



TEXAS A&M  
UNIVERSITY  
KINGSVILLE®

# CAMPUS MASTER PLAN

DECEMBER 2023





# ACKNOWLEDGMENTS

The planning team would like to thank the many individuals who contributed to the development of the 2023 Texas A&M University-Kingsville Campus Master Plan. We are particularly grateful to the Master Plan Committee, the President, executive staff, deans, students, faculty, staff and community stakeholders who provided valuable insight and feedback about the future of the Texas A&M University-Kingsville campuses.

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# EXECUTIVE SUMMARY



# PRESIDENT'S LETTER



**Dr. Robert H. Vela Jr.**  
President

From the bountiful citrus groves of the Rio Grande Valley to the shores of Baffin Bay and the Gulf Coast beyond to the front gates of the largest ranch in North America, our campus has been at the center of rural South Texas for nearly a century.

Rural South Texas is our home.

I am pleased to present our new Campus Master Plan that will guide us through a prosperous future, one in which Texas A&M-Kingsville will continue to play a vital role in our region's development and future generations' social mobility.

Our students and community deserve excellence, and this Campus Master Plan offers an exciting blueprint for the future that builds on our 100-year tradition of service to South Texas.

This Plan aligns with our institutional priorities as outlined in the University's strategic plan, which is rooted in student success and ensuring all students who begin their educational journey with us complete their journey with a degree or credential. As we continue to work toward long-term enrollment growth, it is imperative that we plan to expand campus and learning spaces while supporting critical infrastructure needs and creating a warm, welcoming environment for our students and community.

In addition to enrollment growth, we have also prioritized enhancing research to become an Emerging Research Institution. Our Campus Master Plan reflects this commitment with expansion and development planned for our Baffin Bay research location and University Farm.

Also addressed in this Plan is a comprehensive strategy to update our existing athletics and student union facilities, both of which are more than 60 years old. This Plan envisions a multi-use space for a new Student Union and new facilities for Athletics, including a major modernization of our historic Javelina Stadium.

I invite you to review our plans for the next decade and think big. The Campus Master Planning Committee, in close collaboration with Freese & Nichols—a premier infrastructure and engineering firm—certainly did so when developing the vision captured in this document. As the first institution of higher learning in South Texas, we were among the very first institutions to believe in the power and potential of South Texas. This Plan ensures we continue to lead the way well into our second century.

***Dr. Robert Vela Jr.***  
***President***  
***Texas A&M University-Kingsville***

# MASTER PLAN OVERVIEW

The TAMUK Campus Master Plan provides a multi-year plan to address existing needs and new development ideas at the five TAMUK locations. The Master Plan incorporates leadership and stakeholder input, educational goals, analysis of existing conditions, current opportunities and constraints, and projected needs.

This Executive Summary and the Introduction chapter provide a summary and overview of the planning process and recommendations. The existing conditions, analysis and recommendations for each location are summarized in individual chapters. The Implementation chapter provides high-level phasing considerations and summarizes TAMUK's target implementation time frames.

While Main Campus, University Farm and the Caesar Kleberg Wildlife Research Institute are currently experienced as three separate campuses, the vision is for the three Kingsville locations to collectively makeup Main Campus in the future. As such, the three locations are included in the Main Campus chapter, but what is currently known as Main Campus is described as such in the narrative.



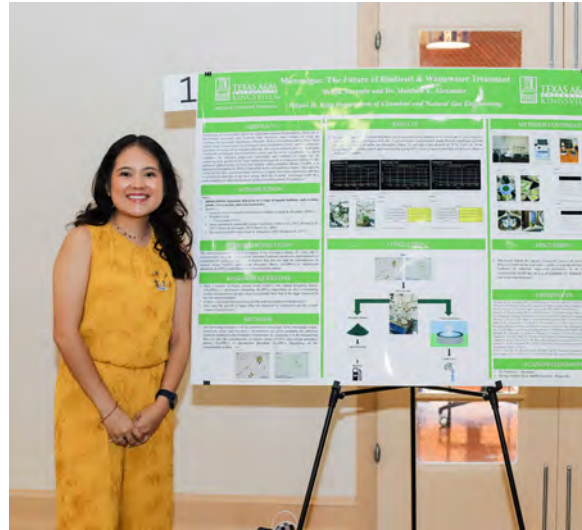


# GUIDING PRINCIPLES



## Enhance the Overall Experience for Campus Users

- Provide new and renovated administrative, learning, research, athletic and recreation facilities to improve users' experiences at TAMUK.
- Implement building, infrastructure and transportation enhancements to improve the overall functionality of TAMUK campuses.



## Foster the Growth and Advancement of Research Capabilities

- Build new and improved labs to expand TAMUK's research capabilities.
- Develop the South Texas Baffin Bay Research Station to best leverage the site's varied research potential (e.g., climate, aquatic species, ecosystems, wildlife).
- Re-imagine the University Farm facilities and infrastructure to increase opportunities for animal science research.



## Develop and Improve Outdoor Spaces and Environments

- Prioritize development of shaded outdoor spaces to improve user comfort.
- Create gathering areas on all TAMUK campuses that provide space for formal and informal student connection.
- Expand the areas of enhanced landscape aesthetic on Main Campus and strategically add areas with enhanced plantings in high visibility locations on other campuses.





### **Establish a Consistent TAMUK Experience Across all Campuses**

- Create a consistent campus wayfinding and signage system that creates visual continuity among all TAMUK campuses.
- Develop visual elements and branding that tell a consistent narrative across campuses.



### **Promote Expansion and Growth through a Variety of Programs and Facilities**

- Support the development of strategic new programs and initiatives to expand enrollment in the coming years.
- Enhance and renovate facilities to better meet the expectations of users coming from other institutions (high school and other) and encourage prospective new students to choose TAMUK.



### **Cultivate and Leverage Partnership Opportunities**

- Continue outreach and building relationships with community members and organizations.
- Pursue partnership opportunities when developing strategic new facilities such as the SUB/Athletics Performance/Arena Building and the South Texas Baffin Bay Research Station campus.
- Evaluate partnership opportunities that allow use of appropriate TAMUK facilities by outside groups while building revenue for TAMUK.





Figure 1. Main Campus Illustration





Figure 2. Student Union/Stadium Complex Illustration



Figure 3. College of Agriculture Building Illustration



## Main Campus

TAMUK's Main Campus recommendations are divided into three physical initiatives: buildings and facilities, transportation, and landscape. Together, these initiatives seek to build upon a sense of place and enhance the overall student experience, a key element in the University's slight enrollment increase.

The renovation of existing facilities like the Business Administration Building, Eckhardt Hall, various athletic buildings and the Library will address general building improvements, provide technological enhancements to classrooms and facilities, and repurpose space for alternate uses. Newly constructed buildings, including the Agriculture Building, Student Union/Athletics Performance/Arena and Engineering Sciences Building, will accommodate new programs and services as the campus continues to meet the growing needs of its students, faculty and staff.

The Athletics and Recreation Master Plan, which focuses on sports programming and recreational offerings, provides recommendations for upgraded facilities that will help attract student-athletes while also expanding the University's fan base. A new Student Union, combined with athletic performance space and a new arena, is the highlight of the Athletics and Recreation Master Plan, helping to change the northern portion of the Main Campus dramatically (see the Appendix for the full Athletic and Recreation Master Plan).

Improving pedestrian safety, access and comfort is essential to the student experience. Enhanced pedestrian facilities will be located at critical points throughout the campus to minimize potential conflict between pedestrians and automobiles. Vehicular access will be limited on W. Avenue C, improving pedestrian safety near the new Student Union and enhancing the game day experience during the football season. User comfort along key pedestrian corridors will be improved by adding shade trees. Additional campus parking will be provided in new and modified parking lots in areas with high parking needs.

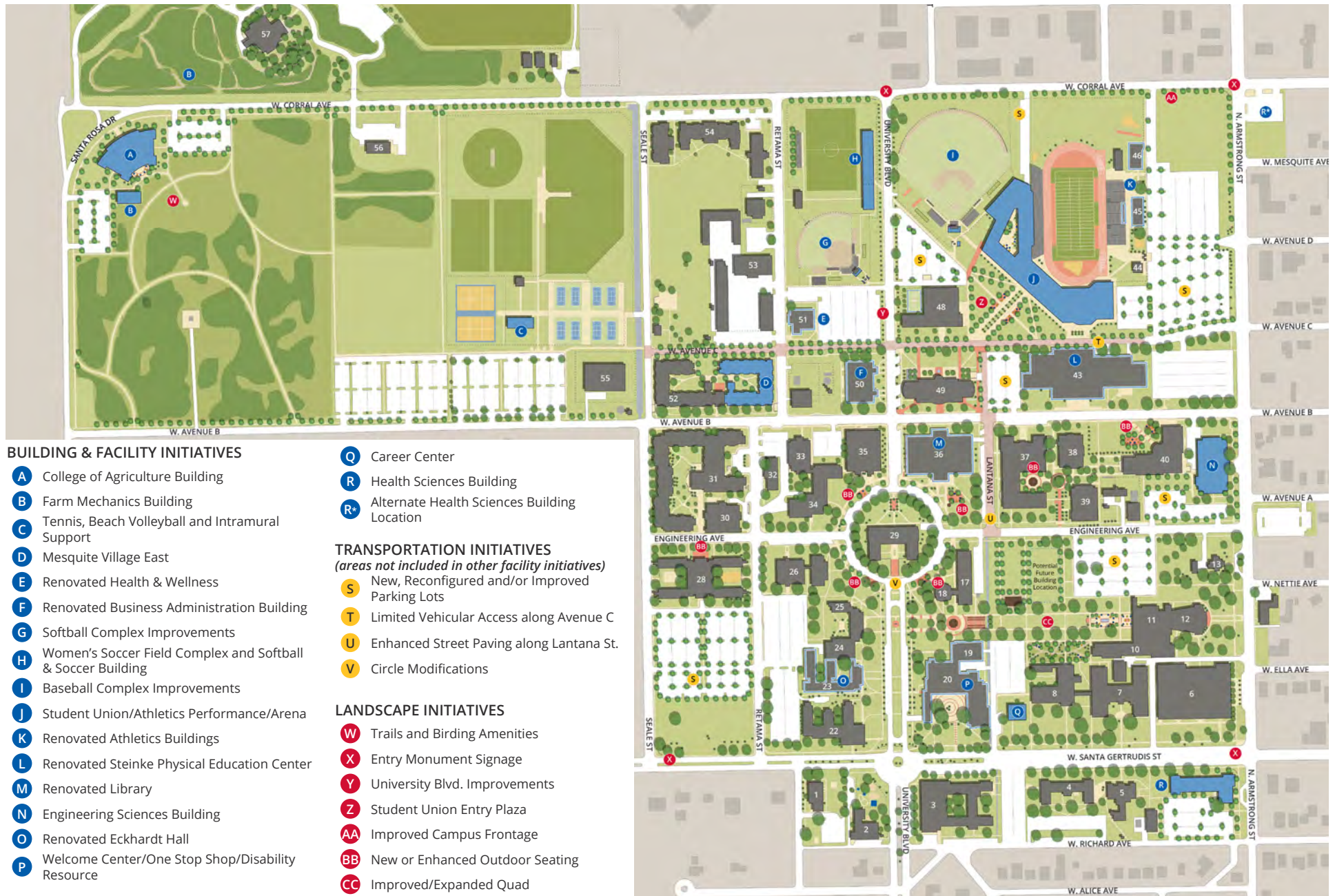
Landscape initiatives include new campus green spaces with shaded seating and gathering areas. New pedestrian trails and birding amenities are integrated into the campus landscape, not only for campus users but also as an amenity for the community to experience. All the landscape initiatives aim to allow campus users to enjoy the sense of community and place that makes TAMUK's Main Campus unique and special.

As TAMUK considers the future growth of the Main Campus, the Master Plan gives direction on using its existing campus efficiently. The recommended improvements will help TAMUK systematically achieve the vision for Main Campus for the next 10 years and beyond.



Figure 4. Student Union Entry Illustration





Map 1. Main Campus Master Plan

Scale: N.T.S.



## University Farm

Located less than 2 miles north of Main Campus, the University Farm not only houses hands-on programs in the College of Agriculture but is also home to the Veterinarian Technology facilities and programs. The Master Plan re-envisioned the farm, which has never had a master plan completed prior.

The University Farm, approximately 488 acres, has current facilities that need improvement to expand its agricultural programs and offerings. While TAMUK owns the farm property, the U.S. Department of Agriculture (USDA) leases a portion of the farm for its operations.

The re-envisioning of the University Farm through the Master Plan features 15 building and facility initiatives, with improvements on the north, south and east sides of the 488-acre site. Several recommendations will allow the University to interact with the local community and provide space that could be shared with other local organizations, such as the Rodeo Arena and Event Facilities. A renovated Rodeo Pavilion and Team Barns will also provide additional space that could be used to attract local rodeo events and future collegiate rodeo events.

The northern portion of the University Farm has most recommendations related to the research and housing of animals, from an Animal Science Pavilion to offices and classrooms, sheep, goat and cattle pens. These facilities provide adequate housing for various

animals, laid out in a manner for programs to operate efficiently while also allowing for a collaborative environment.

Another major development area on the University Farm site is the Veterinarian Technology facilities which are quickly reaching capacity. An expansion of a new Veterinarian Technology facility and enclosed Dog Kennels will allow this program to grow, which it has done since the inception of the program.

All building and facility initiatives are accompanied by internal road and parking lot improvements. Student spaces and amenities are also envisioned, such as shaded outdoor seating and equestrian trails.

Lastly, a 40-acre area is dedicated to energy generation, with 10 acres being sold to American Electric Power (AEP) and an additional 30 acres reserved to be leased for other energy generation initiatives. Once leased, the additional revenue can be used to maintain the University Farm.



Figure 5. University Farm Illustration



## BUILDING & FACILITY INITIATIVES

- A** Animal Sciences Pavilion
- B** Office and Classroom Building
- C** Equestrian Arena and Turnout Pens
- D** University Equine Facilities
- E** Poultry Facility
- F** Sheep & Goat Unit Facility
- G** Cattle Pens and Feed Building
- H** Swine Farrowing Unit Facility
- I** AEP & Energy Area
- J** Enclosed Dog Kennels
- K** Vet Tech Expansion
- L** Relocated Serpentarium
- M** Rodeo Arena and Event Facilities
- N** Renovated Rodeo Pavilion
- O** Rodeo Team Barns and Facilities

## TRANSPORTATION INITIATIVES

*(areas not included in other facility initiatives)*

- P** Improved Roads
- Q** Paved Parking Areas
- R** Overflow and Long-Term Parking

## LANDSCAPE INITIATIVES

- S** Entry Monument Signage
- T** Shaded Outdoor Seating
- U** Equestrian Trails



Map 2. University Farm Master Plan

Scale: N.T.S. 

## Caesar Kleberg Wildlife Research Institute

The Caesar Kleberg Wildlife Research Institute (CKWRI) is located on TAMUK's campus and functions as a unit within the Dick and Mary Lewis Kleberg College of Agriculture and Natural Resources. The CKWRI is privately funded, and faculty and students work with private landowners where they conduct research.

Because of private funding, the CKWRI remains current on existing and future facility needs. The Master Plan conducted a high-level analysis and incorporated an existing recommendation, the Ocelot Conservation Facility, for ocelot captive breeding and re-wilding. The Ocelot facilities include an arrival plaza, staff patio, interior and exterior holding pins, and a re-wilding area.

An expanded trail network here will allow for additional passive recreation for site users and could potentially link to the trails recommended across W. Corral Avenue near the College of Agriculture Building, a Main Campus recommendation.

Map 3. Caesar Kleberg Wildlife Research Institute Master Plan





## Citrus Center

Approximately 62 acres, located in Weslaco, Texas, the Citrus Center began when a group of local citizens and citrus growers approached the then-Texas College of Arts and Industries in Kingsville to establish a research and training facility specializing in citriculture for the Lower Rio Grande Valley.

The Citrus Center mainly consists of citrus trees that are grown for research purposes and best practices for citrus growers. Some students reside on-site, while others commute from nearby communities and Kingsville. Some existing facilities need renovation, and there is also a need for new facilities to accommodate the Citrus Center's desired growth.

The Citrus Center Master Plan identifies locations for new and replaced greenhouses, one of which was damaged in a past weather event. Renovations are recommended for the Main Building which would allow additional office and student-related spaces. The renovation of the Rio Red Building will also allow for faculty and student spaces to help enhance the Citrus Center student experience.

A new Academic Building will allow TAMUK to offer Main Campus courses and programs (e.g., Engineering), in the Lower Rio Grande Valley, potentially leading to an additional TAMUK location in the region. New student housing will replace an existing dormitory that will be displaced by the Academic Building.

### BUILDING & FACILITY INITIATIVES

- Academic Building **A**
- Renovated Main Building **B**
- Renovated Rio Red Building **C**
- New Student Housing **D**
- New and Replaced Greenhouses **E**

### OTHER INITIATIVES

- Reconfigured Fencing **F**
- Entry Monument Signs **G**

Map 4. Citrus Center Master Plan



## South Texas Baffin Bay Research Station

A hidden gem, the South Texas Baffin Bay Research Station (Baffin Bay) is adjacent to the world's largest hypersaline ecosystem. The Baffin Bay property is approximately 141 acres, which was transferred to Texas A&I University (presently TAMUK) and was a former U.S. Naval Outlying Field 55. As a part of the transfer, TAMUK agreed that the property would be used by the College as an outdoor laboratory area in biological, earth and agricultural sciences. Particularly, it would be used for research and field study in wildlife biology, including marine biology.

In a 2022 re-development and 10-year plan for Baffin Bay, the overall vision for this property is to create spaces for teaching, educational events, research, community outreach and summer camps. Additionally, the Baffin Bay Master Plan balances research, recreation and revenue. Connecting and collaborating with regional, national and international partners will raise the research profile of the University for conservation and biological sciences.

Much of the high-level vision of the re-development and 10-year plan developed by the Department of Biological and Health Sciences in conjunction with the College of Arts and Sciences is integrated into the Master Plan. With revenue being a major component of Baffin Bay's success, an entry building would

be appropriate to receive an entry fee from recreational users. There are potential revenue streams through the Rental Cabins, RV and Primitive Camping areas. These areas and the Recreation Rental, Storage and/or Retail Building provide recreation opportunities for the region.

With research being a major component, the Master Plan has several research-related building and facility initiatives such as the Wet Lab and Storage, Outdoor Classroom, Weather Station and Research Pier with an artificial reef. The Researcher Quarters and Support area provides residence and recreation amenities for researchers temporarily living on site.

The Event and Education Center is the largest recommendation and will create opportunities for community, partnership and University uses.

Opportunities for public aquatic recreation are provided at the beach front and new public fishing pier. Overlooks and nature trails provide opportunities for passive recreation, water vistas, wildlife viewing and research through habitat conservation areas. This plan will allow the University to share and promote its vision for the South Texas Baffin Bay Research Station to encourage partnerships and expand current and future programs.



Figure 6. South Texas Baffin Bay Research Station Illustration



## BUILDING & FACILITY INITIATIVES

- A** Entry Building
- B** Caretaker's Quarters & Work Area
- C** RV Camping Area
- D** Rental Cabins Area
- E** Recreation Rentals, Storage and/or Retail
- F** Primitive Camping Area
- G** Event & Education Center
- H** Researcher Quarters & Support
- I** Wet Lab & Storage
- J** Outdoor Classroom
- K** Weather Station
- L** Public Fishing Pier
- M** Research Pier with Artificial Reef

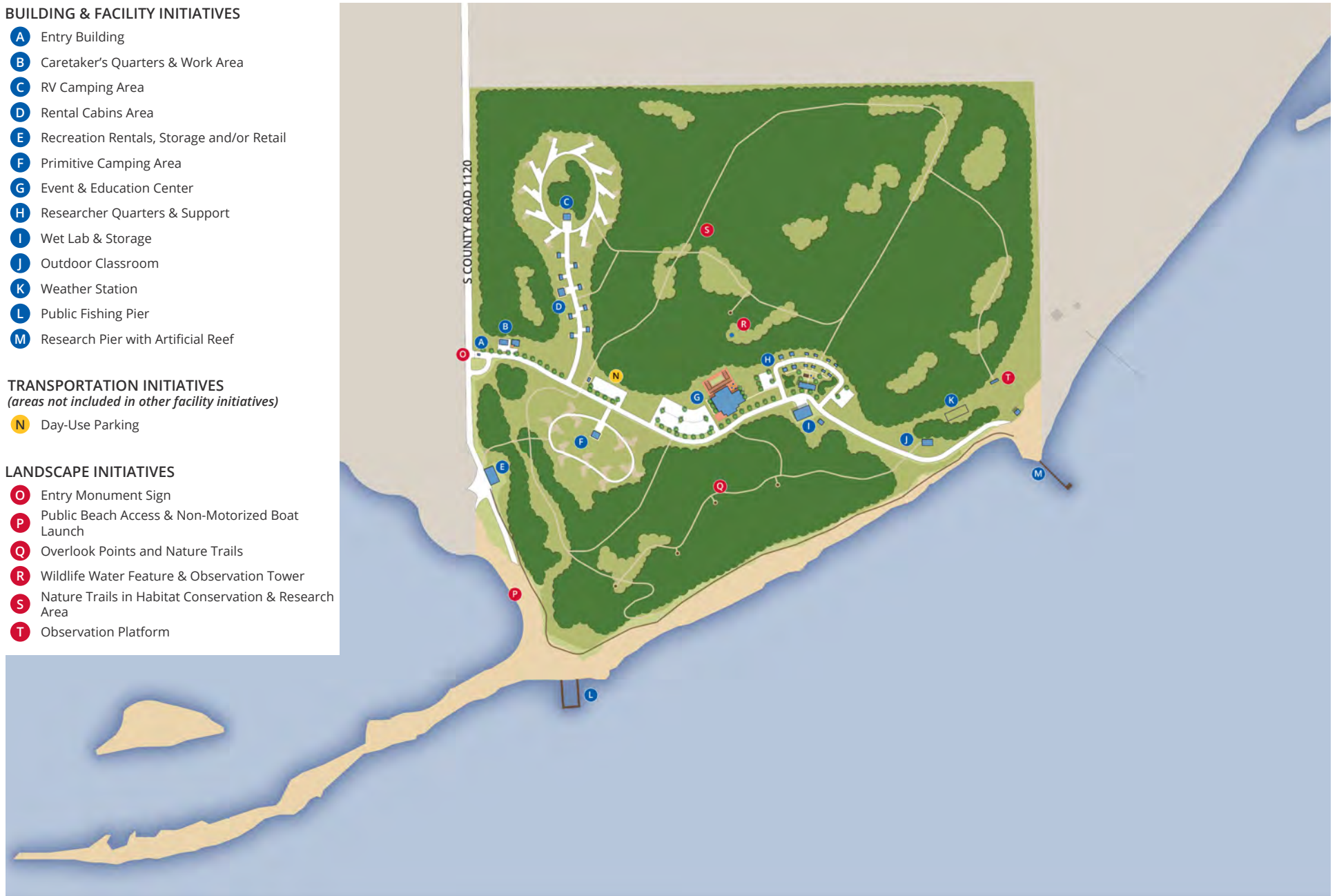
## TRANSPORTATION INITIATIVES

*(areas not included in other facility initiatives)*

- N** Day-Use Parking

## LANDSCAPE INITIATIVES

- O** Entry Monument Sign
- P** Public Beach Access & Non-Motorized Boat Launch
- Q** Overlook Points and Nature Trails
- R** Wildlife Water Feature & Observation Tower
- S** Nature Trails in Habitat Conservation & Research Area
- T** Observation Platform



Map 5. South Texas Baffin Bay Research Station Master Plan

Scale: N.T.S. 









# INTRODUCTION

# PURPOSE & PROCESS

## Scope of the Campus Master Plan

This Master Plan provides a multi-year comprehensive plan for the University to address development needs and existing development ideas for TAMUK's five campus locations. It outlines the vision and framework for future campus growth and improvements. In order to support TAMUK's goals and provide an enhanced experience for students, faculty and staff, the campus is evaluated in terms of usage, open spaces, infrastructure and enrollment.

The Master Plan includes campus-wide and project-specific recommendations to expand and improve educational and experiential offerings in both the near- and long-term. The Master Plan is not intended to be constraining and prescriptive, and its graphics do not represent specific site or building designs. Rather, they illustrate recommended uses and locations of buildings, facilities, pedestrian gathering areas and landscape features.

The Master Plan is intended to allow flexibility and imagination while ensuring consistent, sustainable and quality implementation. It is intended to serve as the baseline to guide project designers while allowing and

encouraging creativity. However, it should not be interpreted so loosely as to permit entirely different initiatives and conceptual directions. The goal is to achieve a balance between this Master Plan and mutual decisions that must be reached throughout each project's development process. The skillful use of this Master Plan by university planners, designers and facility managers will result in functional, memorable and sustainable TAMUK locations. This document should be a living document, periodically reexamined and updated as campus challenges evolve.





## Process

The development of the Master Plan included four main phases:

- Information Collection
- Analysis
- Review
- Refinement of the Final Master Plan

In the Information Collection Phase, the consultant team gathered information about the existing conditions of TAMUK through site visits, research and a variety of stakeholder engagement efforts. This information was used

to establish the vision for the future of the TAMUK campuses.

The Analysis Phase included an analysis of the existing campus layout, general site conditions, space utilization and enrollment. This analysis established the projected growth for TAMUK and informed the initial concept plan. Sub-master plans including an Athletic and Recreation Master Plan, Technology Master Plan, and Utility Master Plan were started during this phase.

In the Review Phase, the consultant team developed the draft Master Plan recommendations and illustrative plan based

on the findings in the Analysis Phase. The consultant team worked closely with TAMUK leadership and the Master Plan Committee to review the recommendations and illustrative plan.

In the Refinement/Final Phase, the Master Plan document was finalized and presented to the Master Plan Committee for approval.

## » PLANNING PHASES »



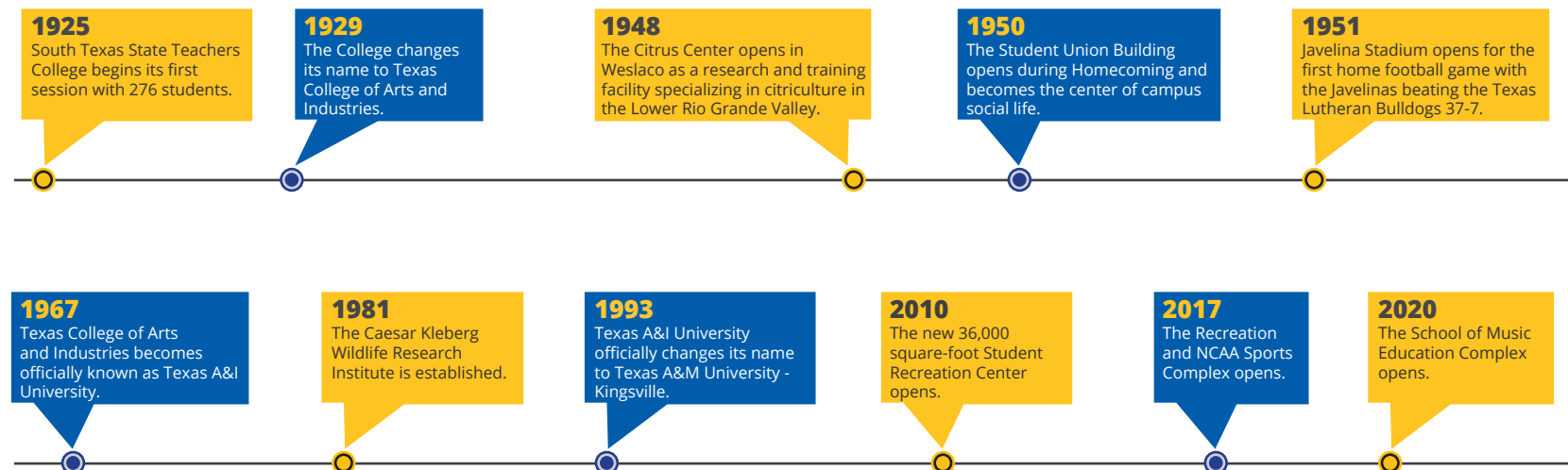
# OUR HISTORY

TAMUK holds the distinction of being the oldest continuously operating public institution of higher learning in South Texas. Established in 1925 as South Texas State Teachers College, its initial mission was to train educators to serve the educational needs of the South Texas region. Shortly after its founding, the institution expanded its academic offerings, prompting a name change to Texas College of Arts and Industries in 1929 and another change to Texas A&I University in 1967. In 1989, the University became part of the Texas A&M University System and, in 1993, adopted the name Texas A&M University-Kingsville.

Today, TAMUK has evolved from a Teachers College into a comprehensive university, offering more academic programs than any other institution in the region. Over the years, it has gained recognition for its nationally renowned programs and research. With support from the Caesar Kleberg Foundation for Wildlife Conservation, the Caesar Kleberg Wildlife Research Institute was founded in 1981. The University's excellence in biomedical research led to the establishment of the National Natural Toxins Research Center. In the Lower Rio Grande Valley, the TAMUK Citrus Center plays a pivotal role in the Texas citrus industry, known for innovations in pest and

disease control, water-saving methodologies, and new breeding techniques. The University also collaborated with King Ranch to create the King Ranch Institute for Ranch Management.

TAMUK is dedicated to serving a culturally and ethnically diverse population. It was the first institution in the nation to offer a doctoral program in Bilingual Education and has secured several grants to support educational programs for Hispanic students in South Texas. In 2012, the University achieved the top national ranking for awarding engineering graduate degrees to Hispanic students.







*Nierman Hall built in 1938*



*College Hall built in 1949*



*Jernigan Library opens in 1968*



*Leader of the Pack Statue unveiled in 1986*



# REGIONAL CONTEXT

TAMUK is located in southern Texas. The Main Campus, CKWRI and University Farm are located in Kingsville, Texas, approximately 40 miles southwest of Corpus Christi and 120 miles north of the U.S.-Mexico border near Brownsville.

Kingsville is at the western edge of the Coastal Bend region, known for its warm climate and diverse ecosystem. Kingsville is also home to the King Ranch, one of the largest working ranches in the world. This iconic ranch is located just west of Main Campus.

TAMUK is composed of five sites including its Main Campus and the four following locations.

The University Farm is located 1.5 miles north of the Main Campus and includes animal housing facilities for faculty and students to conduct animal science research.

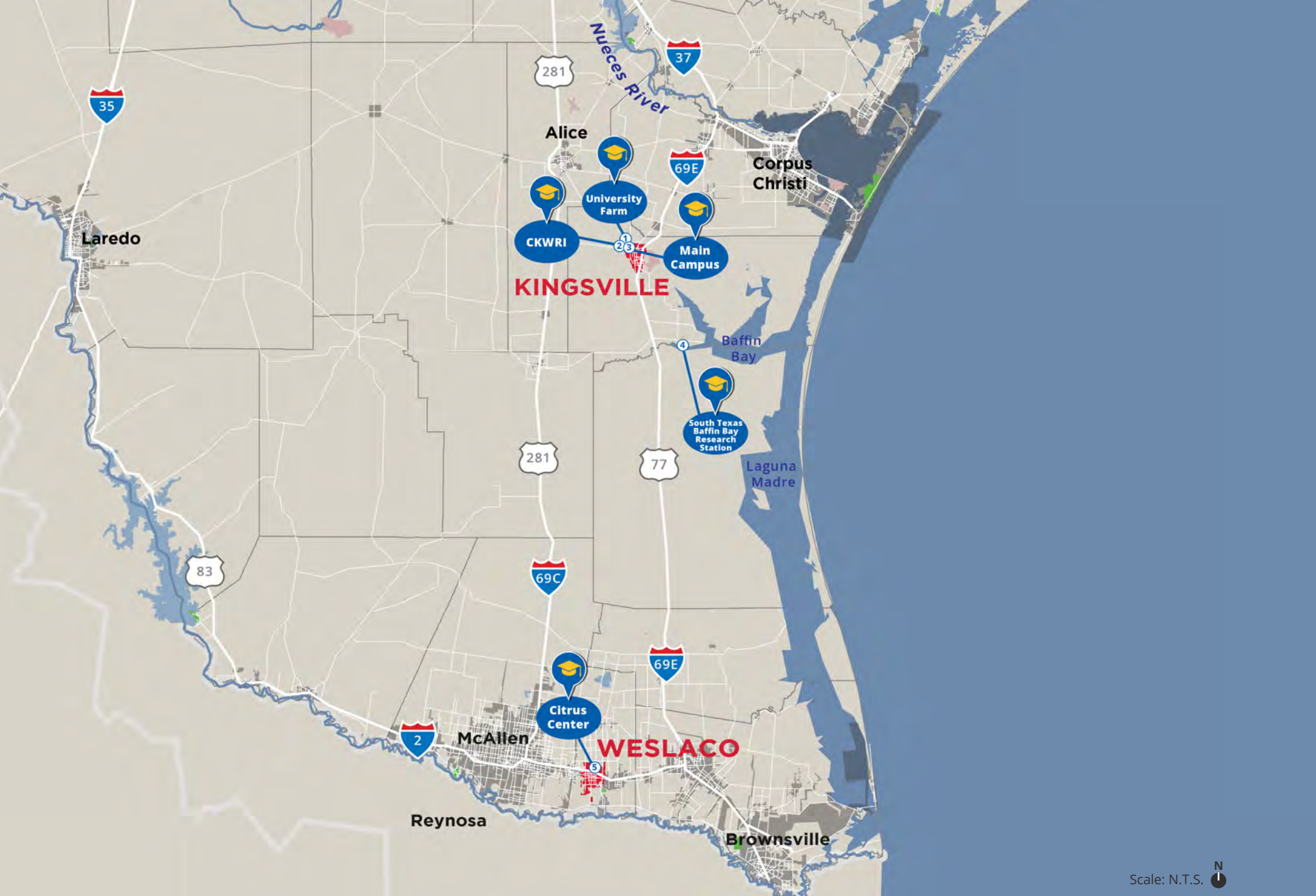
The CKWRI is directly northwest of Main Campus and serves as a scientific research facility.

The Citrus Center, located in Weslaco, Texas, is 110 miles south of the Main Campus and 10 miles north of the U.S.-Mexico border. The Center is dedicated to serving the citrus industry of Texas through agricultural research.

The Baffin Bay site is about 25 miles southwest of the Main Campus. The site offers a unique blend of coastal marshes, expansive seagrass beds and nutrient-rich waters. Baffin Bay also sustains a diverse array of marine life and various bird species.







Map 6. Regional Context Map

# ENROLLMENT & UTILIZATION METHODOLOGY

## Overview

Multiple analyses were completed to assist master plan efforts in projecting the enrollment and space requirements for TAMUK at its two existing campus locations - Main Campus (including the University Farm and CKWRI) and the Citrus Center. These studies included:

- Demographic Analysis
- Space Utilization Analysis
- Enrollment Projections
- Space Projections

As it is currently a greenfield, none of the studies noted above were completed on Baffin Bay. Due to its proximity to the Main Campus in Kingsville, it may be presumed that the demographic analysis of the area is similar.

A more detailed description of the planning assumptions, metrics and methodologies used for each of the studies listed follows. The following terms are referenced in these analyses and defined here:

- *Compound Annual Growth Rate (CAGR)*: Average exponential rate of annual growth of the population over a given period
- *Core-Based Statistical Area (CBSA)*: Defined by the U.S. Census Bureau as an area consisting of one or more counties anchored by an urban center of at least 10,000 people, plus adjacent counties that are socioeconomically tied to the urban center by commuting

- *Education & General (E&G) Space*: Area used for academic instruction, research, and support of the institution's mission; it does not include auxiliary enterprise space, permanently unassigned space or space used for operations independent of mission
- *Full-Time Student Equivalent (FTSE)*: Calculated as the total semester credit hours divided by 12 (for undergraduate) and nine (for masters and doctoral), per TAMUK methodology
- *Gross Square Feet (GSF)*: Sum of the square feet of space of all floor areas within the outside faces of a building's exterior walls
- *Net Assignable Square Feet (NASF)*: Sum of all areas within the interior walls of rooms on all floors of a building assigned to or available to an occupant or use, excluding unassigned space

Unless noted otherwise, the data and maps which follow are a snapshot of the student composition and building utilization of TAMUK as of the Fall 2022 semester, derived from data provided by the TAMUK Office of Institutional Research and Assessment and the Office of Facilities, Planning, Construction and Safety.

Student data represents those individuals who were enrolled exclusively in on-campus courses, hybrid (enrolled in at least one on-campus course and at least one 100% online course concurrently), and exclusively online. Dual credit students receiving instruction at their high school are excluded from this analysis.

It should be noted that while the enrollment presented for each location is a distinct and unduplicated count for that site, it is possible for a student to have been attending one or more location and therefore be counted more than once.

The resulting findings are intended to support future campus planning decisions and maximize the capacity and utilization of existing space to accommodate the projected growth at each of the campuses.



## Demographic Analysis

A demographic analysis assists the planners and University in understanding the current population (quantity and composition by age, ethnicity, etc.) and anticipated growth within project-defined boundaries from which TAMUK students originate; this information is also utilized to assist in projecting future enrollment scenarios.

Demographic data available from ESRI, a global supplier of geographic information system (GIS) software and demographic data, was gathered on both historic and five-year projected population growth. These were then extrapolated an additional five years, based on ESRI reported values, to obtain a 10-year projection utilizing a simple trend analysis.

Data on student enrollment and residence of origin for the Fall 2022 semester, as provided by the TAMUK Office of Institutional Research and Assessment, was utilized to understand current and future demographics within the immediate vicinity of TAMUK's existing campus locations. An enhanced demographic study of each location was conducted which included:

- Identifying change in growth of the projected age 18 to 64 cohort, by ZIP Code, over the next 10 years
- Diagramming a specified drive-time and mile radii from each location; time and distance were tailored to each campus
- Diagramming density by student residence by ZIP Code for each location

- Identifying the catchment area for the Main Campus

An additional demographic analysis of each existing campus is included as an Appendix in this document. The analysis includes a market study (with related detailed information on race, ethnicity, income, education), as of the Fall 2022 semester, for the combined catchment area of the Main Campus or the population located within a 40-minute drive-time of the Citrus Center.

## Space Utilization

Space utilization analysis identifies current opportunities within the existing classroom and class lab inventory to determine if it is capable of supporting the projected enrollment or if additional inventory is needed and when. Space utilization is a measurement of the efficiency of use of a given space, specifically classrooms and class labs. Methodologies for the measurement of a campus room and building utilization include:

- *Average Weekly Classroom or Class Lab Utilization:* Measurement of the average hours per week a classroom or class lab is scheduled and utilized for instruction
- *Classroom or Class Lab Percent Fill:* Calculated as the average enrollment for each individual classroom and class lab, across all scheduled sections/courses for a typical week, versus the available number of seats, or capacity, of the space

When looking at individual classroom and class lab utilization it is important to compare the overall hours per week in use and the fill rate to capacity of those sections with the recommended minimum targets provided by the Texas Higher Education Coordinating Board (THECB).

The THECB provides the following minimum utilization guidelines for four-year universities and higher education institutions:

- Classroom: 38 hours per week (average) at 65% fill (minimum)
- Class Lab: 25 hours per week (average) at 77% fill (minimum)

For purposes of this study, classrooms are defined by THECB as “rooms or spaces generally used for regularly scheduled instruction that require no special, restrictive equipment or configuration.”

Class labs are spaces used for regularly scheduled instruction and characterized by special purpose equipment or a specific space configuration that limits instructional activities to a particular discipline (e.g., biology and chemistry labs). Rooms with computers are not necessarily coded as a class lab unless the usage/equipment is particular to a discipline, such as an information technology networking lab or a computer-aided drafting lab.

Used in conjunction, the utilization methodologies described above can provide TAMUK with an overall picture of how classrooms and class labs are being utilized

at an individual instructional location. The method provides a quick view of which spaces are being under- or over-utilized in terms of scheduling and/or capacity.

It may also be useful in right sizing the available instructional space for the projected

student enrollment, as well as identifying spaces which may be available for additional scheduling, at present or in the future, by increasing capacity in courses which were indicated to have multiple empty seats within a section. To calculate both the overall building utilization as a whole, as well as the individual

classrooms and class labs, the two metrics previously discussed are applied using the following formula:

$$\frac{\text{Average Enrollment}}{\text{Seat Count}} \times \frac{\text{Average Hours Utilized per Week}}{\text{THECB Target Hours}}$$

### Overall Classroom Usage: Total Enrollment, Capacity, and Hours by Building

Texas A&M University Kingsville, Fall 2022

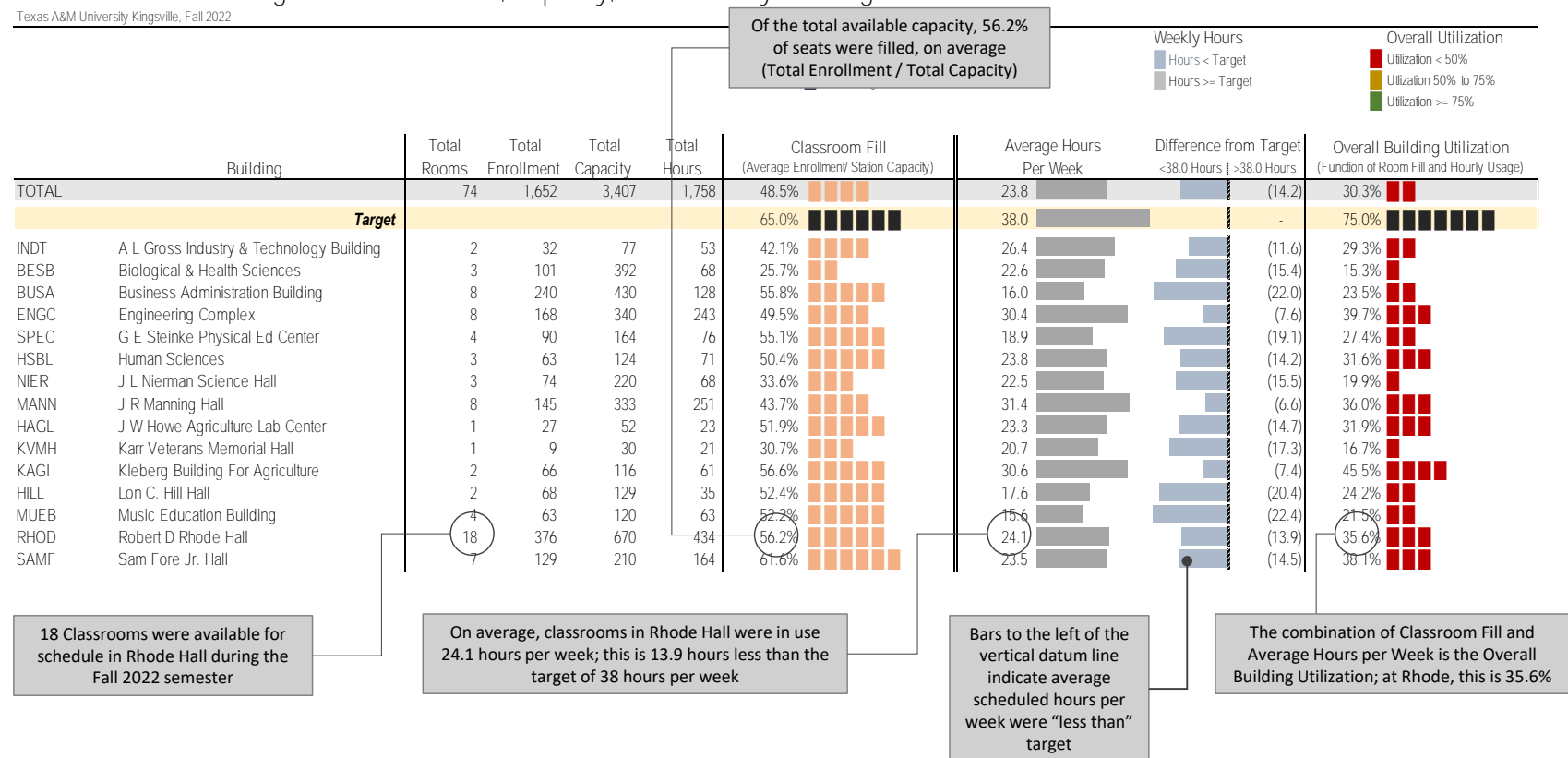


Figure 7. Quick-Reference Guide to Reading the Building Utilization Charts



Those buildings or individual rooms with a combined score above 75% are considered well-utilized. Those between 50% and 75% are considered fair and those below 50% indicate poor utilization.

The building utilization analysis was completed for the Main Campus only; the Citrus Center is

primarily research-focused and no classrooms or class labs were identified in their building inventory provided for the Fall 2022 semester. Additional room-by-room data for each building is included in the Appendix of this document.

## Enrollment Projections

Multiple growth scenarios were explored to assist in projecting the potential future enrollment at each of the campuses over the next 10 years. Enrollment projections utilize on-campus, hybrid, and 100% online students.

Typically, the average of all the scenarios is utilized as the baseline to project space need for the projected headcount for each location.

By 2032, the projected total on-campus/hybrid enrollment across all campuses is nearly 6,000 students, reflecting a relatively flat growth overall. This also assumes no change to existing programs or implementation of new initiatives. However, several initiatives were under consideration at the time of publication of this document. If enacted, an increase in the total projected enrollment at both campus locations over the next 10 years may be as many as 8,000 students. These are discussed in further detail in the chapters which follow.

When forecasting enrollment, multiple scenarios were utilized. Each scenario is discussed in further detail within the respective location chapter and include the following:

- Trend Line
- 2022 Capture Rate
- Blended Catchment Area Growth (Main Campus only)
- Proxy Catchment Area Growth (Citrus Center only)
- High School 12th Grade Growth

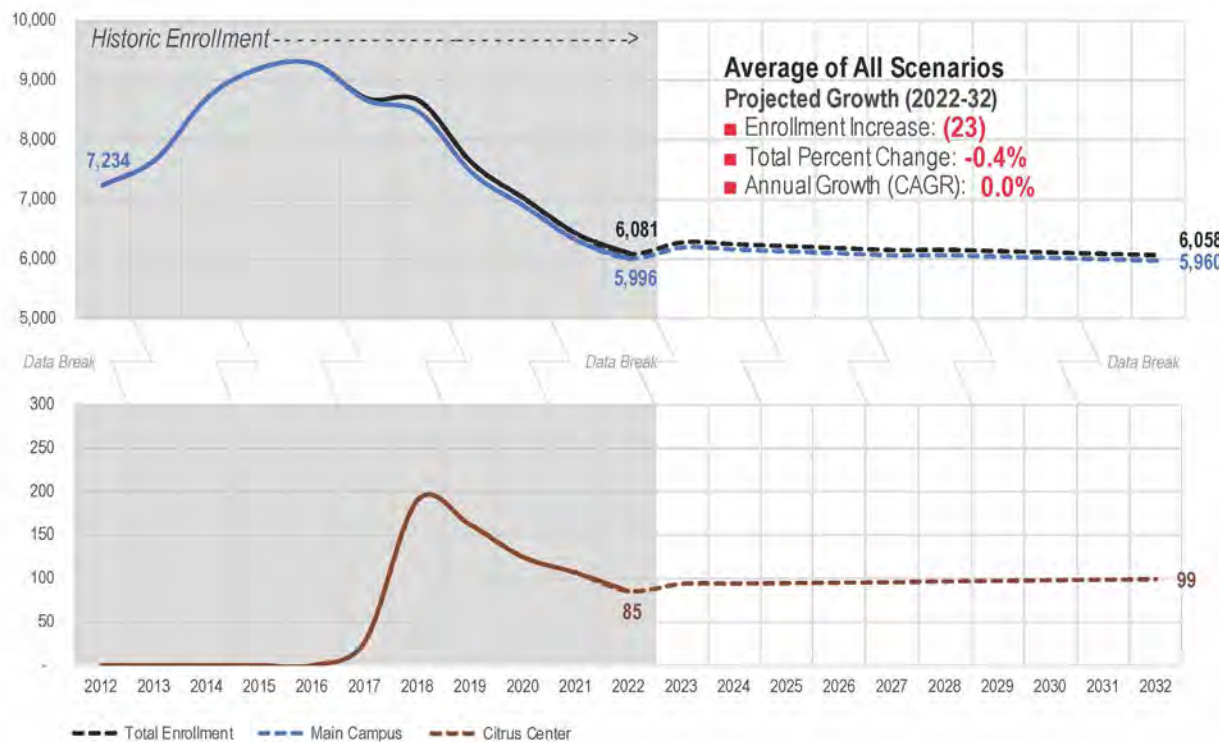


Figure 8. Total Fall Headcount Enrollment (Including Undergraduate, Graduate and Doctoral Levels)

## Space Projections

To project the minimum required space to support the target enrollment, the “Space Projection Model for Higher Education Institutions in Texas,” developed by the THECB, was utilized. Space needs were analyzed and projected in the following five Education & General (E&G) space categories per the THECB:

- Instruction (Room Types: 100s, 210-235, 500s, and 600s)
- Research (Room Types: 250 and 255)
- Office (Room Type: 300s)
- Library (Room Type: 400)
- Support (Room Type: 700s)

The model predicts the net assignable square feet (NASF) of E&G space an institution needs in each of the categories above; these are then compared to the existing building inventory in order to identify the potential shortfall (or surplus) to support the projected enrollment. The following existing baseline elements, as reported by TAMUK to THECB for Fall 2022, and goals outlined by leadership, were utilized to project both space and examine surplus/deficit in each of the five categories:

- E&G NASF
- Faculty Full-Time Equivalent (FTE)
- Student FTE
- E&G Capital Expenditure
- Research Expenditure

Auxiliary services are in addition to E&G space and include functions which improve the on-campus faculty, staff and student experience. Auxiliary services are considered non-E&G space and may include the following categories:

- Athletics (Competition/Intramural)
- Child Care
- Community Event Space
- Food Service/Dining
- Housing
- Merchandising/Retail
- Recreation

Once identified, the total assignable square footage of the combined E&G and auxiliary functions are translated into gross square feet (GSF) typically using an assignable to gross ratio of 65%; this is then incorporated into the recommendations proposed in the Master Plan to address identified shortfalls or space deficits, as required.

As identified in the table on the following page, as of Fall 2022, TAMUK had a surplus of approximately 160,600 E&G NASF. If enrollment growth remains relatively flat, the proposed 167,700 E&G NASF targeted for demolition in this Master Plan will cause the University to enter a space deficit. Should the University reach the projected 8,000 student enrollment by Fall 2032, based on the THECB Model, approximately 127,200 square feet of additional space will be required to support this enrollment if no new buildings

are constructed in the next 10 years. Note: the model does not distinguish between campus locations; the values shown are for the institution as a whole.

It is recognized that the model is an ideal world solution that does not always reflect reality. Institutions often function successfully in a space deficit. Instead, the model should be utilized as a goal which TAMUK may work toward over time. Items which will impact the actual amount of space needed in the future include:

- Enrollment growth
- New program initiatives
- Utilization of existing instructional space
- Demolition of existing buildings
- New building construction
- Re-allocation of existing buildings or spaces for different functions



Type of Space	Predicted E&G NASF Need Fall 2022 (per THECB Model)	Existing E&G NASF Inventory Fall 2022 (Reported to THECB)	E&G NASF Surplus/Deficit Fall 2022 <sup>1</sup>	Projected E&G NASF Need Fall 2032 (per THECB Model) <sup>1</sup>	Projected E&G NASF Future Surplus/ Deficit Fall 2032 <sup>1,3</sup>
Instruction	262,714	311,800	49,100	345,600	(100,000)
Research	80,687	83,891	3,200	72,600	1,800
Office	216,713	284,425	67,700	240,200	(35,900)
Library <sup>2</sup>	105,559	134,388	28,800	117,500	8,800
Support	59,911	71,749	11,800	69,800	1,900
Total	725,584	886,253	160,600	845,700	(127,200)
Total Headcount		6,081		8,000	
Total Student Full-Time Equiv.		4,673		6,148	

1. Values rounded to nearest hundred.

2. Projected Library space includes NASF for total calculated Library volumes as projected in THECB Model for Fall 2022. This requirement will be held constant in the projections as it is assumed that, in the future, general library stack volume will decrease with the continued move toward digital collections.

3. Space adjusted to reflect demolitions proposed as part of this Master Plan.

Source: THECB; Facility Programming

**Figure 9.** Existing and Projected E&G Space Needs

# COLLABORATION & INPUT

To ensure that the Master Plan reflects the wants and needs of campus users, a variety of engagement methods were used to gather feedback during the planning process. The input received directly influenced the vision and recommendations of this Master Plan. Input was gathered from a combination of methods including a Master Plan Committee; stakeholder interviews; faculty, staff and student surveys; and an interactive mapping exercise. Highlights of engagement results are illustrated in this section.

## Web-Based Outreach

A plan website provided information regarding the phases of the project, allowed people to access online surveys and included a platform for direct submission of feedback.

## Master Plan Committee

The Master Plan Committee consisted of 17 members. The Committee met with the consultant team multiple times to discuss existing conditions, conceptual plans and draft recommendations, and to provide guidance on the planning process.

## Stakeholder Interviews

Over the course of 19 interviews, the consultant team met with over 30 stakeholders from students, faculty, staff, leadership, student services, academic programs, and local civic organizations.

Figure 10. TAMUK Master Plan Website



## Student Survey

An online survey was used to collect feedback from the TAMUK student body. The survey included questions regarding on-campus facilities and amenities, safety, parking, connectivity, and walkability, among other things. The survey was completed by 115 students.

## Faculty/Staff Survey

An online survey was also used to collect feedback from TAMUK faculty and staff. The survey consisted of questions regarding specific faculty needs for each department, the campus overall and their vision for the undeveloped Baffin Bay property. The survey was completed by 169 faculty and staff.



## PARTICIPATION

# 35\*

STUDENTS, FACULTY,  
COMMUNITY MEMBERS

*\*Approximate Total*

## WHAT DO YOU LOVE ABOUT TAMUK?

Beautiful Campus

- Architectural Character

- Walkable Campus

- The "Boulevard"

- Strong Community Partnerships

- Culture

- History

- Strong Engineering, Agriculture,  
and Music Programs

# STAKEHOLDER INTERVIEW SUMMARY

## KEY OPPORTUNITIES



Indoor/outdoor  
student gathering  
spaces



Improve and  
expand research  
capabilities



Balance research,  
revenue and  
recreation at  
Baffin Bay



New  
Student  
Union  
Building



Update  
classrooms  
and labs



Reimagine  
University  
Farm



New  
agriculture  
building

## KEY ISSUES TO ADDRESS



Deferred  
maintenance  
and aging  
infrastructure



Some facilities  
not meeting  
users'  
expectations



Need for  
specialized lab  
and research  
spaces



Farm  
needs  
upgrade



No  
centralized  
"first place"  
on campus



SUB not  
functioning  
well for  
students



Need for  
technology  
update

Figure 11. Stakeholder Interview Summary of Highlights

# STUDENT SURVEY SUMMARY

## BEST FEATURES OF TAMUK

Easy to  
Navigate

Student  
Union  
Bldg/Food  
Court

Walkable  
Campus

Small  
Campus

Library

### Other Features

Community  
Beautiful Campus  
Pavilion  
Location  
Recreation Center  
Professors  
Amenities  
Engineering Complex  
Teaching Ratios  
Clean

## CAMPUS ELEMENTS THAT NEED THE MOST ATTENTION



Building  
Maintenance



Types &  
Location of  
Parking Spaces



Update  
Classrooms &  
Labs



Road &  
Parking Lot  
Maintenance



Shaded  
Outdoor  
Seating

86%

AGREE

The campus is easy to  
navigate

84%

AGREE

The campus grounds are  
kept clean and well  
maintained

79%

AGREE

I feel safe walking  
throughout campus

## PARTICIPATION

115  
STUDENTS

26%  
LIVING ON  
CAMPUS

## WHAT AMENITIES WOULD ENCOURAGE YOU TO SPEND MORE TIME ON CAMPUS

Free Events and Food

-

More Dining Options

-

Study/Lounge Spaces

-

Better Recreation Facilities

-

Gaming Activities

-

Gathering Areas

-

Social Opportunities

-

Clubs and Student Organizations

-

Theater

Figure 12. Student Survey Summary of Highlights



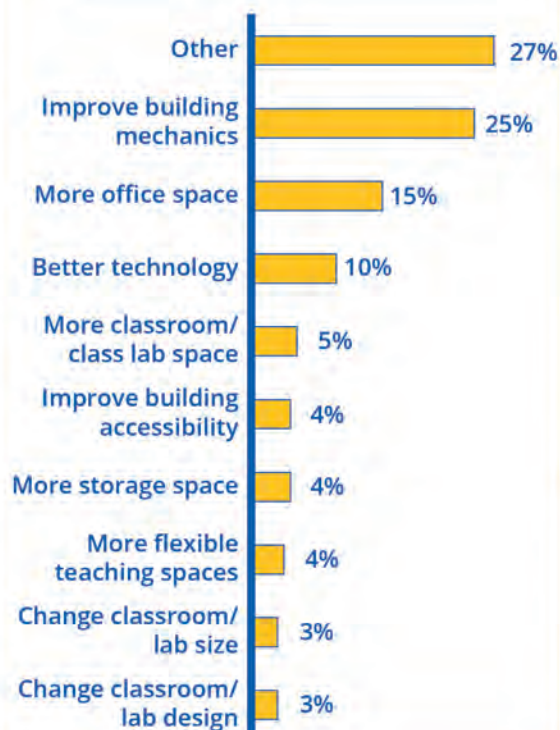
## PARTICIPATION

FROM 82  
DEPARTMENTS

# 169

FACULTY & STAFF

## WHAT IS THE ONE THING YOU WOULD CHANGE ABOUT YOUR CLASSROOM OR LAB SPACE?



## FACULTY & STAFF SURVEY SUMMARY

### BEST FEATURES OF YOUR LOCATION ON CAMPUS

Updated  
Building

Architecture

Easy to  
Navigate

Proximity  
to  
Students

Technology

#### Other Features

Parking  
Bldg Configuration  
Campus Appearance  
Learning Spaces  
Natural Light  
Outdoor Spaces  
History

### CAMPUS ELEMENTS THAT NEED THE MOST ATTENTION



Building  
Maintenance



Space Issues



Update  
Classrooms &  
Labs



Technology



Update  
Furniture

# 76%

**AGREE**

The campus is attractive and offers an appealing first impression

# 59%

**AGREE**

I would use outdoor seating/learning environments if they were available

# 49%

**AGREE**

The general appearance of the buildings is sufficient

Figure 13. Faculty & Staff Survey Summary of Highlights



In addition to the online survey, participants were asked to identify issues, opportunities and ideas for campus improvements using an interactive online map. This mapping exercise allowed participants to share ideas for all TAMUK campuses, including the undeveloped Baffin Bay property, by dropping markers with comments onto a map. Students, faculty and staff submitted 317 map comments.

[illegible][illegible]

social space  
green space  
new greenhouses  
shaded outdoor seating  
collaboration space  
new building

40 | Texas A&amp;M University-Kingsville Campus Master Plan



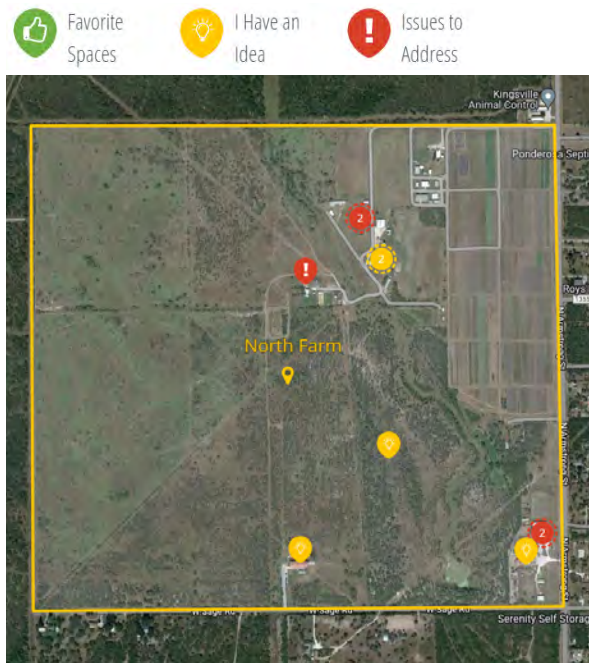


Figure 17. University Farm Interactive Map Comment Locations

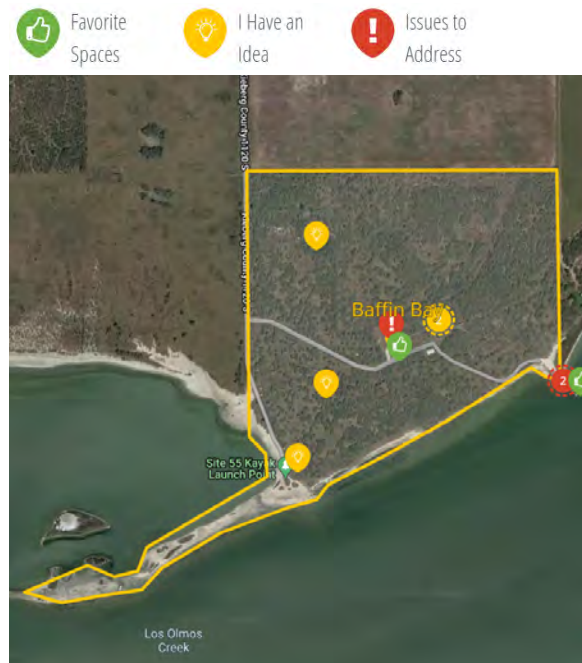


Figure 19. Baffin Bay Interactive Map Comment Locations



Figure 21. Citrus Center Interactive Map Comment Locations

swine facilities  
equine facilities  
**new facilities**  
rodeo improvements  
more space  
chicken facilities  
vet tech

Figure 18. University Farm Interactive Map Response Word Cloud

research  
event space  
retreat space  
retreat  
**outdoor classroom**  
restrooms  
space  
**new/improved pier**  
new conference center  
cabins  
bird watching  
recreation  
pavilion

Figure 20. Baffin Bay Interactive Map Response Word Cloud

**lighting**  
new program  
new academic building  
improve learning spaces  
building renovation  
new greenhouses  
lab space  
signage  
security

Figure 22. Citrus Center Interactive Map Response Word Cloud





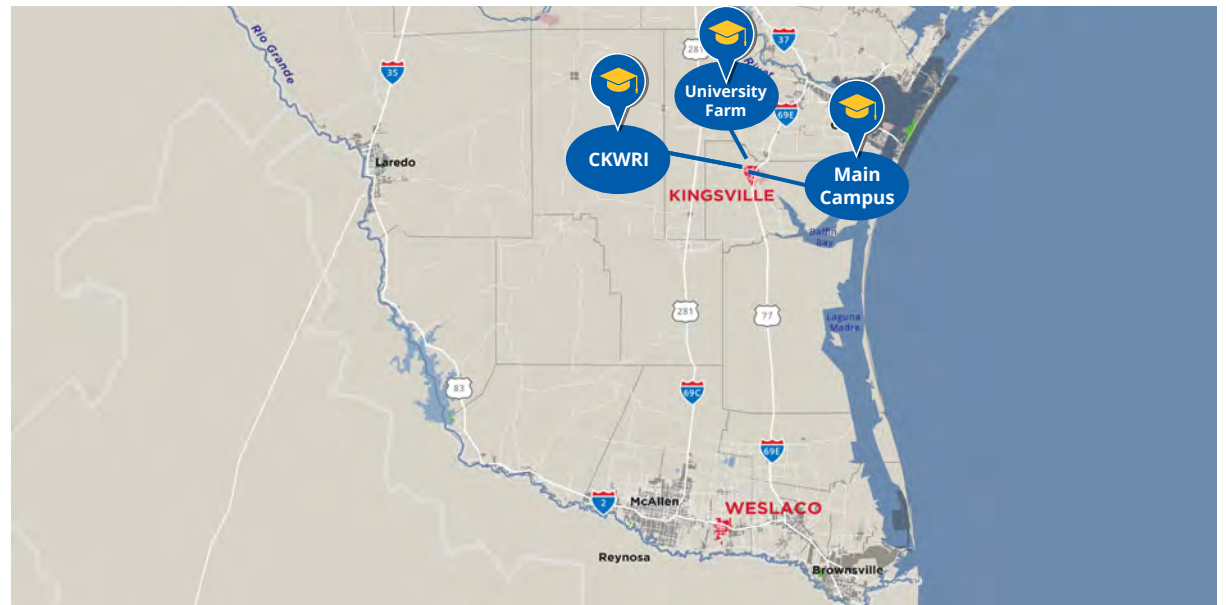




# MAIN CAMPUS

# INTRODUCTION

TAMUK is located in Kingsville, Texas, a city of approximately 25,000 residents and the home of the iconic King Ranch. The coastal city of Corpus Christi lies 40 miles to the northeast, while the border with Mexico is 120 miles to the south at Brownsville and 119 miles to the west at Laredo. Main Campus spans approximately 229 acres and consists of more than 80 buildings. The University Farm is located 1.5 miles to the north along N. Armstrong Street and the CKWRI is directly northwest of Main Campus along W. Corral Avenue.



Map 7. Kingsville Regional Context Map

Scale: N.T.S. 





*Javelina Statues*



*Manning Hall*



*Music Education Complex*

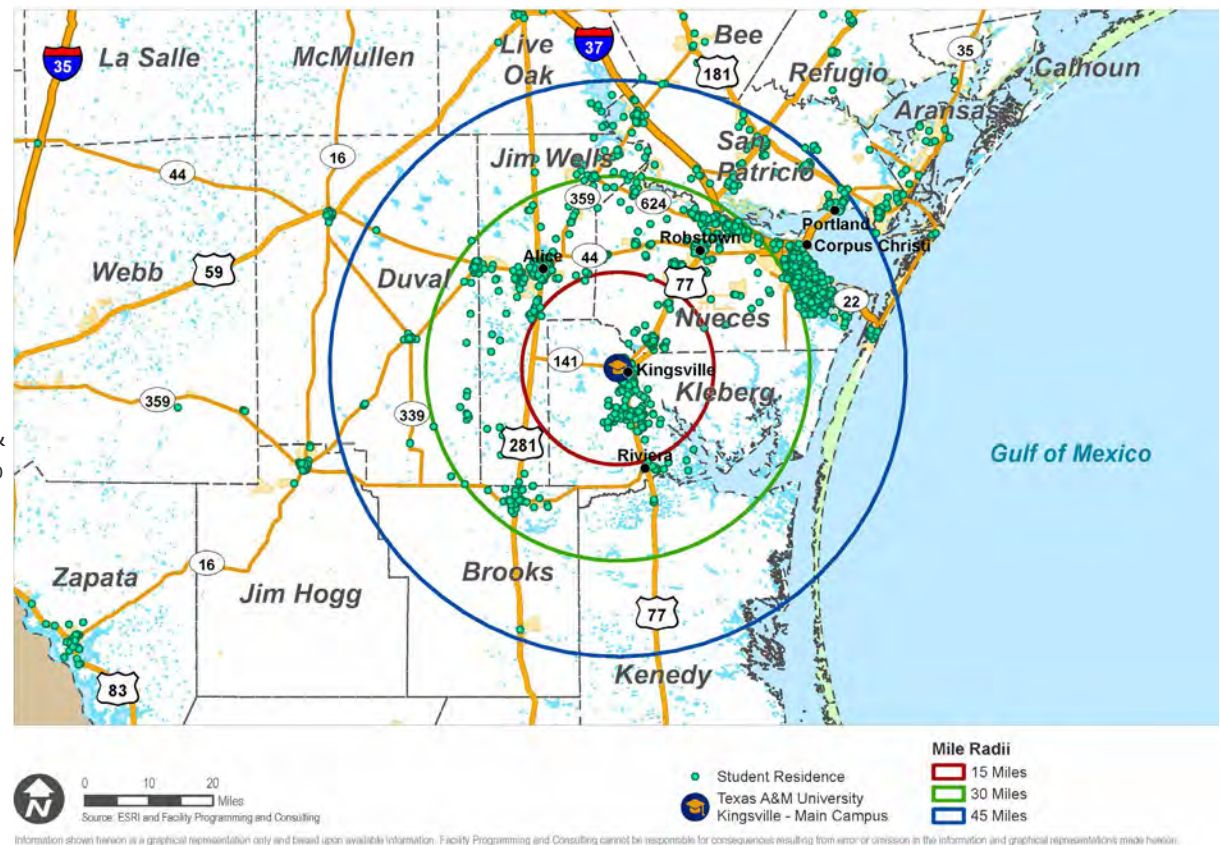
# DEMOGRAPHICS & ENROLLMENT

## Demographics & Market Summary

*Note: Full-size versions of the maps in this section are included in the Appendix for reference.*

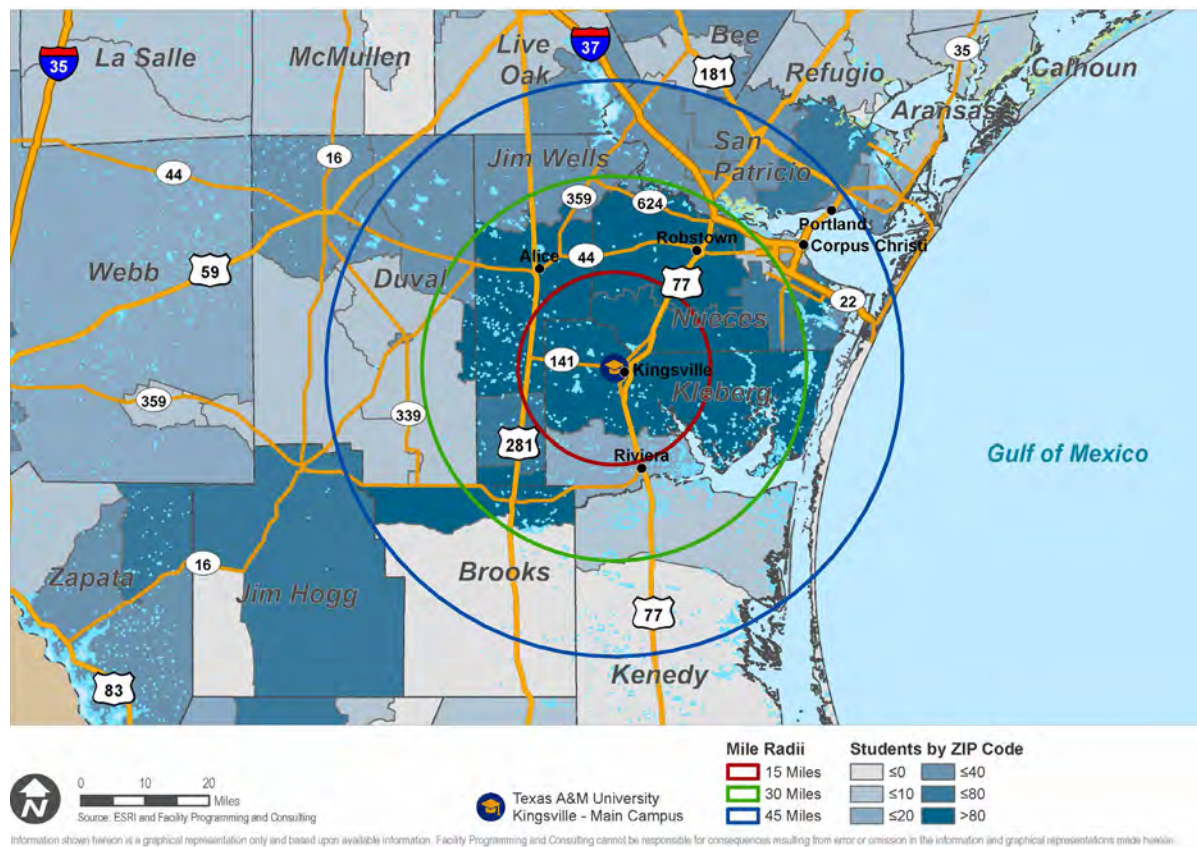
In the Fall 2022, nearly 6,000 students were enrolled at the TAMUK Main Campus (including the University Farm and CKWRI). Of these, approximately 90% were in-state residents, primarily from counties within the South Texas region. The remainder originated from out-of-state and internationally. According to data provided by the Office of Institutional Research & Assessment, approximately 973 students, or 16% of the Fall 2022 enrollment, were from Kleberg County. Within the state of Texas, the top three counties with the highest enrollment were Kleberg County (973), Nueces County (859), and Hidalgo County (604).

When student residency density for Fall 2022 is plotted, origination of the Main Campus enrollment is better illustrated. Each green dot on the adjacent map represents the location of a student address. In instances where students have the same address, the dot is placed on top of the other, therefore giving a distorted perspective of student resident density. Regardless, one can begin to visualize clusters of student residences by geocoding all of the student addresses which were associated with the campus. Note that the geocoded residences represent the address provided to the TAMUK Office of Institutional Research & Assessment at the time of enrollment and neither indicates a student's current address nor implies that the student commutes from that address to campus.



**Map 8.** Main Campus Student Residency Density: Unduplicated Headcount, Fall 2022





**Map 9.** Main Campus Student Residency by ZIP Code: Unduplicated Headcount, Fall 2022

## Student Residency by ZIP Code

Residency may also be illustrated using the physical home address of a student at TAMUK Main Campus rolled up by ZIP Code. Those areas with the darker shading, on the adjacent map, indicate a higher density.

**Figure 23.** Top Five ZIP Codes of Main Campus Student Residency, Fall 2022

ZIP Code (Post Office)	Count (% of Total)	Cumulative Percent
78363 (Kingsville)	942 (16.2%)	16.2%
78332 (Alice)	264 (4.5%)	20.7%
78380 (Robstown)	132 (2.3%)	23.0%
78410 (Corpus Christi)	124 (2.1%)	25.1%
78414 (Corpus Christi)	121 (1.7%)	27.2%

Source: TAMUK Office of Institutional Research & Assessment, ESRI and Facility Programming and Consulting

Similar to the dot map presented earlier, mapping student residence by ZIP Codes may lead to visual distortions due to the non-uniform size of ZIP Code areas. Of the top five ZIP Codes of origin, noted in the table above, analysis indicates nearly one-third of the TAMUK Main Campus student population is regional, the largest percent being from the local Kingsville area and within a 30-mile radius of campus.

## Student Drive-Time and Distance

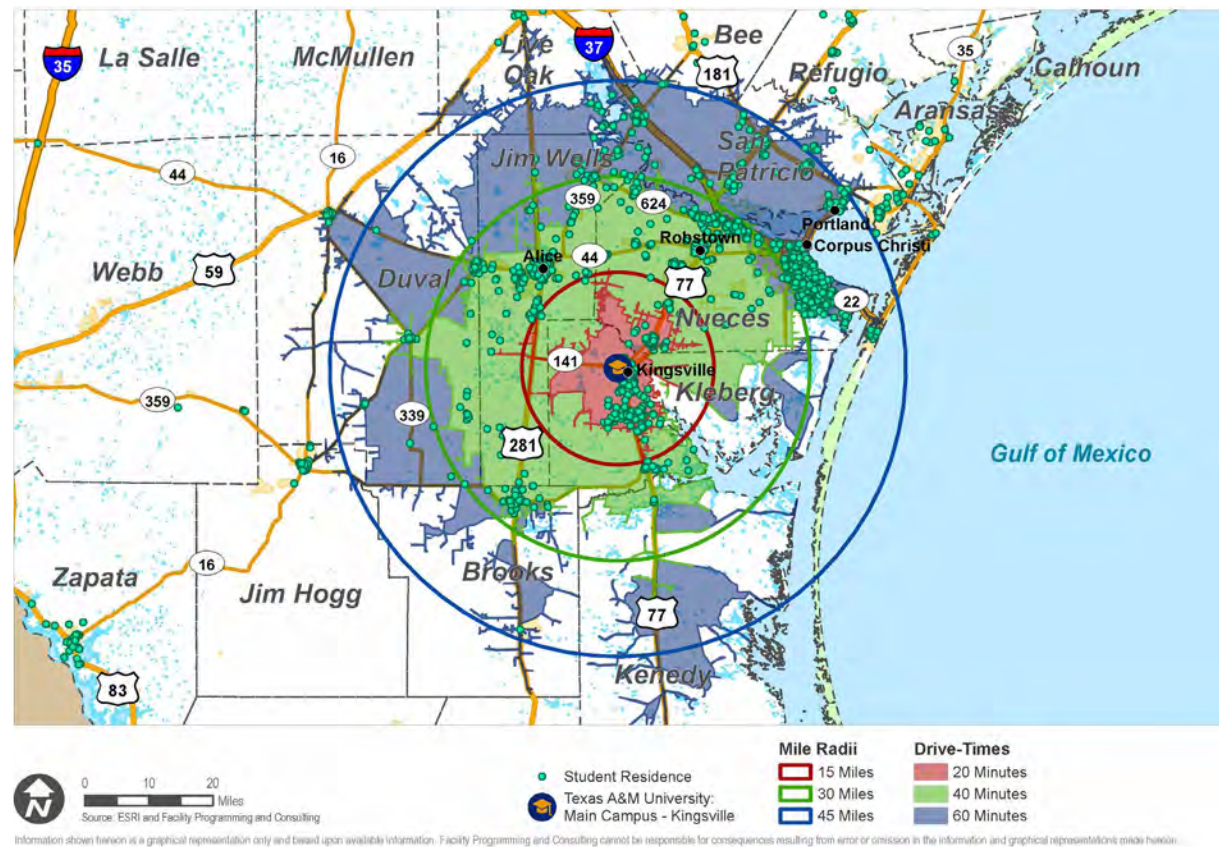
While on-campus student housing is provided, the majority of students attending this location reside off campus. To further illustrate this, the location of the Main Campus and the approximate time one may typically experience when traveling from either of the three zones (i.e., 20, 40 and 60 minutes) has been mapped.

In Fall 2022, nearly 6,000 students were enrolled in on-campus or hybrid/blended courses at the Main Campus. Of these, approximately one-third (32%) declared their residence within a 30-mile radius and a 40-minute drive to the campus. Nearly 18% of students listed their residence within a 15-mile radius of the campus.

**Figure 24.** Typical Distance and Average Drive-Time of Student from Residence to Main Campus, Fall 2022

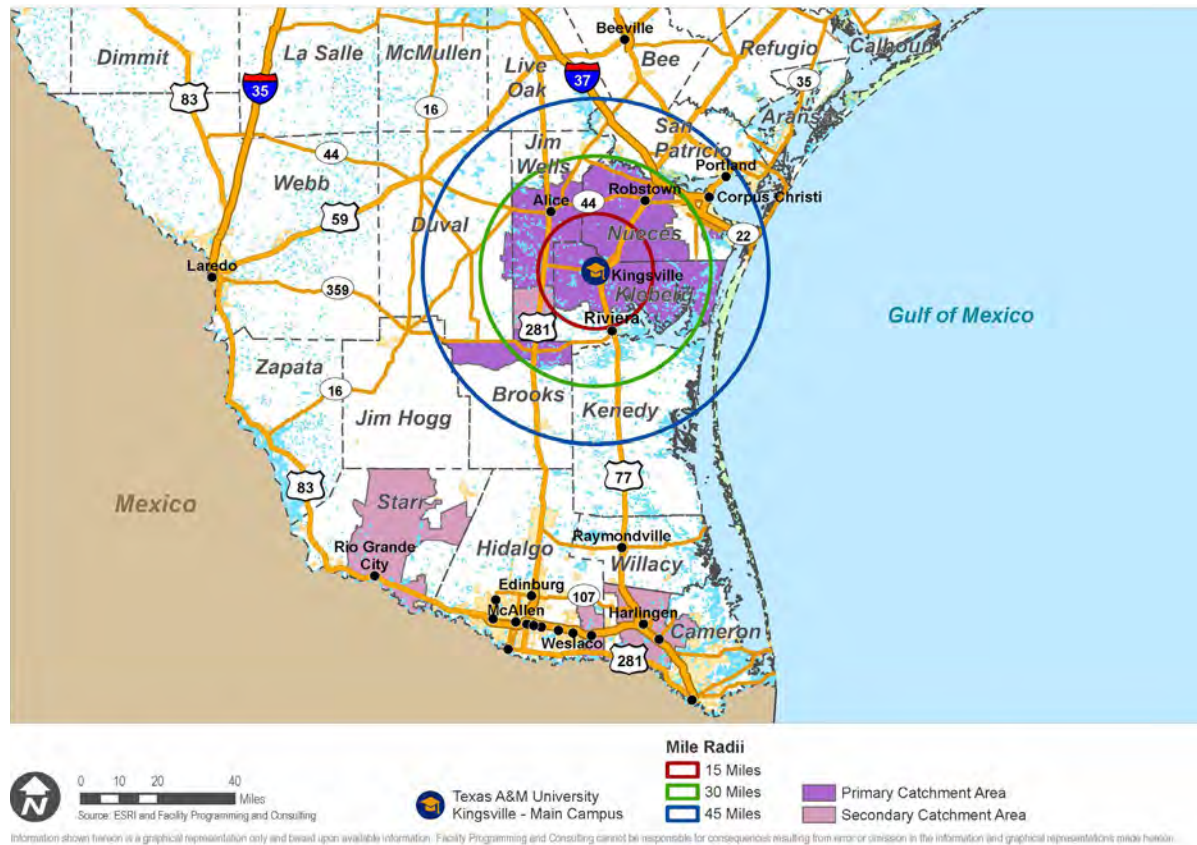
Distance (Miles)	% of Total	Drive-Time (Minutes)	% of Total
≤ 15	18%	≤ 20	18%
≤ 30	14%	≤ 40	14%
≤ 45	12%	≤ 60	11%
> 45	54%	> 60	54%

*Note: 170 records had incomplete information and could not be mapped; Source: TAMUK Office of Institutional Research & Assessment, ESRI and Facility Programming and Consulting*



**Map 10.** Mile Radii + Typical Drive-Time to Campus





**Map 11.** Main Campus Primary and Secondary Catchment Areas, Fall 2022

## Main Campus Catchment Area

The adjacent map identifies the ZIP Codes from which a cumulative 40% of all students who attended the TAMUK Main Campus in the Fall 2022 semester resided. Combined, these ZIP Codes identify the Main Campus Catchment Area (i.e., the region/geographic area from which the campus draws the majority of its students). This catchment area is further subdivided into a Primary ( $\geq 1.5\%$  total campus population) and Secondary (1.0%-1.5%) Catchment Area. Defining a catchment area allows for additional analysis when examining an existing campus's market area and the potential student and community population.

The capture rate is calculated as the percent of the total available 2022 population, age 18 to 64, from the identified ZIP Codes which were enrolled at the Main Campus in the Fall 2022 semester. The capture rates range from 0.2% to 5.2% across the various ZIP Codes within the catchment area, with an average of 1.5%.

Reference Appendix for student counts and percents by ZIP Code.

## Market Summary

By the year 2032, the total population within the Main Campus catchment area is projected to approach 452,400; of these, approximately 58.3% of the population will be in the age group 18 to 64, the predominant target market for higher education institutions. This age 18 to

64 cohort is expected to increase at an annual rate of 0.2% from 2022 to 2032, approximately one-half the anticipated growth of the population in total.

One-third of the population (30.5%) age 25 and older, within the study area, graduated with some college education or advanced degree.

The population in the study area associates almost equally between “white” and “other” in terms of race; additionally, the Diversity Index is high, indicating that there is variation in the overall race and ethnic composition of the study area (the more equal the representation between race and ethnicity, the higher the index value would be, with 100 indicating

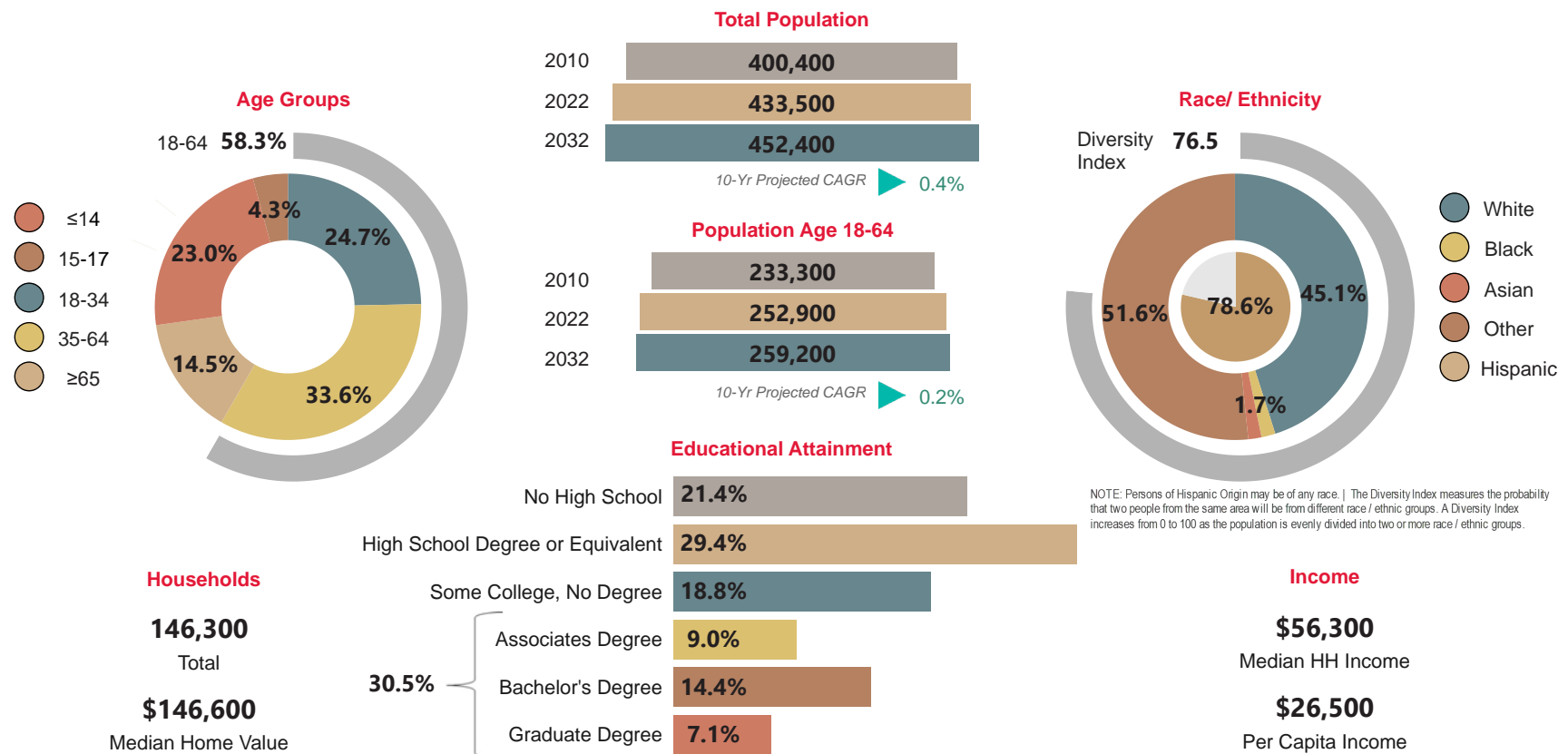


Figure 25. Market Summary of Main Campus Catchment Area, Fall 2022: Population Statistics



"complete diversity"). As illustrated in the figure on the previous page, more than three-quarters (78.6%) of the population within the Fall 2022 Main Campus catchment area is of Hispanic origin (persons of Hispanic origin may be of any race).

An estimated 10,830 businesses are located within the Main Campus catchment area and employ approximately 114,650 workers. In terms of employment, the Health Care & Social Assistance sector was the largest in the study area with approximately 21,050 workers. This sector also accounted for an estimated 1,200 businesses.

See Appendix for additional details and analysis included in the full market summary.

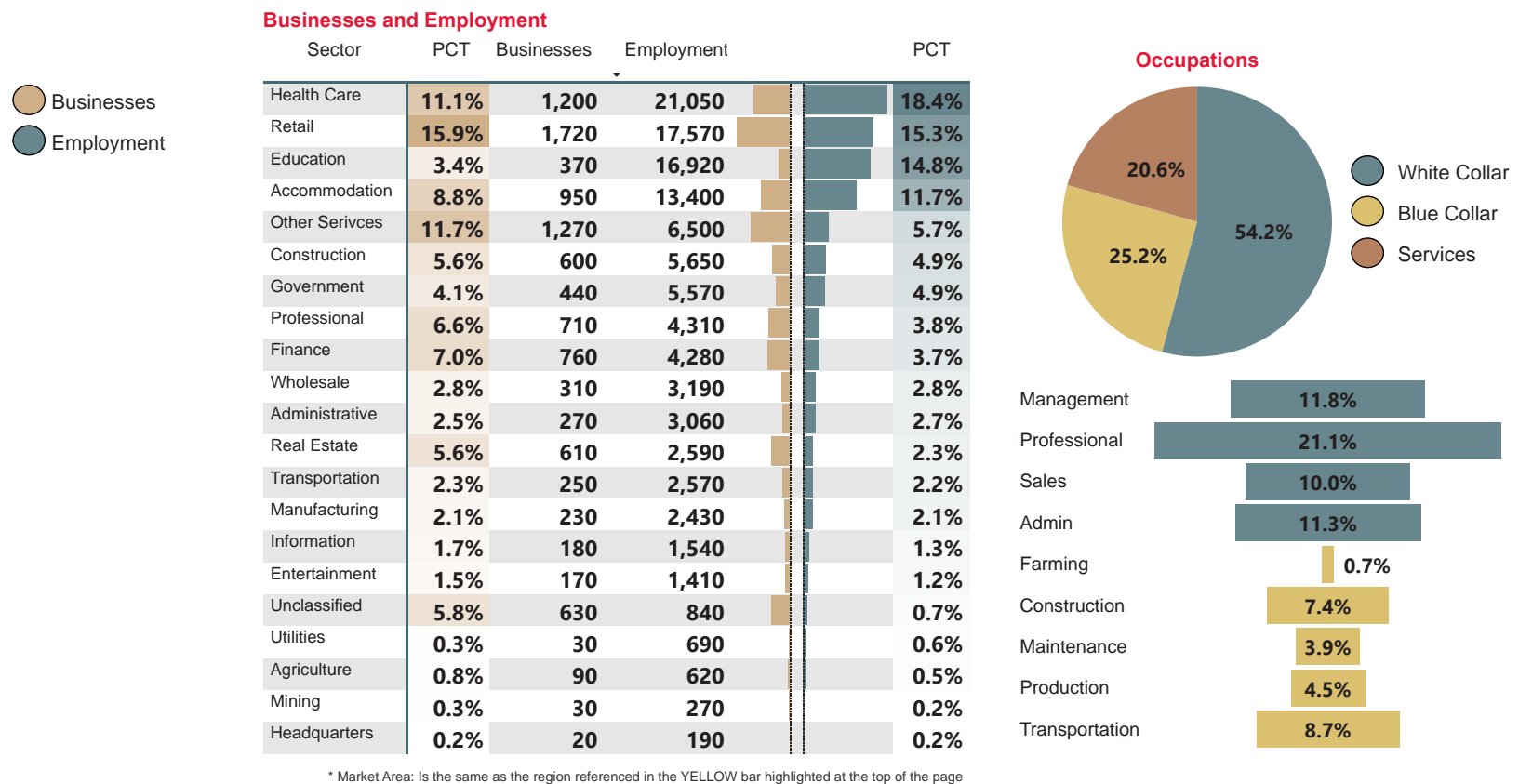


Figure 26. Market Summary of Main Campus Catchment Area, Fall 2022: Business and Employment Statistics

## 10-Year Population Growth

Analysis was conducted on the projected population growth, between years 2022 and 2032, of the age 18 to 64 cohort in order to understand the potential impact and opportunities for the Main Campus. The map on the following page illustrates the projected compound annual growth rate (CAGR) in the population age 18 to 64 cohort, by ZIP Code, through 2032. Those ZIP Codes with the greatest forecasted annual growth are indicated on the map in the darker blue shades; however, as noted earlier, some ZIP Codes also cover larger areas and are larger in size, relative to others, resulting in visual distortion. The adjacent tables identify:

- Top five student residence ZIP Codes associated with the Main Campus, in the Fall 2022 semester, which are projected to have the greatest CAGR over the next 10 years
- Projected CAGR of those ZIP Codes from which the campus had the highest enrollment

Of the top five ZIP Codes from which students originated in Fall 2022, Corpus Christi has both the highest CAGR and the largest projected increase in number of potential university students, age 18 to 64.

When the top five ZIP Codes of enrollment are ranked by CAGR, the greatest growth (greater than 4.0% per annum) is projected in the northern bounds of the South Texas region in places such as Jarrell and Manor (northeast

of Austin), as well as San Antonio. Aubrey and Forney, within the Dallas metroplex, round out the top five ZIP Codes projected to have the greatest CAGR. While the capture rate of students in these ZIP Codes in Fall 2022 was

relatively low, should TAMUK desire to move beyond a regional institution, these areas may be considered as potential opportunities from which to grow enrollment.

**Figure 27.** Top Five Fall 2022 Main Campus Student Residence ZIP Codes Ranked by Projected CAGR (2022-2032) of the Population Age 18 to 64 Cohort

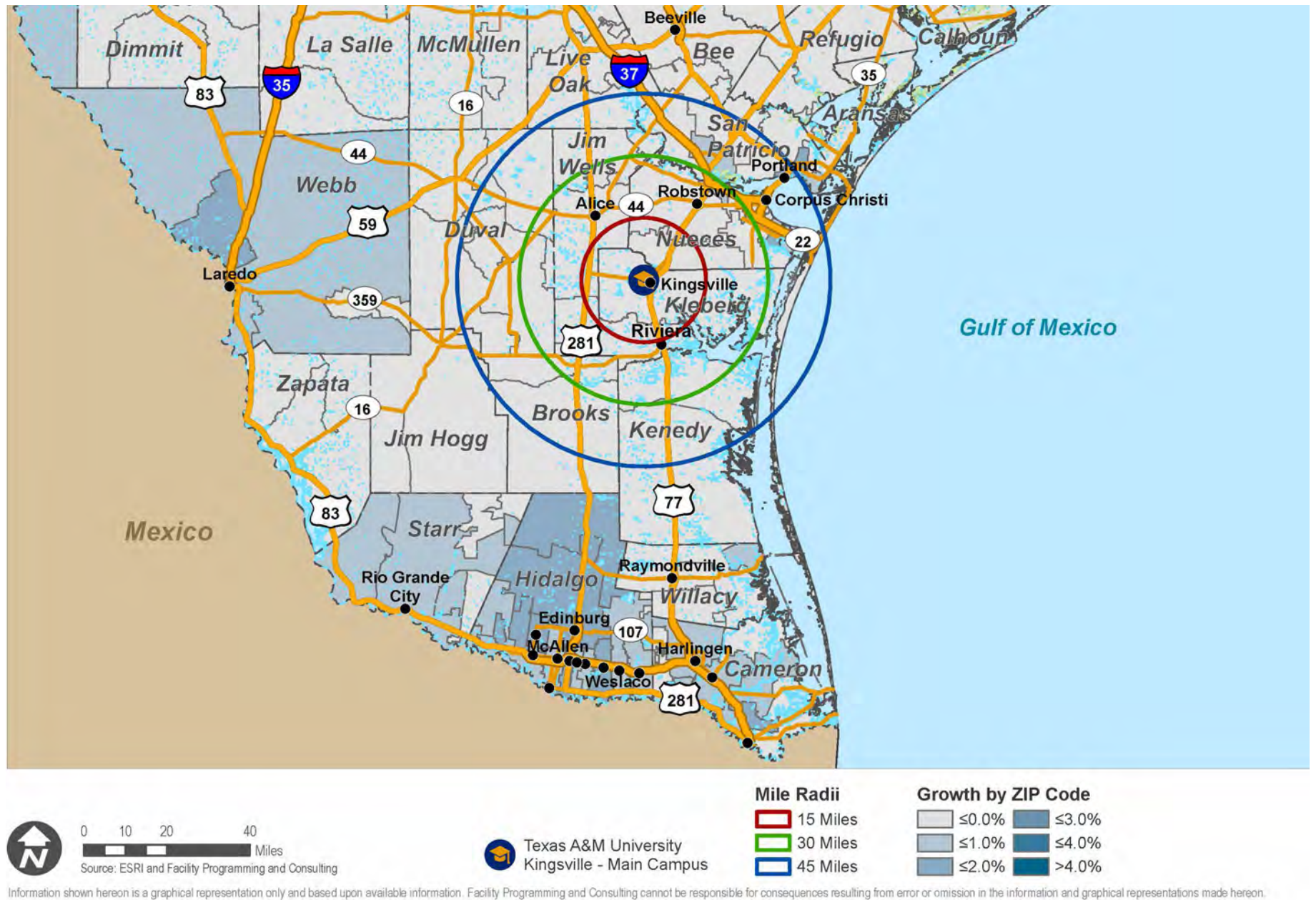
ZIP Code (Post Office)	Fall 2022 Capture Rate	Population Age 18-64		Delta (2022-2032)	Projected CAGR (2022-2032)
		Year 2022	Year 2032		
76537 (Jarrell)	0.2%	9,000	14,300	5,300	4.7%
76227 (Aubrey)	0.005%	35,900	56,100	20,200	4.6%
75126 (Forney)	0.03%	49,900	75,700	25,800	4.3%
78253 (San Antonio)	0.02%	46,300	70,200	23,900	4.2%
78653 (Manor)	0.007%	25,400	38,200	12,800	4.2%

**Figure 28.** Projected CAGR (2022-2032) of the Population Age 18 to 64 Cohort of the Top Five Fall 2022 Main Campus Student Residence ZIP Codes Ranked by Enrollment

ZIP Code (Post Office)	Fall 2022 Capture Rate	Population Age 18-64		Delta (2022-2032)	Projected CAGR (2022-2032)
		Year 2022	Year 2032		
78363 (Kingsville)	5.2%	18,000	16,700	-1,300	-0.7%
78332 (Alice)	1.7%	15,400	13,900	-1,500	-1.0%
78380 (Robstown)	0.9%	14,300	13,900	-400	-0.2%
78410 (Corpus Christi)	0.7%	18,000	19,200	1,200	0.6%
78414 (Corpus Christi)	0.4%	29,600	34,300	4,700	1.5%

*For both tables above, population values have been rounded to nearest hundred; Source: TAMUK Office of Institutional Research & Assessment, ESRI and Facility Programming and Consulting*





Map 12. Main Campus Area Population Age 18-64 by ZIP Code, CAGR 2022-2032

## Enrollment Projections

Over the last ten years, enrollment growth at the TAMUK Main Campus has been declining, averaging a nearly 1.9% change in annual growth rate between 2012 and 2022. This decrease in enrollment since the campus peaked at nearly 9,300 students in 2016 is likely due to multiple factors, including changes in federal immigration policy, resulting in restrictions and challenges on international student entry, and the impacts from the COVID-19 pandemic.

When forecasting enrollment, multiple scenarios were utilized. For the Main Campus, these included:

- Trend Line = Continued growth at historic enrollment (2012-2022)
- 2022 Capture Rate = Ratio of Fall 2022 enrollment to the population age 18 to 64 within the seven Core-Based Statistical Areas (CBSAs) in South Texas; the ratio is then multiplied against the projected growth of the specified 18 to 64 population for the next 10 years
- High School 12th Grade Growth = Percent historic change in growth (2016-2021) of the senior class at the Top 10 high schools of origin for the TAMUK location; the percent is then multiplied against the Fall 2022 enrollment and carried forward

For the Main Campus, one additional scenario is generated using a defined catchment area (i.e., the region/geographic area from which the campus draws the majority of its students).

For this analysis, the Main Campus catchment area is determined by identifying the ZIP Codes from which 1.0% or more of students originated in the Fall 2022 semester; this is then further subdivided into a Primary ( $\geq 1.5\%$  total campus population) and Secondary (1.0%-1.5%) catchment area. In this enrollment projection scenario, Fall 2022 student composition (by degree level) is determined and then projected at the growth rate of the population age 18 to 64 within the catchment area in which they are located; the remaining student population is grown at the anticipated rate of the state, overall.

Defining a catchment area allows for additional analysis when examining an existing campus market area and the potential student/community population; it is also instrumental in forming the basis of assumptions regarding enrollment for existing campuses, as well as potential new campus or center locations under consideration.

Utilizing the average of these four planning scenarios, the 10-year projected enrollment of the Main Campus is predicted to remain relatively unchanged, with an approximate 6,000 student enrollment in 2032 (see Figure 29 on page 55). However, this projection assumes a status-quo and that the University does not expand its program offerings or pursue new initiatives which could result in increased enrollment.

For this reason, a second enrollment scenario has been developed to understand potential enrollment if these initiatives are

implemented. If these aspirational goals are achieved, it is anticipated that future enrollment will ultimately increase over the next decade, with a target of approximately 8,000 students by 2032 at the Main Campus (see Figure 30 on page 56).

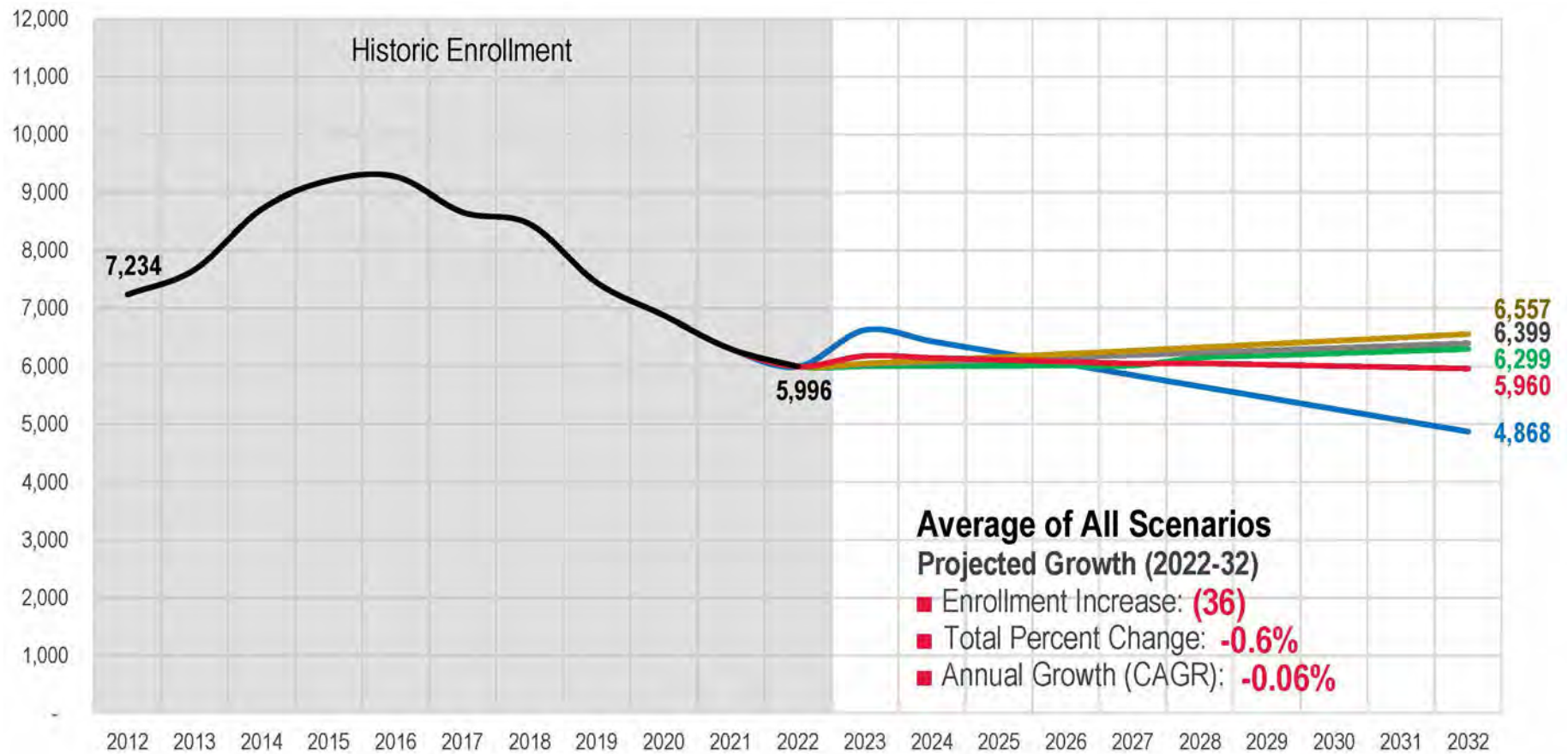
Any additional growth beyond this will likely be accommodated through online course availability. For the purpose of this study, those students who are pursuing their degree through 100% online education are in addition to the projected headcount noted above.

## Program Growth Considerations

Current TAMUK enrollment is comprised of multiple degree categories, including undergraduate, post-baccalaureate, master, and doctoral in five academic colleges — Agriculture and Natural Resources; Arts and Sciences; Business Administration; Education and Human Performance; and Engineering. By far, the undergraduate student population, as reported in Fall 2022, was the largest of the categories comprising approximately 78% of the student body. Master's programs had the second highest concentration of students with nearly 18% of the overall enrollment, while the remaining 4% of the student body were enrolled in doctoral programs.

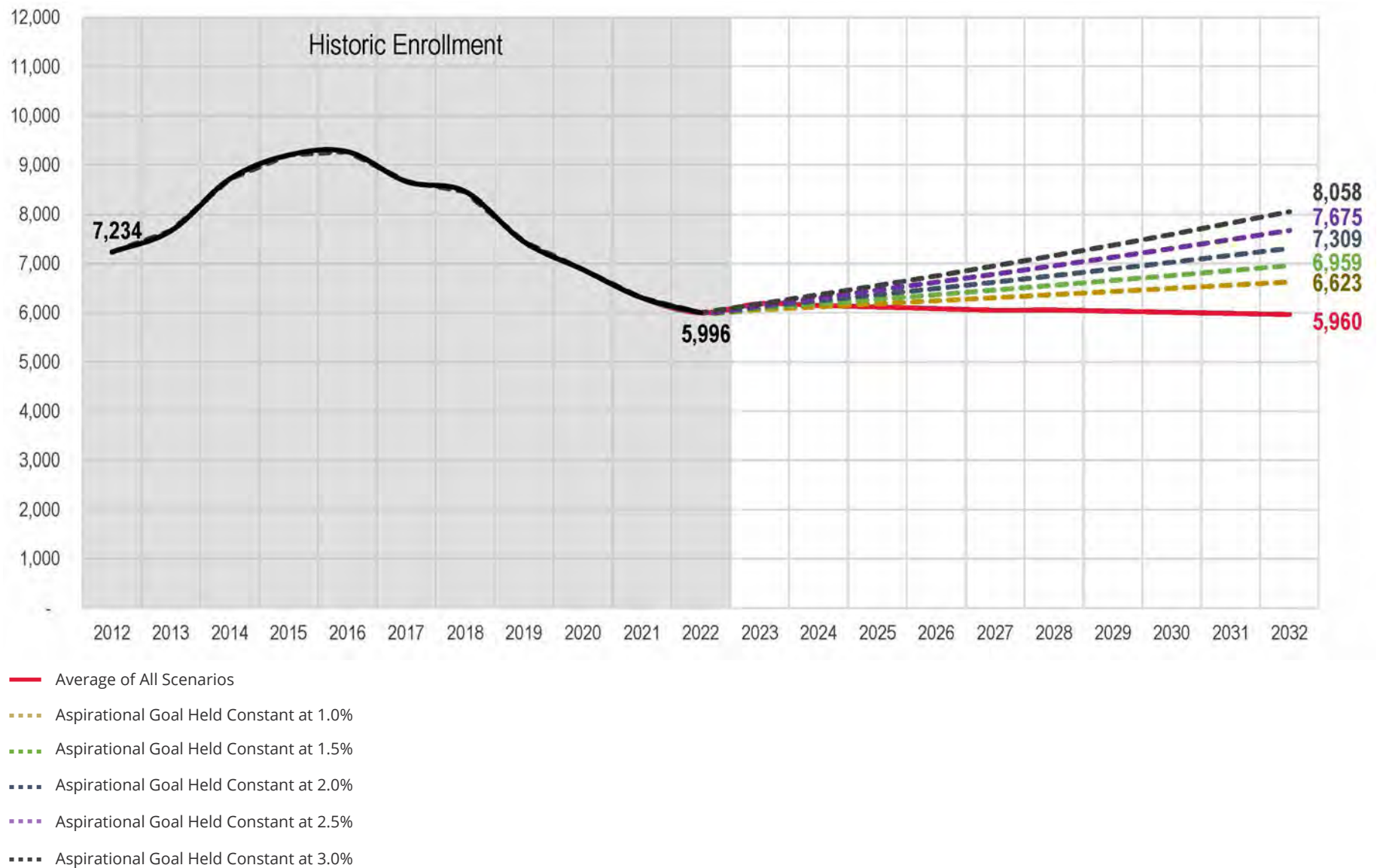
Within the five Colleges, the largest percent of undergraduate population in the Fall 2022 was in the College of Arts and Sciences (36%), followed by Engineering (24%) and Agriculture and Natural Resources (18%). At the graduate and doctoral level, just over one-





- Based on 2012-2022 Trend Line
- 2022 Capture Rate Held Constant at 0.49%
- Blended Catchment Area Population Age 18-64 CAGR 2022-2032 Held Constant at 0.65%
- 12th Grade High School Growth Rate CAGR 2016-2021 Held Constant at 0.90%
- Average of All Scenarios

**Figure 29.** TAMUK Main Campus Enrollment Projections (On-Campus/Hybrid Headcount) (2022 - 2032)



**Figure 30.** TAMUK Main Campus Enrollment Projections (On-Campus/Hybrid Headcount) (2022 - 2032) After Implementation of New Program Initiatives



third (36%) is within the College of Engineering; the College of Education and Human Performance captured approximately 26% of the enrollment. While master's programs are offered in all Colleges, only three (Agriculture and Natural Resources, Education and Human Performance, and Engineering) currently offer doctorates. Between Fall 2012 and Fall 2022, enrollment increased in the Colleges of Business Administration (8%), Agriculture and Natural Resources (7%), and Engineering (4%). The College of Arts and Sciences experienced the largest decline in enrollment (43%) followed by the College of Education and Human Performance (38%).

In December 2022, over 30 interview sessions were conducted with TAMUK leadership, faculty, staff and student representatives to better understand the issues facing the University as a whole and within individual departments and program areas. Meetings were conducted with each of the College deans to discuss potential new academic programs and future space needs; similar meetings were conducted with University leadership to understand projected administrative growth and space needs.

### Undergraduate Programs

Analysis of the enrollment for undergraduate departments in each of the Colleges was conducted to understand growth within the last five years (Fall 2017 to Fall 2022). Overall, undergraduate program enrollment has decreased approximately 25% since Fall 2017.

All Colleges experienced a decline in their undergraduate enrollment between Fall 2017

and Fall 2022; the greatest being within the College of Education and Human Performance (51%) followed by the College of Engineering (40%).

The following items were raised during discussions with TAMUK leadership:

- Health Professions offerings (i.e., nursing, occupational therapy, physical therapy) are currently minimal, but there is a definite demand in the region
- Animal Science and Veterinary Technology is a fairly new degree program which has grown approximately 10% since its inception in Fall 2019; this program is also one which is projected to continue to grow
- Additional collaboration and study spaces (group and individual) are desired in each of the academic buildings
- Additional research and laboratory facilities, for all disciplines, beyond the sciences and engineering, are desirable; access to available research labs is also a critical recruiting tool for new faculty
- Existing laboratory facilities are outdated and/or have mechanical issues; these spaces need to be updated to be more on par with other institutions, even within the A&M System
- The University Farm is an area which needs investment; this area has the capability to draw individuals to the institution

### Graduate and Doctoral Programs

TAMUK is recognized as a Carnegie Classified Doctoral University with High Research Activity (R2). As of the Fall 2022, the University offered

42 degree programs at the master's level and five degree programs at the doctoral (Bilingual Education, Educational Leadership, Wildlife Science, Environmental Engineering, and Engineering).

Similar to undergraduate enrollment, over the past 10 years, the University has seen a decline in its graduate and doctoral enrollment by approximately 64%. The Colleges of Business Administration and Education and Human Performance are the only two which saw growth in advanced degree programs since the Fall 2012, at 45% (master's) and 8% (doctoral), respectively. The following items were raised during discussions with TAMUK leadership:

- Within the College of Engineering, there is interest in pursuing a Master of Science in Aerospace Engineering; if this initiative is successful, this would be the first University to offer this degree in South Texas
- The institution currently reports approximately \$20 million in annual research expenditures with a goal for \$40 million
- There is a desire to grow research to the R1 status, but this will require additional investment in research laboratory facilities, faculty, and graduate/doctoral programs
- Flexibility in lab configuration and design will be essential to allowing more efficient utilization of both existing and future research labs

# EXISTING CONDITIONS & ANALYSIS

## Landholdings

TAMUK currently owns over 990 total acres that is split between five locations. Main Campus is composed of approximately 229 acres including the contiguous parcels generally bounded by W. Santa Gertrudis Street and W. Richard Avenue to the south, N. Armstrong Street to the east, Seale Street and Santa Rosa Drive to the west, and W. Corral Avenue to the north. The University owns a few additional parcels on the east side of N. Armstrong Street. These are currently primarily used for parking and storage.



*Recreation and NCAA Complex*

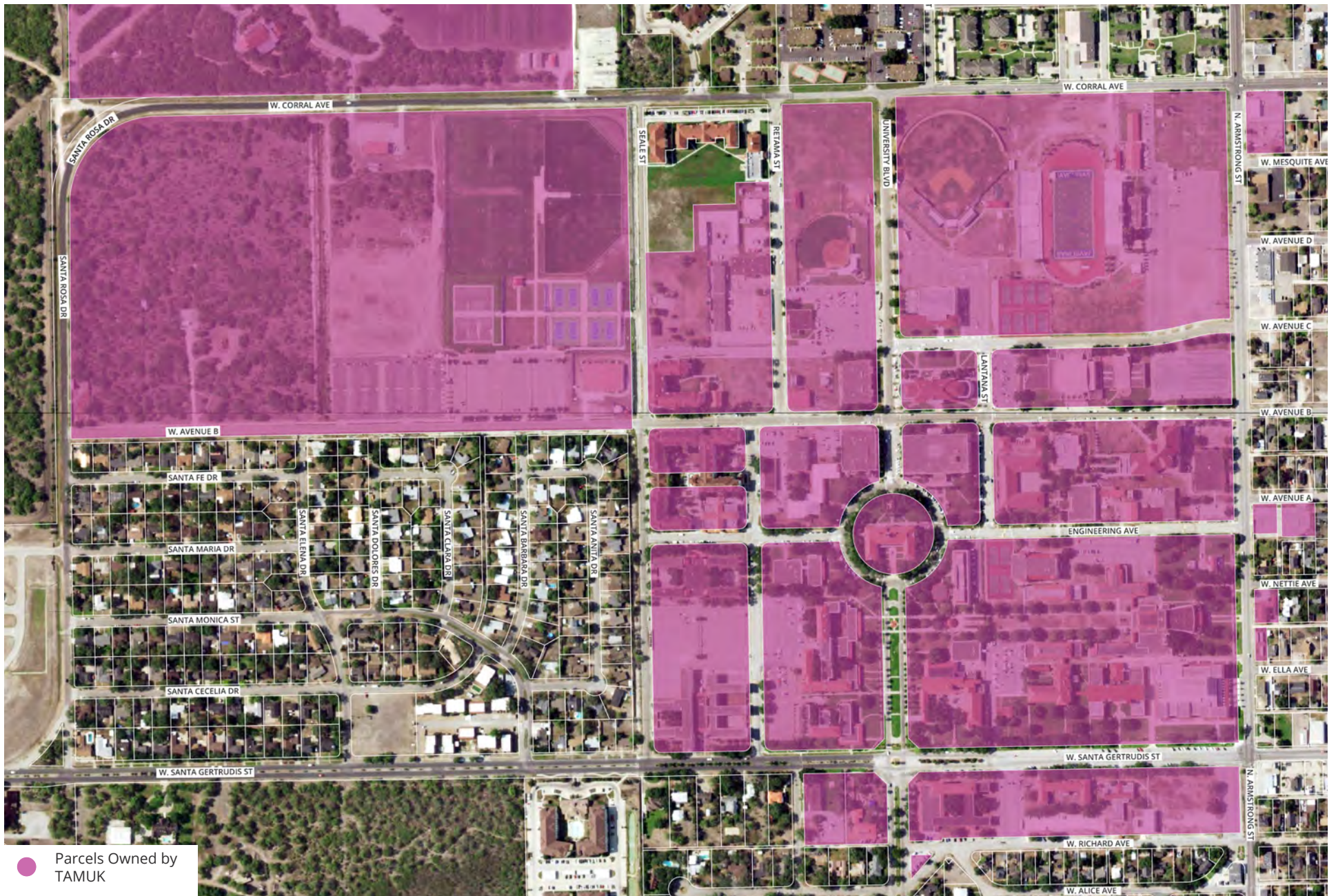


*Javelina Stadium*



*University Boulevard*









The CKWRI is approximately 72 acres situated northwest of Main Campus, north of W. Corral Avenue. The CKWRI is privately funded, and faculty and students work with private landowners where they conduct research. Aside from access to the Caesar Kleberg Wildlife Center, which is used for some meetings and events, the CKWRI is typically only accessed by students and faculty conducting research on the property.

**Map 14.** Caesar Kleberg Wildlife Research Institute - Landholdings



Scale: N.T.S.   
 Parcels Owned by TAMUK 



*Caesar Kleberg Wildlife Center Monument*



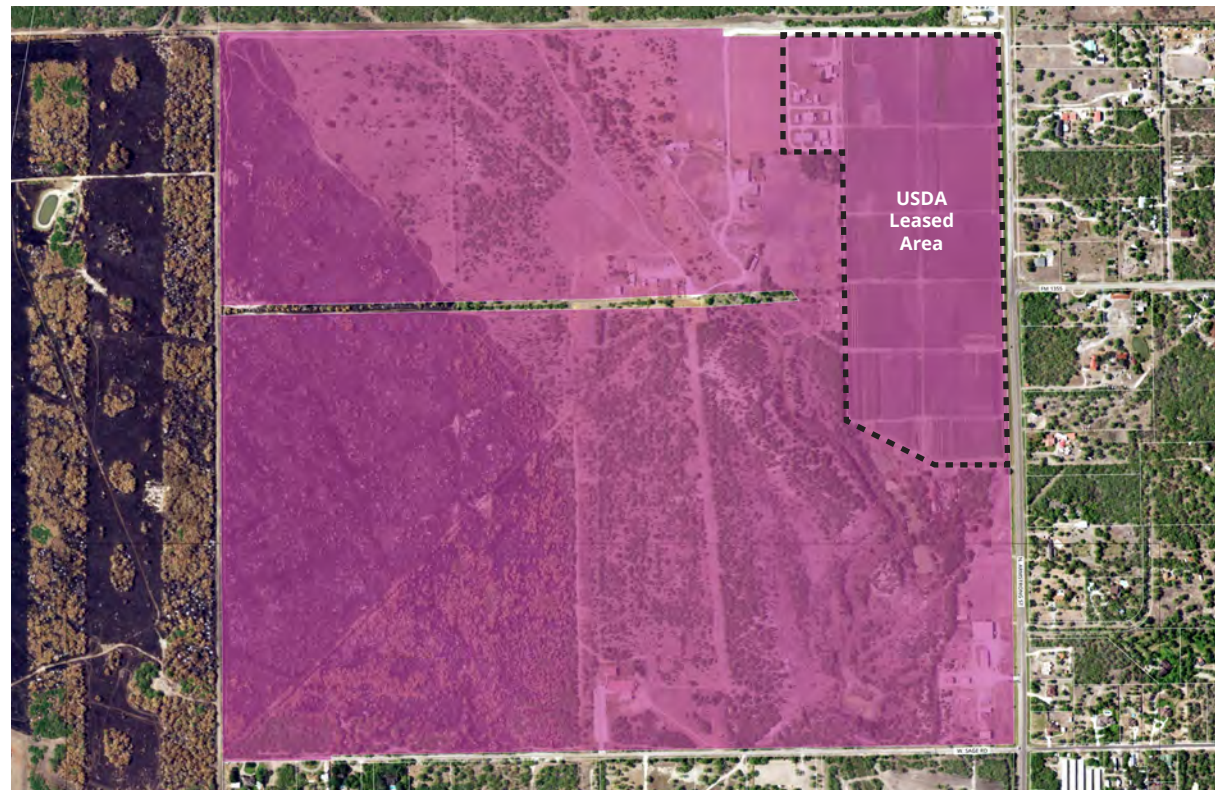
*A.E. Leonard Family Native Plant Garden*





The University Farm is approximately 488 acres, located north of Main Campus. It is composed of primarily native bush, irrigated and dry-land plots, horse and other animal facilities, a covered livestock pavilion, a rodeo arena, and the Veterinary Technology program. The majority of University Farm is primarily used for research and provides students with experience in animal and agricultural management.

Since 1981, the USDA has leased approximately 76 acres of the University Farm land for use by the Natural Resources Conservation Service (NRCS) in establishing the E. "Kika" de la Garza Plant Materials Center. Driven by the need for commercial plant materials adapted to the climate and soils of South Texas, the Center evaluates plants and vegetative technologies and supports USDA conservation programs and practices.

**Map 15. University Farm - Landholdings**



Scale: N.T.S.   
 Parcels Owned by TAMUK 



*Goat Facility*



*Veterinary Technology Center*



## Existing Layout

The Main Campus maintains an orthogonal grid layout with long axial views along key pedestrian corridors. University Boulevard and Engineering Avenue intersect at the location of College Hall and what is seemingly the geographic center of campus.

The older buildings on campus (those in the southeast corner of campus) are set back substantially from the street and include large lawn areas in front. Newer buildings are constructed closer to the street edge. Many buildings on campus are open to landscaped courtyards and most share a consistent architectural character. The campus is designed with a Mission Revival architectural style characterized by large flat stucco or masonry surfaces, arches, red clay tiled roofs and deep windows and door openings.

The western edge of Main Campus, beyond the intramural and recreation sports area, remains undeveloped.



*Engineering Complex*

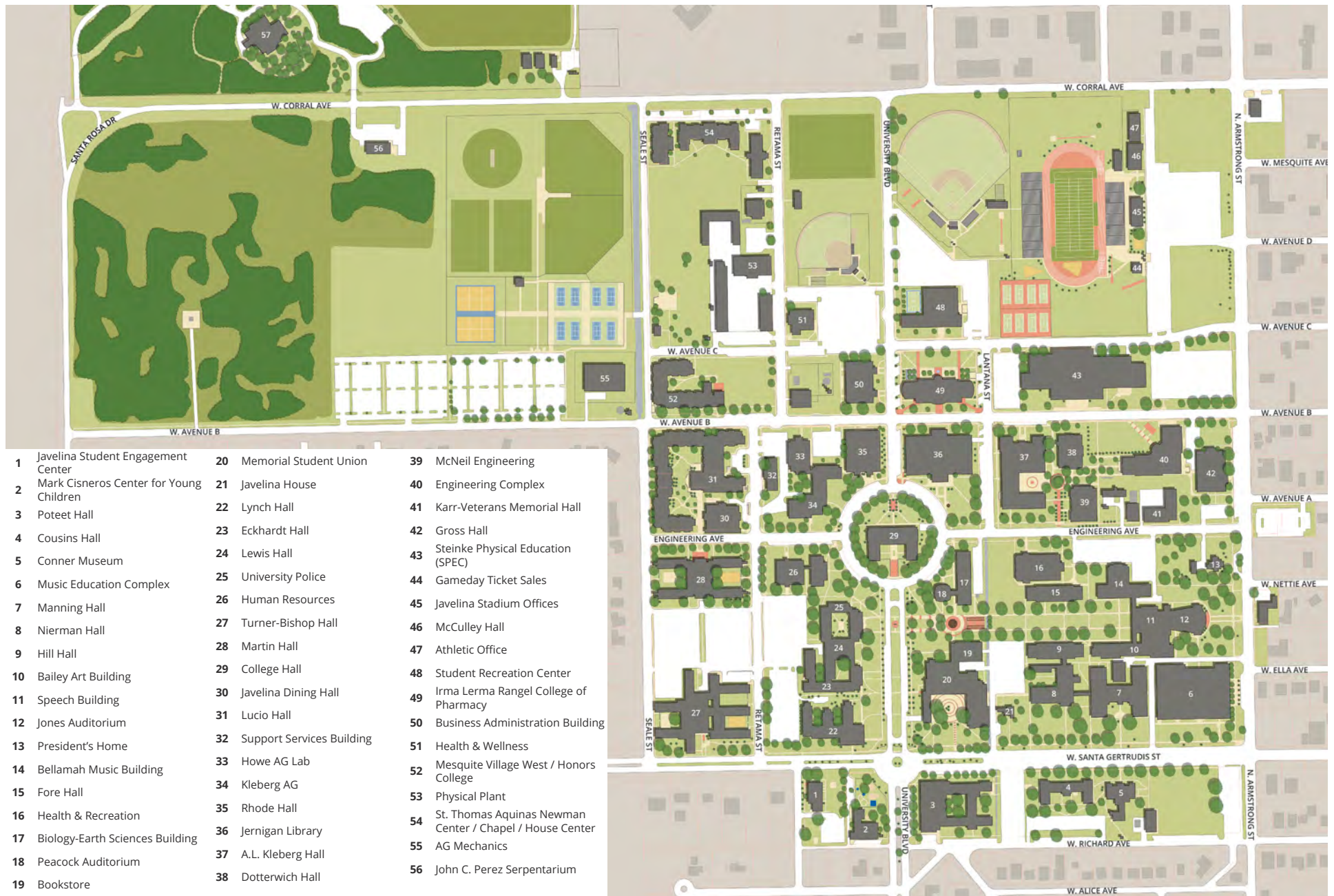


*Javelina Stadium*




*Central Plaza*





Map 16. Main Campus - Existing Layout

Scale: N.T.S. 

The CKWRI is comprised of several research facilities including the Albert and Margaret Alkek Ungulate Research Facility, Buddy Temple Wildlife Pathology and Diagnostic Laboratory, and the Duane Leach Research Aviary.

Located at the heart of CKWRI is the Caesar Kleberg Wildlife Center, which is an 11,200 square foot Mission-style building that supports workshops, presentations and conferences for both the general public and scientific communities. The A.E. Leonard Family Native Plant Garden is located behind the Wildlife Center and showcases over 300 species of native plants from habitats of South Texas.

The South Texas Natives Research Farm is a 12-acre facility on the east side of the property, accessed through the eastern driveway. Five acres of land are used for native plant research and the remaining space includes various seed processing areas, greenhouses, storage and barn facilities.

**Map 17.** Caesar Kleberg Wildlife Research Institute - Existing Layout



Scale: N.T.S. 



*Caesar Kleberg Wildlife Center*



*Duane Leach Research Aviary*


- |   |           |
|---|-----------|
| Caesar Kleberg Wildlife Center                          | <b>57</b> |
| Buddy Temple Wildlife Pathology & Diagnostic Laboratory | <b>58</b> |
| Albert and Margaret Alkek Ungulate Research Facility    | <b>59</b> |
| Duane Leach Research Aviary                             | <b>60</b> |
| South Texas Natives Research Farm                       | <b>61</b> |
| University Greenhouse                                   | <b>62</b> |



Several facilities are dispersed throughout the University Farm. On the south side of the Farm along W. Sage Road, the Veterinary Technology program is housed in a 10,000 square foot teaching facility. East of the Veterinary Technology facility at the northeast corner of Armstrong Street and Sage Road are the Rodeo Facility and Livestock Pavilion. On the north side of the Farm are additional livestock facilities and the USDA Plant Material Center.

**Map 18.** University Farm - Existing Layout



Scale: N.T.S. 

- Veterinary Technology Center **63**
- Rodeo Facility & Livestock Pavilion **64**
- University Livestock Facility **65**



*Rodeo Facility & Livestock Pavilion*



*University Livestock Facility*

## Campus & Surrounding Land Uses

Main Campus is predominately surrounded by residential neighborhoods and commercial spaces. To the west and north of campus, large amounts of farm and agricultural space are present due to its proximity to King Ranch. A local high school and the John E. Conner Museum (located in TAMUK buildings) are located on the south side of W. Santa Gertrudis Street.



*Santa Gertrudis Academy High School*



*Residential Development North of Campus*



*Perimeter of King Ranch along Santa Rosa Drive*




Scale: N.T.S. 




The CKWRI is surrounded by predominately agricultural land, large residential lots and undeveloped land. King Ranch is to the west of the property, and the adjacent properties to the north include very large residential lots with the rear of the properties (the part abutting CKWRI) remaining undeveloped. There is an American Electric Power (AEP) substation directly east of the property.

**Map 20.** Caesar Kleberg Wildlife Research Institute - Land Uses



Scale: N.T.S. 

Academic 

Agricultural 

Residential 

Undeveloped 

Utility 



*University Greenhouse*



*CKWRI Main Entrance along Corral Ave*



While the University Farm area is comprised of primarily agricultural land with a few buildings spread throughout the area, it is mapped as academic due to its academic and research functions. King Ranch surrounds the Farm on the west and north sides, making the area predominately agricultural. There are a few residential properties and industrial spaces, including a septic system service, located east of the Farm.

The site's somewhat remote location and the presence of parallel transmission lines running north-south through the middle of the property contribute to its potential to include a future area for energy generation.

**Map 21. University Farm - Land Uses**



*Livestock Facilities*



*Rodeo Facility*

## Building Functionality

Main Campus includes academic, administrative, research and residential facilities. Several buildings near the center of campus including Kleberg AG, Kleberg Hall and the Memorial Student Union Building provide multiple purposes.

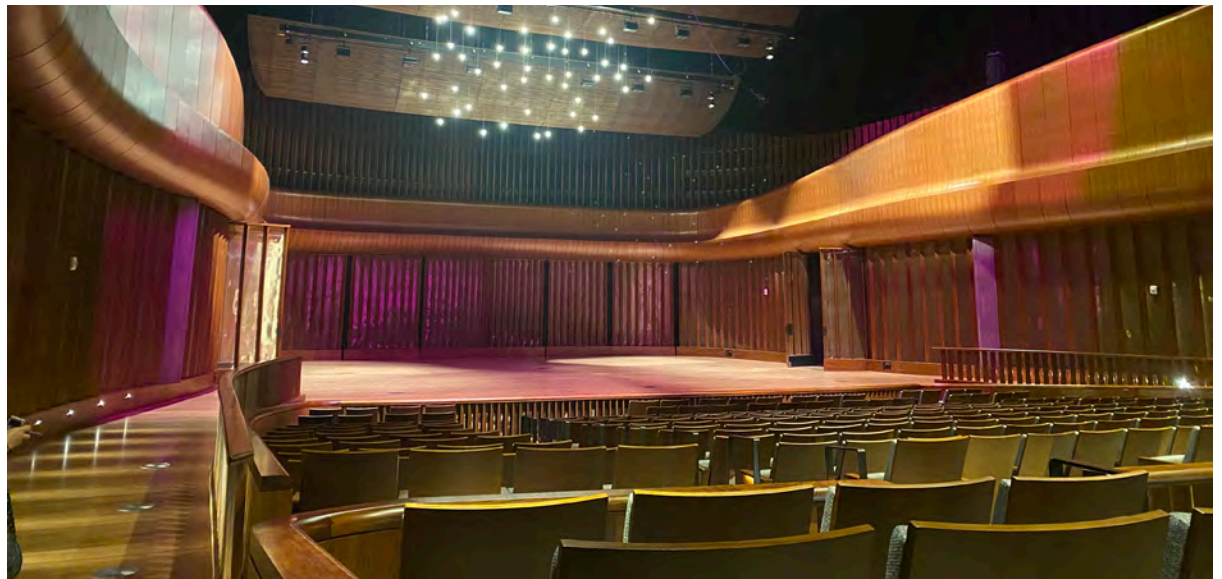
Most of the academic and administrative buildings are located at or near the center of campus. Student residences are primarily on the west side of the campus along Seale Street, while the north side of campus is comprised mostly of athletic and recreation facilities.



*Javelina Dining Hall*



*Jernigan Library*



*Music Education Complex*





Map 22. Main Campus - Building Functionality



Scale: N.T.S.

The CKWRI includes primarily research facilities, with the exception of the Caesar Kleberg Wildlife Center. The Wildlife Center is open to the public during events for use of its auditorium, conference rooms and native plant garden.

**Map 23.** Caesar Kleberg Wildlife Research Institute - Building Functionality



Scale: N.T.S. 

Research   
General Public 



*Curtis and HP Pinnell Family Memorial Auditorium*

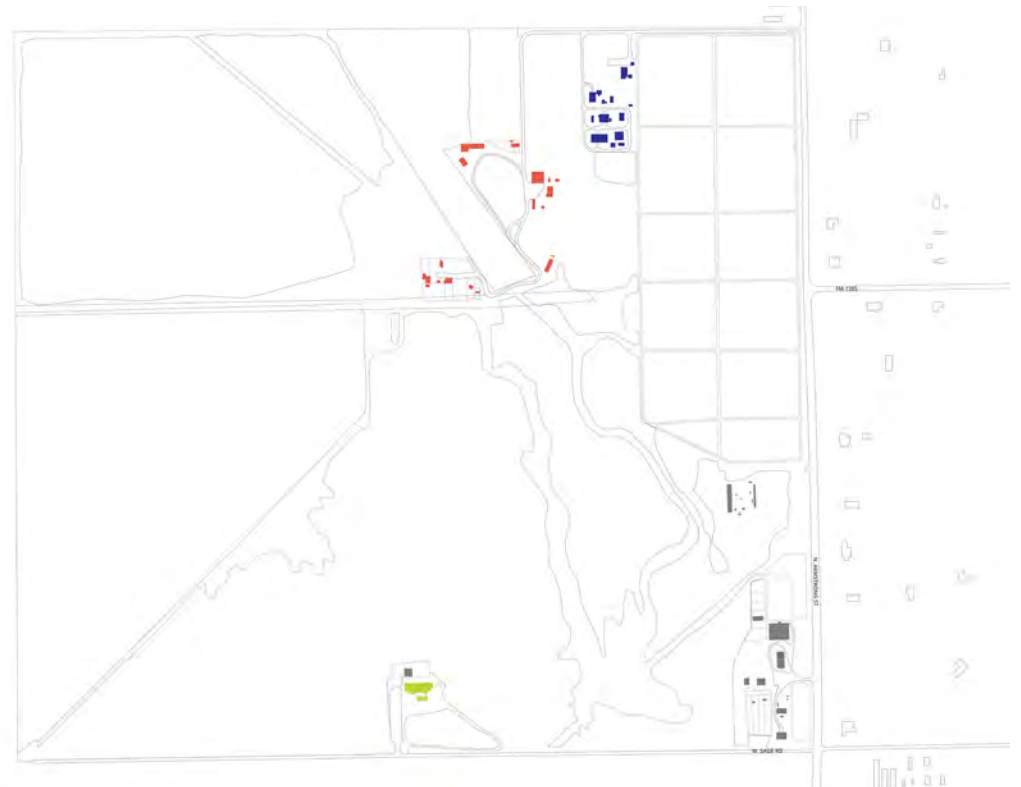


*Petra Vela Kenedy Conference Room*



All of the facilities throughout the University Farm provide either an academic, research or support function. The Veterinary Technology Facility is where all Veterinary Technology courses are taught. The additional animal facilities throughout the Farm provide spaces for practical training, and the USDA Plant Material Center develops research for several programs including rangeland restoration and coastal shoreline stabilization.

**Map 24.** University Farm - Building Functionality



Scale: N.T.S. 

Academic 

Research 

Support 

USDA Leased 



*Veterinary Technology Facility*



*Goat and Swine Facility*

## Vehicular Access & Circulation

N. Armstrong Street, W. Santa Gertrudis Street, Santa Rosa Drive, and W. Corral Avenue essentially form a loop of primary access streets around Main Campus.

University Boulevard and Seale Street provide north-south connections all the way through campus, while Engineering Avenue and W. Avenue B connect the east and west extents.

The circle around College Hall includes a very wide street with one-way circulation and angled head-in parking. This area can be challenging to navigate as a pedestrian.



*View north along N. Armstrong Street from W. Santa Gertrudis Street*



*View north along University Boulevard*



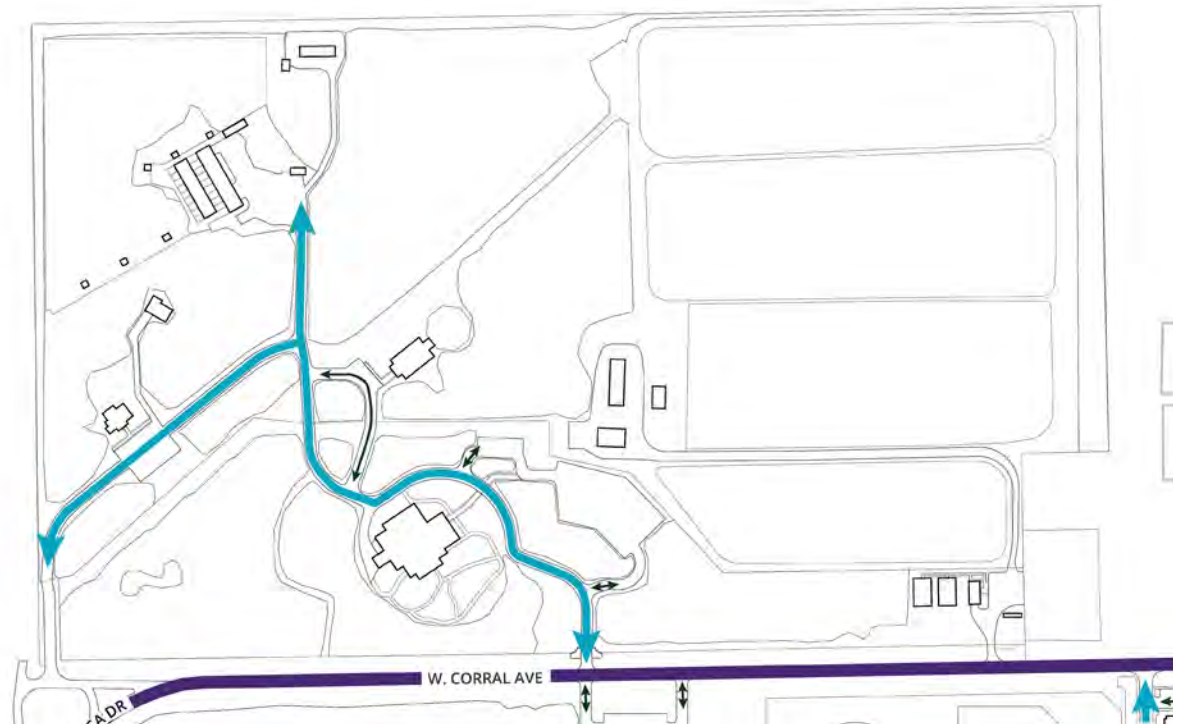
*W. Santa Gertrudis Street*





Primary access to the CKWRI is along W. Corral Avenue. A single drive provides access to all of the facilities on the site. Access to all research facilities except the Wildlife Center is restricted by locked gates and fencing that runs throughout the property.

**Map 26.** Caesar Kleberg Wildlife Research Institute - Vehicular Access & Circulation



Scale: N.T.S.

- Primary Vehicular Circulation ●
- Secondary Vehicular Circulation ●



*Gateway to CKWRI*



*Driveway to CKWRI Facilities*



The University Farm is accessed by three different entrances and none of the areas connect to each other on internal access roads. The entrance to the Veterinary Technology Center is located along W. Sage Road. The entrance to the Rodeo Facility and Livestock Pavilion is located along N. Armstrong Street, near the intersection with W. Sage Road. The remainder of the Farm's facilities are accessed via the northernmost entrance on N. Armstrong Street.

**Map 27.** University Farm - Vehicular Access & Circulation

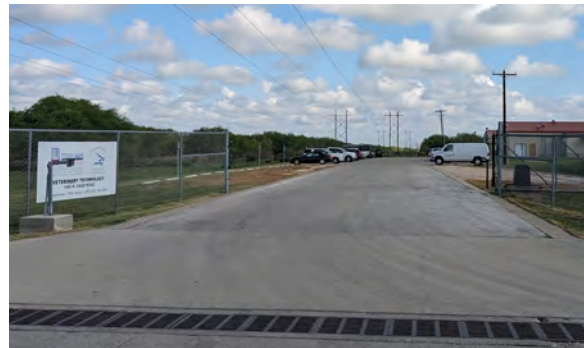


Scale: N.T.S.

Primary Vehicular Circulation   
Secondary Vehicular Circulation



*Northern Entrance on N. Armstrong Street*



*Veterinary Technology Entrance on W. Sage Road*

## Pedestrian Circulation

Pedestrian circulation is comprised of primary, secondary and tertiary circulation routes. The orthogonal layout of the campus provides ample primary and secondary routes to facilities with academic, administrative, residential and student uses.

Outside of the academic and administrative core, tertiary circulation routes provide connection to the furthest extents of campus including many of the athletic facilities on the north side and perimeter parking lots.

With the South Texas heat, providing shaded pedestrian routes is important. Some pedestrian corridors are shaded by mature trees while others aren't. It is important to continue increasing shade options along key pedestrian corridors.

Key outdoor pedestrian gathering areas are located in the Student Union Building courtyard, Central Plaza at the east end of the quad, north of College Hall, in front of the Engineering Complex and are associated with a variety of dorms.



*Shaded Sidewalks on W. Santa Gertrudis Street*

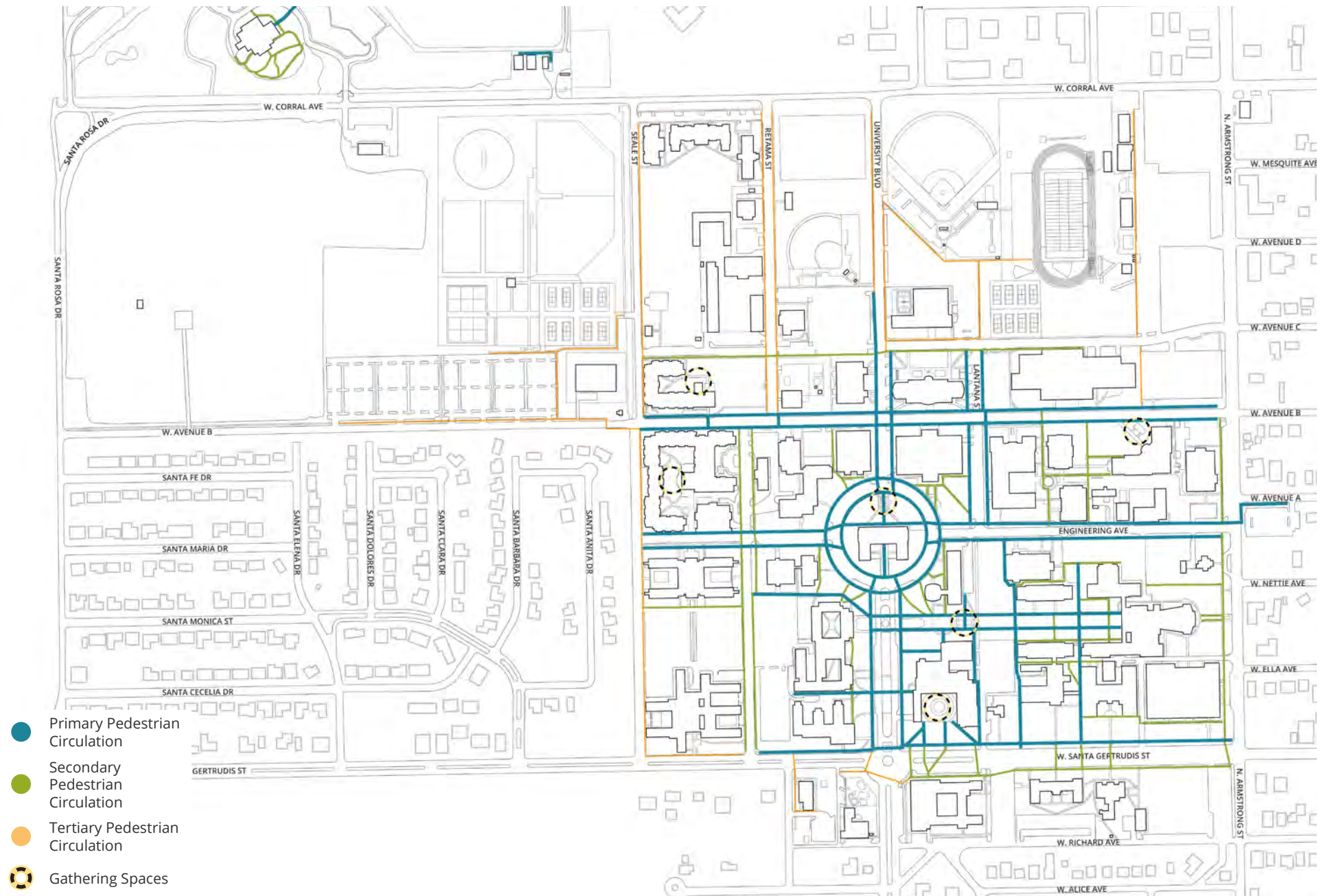


*Palm Trees along University Boulevard Sidewalks*



*Central Plaza*





Map 28. Main Campus - Pedestrian Circulation

Scale: N.T.S.

Pedestrian activity throughout CKWRI is minimal and unprogrammed with sidewalks. The majority of the facilities that comprise CKWRI maintain isolated operations and are used primarily by faculty and staff. The only facility with any significant pedestrian activity is the Cesar Kleberg Wildlife Center.

**Map 29.** Caesar Kleberg Wildlife Research Institute - Pedestrian Circulation



Scale: N.T.S.

Primary Pedestrian Circulation  
Secondary Pedestrian Circulation



*Caesar Kleberg Wildlife Center*




*University Greenhouse*



Similar to CKWRI, pedestrian activity throughout the University Farm is relatively freeform. Apart from the parking lot of the Veterinary Technology Center, there are no sidewalks or any formal pedestrian facilities. Given the operations and equipment typically found in the Rodeo and Livestock facilities, greater flexibility is gained without the presence of formal walks. The pedestrian circulation depicted in the map is only an approximation of the routes taken by users of each facility.

**Map 30.** University Farm - Pedestrian Circulation



Scale: N.T.S. 

Pedestrian Circulation 



*Sidewalk at Veterinary Technology Center*



*Informal Pedestrian Circulation Route along Road*

## Parking

Main Campus maintains an ample amount of parking. Generally, faculty, staff and student parking lots can be found in every quadrant of campus. The three largest parking lots, lot K, lot I and lot J, are located on the perimeter, while smaller lots generally surround the academic and administrative core. Most parking spaces have some type of permit restriction associated with them and this can make finding a parking spot a somewhat confusing challenge. The only dedicated visitor parking lot is located south of W. Santa Gertrudis Street. The lots near the intramural and recreation sports area are some of the largest “any permit” parking lots, but often remain only partially full since people don’t want to park that far from their destination.

The majority of campus is within a 1/4-mile radius of parking lots and other destinations. On average, a 1/4-mile walk equates to approximately five minutes for a typical user.



*Visitor Parking Lot*




*Parking by Jernigan Library*



*Parking along W. Santa Gertrudis Street*

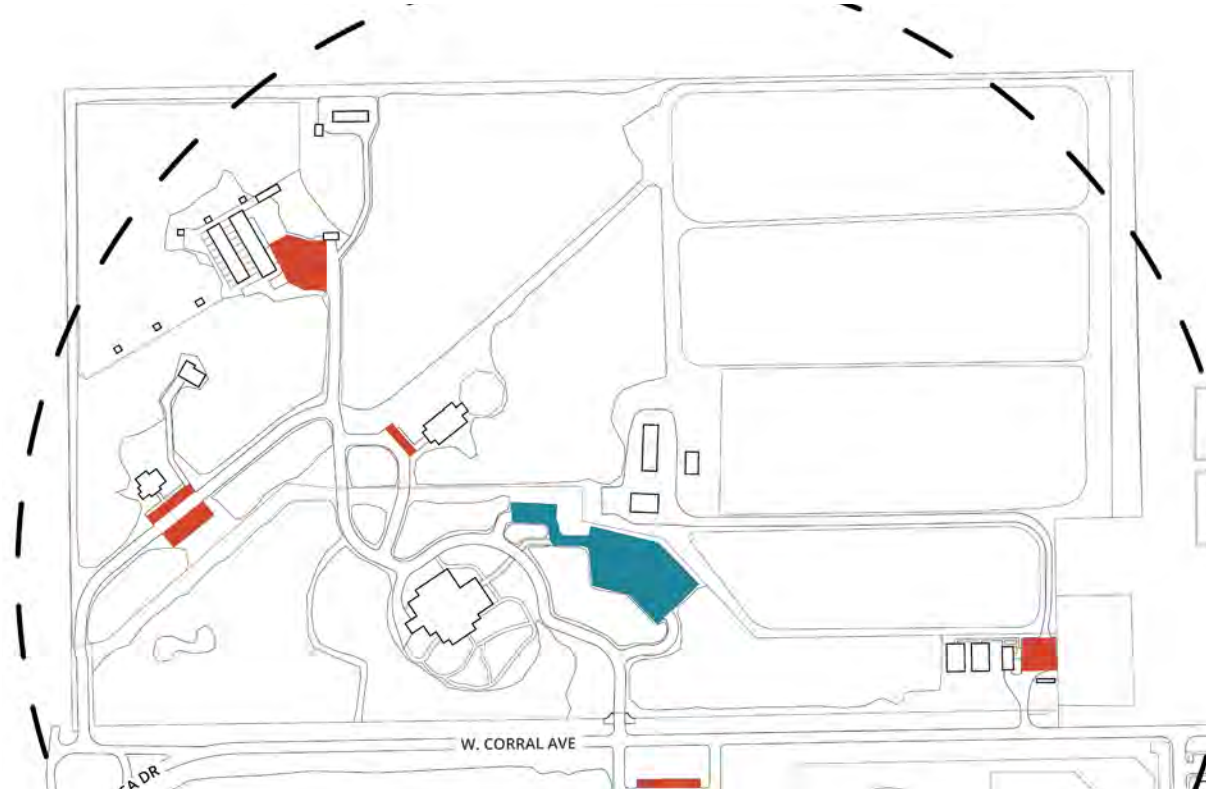


### Map 31. Main Campus - Parking

Scale: N.T.S. 

Most of the facilities that comprise CKWRI are utilized by faculty and staff. Cesar Kleberg Wildlife Center is the only facility that provides dedicated parking for visitors and other users.

**Map 32.** Caesar Kleberg Wildlife Research Institute - Parking



Scale: N.T.S.

Academic/Visitor  
Parking

Faculty/Staff  
Parking

1/4 Mile Radius/5  
Minute Walk Radius



*Caesar Kleberg Wildlife Center Parking Entrance*



*Parking at the Albert and Margaret Alkek Ungulate Research Facility*



The Veterinary Technology Center maintains the only paved parking lot in the University Farm. The parking areas shown on the map within the Rodeo and Livestock facilities are approximations of where users park their vehicles.

**Map 33. University Farm - Parking**



Scale: N.T.S.

Academic Parking



*Veterinary Technology Center Parking*



*Informal Parking near the Northern Livestock Facilities*

## Landscape & Open Space

The landscape at Main Campus is well-maintained and helps create a classic, collegiate atmosphere. Expansive open spaces near the center of campus are comprised of the quad and Central Plaza which spans from the Leader of the Pack statue at University Boulevard to the Speech Building. University Boulevard is another linear green space that runs from W. Santa Gertrudis Street to College Hall. In addition to being a primary vehicular and pedestrian route, this space is often closed to vehicular traffic and used to hold large University events.

Many of the buildings in the academic and administrative core are open to landscaped courtyards that incorporate mature trees, turf and shrub areas to soften the existing hard scape and architecture. The ample open space found throughout the campus contributes to the overall sense of place.

The undeveloped area at the west end of campus remains as the natural vegetation.



*Campus Quad Area*



*College Hall Plaza*



*University Boulevard*



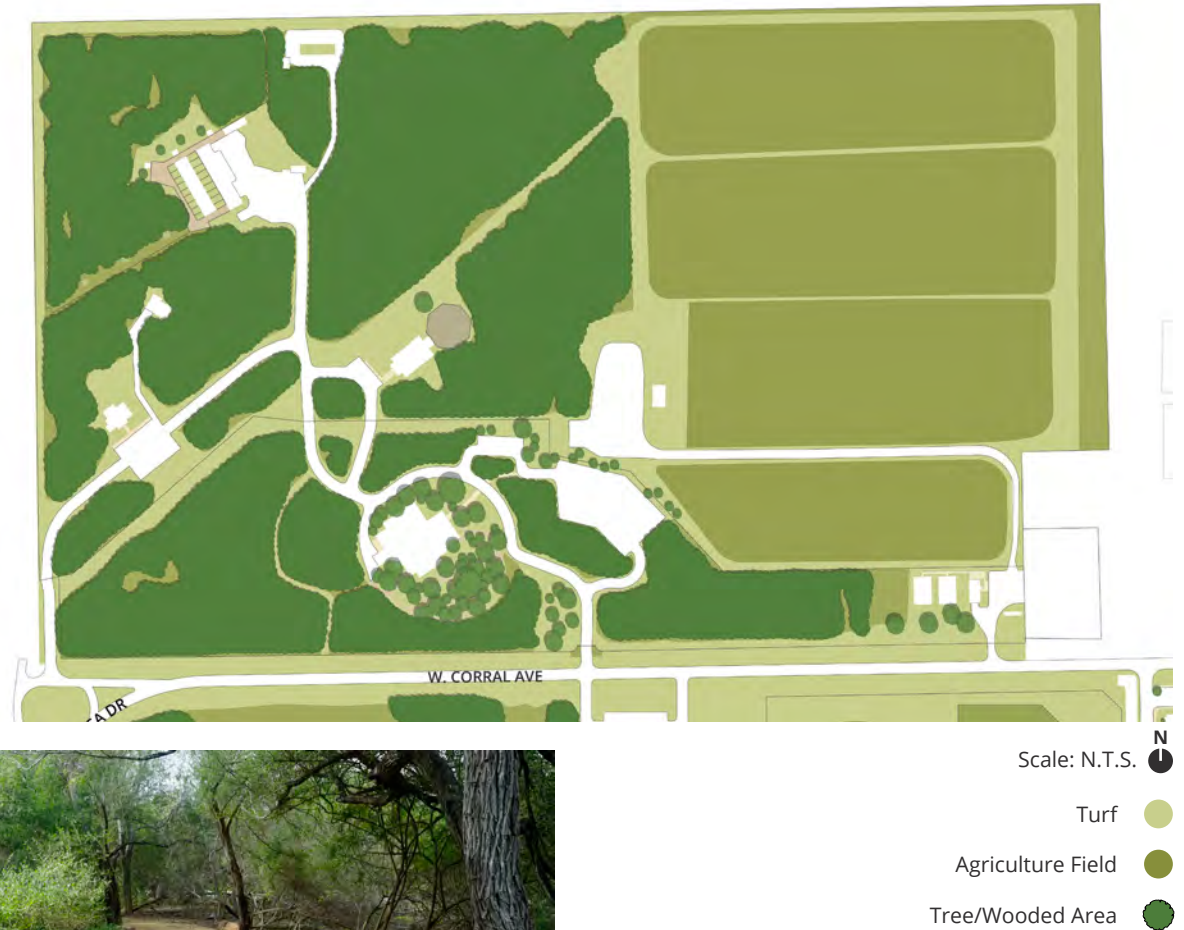


As a wildlife research institute, the majority of natural areas at CKWRI are utilized by the multiple facilities to aid in their research and instruction.

The Caesar Kleberg Wildlife Center contains the A.E. Leonard Family Native Plant Garden, which is a botanical garden used for educational and outreach activities.

The South Texas Natives Research Farm includes multiple acres of agricultural fields.

**Map 35.** Caesar Kleberg Wildlife Research Institute - Landscape & Open Space



*South Texas Natives Research Farm Field*



*A.E. Leonard Family Native Plant Garden*



The University Farm is a working laboratory with native bush and irrigated and dry-land plots maintained with the sole purpose of providing students the experience in managing livestock. Similar to CKWRI, all of the open space at the University Farm is utilized by different programs for research and instruction.

**Map 36.** University Farm - Landscape & Open Space



Scale: N.T.S.

Turf

Natural Area

Agriculture Field

Tree/Wooded Area



*Pasture for Wildlife Grazing*



*Landscape Surrounding Livestock Facility*

## Signage & Wayfinding

Most of the signage on campus is freestanding or mounted to the exterior of buildings. Directional signage can be found throughout campus. However, these are seen best by pedestrians or slow-moving traffic.

A large monument sign at University Boulevard and W. Santa Gertrudis Street signals a primary entrance into campus. Other entrances mostly provide boundary markers and directional signage. Campus maps can be found along University Boulevard and throughout the Central Plaza. However, they require an update to reflect the current campus layout and a consistent orientation (ideally north pointing up) on all maps.



*Campus Boundary Marker*



*Directional Signage*



*Campus Map along University Boulevard*







The entrance to CKWRI along W. Corral Avenue maintains a prominent gateway sign. Further inside the research park, directional signage and monument signs help visitors navigate to the Wildlife Center. The signs at CKWRI do not match the aesthetic of signage on Main Campus. However, as a privately funded research park, this is not as big of an issue.



*Monument Signage*



*Directional Signage*



*Gateway Signage*



Each facility within the University Farm, including the USDA-leased Plant Materials Center, provides signage at their respective entrances along W. Sage Road and N. Armstrong Street. The signs at University Farm do not match the aesthetic of signage on Main Campus.



*Veterinary Technology Center Entry Signage*



*University Farm and Plant Materials Center Entry Signage*



*Rodeo Facility and Livestock Pavilion Entry Signage*

## Utilities

See the Utility Master Plan in the Appendix for larger maps and more information.

### Electric

The CKWRI's electrical lines are owned and maintained by American Electric Power Texas Central. The main buildings on site are fed from underground electric lines that transition to overhead lines running partially along the southwestern boundary of the property. Another overhead line runs along the south boundary of the property beside W. Corral Avenue. There is an existing utility substation adjacent to the southeast corner of the property. The substation is planned to be relocated to the University Farm.

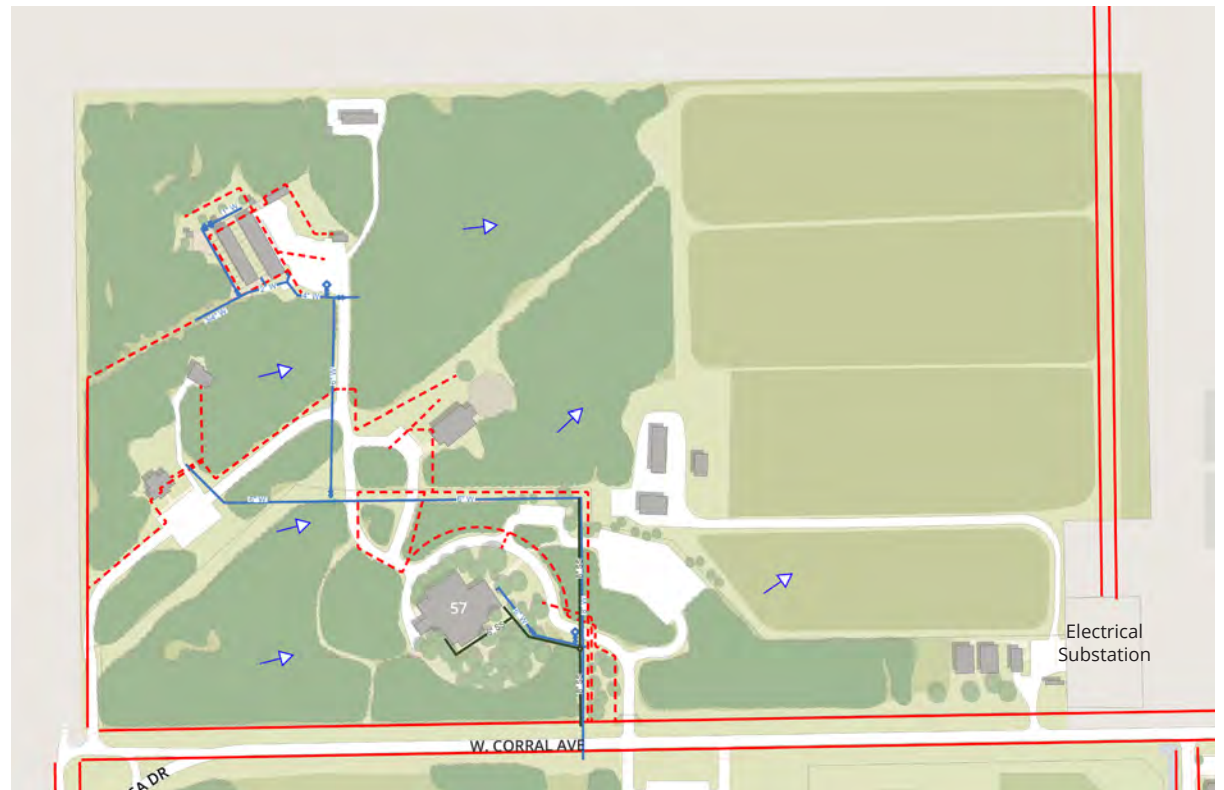
### Domestic Water

Facilities within the CKWRI campus currently receive domestic water service from an existing 8-inch water main running through the property, with branches extending to the various facilities. 6-inch lines provide both domestic and fire water service, and there are existing fire hydrants at the Wildlife Center and Ungulate Research Facility.

### Sanitary Sewer

Sanitary sewer service is currently provided to the Caesar Kleberg Wildlife Center via two 6-inch PVC service laterals connected to the building plumbing on the east and west sides. The two service lines join into one 6-inch lateral that connects to an 8-inch main on the east side of the Wildlife Center facility.

Map 37. Caesar Kleberg Wildlife Research Institute - Utilities



### Drainage and Storm Drain System

Stormwater runoff from the CKWRI generally flows northeast toward Tranquitas Creek. There is a roadside swale and driveway culverts on the north side of Corral Avenue that are used to convey stormwater runoff east. No existing storm drain infrastructure is shown in the available utility information.

- Scale: N.T.S. N
- Existing Overhead Electric Lines ———
  - Existing Underground Electric Lines - - - - -
  - Existing Water Line ———
  - Existing Sanitary Sewer Line ———
  - Existing Gas Line ———
  - Drainage Flow ———>
  - Existing Fire Hydrant ○



## Electric

The overhead electrical lines at University Farm are owned and maintained by American Electric Power Texas Central. The main buildings on site are fed from overhead lines that run along W. Sage Road to the south and along N. Armstrong Street to the east. The existing utility substation adjacent to the CKWRI will be relocated to the Farm in an area near the Veterinary Technology facilities. There are two parallel transmission lines that run north-south through the middle of the property. Prior to construction, TAMUK will need to coordinate with American Electric Power Texas Central on the location of the transmission utility easement. There will be no construction, pavements and/or structures allowed within the constraints of the easement.

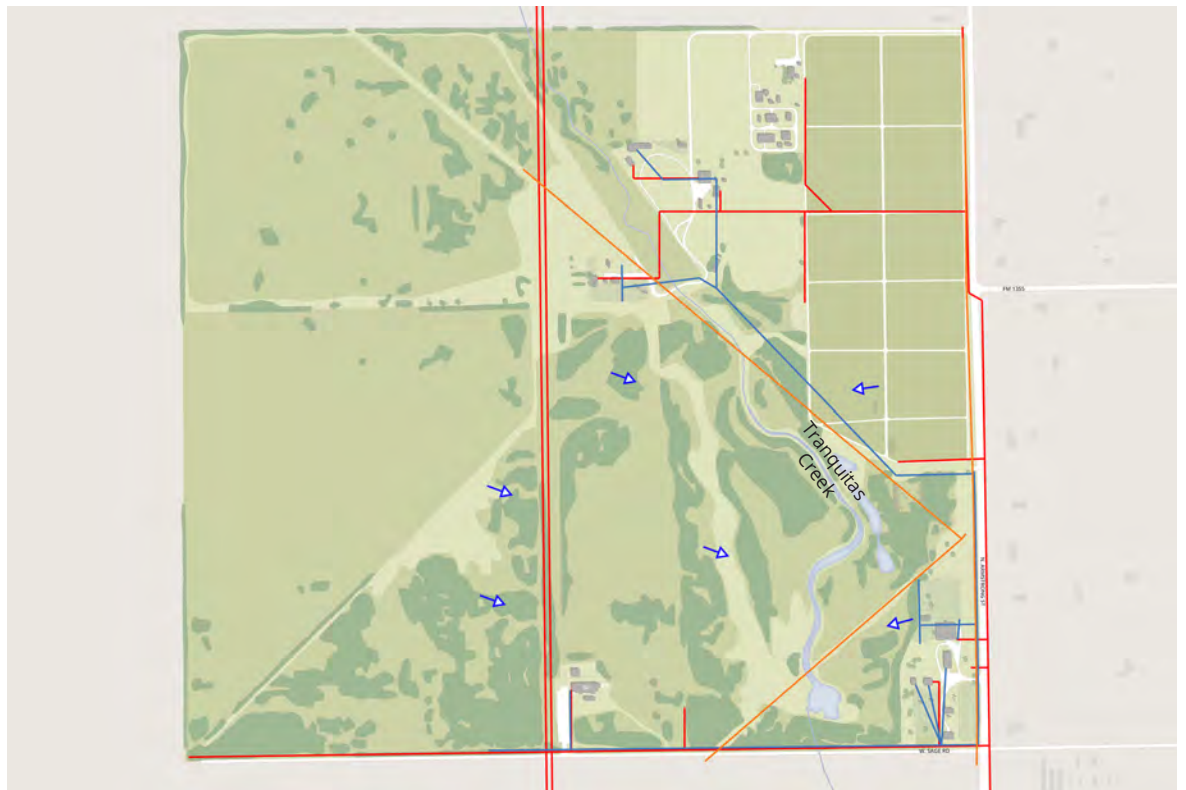
## Domestic Water

The buildings located at the University Farm currently receive domestic water service from an existing water main running east-west within the north right-of-way of W. Sage Road. Water service lines connect to the main along W. Sage Road and provide service to the Veterinary Technology building and the Rodeo Facility buildings and Livestock Pavilion at the corner of W. Sage Road and N. Armstrong Street.

## Sanitary Sewer

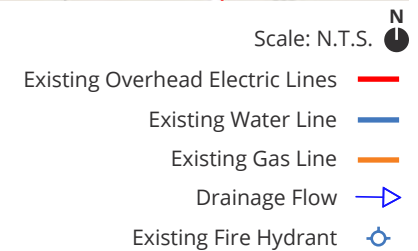
There are no known existing sanitary service laterals to the University Farm buildings or sanitary sewer mains along W. Sage Road and N. Armstrong Street. Properties in the surrounding areas utilize septic tanks and on-site septic systems.

Map 38. University Farm - Utilities



## Drainage and Storm Drain System

Stormwater runoff from University Farm generally flows toward Tranquitas Creek, which cuts through the eastern side of the site. The creek flows from north to south through the property. N. Armstrong Street, located just east of the property, utilizes a roadside swale and driveway culverts within the road right-of-way to convey stormwater runoff south. Runoff on the east side of the property naturally sheet flows to Tranquitas Creek or to the roadside swale. No existing storm drain infrastructure is shown within the site in the available utility information.



## Technology Assessment

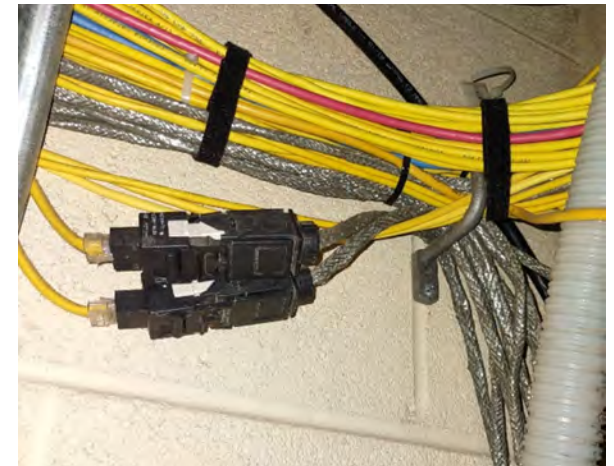
See the Technology Master Plan in the Appendix for more information.

As part of the overall Master Plan, NV5 Engineering and Technology (NV5) was engaged to review TAMUK's existing Audiovisual, IT and Electronic Security Systems campus-wide; provide recommendations; and provide an initial strategy to plan for current deficiencies and the future campus expansions that are contained within this Master Plan.

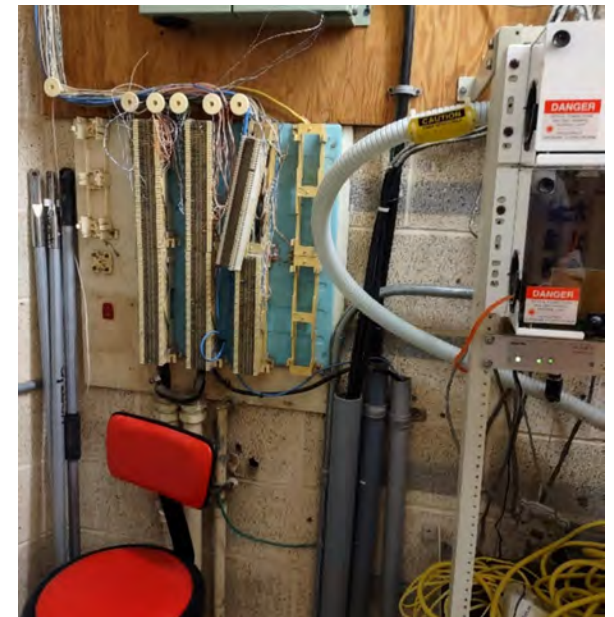
In April 2023, NV5 toured TAMUK facilities, met with staff, and reviewed existing conditions and documentation. After additional conversations with TAMUK staff, and analysis of findings and the data provided to NV5 by TAMUK IT staff, the following are the top items that TAMUK should make every effort to prioritize:

- **Infrastructure Refresh.** During the last several years, the pace of infrastructure refresh has slowed, leaving the campus behind current standards for similar-sized campuses with similar programs. Broadly, this results in decreased productivity of the institution. In some cases, this leaves certain University departments and staff operating equipment and software that is no longer supported by the manufacturer. Not only does this leave the University with equipment that cannot easily be repaired or replaced, but it also leaves the
- **Develop and Implement Policies and Procedures.** Having well-documented policies and procedures based on industry best practices is essential to maintaining a high-quality IT infrastructure. It clearly defines responsibilities and expectations for staff. It allows for more fair and uniform experience for users, and it makes clear to senior administration and trustees both the commitment of the IT staff to provide excellent service as well as the effort required to maintain that level of service.
- **Expand Network Reach.** As the campus expands, network requirements must be part of the planning process. Higher bandwidth and resilient and affordable connections will be required for the Citrus Center and Baffin Bay campuses. The ability to use and grow these centers relies heavily on connectivity so it must be "baked in" to the development of these sites. Closer to the Main Campus, extending the campus network to the University Farm, CKWRI and other areas

University vulnerable to cyberattack as software is no longer being patched. *Note: As of late 2023, Wi-Fi upgrades and a network bandwidth expansion had begun and funding requests for software upgrades as related to campus-wide productivity software had been made. Additionally, Main Campus fiber upgrades and telephony projects were also in process.*



Type 1 cables (circa 1990) still in use



IT infrastructure in shared use space

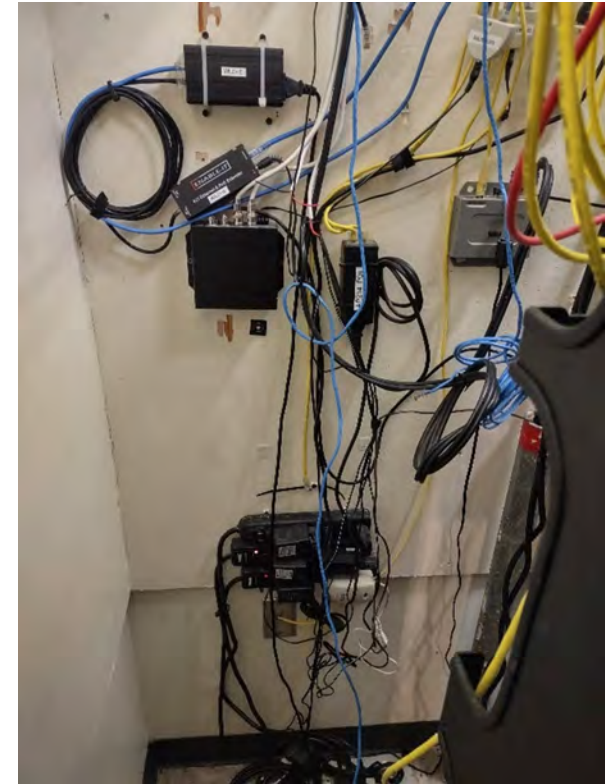


will be necessary for these programs to reach their full potential.

- **Leverage External Organizations to Enhance Wide-Area Network.** Maintaining wide-area networks for high bandwidth, low latency, and secure connections is challenging and expensive. The U.S. government is currently investing heavily to expand broadband access. Funding is channeled through many agencies including NTIA, NSF, DOE and USDA. TAMUK can take advantage of this work directly or indirectly by leasing or purchasing dark fiber. Another option is to work through the Lonestar Research and Education Network (LEARN). This has the advantage of providing TAMUK excellent service at a reasonable price without the headache of managing a wide-area network.
- **Improve Handling of Intellectual Property.** A number of instances were observed where research data and intellectual property (IP) resides on local workstations and servers. TAMUK should work with faculty to provide better, more flexible and more resilient storage of this data. This better protects the institution's investment but also sets the stage for the more stringent data stewardship requirements expected of an R1 research institution.



*Inadequate IT infrastructure in a shared space*



*IT infrastructure requiring additional attention*

## Athletics & Recreation Analysis

*See the Athletic and Recreation Master Plan in the Appendix for more information.*

The Athletic and Recreation programs are located in the north half of the campus. The area is north of W. Avenue C, extending from N. Armstrong Street to west of Seale Street. The location provides a collective home for the Javelinas to practice, compete and play. This co-located arrangement facilitates efficiencies in parking, facilities maintenance, spectator amenities, and contributes to the overall festive atmosphere associated with sporting activities and game day events. It can also cause congestion, overcrowding and safety concerns. The logistics, space and operations needed to host a weekend worth of events on campus, from volleyball, to football, to potential soccer, can utilize every advantage of convenience and up-to-date resources.

Athletics and recreation play a crucial role in the modern student's life, and the well-worn facilities on campus can use strategic renovations and upgrades to attract prospective students and maintain enrollment. Students bring with them athletic/recreation facility experiences from their respective cities/towns/schools/clubs and are looking for campus facilities in which they can engage or socialize or energize. It is not feasible or desirable to attempt to keep up with the inevitable 'arms race' on campuses

across the country – it is more important to focus resources where they can be mutually beneficial to students and assets to TAMUK.

As an evaluation tool to comparatively analyze the needs for TAMUK, the square footage of the recreation and athletic components were reviewed based on national standards and historical square footage benchmarks. For planning purposes, the recreation and athletic square footage have been separated to afford analysis of the spaces. It is understood that in reality, Javelina recreation and athletics plus other campus users co-exist within the same areas and utilize the same spaces maximizing resources and building TAMUK culture across the student population. To surmise the space needs, where there are overlaps of space, the departments and their respective percentage of usage has been portioned by department. All efforts have been made to evaluate the data with congruent analysis and projections.

### Recreation

Recreation is primarily housed in the Student Recreation Center (STRC), the G. E. Steinke Physical Education Center (SPEC) and the Rec Sports Outdoor Complex. Within those facilities, recreation has 59,700 net assignable square feet (NSF) to use and program. The STRC is a modern facility completed in 2010 that houses recreation operations and the primary recreation and fitness functions. The SPEC was constructed in 1970 and last renovated in 1995. The facility houses the indoor swimming pool and bowling alley, as

well as the gymnasium, which can host large scale events. The Outdoor Complex is a 17-acre sport complex comprised of multiple grass fields, softball fields, tennis courts, sand volleyball courts and a cricket pitch.

The basis of need for Recreation has been projected using NIRSA (formerly, the National Intramurals & Recreation Sports Association) and historical square footage benchmarks. This collective benchmarking of standards shows a needed growth of 23,300 NSF for recreation's built environment. This growth would provide space for activity needs that are not currently offered on campus. Those activities include a primary increase in formal scheduled recreation functions like space for group exercise and studios. Potential offerings could be spin/cycle, dance, martial arts or yoga. A secondary need was also shown in informal open recreation space like functional fitness space, power lifting and a multi-activity court (MAC). Additional needs included recreation support space like storage, which is vital for each user of the recreation space to ensure optimal functionality, or social space for passive recreation critical for student decompression zones and inclusive activities.





*G.E. Steinke Physical Education Building (SPEC)*



*Outdoor Complex*



*Student Recreation Center (STRC)*

## Athletics

Athletics is housed in multiple buildings across the north zone of campus. Those buildings comprise of 107,500 NSF for indoor athletics space. Along with the indoor space, outdoor space totals approximately 27 acres.

Indoor space includes:

- Javelina Stadium
- Javelina Stadium Press Box
- Javelina Stadium West Restrooms
- Javelina Stadium East Restrooms
- McCulley Hall

- J.H. Clement Rehab Center
- J.H. Clement Weight Center
- Athletics Offices
- Javelina Gift Shop
- Intramural Support
- Nolan Ryan Field Pressbox (Baseball)
- Baseball Ticketing
- Vernie and Blanche Hubert Field Pressbox (Softball)
- Softball Ticketing
- G. E. Steinke Physical Education Building (SPEC)

Outdoor space includes:

- Competition venues and practice space at Nolan Ryan Field
- Vernie and Blanche Hubert Field
- Pepsi Field at Javelina Stadium
- Javelina Intramural Facility

The basis of need for Athletics has been projected using the historical data for athletic needs and benchmarked with a comparison of similar sized DII programs. Efforts have been made to ensure equivalent departments are used to benchmark the existing conditions and needs. Square footages will differ widely



*Javelina Stadium*



*McCulley Hall*



across athletics departments and contain variables that will not provide “statistical” peers. For example, two schools may have the same enrollment, but if one school has a very high percentage of student-athletes, competes within a different division of NCAA athletics or has more indoor sports, those variables can greatly skew the data one way or the other and will be compounded by the recreation data variables noted previously. The benchmarking for TAMUK has been reviewed focusing on the Lone Star Conference plus some selected peers like Central Washington and Northern State.

The overall need for Athletics includes 31,000 NSF plus modernization of facilities. The square footage needs include dedicated student-athlete locker rooms as a place to call home adjacent to their respective training areas. Some of the Javelina teams do not have locker room space currently. Additional weight room space is needed to support the usage rate of each team. Support spaces like training and equipment should be increased to provide the operational needs for the departments. The facilities that need to be revitalized or replaced include a new softball operations building, new baseball operations building, new stadium facility as gateway for the department, replacement of

the Athletic Operations facility, an addition to the Intramural Facility, and relocation of the current space in the SPEC. The new facilities could be proposed as individual structures or a larger combined building.



*J.H. Clement Rehab Center*



*Nolan Ryan Field*

## Development Opportunities & Challenges

Based on the previous analysis and input received from stakeholders, students, faculty and staff, there are key opportunities and challenges to consider at the TAMUK Kingsville locations.

### Main Campus

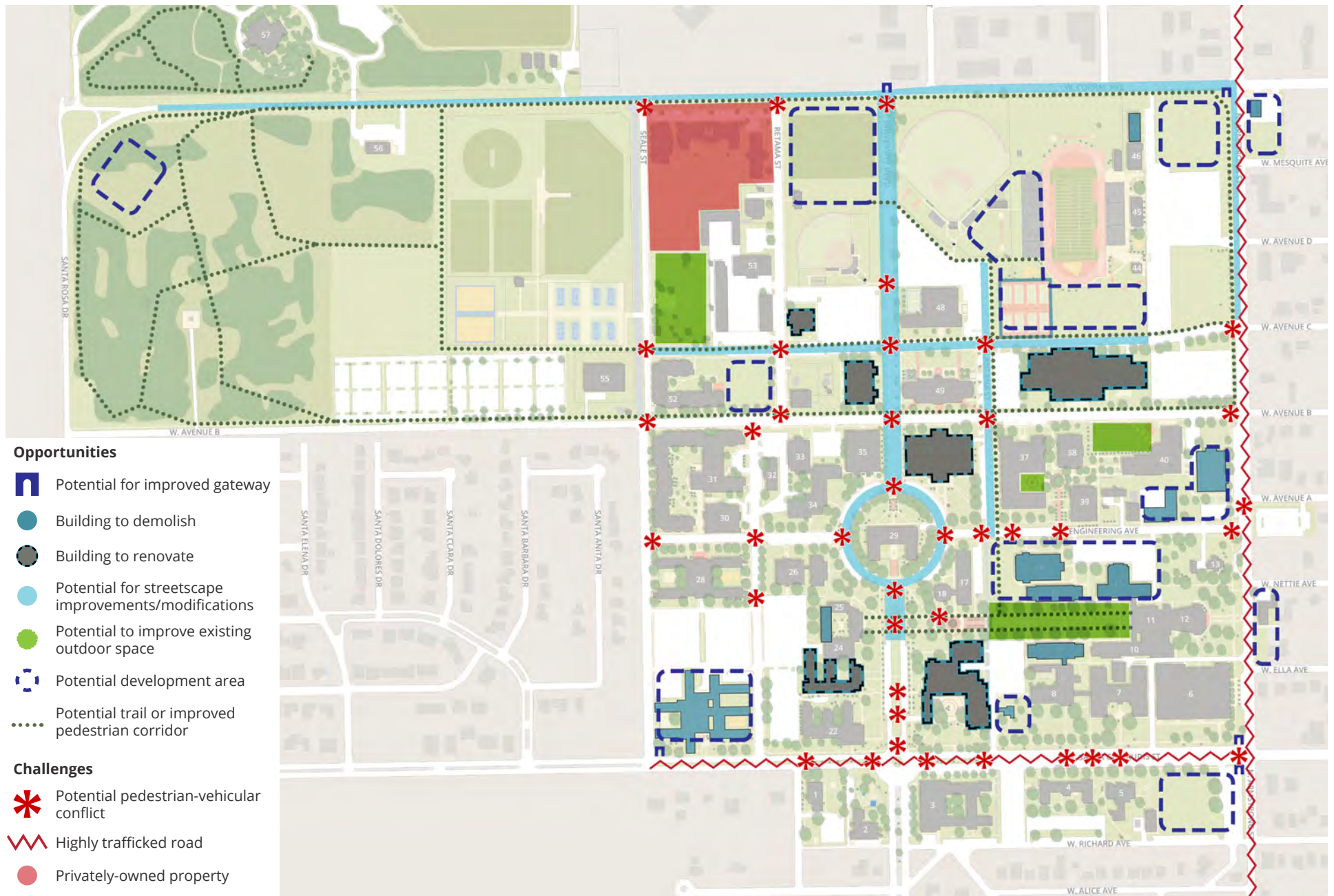
#### Key Opportunities

- A number of buildings are targeted for demolition or renovation. The locations of demolished buildings will create space for new development including academic facilities, open space and parking. Building renovations provide opportunities for improved student, faculty and administrative spaces. The buildings targeted for demolition include:
  - Hill Hall
  - Bellamah Music Building
  - Fore Hall
  - Health & Recreation
  - Javelina House (possible relocation)
  - Lewis Hall
  - Turner-Bishop Hall
  - Karr-Veterans Memorial Hall
  - Gross Hall
  - Athletic Office
- There are opportunities for improved pedestrian spaces in the quad, near Engineering Complex, A.L. Kleberg Hall and Mesquite Grove.
- Streetscape modifications and/or improvements along University Boulevard, W. Avenue C, Lantana Street and along the north and eastern frontage of the campus could better support pedestrian activity, improve pedestrian comfort and safety, and enhance the campus aesthetics.
- Additional trails and sidewalks could expand comfortable pedestrian access around the campus and create a recreation amenity.

#### Main Campus Key Challenges

- The St. Thomas Aquinas Newman Center Complex is located on privately owned land that is contiguous with the rest of campus. In its current state, TAMUK does not control improvements to the parcel, which to the everyday person, appears to be part of the campus.
- W. Santa Gertrudis Street and N. Armstrong Street are both highly trafficked roads. The speed and frequency of traffic can create potential safety issues for pedestrians as well as vehicles parked along these routes.
- There are many areas on campus where pedestrians need to cross roads. Each of these has potential to be a pedestrian-vehicular safety challenge. Signalized and/or enhanced paving crosswalks can help to alert drivers to the potential of pedestrians in the area.
- Certain buildings are in need of significant updates to operate safely.





Map 39. Main Campus - Opportunities & Challenges

Scale: N.T.S.

## CKWRI

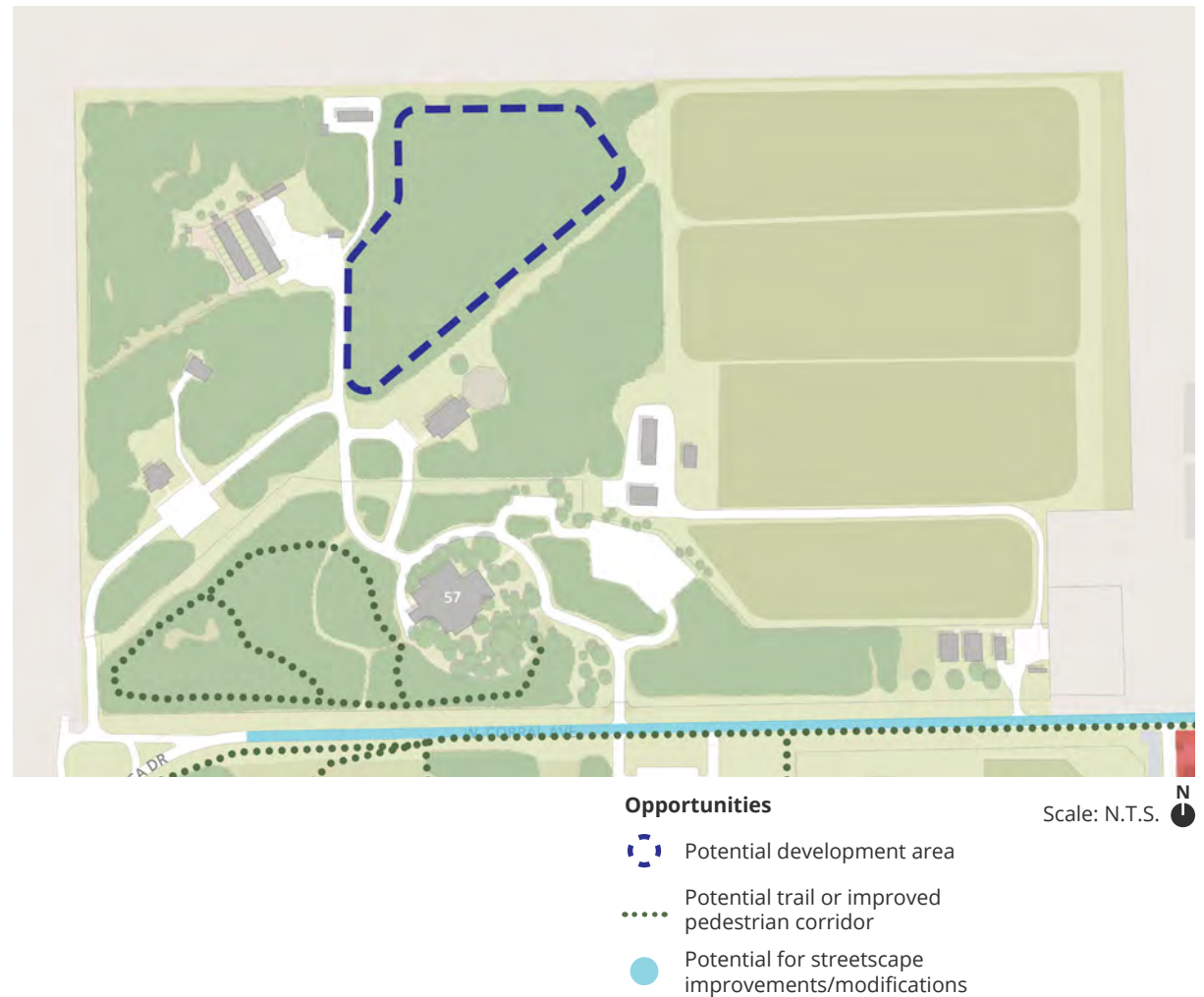
### Key Opportunities

- Private funding has been instrumental in keeping the Wildlife Research Institute in position to meet its ongoing facility needs. The Ocelot Conservation Facility is an existing recommendation that provides an opportunity for ocelot captive breeding and re-wilding.
- Expanding the trail network in CKWRI could increase options for passive recreation and potentially integrate with trails on Main Campus.
- Streetscape improvements along W. Corral Avenue have potential to better visually link the CKWRI to the rest of Main Campus.

### Key Challenges

There are no key challenges noted at this property.

**Map 40.** Caesar Kleberg Wildlife Research Institute - Opportunities & Challenges






## Key Opportunities

- ## Key Challenges

- ### Map 41. University Farm - Opportunities & Challenges



- ## Challenges

- Scale: N.T.S. 

# SPACE UTILIZATION

## Summary of Findings

*Note: Additional room-by-room data for each building with scheduled instructional space is included in the Appendix of this document.*

Overall preliminary analysis indicates the Main Campus has an adequate amount of teaching space to accommodate the projected enrollment growth over the next 10 years to meet the instructional demands of the target 8,000 campus enrollment. The data also suggest the University has the capacity, in the short-term, to continue, without significant impact to daily operations, if a space were to be taken off-line to allow for upgrades to

technology and / or furniture, or to temporarily support relocated functions as part of any proposed building demolition(s) and construction recommended in the Master Plan.

In the Fall 2022 semester, both the classrooms and class labs were underutilized. This is purely a function of enrollment. At present, the University simply has more classroom inventory than is required to meet the current demand. Rather than perceive this as a negative, this should be viewed as an opportunity for the University to re-assess its inventory and make improvements or modifications to meet the expectations of both its current and potential future students.

Many of the existing classrooms and class labs are dated and in need of both aesthetic improvement and technology upgrades. In the instances where the data shows the class fill is low but average weekly hours at or above target, it suggests that a “right-sizing” of the campus classrooms may be necessary to better accommodate the optimal class section size at TAMUK. Consideration may also be given to removing significantly underutilized classrooms and class labs from the inventory and re-purposing the space for a higher and better function.

Several existing academic buildings are proposed for demolition as part of this Master

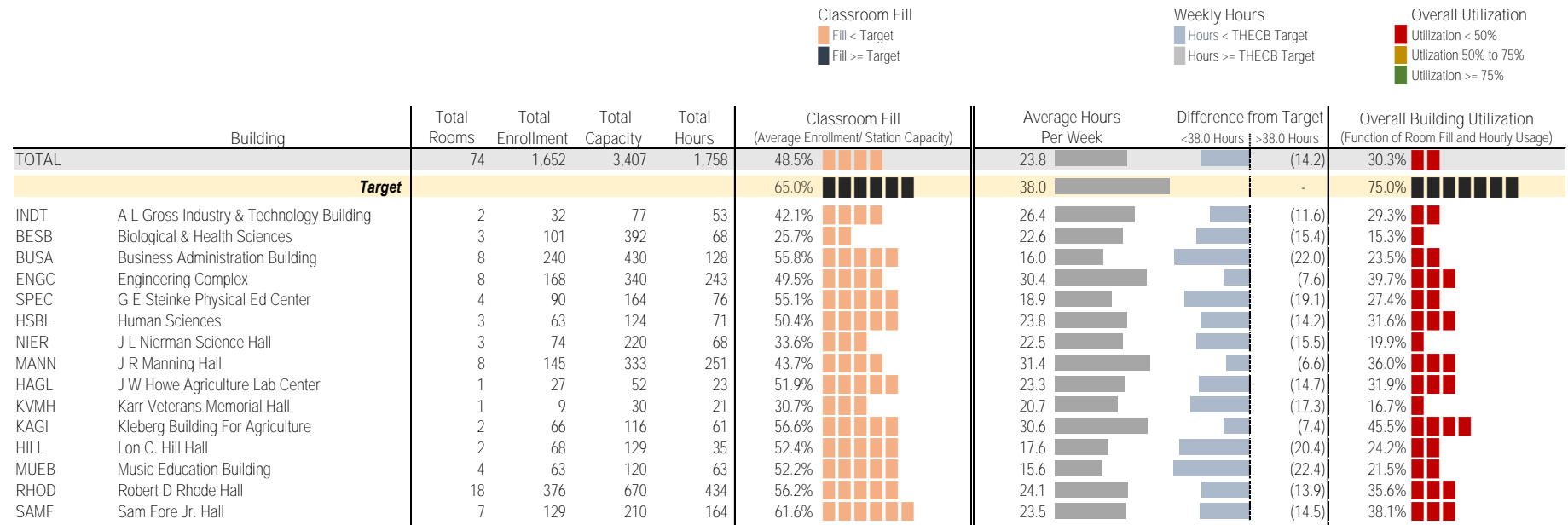


Figure 31. Main Campus Overall Classroom Building Utilization, Fall 2022



Plan. While the removal of these instructional spaces from the inventory will have an impact, it should not inhibit the University from continuing normal operations and supporting its student population. Proposed new buildings will provide the opportunity to build spaces which the campus currently lacks, expand into new programs and enhance existing with modern, state-of-the-art instructional spaces which will act as a recruitment tool and a catalyst to grow enrollment.

### Classroom Utilization

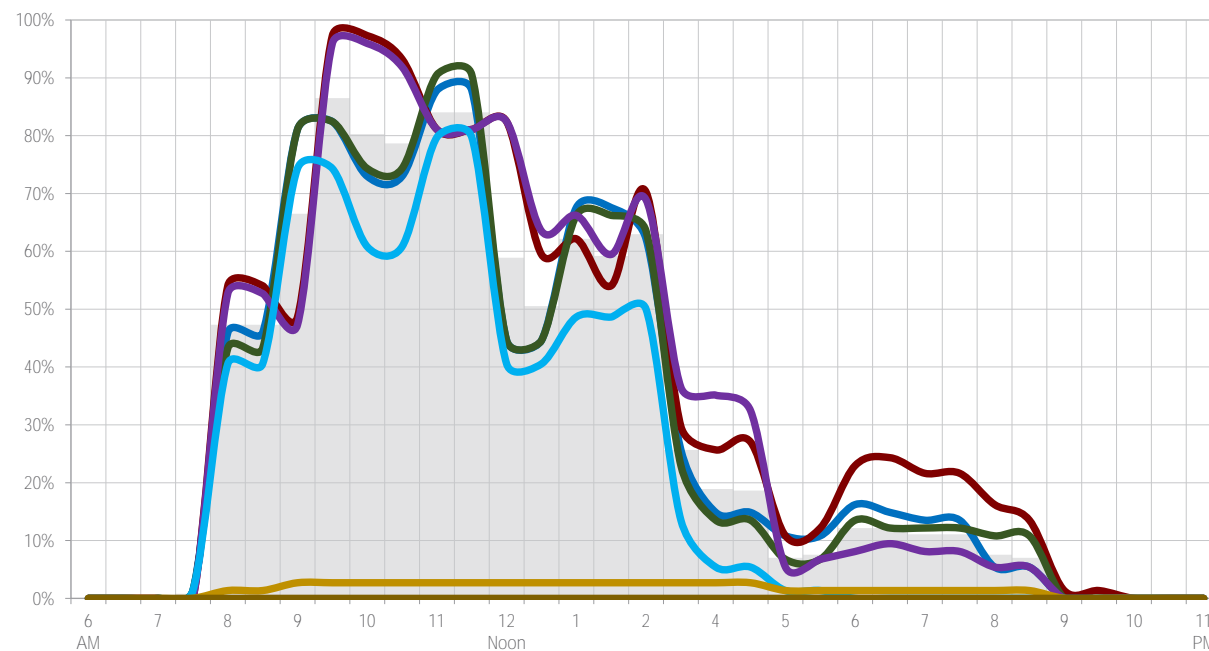
Overall classroom utilization by building on campus during the Fall 2022 semester

averaged 30.3%. Of the 74 available classrooms, the average weekly utilization was approximately 24 hours per week with an average fill rate of 48.5%. The THECB targets classroom utilization at 38 hours per week with a fill rate of 60%.

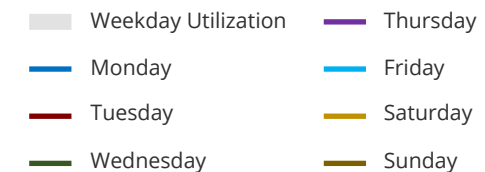
While the Kleberg Agriculture Building (KAGI) was the best overall utilized across campus at 45.5%, the building only contains two classrooms. Rhode Hall (RHOD) is the primary general classroom building on campus (18 classrooms) and averaged 35.6% utilization during the Fall 2022 semester. The least utilized building was the Biological and Health Sciences Building (BESB) at 15.3%. Because

the overall utilization is a ratio of classroom fill and average scheduled hours per week, it is possible for the classroom to be scheduled well, but the seats filled below minimum state target and vice versa.

Peak classroom demand during the Fall 2022 semester was Monday through Friday, primarily between the hours of 9:00 a.m. and noon, when average daily usage was between 50% to 85% of the available hours. Additional, though lesser, demand occurred between noon and 2:00 p.m. Classrooms were least utilized after 2:00 p.m. and into the evening throughout the week. Classrooms were scheduled on Saturday for approximately 20



**Figure 32.** Main Campus Classroom Utilization Daily Use by Time of Day, Fall 2022



hours of use. When this time-of-day chart is viewed in conjunction with the building utilization data, it suggests that although classrooms are generally in use at 50% or greater during the week and fill rates are nearing 50%, there is still capacity to accommodate additional enrollment growth within the existing classroom inventory and without investment simply by increasing the hours per week classrooms are scheduled (i.e., in the late afternoon and/or evenings during the week).

## Class Lab Utilization

The average overall class lab utilization by building on campus during the Fall 2022 semester was similar to classrooms, averaging 29%. Of the 39 available class labs, the average weekly utilization across campus was approximately 13 hours per week with an average fill rate of 57%. This is approximately one-half the target THECB metric for labs (25 hours) and one-quarter less than the fill rate (77%).

In contrast to overall classroom building use, several buildings which contain class labs appear to be better utilized. Drama/Art (DRMA, 81.2%) was the highest utilized, while Bailey Art (BAIL, 70.2%), Biological & Health Sciences (BESB, 59.5%) and the Farm Animal Facility (VETT, 51.9%) were moderately utilized. The Human Sciences (HSBL) was the least utilized class lab building on campus during the Fall 2022 semester (1.7%).

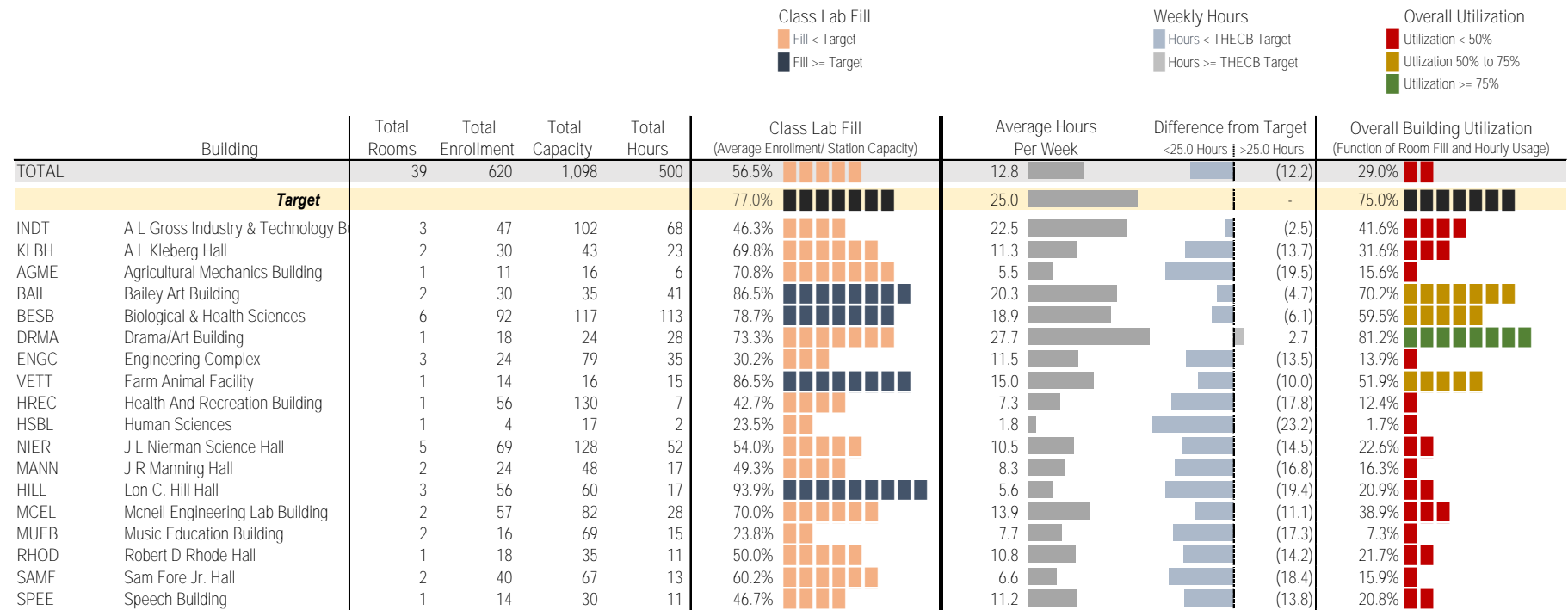


Figure 33. Main Campus Overall Class Lab Building Utilization, Fall 2022

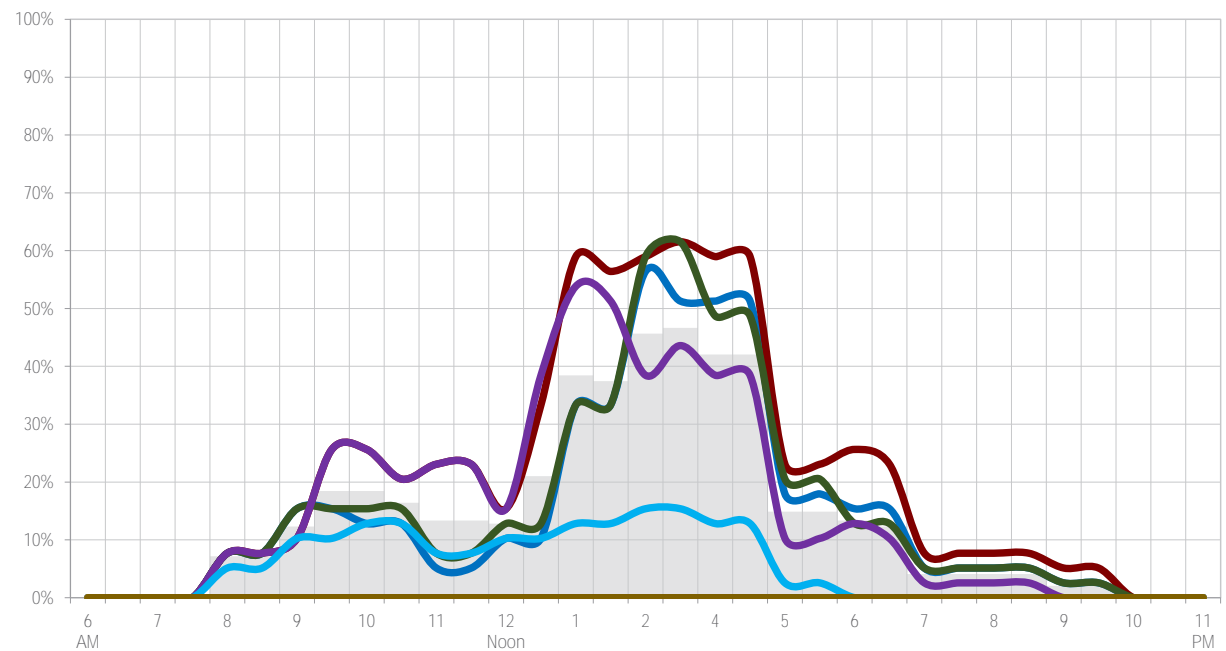
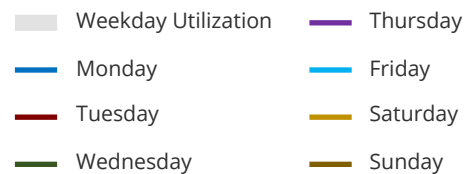


Peak class lab demand during the Fall 2022 semester was Monday through Thursday, primarily between the hours of 1:00 p.m. and 5:00 p.m., when average daily usage was between 45% to 50% of the available hours. Outside of these hours, class labs were less utilized, especially in the morning (between 9:00 a.m. and noon) and the evenings after 7:00 p.m. While labs were scheduled on Fridays throughout the day, the average utilization was minimal. No class labs were scheduled on the weekend.

Similar to classrooms, when this time-of-day chart is viewed in conjunction with the building utilization data, it suggests that there is capacity to accommodate additional enrollment growth within the existing class lab inventory and without investment simply by increasing the hours per week class labs are scheduled (i.e., in the mornings and/or evenings during the week, on Fridays and weekends).

Because the overall utilization is a ratio of class lab fill and average scheduled hours per week, it is possible for the class lab to be scheduled well, but the seats filled below minimum state target and vice versa. In addition, data does not reflect potential unscheduled lab use, such as instances where students may be utilizing the space for course-related work or study outside of their scheduled course instruction time.

**Figure 34. Main Campus Class Lab Utilization Daily Use by Time of Day, Fall 2022**



# RECOMMENDATIONS

The development of this Master Plan and recommendations for TAMUK's Main Campus, University Farm and CKWRI were based on a series of guiding principles that reflect TAMUK's vision for the future.

- **Enhance the overall experience for campus users.**
- **Foster the growth and advancement of research capabilities.**
- **Develop and improve outdoor spaces and environments.**
- **Establish a consistent TAMUK experience across all campuses.**
- **Promote expansion and growth through a variety of programs and facilities.**
- **Cultivate and leverage partnership opportunities.**

TAMUK is under new leadership, experiencing some growth, and new programs are giving direction and vision to the University. For the new vision to be implemented now and in the future, there will be a need for new and improved facilities. These facilities will provide an improved learning and social experience for students, promote premier programs and degrees, and provide additional opportunities to capture strong alumni ties and give back to the community.

Based on discussions with TAMUK leadership, enrollment projections and associated space needs, and the existing conditions of facilities, several new buildings or major renovations were identified as Master Plan priorities.

These include the following at the respective locations:

## Main Campus

- College of Agriculture Building
- Farm Mechanics Building
- Health Sciences Building
- Engineering/Sciences Building
- Student Union/Athletics Performance/Arena Building
- Welcome Center/One Stop Shop
- Career Center
- New Dormitory
- Various Athletics Improvements

## University Farm

- Animal Sciences Pavilion
- Farm Office, Bathrooms and Classroom
- Swine Farrowing Unit Facility
- Sheep and Goat Unit Facility
- Cattle Pens
- Poultry Building
- Feed Buildings
- Equine and Rodeo Facilities
- Vet Tech Expansion Building

## CKWRI

- Ocelot Conservation Facility



Figure 35. Main Campus Illustration







# Main Campus Master Plan

TAMUK's Main Campus recommendations are divided into three physical initiatives: buildings and facilities, transportation, and landscape. Together, these initiatives seek to build upon a sense of place and enhance the overall student experience, a key element in the University's slight enrollment increase.

The renovation of existing facilities like the Business Administration Building, Eckhardt Hall, various athletic buildings and the Library will address general building improvements, provide technological enhancements to classrooms and facilities, and repurpose space for alternate uses. Newly constructed buildings, including the Agriculture Building, Student Union/Athletics Performance/Arena and Engineering Sciences Building, will accommodate new programs and services as the campus continues to meet the growing needs of its students, faculty and staff.

The Athletics and Recreation Master Plan, which focuses on sports programming and recreational offerings, provides recommendations for upgraded facilities that will help attract student-athletes while also expanding the University's fan base. A new Student Union, combined with athletic performance space and a new arena, is the highlight of the Athletics and Recreation Master Plan, helping to change the northern portion of the Main Campus dramatically (see the Appendix for the full Athletic and Recreation Master Plan).

Improving pedestrian safety, access and comfort is essential to the student experience. Enhanced pedestrian facilities will be located at critical points throughout the campus to minimize potential conflict between pedestrians and automobiles. Vehicular access will be limited on W. Avenue C, improving pedestrian safety near the new Student Union and enhancing the game day experience during the football season. User comfort along key pedestrian corridors will be improved by adding shade trees. Additional campus parking will be provided in new and modified parking lots in areas with high parking needs.

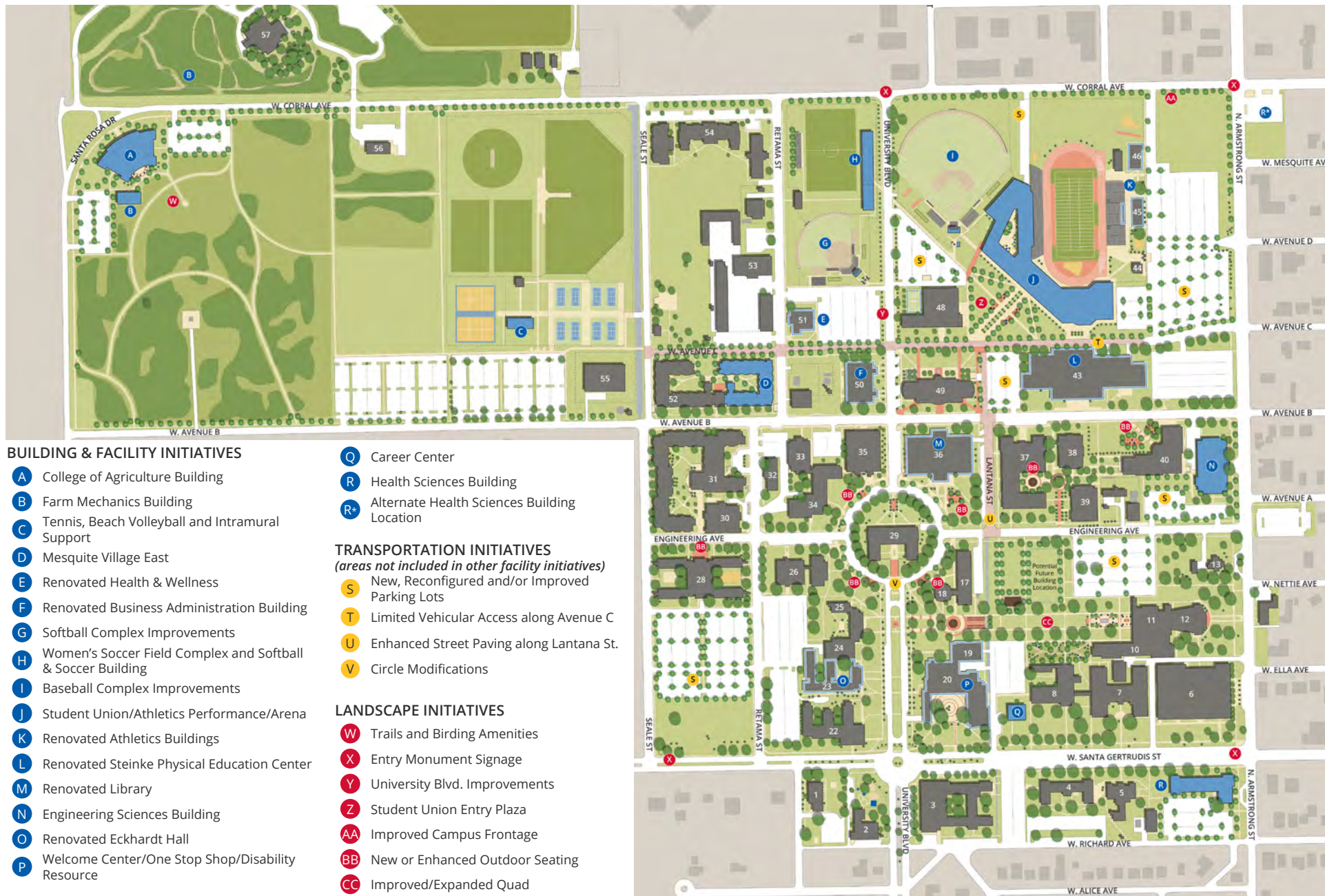
Landscape initiatives include new campus green spaces with shaded seating and gathering areas. New pedestrian trails and birding amenities are integrated into the campus landscape, not only for campus users but also as an amenity for the community to experience. All the landscape initiatives aim to allow campus users to enjoy the sense of community and place that makes TAMUK's Main Campus unique and special.

As TAMUK considers the future growth of the Main Campus, the Master Plan gives direction on using its existing campus efficiently. The recommended improvements will help TAMUK systematically achieve the vision for Main Campus for the next 10 years and beyond.


There are many variables in implementing master plans, such as funding, student enrollment, University leadership and the economy. These variables determine when and how various improvements take place. Projects are not listed in a prioritized order. Rather, the order of implementation will be based on the timing of funding and development opportunities that arise. See the Implementation chapter for target implementation phases.

The following pages detail the recommendations by initiative type and incorporate associated high-level construction cost estimates where projects have sufficient detail. These estimates do not include the interior building finish-out, such as furnishings and equipment.



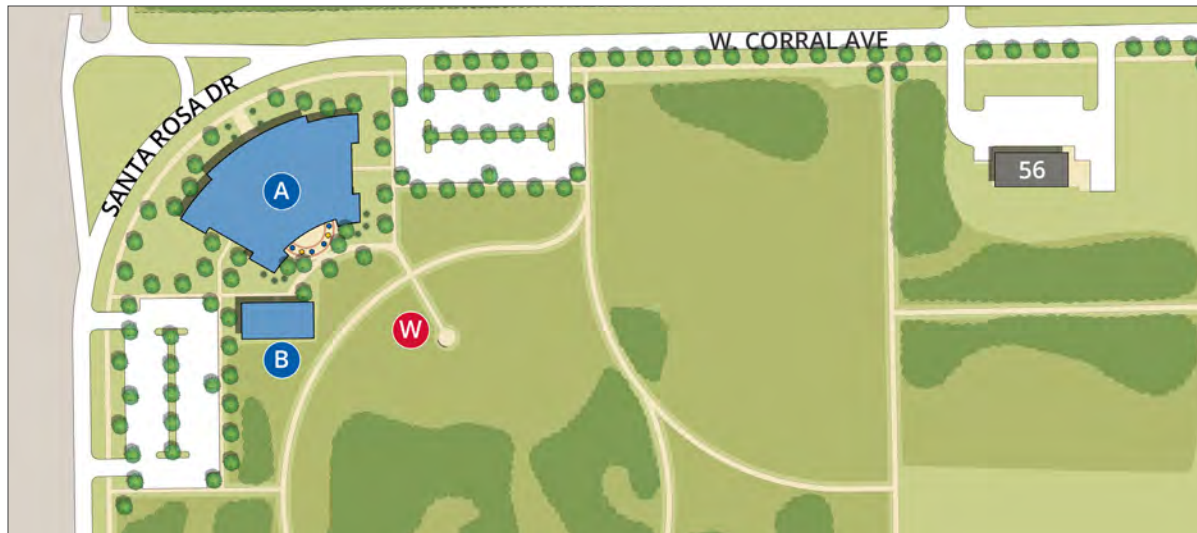


Map 42. Main Campus Master Plan

Scale: N.T.S. 



## Building & Facility Initiatives



### **A** College of Agriculture Building

Due to a need for additional space and program demand, a new two-story 50,000 to 60,000 GSF building for the College of Agriculture is recommended. Its potential location is just south of the CKWRI and will offer rooftop views of the CKWRI and King Ranch. The building will feature classrooms, labs, faculty offices, storage and a student lounge. Because of its location west of the Main Campus's academic core, an outdoor gathering area and parking and shuttle drop-off will be essential. Associated parking, sidewalks and landscaping are included in this project.

**Cost Estimate: \$47,314,400**  
(Total construction cost based on 2023 values)

### **B** Farm Mechanics Building

Located adjacent to the new College of Agriculture Building, a new 5,000 GSF Farm Mechanics Building is recommended. This facility will create shop spaces for the practical application of agricultural machinery (e.g., welding). The building will be utilized to keep farm equipment maintained and provide storage. While its location is further from the existing academic core, it is closer to the University Farm and College of Agriculture classes for easier access.

**Cost Estimate: \$3,754,500**  
(Total construction cost based on 2023 values)

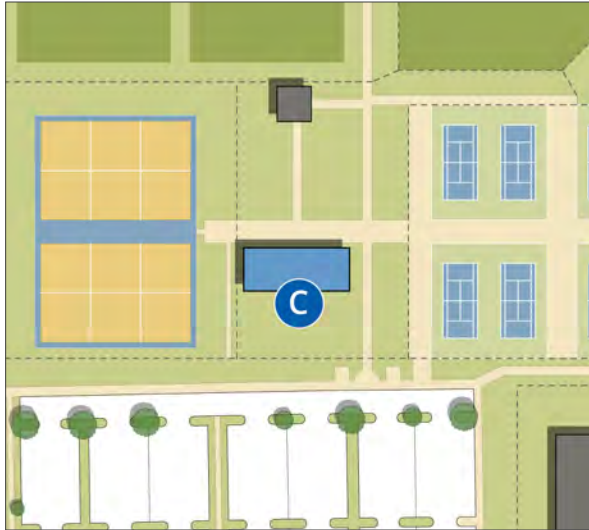


Figure 36. College of Agriculture Building Illustration









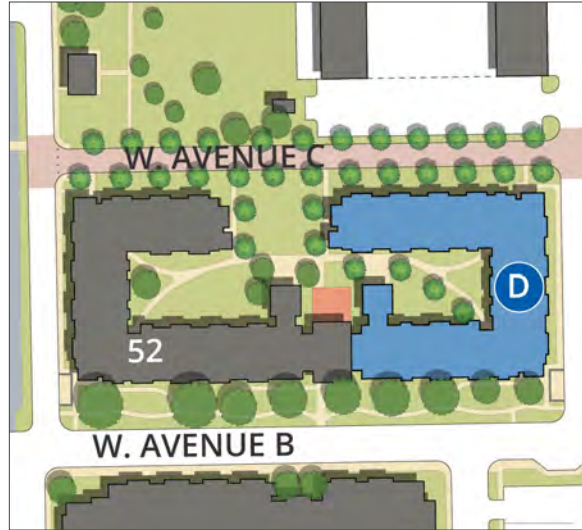
**C**

### Tennis, Beach Volleyball and Intramural Support

To maximize the operations and functionality for recreation intramural matches and club sports, along with athletics tennis and beach volleyball teams, a new 5,000 GSF outdoor intramural hub and satellite athletic facility is proposed. The facility will include toilets, storage and utility infrastructure to support the many users. The facility will provide a ticketing location, office space and concessions that can generate revenue for both departments. The space will afford the ability to host outside events for community users.

*Cost Estimate: \$2,888,700*

*(Total construction cost based on 2023 values)*



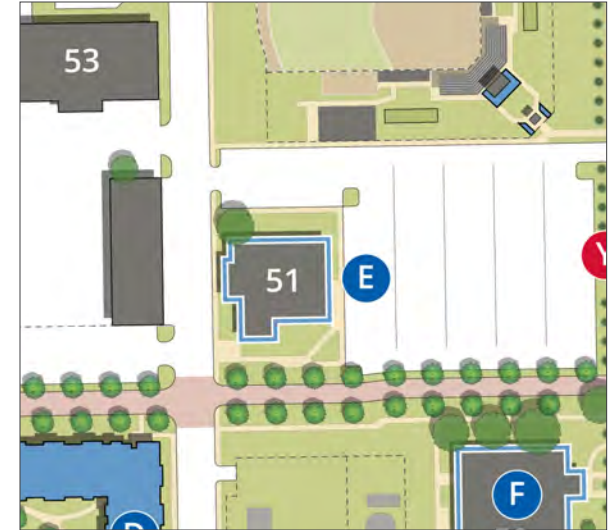
**D**

### Mesquite Village East

With an increase in the freshman class in Fall 2023, existing dormitories have reached capacity. The next newly constructed residence living space will be in the form of Mesquite Village East, with a similar floor plan and layout as the existing Mesquite Village West. It will be four stories with associated outdoor space. This project is phase two of the previous Mesquite Village plans.

*Cost Estimate: \$76,471,400*

*(Total construction cost based on 2023 values)*

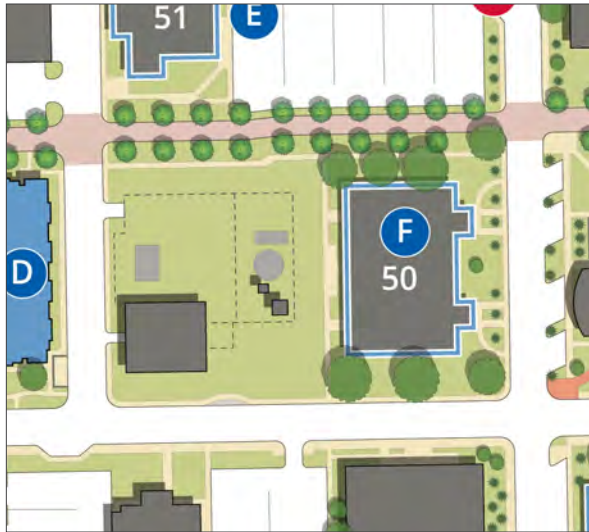


**E**

### Renovated Health & Wellness

The existing users of Health & Wellness are targeted for relocation to other new and/or renovated facilities on campus. Once they have vacated the building, renovation is recommended to accommodate the ROTC program (whose building is targeted for demolition).





## **F** **Renovated Business Administration Building**

The renovation of the Business Administration Building will allow for specialized labs, spaces for students and faculty to work on research endeavors, spaces for students and practitioners to work on experiential learning activities, and modernizing faculty office spaces. Some of the existing building functions and occupancy would need to relocate during the renovation.



## **G** **Softball Complex Improvements**

The current Softball Complex facilities will be updated to create an entry plaza that integrates with the existing ticketing building. The site fencing will be replaced, enlarging the spectator plaza. An entry signage gate will be added for the field naming. Enhancements will be made to the press box adding technology and increased broadcast abilities. A refresh of the press box, dugouts and backstop wall will bring those structures back to life. The exterior batting tunnels and bullpens will be updated with shade structures. Signage and branding elements will complete the updates to the complex.

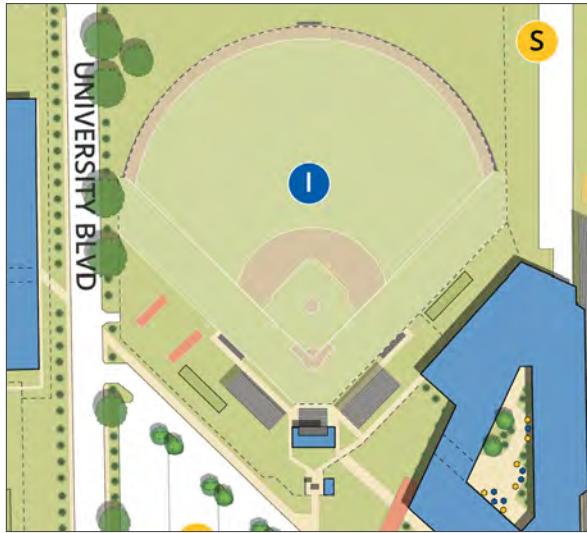
**Cost Estimate: \$1,677,900**  
(Total construction cost based on 2023 values)



## **H** **Women's Soccer Field Complex and Softball & Soccer Building**

As the Athletics Department seeks to incorporate additional teams, a shared use facility is proposed to provide operations for a new women's soccer team and the existing softball team. Taking advantage of an adjacency of their performance venues, a multi-use building can meet each team's needs and provide shared spectator functions. The facility includes two team clubhouses with locker rooms and meeting space. A satellite training space and officials' locker room are provided to support gameday needs. Spectator amenities include concessions, restrooms and a covered plaza space adjacent to soccer.

**Cost Estimate: \$9,663,500**  
(Total construction cost based on 2023 values)



## I Baseball Complex Improvements

A variety of improvements are proposed at the Baseball Complex. These include replacing the outfield natural grass surface with synthetic turf, creating an entry plaza that integrates with the existing ticketing building, and replacing site fencing that will enlarge the spectator plaza. An entry signage gate will be added for the field naming. The press box will be enhanced by adding technology and increasing broadcast abilities. Other improvements include a refresh of the press box, dugouts and backstop wall; updating the exterior batting tunnels and bullpens with shade structures; and adding signage and branding elements to the complex.

**Cost Estimate: \$5,450,200**  
*(Total construction cost based on 2023 values)*



## J Student Union/Athletics Performance/Arena Building

This project creates state-of-the-art space for all users, providing TAMUK with crucial opportunities to address future growth in the most meaningful way possible. The new campus hub facility can relieve demands on the existing MSUB building and student resource locations, create efficiency by providing collocated resources and functions, and host large/athletic events. The vision of the building proposes a campus-focused core that functions as a central hub for students, faculty and staff. Just inside the front doors users will find social space in a large open two-story lobby surrounded by campus functions that act as internal storefronts to meet student needs and offer goods and services. Food service offerings,

the bookstore, an egaming and esports venue, student organizations, student government, and conference meeting space are distributed at the core nucleus. A secondary circulation ring of program offerings can then serve as the new home for the athletics department. On the lower level, student-athletes can access training and equipment services. Locker rooms are distributed to provide a home for each team. At the end of the lower circulation paths are key nodes like the arena and weight room, and access to the track, football field and west side stadium grandstands. On the second level are more public department spaces like the main offices, Javelina shop, ticketing, press boxes and spectator access to each of the performance venues.

**Cost Estimate: \$147,980,700**  
*(Total construction cost based on 2023 values)*





Figure 37. Student Union/Stadium Complex Illustration



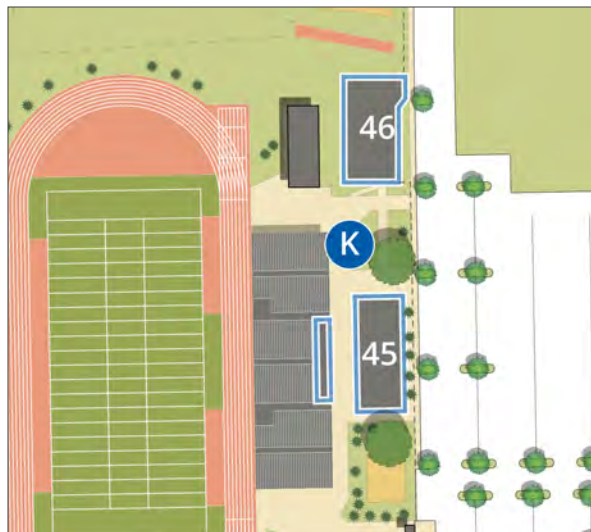


Figure 38. Student Union Entry Illustration



Figure 39. Stadium Complex Illustration

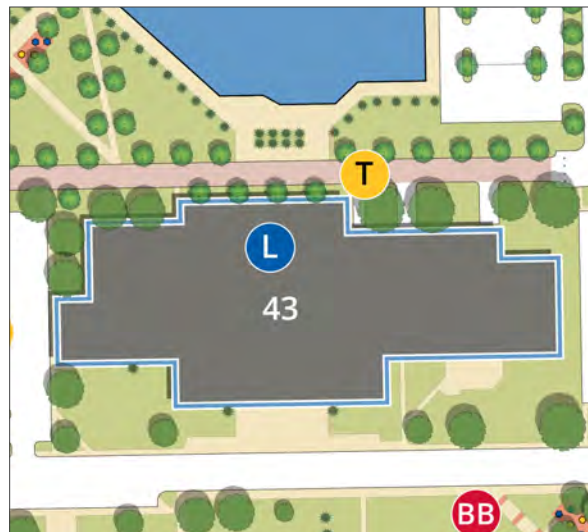




**K**

## Renovated Athletic Buildings

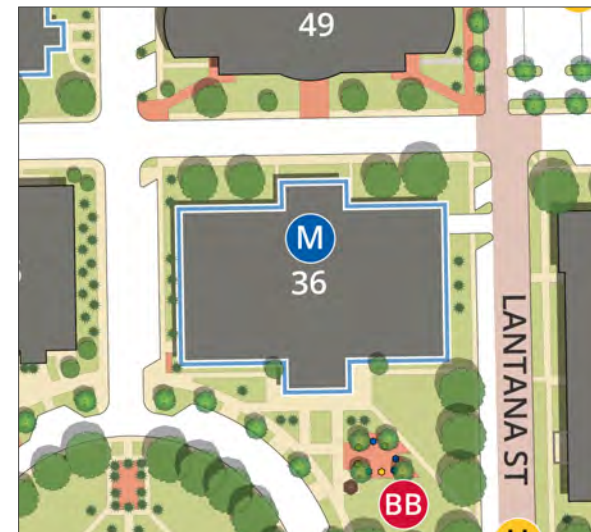
As the proposed additions and new facilities are constructed on campus, existing buildings can be renovated and backfilled to increase the Athletic Department's resources. The stadium's east stands will see an updated press box to support game day operations. The existing locker room will be converted for visitors and high school teams. McCulley Hall will become a fan zone with hall of fame and game day experience features. J.H. Clement will be renovated into an updated strength and conditioning/training facility.



**L**

## Renovated Steinke Physical Education Center

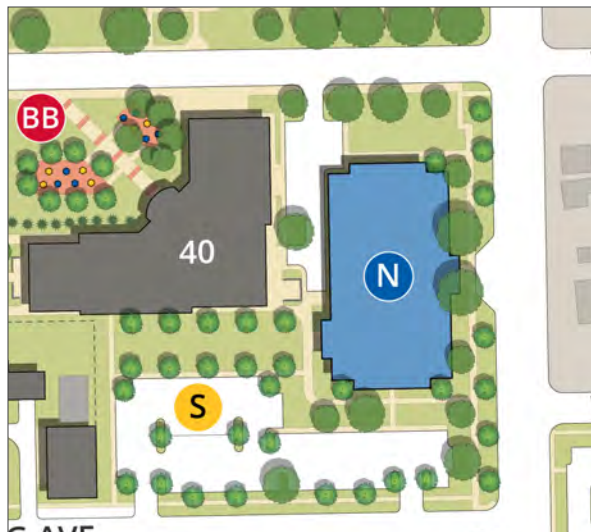
With the creation of the new Student Union/ Athletics Performance/Arena Building, the functions in the SPEC can be updated to meet academic and recreation needs. As a current stakeholder in the building, operating the pool and bowling alley, the Recreation Department can further consolidate their functions and gain efficiencies of staffing. The arena can turn into a dedicated recreation court and active physical education classroom space. The seating mezzanine can become added fitness space or subdivided into social zones or meeting spaces. The racquetball courts can be modified to be group exercise spaces, functional training zones or classrooms. The locker room can be repurposed for general student needs.



**M**

## Renovated Library

Libraries are changing at university campuses across the country, and there is a need to rethink their function and purpose, especially with many books being available digitally. It is recommended that TAMUK's Library be renovated to become a centralized gathering space and reorganized for modern learning priorities. The renovation should also incorporate small food options, especially important when the student union is relocated to the Student Union/Athletics Performance/ Arena building. The long-term building program may need to be determined through a library master plan.

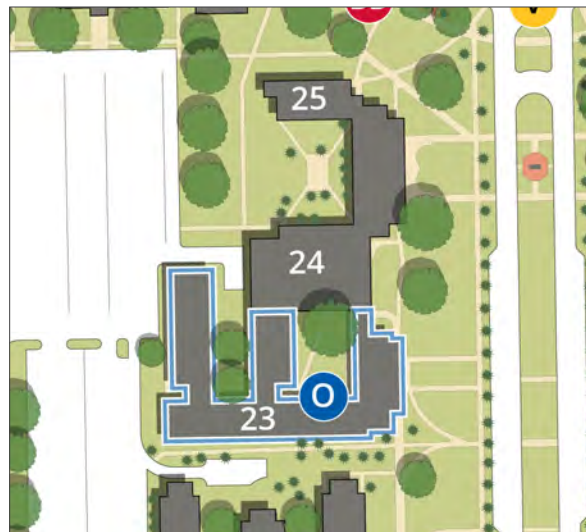


N

## Engineering Sciences Building

Located near the existing engineering buildings and in a prominent location along Armstrong Street, a new three-story, 80,000 GSF Engineering Science building is recommended. It would be a multipurpose building with facilities for teaching, labs and research. Including up-to-date spaces for industrial engineering, engineering and sciences. The new facility will replace Gross Hall and existing activities within.

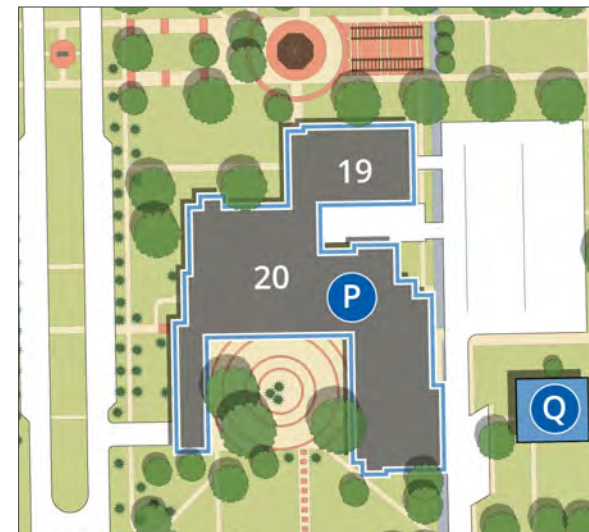
*Cost Estimate: \$71,809,200*  
*(Total construction cost based on 2023 values)*



O

## Renovated Eckhardt Hall

A renovation of Eckhardt Hall is recommended to modernize faculty office spaces and upgrade common spaces, including restrooms. Cosmetic upgrades are needed, such as refreshing of paint, flooring, and ceilings. Spaces for students and faculty should be renovated to assist with research endeavors. This renovation will help reduce deferred maintenance and allow the building to be more sustainable moving forward.

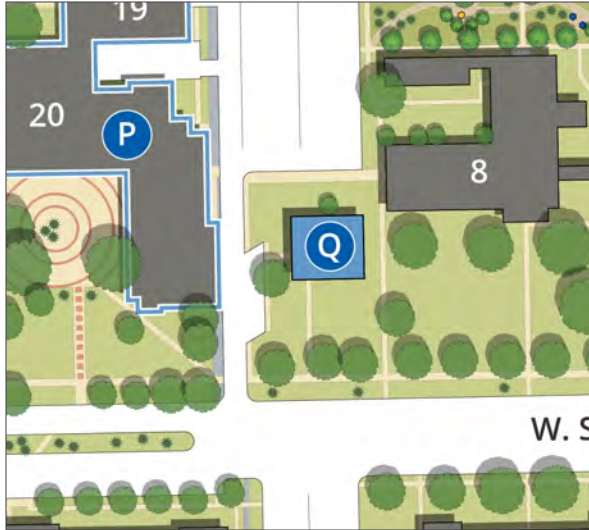


P

## Welcome Center, One Stop Shop, Disability Resource Center

A recommended move of all student union functions to the new Student Union/Athletics Performance/Arena building will leave space for new functions to occupy vacated space left behind with the move. The new functions should be a Welcome Center, One Stop Shop and Disability Resource Center. The existing Student Union building should be examined closely to be sure it is feasible, considering the current building layout and existing deferred maintenance.

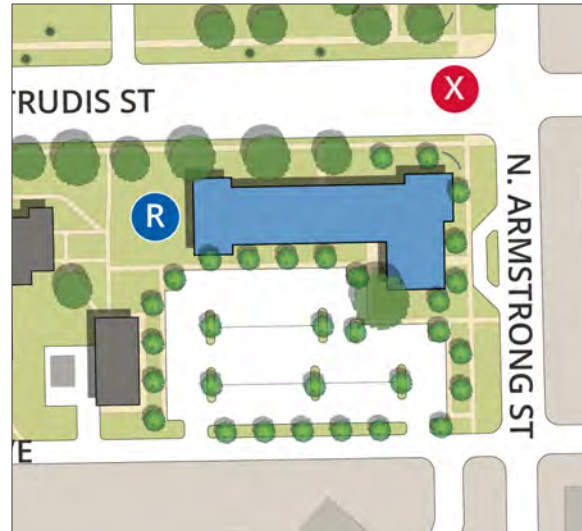




### Q Career Center

Located just east of the existing Memorial Student Union, the recommended two-story, 10,000 GSF Career Center will be planned and designed. Offices, flexible gathering/lobby area and storage could be included in the facility. The ultimate use of the facility is to be determined based on the scope of renovations to the MSUB building.

*Cost Estimate: \$7,857,300*  
(Total construction cost based on 2023 values)



### R Health Sciences Building

A new two- to four-story, 30,000 to 60,000 GSF building is recommended at the southwest corner of N. Armstrong Street and W. Santa Gertrudis Street. The Health Sciences Building will house potential uses like a community clinic, counseling, Allied Health & Nursing, Health & Kinesiology, and/or the School of Pharmacy. A drop-off area, parking lot and associated sidewalks and landscaping are included in this project.

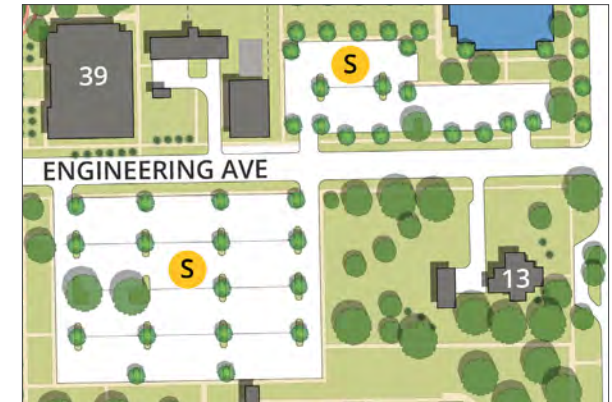
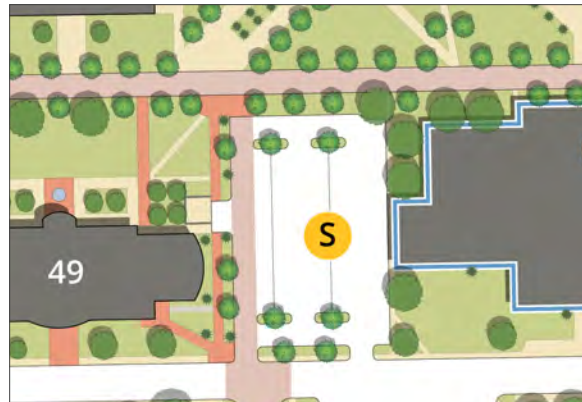
*Cost Estimate: \$27,922,100 - \$51,253,900*  
(Total construction cost based on 2023 values)



### R\* Health Sciences Building (Alternate Location)

The recommended project described to the left is also being considered for an alternate location at the southeast corner of Corral Avenue and Armstrong Street. This location would likely require the acquisition of additional land to allow for sufficient parking and site amenities.

## Transportation Initiatives

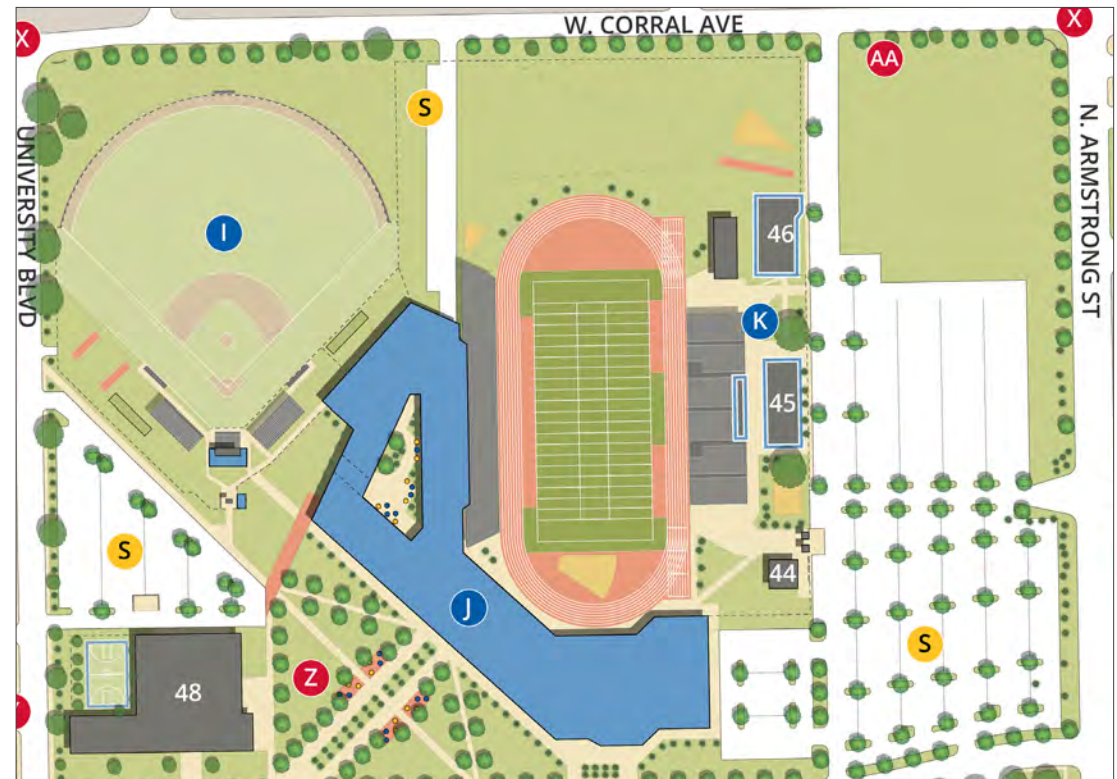


S

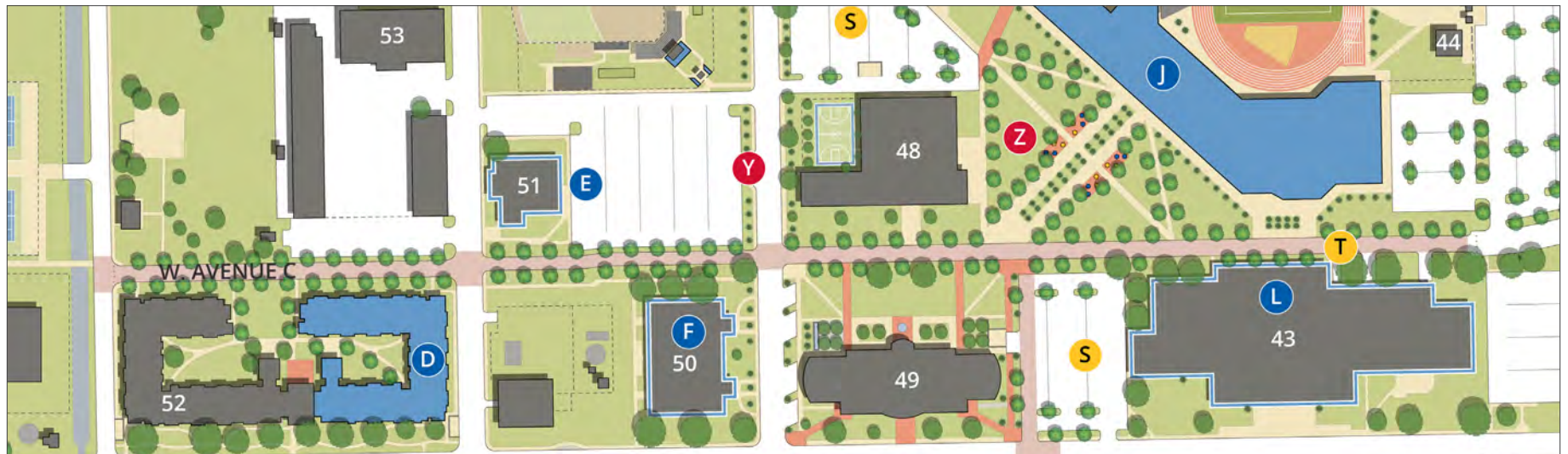
### New, Reconfigured and/or Improved Parking Lots

Proposed building demolitions and the addition of new buildings create opportunities for new, reconfigured and improved parking lots across campus. In general, new and improved lots should include shade trees to the maximum extent feasible. New and modified parking areas include:

- An expanded and improved lot near the existing Turner-Bishop Hall which is targeted for demolition
- Reconfiguring the parking west of the SPEC to head-in parking and closing access to W. Avenue C
- Removing on-street parking along N. Armstrong Avenue near the new Engineering Sciences Building and expanding the lot north of Engineering Avenue
- An expanded lot south of Engineering Avenue adjacent to the quad
- New and reconfigured lots adjacent to Student Union/Athletics Performance/Arena Building and baseball complex







**T**

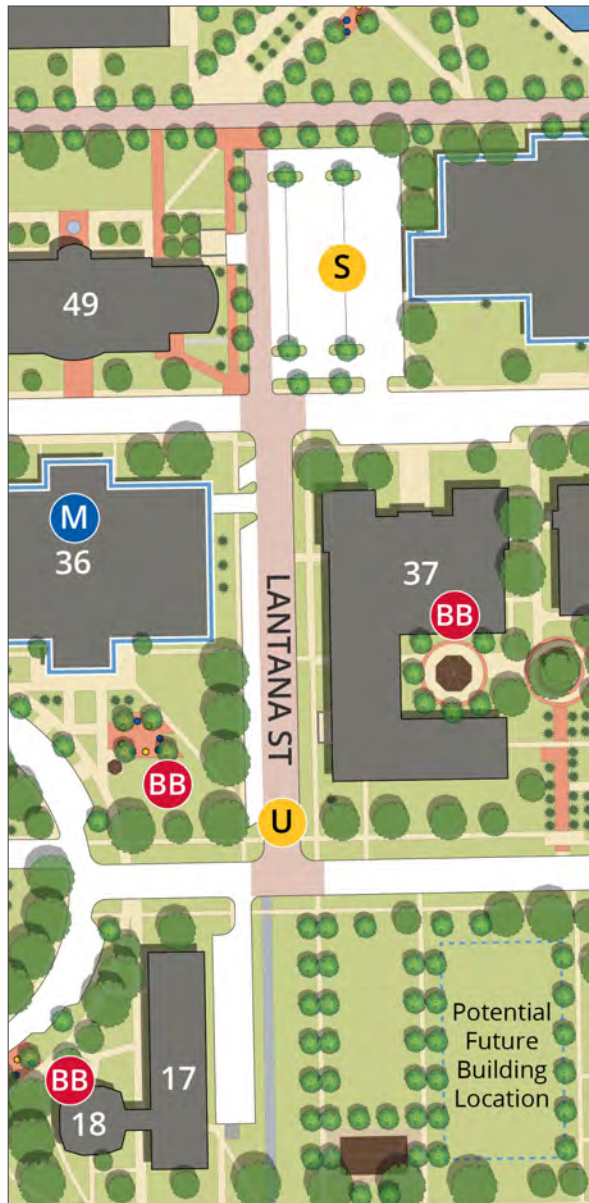
## Limited Vehicular Access along Avenue C

W. Avenue C connects the Recreation Sports Outdoor Complex to the new Student Union/ Athletics Performance/Arena Building, other athletic facilities and the Mesquite Village dorms. In order to create a safer, more welcoming pedestrian corridor to connect not only athletic uses, but also the residential students living on the west side of campus to the dining and gathering facilities at the new Student Union, this project converts W. Avenue C to a primarily pedestrian corridor. The existing road width will be reduced to a maximum of 25 feet and the additional space behind the previous curb line will be converted

to grass, landscaped areas and/or shade trees. Removable bollards will be located at all street crossings to allow for vehicular access during emergencies or event loading/unloading. The street pavement can be changed to an enhanced material to visually indicate that this is a special pedestrian corridor. Food truck hook ups will be located near the Student Union Entry Plaza. In addition to everyday use, this corridor expands the potential area for tailgating and game day activities from beyond the Student Entry Plaza to the whole W. Avenue C corridor.

*Cost Estimate: \$4,737,700*

*(Total construction cost based on 2023 values)*



U

## Enhanced Street Paving along Lantana Street

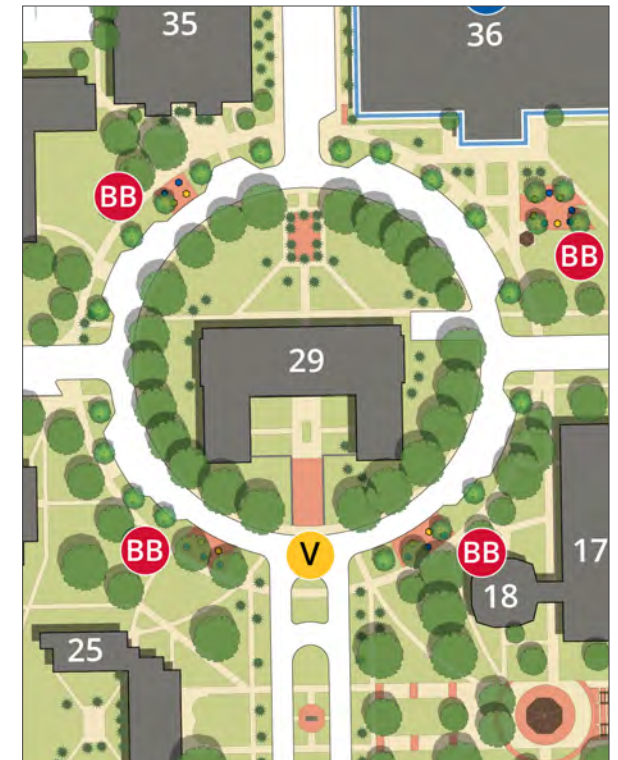
On game days, the TAMUK band processes from the Music Education Complex through the quad and north along Lantana Street to the football stadium. This project includes changing the street pavement along Lantana Street from the quad to W. Avenue C to visually indicate that this is an important corridor. This corridor will also be a frequent route taken by students moving from the quad and nearby buildings to the new Student Union. The paving material could be the same as the new W. Avenue C pedestrian corridor, as long as it is suitable for typical daily vehicle trips as this corridor will remain open to vehicle traffic.

**Cost Estimate:** \$1,654,200  
(Total construction cost based on 2023 values)

V

## Circle Modifications

The circle around College Hall currently includes angled parking around the perimeter of the one-way road. The area is challenging for pedestrians and drivers alike. This project removes the angled parking and reduces the street width from approximately 40-60 feet wide (depending on location) to a 25-foot travel lane with parallel parking in key locations. The inner curb line will remain intact. Standard and ADA-compliant parallel parking spaces are



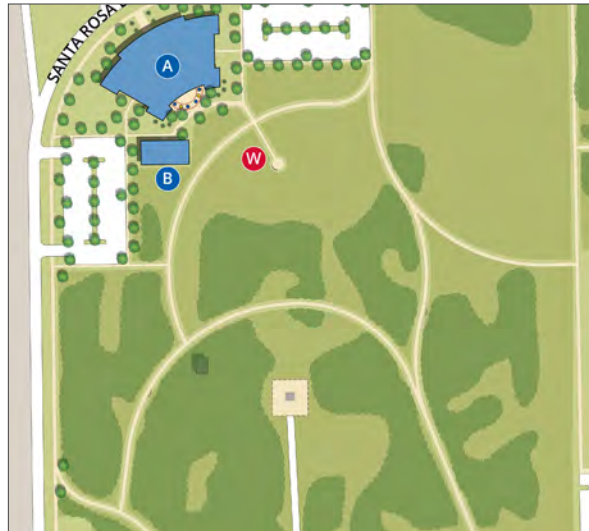
located around the circle. The additional space behind the outer curb area can be reclaimed for a wider sidewalk and seating areas.

While the total parking around the circle will be less than it is today, the expanded lots along Engineering Avenue and Retama Drive provide adequate additional parking.

**Cost Estimate:** \$2,257,600  
(Total construction cost based on 2023 values)

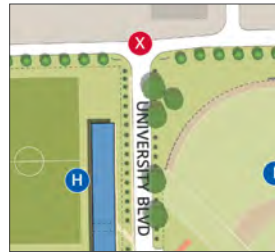


## Landscape Initiatives



### Trails and Birding Amenities

The City of Kingsville is along a national bird migratory route, so there is substantial bird activity at TAMUK at various times of the year. Trails and birding amenities (e.g., bird blinds) are proposed in the undeveloped area southeast of the new College of Agriculture Building to allow TAMUK users and the public to enjoy bird watching. This project is a great way to provide additional opportunities for people to enjoy the natural world around them without significantly changing the site's conditions.



### Entry Monument Signage

The south end of Main Campus includes prominent monument signage at University Boulevard. Additional small TAMUK signs are located at some entrances to the campus, but many are hard to glimpse as vehicles drive by. In order to increase visibility of the campus boundaries and create consistency between TAMUK campuses, additional entry monument signs are proposed at the following locations:

- North end of University Boulevard
- Southwest corner of W. Corral Avenue and N. Armstrong Street



Monument sign renderings provided by TAMUK. Design by others.

- Northeast corner of Seale Street and W. Santa Gertrudis Street
- Northwest and southwest corners of Santa Gertrudis Street and Armstrong Street

The rendering above shows an existing design for new monument signs at University Farm. Additional Main Campus signage should reflect a similar aesthetic (which also matches the existing monument sign at the south end of University Boulevard) for consistency between the campuses.



Y

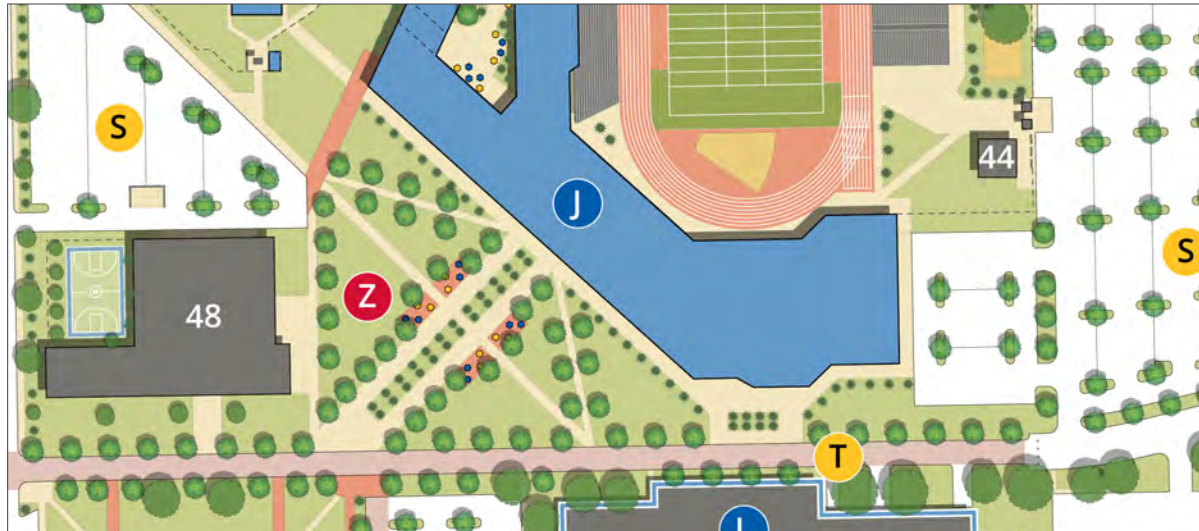
## University Boulevard Improvements

University Boulevard, between W. Santa Gertrudis Street and W. Avenue B has a strong visual identity with palm trees, consistent architectural style and open lawns. This aesthetic is what many people equate to the TAMUK “look.” It is recommended that palm trees be extended north along University Boulevard to W. Corral Avenue to carry this aesthetic all the way through the campus. The palm trees will help to add visual importance as people enter the campus from the north, an area that currently feels more like a back entrance.

Overhead utilities are located along University Boulevard north of W. Avenue C. If feasible, these overhead utilities should be buried to remove the visual clutter and create more space for pedestrian and landscape enhancements.







**Z**

## Student Union Entry Plaza

A new entry plaza will be located southwest of the Student Union/Athletics Performance/Arena building. This plaza will provide shaded outdoor seating, open lawn areas, and palm and shade trees to create an inviting space appropriate for formal and informal gatherings such as individual studying, student events and tailgating activities. Wi-Fi and electrical outlets will allow students to study and charge their devices while in the space. Pedestrian lighting will enhance the space for evening use as primary campus dining facilities will be located in the Student Union and accessed directly from this plaza.

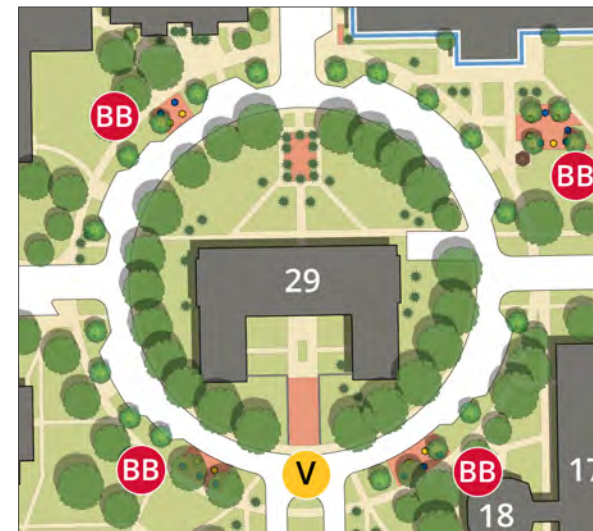
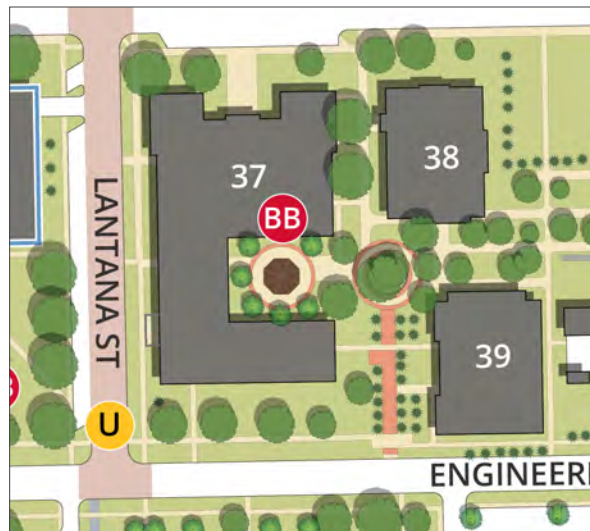
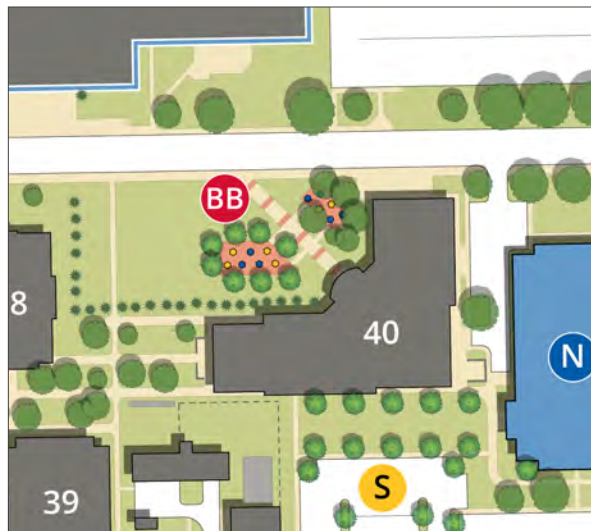
This plaza will replace an existing parking area and should be built at the same time as the Student Union/Athletics Performance/Arena building.

*Cost Estimate: \$2,787,100*  
*(Total construction cost based on 2023 values)*

**AA**

## Improved Campus Frontage

The southern end of Main Campus includes substantial tree coverage in lawn areas as well as along the street frontage. To the extent feasible, it is recommended that additional trees be planted along the campus frontage in the northern part of the property to extend the campus aesthetic.

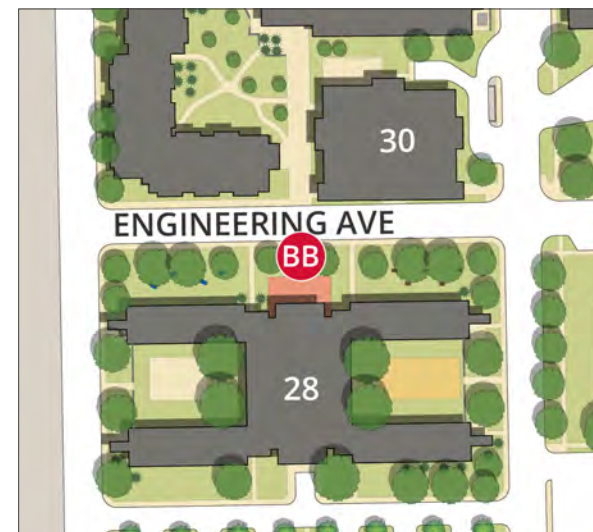


BB

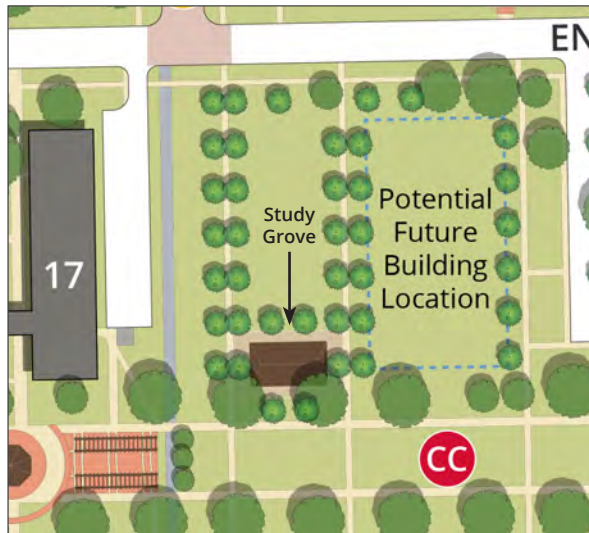
## New or Enhanced Outdoor Seating

When asked about their favorite place on campus, many survey respondents noted the shaded seating and pavilion in the Central Plaza near the bookstore as one of their favorite places. They also expressed a desire for more shaded outdoor seating. Main Campus is a beautiful campus, but can also be very hot and sunny. Using shade pavilions, shade sails, and/or tables with fixed umbrellas can greatly improve user experience on a hot summer day in Texas. Additional shaded seating is proposed in the following locations:

- Expand the existing plaza space at the Engineering Complex and provide tables with umbrellas
- Convert the empty, paved courtyard at A. L. Kleberg Hall to a landscaped courtyard with shade structure
- Create a variety of seating areas with tables and umbrellas around the modified College Hall circle and in front of the Library
- Add hammocks in the tree-covered area north of Martin Hall



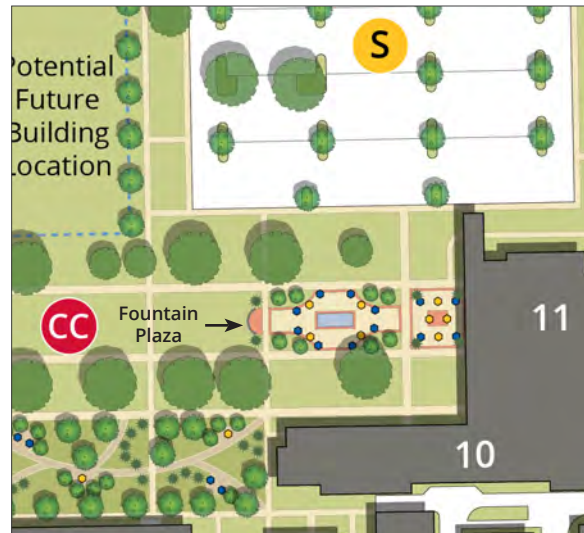




## Improved/Expanded Quad

Four buildings are targeted for demolition in and around the existing quad. This creates a great opportunity to improve the existing quad space and add amenities that diversify and increase opportunities for campus users to enjoy the outdoors, while also still preserving an area for a potential future building. Three new gathering areas are proposed around the quad.

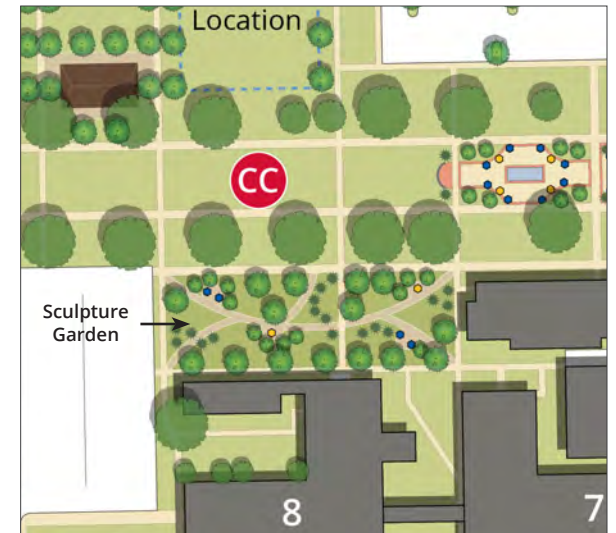
A study grove will be located north of the existing quad space to create a comfortable atmosphere for studying and relaxed gatherings. The area will include a large shade structure with movable or fixed seating,



decomposed granite surfacing and perimeter trees.

A fountain plaza will be located at the eastern terminus of the existing quad space. The plaza will include tables with umbrellas, a water feature, enhanced paving and trees. An iconic photo location could be created in the semicircular area at the west end of this space. The addition of sculpture and/or TAMUK branding elements can create an additional location for students' graduation photos.

A native plant sculpture garden will be located south of the existing quad. This area will include smaller scaled seating areas suitable for one to two tables each, nestled among a



native plant garden, decomposed granite paths and sculptural elements. This would be a great location to showcase TAMUK student sculpture projects.

*Cost Estimate: \$1,890,800*  
(Total construction cost based on 2023 values)

# University Farm Master Plan

Located less than 2 miles north of Main Campus, the University Farm not only houses hands-on programs in the College of Agriculture but is also home to the Veterinarian Technology facilities and programs. The Master Plan re-envisioned the Farm, which has never had a master plan completed prior.

The University Farm, approximately 488 acres, has current facilities that need improvement to expand its agricultural programs and offerings. While TAMUK owns the farm property, the U.S. Department of Agriculture (USDA) leases a portion of the farm for its operations.

The re-envisioning of the University Farm through the Master Plan features 15 building and facility initiatives, with improvements on the north, south and east sides of the 488-acre site. Several recommendations will allow the University to interact with the local community and provide space that could be shared with other local organizations, such as the Rodeo Arena and Event Facilities. A renovated Rodeo Pavilion and Team Barns will also provide additional space that could be used to attract local rodeo events and future collegiate rodeo events.

The northern portion of the University Farm has most recommendations related to the research and housing of animals, from an Animal Science Pavilion to offices and classrooms, sheep, goat and cattle pens. These facilities provide adequate housing for various animals, laid out in a manner for programs to operate efficiently while also allowing for a collaborative environment.

Another major development area on the University Farm site is the Veterinarian Technology facilities which are quickly reaching capacity. An expansion of a new Veterinarian Technology facility and enclosed Dog Kennels will allow this program to grow, which it has done since the inception of the program.

All building and facility initiatives are accompanied by internal road and parking lot improvements. Student spaces and amenities are also envisioned, such as shaded outdoor seating and equestrian trails.

Lastly, a 40-acre area is dedicated to energy generation, with 10 acres being sold to American Electric Power (AEP) and an additional 30 acres reserved to be leased for other energy generation initiatives. Once

leased, the additional revenue can be used to maintain the University Farm.

There are many variables in implementing master plans, such as funding, student enrollment, University leadership and the economy. These variables determine when and how various improvements take place. Projects are not listed in a prioritized order. Rather, the order of implementation will be based on the timing of funding and development opportunities that arise. See the Implementation chapter for target implementation phases.

The following pages detail the recommendations by initiative type and incorporate associated high-level construction cost estimates where projects have sufficient detail. These estimates do not include the interior building finish-out, such as furnishings and equipment.

The recommended improvements will help TAMUK systematically achieve the vision for the University Farm during the next 10 years and beyond.



## BUILDING & FACILITY INITIATIVES

- A** Animal Sciences Pavilion
- B** Office and Classroom Building
- C** Equestrian Arena and Turnout Pens
- D** University Equine Facilities
- E** Poultry Facility
- F** Sheep & Goat Unit Facility
- G** Cattle Pens and Feed Building
- H** Swine Farrowing Unit Facility
- I** AEP & Energy Area
- J** Enclosed Dog Kennels
- K** Vet Tech Expansion
- L** Relocated Serpentarium
- M** Rodeo Arena and Event Facilities
- N** Renovated Rodeo Pavilion
- O** Rodeo Team Barns and Facilities

## TRANSPORTATION INITIATIVES

*(areas not included in other facility initiatives)*

- P** Improved Roads
- Q** Paved Parking Areas
- R** Overflow and Long-Term Parking

## LANDSCAPE INITIATIVES

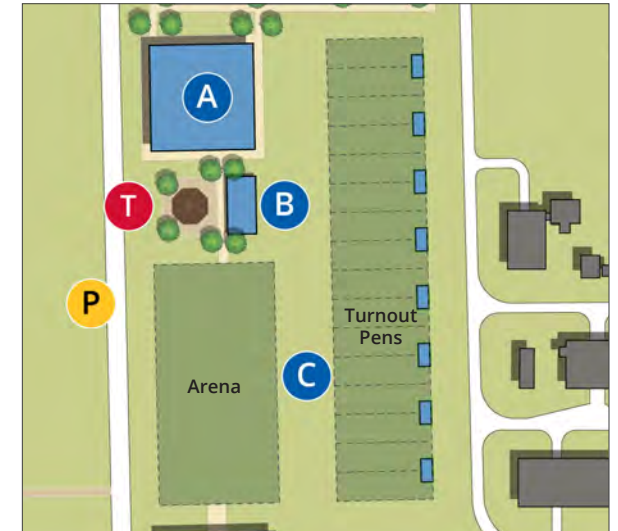
- S** Entry Monument Signage
- T** Shaded Outdoor Seating
- U** Equestrian Trails



Map 43. University Farm Master Plan

Scale: N.T.S. 

## Building & Facility Initiatives



**A**

### Animal Sciences Pavilion

A new 11,880 GSF Animal Pavilion will include a livestock show arena, livestock pens, bleacher seating and restroom facilities. This is a covered, but mostly open-sided pavilion building, except for the restrooms, which are fully enclosed. This facility is intended for student educational sessions as well as events that may be open to the public. For this reason, it is located near the University Farm entry road and includes a large visitor parking lot.

**Cost Estimate: \$3,444,800**

*(Total construction cost based on 2023 values)*

**B**

### Office and Classroom Building

This one-story, 1,800 GSF building will include one general-use classroom space, offices and restroom facilities. The building and adjacent courtyard area (project T) is intended mainly for student educational use but may be open to outside visitors during specific events.

**Cost Estimate: \$1,577,700**

*(Total construction cost based on 2023 values)*

**C**

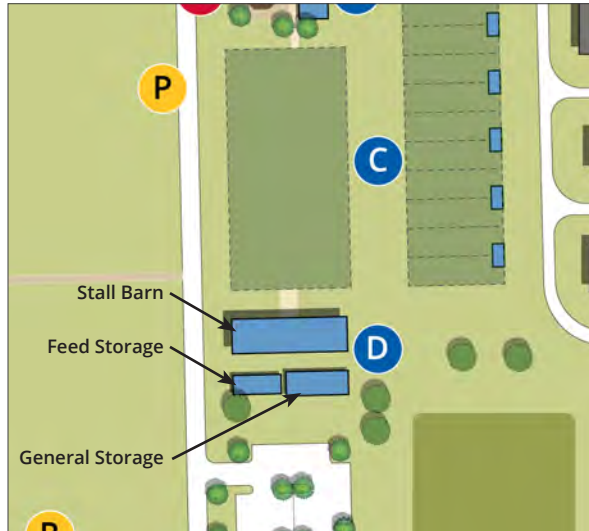
### Equestrian Arena and Turnout Pens

An open-air equestrian arena with drainage and footing will allow for year-round use. Nearby horse turnout pens with shelters (one shelter shared between two pens) can be used as temporary turnout or permanent housing for horses. Shelters should be oriented to provide maximum protection from the elements. These facilities are intended for use by the University equine programs and/or students and staff keeping personal horses at the university equine facilities.

**Cost Estimate: \$1,729,500**

*(Total construction cost based on 2023 values)*





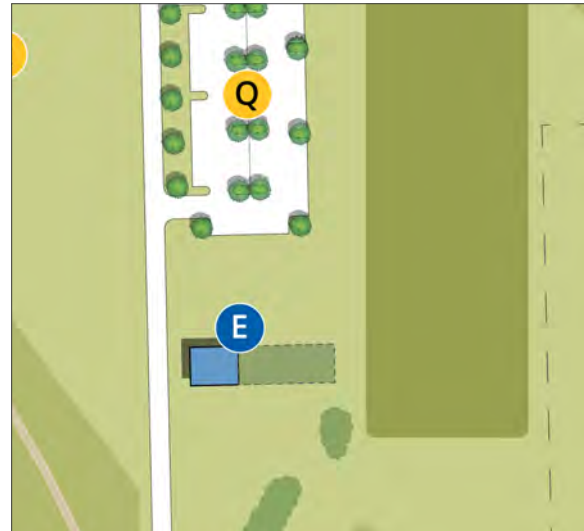
## D University Equine Facilities

A variety of equine support facilities are proposed just south of the Equestrian Arena. These include:

- 4,320 SF stall barn with approximately 20 12' by 12' bays and a central aisle. It is assumed that five bays will be used as tackrooms, indoor wash stall(s) and/or storage areas.
- 1,620 SF general storage building.
- 1,000 SF feed storage building.

These facilities are intended for use by the University equine programs and/or students and staff keeping personal horses at the University equine facilities.

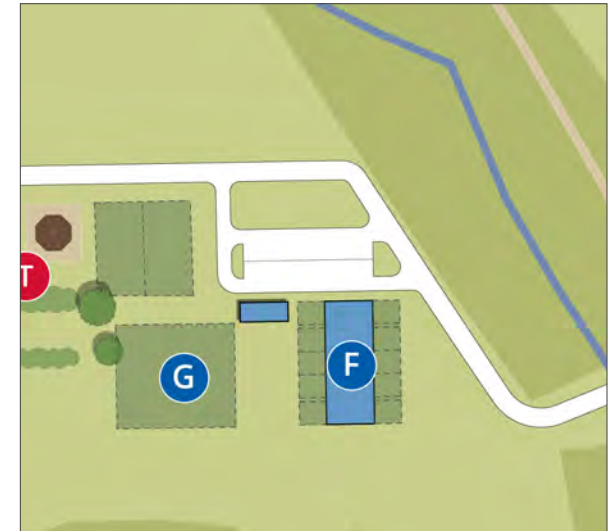
**Cost Estimate: \$1,799,300**  
*(Total construction cost based on 2023 values)*



## E Poultry Facility

A Poultry Facility is proposed for use by University staff and students for teaching and/or research. The facility includes a 2,000 SF coop building with a 4,000 SF enclosed outdoor run space. The coop will be fully enclosed with proper ventilation systems.

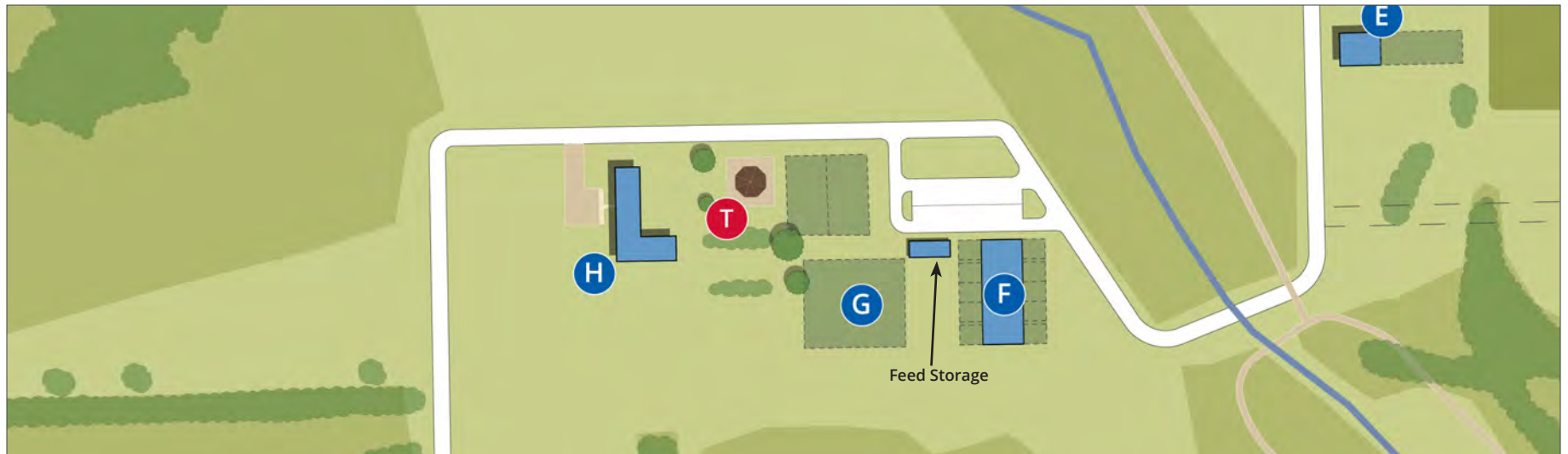
**Cost Estimate: \$640,900**  
*(Total construction cost based on 2023 values)*



## F Sheep & Goat Unit Facility

A new 13,000 GSF Sheep & Goat Unit Facility will be used by University staff and students for teaching and/or research. This facility includes various indoor livestock pens, restrooms and storage areas. Outdoor animal pens are located directly adjacent to the indoor facilities. A small parking lot just north of the facility will serve students and staff working in this area of the farm.

**Cost Estimate: \$2,915,500**  
*(Total construction cost based on 2023 values)*



**G**

## Cattle Pens and Feed Building

This project includes fenced cattle pens and a 1,000 SF feed storage building. The pens will be used to keep small groups of livestock near facilities, if necessary. These facilities will be used by University staff and students for teaching and/or research and will share the parking lot with the Sheep & Goat Unit Facility.

*Cost Estimate: \$414,200*

*(Total construction cost based on 2023 values)*

**H**

## Swine Farrowing Unit Facility

A 4,740 GSF Swine Farrowing Unit Facility will include full facilities for breeding, farrowing, nursing and finishing swine. This one-story building includes built-in feed storage areas and will be used by University staff and students for teaching and/or research. A small decomposed granite parking lot located west of the building will serve users of this facility. A nearby outdoor gathering area (project T) will be shared by users of the sheep/goat, cattle and swine facilities.

*Cost Estimate: \$2,096,000*

*(Total construction cost based on 2023 values)*

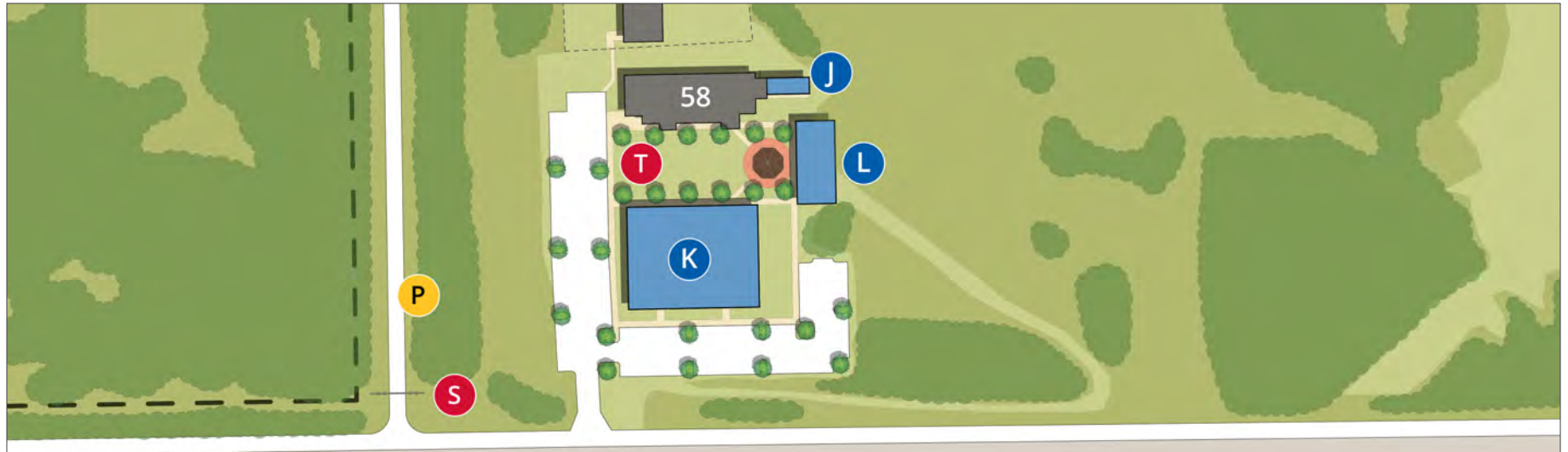


I

## AEP & Energy Area

A 40-acre area west of the Veterinary Technology facilities is reserved for energy generation. This will include 10 acres being sold to American Electric Power (AEP) and an additional 30 acres reserved to be leased for other energy generation initiatives. Once leased, the additional revenue can be used to maintain the University Farm.





J

### Enclosed Dog Kennels

Recommended to extend from the existing Veterinarian Technology building, an open-air pavilion should be partially enclosed for space for dog kennels. A program of requirements (POR) was developed in 2020 and identified elements for the project. The open-air pavilion located behind the Veterinary Technology building is a 2,217 square-foot structural steel framed metal building with metal panels on the upper portion of the building that is equipped with lighting, hose bibs, power and a large fan. The University has identified that the current space is under-utilized and would like to convert and enclose portions of the space to house animals and provide space for storage and equipment.

K

### Veterinary Technology Expansion

Due to space constraints and an increasing number of animals needing help in the region, a one-story, 20,000 GSF building is needed to accommodate the needs of the growing veterinarian programs. The expansion will include classrooms, an animal surgery room, student space and faculty offices.

*Cost Estimate: \$18,956,000*  
*(Total construction cost based on 2023 values)*

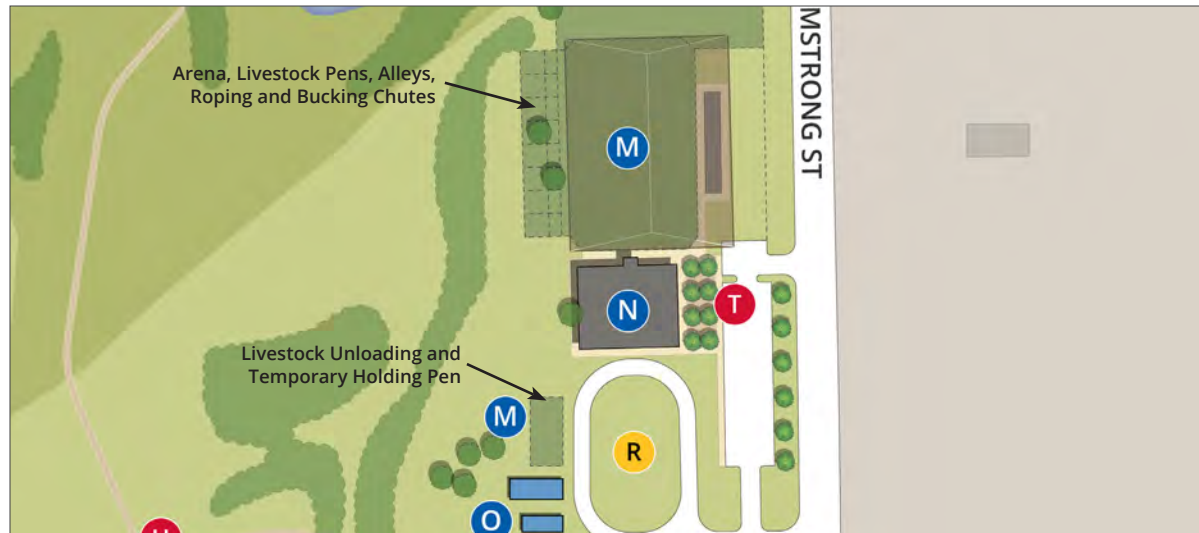
L

### Relocated Serpentarium

There have been discussions about possibly relocating the existing Serpentarium to the Farm as it is a research focused building. If the University decides to proceed with this, a location near the Veterinary Technology building is identified. This project would include developing a one-story, approximately 4,500 GSF building with offices, live animal labs and habitation rooms, snake repository and extraction rooms, and venom storage areas.

If this building does not end up being built, the shade structure in the new green space (project T) still anchors the east end of this developed area.





**M**

## Rodeo Arena and Event Facilities

The southeast corner of University Farm is being repurposed as dedicated rodeo facilities. This project includes the rodeo arena and various event facilities nearby. The arena exists but will be resurfaced and covered by a large clear-span shade structure. Other additions include new grandstands for approximately 150 spectators; lighting and audio upgrades; and full rodeo paneling, including livestock pens, alleys, roping and bucking chutes. A livestock unloading area and temporary holding pen is located adjacent to the trailer turnaround and parking (R), and will have direct access to the rodeo livestock pens. The large loop drive for trailers (not included

in cost estimate) is located so as to provide access to all major animal areas, allowing for convenient unloading.

This facility is intended to be the most public-facing portion of the University Farm, for use by the University Rodeo Team and possibly available to the community for hosting other public events, such as 4-H, FFA, or open ride nights. The rodeo arena's location along N. Armstrong Street provides great opportunities for University signage, and branding or advertising partnerships.

**Cost Estimate: \$7,650,400**

*(Total construction cost based on 2023 values)*

**N**

## Renovated Rodeo Pavilion

The existing Rodeo Pavilion will be renovated to serve as an ancillary structure to the Rodeo Arena. This space should include public restrooms, concessions and other facilities needed to enhance the visitor experience. The remainder of the pavilion will remain open as a multi-purpose area, which can be used for exhibits or vendors during rodeo events.

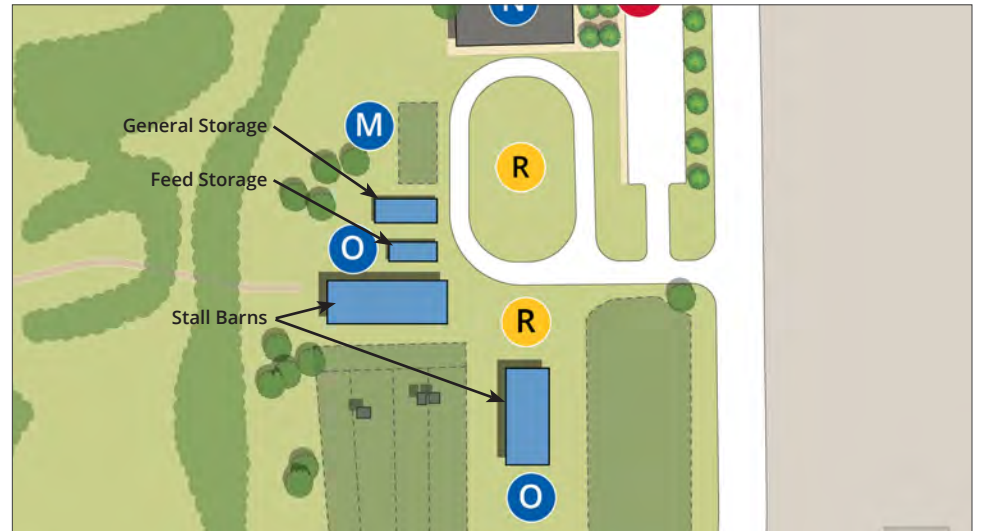
A public and user parking lot is located along Armstrong Street, adjacent to the rodeo arena and plaza space (project T). Portions of this lot could also possibly be used for food truck parking during events.





Figure 40. Rodeo Arena Illustration





## Rodeo Team Barns and Facilities

A variety of barns and facilities are intended for use by the University Rodeo Team for care and keeping of their team and personal horses. These facilities could also provide temporary stabling for exhibitor's horses that come into the facility for multi-day events. Proposed facilities include:

- 4,500 SF stall barn, providing approximately 20 12' by 12' bays and a central aisle. It is assumed that five bays will be used as tackrooms, indoor wash stall(s) and/or storage areas.
- 5,600 SF stall barn, providing approximately 24 12' by 12' bays and a central aisle. It is assumed that six bays will be used as

tackrooms, indoor wash stall(s) and/or storage areas.

- 1,620 SF general storage building and 1,000 SF feed storage building located near the trailer loop road, for ease of access and unloading.

Existing horse turnout pens are adjacent to the proposed stall barns and will remain. The existing fenced pasture in the southeast corner of the property could serve as additional horse turnout space or temporarily as the rodeo warm-up pen during events.

**Cost Estimate: \$3,980,200**  
(Total construction cost based on 2023 values)

## Transportation Initiatives

P

### Improved Roads

The University Farm is currently accessed from the north end of the property along an unpaved, rough road. The Veterinary Technology facilities are accessed from W. Sage Road and there is no publicly accessible connection between the north and south parts of the property.

To increase accessibility throughout the property and ensure the site can be accessed when one entry needs to close, two improved roads are proposed (illustrated with dashed blue line on adjacent map). The north road will be repaved and formalized as it crosses the creek toward the Sheep & Goat Unit Facility. A new southern access road will be built just west of the Vet Tech area along W. Sage Road.





Q

## Paved Parking Areas

A variety of new paved parking areas will provide dispersed parking options as the University Farm is developed. The following locations have been described with the adjacent facility projects:

- Animal Sciences Pavilion parking
- Sheep & Goat Unit Facility parking
- Swine Farrowing Unit parking
- Vet Tech Expansion parking
- Rodeo parking

One additional lot is located between the University Equine Facilities and Poultry Facility. It is primarily intended for use by students and staff, but can also be available as overflow parking for the Animal Sciences Pavilion if needed.

R

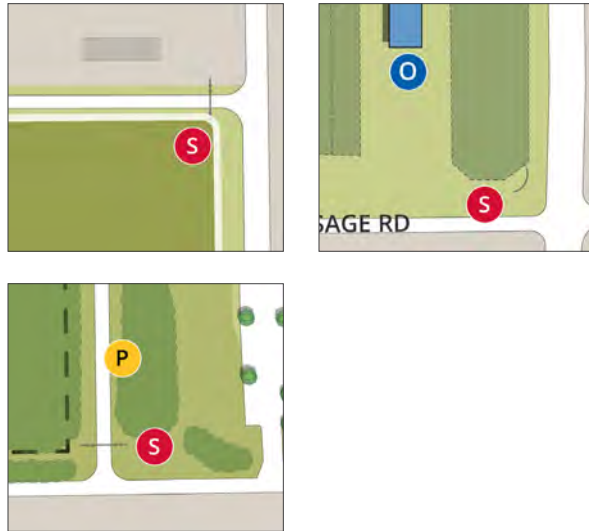
## Overflow and Long-Term Parking

The following additional informal parking areas will provide overflow and long-term parking around the farm.

- Overflow grass parking near the University Equine Facilities
- Long-term trailer parking behind the existing agronomy area
- Trailer and exhibitor parking in the center of the rodeo loop drive
- Overflow grass parking near the southern Rodeo Team Barn



## Landscape Initiatives



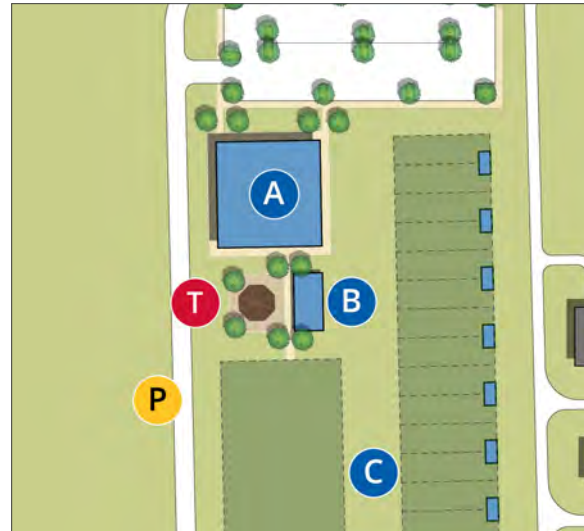
**S**

### Entry Monument Signage

Three monument signs are planned and designed for University Farm. Overhead arched signs will create a grand entries at the north and south entry roads and a freestanding masonry sign (see image on page 127) will be sited at the corner of W. Sage Road and N. Armstrong Street.



Monument sign renderings provided by TAMUK. Design by others.

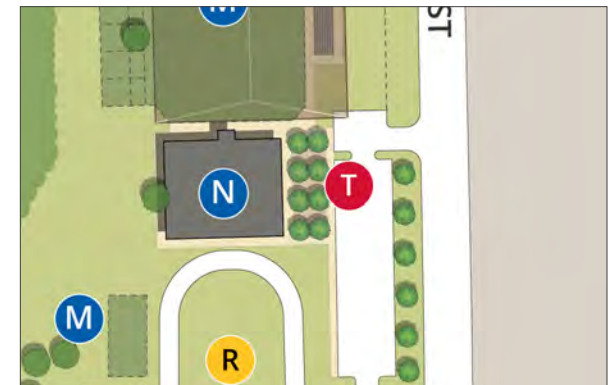
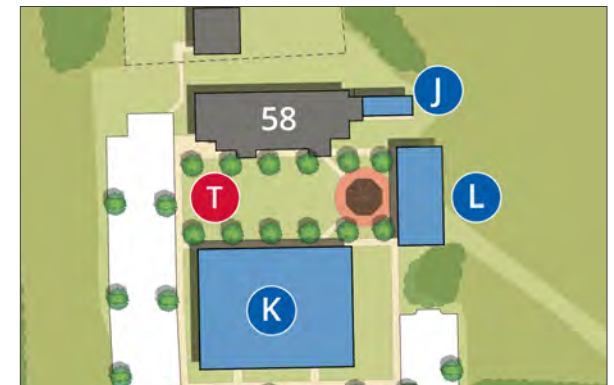
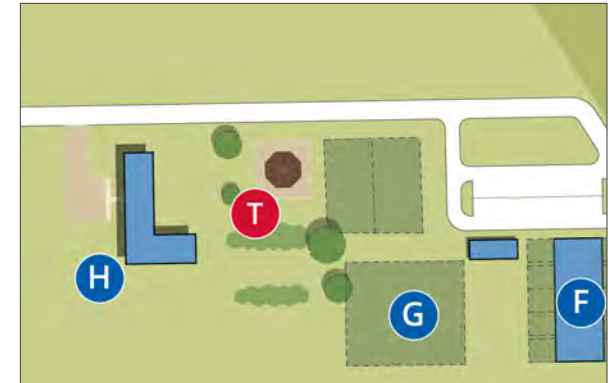


**T**

### Shaded Outdoor Seating

In many areas on University Farm there is little to no shade available for students and staff who are outdoors. A variety of shaded outdoor seating areas are proposed throughout the site to provide nearby shade opportunities for all campus users. These include:

- A shade structure and decomposed granite gathering area near the Office and Classroom Building.
- A shade structure and decomposed granite gathering area near the Cattle Pens.
- A shade structure, decomposed granite gathering area and open lawn in the Veterinary Technology complex.
- A welcome plaza with shade trees and picnic tables adjacent to the Rodeo Arena.







## Equestrian Trails

Equestrian trails (denoted by the dotted line on the adjacent map) will provide an added amenity for users of both the rodeo and University equestrian facilities. The trails run through the natural drainage area and floodplain along the stream that bisects the farm property, connecting the rodeo grounds to the University equestrian facilities. The trail surface could be decomposed granite, wood chips, or similar material or simply cleared and left natural. The trails should be maintained periodically to be kept free of debris and rocks.

Warnings and notices posted at the trail entry points as well as basic wayfinding signage along the trail are recommended. These trails could be open to hikers on foot as well, but signs should be posted that equestrians always have the right of way and dogs should be prohibited (especially given the proximity to the University's livestock areas).

Similar to the rodeo grounds, the University could make the trails available for use by the community, either as part of or separate from rental of the rodeo and event facilities.



# Caesar Kleberg Wildlife Research Institute Master Plan

The Caesar Kleberg Wildlife Research Institute (CKWRI) is located on TAMUK's campus and functions as a unit within the Dick and Mary Lewis Kleberg College of Agriculture and Natural Resources. The CKWRI is privately funded, and faculty and students work with private landowners where they conduct research.

Because of private funding, the CKWRI remains current on existing and future facility needs. The Master Plan conducted a high-level analysis and incorporated an existing recommendation, the Ocelot Conservation Facility, for ocelot captive breeding and re-wilding. The Ocelot facilities include an arrival plaza, staff patio, interior and exterior holding pins, and a re-wilding area.

An expanded trail network here will allow for additional passive recreation for site users and could potentially link to the trails recommended across W. Corral Avenue near the College of Agriculture Building, a Main Campus recommendation.

## Initiatives



A

### Ocelot Conservation Facility

The U.S. Fish and Wildlife Service (USFWS) monitors the ocelot population and protects and restores thorn scrub habitat. New conservation efforts will now take place at the Wildlife Research Institute through a new Ocelot Conservation Facility. The Ocelot facilities will include an arrival plaza, a staff patio, interior and exterior holding pins, and a re-wilding area. Within the facility labs, storage, surgical areas and offices will accommodate faculty and students.



B

### Expanded Trail Network

The outdoor entertaining space southeast of the Wildlife Center includes access to a lovely garden and small trail network. There is an opportunity to expand the trail network to the west to increase options for passive recreation by campus users.



## INITIATIVES

- A Ocelot Conservation Facility
- B Expanded Trail Network











# CITRUS CENTER

# INTRODUCTION

About 115 miles south of the Main Campus, the Citrus Center is located in the City of Weslaco within the subtropical Lower Rio Grande Valley, the epicenter of the commercial citrus industry in Texas. The Citrus Center's 62-acre primary campus is located along N. International Boulevard, on the north side of Interstate Highway 2 (Expressway 83). An additional 250-acre research farm is situated 2 miles south of the Center, and a 50-acre farm is leased from Rio Farms in Monte Alto (neither of which are included in the scope of this Master Plan).



Map 45. Citrus Center Regional Context Map

Scale: N.T.S. 





*Main Building*



*Citrus Groves*



*Budwood Program Facilities*



*Student Residential Building*



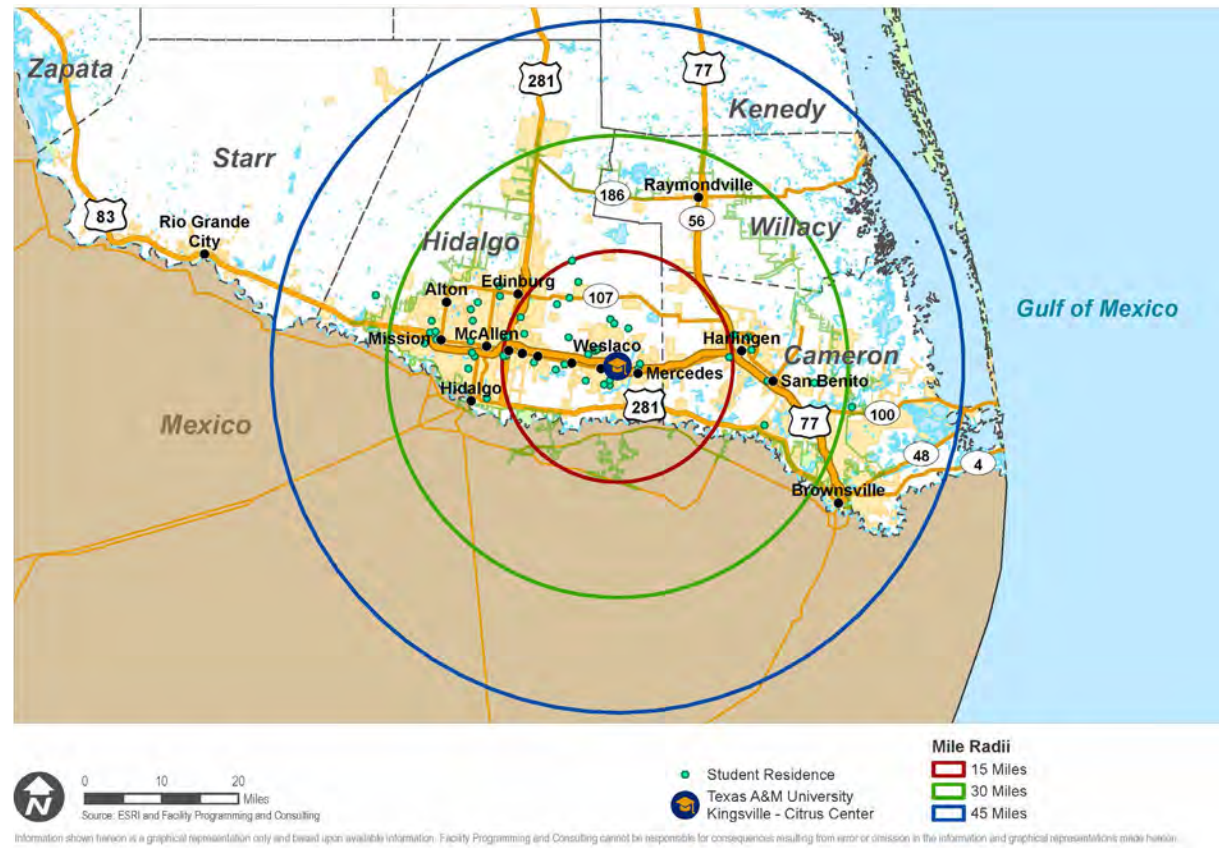
# DEMOGRAPHICS & ENROLLMENT

## Demographics & Market Summary

*Note: Full-size versions of the maps in this section are included in the Appendix for reference.*

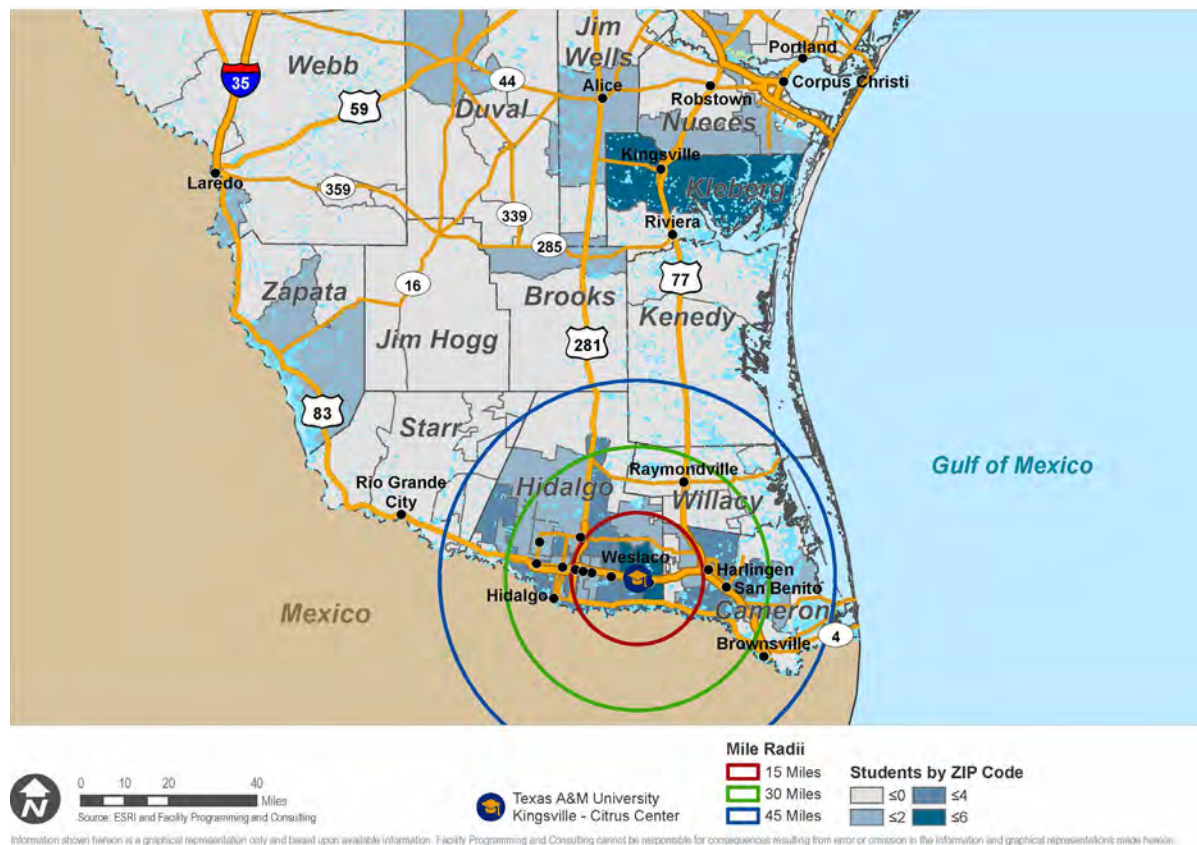
In the Fall 2022, nearly 85 students were enrolled at the TAMUK Citrus Center. Of these, approximately 90% identified as in-state residents, primarily from counties within the Central and South Texas regions. According to data provided by the Office of Institutional Research and Assessment, approximately 46 students, or 54% of the Fall 2022 enrollment, were from Hidalgo County. Within the state of Texas, the top three counties with the highest enrollment were Hidalgo County (46), Cameron County (8), and Kleberg County (6).

When student residency density for Fall 2022 is plotted, origination of the Citrus Center enrollment is better illustrated. Each green dot on the adjacent map represents the location of a student address. In instances where students have the same address, the dot is placed on top of the other, therefore giving a distorted perspective of student resident density. Regardless, one can begin to visualize clusters of student residences by geocoding all of the student addresses which were associated with the campus. Note that the geocoded residences represent the address provided to the TAMUK Office of Institutional Research and Assessment at the time of enrollment and neither indicates a student's current address nor implies that the student commutes from that address to campus.



**Map 46.** Citrus Center Student Residency Density: Unduplicated Headcount, Fall 2022





**Map 47.** Citrus Center Student Residency by ZIP Code: Unduplicated Headcount, Fall 2022

## Student Residency by ZIP Code

Residency may also be illustrated using the physical home address of a student at the Citrus Center rolled up by ZIP Code. Those areas with the darker shading, on the adjacent map, indicate a higher density.

**Figure 41.** Top Five ZIP Codes of Citrus Center Student Residency, Fall 2022

ZIP Code (Post Office)	Count (% of Total)	Cumulative Percent
78363 (Kingsville)	6 (7.3%)	7.3%
78559 (La Feria)	5 (6.1%)	13.4%
78570 (Mercedes)	5 (6.1%)	19.5%
78596 (Weslaco)	4 (4.9%)	24.4%
78577 (Pharr)	4 (4.9%)	29.3%

Source: TAMUK Office of Institutional Research & Assessment, ESRI and Facility Programming and Consulting

Similar to the dot map presented earlier, mapping student residency by ZIP Codes may lead to visual distortions due to the non-uniform size of ZIP Code areas. Of the top five ZIP Codes of origin, noted in the table above, analysis indicates approximately 20% of the TAMUK Citrus Center student population resides within a 30-mile radius.

## Student Drive-Time and Distance

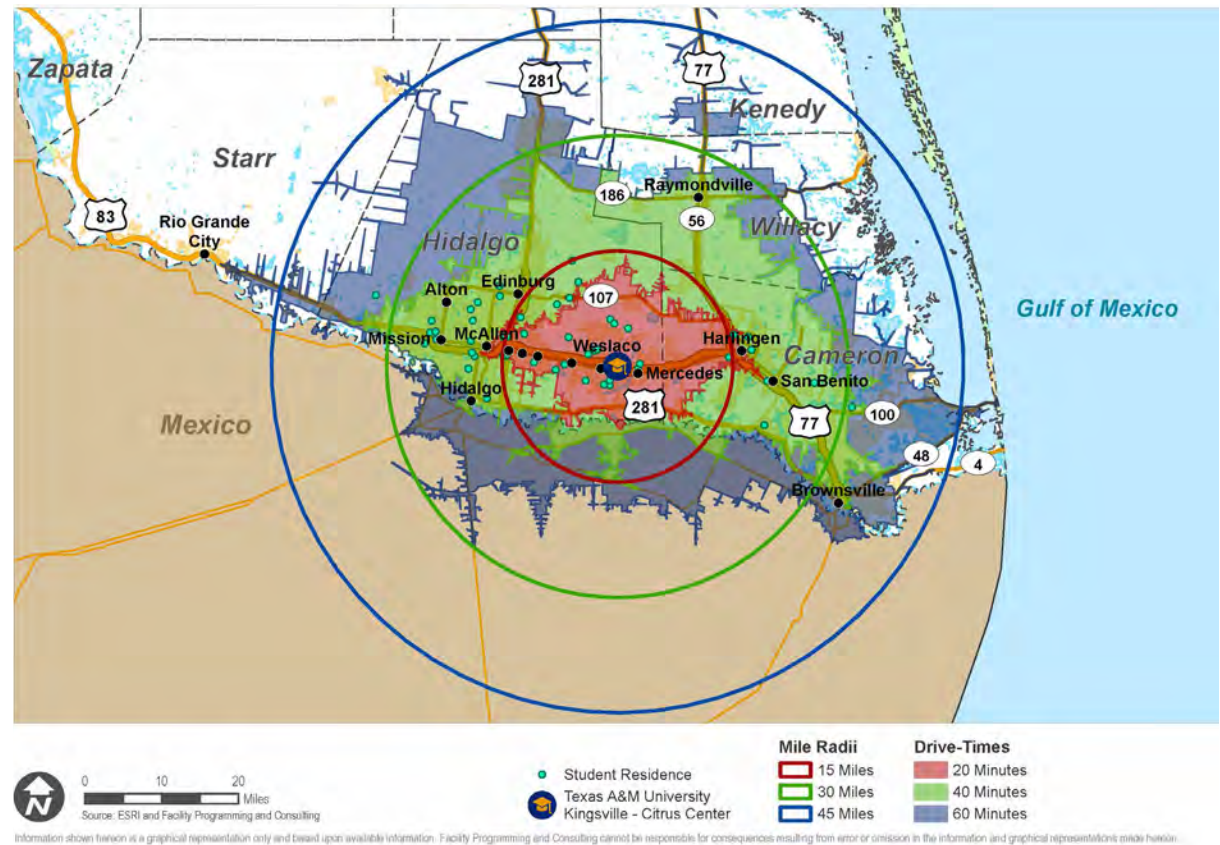
A very limited amount of on-campus housing is provided for students attending the Citrus Center; the majority of students attending this location reside off campus. To further illustrate this, the location of the Citrus Center and the approximate time one may typically experience when traveling from either of the three zones (i.e., 20, 40 and 60 minutes) has been mapped.

In the Fall 2022, 85 students were enrolled in on-campus or hybrid/blended courses at the Citrus Center. Of these, approximately two-thirds (61%) declared their residence within a 30-mile radius and a 40-minute drive to the campus. Nearly 35% of students listed their residence within a 15-mile radius of the campus.

**Figure 42.** Typical Distance and Average Drive-Time of Student from Residence to the Citrus Center, Fall 2022

Distance (Miles)	% of Total	Drive-Time (Minutes)	% of Total
≤ 15	35%	≤ 20	31%
≤ 30	26%	≤ 40	32%
≤ 45	2%	≤ 60	1%
> 45	36%	> 60	36%

Source: TAMUK Office of Institutional Research & Assessment, ESRI and Facility Programming and Consulting



**Map 48.** Mile Radii + Typical Drive-Time to Campus





## Citrus Center Catchment Area

Defining a catchment area allows for additional analysis when examining an existing campus's market area and the potential student and community population. For this analysis at the Main Campus, catchment area is derived by ZIP Codes from which a cumulative percent of students who attend the campus resided. However, because the Citrus Center student population is primarily graduate level or higher and does not reside in concentrated levels at the ZIP Code level, as is found at the Main Campus, a proxy catchment area which utilizes the 40-minute drive-time is instead applied.

The adjacent map identifies the geographic area within the 40-minute drive-time proxy catchment area from which a cumulative 63% of all students who attended the TAMUK Citrus Center in the Fall 2022 semester resided.

Capture rate is calculated as the percent of the total available 2022 population, age 18 to 64, from the identified ZIP Codes which were enrolled at the Citrus Center in the Fall 2022 semester. The capture rates range from 0.01% to 0.03% across the various ZIP Codes within the proxy catchment area, with an average of 0.01%.

Reference Appendix for student counts and percents by ZIP Code.

## Market Summary

By the year 2032, the total population within the Citrus Center proxy catchment area is projected to approach 1.2 million; of these, approximately 58.0% of the population will be in the age group 18 to 64, the predominant target market for higher education institutions. This age 18 to 64 cohort is expected to

increase at an annual rate of 0.8% from 2022 to 2032, similar to the anticipated growth of the population in total.

Almost one-half of the population (46.1%) age 25 and older, within the study area, graduated with some college education or advanced degree.

More than two-thirds of the population in the study area associates as “other” in terms of race; additionally, the Diversity Index is high, indicating that there is variation in the overall race and ethnic composition of the study area (the more equal the representation between race and ethnicity, the higher the index value would be, with 100 indicating “complete

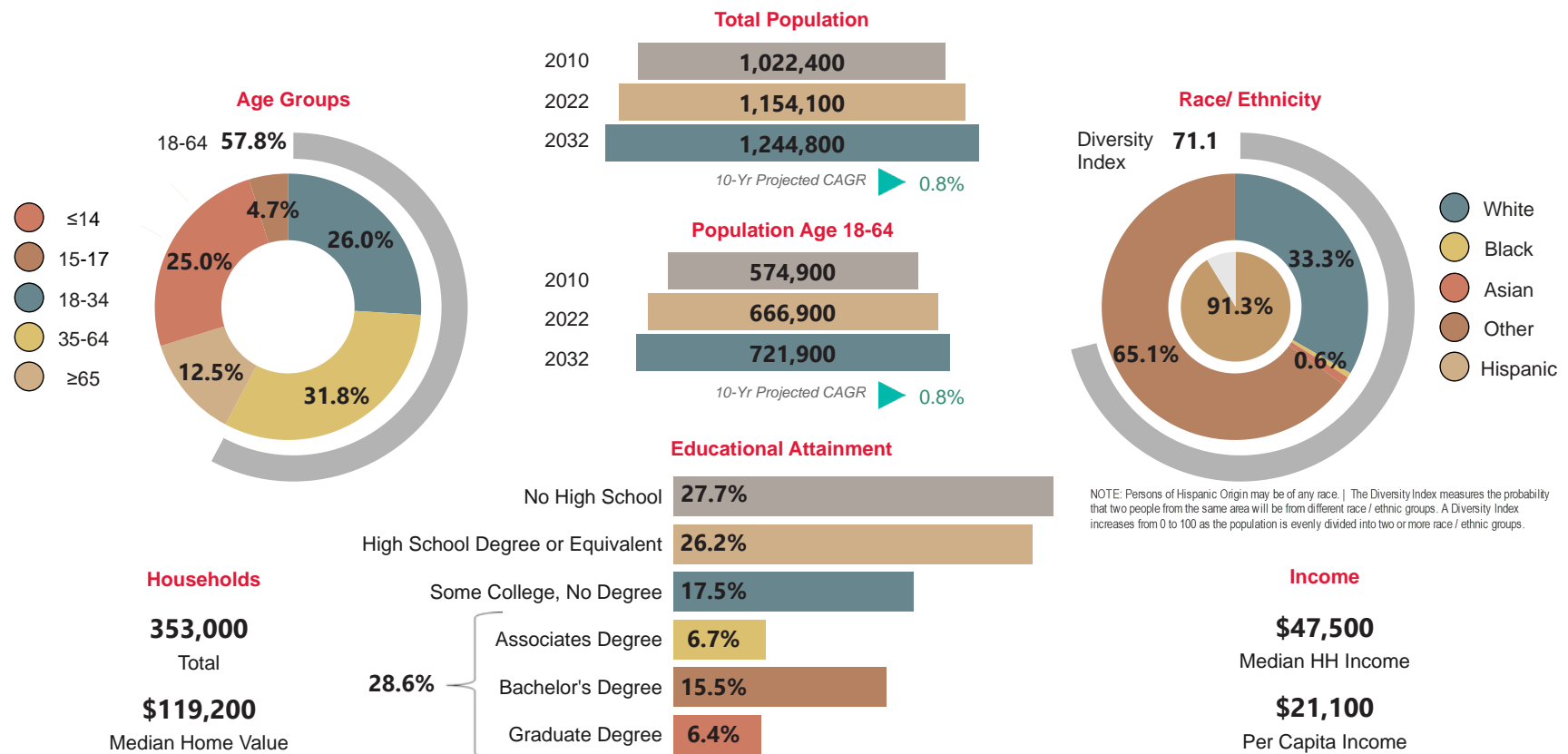


Figure 43. Market Summary of Citrus Center Proxy Catchment Area, Fall 2022: Population Statistics



diversity”). As illustrated in the figure on the previous page, 91.3% of the population within the Fall 2022 Citrus Center catchment area is of Hispanic origin (persons of Hispanic origin may be of any race).

An estimated 29,030 businesses are located within the Citrus Center proxy catchment area

and employ approximately 322,240 workers. In terms of employment, the Retail sector was the largest in the study area with approximately 57,490 workers. This sector also accounted for an estimated 4,970 businesses.

The second largest employer is the Education sector, followed by Health Care.

See Appendix for additional details and analysis included in the full market summary.

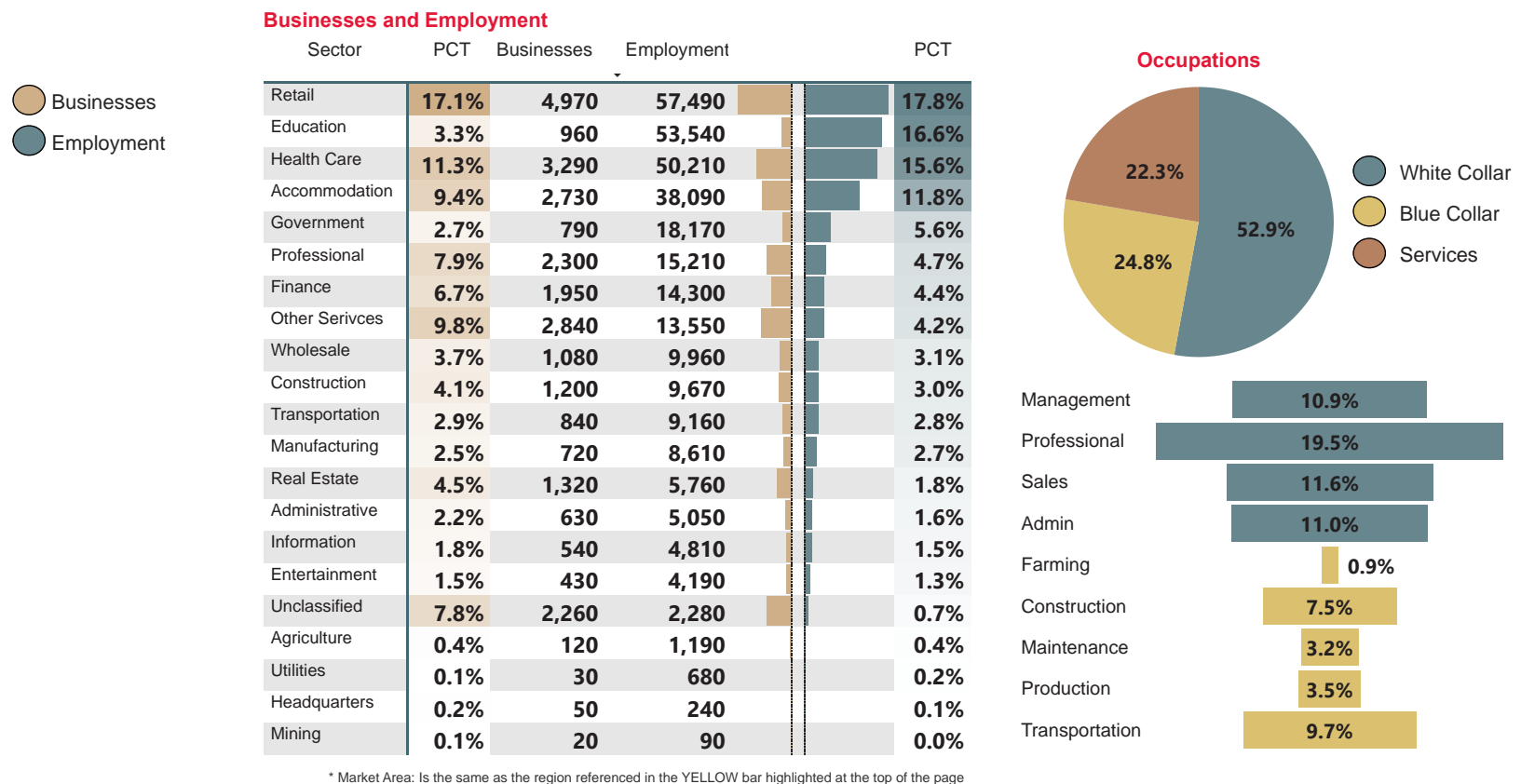


Figure 44. Market Summary of Citrus Center Proxy Catchment Area, Fall 2022: Business and Employment Statistics

## 10-Year Population Growth

Analysis was conducted on the projected population growth, between years 2022 and 2032, of the age 18 to 64 cohort in order to understand the potential impact and opportunities for the Citrus Center. The map on the following page illustrates the projected compound annual growth rate (CAGR) in the population age 18 to 64 cohort, by ZIP Code, through 2032. Those ZIP Codes with the greatest forecasted annual growth are indicated on the map in the darker blue shades; however, as noted earlier, some ZIP Codes also cover larger areas and are larger in size, relative to others, resulting in visual distortion. The adjacent tables identify:

- Top five student residence ZIP Codes associated with the Citrus Center, in the Fall 2022 semester, which are projected to have the greatest CAGR over the next 10 years
- Projected CAGR of those ZIP Codes from which the campus had the highest enrollment

Of the top five ZIP Codes from which students originated in Fall 2022, areas immediately adjacent to Weslaco along Interstate 2, in La Feria (to the east) and Pharr (to the west), have both the highest CAGR and the largest projected increase in number of potential University students, age 18 to 64.

When the top five ZIP Codes of enrollment are ranked by CAGR, the greatest growth (greater than 2.0% per annum) is projected in New

Braunfels; however, the capture rate from this location in Fall 2022 was minimal. While the capture rate of students in these higher growth ZIP Codes in Fall 2022 was relatively low, should TAMUK expand its course and

degree offerings to the undergraduate level, these areas, specifically Penitas, Edinburg, and Donna, may be considered as potential opportunities from which to grow enrollment from within the local community and region.

**Figure 45.** Top Five Fall 2022 Citrus Center Student Residence ZIP Codes Ranked by Projected CAGR (2022-2032) of the Population Age 18 to 64 Cohort

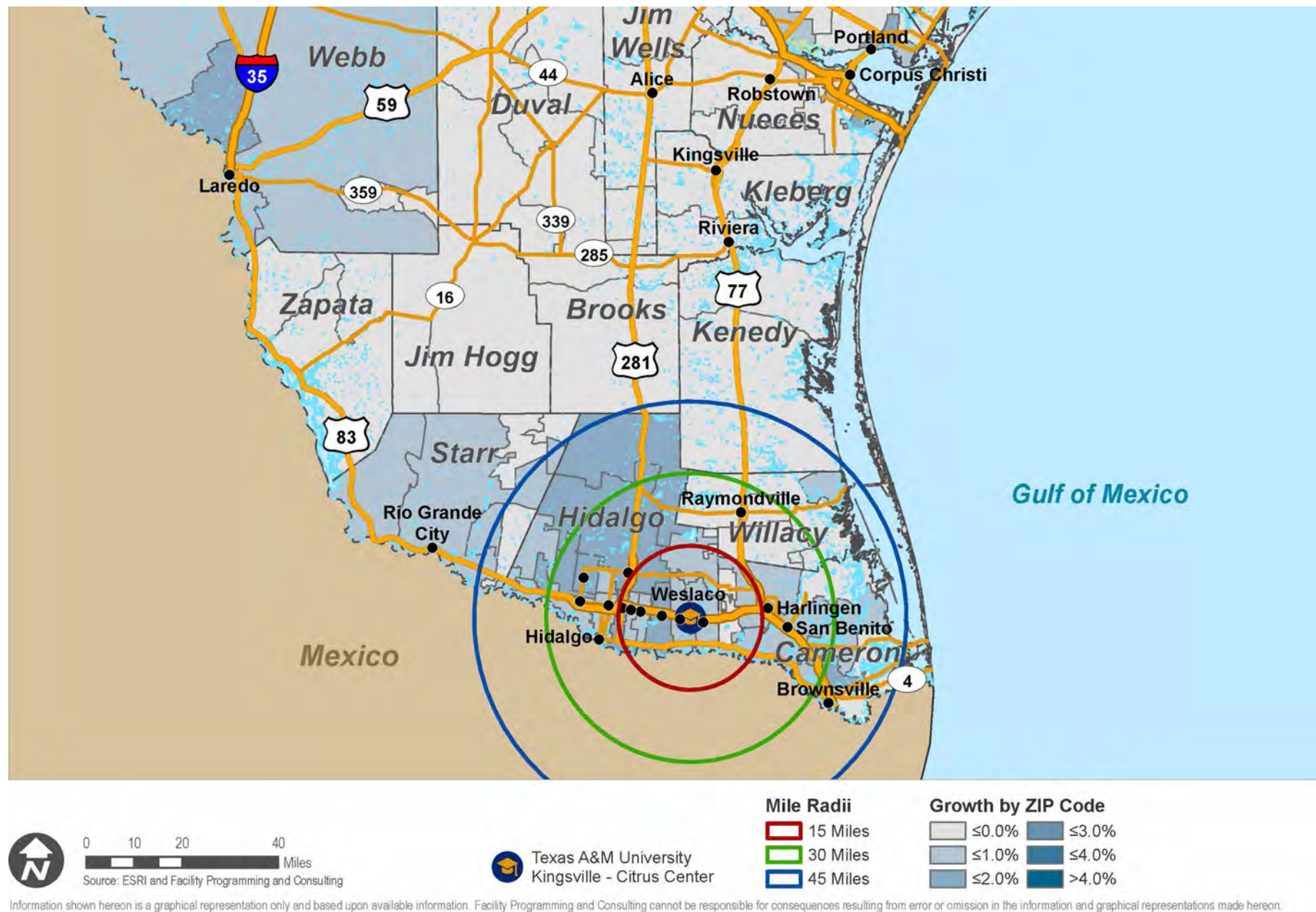
ZIP Code (Post Office)	Fall 2022 Capture Rate	Population Age 18-64		Delta (2022-2032)	Projected CAGR (2022-2032)
		Year 2022	Year 2032		
78130 (New Braunfels)	0.002%	57,400	70,800	13,400	2.1%
78576 (Penitas)	0.01%	8,000	9,600	1,600	1.8%
78542 (Edinburg)	0.01%	51,700	61,400	9,700	1.7%
78537 (Donna)	0.01%	29,500	34,400	4,900	1.6%
78541 (Edinburg)	0.003%	30,800	35,200	4,400	1.4%

**Figure 46.** Projected CAGR (2022-2032) of the Population Age 18 to 64 Cohort of the Top Five Fall 2022 Citrus Center Student Residence ZIP Codes Ranked by Enrollment

ZIP Code (Post Office)	Fall 2022 Capture Rate	Population Age 18-64		Delta (2022-2032)	Projected CAGR (2022-2032)
		Year 2022	Year 2032		
78363 (Kingsville)	0.03%	18,000	16,700	-1,300	-0.7%
78559 (La Feria)	0.03%	19,100	21,000	1,900	1.0%
78570 (Mercedes)	0.03%	18,700	19,300	600	0.3%
78596 (Weslaco)	0.02%	21,700	22,100	400	0.2%
78577 (Pharr)	0.01%	46,700	51,900	5,200	1.1%

*For both tables above, population values have been rounded to nearest hundred; Source: TAMUK Office of Institutional Research & Assessment, ESRI and Facility Programming and Consulting*





Map 50. Citrus Center Area Population Age 18-64 by ZIP Code, CAGR 2022-2032

## Enrollment Projections

Since 2017, the enrollment at the Citrus Center has grown approximately 26%, peaking in 2018 before declining in recent years, at an average of 18% per annum, to 85 students in the Fall 2022. Similar to the Main Campus, this decrease in enrollment is likely due to multiple factors, including changes in federal immigration policy, resulting in restrictions and challenges on international student entry, and the impacts from the COVID-19 pandemic.

When forecasting enrollment, multiple scenarios were utilized. For the Citrus Center, these included:

- Trend Line = Continued growth at historic enrollment (2017-2022)
- 2022 Capture Rate = Ratio of Fall 2022 enrollment to the population age 18 to 64 within the seven Core-Based Statistical Areas (CBSAs) in South Texas; the ratio is then multiplied against the projected growth of the specified 18 to 64 population for the next 10 years
- High School 12th Grade Growth = Percent historic change in growth (2016-2021) of the senior class at the Top 10 high schools of origin for the A&M-Kingsville location; the percent is then multiplied against the Fall 2022 enrollment and carried forward

Unlike the Main Campus enrollment, which is primarily regionally-based, the Citrus Center currently attracts students at the graduate

and doctoral level who are research-based and may originate from a variety of locations within the state of Texas, the nation, and even internationally. For this reason, one additional scenario is generated using the proxy catchment area discussed earlier in this chapter. In this scenario, the projected 10-year change in growth of the age 18 to 64 population within the boundaries of the 40-minute drive-time is analyzed.

Utilizing the average of these four planning scenarios, the 10-year projected enrollment of the Citrus Center is predicted to add approximately 14 students in the next 10 years, with an approximate 100 student enrollment by 2032 (see Figure 47 on page 161). However, this projection assumes a status-quo and that the University does not expand its program offerings or pursue new initiatives which could result in increased enrollment.

According to University leadership, there is interest in expanding the program offerings at the Citrus Center, whether on the same land or in proximity, with a focus on undergraduate degrees in engineering and education. For this reason, a second enrollment scenario has been developed to understand potential enrollment if these new academic programs are implemented by 2027. If these aspirational goals are achieved, it is anticipated that future enrollment will ultimately increase over the next decade with potentially 200 to 300 total students by 2032 (see Figure 48 on page 162).

Any additional growth in either of these scenarios will likely be accommodated through online course availability. For the purpose of this study, those students who are pursuing their degree through 100% online education are in addition to the projected headcount noted above.

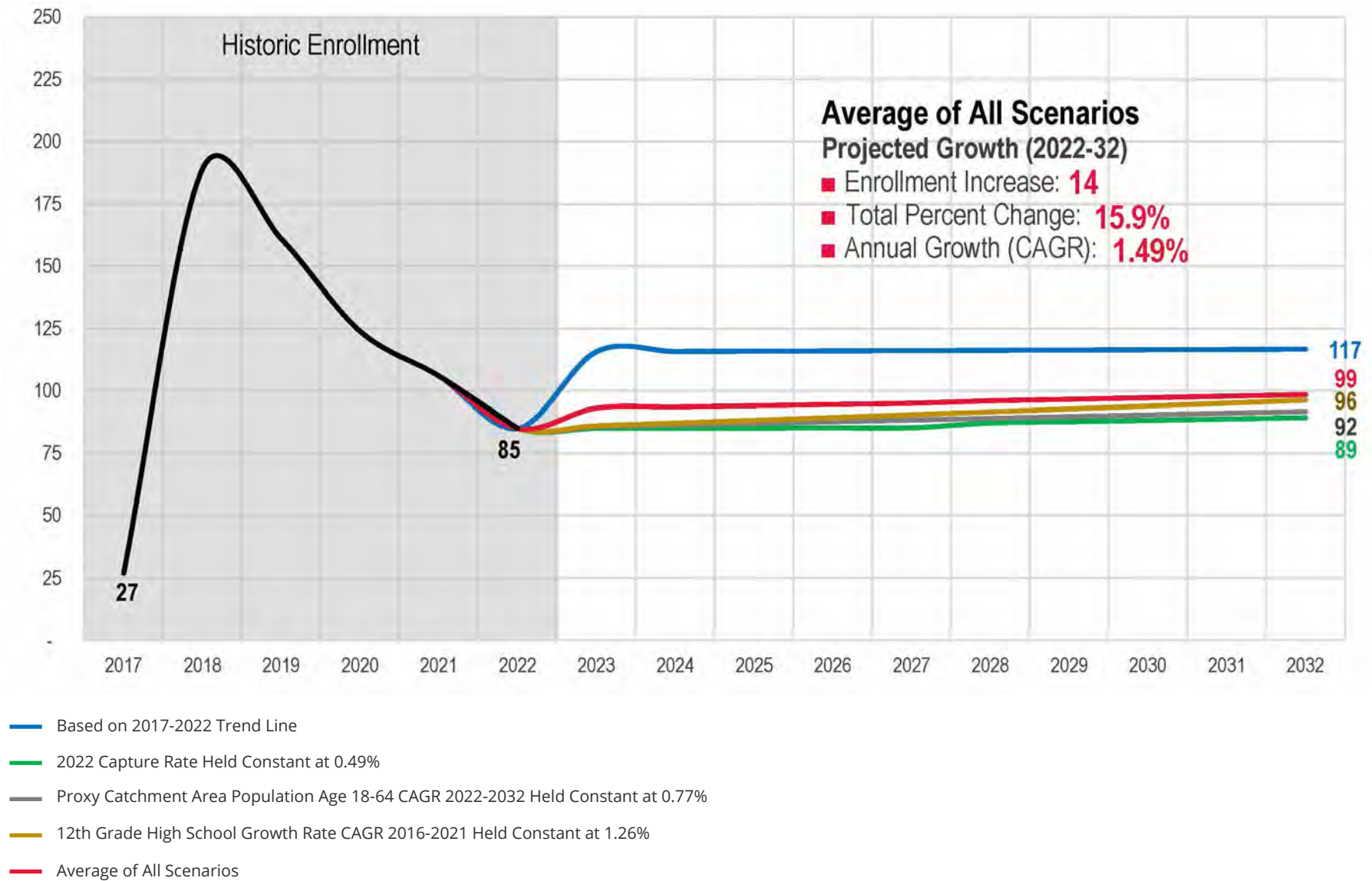
## Program Growth Considerations

Since it opened in 1948, the TAMUK Citrus Center focus has been primarily on the development of programs, research and advancements which benefit and support the local citrus growers and commercial citrus industry of Texas. In addition to its approximately 62-acre main campus, the Citrus Center also owns and operates a nearby 250-acre research farm and leases a 50-acre farm in Monte Alto, 30 miles to the north.

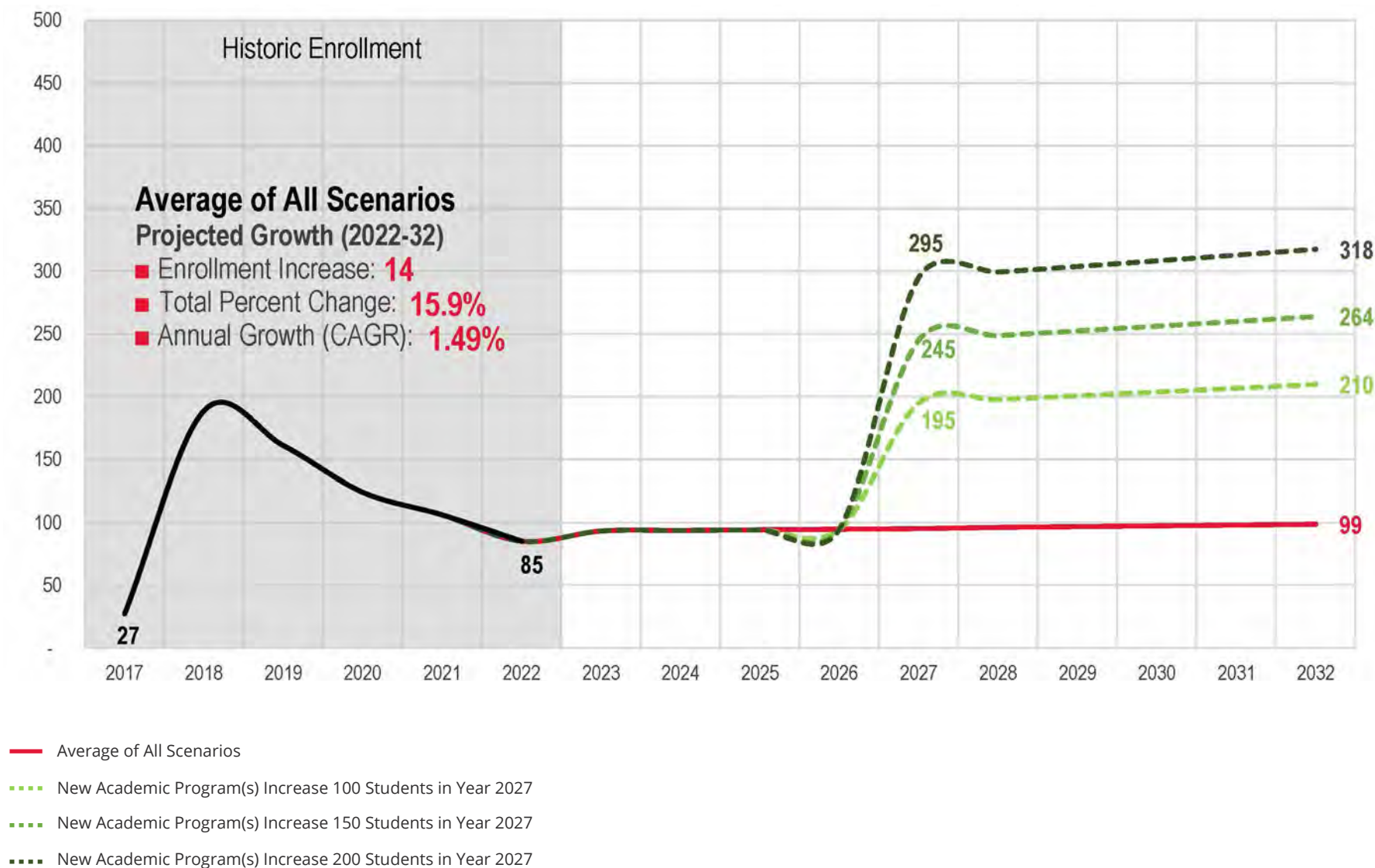
The Center manages the state's certified budwood program and provides citrus nurseries pathogen-free budwood. It also houses a USDA-certified diagnostic laboratory dedicated to detect exotic diseases which could threaten the industry. The Center hosts scientists and researchers from Texas, as well as from other states and nations.

Degree programs currently offered at the Citrus Center are at the graduate level within the College of Agriculture and Natural Resources in the areas of horticulture, entomology, plantology and plant breeding. However, there is consideration from University leadership to expand course and degree offerings into the undergraduate level,





**Figure 47. TAMUK Citrus Center Enrollment Projections (On-Campus/Hybrid Headcount) (2022 - 2032)**



**Figure 48.** TAMUK Citrus Center Enrollment Projections (On-Campus/Hybrid Headcount) (2022 - 2032) After Implementation of New Academic Program(s)



specifically in the disciplines of engineering and education. These disciplines would fill a need within the local and regional community, as well as allow TAMUK to continue to grow enrollment at this location.

The following items were raised during discussions with TAMUK leadership regarding the Citrus Center:

- Several existing greenhouses are outdated (originally from 1940s) or damaged from recent hurricanes and in need of replacement; a new greenhouse which could be subdivided to increase functionality is desired
- The main building is in need of reconfiguration to make it more functional and a better tool to attract and retain graduate students and researchers (e.g., faculty offices lack privacy from the graduate student areas); renovations are currently proposed which would create designated post-doc space
- There is potential to leverage this campus and its facilities as event, educational and collaboration space
- Additional educational and outreach facilities will be necessary in the long-term, should the University expand its offerings at this location
- To enhance and grow enrollment at this location, partnership opportunities with local/regional community colleges in specific disciplines may be explored; program offerings must be intentional and suited to the Valley and South Texas region
- Additional growth and exposure may be through dual credit opportunities with the area high schools



# EXISTING CONDITIONS & ANALYSIS

## Landholdings

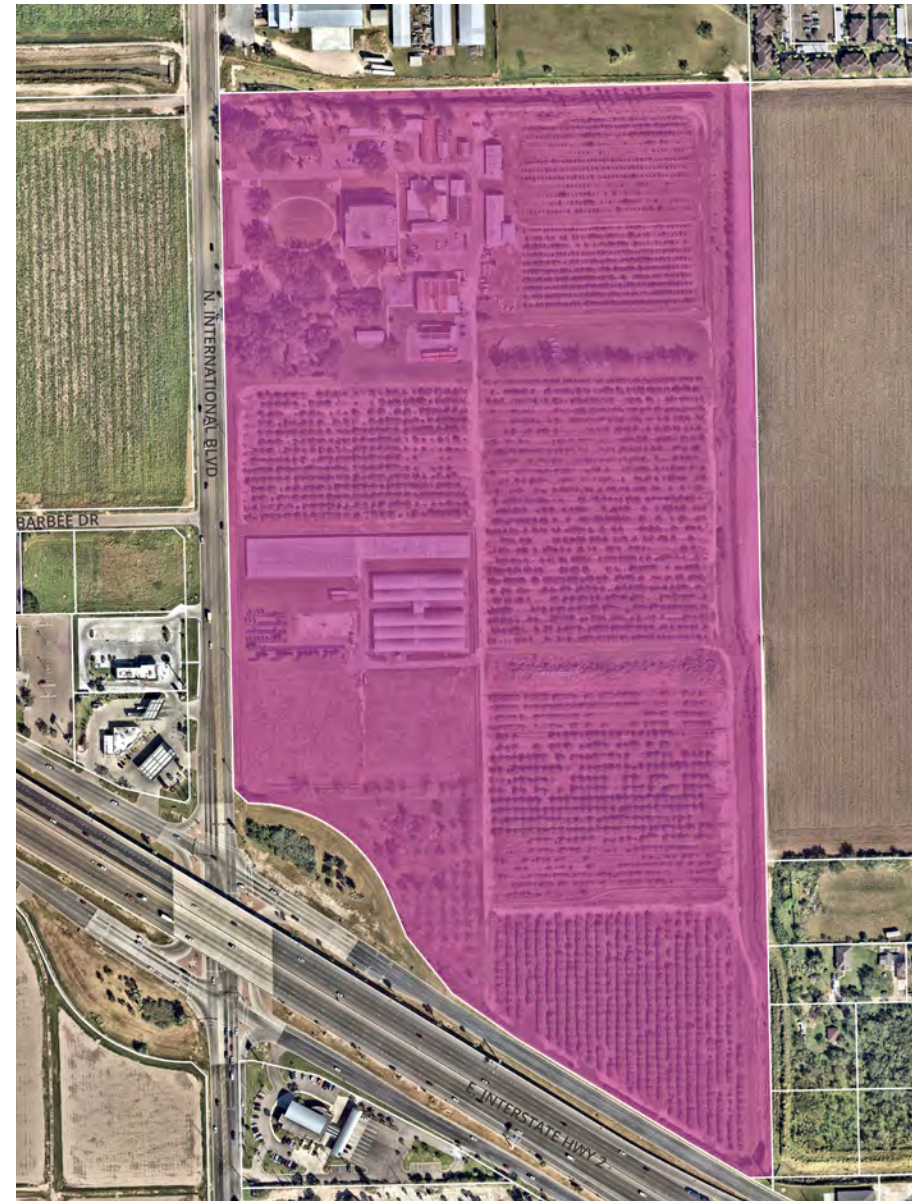
The Citrus Center includes one 62-acre parcel at the northeast corner of the intersection of N. International Boulevard and Interstate Highway 2 (Expressway 83). The property is nearly built-out with citrus groves and academic and research facilities. Development beyond what is proposed in this Master Plan would likely require expansion onto a different property in the area.



*Citrus Groves*

Scale: N.T.S.   
Parcels Owned by TAMUK 

Map 51. Citrus Center - Landholdings





## Existing Layout

The majority of the academic and administrative operations occur in the Main Building. Residential buildings include an apartment complex for graduate students, the farm manager's residence and the director's residence. The remainder of buildings include nurseries and support facilities for orchard operations.



Packing Shed & Greenhouse

- Scale: N.T.S. 
- Main Building 1
  - Apartments 2
  - Cistern Tank 3
  - Tractor Shed 4
  - Chemical Room 5
  - Nursery 6
  - Insectory 7
  - Lunch Room 8
  - Green House 9
  - Farm Manager's Residence 10
  - Rio Red Building 11
  - Packing Shed 12
  - Green House 13
  - Mobile Classroom 14
  - Director's Residence 15
  - Budwood Program Facilities 16

Map 52. Citrus Center - Existing Layout



## Campus & Surrounding Land Uses

The Citrus Center is surrounded by several land uses with agricultural fields being the predominant use. Agricultural fields lie directly to the east and west of the Citrus Center. Many of the commercial operations are focused on servicing the agriculture industry in the region. Directly north of the Citrus Center is a commercial forklift rental facility. The southern end of the Citrus Center borders E. Interstate Highway 2.



*Commercial Properties along E. Interstate Highway 2*

- Scale: N.T.S. 
- Academic 
  - Agricultural 
  - Civic 
  - Commercial 
  - Residential 
  - Undeveloped 

Map 53. Citrus Center - Land Uses





## Building Functionality

The Citrus Center provides facilities where scientists, assistants and students conduct research in a variety of disciplines including irrigation, new varieties and entomology. Completed in 2010, the Main Building replaced World War II-era military barracks. The first floor of the Main Building contains meeting rooms, classrooms, diagnostics laboratories and administration offices. The second floor houses research laboratories, student cubicles and faculty offices. Support facilities include several greenhouses, nursery, equipment shed and packing shed.

Additional facilities on site include residences for graduate students, the farm manager and director, as well as a mobile classroom and Rio Red building.

Residential buildings are focused on the west side of the site and the non-research uses are consolidated in the northwest corner of the property.



Main Building Laboratory

- Scale: N.T.S. 
- Academic 
  - Administrative 
  - Athletics 
  - Housing 
  - University Services 
  - Research 
  - General Public 
  - Support 

Map 54. Citrus Center - Building Functionality



## Access & Circulation

N. International Boulevard provides the primary vehicular access to the Citrus Center. There are two driveway entrances into the Citrus Center, providing direct access to most parking areas. Pedestrian circulation runs primarily north-south with sidewalks framing the oval lawn and running directly adjacent to buildings.



*Access Road from Main Building to Budwood Facilities*

Map 55. Citrus Center - Access & Circulation





## Parking

A primary parking lot intended for visitors is located by the entrance along N. International Boulevard. Student residents have another parking lot next to the apartments and additional lots are located adjacent to the Rio Red Building and to the rear of the Main Building.



*Student Residence Parking*

**Map 56.** Citrus Center - Parking



## Landscape & Open Space

The landscape at the Citrus Center is predominantly turf. Mature trees can be found throughout the Citrus Center. Palm trees line the perimeter along N. International Boulevard and a concentration of oak trees can be found near the residential facilities. A large oval lawn frames the entrance to the Main Building while a shrub hedge softens the architecture.

Few seating areas are located near the student apartments and in front of the Rio Red Building. Landscape improvements for shade, aesthetics and site character could help to improve user experiences on site and visually relate the Citrus Center to the TAMUK Main Campus.



Main Building Lawn

Scale: N.T.S.

- Turf
- Grove Area
- Tree

Map 57. Citrus Center - Landscape & Open Space





## Signage & Wayfinding

All of the signage at or near the Citrus Center is intended for vehicular traffic. The small site size and limited number of buildings minimize the number of signs needed to direct users.

Directional signage for the Citrus Center is located along the off-ramp from E. Interstate Highway 2. Two boundary signs and a banner are located at the entrance to the Citrus Center along N. International Boulevard.



*Signage along E. Interstate Highway 2*



*Main Entrance Signage*

## Utilities

See the Utility Master Plan in the Appendix for larger map and more information.

### Electric

The primary buildings at the Citrus Center are located in the northwest corner of the campus. This is also where the existing overhead and underground electrical lines are localized. An overhead line runs along N. International Boulevard along the campus's west edge. The main buildings in the center of campus are fed from overhead lines running north-south through the core of the campus, along the citrus grove access road. The electric distribution in the Citrus Center area is owned and maintained by American Electric Power Texas Central.

### Domestic Water

The Citrus Center currently receives domestic water service from an existing 12-inch water main running north-south within the west right-of-way of N. International Boulevard. An existing 2-inch water service lateral connects to the 12-inch water main, crosses under N. International Boulevard and loops around the northwest quadrant of the campus to provide domestic water service to the various buildings. In 2009, an 8-inch water service lateral was installed to provide domestic water service to the Main Building and

fire water service to two fire hydrants that were installed with the new water line. The 8-inch service lateral reduces to a 6-inch line east of N. Industrial Boulevard and then connects to the north side of the Main Building with 6-inch and 4-inch laterals.

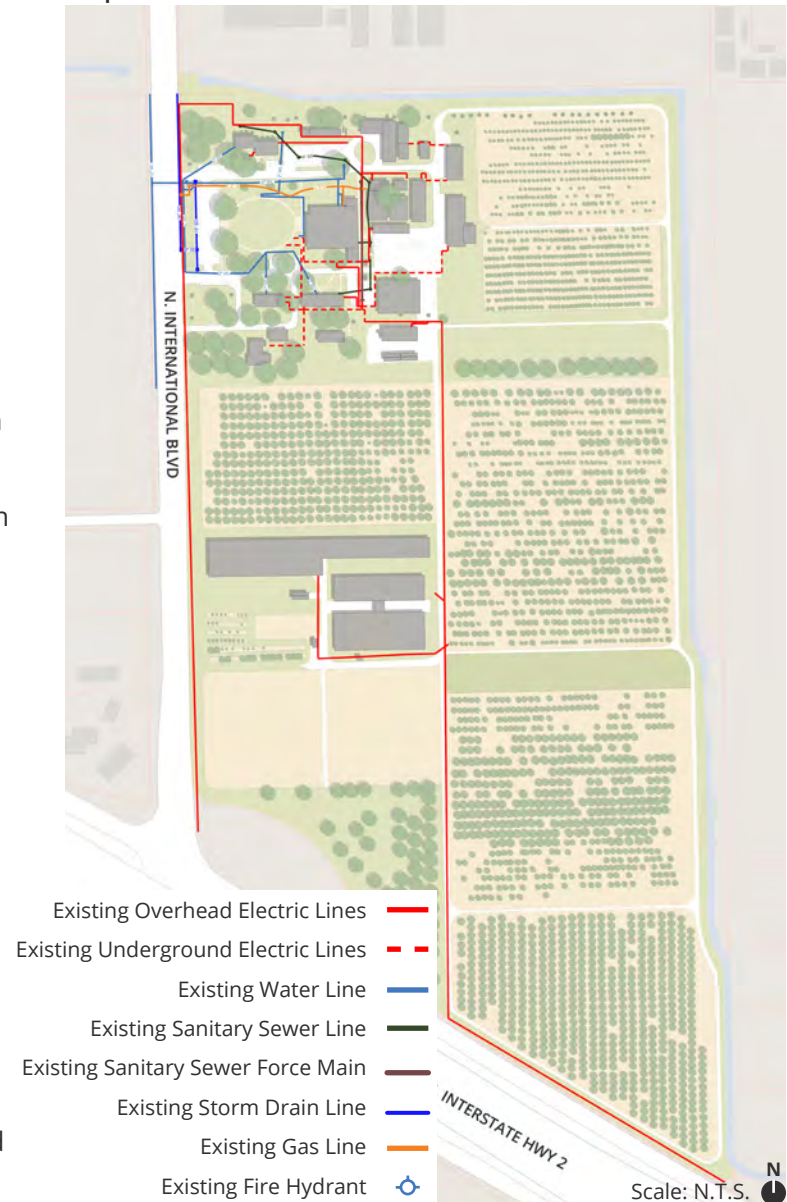
### Sanitary Sewer

There are two 6-inch sanitary sewer mains that receive flow from the various buildings in the Citrus Center northwest quadrant, including the Main Building. Those two mains flow to a sanitary sewer lift station on the east side of the Main Building. The lift station then pumps the sanitary flow south via a 3-inch force main. The lift station storage volume and overall capacity is not known.

### Storm Drain

Stormwater runoff from the existing Citrus Center site generally flows northeast toward the drainage channel that marks the eastern and northern boundaries of the property. Existing curb inlets along N. International Boulevard capture some site runoff in the property's northwest quadrant. The curb inlets connect to a storm drain system along the east side of N. International Boulevard. The existing storm drain system consists of an 18-inch main and 8-inch laterals connected to the curb inlets.

Map 58. Citrus Center - Utilities





## Development Opportunities & Challenges

Based on the previous analysis and input received from stakeholders, students, faculty and staff, there are key opportunities and challenges to consider at the Citrus Center.

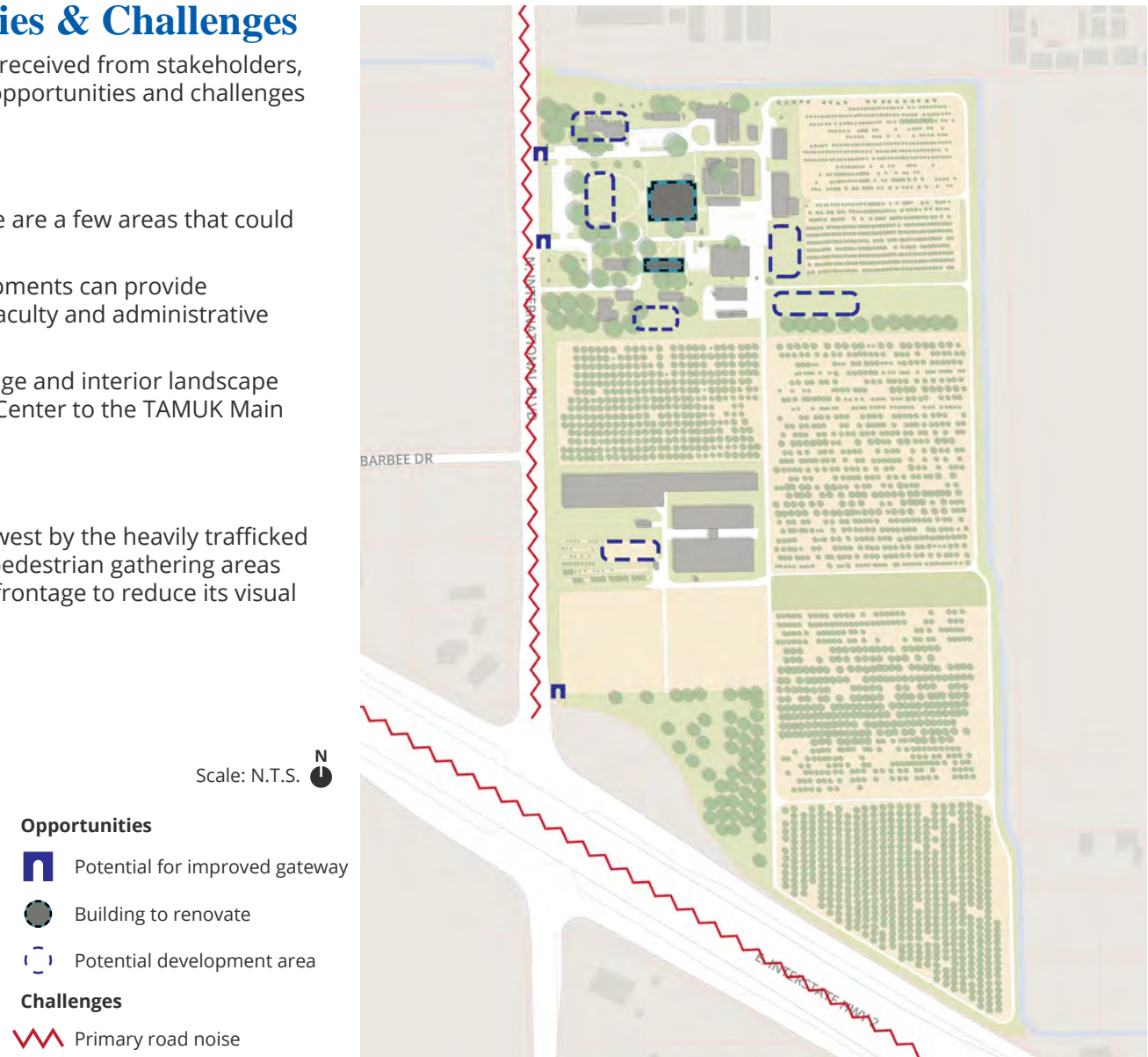
### Key Opportunities

- While the site is largely built-out, there are a few areas that could still accommodate development.
- Building renovations and new developments can provide opportunities for improved student, faculty and administrative spaces.
- Enhancing the street front edge, signage and interior landscape could better visually relate the Citrus Center to the TAMUK Main Campus.

### Key Challenges

- The Citrus Center is bordered on the west by the heavily trafficked N. International Boulevard. Outdoor pedestrian gathering areas should be sited away from the street frontage to reduce its visual and auditory impact.

Map 59. Citrus Center - Opportunities & Challenges



# RECOMMENDATIONS

## Citrus Center Master Plan

The development of this Master Plan and recommendations for the Citrus Center were based on a series of guiding principles that reflect TAMUK's vision for the future.

- **Enhance the overall experience for campus users.**
- **Foster the growth and advancement of research capabilities.**
- **Develop and improve outdoor spaces and environments.**
- **Establish a consistent TAMUK experience across all campuses.**
- **Promote expansion and growth through a variety of programs and facilities.**
- **Cultivate and leverage partnership opportunities.**

TAMUK is under new leadership, experiencing some growth, and new programs are giving direction and vision to the University. For the new vision to be implemented now and in the future, there will be a need for new and improved facilities. These facilities will provide an improved learning and social experience for students, promote premier programs and degrees, and provide additional opportunities to capture strong alumni ties and give back to the community.

Based on discussions with TAMUK leadership, enrollment projections and associated space needs, and the existing conditions of facilities, a few new buildings or renovations were

identified as Master Plan priorities. These include:

- Academic Building
- New Student Housing
- New and Replaced Greenhouses

### Master Plan Summary

Approximately 62 acres, located in Weslaco, Texas, the Citrus Center began when a group of local citizens and citrus growers approached the then-Texas College of Arts and Industries in Kingsville to establish a research and training facility specializing in citriculture for the Lower Rio Grande Valley.

The Citrus Center mainly consists of citrus trees that are grown for research purposes and best practices for citrus growers. Some students reside on-site, while others commute from nearby communities and Kingsville. Some existing facilities need renovation, and there is also a need for new facilities to accommodate the Citrus Center's desired growth.

The Citrus Center Master Plan identifies locations for new and replaced greenhouses, one of which was damaged in a past weather event. The Main Building is recommended to be renovated, allowing additional office and student-related spaces. The renovation of the Rio Red Building will also allow for faculty and student spaces to help enhance the Citrus Center student experience.

A new Academic Building will allow TAMUK to offer Main Campus courses and programs

(e.g., Engineering), in the Lower Rio Grande Valley, potentially leading to an additional TAMUK location in the region. New student housing will replace an existing dormitory that will be displaced by the Academic Building.

There are many variables in implementing master plans, such as funding, student enrollment, University leadership and the economy. These variables determine when and how various improvements take place. Projects are not listed in a prioritized order. Rather, the order of implementation will be based on the timing of funding and development opportunities that arise. See the Implementation chapter for target implementation phases.

The following pages detail the recommendations by initiative type and incorporate associated high-level construction cost estimates where projects have sufficient detail. These estimates do not include the interior building finish-out, such as furnishings and equipment.

The recommended improvements will help TAMUK systematically achieve the vision for the Citrus Center during the next 10 years and beyond.



## BUILDING & FACILITY INITIATIVES

- A** Academic Building
- B** Renovated Main Building
- C** Renovated Rio Red Building
- D** New Student Housing
- E** New and Replaced Greenhouses

## OTHER INITIATIVES

- F** Reconfigured Fencing
- G** Entry Monument Signs



Map 60. Citrus Center Campus Master Plan

Scale: N.T.S. 

## Building & Facility Initiatives



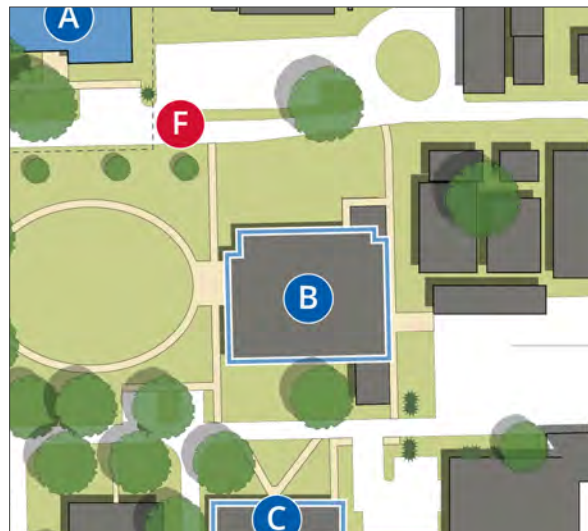
**A**

### **Academic Building**

There is a desire to increase enrollment and overall use of the Citrus Center campus. In order to do this, a new two-story, 10,000 GSF general Academic Building is proposed. This building would include academic spaces, offices, administrative space and storage to allow additional programs to start on this campus. This project also includes a small outdoor seating area with shaded seating north of the building, a new parking lot, and associated sidewalks and landscaping.

*Cost Estimate: \$8,582,200*

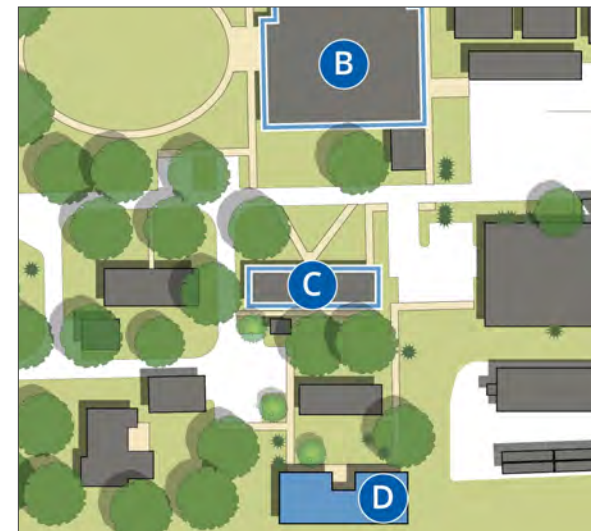
*(Total construction cost based on 2023 values)*



**B**

### **Renovated Main Building**

The Main Building currently lacks sufficient office space while also having a surplus of student space. This proposed renovation would add four offices and a central corridor. These renovations would provide necessary office space for faculty and postdoctoral students.



**C**

### **Renovated Rio Red Building**

The Rio Red Building is in need of upgrading. This proposed renovation could include air conditioning systems, doors, and painting, among other things. In general, the facility is in need of more lab and office spaces for personnel.





**D**

## New Student Housing

Construction of the new Academic Building on the campus would require demolition of the existing apartments. Thus, a new one-story, 4,000 GSF student housing building is recommended just north of the eastern groves. This project also includes a small new parking area northwest of the apartments, sidewalks and associated landscaping.

*Cost Estimate: \$1,562,900*  
*(Total construction cost based on 2023 values)*

**E**

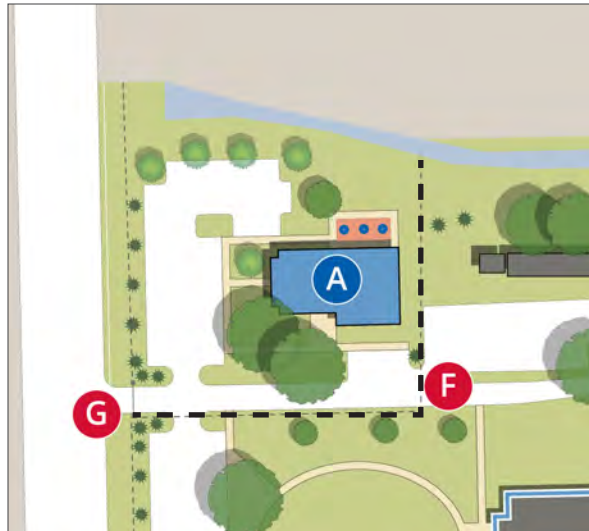
## New and Replaced Greenhouses

At present, the Citrus Center lacks a functioning greenhouse. This project includes the development of three 2,400 GSF greenhouses that can be partitioned by research program. The southern greenhouse replaces one that blew down in a storm. The addition of these greenhouses will allow the Center to conduct studies in a controlled environment.

*Cost Estimate: \$3,208,800*  
*(Total construction cost based on 2023 values)*



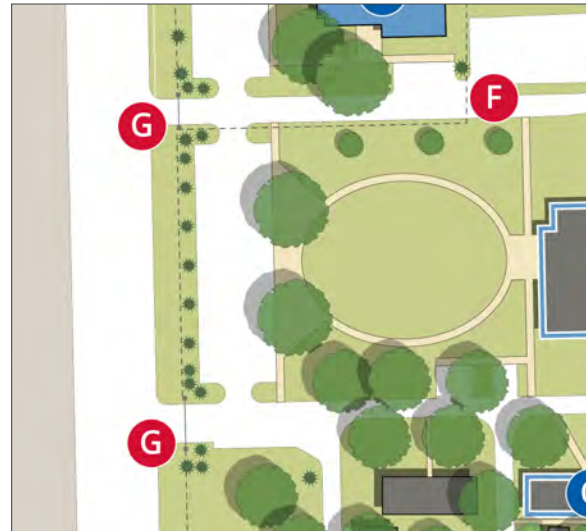
## Other Initiatives



A

### Reconfigured Fencing

Due to the nature of some of the research conducted on the property, the site is currently fenced off. As new non-research-focused users come to the property, there may be a need to reconfigure and/or add fencing to separate the new Academic Building and parking from the rest of the property. A conceptual fence alignment is highlighted on the plan.



B

### Entry Monument Signs

Similar to the other TAMUK campuses, it is recommended that consistent entry monument signs be installed to help create an identifiable TAMUK brand that visually connects the various learning sites. The design of the overhead arch sign proposed at University Farm could be duplicated at the existing primary parking lot entrances. This would replace the small existing sign that is somewhat obscured by the perimeter fence.









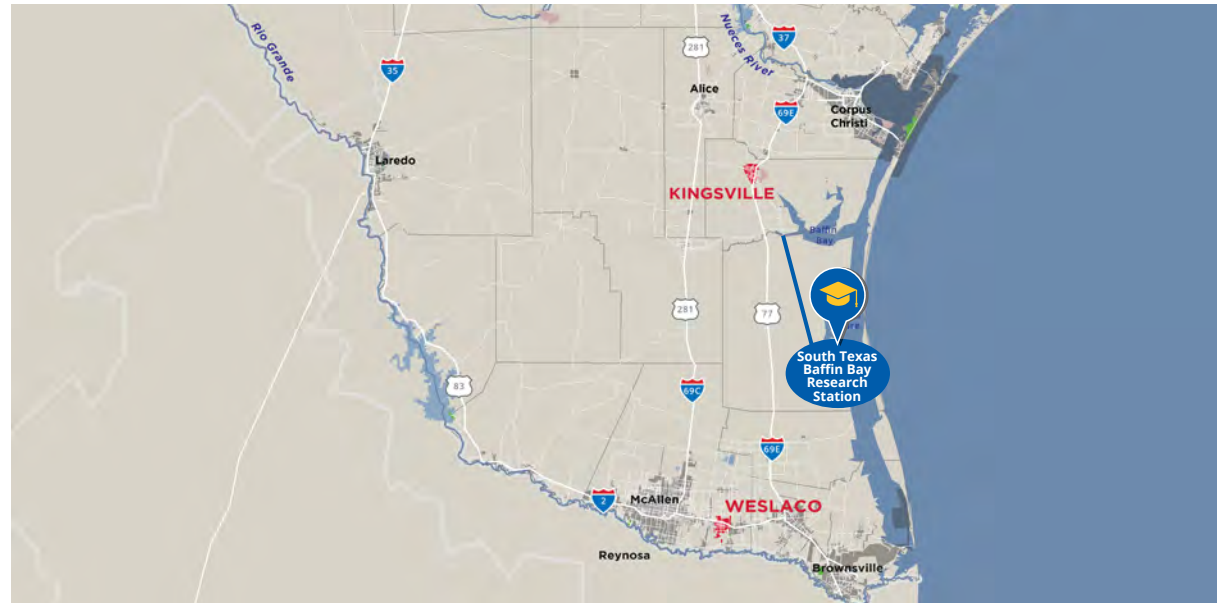




# SOUTH TEXAS BAFFIN BAY RESEARCH STATION

# INTRODUCTION

The South Texas Baffin Bay Research Station is located in the southeastern area of the unincorporated community of Riviera, situated about 24 miles south of the TAMUK Main Campus. The property is accessible via S. County Road 1120 and sits on the shore of Baffin Bay, which is an inlet of the Laguna Salada.



**Map 61.** South Texas Baffin Bay Research Station Regional Context Map

Scale: N.T.S. 

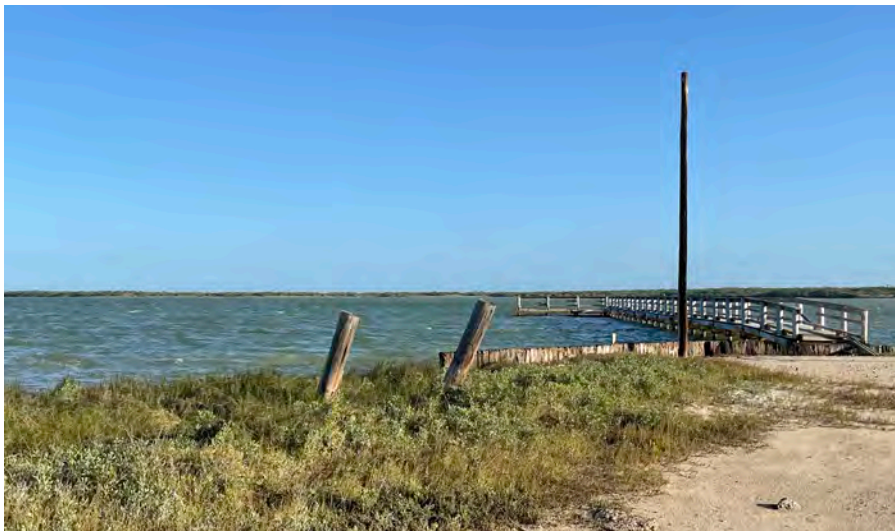




*Eastward Shoreline View*



*Westward Shoreline View*



*Existing Pier*



*De-energized Electrical Lines*

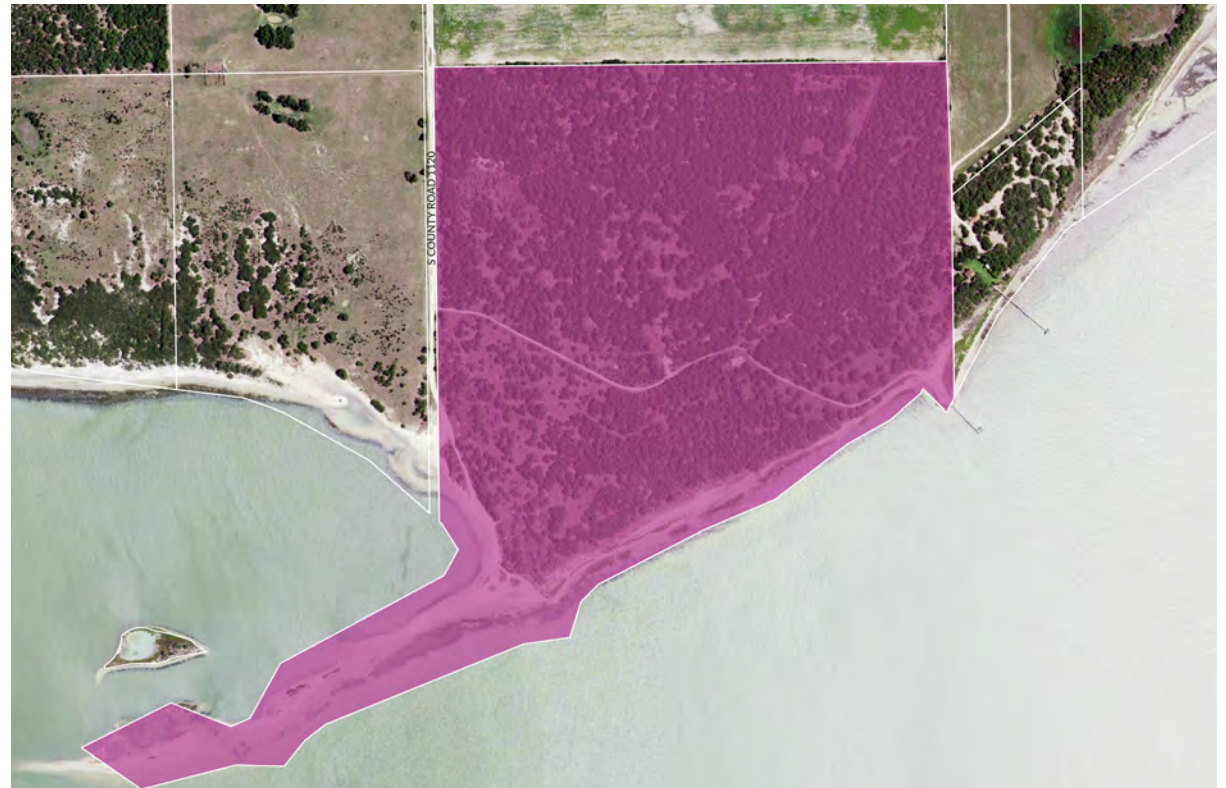


# EXISTING CONDITIONS & ANALYSIS


## Landholdings

The 141 acre property was a former U.S. Navel Outlying Field 55 that was transferred to Texas A&I University (present-day TAMUK). The property was transferred under the agreement that it would be used as an outdoor laboratory for research and field study in biological, earth and agricultural sciences.

Map 62. South Texas Baffin Bay Research Station - Landholdings



Scale: N.T.S. 

Parcels Owned  
by TAMUK 



*Aerial View from Northwest Corner of Site*



*Former Research Facility Site*



## Existing Layout

An unpaved access road runs east-west through the center of the site. The road passes the building pad of a former research facility and continues to the beach and the location of a deteriorated pier.


Map 63. South Texas Baffin Bay Research Station - Existing Layout



Access Road



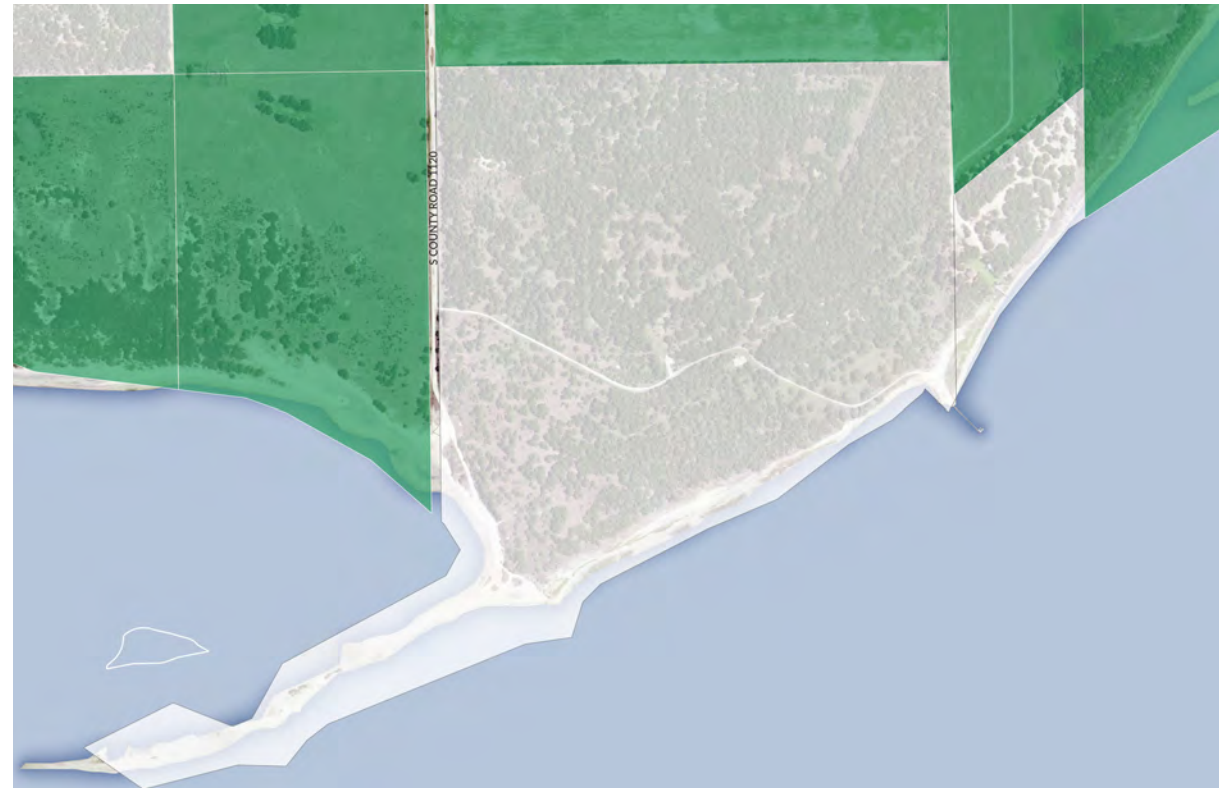
Pier Structure

Scale: N.T.S.   
Former Research Facility 1  
Pier 2

## Campus & Surrounding Land Uses

The South Texas Baffin Bay Research Station sits within an area characterized by vast, undeveloped parcels. Agricultural fields lie directly north and cattle pastures lie to the west across S. County Road 1120.

Map 64. South Texas Baffin Bay Research Station - Land Uses



Scale: N.T.S.

- Vacant
- Agricultural



*Agricultural Fields North of Research Station*



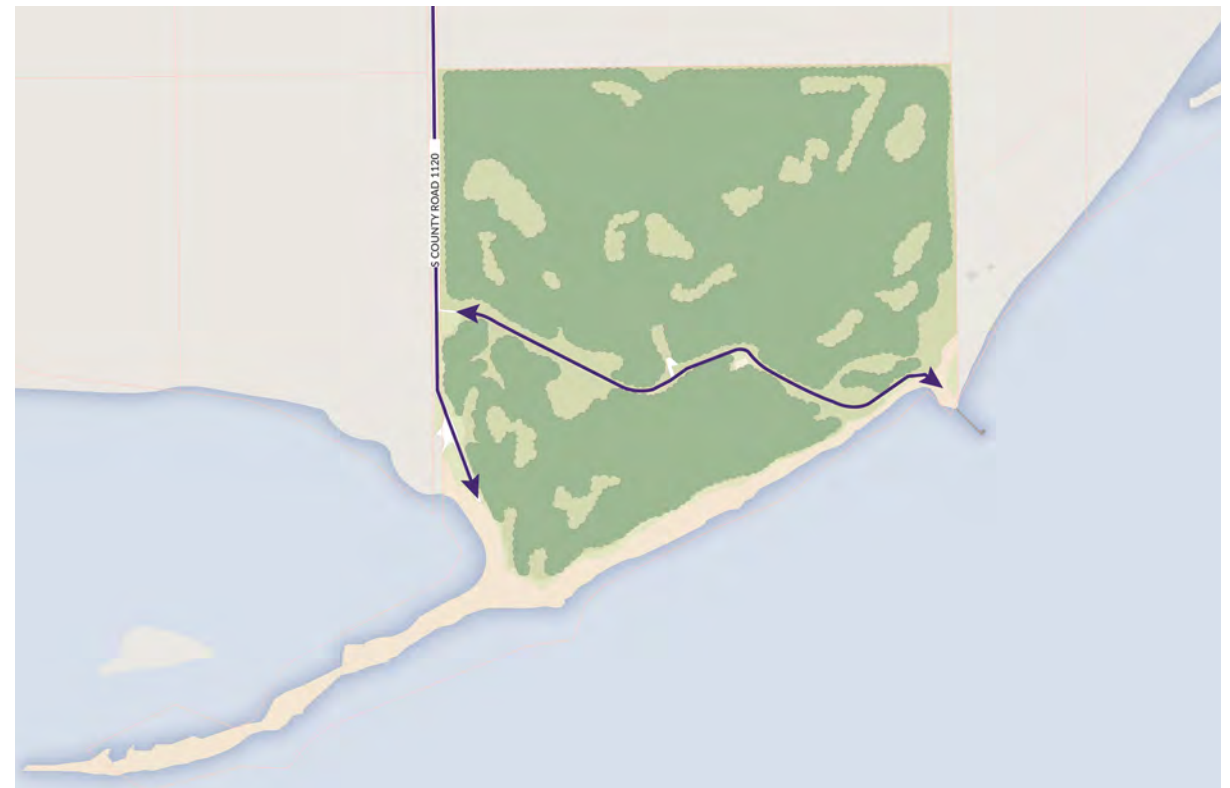
*Cattle Pasture West of Research Station*



## Access & Circulation

S. County Road 1120 provides access to South Texas Baffin Bay Research Station. An unpaved road provides the access through the site and terminates at the beach and pier location. Although the peninsula has been accessed by vehicles, it is prone to regular inundation and should not be used by vehicles.

Map 65. South Texas Baffin Bay Research Station - Access & Circulation



*S. County Road 1120*



*Access Road*

# Environmental Considerations

## Climate Change and Sea Level Rise Resiliency

Baffin Bay is known as the “jewel of the Texas coast” and supports a diversity of ecosystems rich with terrestrial and marine wildlife. Map 66 shows the different ecosystems present throughout the TAMUK Baffin Bay site which include grasslands and woodlands throughout the upland areas and tidal flats and seagrass beds along the bay shorelines.

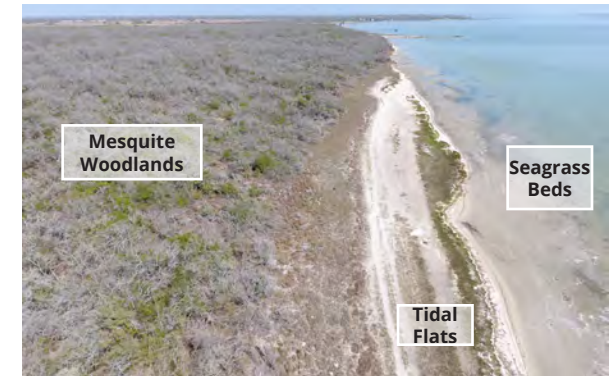
This site may face challenges in the future associated with changing environmental conditions, including impacts from sea level rise and more frequent storm events. Map 67 shows conditions at the site under a projected future scenario with a 1-meter

rise in sea level.<sup>1</sup> As seen in Map 67, some of the natural areas, particularly along the western depositional ridge that extends out into the bay, are likely to be lost. However, the majority of the site is at a high enough elevation that it would not be impacted by rising sea level.

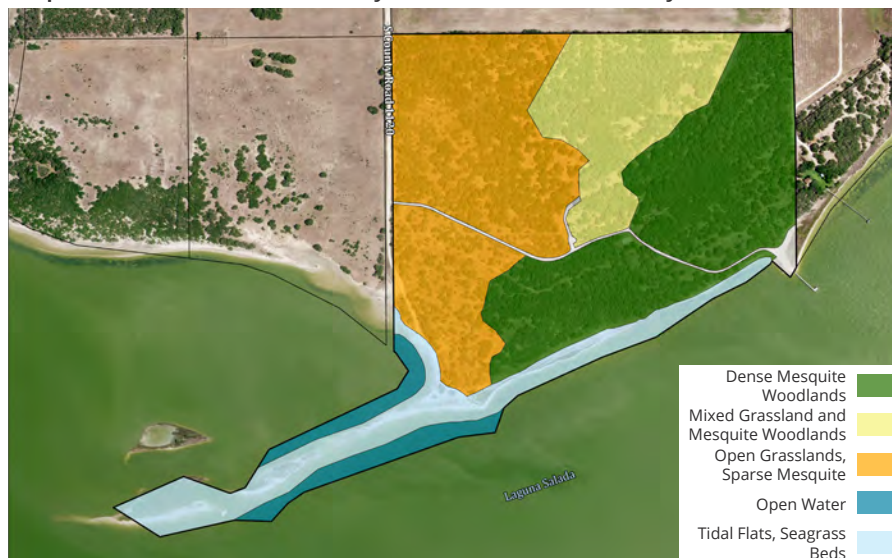
Protecting and conserving the site’s natural buffers (native upland and tidally influenced zones) can maximize its resilience. Native uplands offer the elevation and vegetation required to withstand storm events and sea level rise. Tidally influenced zones including shallow flats have been shown to attenuate storm surge, stabilize shorelines and reduce

<sup>1</sup> National Oceanic and Atmospheric Administration (NOAA). 2023. Sea Level Rise Viewer. <https://coast.noaa.gov/digitalcoast/tools/slr.html>.

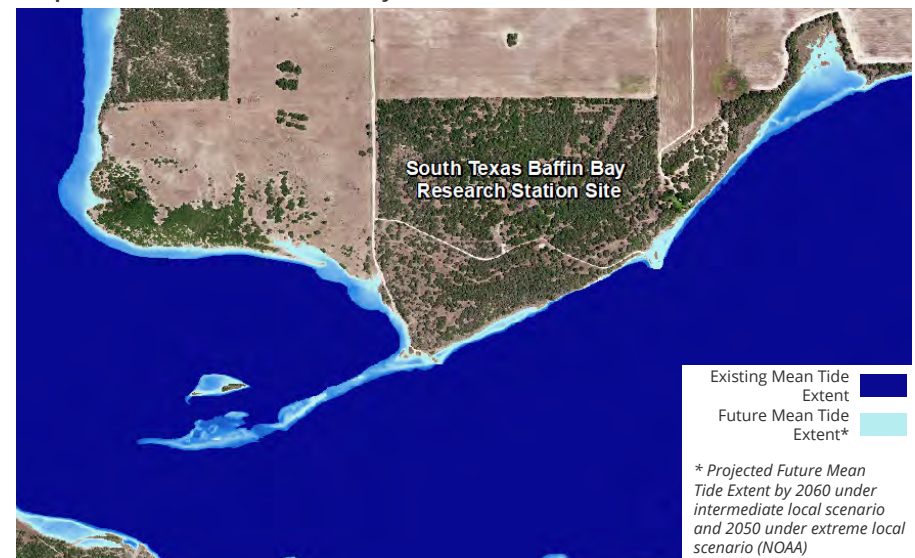
erosion. Additionally, these areas provide valuable habitat for shorebirds and wading birds, including piping plovers, sand pipers and willets. The image below provides a great snapshot of the different ecosystems on the site and how they transition.



**Map 66.** South Texas Baffin Bay Research Station - Ecosystems



**Map 67.** South Texas Baffin Bay Research Station - Potential Sea Level Rise





## Habitat Conservation Opportunities

The Baffin Bay site is home to a mosaic of natural habitats, each of which provides critical services to native wildlife, including foraging habitat for whitetail deer amongst the native upland vegetation, foraging habitat for shore birds and wading birds along the tidal flats, and important food and habitat resources for fish and other marine species within the seagrass meadows. These sensitive landscapes are a natural highlight of the site and provide a draw for visitors. Where practical, habitat conservation measures should be developed to protect these habitats. This can take place indirectly through minimizing future development on remaining habitats.

## Invasive Species Management

The site's natural beauty will be a major draw for visitors and researchers alike, but invasive plant and animal species pose a potential threat. From an ecological perspective, invasive species outcompete native plants and displace native animals in their ecosystem. Invasive species such as buffle grass (*Cenchrus ciliaris*) can be found throughout the site. Buffle grass and other invasive plant species can be removed with herbicide treatment or mechanical removal. Replacing disturbed areas with plantings of native south Texas brush including Mexican olive (*Cordia boissieri*), Agarita (*Mahonia trifoliata*), Gum Bumelia (*Bumelia lanuginosa*), Cenizo (*Leucophyllum frutescens*), Lime Prickly

Ash (*Zanthoxylum fagara*), and Texas Paloverde (*Parkinsonia texana*) would promote the establishment of native species and attract native wildlife, neotropical bird migrants, and native pollinators.<sup>2</sup> A mowed and maintained trail system around the site would provide access to different vegetation communities for outdoor learning and could be used for public outreach and education. Additionally, there are areas of potential grass and brush fuel within the site that could be managed by a prescribed fire. Local experts from NRCS and Texas A&M AgriLife and Forest Service should be consulted about the best way to manage brush and available fuels.

<sup>2</sup> Texas Parks and Wildlife Department (TPWD). 2022. The South Texas Brush Country and Wildscapes Plant List- South Texas Plains. [https://tpwd.texas.gov/landwater/land/habitats/southtx\\_plain/urban/media/south\\_tx\\_wildscapes.pdf](https://tpwd.texas.gov/landwater/land/habitats/southtx_plain/urban/media/south_tx_wildscapes.pdf).



Native Vegetation (e.g., Mesquite, Gum Bumelia, Yucca) Providing Wildlife Habitat and Forage



Invasive Species (e.g., Buffel Grass) can Outcompete Native Vegetation and Provide Fuel for Wildfires



## Shoreline Erosion Control

The shorelines around the Baffin Bay site act as a first line of defense against waves and storm surge. Without healthy shorelines, the site faces risks of overtopping flows from high tide and storm events that would erode the shorelines and leave the site less protected. There are patches of shoal grass (*Halodule wrightii*) along the entire length of the site's southern shoreline which provide important habitat for fish and marine invertebrates. Numerous techniques and planning measures are available to address shoreline erosion, including living shorelines. These "green infrastructure" approaches to shoreline restoration not only add to aesthetics but serve to stabilize shorelines and provide important habitat for birds and other wildlife.



*Shoal Grass Growing along the Shoreline*

## Recreational & Green Infrastructure Opportunities

Coastal environments are an important part of many people's recreation, and the presence of healthy coastal ecosystems provides numerous recreational opportunities including fishing, birdwatching, walking/hiking and kayaking. Reconstruction of the existing on-site pier and/or development of an additional pier would provide these recreational opportunities for visitors and could serve as a kayak launch. An artificial reef could be constructed under the pier to provide protection to the shoreline by dissipating damaging energy from storms and boat wakes. The artificial reef would also provide valuable resources and increase the biodiversity of fish and marine invertebrates,

attracting blue crabs, Black Drum, Red Drum and Speckled Seatrout.

Additionally, there is the opportunity to install green infrastructure such as solar panels to reduce electricity usage and greenhouse gases, and rainwater collection systems on all constructed buildings within the site. A water well could be drilled to supply freshwater to the site and an above-ground freshwater feature (such as a stainless-steel stock tank) with a fountain feature could be installed to attract migratory birds, mammals and other wildlife without potential damage from feral hogs. Green infrastructure systems improve the surrounding air and water quality and provide significant value to the community with diverse habitats and beautiful green spaces.



*Example Artificial Reef Helps to Dissipate Damaging Energy from Storm Surges*





*Feral Hog Skull Found near the Old Ponds*



*Eroded Shoreline at Low-Tide*



*Typical Native Habitat Observed within the Property (e.g., Big Bluestem, Mesquite, Gum Bumelia)*



*Stone Crab Found along the Shoreline*

## Utilities

See the *Utility Master Plan in the Appendix* for larger map and more information.

### Electric

The Baffin Bay site is currently undeveloped. An existing overhead electrical line runs along Kleberg County 1120 S and extends to one of the peninsula's furthestmost points. This line is a 3-phase overhead line that is currently de-energized. This line extends beyond the property and goes across the water. The route of this line was confirmed by Nueces Cooperative. There are several poles scattered throughout the area, but they don't have electrical connections. The electrical utility service conditions will need to be evaluated prior to providing new utility service. The lines are serviced and owned by Nueces Cooperative.

### Domestic Water

Although the Baffin Bay site is within the CCN of the Baffin Bay Water Supply Corporation (WSC), there is no known existing active water infrastructure within the Baffin Bay remote campus site. According to Baffin Bay WSC, the water provider's utility mains do not extend south of C.R. 628.

### Sanitary Sewer

There is no known public sanitary sewer infrastructure within the Baffin Bay remote campus site or surrounding areas. Properties in the surrounding areas utilize septic tanks and on-site septic systems.

**Map 68.** South Texas Baffin Bay Research Station - Utilities



### Drainage and Storm Drain System

Stormwater runoff from the existing Baffin Bay remote campus site flows north and south from a high point of the property, as indicated by the flow arrows on Map 68. No existing storm drain infrastructure is shown within the site in the available utility information.

Scale: N.T.S.

Existing Overhead Electric Lines   
Drainage Flow



## Opportunities & Challenges

Based on the previous analysis and input received from stakeholders, students, faculty and staff, there are key opportunities and challenges to consider at Baffin Bay.

### Key Opportunities

- The unique geography of the site can be leveraged into development opportunities for new research and recreational facilities.
- Habitat conservation can be a key aspect of future site programming.

### Key Challenges

- Steep slopes and the risk of erosion can limit development potential close to the shore, but do provide opportunities for preservation and recreation.
- The peninsula is prone to inundation and can limit beach access.

Map 69. South Texas Baffin Bay Research Station - Opportunities & Challenges



Viewsheds



Steep Slopes

#### Opportunities

- Potential for public-facing development
- Building for research/education development
- Potential habitat conservation
- Potential trail
- Potential improved road
- Water views

#### Challenges

- Steep slopes
- Area of likely future inundation

Scale: N.T.S.

# RECOMMENDATIONS

The development of this Master Plan and recommendations for the South Texas Baffin Bay Research Station were based on a series of guiding principles that reflect TAMUK's vision for the future.

- **Enhance the overall experience for campus users.**
- **Foster the growth and advancement of research capabilities.**
- **Develop and improve outdoor spaces and environments.**
- **Establish a consistent TAMUK experience across all campuses.**
- **Promote expansion and growth through a variety of programs and facilities.**
- **Cultivate and leverage partnership opportunities.**

TAMUK is under new leadership, experiencing some growth, and new programs are giving direction and vision to the University. For the new vision to be implemented now and in the future, there will be a need for new and improved facilities. These facilities will provide an improved learning and social experience for students, promote premier programs and degrees, and provide additional opportunities to capture strong alumni ties and give back to the community.

Based on discussions with TAMUK leadership, enrollment projections and associated space needs, and the existing conditions of facilities, several new buildings or renovations were identified as Master Plan priorities. These include:

- Event and Education Center
- Researcher Housing and Support Buildings
- Caretaker's Quarters
- Recreation Rentals, Storage and/or Retail Building
- Wet Lab
- Public Camping Facilities
- Various Storage Buildings



Figure 49. South Texas Baffin Bay Research Station Illustration







## South Texas Baffin Bay Research Station Master Plan

A hidden gem, the South Texas Baffin Bay Research Station, is adjacent to the world's largest hypersaline ecosystem. The Baffin Bay property is approximately 141 acres, which was transferred to Texas A&I University (presently TAMUK) and was a former U.S. Naval Outlying Field 55. As a part of the transfer, TAMUK agreed that the property would be used by the College as an outdoor laboratory area in biological, earth and agricultural sciences. Particularly, it would be used for research and field study in wildlife biology, including marine biology.

In a 2022 re-development and 10-year plan for Baffin Bay, the overall vision for this property is to create spaces for teaching, educational events, research, community outreach and summer camps. Additionally, the Baffin Bay Master Plan balances research, recreation and revenue. Connecting and collaborating with regional, national and international partners will raise the research profile of the University for conservation and biological sciences.

Much of the high-level vision of the re-development and 10-year plan developed by the Department of Biological and Health Sciences in conjunction with the College of Arts and Sciences is integrated into the Master Plan. With revenue being a major component of Baffin Bay's success, an entry building would be appropriate to receive an entry fee from

recreational users. There are potential revenue streams through the Rental Cabins, RV and Primitive Camping areas. These areas and the Recreation Rental, Storage and/or Retail Building provide recreation opportunities for the region.

With research being a major component, the Master Plan has several research-related building and facility initiatives such as the Wet Lab and Storage, Outdoor Classroom, Weather Station and Research Pier with an artificial reef. The Researcher Quarters and Support area provides residence and recreation amenities for researchers temporarily living on site. The Event and Education Center is the largest recommendation and will create opportunities for community, partnership and University uses.

Opportunities for public aquatic recreation are provided at the beach front and new public fishing pier. Overlooks and nature trails provide opportunities for passive recreation, water vistas, wildlife viewing and research through habitat conservation areas. This plan will allow the University to share and promote its vision for the South Texas Baffin Bay Research Station to encourage partnerships and expand current and future programs.

There are many variables in implementing master plans, such as funding, student enrollment, University leadership and the economy. These variables determine when and how various improvements take place. Projects are not listed in a prioritized order. Rather, the order of implementation will

be based on the timing of funding and development opportunities that arise. See the Implementation chapter for target implementation phases.

The following pages detail the recommendations by initiative type and incorporate associated high-level construction cost estimates where projects have sufficient detail. These estimates do not include the interior building finish-out, such as furnishings and equipment.

The recommended improvements will help TAMUK systematically achieve the vision for Baffin Bay during the next 10 years and beyond.



## BUILDING & FACILITY INITIATIVES

- A** Entry Building
- B** Caretaker's Quarters & Work Area
- C** RV Camping Area
- D** Rental Cabins Area
- E** Recreation Rentals, Storage and/or Retail
- F** Primitive Camping Area
- G** Event & Education Center
- H** Researcher Quarters & Support
- I** Wet Lab & Storage
- J** Outdoor Classroom
- K** Weather Station
- L** Public Fishing Pier
- M** Research Pier with Artificial Reef

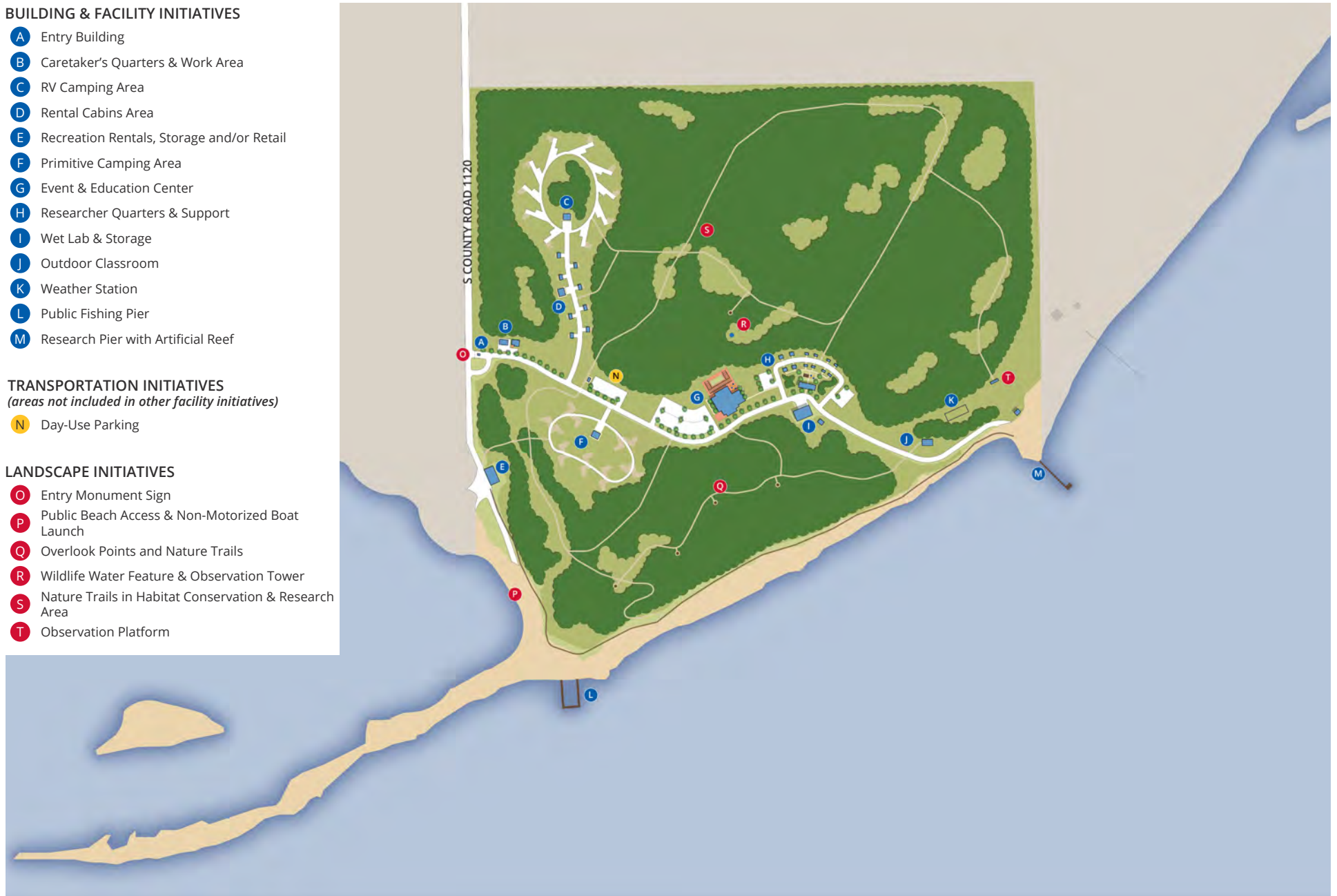
## TRANSPORTATION INITIATIVES

*(areas not included in other facility initiatives)*

- N** Day-Use Parking

## LANDSCAPE INITIATIVES

- O** Entry Monument Sign
- P** Public Beach Access & Non-Motorized Boat Launch
- Q** Overlook Points and Nature Trails
- R** Wildlife Water Feature & Observation Tower
- S** Nature Trails in Habitat Conservation & Research Area
- T** Observation Platform



Map 70. South Texas Baffin Bay Research Station Master Plan

Scale: N.T.S.

## Building & Facility Initiatives



**A**

### Entry Building

The vision for this campus includes access by students, instructors, researchers and the public. As people enter the property, they will pass a 100 GSF entry building. If the University charges a fee for public access to the site's recreation amenities, fees would be collected here. Otherwise, this building could be used for distribution of site information (e.g., maps) and general monitoring of people entering and exiting the property. A turnaround vehicular loop is located south of the entry building to allow users to pay any required fees before continuing to the beach access area.

**Cost Estimate: \$193,600**

*(Total construction cost based on 2023 values)*

**B**

### Caretaker's Quarters and Work Area

Due to the size and remote nature of the campus, it is recommended that a full-time property caretaker reside on the property. A 980 GSF single-occupancy cabin with kitchen, living room and restroom is located near the site entry. A 1,000 GSF workshop and outdoor storage area is located nearby. Perimeter fencing around the complex will help to secure the area.

**Cost Estimate: \$918,200**

*(Total construction cost based on 2023 values)*

**C**

### RV Camping Area

An RV camping area with 10 RV hookups and a communal restroom building (with showers) is located in the northwest corner of the property. These sites can be rented by students, researchers or the public. A direct connection to the nearby nature trails (project S) is provided on the east side of the camping area. Developing this area in the near- or mid-term will allow research and recreation activities to begin before the campus is fully developed.

**Cost Estimate: \$1,739,600**

*(Total construction cost based on 2023 values)*





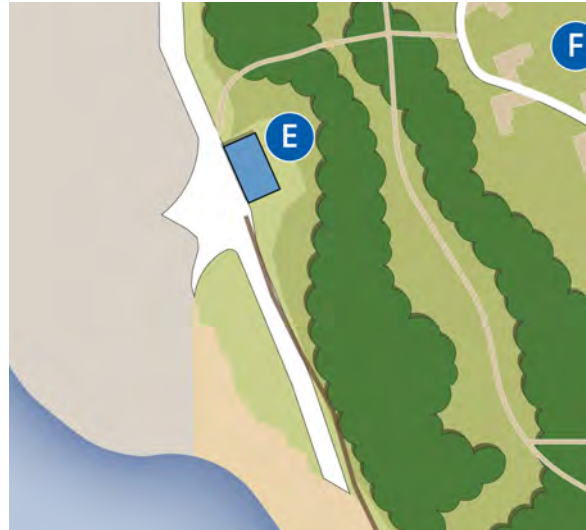
**D**

### Rental Cabins Area

Eight 375 GSF cabins will be available for rental by students, researchers and the public. A communal restroom with showers is centrally located in the cabin area. Similar to the RV camping area, a direct connection is provided to nearby trails.

**Cost Estimate: \$2,499,500**

*(Total construction cost based on 2023 values)*



**E**

### Recreation Rentals, Storage and/or Retail Building

The beach access area will likely be one of the biggest attractions for recreational visitors to the campus. A one-story 3,600 GSF recreational facility will be developed along the existing beach access road. The facility could be operated by a third party entity to rent recreational equipment such as kayaks, canoes, stand-up paddle boards and fishing equipment. A public restroom and small rentable community room can also be included in the facility.

**Cost Estimate: \$1,649,400**

*(Total construction cost based on 2023 values)*



**F**

### Primitive Camping Area

A primitive camping area south of the primary site access road will complete the site's camping offerings. This area will include 14 camp sites and a communal restroom with showers. Each camping site will include dedicated space for a picnic table, tent and vehicle. The overlook trail (project Q) is located nearby and has a direct connection into this camping area.

**Cost Estimate: \$1,335,100**

*(Total construction cost based on 2023 values)*



**G**

## Event and Education Center

The Event and Education Center will be the largest, most prominent building on the site. The one-story, 13,000 GSF building will have event and conference space to host scientific, educational and community meetings. The ultimate use of the facility is to be determined, but could include research and teaching areas with collaboration space, interactive classroom(s), meeting spaces, and/or a nature center. It is recommended that the facility include solar panels and a rainwater collection system to improve the site's self-sufficiency.

*Cost Estimate: \$12,693,000*  
*(Total construction cost based on 2023 values)*



**H**

## Researcher Quarters and Support

In addition to daily users of the site, this Research Station is envisioned to have medium-term residency options for researchers. There are eight 170 GSF single-occupancy cabins and four 340 GSF bunk houses which provide housing for four-to-eight people each. A one-story, 2,000 GSF support building will include a communal commercial kitchen, laundry facilities and indoor lounge area. This building should also include solar panels and a rainwater harvesting system. An outdoor gathering area with shade structure and flexible recreation space is situated between the cabins and the support building.

*Cost Estimate: \$2,807,200*  
*(Total construction cost based on 2023 values)*



**Figure 50. Event and Education Center Illustration**









### **I Wet Lab and Storage**

To support on-site research and education activities, a one-story 4,000 GSF wet lab facility is located south of the researchers' quarters. This building could include three research labs with several smaller adjacent lab support spaces and six private office spaces. An adjacent 500 GSF building includes a sample sorting area and general storage. The wet lab should include solar panels and a rainwater harvesting system.

*Cost Estimate: \$3,559,100*  
*(Total construction cost based on 2023 values)*



### **J Outdoor Classroom**

A large shade pavilion will provide a flexible outdoor classroom space close to the weather station and research pier. It is located mid-way up the slope along the southeast side of the site, approximately halfway between the wet lab and research pier. Ultimate design of this structure should allow flexibility of use so it remains appropriate for different class types.

*Cost Estimate: \$412,900*  
*(Total construction cost based on 2023 values)*

### **K Weather Station**

The location of this Research Station along Laguna Salada and relatively close to the Gulf of Mexico creates unique opportunities for research of weather and climate conditions. A dedicated space for a weather station is located adjacent to the outdoor classroom, approximately 28-feet above sea level. The weather station is sited in a natural clearing and could be easily accessed from the main road.



## Transportation Initiative

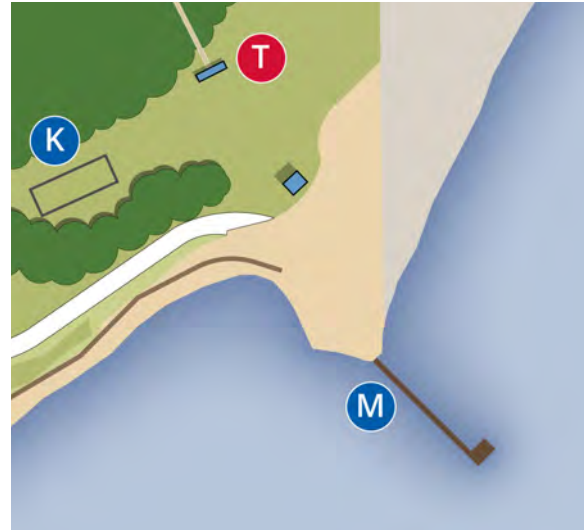


**L**

### Public Fishing Pier

A new recreational fishing pier with artificial reef will be developed near the public beach access point. Development of the pier should minimize impact to the important marine habitat in the area. The artificial reef will likely be constructed from limestone aggregate materials in areas that contain other sensitive habitats, such as seagrass beds. It will provide shoreline protection by dissipating damaging energy from storms and boat wakes as well as habitat for a variety of marine species. The reef should be constructed as an intertidal reef with a crest height above mean water level to provide additional shoreline protection benefits and account for future sea level rise.

*Cost Estimate: \$529,800*  
*(Total construction cost based on 2023 values)*



**M**

### Research Pier

The existing pier at the southeast corner of the property will be rebuilt in its current location, with the addition of an artificial reef. This pier will be dedicated to research activities and should not be used for public recreation. Adding an artificial reef around the pier will help to protect the shoreline and minimize impact from storms and boat wakes (as described in project L).

*Cost Estimate: \$567,800*  
*(Total construction cost based on 2023 values)*

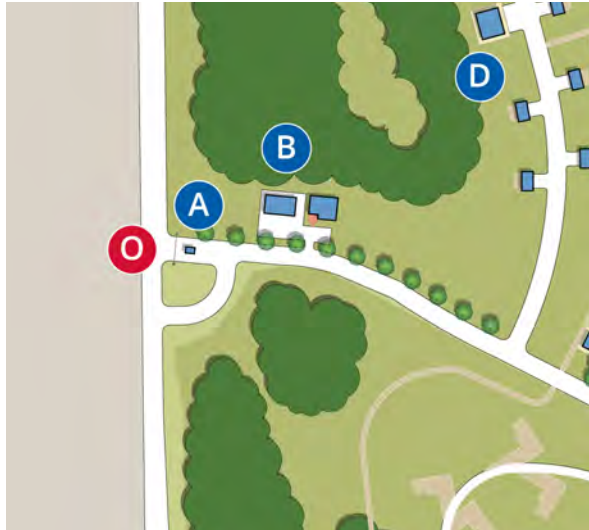


**N**

### Day-use Trailhead

A day-use trailhead is centrally located along the main road, between the primitive camping and rental cabin areas. The trailhead includes parking for 30-35 cars and a public restroom. Trash receptacles, maps and other informational signage should be co-located with the restroom building.

## Landscape Initiatives



O

### **Entry Monument Sign**

An overhead arch entry sign is recommended at the main entrance to the campus. The sign should clearly notate the South Texas Baffin Bay Research Station and use similar design elements as the signs at all other TAMUK properties to build brand consistency.



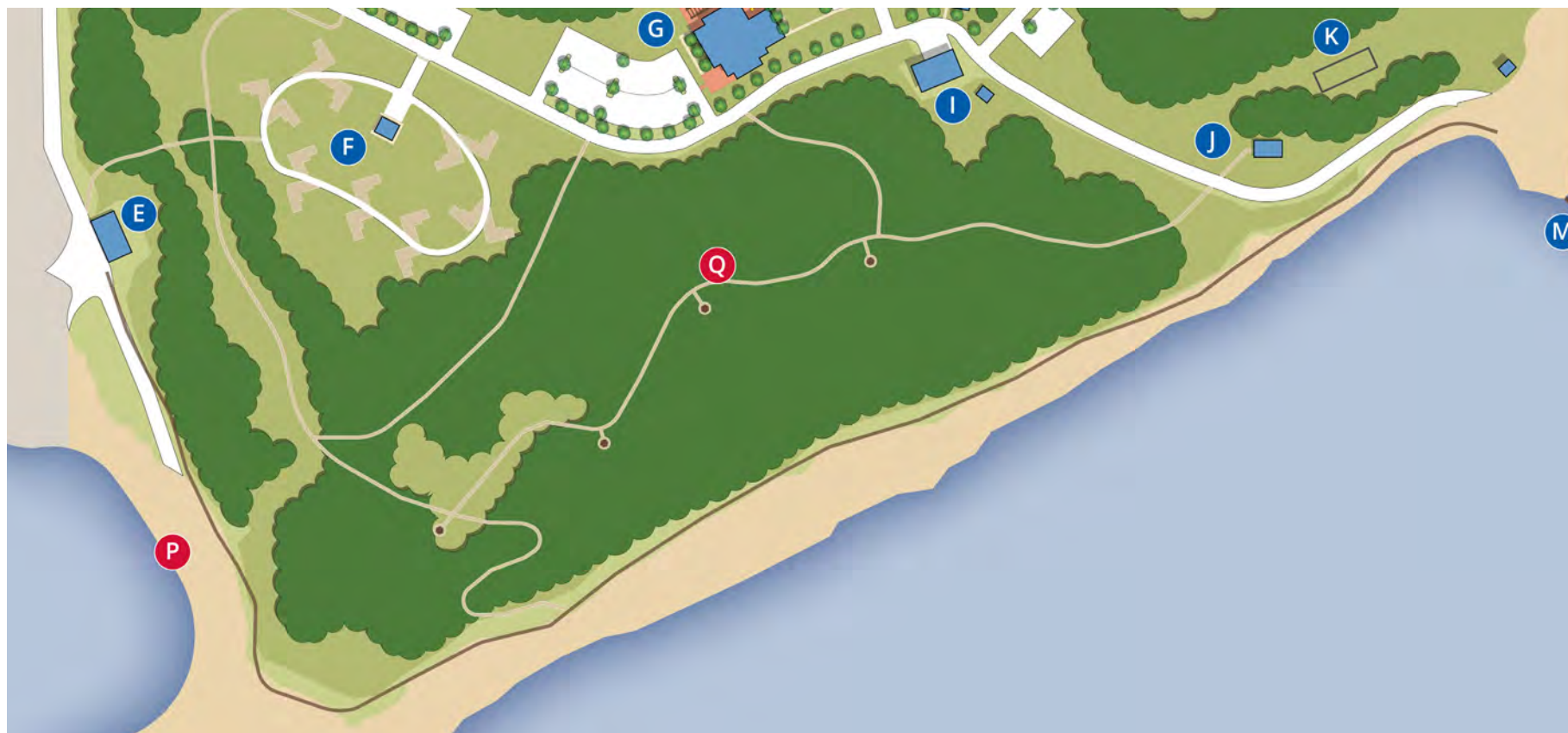
P

### **Public Beach Access and Non-Motorized Boat Launch**

The beach area at the end of Kleberg County 1120 S is already used by some local anglers. This area will continue as the public beach access area on the property and can be used to launch non-motorized boats (i.e., kayaks, canoes). Motorized watercraft should not be allowed to launch from the property, especially due to potential damage to the important marine habitat in the area. The University

should evaluate whether to charge a small fee for beach access (including access to the fishing pier) to support development and maintenance of the site.





## Overlook Points and Nature Trails

To support habitat conservation and research opportunities, the majority of the property should be left undeveloped. A variety of nature trails are proposed throughout the southern natural area and along the beach. Multiple overlook points with gazebos can be located

at the top of the slope along the southeast edge of the property, providing excellent views of the water. The beachfront trail could be developed as a boardwalk to minimize disturbance of the tidal flats and provide a different trail experience.

**R**

### Wildlife Water Feature and Observation Tower

A water feature will be located in the natural area north of the Event and Education Center. A water well could be drilled or connection to the property's new water lines provided to supply freshwater to the site and an above-ground freshwater basin (e.g., stainless steel stock tank) with a fountain feature could be installed to attract migratory birds, mammals and other wildlife without potential damage from feral hogs. An observation tower will be strategically located nearby to allow viewing of wildlife without disrupting their activities.

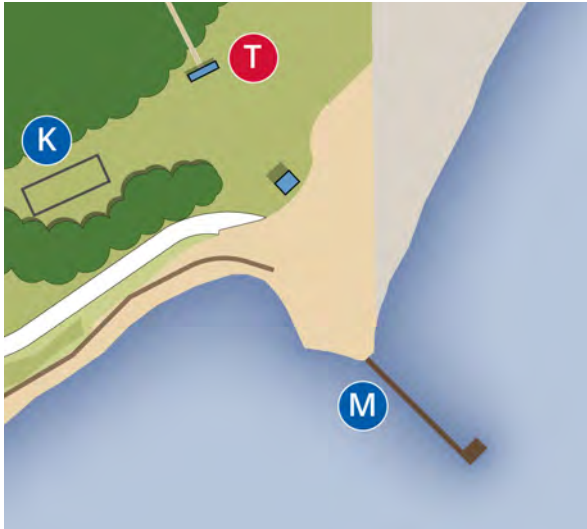
**S**

### Nature Trails through Habitat Conservation and Research Area

Additional nature trails are proposed through a habitat conservation and research area which makes up the majority of the north half of the property. These trails could be decomposed granite, wood chips, or simple cleared paths through the native vegetation. These walking/hiking trails will allow the public and researchers to experience the natural beauty of the property while minimizing their impact on the site.







T

## Observation Platform

An observation platform will be located toward the top of the slope north of the research pier. This platform will provide views of the water and research activities happening along the coast.









# IMPLEMENTATION

# PHASING & IMPLEMENTATION CONSIDERATIONS

Phasing and implementation are critical when following a plan involving capital improvement projects. Appropriately phased and implemented plans help realize the master plan vision. While phasing may be subject to change due to the timing of funding or a change in priorities, implementation can continue with well-thought-out plans.

The recommendations in the Campus Master Plan have been prioritized into short-term, mid-term and long-term initiatives. While projects have identified time frames for implementation, flexibility should be exercised in a fluctuating economy experiencing record inflation. As TAMUK moves forward with implementing this plan, there are a few things to consider during planning and decision-making regarding capital improvements.

## Swing Space

Before any facility demolition, renovation or consolidation of departments or services, careful consideration should be given to where and when personnel and departments should relocate during a renovation or construction project. Understanding where not only personnel but equipment and furniture will be placed during a transition period is important to the success of a project's budget and schedule. It allows for a smooth transition during the temporary displacement of staff. For example, students and staff using Gross Hall will need new learning spaces when the building is demolished to construct the new Engineering Sciences Building.

## Enrollment Growth

Enrollment growth strongly indicates how current and potential students view an institution. Enrollment growth should be closely monitored to verify sufficient space is available to accommodate growth and demonstrate the campus is not overbuilt, which could result from mismanagement of resources. Before renovating or constructing new projects, University leaders should base their project implementation decision on being able to utilize new facilities positively. Enrollment increases and decreases should be reviewed each semester, which helps to provide historical data that is helpful in the decision-making process.

## Funding

In a survey conducted by the Association of American Colleges and Universities, financial constraints are at the top of the list as one of the most significant challenges facing higher education institutions. A project's funding should be determined before initiating major capital improvement projects. The prioritization of building initiatives should be based on budget and the efficiency of its use. Current economic and market conditions should be a significant factor in major capital investments. Due to recent rapid shifts in inflation, the labor market and supply chain shortages, it is recommended that TAMUK update project cost estimates prior to proceeding with implementation or seeking funding.

## Deferred Maintenance

Managing deferred maintenance is important and critical to the long-term success of any institution, and it is important for everyone within an organization to understand the long-term impact this list can have. While there will be a need for new facilities and capital improvement projects, deferred maintenance must also be addressed so that the University can function efficiently. The growing attention on deferred maintenance is unsurprising, given that maintenance issues affect all areas of campus. Unaddressed capital needs have a direct impact on the ability of other leaders to recruit students or attract star faculty critical to research excellence. While TAMUK addresses its deferred maintenance of facilities and infrastructure, it must also balance the need and cost of new and renovated facilities and how both are integrated into the institution's vision.

Those mentioned above are just a few considerations to help guide the Master Plan's phasing and implementation. Essentially, the following pages should be TAMUK's road map in implementing its vision, while remaining flexible if priorities of project schedules and time frames need to shift for whatever reasons. While projects are categorized into near-, mid- or long-term phases on the following pages, they are not listed in a prioritized order within each phase.



# TAMUK PRIORITIES

Figure 51. Building & Facility Priority List

Building & Facility Initiatives		Target Implementation Phase		
		Near-Term	Mid-Term	Long-Term
<b>MAIN CAMPUS</b>				
C	Tennis & Beach Volleyball Locker Rooms and Intramural Storage	■		
D	Mesquite Village East	■		
E	Renovated Health & Wellness	■		
F	Renovated Business Administration Building	■		
G	Softball Complex Improvements	■		
M	Renovated Library	■		
N	Engineering Sciences Building	■		
R	Health Sciences Building	■		
A	College of Agriculture Building		■	
B	Farm Mechanics Building		■	
H	Women's Soccer Field Complex (+ Softball/Soccer Bldg)		■	
I	Baseball Complex Improvements		■	
J	Student Union/Athletics Performance/Arena		■	
P	Welcome Center, One Stop Shop, Disability Resource Center		■	
K	Renovated Athletic Buildings			■
L	Renovated Steinke Physical Education Center			■
O	Renovated Eckhardt Hall			■
Q	Career Center			■

NOTE: Projects are not listed in a particular order within each phase.

Figure 51 (cont.). Building & Facility Priority List

Building & Facility Initiatives		Target Implementation Phase		
		Near-Term	Mid-Term	Long-Term
<b>UNIVERSITY FARM</b>				
H	Swine Farrowing Unit Facility	■		
I	AEP & Energy Area	■		
B	Office and Classroom Building		■	
E	Poultry Facility		■	
F	Sheep & Goat Unit Facility		■	
G	Cattle Pens and Feed Building		■	
J	Enclosed Dog Kennels		■	
M	Rodeo Arena and Event Facilities		■	
N	Renovated Rodeo Pavilion		■	
O	Rodeo Team Barns and Facilities		■	
A	Animal Sciences Pavilion			■
C	Equestrian Arena and Turnout Pens			■
D	University Equine Facilities			■
K	Vet Tech Expansion			■
L	Relocated Serpentarium			■
<b>CAESAR KLEBERG WILDLIFE RESEARCH INSTITUTE</b>				
A	Ocelot Conservation Facility	■		

NOTE: Projects are not listed in a particular order within each phase.



Figure 51 (cont.). Building & Facility Priority List

Building & Facility Initiatives		Target Implementation Phase		
		Near-Term	Mid-Term	Long-Term
<b>CITRUS CENTER</b>				
C	Renovated Rio Red Building	■		
E	New and Replaced Greenhouses	■		
B	Renovated Main Building		■	
D	New Student Housing		■	
A	Academic Building			■
<b>SOUTH TEXAS BAFFIN BAY RESEARCH STATION</b>				
A	Entry Building	■		
F	Primitive Camping Area	■		
C	RV Camping Area		■	
H	Researcher Quarters and Support		■	
L	Public Pier		■	
M	Research Pier with Artificial Reef		■	
B	Caretaker's Quarters and Work Area			■
D	Rental Cabins Area			■
E	Recreation Rentals, Storage and/or Retail Building			■
G	Event and Education Center			■
I	Wet Lab and Storage			■
J	Outdoor Classroom			■
K	Weather Station			■

NOTE: Projects are not listed in a particular order within each phase.

# CONCLUSION

The Campus Master Plan is an initial step in ensuring TAMUK's continued and long-term success. This Master Plan is to be used to guide important decisions related to the physical development of TAMUK and its presence in other locations. While the Master Plan serves as a guide, it should also be noted that it is a living document, with the understanding that recommendations could potentially change, be modified, or be removed in the future, as appropriate.

This Master Plan is comprehensive, but it is not exhaustive, including all elements and

components of the University. The Master Plan's vision, recommendations and action items should be revisited on an annual basis to verify that TAMUK is moving positively in the future. The vision of this Master Plan should be shared with not only TAMUK's faculty, staff and students but with the local community and other entities. In many cases, the success of this Master Plan will be dependent on the support of the University's stakeholders, in whatever capacity they might serve. The local community's support will be essential and tied to the success of TAMUK as the University expands and grows in its various locations.

The road map provided in this document cannot predict all TAMUK might face in terms of challenges and opportunities, but it is a plan that will keep the University moving in the right direction and one that can be implemented in various ways. As the University soon approaches 100 years in existence, TAMUK has what it takes to not only be a leading institution in the region but also in the country.









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