OZARKS TECHNICAL
COMMUNITY COLLEGE

OZARKS TECHNICAL COMMUNITY COLLEGE

CAMPUS MASTER PLAN, 2019

DAKE | WELLS architecture Perkins&Will

LETTER FROM OTC CHANCELLOR & PRESIDENT

Master planning plays an important role in any institution's success, and the progress achieved through Ozarks Technical Community College's 2010 Master Plan serves as a prime example. In the last decade, the OTC Springfield Campus has undergone significant growth to meet the diverse needs of our communities. We have achieved many of our goals outlined in the 2010 Master Plan, including significant traffic improvements and additional training facilities. These efforts established the groundwork for the college's continued growth.

The college's newest Master Plan was developed with a broad base of support from OTC faculty, staff, students and Board of Trustees. Countless stakeholders and community partners also took time to provide their guidance and feedback to our Master Planning Committee. Their input played a critical role in the creation of a plan grounded in the needs of our community and focused on the future of our students.

This new Master Plan will support the continued expansion of academic and student facilities. These efforts will make the OTC Springfield Campus more than just a place to learn, but also a place where our students belong. The Center for Advanced Manufacturing, along with other capital projects, will transform the look of the Springfield campus. These facilities will allow for expanded and enhanced academic offerings to create an even stronger connection between the college and the community we serve.

The thoughtful and calculated planning conducted in this report will positively impact our college and community for years to come. A decade from now, I am confident we will look back at the improvements of this plan with the same satisfaction we did from the last. Thank you to those who assisted in the development of OTC's blueprint for the future. Your work will continue to guide our efforts in the years to come.

Hal L. Higdon, Ph.D.

Chancellor & President,
OTC Springfield Campus

ACKNOWLEDGEMENTS

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You have a dream,
We have a plan

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Figure 1. Vision for the Ozarks Technical Community College, Springfield Campus. Facility & open space development over the next 10-20 years.

01 EXECUTIVE SUMMARY

1.1 BUILDING ON 30 YEARS OF MISSION-DRIVEN GROWTH

As a leader in technical, applied, and general education, Ozarks Technical Community College operates within a changing and competitive context. OTC's role as a community college and community-serving mission in southwest Missouri presents the college with unique challenges and opportunities for meeting student needs and elevating student success in the coming decades. This student success is closely tied to the success of the region, with OTC's workforce development programs supporting area businesses with the trained and skilled employees they need to remain competitive regionally, nationally, and globally.

The OTC campuses currently operate as a networked college system, with four satellite campuses (Waynesville Center, Lebanon Center, Richwood Valley Campus, and Table Rock Campus), OTC Online, and the Springfield campus. As the geographic and administrative heart of the OTC system, the Springfield campus plays a vital role in attracting students, serving as an administrative anchor and the 'home base' for thousands of students seeking an affordable, high-quality college experience.

Building on 30 years of mission-driven growth, the OTC system is poised for programmatic growth with the support of its partners, alumni, neighbors, and taxpayers in southwest Missouri. This growth has physical implications for the overall OTC system, but holds particular importance for the use of existing college lands on the Springfield campus, within the urban fabric of the City of Springfield.

1.2 A CAMPUS VISION IN SUPPORT OF DECISION-MAKING & THE OTC EXPERIENCE

Following the success of the 2010 Campus Master Plan for the Springfield campus, the 2019 Master Plan establishes two major tools for decision-making:

1. **An inspiring and flexible framework for campus change over the next 10-20 years**
2. **A set of principles and design standards to reflect on future open space and facility projects**

The Campus Vision illustrated on the left represents ideas from staff, students, and community members, and an approach to balancing the physical needs of OTC's operations and future. While the picture looks "complete," it represents the cumulative impact of many development steps, including projects such as the Center for Advanced Manufacturing on the east side of campus and landscape improvements across the Springfield property.

The following report details these development steps in the form of different systems and strategies for investment:

- **Land and Facility Use**
- **Open Space and Landscape**
- **Circulation, Parking, and Streetscapes**

Key areas for campus improvement were explored throughout concept development, including the re-organization of programming on campus (Allied Health, General Education, Technical Education); the emphasis on improving vehicular and pedestrian circulation; re-allocation and increase of parking; and a greater focus on a network of green spaces to help manage storm water. These issues quickly rose to the top during the analysis phase and became the guiding force behind the proposed master plan that is being presented. In responding to these issues, design and development strategies have been guided by a principled approach that balances student-centeredness, flexibility, cost-effectiveness, and an engaged campus.

While some of the development strategies involve new buildings, many of the strategies seek to enhance and strengthen the existing campus assets, within the principle of cost-effectiveness. All the strategies speak to the energy and aspiration of the college to connect the student community and create a strong anchor for busy, hard-working staff and students. This connection means creating more options for study space, a student life center with greater on-campus food options, and a recreation/ fitness center that allows staff and students to pursue a healthy lifestyle as part of their OTC experience.

The 2019 Campus Master Plan is a visionary plan for the next 10-20 years, but also a living strategy. As new opportunities arise in the coming years, the framework, set of principles, and design standards put forward by the Campus Master Plan will allow the college to adapt and succeed in a dynamic future.

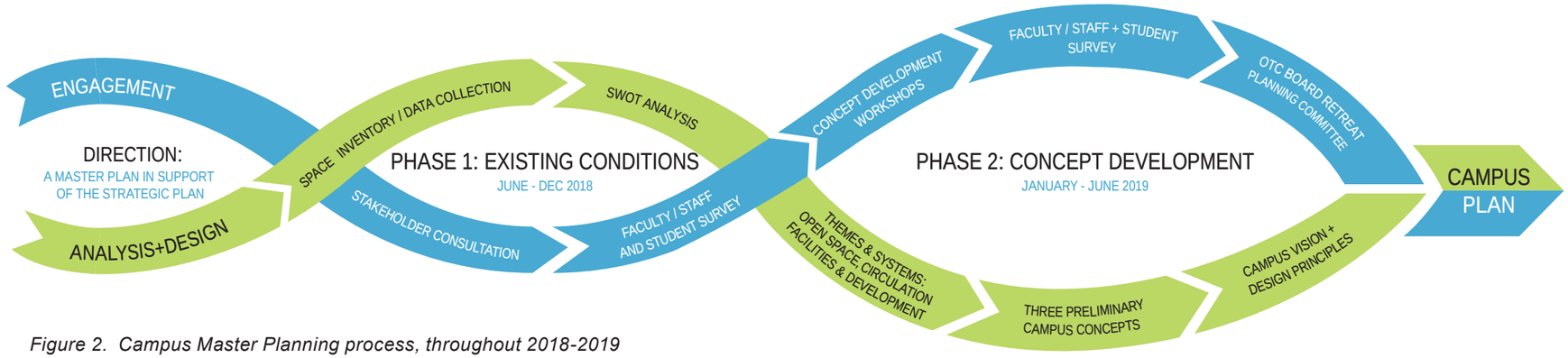


Figure 2. Campus Master Planning process, throughout 2018-2019


INFORMATION COMMONS EAST

02 PLANNING PURPOSE & FRAMEWORK

2.1 PLANNING DRIVERS

Planning represents a thoughtful continuum of strategies that build on history, strengthen relationships, and articulate aspirations for the future. This master planning process represents OTC's latest strategy, building on three decades of mission-serving land and facility planning. Following the achievements of the 2010 Campus Master Plan, the 2019 Campus Master Plan complements and supports the strategic plan, Your Dreams, Our Plan—OTC 2025. Embedding growth strategies to deliver affordable education, the new Master Plan furthers the Mission, Vision, and Core Values of the college.

RENEWING THE 2010 MASTER PLAN

The 2010 OTC Springfield Campus Master Plan outlined how the Springfield campus could accommodate future growth over the next 10-15 years. As a key stakeholder in the Springfield community and industry, OTC developed the 2010 Master Plan to guide facility development and land acquisition, and strategically contributed to the city's Comprehensive Plan. Furthermore, the Master Plan has been used by the city to coordinate infrastructure improvement projects in the vicinity of the Springfield campus. Integral to the 2010 Master Plan was the opportunity for OTC's neighboring stakeholders to inform the college's plan for growth in the long term.

The 2019 Master Plan advances key growth areas on the north and west side of campus, while acknowledging the residential fabric of the surrounding community, the heritage of Silver Springs Park, and the environmental conditions on the west side of the campus.

2025 STRATEGIC PLAN

The 2019 Campus Master Plan provides design strategies to guide the campus' built form and environment, in support of the college's overall strategic direction. The 2019 Campus Master Plan also responds to key goals under the Strategic Plan's three strategic initiatives. Through the goals listed below, the Strategic Plan called for the completion of a new facility master plan and the enhancement of student life opportunities, tailored to meet student needs. Responding to strengths, weaknesses, opportunities, and threats to a vibrant campus, through the lens of the Strategic Plan, the new Master Plan outlines strategies to carry forward the mission of OTC for the 10-20 years.

STRATEGIC INITIATIVE 1, GOAL 2: Provide a campus environment that promotes student learning and success in goal attainment.

STRATEGIC INITIATIVE 2, GOAL 2: Evaluate physical facility capacity and usage system-wide to ensure that OTC's service area needs are being met.

STRATEGIC INITIATIVE 3, GOAL 3: Continue a high level of engagement with the community so that OTC can keep informed on community needs and provide awareness of OTC services.

RESPONDING TO PHYSICAL CONDITIONS THROUGH THE LENS OF THE STRATEGIC PLAN

STRENGTHS

- Demonstrated history of successful master planning and collaboration with the City of Springfield over the past 30 years
- Adoption of the Postsecondary Education Facilities Inventory and Classification Manual (FICM) system for facility space better prepares OTC for benchmarking, program tracking, scheduling and capital development
- Well-maintained buildings position the college for future growth

WEAKNESSES

- Utilization of instructional space varies throughout the week (low utilization on Fridays)
- Inconsistent wayfinding and signage
- The majority of the Springfield campus is impervious land cover (68%), exacerbating flooding issues
- With 2,489 on-campus parking spaces, the Springfield campus is at capacity with spillover to neighboring lots and streets occurring (2017/2018 ratio: 2.5 FTE students per space)
- Flooding risks on the west and south side of campus, around Jordan Creek and Chestnut Expressway

OPPORTUNITIES

- Campus expansion to the edge of Silver Springs Park: creating a natural edge to the campus and enhancing pedestrian connections
- Policy incentives to enhance industry and manufacturing clusters in the Springfield area, complementing technical training
- The African American Heritage Trail and Silver Springs Park planning processes represent transformational opportunities
- Opportunities to make gateway entry points more significant through the use of lighting and signage
- Partnership opportunities with the city to manage stormwater according to the Integrated Plan

2.2 THE MASTER PLANNING PROCESS

Over the two phases of the 2018-2019 master planning process-Existing Conditions Analysis and Concept Development-engagement with key stakeholders was integral to ensure the needs and wants of the campus community were heard. Furthermore, the harmonious ongoing relationship between the engagement activities and analysis during the planning process facilitated the collaborative nature of the final campus concept.

Engagement during the master planning process included stakeholder consultations within the Springfield community, student and employee surveys, and Visioning and Concept Development workshops with the Campus Master Planning Committee. Three preliminary concepts emerged, and were aligned with the goals of the community through broad engagement with faculty, staff and students.

ENGAGEMENT BY THE NUMBERS

12 Planning Committee members engaged throughout 2018-2019, guiding the planning process

Campus Visual Survey (in person)

> 212 students

> 107 faculty and staff

Concept Development Survey (online)

> 120 employees

> 93 students

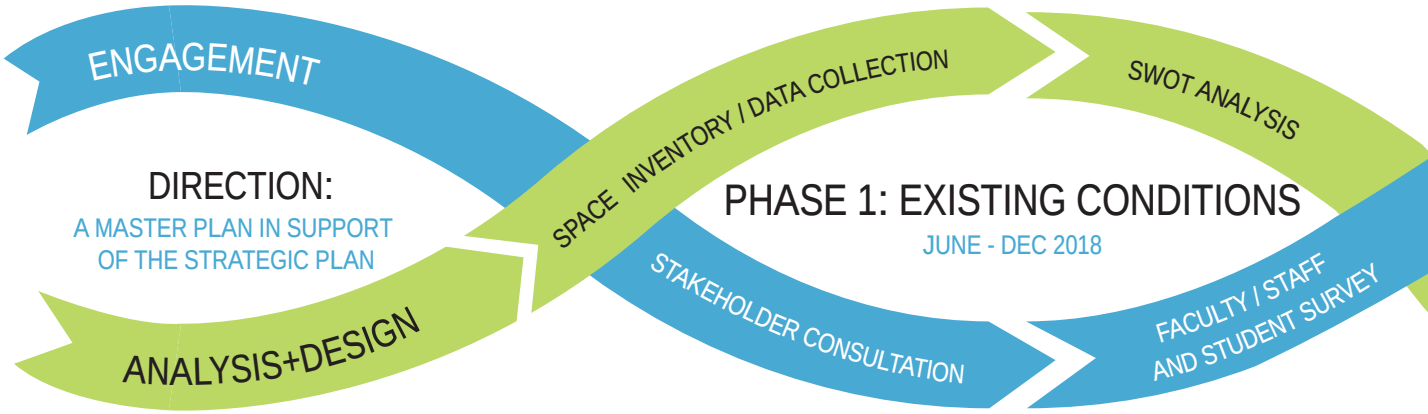
5 major community stakeholder groups engaged in the Visioning Workshop

6 OTC Board of Trustee members engaged to guide strategic direction of the design

Figure 3. Staff unveiling of the Campus Master Plan (2019)

Figure 4. Preliminary Campus Photo Tour-Challenge with the Campus Master Planning Committee (2018)

Figure 5. Campus Master Planning process, throughout 2018-2019



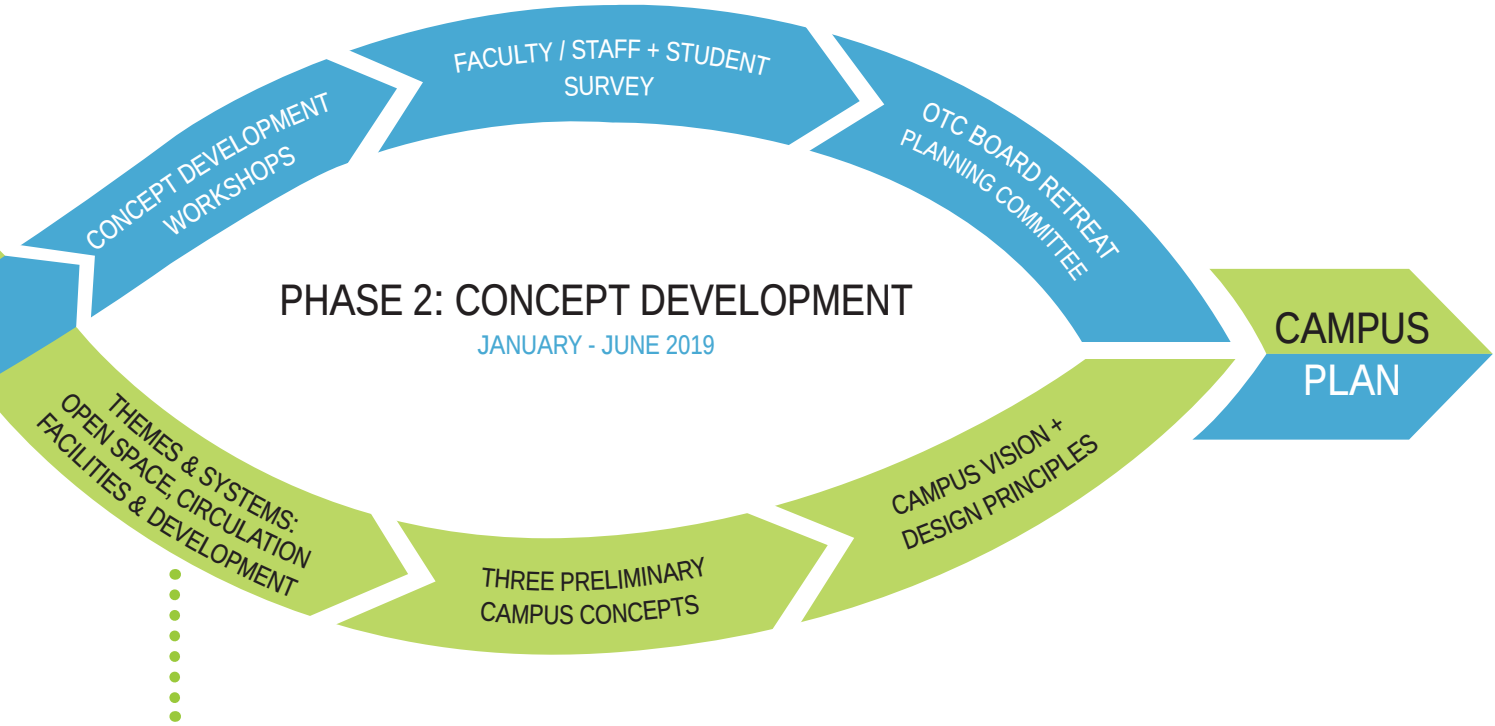
The master planning effort was split into two phases: the first phase conducted an analysis of existing conditions (Phase 1), which ultimately informed the second phase of concept development (Phase 2). Phase 1 began in 2018 with a detailed space inventory, data collection on the physical conditions of the campus, and an overall Strengths-Weaknesses-Opportunities analysis that identified key opportunities for campus change. With a strong understanding of the existing conditions, Phase 2 involved a more rigorous concept development process. Guided by the Campus Master Planning Committee, this phase involved visioning and an identification of common themes and systems for improvement. Visioning led into concept development activities, which included an assessment of three preliminary campus concepts, where design ideas were explored and tested. These preliminary concepts were tested in how they responded to the principles of the college. The preliminary concepts were also tested on how design solutions supported the improvement of open space and landscape, circulation, and mission-serving facility development. This process ultimately led to refinement of a set of design principles, which frame and structure the vision for future growth on the Springfield campus.

2.3 FROM THEMES TO DESIGN PRINCIPLES

Like other community colleges, OTC faces uncertainty about how much growth and the timeline in which growth will occur. However, through workshops as well as online and in-person surveys, key themes emerged as resounding aspirations for sustainable growth and development. These themes revolve around the:

- **Functional and aesthetic benefits of open space connections;**
- **The need to alleviate and optimize circulation patterns; and**
- **The strategy of clustering programmatic anchors to create learning communities for busy, commuting students.**

Grounded in these aspirational yet practical themes, four design principles were synthesized to serve as guide-posts for the campus design concepts and vision. The following pages detail these four design principles and how they can be applied to future improvements and implementation of the 2019 Campus Master Plan.



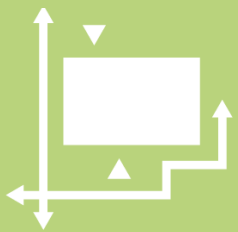
THEMES & SYSTEMS

OPEN SPACE & LANDSCAPE:

Trail & park connections are important to the heritage, culture, and future of the campus.

CIRCULATION:

Employees, students, and visitors travel to and across the campus in different ways. It is important to ensure safety and flow of all users, including pedestrians, drivers, and cyclists.

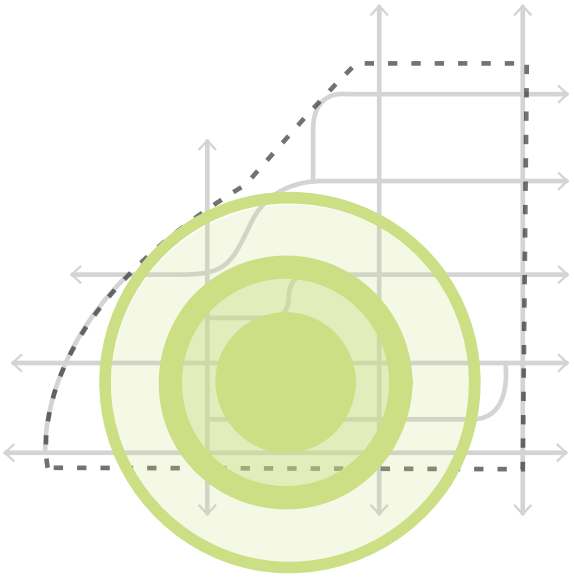


FACILITIES & DEVELOPMENT:

The growth of Technical Education, Allied Health, General Education, & other programs can be strengthened through programmatic anchor zones/clusters.

Figures 6-9. Campus Master Plan Design Principles

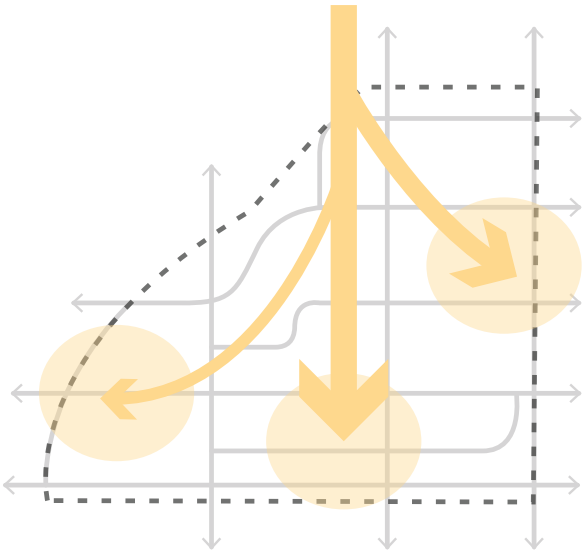
STUDENT-CENTERED



Integrate student spaces that create an active experience in support of academic success of diverse students, at all times of the day and year.

Dedicated student-centered spaces will facilitate a stronger network on campus for existing and future students. Student-centered experiences-grounded in healthy living and learning-will positively influence the overall academic success, sense of community and capacity building on campus. As OTC evolves, indoor and outdoor spaces will become cornerstones for the student experience and alumni relationship.

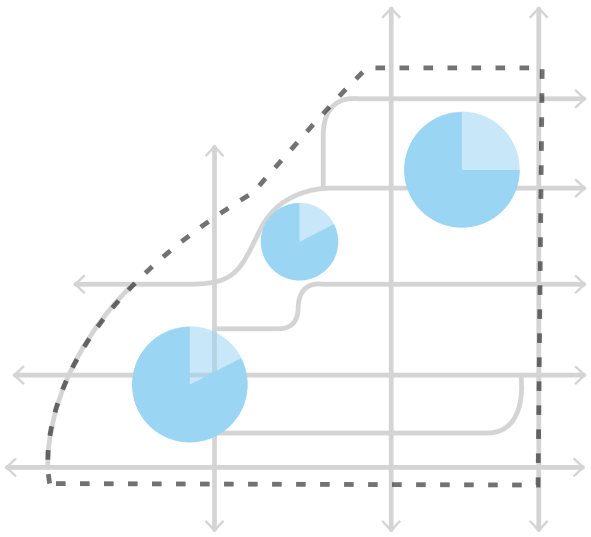
FLEXIBLE



Building resilience and growth capacity for new economic and industry trends, to effectively serve the broader region.

Built in flexibility for campus growth will ensure decisions being made today will inherently improve the campus experience for the next generation. With an adaptable approach that is sensitive to the needs of southwest Missouri, the college will be prepared for shifting trends that may occur in the future without compromising the integrity of the college's mission.

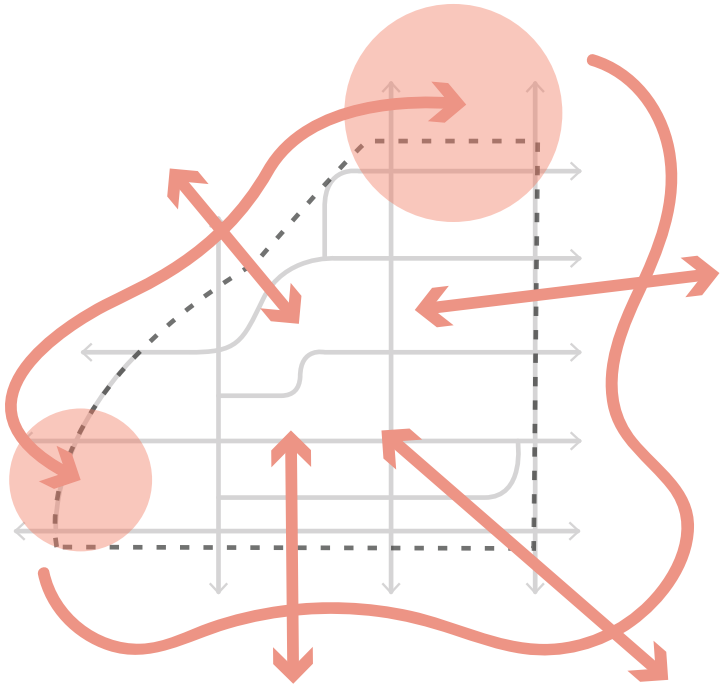
COST EFFECTIVE



Ensuring responsible physical development and campus investments that maximize value and student success.

All campus investment decisions, whether physical or programmatic, should preserve and uplift the financial health of the college to maximize opportunities for value and student success. Financial success of the campus should be achieved through a balance of cost-effective decision-making and space innovations.

ENGAGED



Designing a campus environment that engages the Springfield community and culture to invite community members to contribute to the OTC experience.

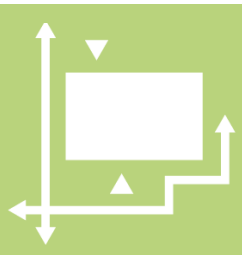
At the core of OTC's experience is an environment which fosters communication and engagement with its community members and surrounding neighbors. Designing welcoming entry points and engaging in dialogue with stakeholders-within and outside of the campus -will ensure that the campus can grow not only as a campus for students, but also function as a community asset.


OTC
start
go here
anywhere
Tobacco-Free Campus
OZARKS TECHNICAL COMMUNITY COLLEGE

03 CAMPUS SYSTEMS & STRATEGIES

Recommendations and strategies for campus improvements were broken down into three component systems: Land and Facility Use; Circulation, Parking, and Streetscapes; and Open Space and Landscape. These systems are meant to be read as layers of the overall Campus Vision, that together create a cohesive and high performing campus.

To arrive at a preferred concept, the three component systems were tested to find creative solutions through input with the Campus Master Planning Committee and the campus community. The following chapter breaks down how these systems were explored through different design options. The options analysis balanced the need to optimize Facilities, Circulation, and Open Space as integrated systems.



FACILITIES & DEVELOPMENT

Programmatic anchor zones can be created through different strategies: main street corridors, a traditional quad arrangement, or a strong edge face. What design best serves OTC over the next 10-20 years?

CIRCULATION

Safety and flow of all visitors and campus users can be created as a network of different parking, walking, and movement options. How can circulation design provide clear gateways and animated corridors?

OPEN SPACE & LANDSCAPE

Trail and park connections are underutilized assets and can help distinguish the campus experience. How can open space design connect campus users to beautiful spaces and make the journey to those spaces part of the experience?

3.1 CAMPUS OPTIONS ANALYSIS

To explore and arrive at a high impact framework for land and facility use, several concepts were workshopped and tested with the Master Planning Committee over spring 2019. Design concepts explored different ways to organize growth were then tested with the wider campus community and the rich input that was generated formed the basis of three options (see Figures 10-12).

DEVELOPING A PREFERRED CONCEPT WITH THE CAMPUS COMMUNITY

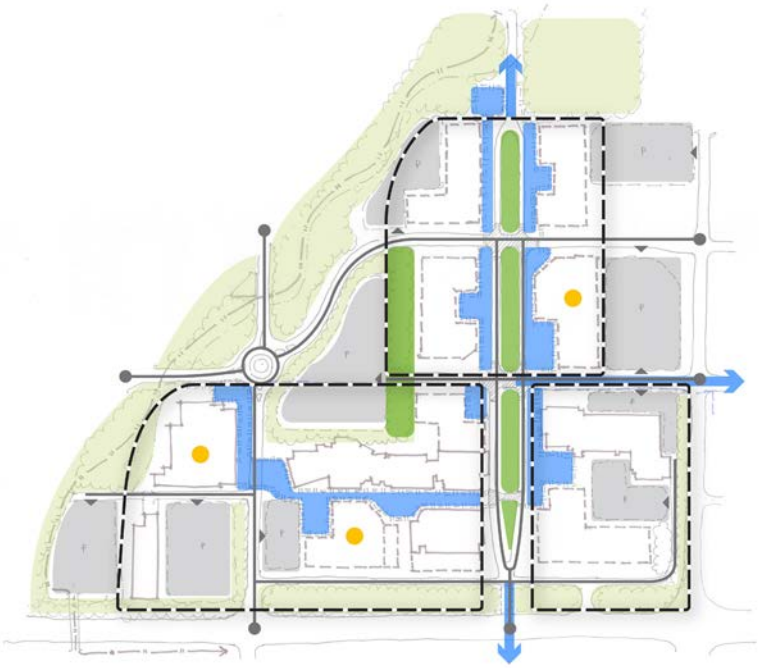
Through a survey, the campus community – including 120 staff and 93 students – identified strengths and weaknesses of the 3 design options. Based on this input, the feedback of the Master Planning Committee, and administration and leadership guidance, the strengths of the three options were synthesized into a singular preferred concept. In particular, the preferred concept maintains the vision for the programmatic "chapters in a book" of Option 1; creates the core quad of Option 2; and accentuates the north/south boulevard of Option 3 along North Hampton Ave, creating a natural alignment for future development and a holistic campus frame.

A common element throughout all three options was a strong connection to an enhanced western green corridor that traverses north to Silver Springs Park. Together, the green western edge of campus and the east-west pedestrian corridor create a "string of plazas" that will serve as an anchor for student life and circulation as the campus develops.

Figures 10-12. Campus design options analysis

OPTION 1: CHAPTERS IN A BOOK

The foundation of this concept is the continuation and enhancement of the Student Plaza along an east-west, pedestrian campus connector. The campus connector stitches together 3 programmatic zones: Allied Health on the west, General Education in the center, Technical Education on the east, and flex space on the north – together forming the boundary of the Springfield campus. Defining informal programmatic zones provides flexible room for program growth over time, but also key student life and academic anchors for students who require a "home base" during their time on campus.



OPTION 2: STACKED CLUSTERS

The aspiration for a central quad experience is the organizing concept of Option 2. Through a central quad and parking situated at the edges of campus, facility development frames the heart of student life. Rather than an enclosed quad, the facility pattern is envisioned as a framework for the creation of multiple sides and entries to buildings. Opening the campus quad on the west side, towards the roundabout, creates a natural visual connection to the western green corridor and an open heart to the campus.

OPTION 3: BOULEVARD CONNECTION

Both the 2010 Campus Master Plan and the analysis conducted in this master planning process, point to the potential of the north campus zone. The foundational concept of Option 3 is a strengthened north-south connection that simplifies circulation and provides alignment for future facility development along an attractive boulevard. Pedestrian open spaces or plazas form small anchor destinations around facilities, providing options for student life activities and informal gathering. Functional green spaces create north-south amenity corridors, creating connections to multiple buildings.


Jordan Creek
Future Building
Lincoln Hall
N Sherman Avenue
ICW
Information Commons
Student Life
Parkng Structure
WTC
Life Sciences / Allied Health
Chestn
E Chestnut E

Figure 13. Vision for the Ozarks Technical Community College, Springfield Campus, facility & open space development over the next 10-20 years.

CAMPUS VISION: A HYBRID OF THE THREE OPTIONS

> The options analysis resulted in a hybrid version of Option 1 (chapters in a book approach). This creates a multidisciplinary face along Chestunut Expressway and accommodates the ongoing growth of Technical and Allied Health programming as academic anchors. These anchors provide a sense of a “home base” for students and also create interdisciplinary hubs that can be clear spaces for the crossroads of different students, staff, and activity.

3.2 LAND AND FACILITY USE

Since 1990, OTC Springfield has grown from a one to two facility campus to an eight building campus covering over 55 acres of land. During the master planning process, two major considerations were established through conversations with the Campus Master Planning Committee and leadership team. These two considerations will continue to drive the sustainable management of land resources and facility development:

1. **The desire to maintain the campus boundaries of East Chestnut Expressway to the south; the rail line to the west; North National Avenue to the east; and Silver Springs Park to the north.**
2. **An understanding of academic growth will require new ways of utilizing and programming existing facilities, and require the development of new facilities.**

Like many other campuses, OTC's Springfield campus is job-intensive, employing 532 full-time equivalent instructors/faculty and 517 full-time equivalent staff in 2018. Combined with approximately 6,235 student Full Time Equivalents (FTEs) and over 80 programs of study in 2017, OTC is a remarkably busy commuter campus given its physical footprint. Through a study of existing facilities, it became clear that a clustering of complementary program activities would be beneficial for learning outcomes and the overall campus experience. Academic clustering – with general education at the core – also generated discussion of improving circulation and satisfying parking needs through low-impact strategies. The following pages walk through the proposed framework for land and facility use over the next 10-20 years and detail the magnitude of change envisioned to meet current and future needs.

SUMMARY OF RECOMMENDATIONS

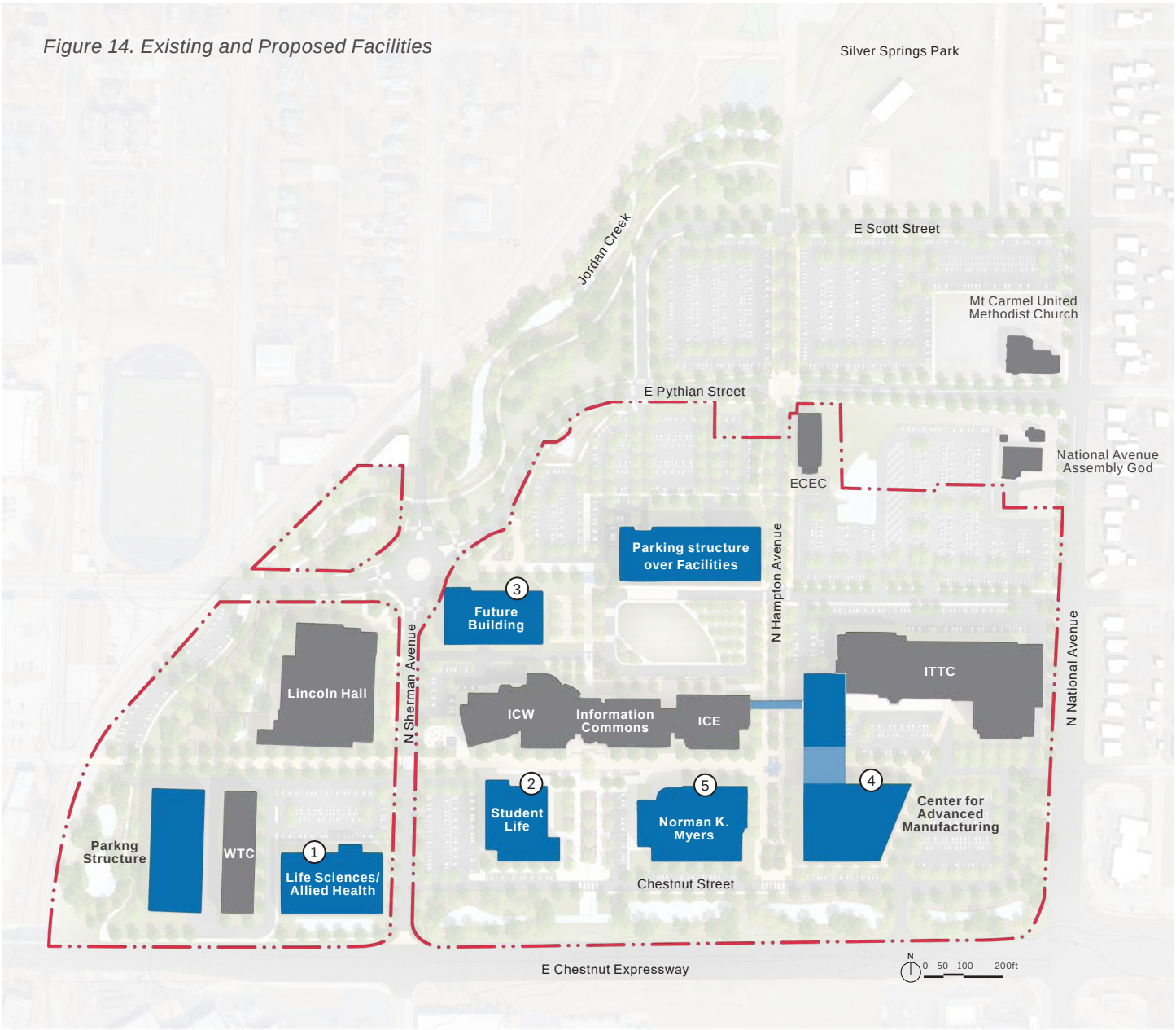
> Four new academic facilities will be considered to support programmatic growth: a Student Life Building, a Life Sciences/Allied Health Building, the Center for Advanced Manufacturing, and a Future Building to absorb growth in other general and technical education programs.

> Two parking structures will be considered to serve the west and center of campus. While more parking is needed to satisfy current and future demand, higher densities of parking allows the college to preserve land for facilities and accommodate the facility adjacencies that supports a sense of place.

> Sensitive revitalization of several existing facilities is needed to meet the changing needs of staff and students: Lincoln Hall (National Register of Historic Places), Information Commons, Norman K. Myers, and the Industry and Transportation Technology Center (ITTC). Further study of some facilities is needed to evaluate special facility conditions (e.g. the Early Childhood Education Center and high voltage lines).

CAMPUS FACILITY DEVELOPMENT

Figure 14. Existing and Proposed Facilities



The following pages detail the scale of the four new academic and student life buildings proposed in this plan:

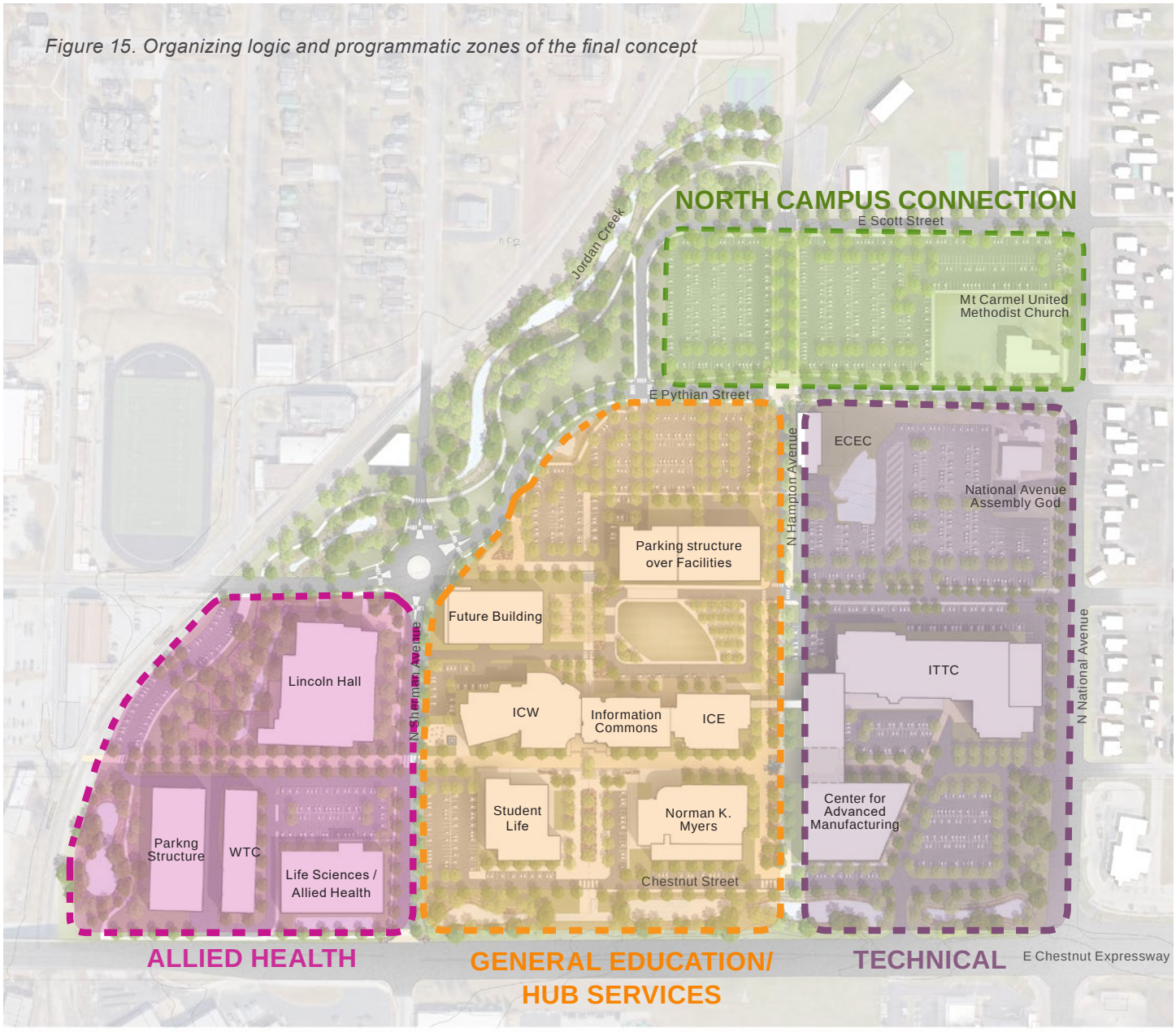
1. Life Sciences/Allied Health
2. Student Life
3. Future Building
4. Center for Advanced Manufacturing
5. Norman K. Myers (proposed expansion)

LEGEND

- Existing Building
- Proposed Building

“CHAPTERS IN A BOOK” CONCEPT

Figure 15. Organizing logic and programmatic zones of the final concept

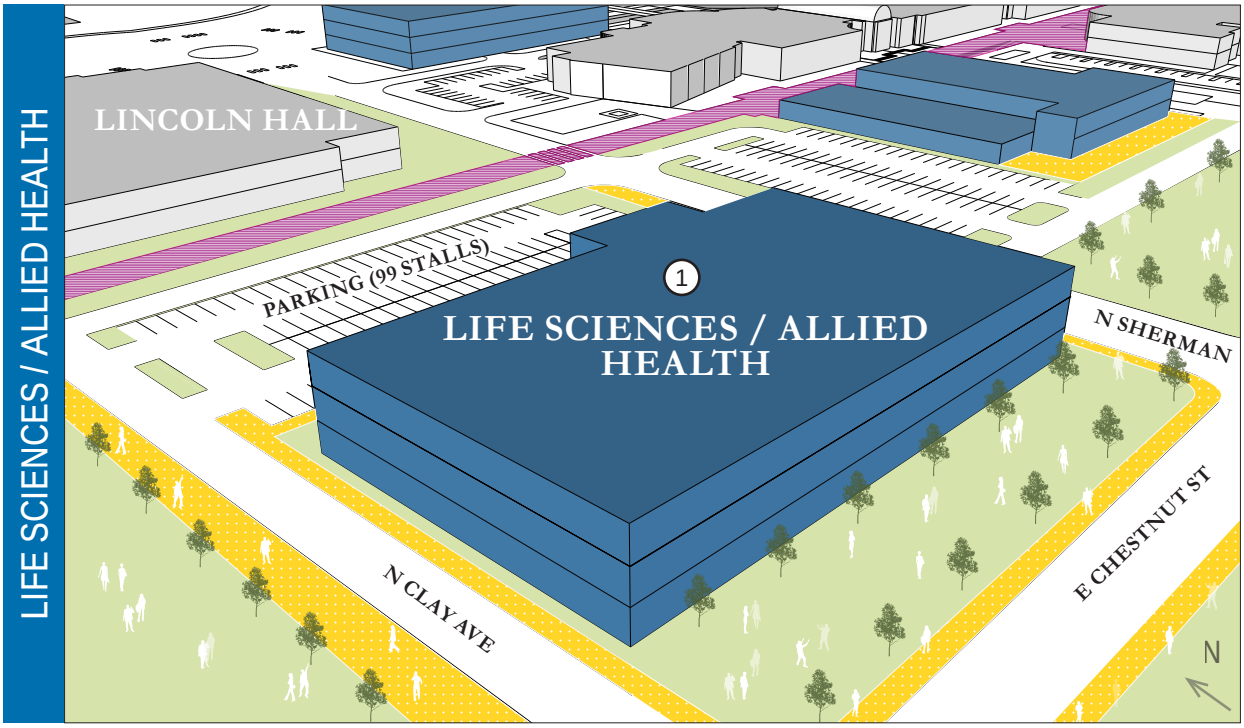


> Campus “book ends” are created by new facilities, showcasing support for Technical Education through the Center for Advanced Manufacturing and Allied Health on the west side of campus. The center of campus becomes focused on General Education and combined student life services.

> The north side of campus remains reserved as a flexible space for future expansion, contained within a compact campus footprint.

FUTURE CAMPUS BUILDING DEVELOPMENT

Figure 16. Life Sciences / Allied Health Building, approximate massing



Floors: 3 levels

Footprint: 38,900 SF

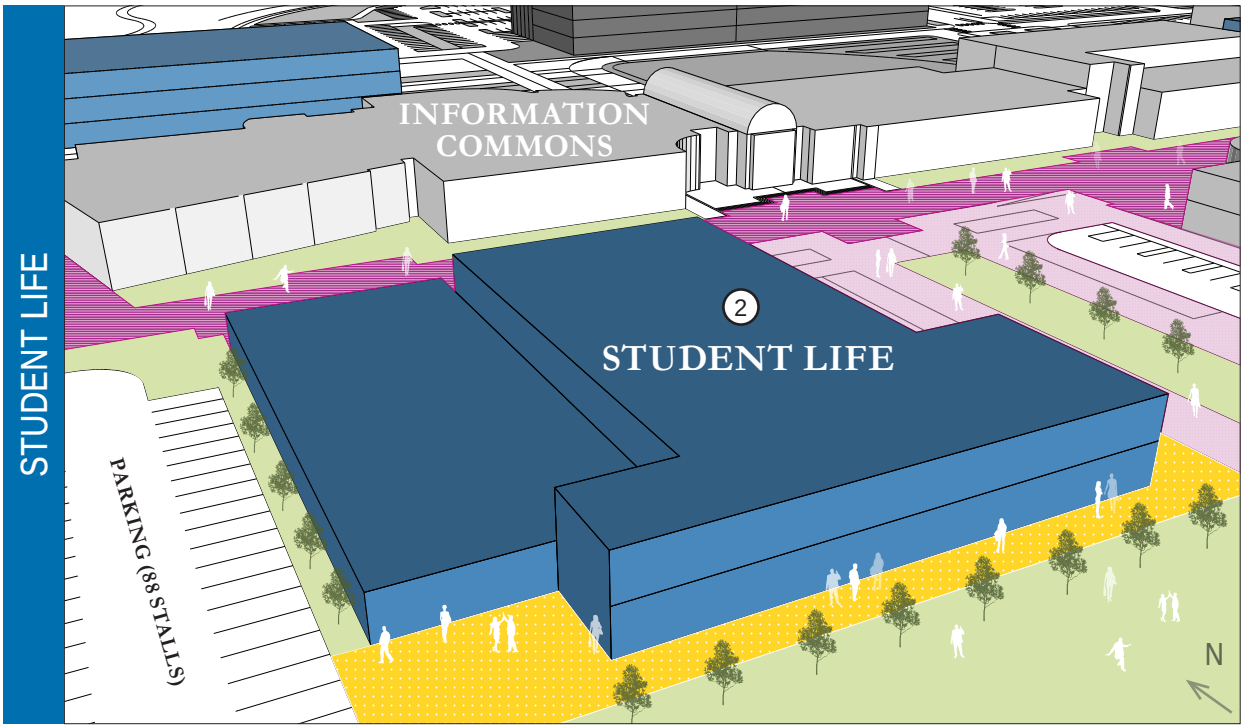
GSF: ~116,700 SF

Program: Labs, lab support, offices, classrooms, collaborative/ student spaces

> New space for Allied Health programming will provide a centralized home for some of OTC's fastest growing programs that serve as a critical pipeline of talent for the regional economy. During the planning process, the Campus Master Planning Committee heard testimonies from local health care employers on the magnitude of immediate and future skilled worker demand. Life Sciences program offerings may be moved to co-locate with Allied Health in the future.

> This new Life Sciences/Allied Health Building seeks to provide high quality training and instructional space for Life Sciences and Allied Health programming, including classroom, lab, and collaborative spaces, that the college can grow into over the coming years.

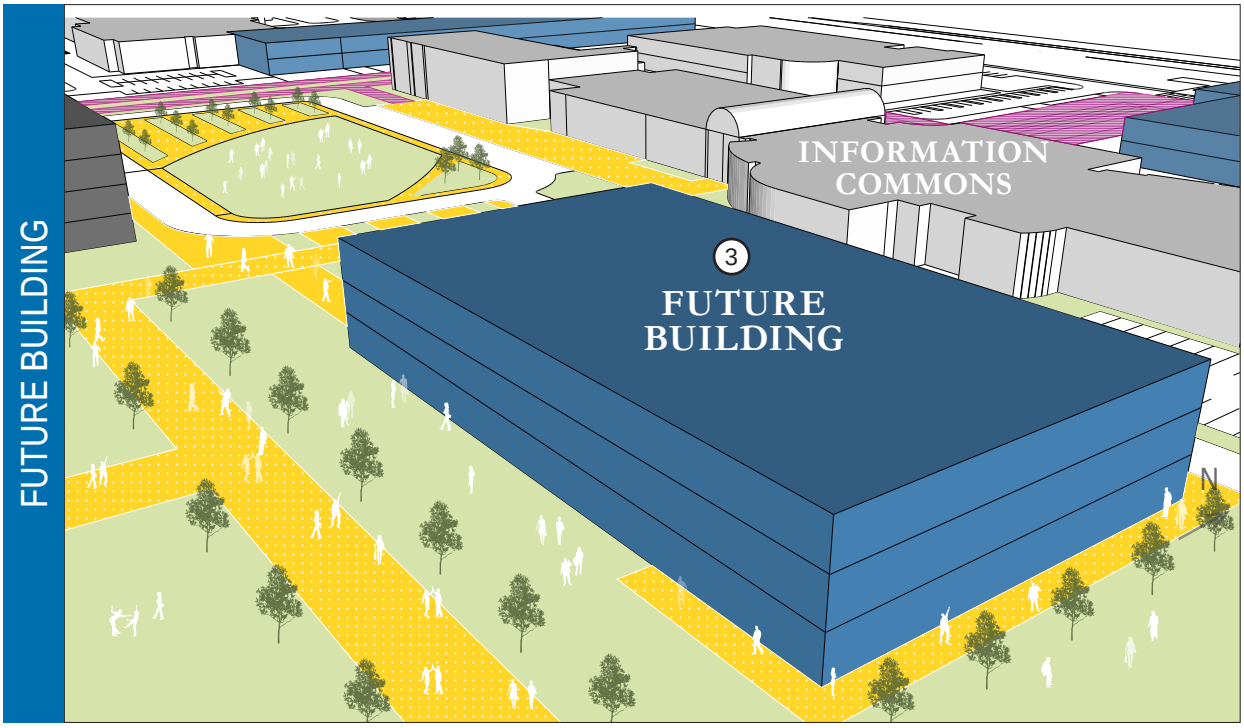
Figure 17. Student Life Building, approximate massing



Floors:	1-2 levels	**Program:**	Bookstore (currently ~3,660 SF), food service, admissions, welcome center, student union, small conferencing space
Footprint:	30,250 SF		
GSF:	~50,150 SF		

> Throughout the planning process, staff and students emphasized the need for additional student space: places where students could meet to socialize, eat together, and build collegial relationships. While student space can take many forms, the opportunity to co-locate existing student services with new spaces became the focus of a new Student Life Building. These new spaces may include additional meeting/conferencing space, casual and healthy food service, and student union amenities. Located on the doorstep of the southern gateway to campus (on Chestnut Expressway), this building would serve as a prominent feature, welcoming visitors and campus users coming in and moving through campus.

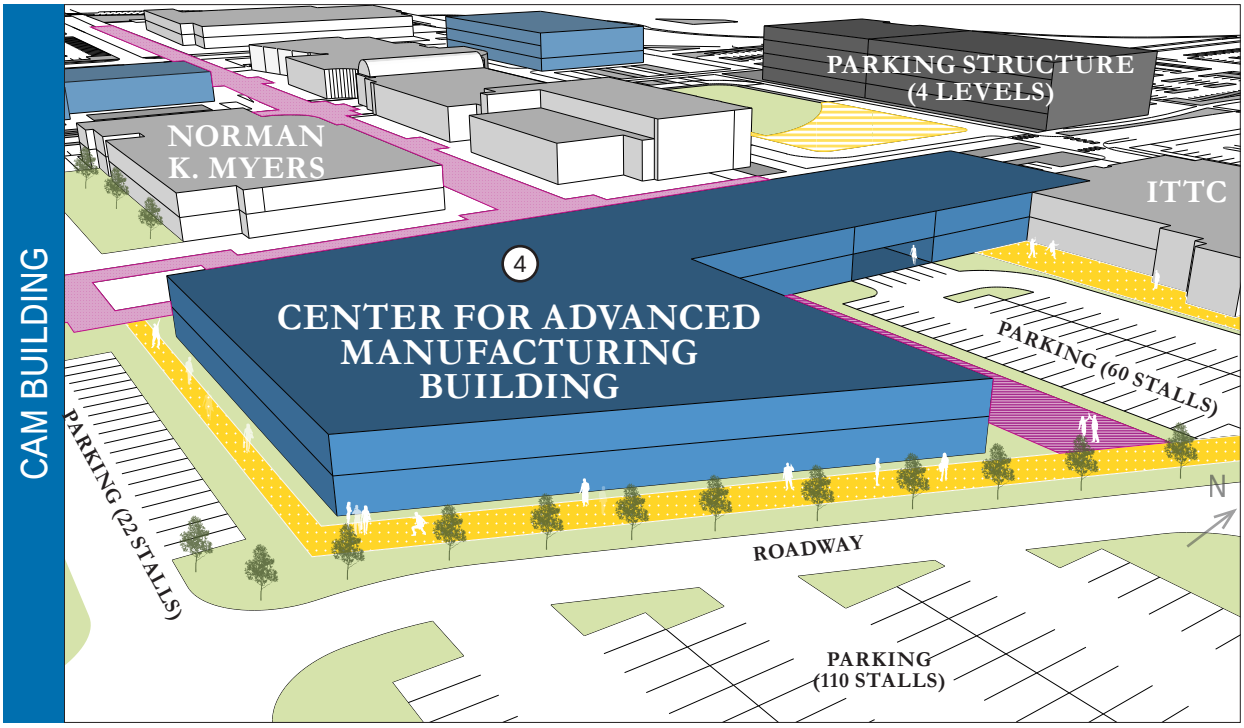
Figure 18. Future Building, approximate massing



Floors:	3 levels	**Program:**	Provides growth opportunities for Allied Health or General Education, or swing space as projects evolve on campus
Footprint:	30,200 SF		
GSF:	~90,600 SF		

> To accommodate maintenance and renovation within existing, highly utilized academic facilities, it was determined that additional space would be required to swing programs into during construction. It was also determined that in addition to swing space, enrollment trends may require OTC to expand academic space in the future. The site of this future building represents an opportunity to frame the heart of the campus and to increase visibility next to the roundabout – creating a strong campus arrival point on the west side of campus.

Figure 19. Center for Advanced Manufacturing, approximate massing



Floors:	2 levels, one third high bay	**Program:**	Classrooms, manufacturing space, technical labs, offices
Footprint:	66,000 SF		
GSF:	~120,000 SF		

> The Center for Advanced Manufacturing will be a new building of approximately 120,000 gross square feet, anticipated to be at least two stories and located in the southeast corner of the Springfield campus. CAM will be a state-of-the-art facility that includes specialized hands-on learning environments, flexible classrooms, simulation training labs, research and development labs, and business incubation test center(s), including high bay space equipped for advanced manufacturing processes. Programs planned for the facility will likely incorporate the following: robotics, fabrication, 3D printing, mechatronics, machining, virtual / augmented reality visualization, and other technology and manufacturing equipment.


OTC
start
go here
anywhere

3.3 CIRCULATION, PARKING AND STREETSCAPES

The ways in which people travel to campus and move through spaces impacts their safety, sense of inclusion, and overall experience on OTC's bustling and active campus. Smooth circulation to and within campus ensures people can safely reach their destinations on time, and different users do not come into conflict with one another. The ease with which circulation occurs is a product of many features, including parking lots, plaza spaces, and driveways. Circulation is also the outcome of many small features, such as wayfinding, signage, and outdoor seating.

The analysis of the current campus identified the greatest opportunity to improve circulation for OTC's community lies in improving safe and pleasant pedestrian circulation between streets, parking lots, and building-essentially optimizing the areas that OTC can most greatly influence. The transformation of three key corridors-Sherman, Central, and Hampton-was determined as a way to maximize investment given current activities and future growth. It was also determined that the current inventory of 2,489 on-campus parking spaces was at capacity and future growth would require additional parking capacity across the campus.

Four considerations will continue to drive the sustainable management of circulation and parking:

1. **The desire for strong and clear gateways on the south and east side of campus, creating a sense of ease for visitors and campus users**
2. **The need to provide a safe and engaging pedestrian experience, with destinations along the user journey**
3. **The need to clarify vehicular circulation and parking access, through a network of pathways and sidewalks**
4. **An understanding that achieving parking capacity and meeting future parking needs will require higher density parking solutions and a managed, distributed network of parking locations**

SUMMARY OF RECOMMENDATIONS

> The facility development pattern enhances multiple gateways on the north, south, and east side of campus, with the main entrance enhanced as an iconic frontage on East Chestnut Expressway. The multiple gateways begin to anticipate new travel patterns to campus, by alternative modes of transportation and transit.

> The enhanced pedestrian Campus Connector (an extension of the Student Plaza) creates a clear, continuous route providing access to 10 academic facilities.

> 1,781 Surface lot parking spaces; 1,070 parking spaces in two parking structures (4 level structure = 520 spaces; five level structure = 550 spaces). **Total parking spaces in proposed Campus Master Plan = 2,851.**

> Net gain of approximately 360 parking spaces over current count of 2,489 parking spaces.

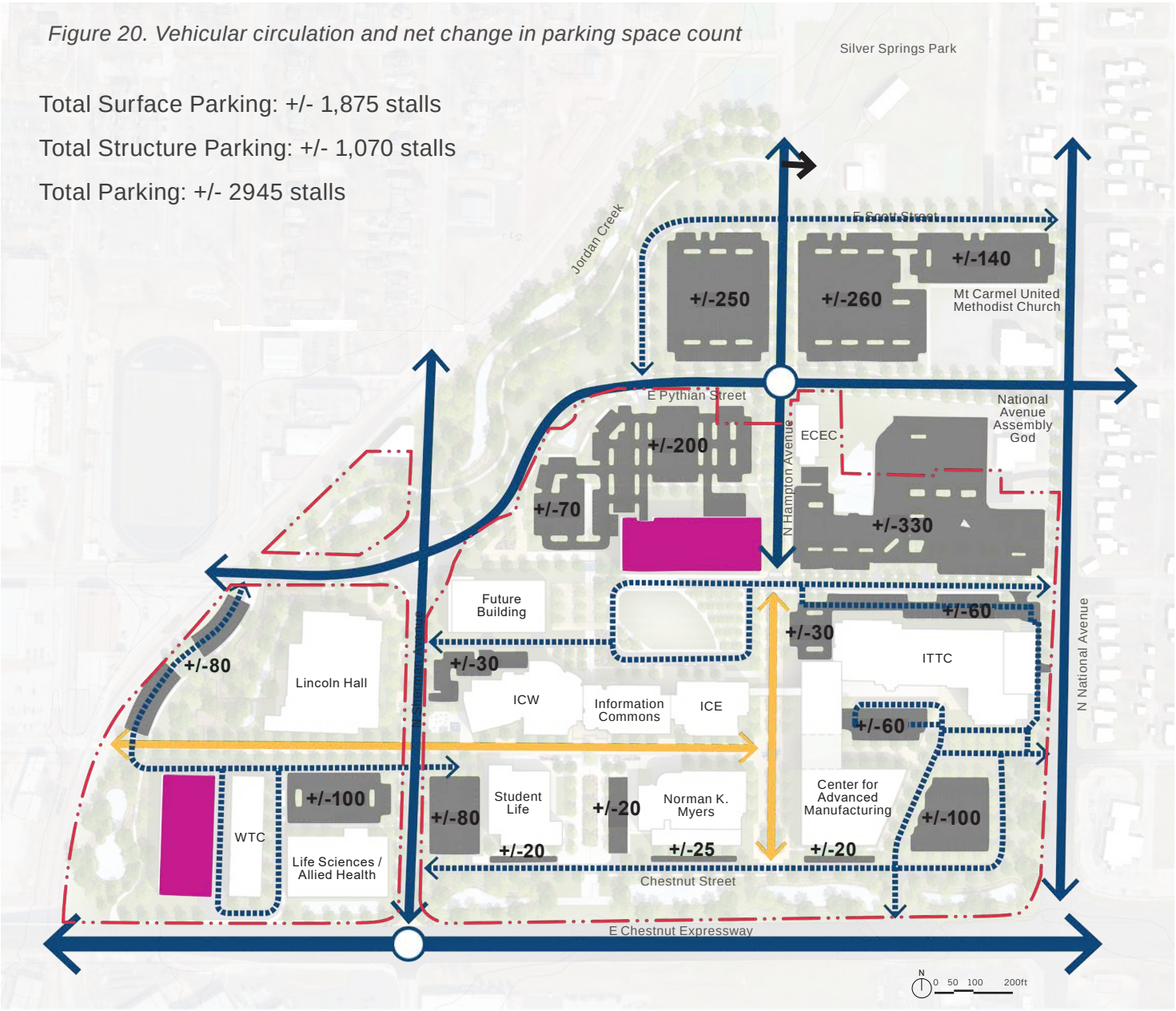
VEHICULAR NETWORK

Figure 20. Vehicular circulation and net change in parking space count

Total Surface Parking: +/- 1,875 stalls

Total Structure Parking: +/- 1,070 stalls

Total Parking: +/- 2945 stalls



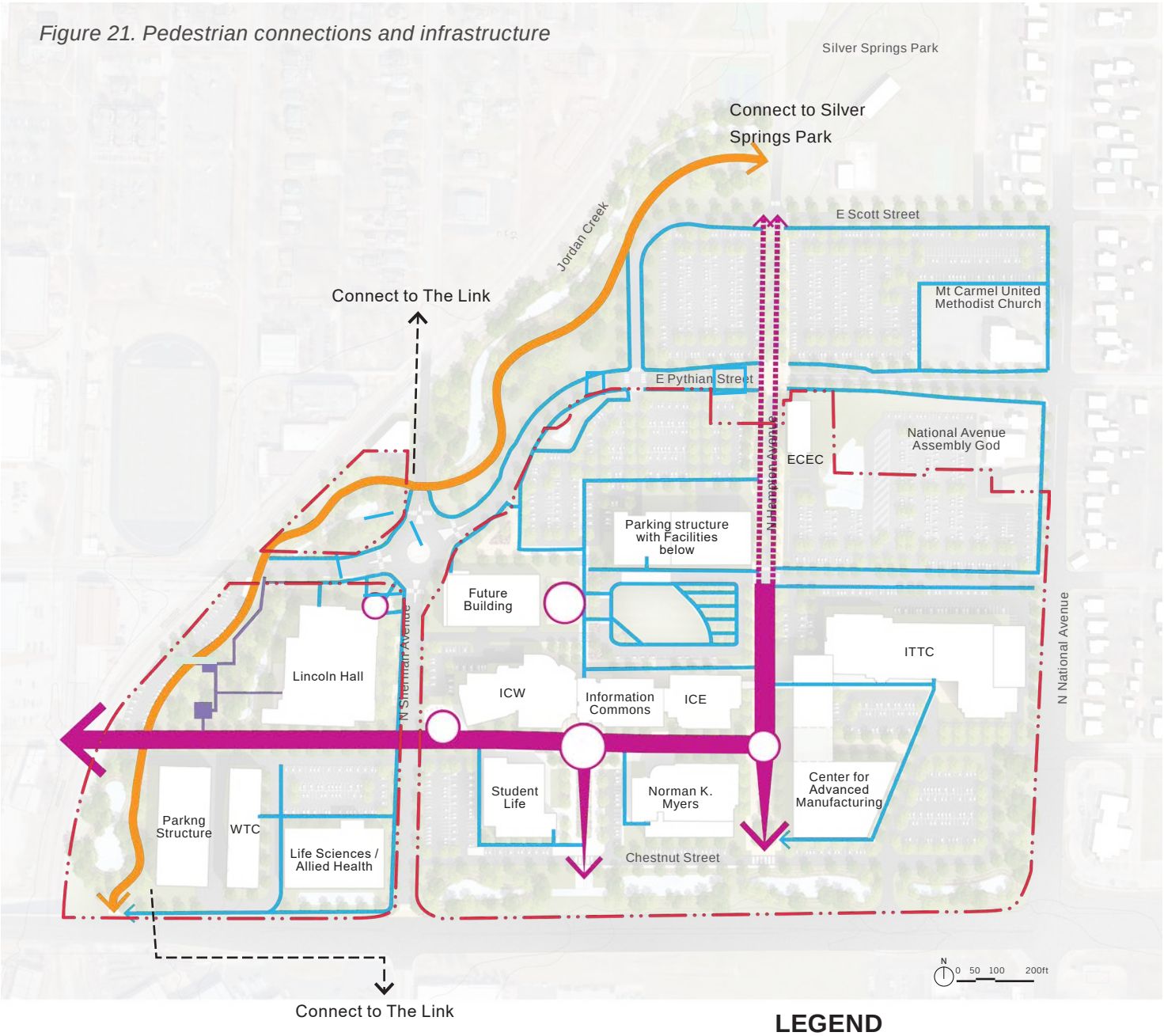
> The campus design creates clear gateways for entry and strong east-west and north-south axes. The design encourages secondary circulation patterns that feed from the existing primary access roads and add clear efficient access to parking (surface and structured parking). Two parking structures are proposed on the west and center of campus to accommodate future growth in proximity to future building uses.

LEGEND

- Primary Circulation
- Secondary Circulation
- Emergency Vehicle/Fire Access
- Surface Parking
- Parking Structure
- Gateways

PEDESTRIAN NETWORK

Figure 21. Pedestrian connections and infrastructure



> Campus circulation creates accessible routes and access for people who use wheelchairs and other assistive devices. A hierarchy of routes reduces the conflict of different users and creates a series of nodes and gathering spaces along the primary east-west promenade – stitching together a larger campus. Through a series of smaller gateways, the campus connects with the Springfield neighborhoods outside of its boundaries. The proposed circulation also provides shared access to natural amenities, including The Link, park trails, and the proposed route of the African American Heritage trail.

LEGEND

- East-West Campus Connector
- North-South Campus Connector
- Sidewalk
- Walking and Biking Trail
- Nature Trail/Boardwalk
- Gathering Node

THE CENTRAL CAMPUS CONNECTOR: “OTC INNOVATION WALK”

Figure 22. The Campus Connector running east-west connecting 10 academic buildings

> A central promenade - the Campus Connector - stitches together the old with the new, creating a signature space that enhances the arrival and appeal of the campus. The Campus Connector can provide an improved user journey and flexible open spaces for small or large gatherings, that celebrate art, history, and community.

> The Student Life Building will serve as a central facility with shared services for students. It will become a start and end point for visitors, campus tours, and daily student life.

Figure 23. Character imagery of inspiration for the Campus Connector. Images courtesy of Perkins and Will.

3.4 OPEN SPACE AND LANDSCAPE

The health of the landscape and open spaces that stitch together the OTC system and Springfield campus are critical to its long-term development. Analysis of local, county, state, and federal data on environmental conditions revealed:

1. **A significant amount of existing land in the Springfield campus represents impervious surface area (68%)**
2. **Flooding risks on the west and south side of campus exist, related to topographic conditions around Jordan Creek; and,**
3. **The Silver Springs Park master plan scheduled for 2019/2020 and the African American Heritage Trail proposal represent transformational opportunities to leverage through the college's master planning process**

Engagement in the concept development phase of the master planning process consistently emphasized the importance of open green spaces. The incorporation of functional yet beautiful green amenities has multiple benefits, including the provision of shade, a cooler outdoor experience, stress relief and mental wellbeing, opportunities for socializing, stormwater management, and flood mitigation.

The open space amenities proposed respond to the desire for a greener campus, and function in ways that strengthen pedestrian connections. The following pages display the open spaces that together form a "string of plazas": a distributed chain of plazas, tree lined boulevards and pedestrian pathways, central quad, and walkways that connect to every building on campus.

SUMMARY OF RECOMMENDATIONS

- Seven new plazas that strengthen facility entrances and offer spaces for formal and informal gathering.
- Two signature features on the south side of campus, celebrating the unique OTC brand:
  - Tech Square (outdoor learning, seating, dining)
  - OTC signage and fountain feature
- A central quad (Commons Park & Plaza) that pulls the campus' center of gravity from the edge of East Chestnut Expressway to the center of the campus lands, creating a framed heart for facility development.
- A significant introduction of native tree species and tree canopy, as well as an eight percent increase in the amount of pervious (naturally draining) surfaces across campus.

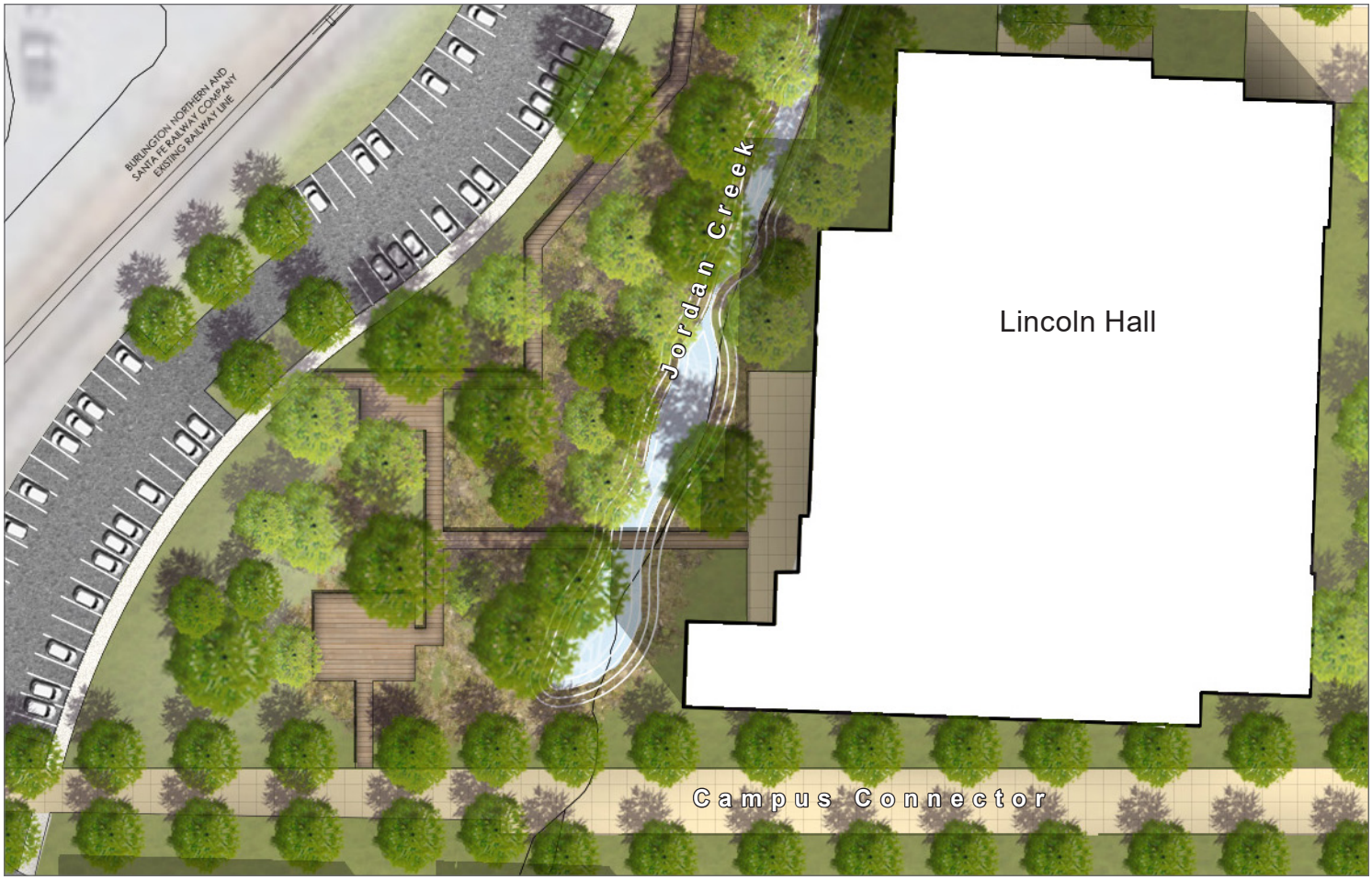
OPEN SPACE AMENITIES

Figure 24. Open space and landscape improvements

1. Lincoln Outdoor Deck
   - > Outdoor Recreation
   - > Environmental Awareness
   - > Trail Connector
2. Historic Lincoln Hall Plaza
   - > Interpretive Signage
   - > Outdoor Seating/Community Space
   - > Arts/Sculpture/Tree Preservation
3. Bookstore Plaza
   - > Outdoor Learning/Seating/Gathering
4. Arts & Performance Plaza
   - > Arts/Sculpture
   - > Enhanced Bus Transit Connection
5. Student Center Plaza & Lawn
   - > Outdoor Seating/Dining
   - > Ceremonial Gathering (i.e. Tour Start)
6. OTC Signage Feature
7. Commons Park & Plaza
   - > Flexible Landscaped Plaza
   - > Open Lawn/Gathering Space
8. CAM Entry Plaza
   - > Expanded Entry Plaza
   - > Focal Feature
9. Tech Square
   - > Outdoor Learning/ Seating/Dining
   - > Innovation Display
10. ITTC Entry Plaza

BOARDWALK ENLARGEMENT

Figure 25. Lincoln Hall boardwalk connection over Jordan Creek



> Open space weaves together the campus and tells the story of community history, historic Lincoln Hall, and OTC.

> Strengthened lower land areas where flood waters overflow from the creek. An elevated boardwalk provides an educational opportunity to access the naturalized flood management area and the parking lot on the west of Lincoln Hall.

COMMONS PARK & PLAZA ENLARGEMENT

Figure 26. Central park and plaza space, north of Information Commons

> New campus gathering spaces in the heart of campus can host periodic large outdoor events and support daily use spaces for students.

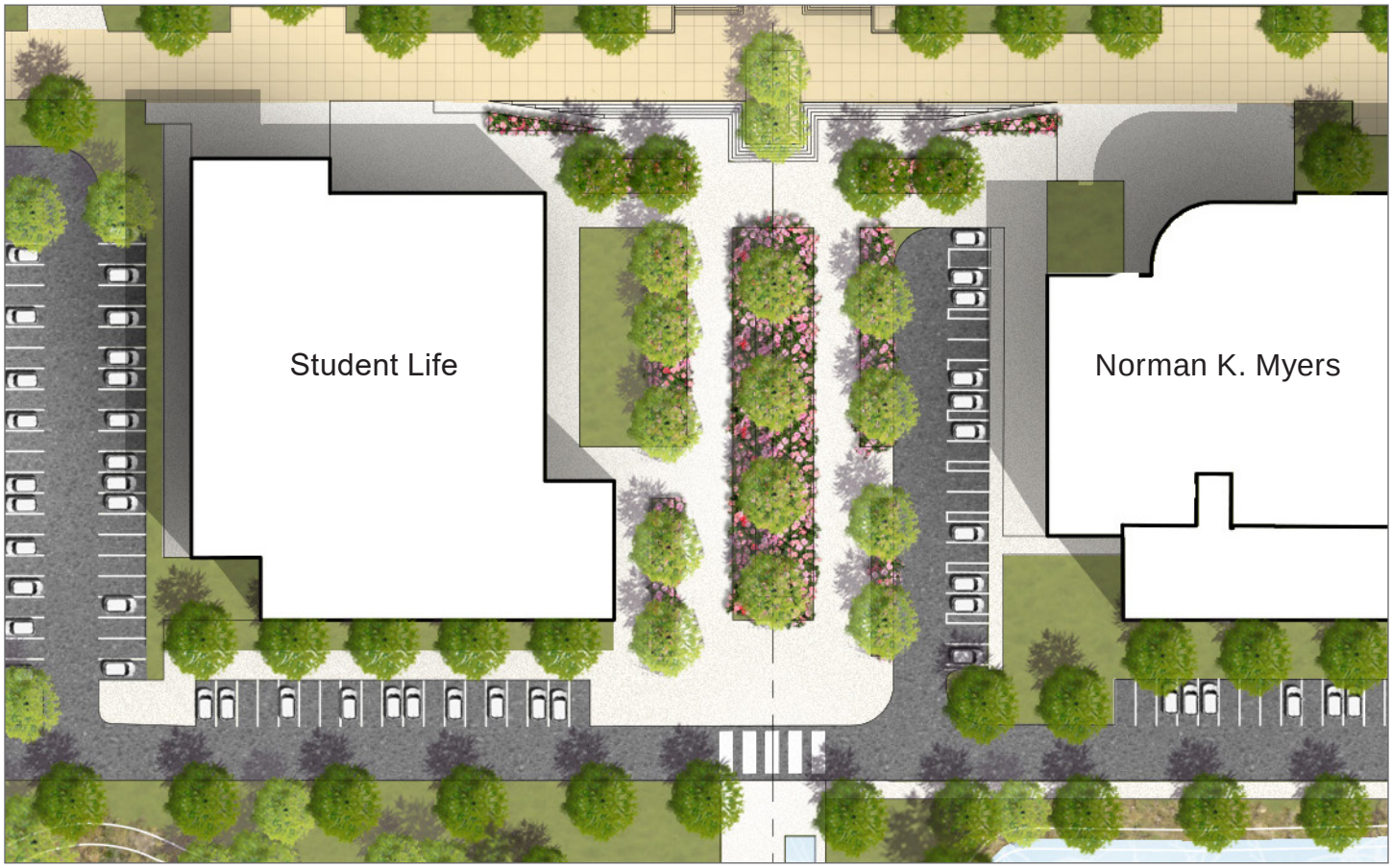
> A central quad or Commons Park can be animated and activated with food trucks, performance venue, outdoor study pavilions, and opportunities for informal recreation.

Figure 27. The Commons Park & Plaza, forming an open quad in the heart of campus

- The scale of a central Commons Park space can provide opportunities to build-off community spaces and opportunities for outdoor classrooms.
- The hardscape plaza space adjacent to the Commons Park can provide outdoor eating and dining environments, where students and staff can eat a meal between classes.
- The Commons Park provides a central access to open space, natural light, and fresh air in the heart of the campus experience.

STUDENT LIFE PLAZA

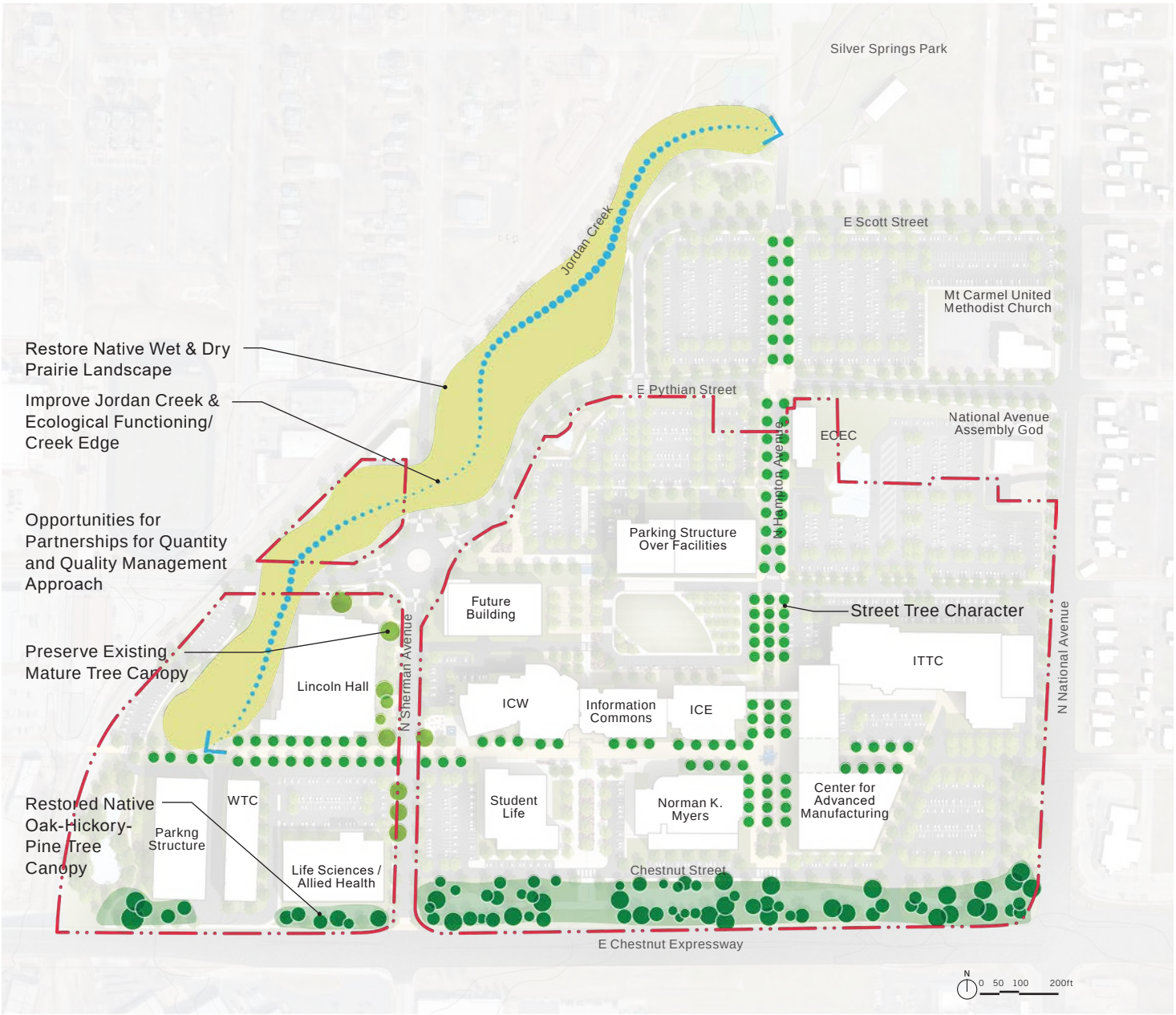
Figure 28. Student Life Building on south side of campus



- The new Student Life Building will become the main collaboration and gathering space for students, visitors, and prospective OTC students.
- Serving as the starting point for campus tours, the Student Life building provides flexible outdoor spaces that could host outdoor dining for new cafés/restaurants, work in collaboration with the new fitness center for outdoor classes such as yoga, and host campus assembly and gathering events.
- The space connects directly into the east-west connector to the north, and improved OTC campus signage feature to the north.
- Providing a node along the connective pedestrian realm stitches the campus together and front ‘face’ along Chestnut (central axis aligns with the arch way feature on the Commons building).

VEGETATION STRATEGY

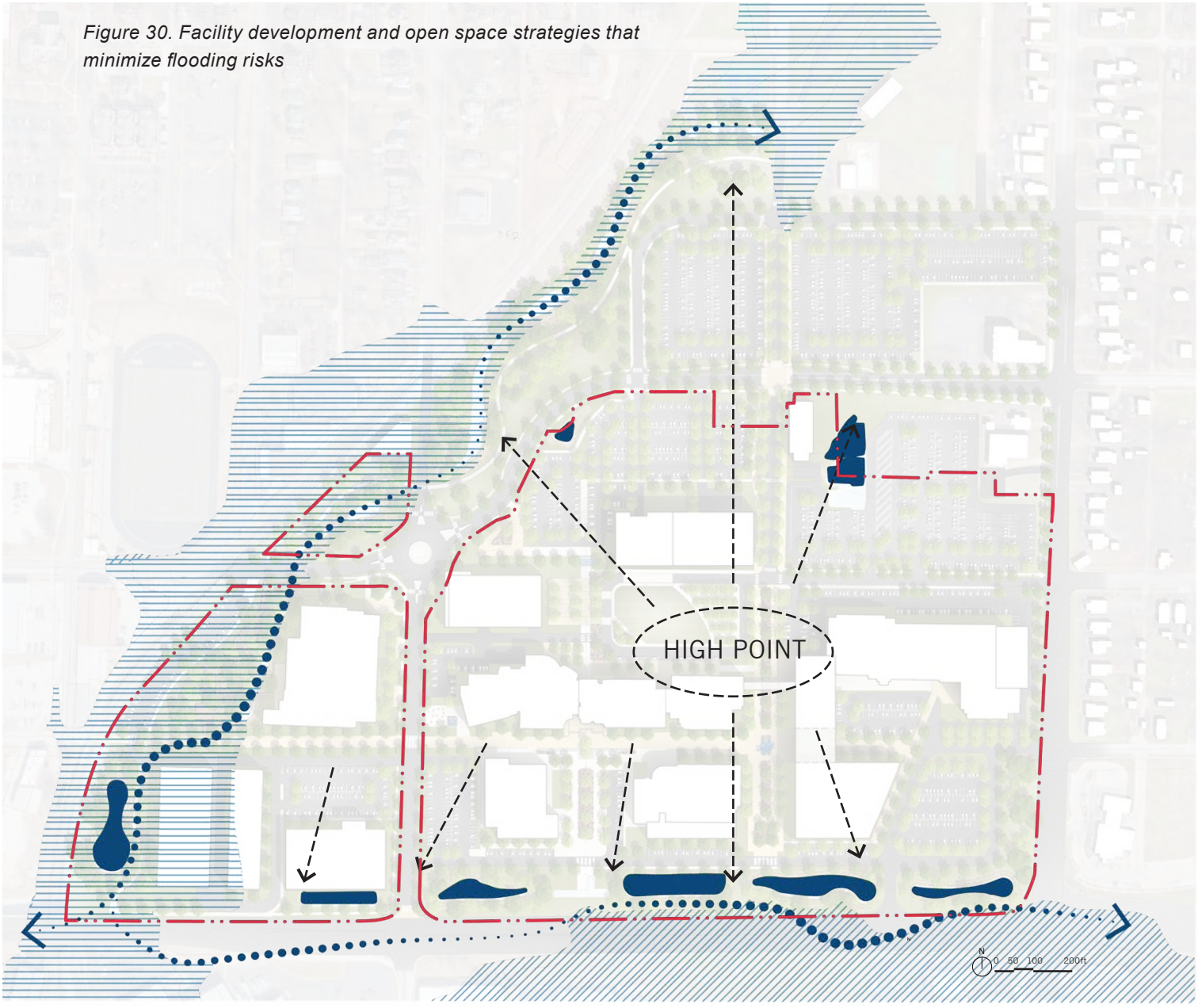
Figure 29. A vegetation strategy that provides a pleasant environment and cost-saving environmental benefits



> Site Performance improvements through addition of vegetation (canopy trees, understory, native plant massings, etc.) include shade/cooling, a reduction of the urban heat island effect, stormwater infiltration, pollinators/native plants, and improved water quality.

STORMWATER AND DRAINAGE

Figure 30. Facility development and open space strategies that minimize flooding risks



> As the campus grows, it will be necessary to address additional run-off from impervious spaces. It will also be important to add infrastructure that supports a more resilient future for the campus and supports the City of Springfield's initiatives to address management of stormwater and flood plain risks (i.e. enhancement of Jordan Creek area).

LEGEND

- 500-Year Floodplain
- Drainage Patterns
- Water Flow
- BMP

PERVIOUS/IMPERVIOUS

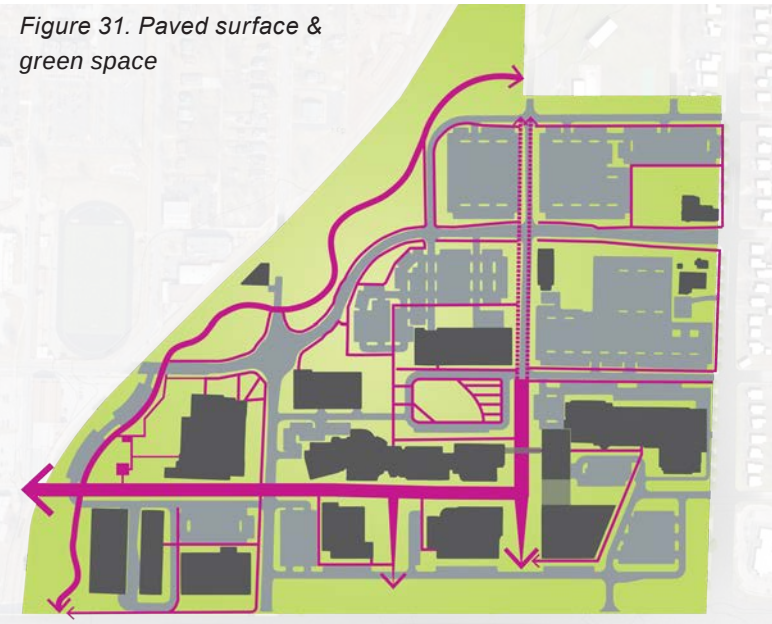
Figures 31-35. Pervious and impervious surfaces

LEGEND

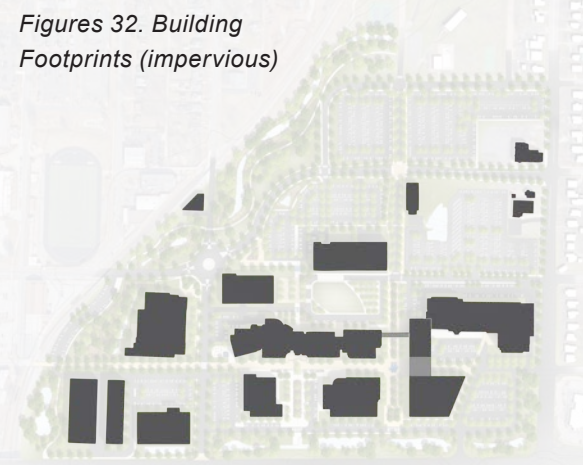
- **Roads & Parking**
- **Paved Surfaces**
- **Building Footprints**
- **Green space**

The proposed campus design reduces impervious surfaces approximately eight percent by adding functional green spaces that support infiltration and run-off reduction.

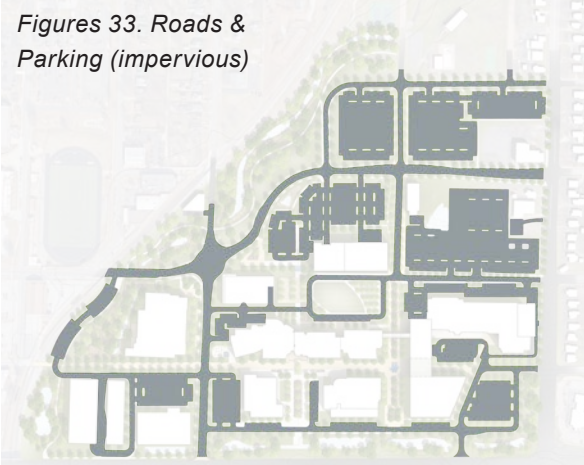
Figure 31. Paved surface & green space



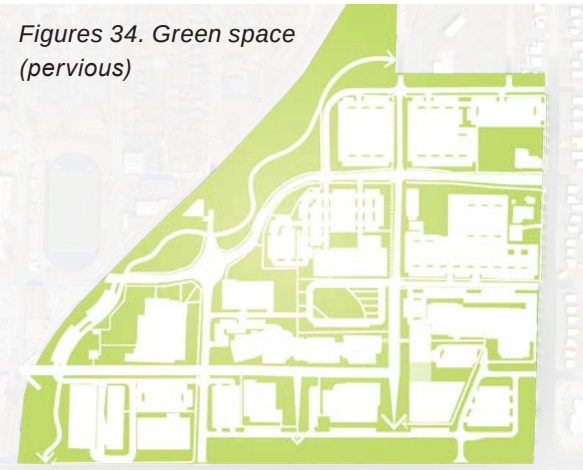
Figures 32. Building Footprints (impervious)



Figures 33. Roads & Parking (impervious)



Figures 34. Green space (pervious)



Figures 35. Paved Surfaces and (impervious)

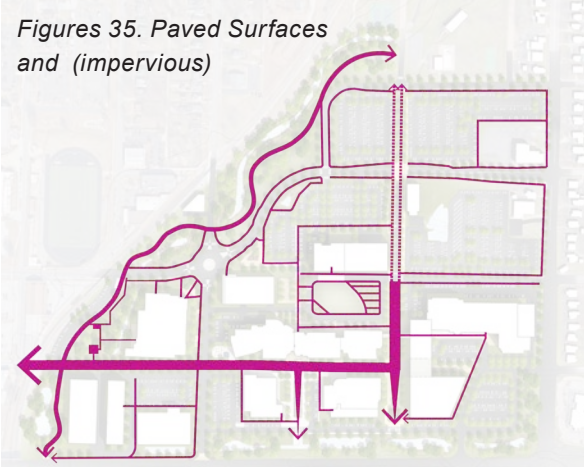
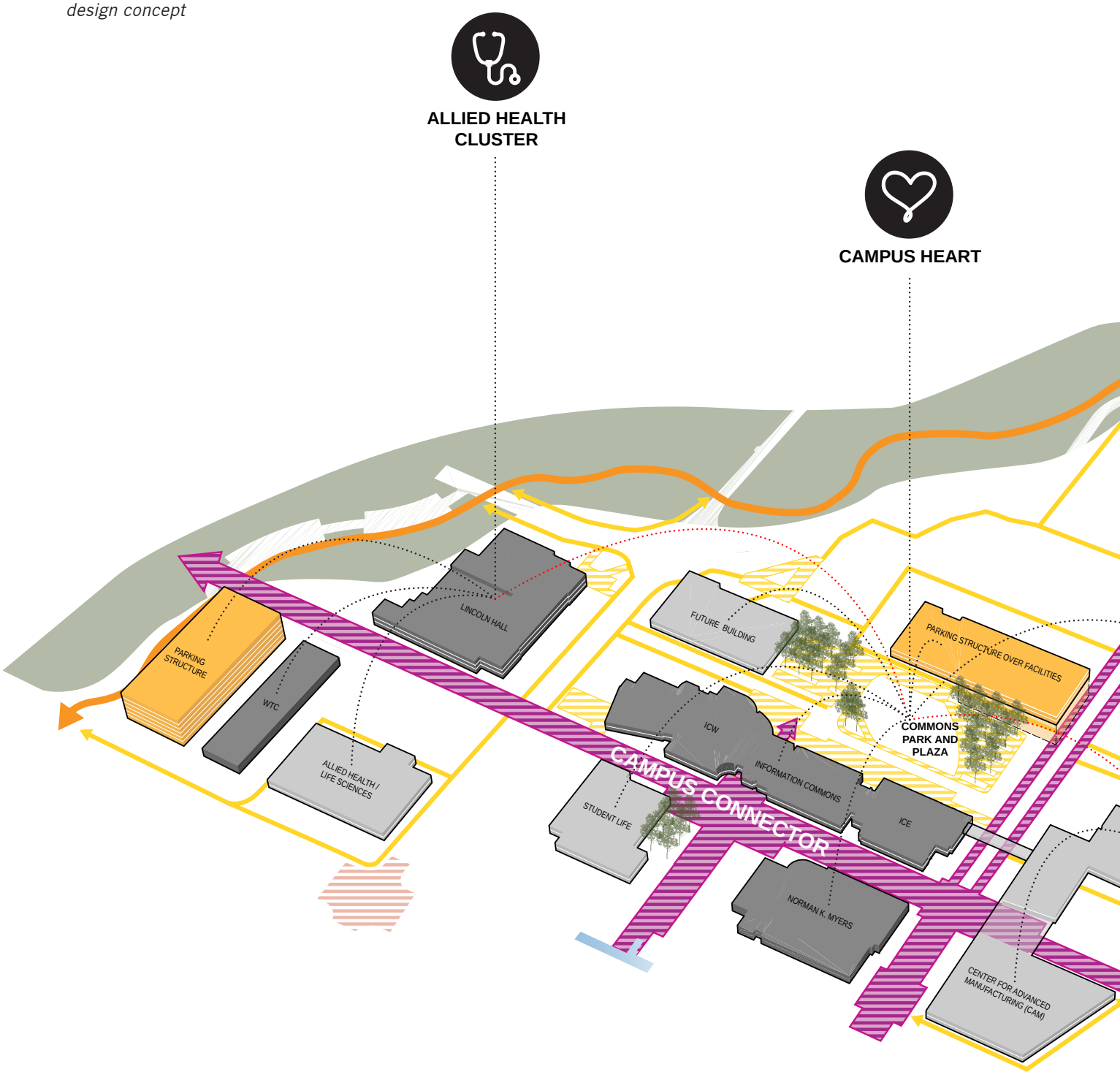
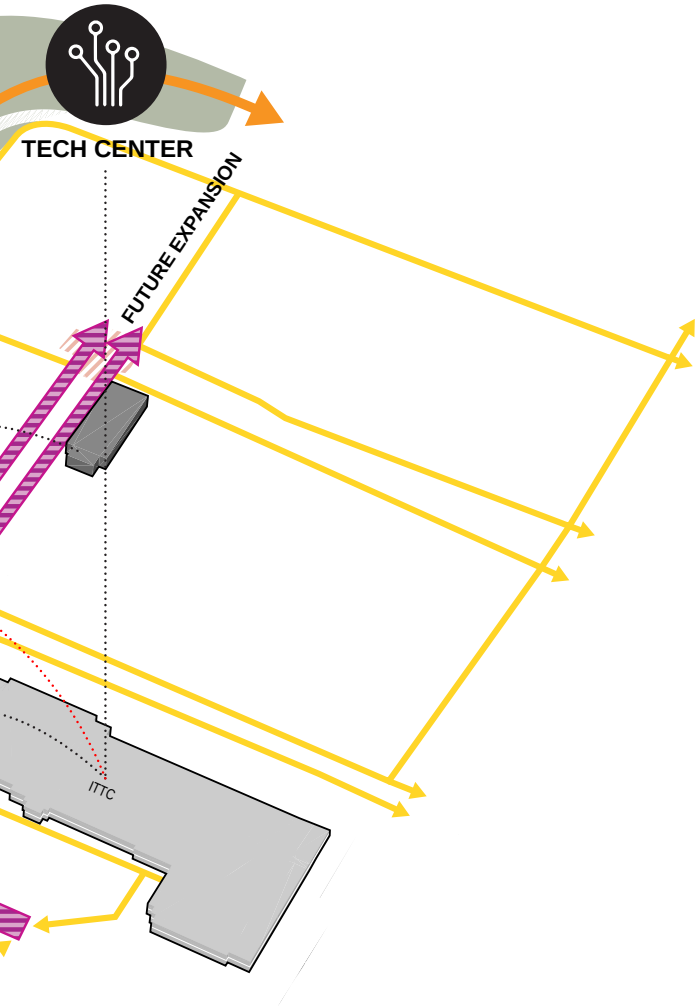


Figure 36. Realizing the "Chapters in a Book" design concept



04 EMERGING CAMPUS VISION



4.1 CHAPTERS IN A BOOK FRAMEWORK & BUILD-OUT

Over 10-20 years, southwest Missouri and Springfield will continue to evolve. As a leader in technical education, OTC will also continue to evolve and deliver innovation, talent, and service. This Campus Master Plan advances a transformational future for the college that will provide flexibility for current and future academic demand. The “chapters in a book” design premise provides a clear framework for growth and facility anchors from which synergies between Technical, Allied Health, and General Education can be strengthened. Connecting each programmatic zone and anchor is a network of pedestrian connections that can expand over time to serve facility growth and central access to the core of campus. While a significant amount of facility growth is proposed, the Campus Master Plan sets a framework for a series of small moves and open space enhancements that can elevate the student and staff experience, while providing cost-saving and environmental benefits.

4.2 NEXT STEPS FOR IMPLEMENTATION

This Campus Master Plan will serve as a living document over the coming years as new opportunities and priorities arise. Several immediate steps can begin to advance the implementation of this Campus Vision:

> Programmatic zone & academic growth studies

> Parking Master Plan: organizing parking resources, designations, and related IT infrastructure

> Sustainable infrastructure study (high voltage lines, alternative energy, energy efficiency audit, emergency management)

> Campus Commons Park & Plaza planning study

05 CAMPUS DESIGN GUIDELINES

5.1 GUIDELINE OBJECTIVES

Campus design guidelines serve as a reference point for future architectural and landscape projects at any of the Ozarks Technical Community College locations. Design guidelines offer a roadmap for those that work within a campus environment in an effort to:

- Establish quality expectations
- Define aesthetic consistency
- Strengthen branding
- Promote maintainability
- Contribute to cost control

Design decisions should be made in context of their potential cumulative effect. Therefore, decisions should not be made in isolation, but as part of a long-range, consistent plan. These guidelines supplement and support the goals and objectives set forth within the Comprehensive Master Plan, while taking into account the character of each campus and center. The following section serves as a framework for a larger, more in-depth design guidelines project, intended to be updated on a regular basis as needed. This allows OTC to modify its standards to address changing or unforeseen conditions and applications.

ADA REQUIREMENTS

All new designs and renovations must adhere to the current ADA Regulations in effect at the time of design (Currently “2010 ADA Standards for Accessible Design”). Similarly, it is recommended that the college establish a comprehensive ADA compliance plan for all existing facilities that provides a timeline of corrective measures for any non-compliant conditions that may exist.

5.2 LANDSCAPING

Landscaping can reinforce the vision and design goals for the college’s identity. Properly designed and specified landscaping can help create a sense of orientation, assist with wayfinding, define boundaries and public meeting spaces, provide shade, and manage stormwater run-off, while strengthening the college’s identity. Recommended landscape improvements include:

- Providing planters to accentuate campus elements and define edges and boundaries
- Planting large canopy trees to shade plaza areas as well as parking lots
- Planting small ornamental trees to provide color and fragrance as well as additional shade
- Landscape along campus boundaries should highlight entrance points and include planting of street trees along public rights-of-way and peripheral roads
- Using trees and shrubs to screen service areas

Using proper equipment and maintenance techniques can enhance and preserve landscaping. The college should continue its maintenance schedule with irrigation, fertilization, pruning, weed control, mulching, and general clean up. Refer to Section 3.3: Open Space & Landscaping for more detailed information regarding the Master Plan’s approach to landscaping on campus.

NATIVE PLANT SPECIES

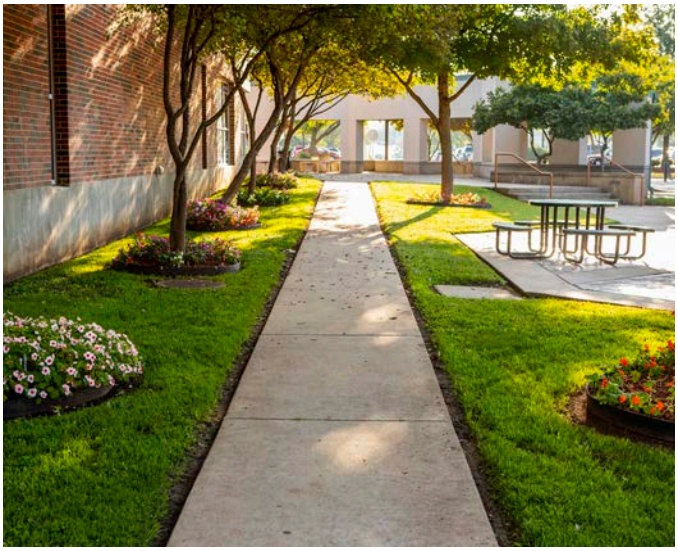
Native and adapted plant species should be specified. There may be exceptions; however, those should be presented to the Office of Design and Construction for consideration. Specifying and planting native and adaptive vegetation that is best suited for the southwest Missouri climate zone and environment can reduce operating and maintenance costs.

However, “low maintenance” does not equal “no maintenance”. Landscapes are living systems and must be given attention in order to thrive. Such maintenance requires a change in approach - one that does not have to be greater, rather one that may be unfamiliar. However, once established, natives are more tolerable to local environmental conditions, saving water, time and money.

GRASS AND EDGING

Turf grass may likely remain the primary ground cover with flower beds, shrubs and trees placed to present a layered aesthetic. Throughout campus, consideration must be given to hardscapes and surrounding structures for ease of maintenance. Metal edging is encouraged to be used where trees and flower beds meet grass.

Inside of the edging, mulch and plants should be used to create a scenic, but not overwhelming look. When grass meets sidewalk, curbs, or other surfaces, edging should be used to give a clean and uniform look.



FENCING

While fencing is often utilized to provide security and to separate properties, it can also be utilized decoratively to define edges, strengthen pathways, and provide visual screening. The college has established a strong campus edge along E. Pythian and a portion of National Avenue with the use of ornamental black steel tube fencing with brick pilasters and cast stone caps. As the institution’s boundaries change, this motif should continue to be utilized. Other applications within campus - such as screening equipment and/or trash and recycling areas - warrant a scaled down approach, such as lowering the fence height, eliminating the pilasters, or even changing materials altogether and using a black metal mesh.

5.3 SITE FURNISHING AND AMENITIES

Site furnishings and amenities include tables, benches, and trash and recycling containers, among others. Such elements are necessary but they also promote the use and enjoyment of outdoor spaces. Uniformity in site furnishings and amenities is important to build campus cohesion and branding. Such consistency will contribute to the reduction in replacement parts needed and overall will be easier to maintain.

OUTDOOR BENCHES

Benches should be durable to withstand the often harsh elements as well as the abuse that comes with use by hundreds of students, and they should be comfortable and inviting. The college has given preference to the use of a durable and easily maintainable plastic-coated steel with plastic-coated cast aluminum leg product. Finishes should be limited to green or black and be consistent with each other and the surrounding context. Six feet is the standard length, but other lengths may be permitted as needed.

OUTDOOR TRASH & RECYCLING CANS

The college uses a thermoplastic coated heavy-gauge perforated steel product that is virtually maintenance free. Two sizes are found on campus, 32 and 55 gallons. Rain bonnet lids can and should be provided for trash cans located in areas without cover, while flat lids are acceptable everywhere else.

PICNIC TABLES

Similarly, round thermoplastic coated steel picnic tables by the same manufacturer can be found throughout campus. These tables can resist fading and vandalism and match the color of other site furnishings, and should continue to be specified. To accommodate larger groupings of tables, an ADA model should be provided.

BOLLARDS

Bollards can discretely define pedestrian zones while providing safety from vehicular traffic flow or simply provide protection to buildings and equipment. Stainless steel bollards, visually appealing and low maintenance, should be used at the ends of pedestrian plazas and other outdoor gathering spaces, where the sidewalk or walkway could have the appearance of a roadway. More utilitarian painted bollards should be placed in front of electrical boxes, corners of entrances to buildings, and any other area there is a potential for vehicular traffic to collide with a building, equipment or pedestrians.

HANDRAILS

All exterior handrails and guardrails should be designed in keeping with the architectural style of the individual campus or center. Stainless steel is preferred, as it requires virtually no maintenance and can withstand the elements. However, color may be considered, if approved by the Office of Design and Construction, and should complement the surrounding context.

5.4 LIGHTING

Lighting can be used to enhance safety, assist with wayfinding and create a variety of other effects. Lighting should be designed to enhance the landscape and reinforce the architectural character of buildings. A consistent use of fixtures is required to create a unified environment. Lighting should also be designed to minimize energy consumption and maintenance. For that reason, LED should be used for interior and exterior lights.

EXTERIOR LIGHTING

Exterior lighting should be provided in parking areas, walkways, building entrances, as well as service and maintenance areas to provide safety and protect property. Exterior site lighting to be placed on any campus or center is to comply with the following:

> Acorn lighting along pedestrian pathways

> All new parking lot lighting should be LED. All new replacement lamps and fixtures should be converted to LED.

> Currently the college does not use lighting in bollards, but should be considered with new building construction and replacement of existing bollards.

INTERIOR LIGHTING

LED light fixtures and lamps should be used throughout campus. Not only does it help with energy consumption, it helps unify the appearance of lights. While an effort has been made to convert to LED lighting, many lights still need to be updated. As new fixtures or lamps are needed, they should be replaced with LED. Dimming capability should be added where necessary such as offices and classrooms.

5.5 SIGNAGE & WAYFINDING

Signage and wayfinding is an essential element for any campus environment. A necessity for students, faculty, staff and visitors to navigate their way around campus, signage enhances the campus experience and strengthens the college's brand. Thus, it should be prominent, but not obtrusive. Signage design for the college should be based more on compatibility rather than a rigid set of standards because of the various architectural styles, scale, and purposes of buildings.

As the college continues to implement a comprehensive signage program, all signage requests need to be vetted through Creative Services Department to ensure style guide compliance. Any external or internal entity looking to install signage on campus needs to contact the Administrative Services and Creative Services Departments for approval.

GATEWAYS

Entry into a well-designed exterior space can be given emphasis through the introduction of a gateway. These gateways can be thought of as buildings without interior space and treated like any other piece of architecture on the campus. Future gateways should be constructed with brick and stone or concrete caps that includes the locations name. Black fencing or accents can be used, but should work with the surrounding buildings and space. Native plants and trees should be used if foliage is desired. Signage should use the Adobe Garamond Pro Bold, small caps font.

MONUMENT SIGNS

Monument signs are an important part of any campus. These freestanding signs announce a sense of arrival, strengthen the college brand and increase the college's visibility in the community. While similar to gateway signs, monument signs are usually placed in prominent, non-entryway spaces. These signs should match the feel of the existing architecture and foliage of the campus they are being placed. Ultimately, placement or location decisions are based on the specific needs of the campus. The Adobe Garamond font family should be used.

BUILDING IDENTIFIER SIGNAGE

Building façade and materials should be taken into account when signage is placed on buildings. Good contrast between signage and building material will promote legibility from a distance. Sign placement should take into consideration visibility for pedestrians and automobile traffic on campus as well. While building identifier signs can be seen from streets, highways, or major roadways outside of campus, the intended audience for these signs is the campus community.

When putting signage on typical campus brick walls, brushed aluminum letters with standoffs

should be used. When placing signage on light colored materials, anodized aluminum letters with standoffs should be used to ensure high contrast. If current building signage needs to be replaced or added, it should match the current font in use.

INTERIOR SIGNAGE

Most signage is part of a larger process of wayfinding. Wayfinding signage should be easily identifiable and should meet ADA requirements for interior spaces. Room signage needs to have a clear indication of room number and use and be located adjacent to the point of entry. They should be made of brushed aluminum. Interior vinyl signage on glass or other areas should use the Frutiger font family. Any signage that states a department or programs should use Adobe Garamond Pro Bold Italic font.

Larger directory signs should be implemented in building lobbies throughout campus. Electronic monitors should be introduced on new facilities as needed to improve wayfinding throughout the building.

BANNER SIGNS

Banner signs are an excellent way to create a welcoming atmosphere on campus. These banners can be used celebrate events, change with the seasons, and promote school spirit. Banners can be added to light fixtures, poles, or buildings. BannerSaver pole mounted banner brackets and hardware should be used to ensure that banners do not stretch and rip in adverse weather.

DONOR WALLS

Donor recognition is a celebration of the college's relationship with a particular donor or donors and the role philanthropy plays in the success of the college and students. These walls should be placed in a prominent area such as an atrium, hallway, lab, or classroom. OTC blue is used for the background with aluminum borders and text

using the Adobe Garamond Pro Bold font. The design of borders and font size depends on wall space design needs.

5.6 VEHICULAR AND PEDESTRIAN CIRCULATION

Streets and sidewalks must logically channel vehicular and pedestrian traffic throughout campus. The locations of streets, sidewalks, and paths play a considerable role in how buildings and landscapes are experienced by the campus community. As the college continues to replace and upgrade streets, street parking should be eliminated for pedestrian safety. As bicycle use among the campus community continues to grow, bicycle lanes should be incorporated into future developments of sidewalks and streets.

Sidewalks should be sized appropriately to the flow of pedestrian traffic and surrounding buildings. Proper lighting should be placed along all pathways to ensure visibility and safety.

Refer to Section 3.4: Circulation, Parking and Streetscapes for additional information.

5.7 ARCHITECTURAL ELEMENTS

This section presents and discusses building design criteria for new projects at all campuses and centers. These criteria must be carefully considered in the design of future buildings. Additions to existing buildings should adopt organizational patterns, proportions, elements, materials, details, and colors found on the buildings being added-to.

BUILDING SCALE

Within the Springfield campus, new buildings should generally be no more than three stories tall. Exceptions should be made only as part of the larger planning process and may include buildings or building elements of exceptional importance or intended as landmarks. New buildings should relate to their surrounding context in both height and massing, whether they front a public way or an interior pedestrian plaza. Consideration should be given to breaking down volumes and facades for large footprint program buildings.

BUILDING ENTRANCES

All buildings should have entrances that are easily accessible and well defined. Vestibules should be constructed with each main entrance to improve indoor environmental quality and comfort while reducing operating costs with better energy performance. They should be constructed of glass storefront systems that allow maximum visibility when entering and exiting a building.

EXTERIOR WALL MATERIALS

Institutional buildings are generally made of relatively permanent materials. On OTC campuses, the primary material has long been brick masonry. When used, brick exterior walls should match the existing brick color and blend prevalent on campus. They can have stone or

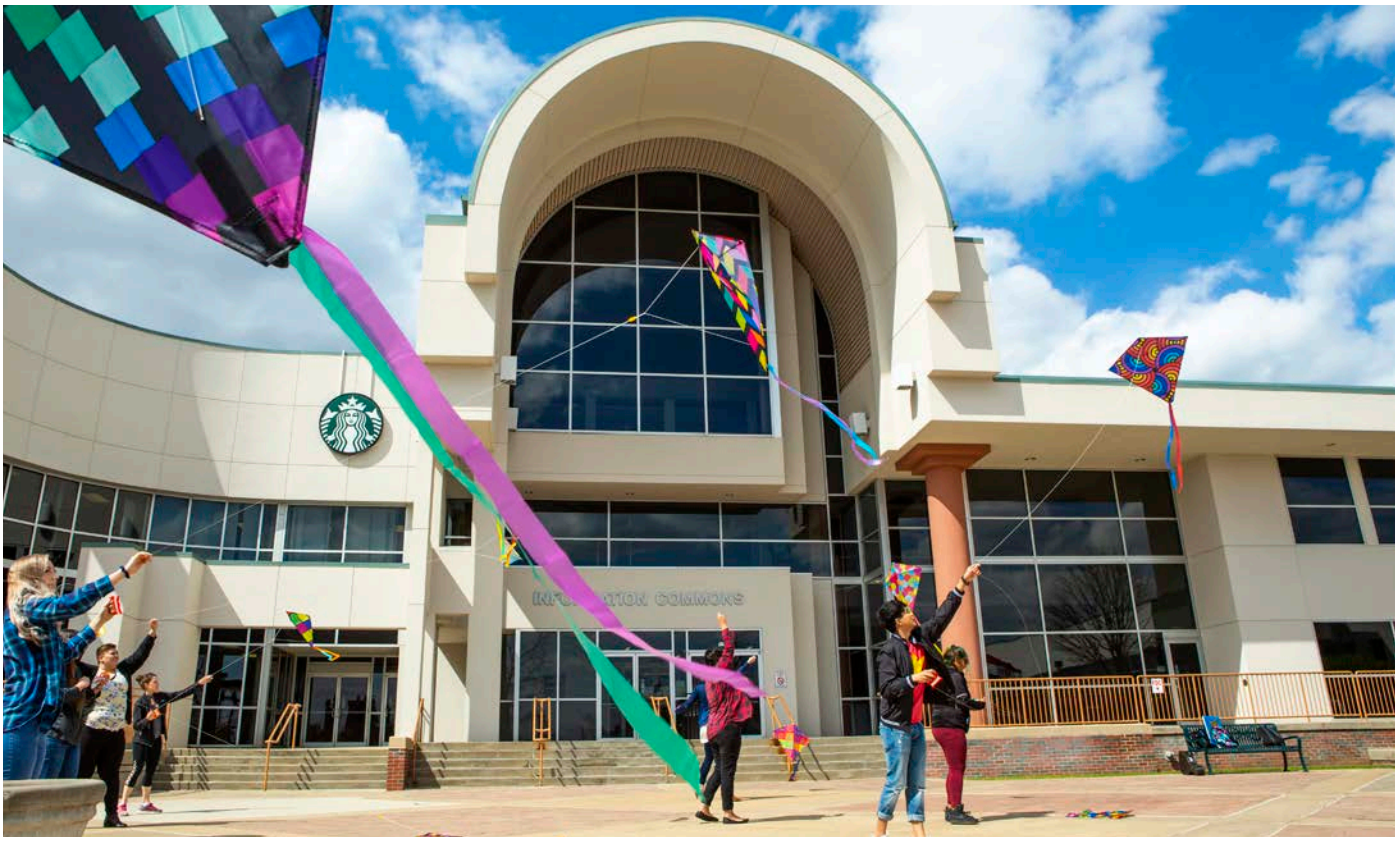
cast-stone dressings and the brick color should be similar to those colors found on existing buildings. The bricks should be modular and not oversized. Stone or stone-veneer walls are also acceptable, though materials other than brick can be used outside the campus core. These materials include exposed concrete, metal, stucco, or EIFS. Because EIFS can crack and discolor, especially where there are large expanses of unbroken wall surface, these materials should be used carefully and properly maintained. Various types of metal cladding can also be used effectively for walls as well as roofs.

ROOF MATERIALS

The standard roofing material for sloped roofs is standing-seam metal. Historically, hunter green has dominated the color choice for most sloped roof surfaces at the Springfield Campus. However, the light tan roof of the WTC building presents a more neutral color and complementary color option. The standard roofing material for flat roofs is TPO.

BUILDING SERVICES

Ground-level utilities and equipment for all new buildings should be concealed from public view either by changes in topography (berming), landscaping, fencing or screen walls. All roof-mounted equipment should be set back from building edges to be concealed from ground-level public view. The location of all utilities and equipment should be considered during the site selection and programming phases of the work. Architects should communicate with their engineers at the project's onset to assure that all architectural and engineering problems are solved in tandem. Loading docks and trash and recycling bins should be strategically located inside service courts or pulled back within the body of a building and enclosed with doors.



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