually replace existing lawn
- Use native species in re-vegetation and bank stabilization efforts
- Eliminate invasive species
- Increase the tree cover from 10% to at least 28% on campus
- Increase tree plantings along all streets and within parking lots
- Increase tree plantings in future and renovated campus open spaces and quadrangles
- Use a diverse range of native species to reinforce connectivity with the natural environment



Campus Streetscape



The Wood Fountain

CAMPUS EDGES AND SETBACKS

Consistent building placement, defined by clear setback and build-to lines will establish a stronger urban campus character. Setbacks define the minimum distance behind the curb line for building placement and parking areas. Build-to lines establish the dimension from the curb that new development must meet in order to create a consistent, urban streetwall. A hierarchy of setback dimensions and build-to lines are proposed. Both University Boulevard and Indiana Avenue establish build-to lines to create a more urban streetscape formed by future development and active ground floor uses.

At the intersections of West Michigan and West New York Streets with Limestone, West Drive, University Boulevard, and Blackford Street, development is proposed closer to the street to reinforce a sense of gateway and urban density. A consistent setback and landscape treatment is proposed for West 10th Street, an important campus edge and front door image zone for the hospitals and medical campus.



The university envisions a campus landscape that achieves the following objectives:

- Establish setback dimensions proposed, free of development and surface parking lots
- Preserve the setbacks and complete the landscape design previously established for West Michigan, West. New York, and North West Streets, in the areas proposed on the plan
- Establish a 20-foot build-to line on University Boulevard and Indiana Avenue to create a consistent street wall for future development
- Establish a 15-foot build-to line on Vermont Street for future residential development
- Screen views of surface parking lots from the street rights-of-way through additional landscape plantings, low hedges, and/or low walls

STREETSCAPE CHARACTER

An urban campus connects most immediately to the city through the pedestrian experience. The character of the urban streetscape is a key component of the pedestrian experience at IUPUI. Enhancements to the pedestrian realm and a consistent streetscape treatment with more trees, pedestrian lighting, site furniture, and signage is proposed for all campus streets. Examples of strategies include but are not limited to the following::

- Provide a consistent streetscape design for all campus streets, based on scale, character, width of roadway, and volume of pedestrian traffic
- Increase the number of street trees on all campus streets, planted in either lawn panels or tree grates, depending on street type
- Complete the landscape design and staggered double row of trees established within the historic setbacks for West Michigan and West New York Streets

- Provide appropriately scaled lighting for all campus streets to light both roadways and sidewalks
- Provide additional site furniture on major pedestrian routes
- Sidewalks for all campus streets should be a minimum of 8 feet wide, wider in areas of heavier foot traffic
- Building service zones and loading docks should not front campus streets
- Improve the streetscape for IUPUI properties on Stadium Drive north of Fall Creek with street trees and appropriately sized walks, and screen all campus surface parking from view of the right-of-way
- Improve and maintain the streetscape for IUPUI properties on West 10th Street at the Canal with street trees, appropriately sized walks, and screen all campus surface parking from view of the right-of-way

The conceptual cross sections that follow describe the proposed character for campus streetscapes.

















CAMPUS GATEWAYS

Campus gateways and entrances create a positive first impression. As an urban campus, gateways for IUPUI should not separate the campus and city, but should mark the transition from one urban space to the next.

Gateways and entrances serve both vehicular and pedestrian traffic. Vehicular entrances must be legible for drivers traveling at faster speeds, while pedestrian entrances must foster a sense of safety, scale, and engagement. Entrances that serve both vehicular and pedestrian traffic must be legible at multiple scales. Because of the diverse populations that come to IUPUI, campus gateways and entrances should include a straightforward wayfinding and signage system to direct students, patients, visitors and staff to parking, drop-offs, and/or campus and healthcare destinations.

The design of gateways should be simple, appropriate, and compatible with the surrounding urban and architectural context of the campus and its districts. The form and materiality should express the importance of the university as an enduring, public institution. Incorporating landscape, lighting, and signage further designates these significant entry points and campus edge creating a sense of hierarchy for the university. Specific strategies include:

- Incorporate vertical architectural elements of high quality materials that are compatible with campus architecture into the design of vehicular gateways for visibility and campus image
- Ensure there are adequate pedestrian walkways and hardscape areas to accommodate foot traffic at multi-modal gateways
- Create a series of internally focused, appropriately scaled gateways to enhance pedestrian experience
- Develop a consistent palette of lighting, signage, hardscape and landscape materials for all levels of gateway designs that reflect the character of the campus



IUPUI's Shreve Gateway Entrance at Michigan and West Streets

CAMPUS LIGHTING

A consistent design and hierarchy of pedestrian and street lighting should be developed and implemented over time. Exterior lighting should form part of a unified family of site elements that visually organize the campus setting and improve its function, visibility, safety, and security. As a first step toward implementing these recommendations, a detailed campus-wide lighting study should be conducted.

- Pedestrian lighting should differ in style and scale from roadway and parking lot lighting
- The illumination, intensity, quality and distribution of light should respond to site characteristics and patterns of use
- Fixtures should direct light downward and minimize light pollution
- Light sources should be utilized for energy efficiency, color rendition, and visibility of pedestrians
- The source of illumination for pedestrian fixtures should be concealed



Typical Campus Lighting Fixtures on the IUPUI Campus

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DESIGN GUIDELINES