



# ALABAMA A&M UNIVERSITY

## MASTER PLAN

*FINAL REPORT*  
*January, 2014*

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## 0. EXECUTIVE SUMMARY

### A. Background

Alabama A&M University (AAMU) has a strong history of Master Planning that dates back to the early 20<sup>th</sup> Century. The most recent comprehensive plan was done in 1994 with additional planning activities and updates done since. This sets the stage for the need to update the Master Plan. In 2012, AAMU decided to do another comprehensive Master Plan.

### B. Scope

To that end, the Institution developed a specific scope and procured professional services. The campus selected a team of professionals and work was initiated in January 2013. The intent was to integrate the total analysis of the space needs with those physical opportunities that create an exciting vision for the future growth of the campus. The outcome is to provide AAMU with a road map for implementing the strategic development needed to support that growth. This document records the process and its findings.

### C. Methodology

Master Planning is best described as a series of successive approximations. The first step is to establish a clear understanding of the overall goals and opportunities. Once this is done, each stop of the process better defines the issues, challenges and options available to meet the intended goals. Throughout the process, the assumptions and options become more evident and are narrowed down,

leading to a final solution. The process for developing this Master Plan Update included the following steps:

1. Vision – This step focused on articulating the client's vision and goals for the project.
2. Analysis – This step covered pertinent data and assumptions that are accepted as factual information or planning parameters, including an analysis of the space projections and the site: context, open space and land use.
3. Plan – This step presents the conceptual ideas to be considered for implementing the goals. It also explored comprehensive options for the physical resolution of the future growth on this site.
4. Implementation – This step developed the specific distribution of functions, phasing, schedule and order of magnitude costs.

### D. Participants

Key representatives for AAMU were organized into 3 teams:

**Leadership Task Force** – a team that provided strategic direction, periodic review, and approval.

**Organizational Team** – a group of representatives from campus units: academic, administrative, and student.

**External Team** – a group of external utilities such as Alumni, City, and neighbors.

Key firms in the consulting team:

**Sizemore Group** – lead land planning and overall coordination.



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**Matrix 3D** – lead in Facility Condition Assessment and implementation.

**Paulien Associates** – lead in space planning.

**Wynn-Brown** – lead in Historic Assessment and external participation.

**SSOE** – lead in MEP Engineering.

**GW Jones** – lead in Civil Engineering.

**AECOM** – lead in Landscape.

## **E. Documentation**

The following document is a record of findings related to the overall Master Plan. A companion effort, related to the Facility Condition Assessment, was undertaken and is documented under a separate cover.

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## I. HISTORY OF UNIVERSITY

### A. Overview of Institution

#### 1. CAMPUS STATISTICS

Alabama A&M University's Main Campus sits on approximately 1,000 acres of land in Normal Alabama, and within the Huntsville city limits in Madison County. The extended campus is bounded roughly by Moores Mill Road to the east, Chase Road and J.F. Drake State Technical College to the south, Memorial Parkway to the west, and Industrial Drive to the north. The campus contains approximately 64 buildings. The eastern most boundary is defined by Alabama A&M University's Agribition Center, accessible from Moores Mill Road. (See figure 1.a)

As of the Fall semester, 2012, Alabama A&M University hosted 4,945 students, including 4,096 undergraduate students, 791 graduate students, and 58 doctorate students. Breakdown of population is:

Headcount: 4,945

FTE: 1,100

In addition, the institution owns over 990 acres of farmland north of campus and in Madison County. Known as the Winfred Thomas Agricultural Research Station (WTARS), it was established in 1986 as a Research and Extension center. (See figure 1.b)

#### 2. DISTINCTIVE QUALITIES

The northeastern portion of the campus is located within the Alabama A&M Historic District, defined as such in honor of the historic black university's founding site. This portion of the campus sits at the high point of the campus, from which beautiful views are provided down towards the rest of campus and the land beyond.

The University refers to its location as "The Hill", due to its rolling topography and original setting. The site drops over 200 feet from the top of the hill down to the river. The historic portion of Alabama A&M University's campus was laid out by the Olmstead brothers, evident through its rolling topography and curvilinear streets, particularly along Campus Road/Buchanan Way.

#### 3. FUNDING AND ENDOWMENT

Alabama A&M University does receive additional funding from foundation and alumni sources, including the Alabama A&M University Foundation and the Alabama A&M University Alumni Association.

#### 4. RESEARCH

Alabama A&M University acquired over \$57,239,068 in competitive grants and contracts between 2009 and 2012. Areas of research include:

- Environmental Sciences
- Medical Sciences

\*Source:[http://www.aamu.edu/news/2011/Pages/138-Points-of-Pride-\(2013\).aspx](http://www.aamu.edu/news/2011/Pages/138-Points-of-Pride-(2013).aspx)



Figure 1.a: AAMU Campus Boundary



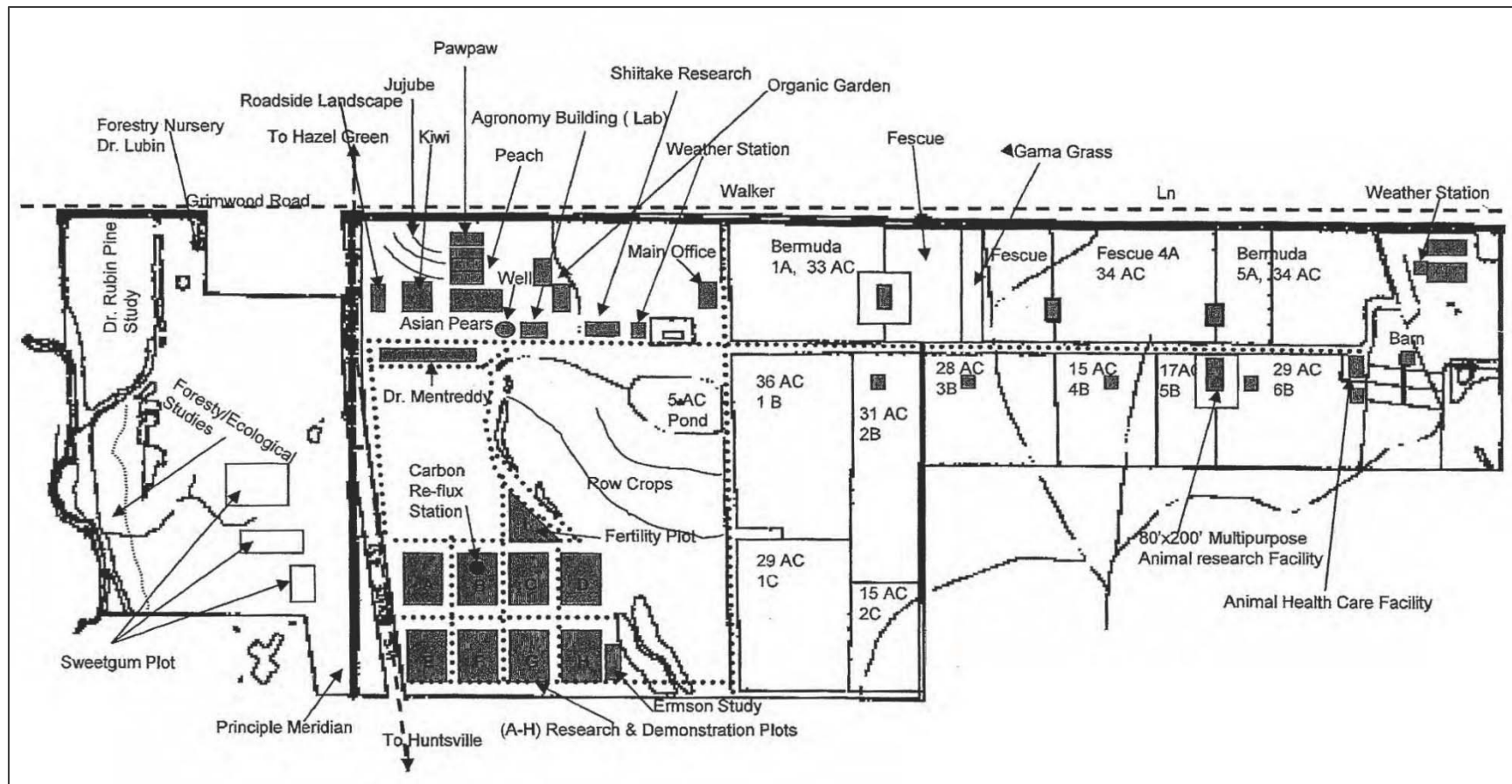


Figure 1.b: AAMU Farm Site



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## B. History and Historical Assets

Following is an overview of the history of AAMU. A preliminary assessment of those individual facilities that may have historic/cultural value is included in the Facility Condition Assessment document.

### 1. HISTORY OF EARLY CAMPUS DEVELOPMENT

Huntsville Normal School opened in downtown Huntsville in 1873 under the leadership of William H. Councill.

From 1873 through 1890 the first two locations of the campus were within the City of Huntsville. The first school-owned property was located on West Clinton Street.

In 1885 the name of the school was changed to State Normal and Industrial School of Huntsville. US Congress passed the Morrill Act of 1890 which spawned the creation of separate land-grant institutions for persons of color. In February 1891, State Normal and Industrial School of Huntsville was designated Alabama's land-grant college for African Americans. In September of that year, the 183 acre Henry P. Turner farm was purchased by the school and the school relocated to northeast of downtown. This area eventually became designated as Normal, Alabama. Several facilities purchased with the site (including horse racing grounds and The Green Bottom Inn hotel frequented by dignitaries including two US Presidents) were used as academic, residential and support spaces.

Still under the leadership of William H. Councill, in 1896 the name of the school was changed to The State Agricultural and Mechanical College for Negroes.

In 1904, several Dormitories and two Dining Halls were built. By 1905 a new library was built. However, it was destroyed by fire and had to be rebuilt in 1906.

William H. Councill died in 1909 and Walter S. Buchanan was appointed President. During his tenure, which ended in 1920, a number of buildings were constructed including Councill Domestic Science Building (now Wilson Hall), the Carnegie Library and Virginia McCormick Hospital (once the only hospital for Negroes in the county; now Virginia McCormick Hall). By 1917 there were 16 principal buildings.

From 1921 - 1927 T.R. Parker was President. The name of the institution was changed during this period to State Agricultural and Mechanical School for Negroes. No significant construction took place during this time.

### 2. CONTINUED CAMPUS DEVELOPMENT & MASTER PLANNING

It is under the leadership of the next president, Joseph F. Drake, from 1927 through 1962 that master planning began, was updated periodically and provided direction for campus growth. Once 616 acres were added to the campus and funding was provided by the State for the development of physical plant and campus facilities, Olmsted Brothers of Brookline, MA were selected as Master Planners and the firm of Warren, Knight and & Davis were selected as principal architects for new buildings.

#### The Olmsted Legacy

Frederick Law Olmsted is credited with being the "Father of Landscape Architecture and Planning in America in the Nineteenth Century". Noteworthy plans credited to his body

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of work include Central Park in New York, Golden Gate Park in San Francisco, Riverside in Illinois and the US Capital. He also designed the campus plans for American University in Washington, DC, Amherst and Brynmar Colleges and Columbia, Cornell, Stanford and Yale Universities among others.

The Morrill Act of 1862 had the effect of creating a number of new college campuses in most states as the 1890 Land Grant program was implemented. This resulted in a multitude of planning opportunities for early US landscape architecture firms, as well as for Olmsted concepts to proliferate the country with a number of campus plans that are infused with his intent to “improve moral life and introduce students to the best examples of domesticity and community”.

The Olmsted Brothers firm’s continuance of this mission is evident in campus plans throughout Alabama and other states.

### 3. OLMSTED PLANS AT AAMU

#### 1927 - 1930 Olmsted Brothers Plan

The first master plan was developed from 1927 – 1930. (See figure 1.c) This planning area tracks with the portion of the university’s historic district known as “Normal’s Hill” or “The Hill” which is 924 feet above sea level. According to the information submitted with the National Register of Historic Places Registration Form, this is one of the earliest locally significant examples of a classic Olmsted Brothers campus plan. Elements of their signature plans found on the AAMU campus are:

- Informal arrangement
- Designed to promote harmony between buildings and terrain
- Designed to promote an appreciation of outdoors
- Curvilinear walks and drives connect study and workspaces to landscaped areas
- Close proximity of academic and residence Halls – to promote a strong sense of community among students, faculty and staff

Unlike a number of the other Olmsted Brothers campus designs in Alabama, the early design for AAMU did not place the academic and major support buildings on flat parcels of land. The buildings were fully integrated into the hillside terrain (using Chase Road as a main artery), leaving the flat areas below (former race track area) available for agricultural uses. This major design factor was followed in the planning updates through the 1940’s when agricultural research buildings were added to the “agriculture reserved” areas.

At a time prior to proliferation of automobiles, the plan had green commons areas around buildings on “The Hill” where current parking lots surround buildings. Opportunities to create significant view sheds to and from the buildings as well as alignment of significant building entrances and features are seen throughout the plan. Classic foundation landscaping and placement of indigenous trees and vegetation on each site appears to have been consistent. Living quarters for men and women were placed on opposite ends of the campus.

Buildings planned during this period include:

- Bibb Graves Hall – Classroom & Auditorium
- Councill Hall Women’s Dormitory
- Drake Dining Hall

- 
- Grayson Hall (Men's Dormitory)
  - Chapel (no longer existing)

From the Depression era through the end of World War II (1933 - 1945) a number of buildings were constructed on campus following for the most part the 1927 Olmsted Brothers plan. During this timeframe (1942) AAMU regained its status as a 4 year institution (which it lost in 1919). These buildings include:

- Hillcrest
- Polk Cottage
- Stadium (at Frank Lewis Gymnasium)
- Gym Annex (at Frank Lewis Gymnasium)
- Cottage
- McCalep Hall
- Trades Building
- Barracks A & B





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### **1947 - 1948 Olmsted Brothers Plan**

In 1946 the Alabama State Legislature approved funds for the purchase of an additional 180 acres of land and simultaneously, the school was accredited by the Southern Association of Colleges and Schools (SACS). Arguably, this spurred the need for additional planning. Thus, the 1927 Plan was updated in 1947.

During this period, typical Olmsted-esque planning techniques were continued and incorporated, to the extent possible around the buildings constructed since the original plan. This set forth the continuation of the original campus plan concepts for upcoming buildings.

In 1949 the name of the school changed to Alabama A&M College. At this juncture, funding for infrastructure, dormitories, faculty housing, a gymnasium and agricultural research facilities were provided. These facilities include:

- Boiler House
- 4 Duplex Cottages
- Hurt Hall (Women's Dormitory)
- Dairy Barn
- Frank Lewis Gymnasium
- Councill Training Building (originally built as a primary and secondary school, across Meridian Street)
- Walker-Wood Hall (Men's Dormitory)

### **1953 - 1956 Olmsted Brothers Plan**

During this planning and development period, space on "The Hill" was becoming saturated. So, when the master plan was updated again by The Olmsted Brothers in 1953 - 1956 the campus development moved south of "The Hill" to a Grand Quadrangle designed to formalize the development of

facilities on the flat lands formerly held for experimental agricultural use. (See figure 1.d)

During this process, the Olmsteds began to study the effect of heavier automobile traffic on the campus. Interestingly, it appears that studies for concepts that would have placed more parking in proximity to new construction were passed over for the continuation of a more pastoral/green character with automobile parking at the periphery. Planning for buildings to be constructed after this update continue to reinforce, for the most part, the concept of a "tight" circle of activity for academic facilities, student housing and student recreation and activities. These facilities include:

- Thigpen Hall
- Grayson Hall (rebuilt after destruction by fire)
- Ralph Lee Student Center
- Carter Science
- Gravitt Apartments (Note: This is the first faculty housing to be located outside the circle of proximity to the students)

This was the last planning update undertaken by the Olmsted Brothers. Since 1962 when President Drake ("The Builder") retired, a great number of buildings have been constructed. Placement of some buildings have somewhat followed the concepts laid out in the Olmsted Brothers Plans, while others have not. As part of this current planning process we are proposing that original Olmsted Brothers planning concepts be adhered to as much as possible.

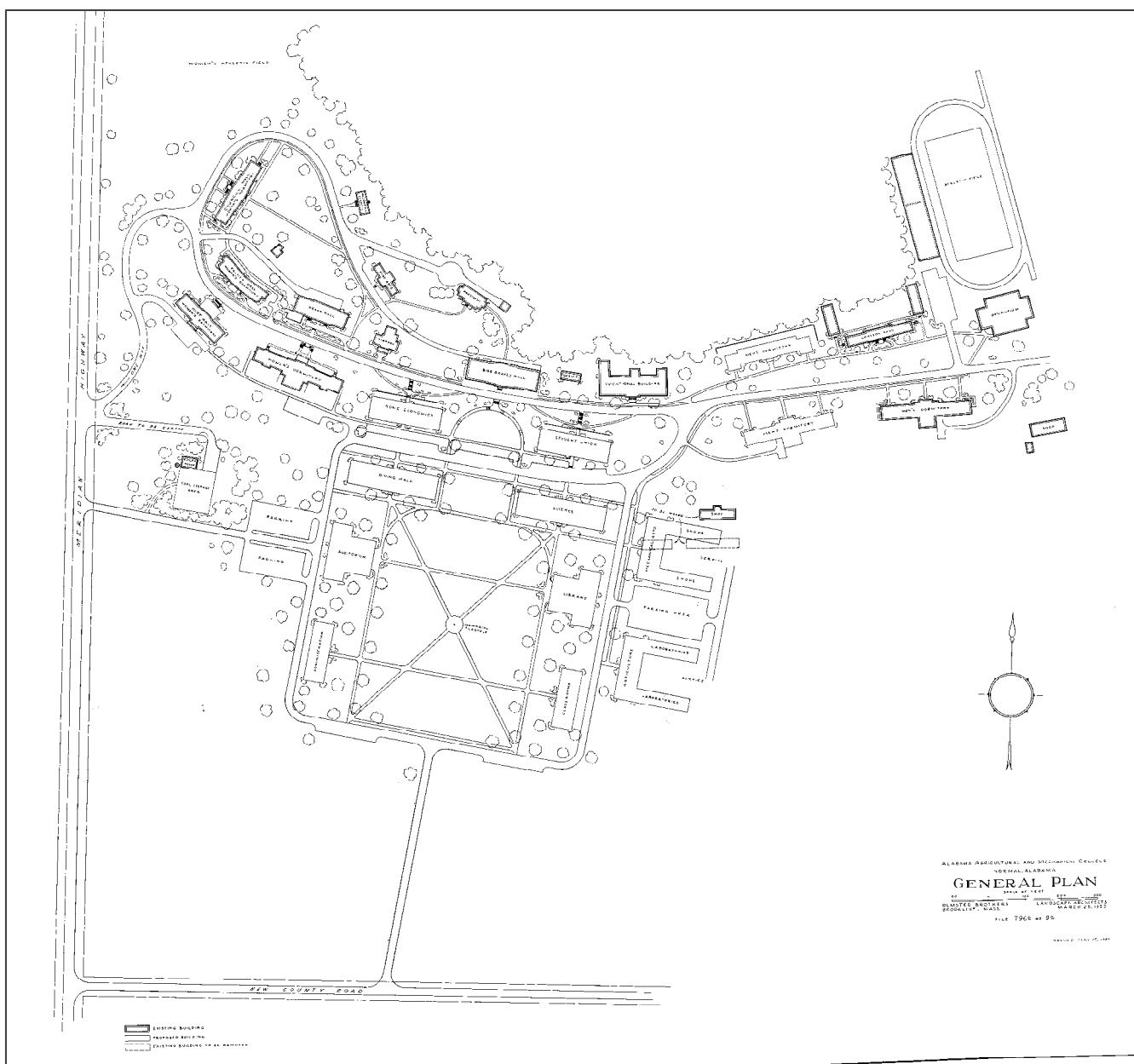


Figure 1.d: AAMU 1953-1956 Master Plan

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#### 4. POST-1960 CAMPUS DEVELOPMENT

Upon the retirement of Joseph F. Drake, Richard D. Morrison became President of the institution in 1962 and provided leadership until 1984.

During the early years of his presidency (1963 - 1968), development included dormitories and dining facilities located on “The Hill”, maintenance in proximity to “The Hill”, and library and science facilities (Carver Complex) beyond (but still in proximity to) “The Hill” – though the Library deviates from the plan of placement around the Grand Quadrangle. The ROTC Training Center added to development beyond Meridian Street on “West Campus”.

In 1969 the name of the school was changed to Alabama A&M University and planning for another spurt of building began. From 1971 through 1981 additional dorms were built on “The Hill”, while a new administration building and fine arts building were added just beyond the Grand Quadrangle concept developed by The Olmsted Brothers on the land once held or experimental agricultural lands. No additional contiguous property was purchased during this period.

Since 1984 land has been purchased in locations that are not contiguous to the main campus. These areas house mainly research facilities and a large exhibition space (Agribition Center).

On campus, a number of Agricultural Research and Cooperative Extension buildings have been constructed as well as new Schools of Engineering and Business, two Living Learning Centers and a University Services Center (1991 - 2012). All of these facilities are constructed well beyond the boundaries of the Olmsted Brothers plans for “The Hill” and the Grand Quadrangle. However with the exception of Living Learning Centers which are located at the extreme ends of the campus, the other academic and outreach areas have the potential to become the nucleus of smaller defined

learning “quads” that are in proximity to/connected to the campus core (Grand Quadrangle and “The Hill”).

#### 5. MAINTAINING THE PHYSICAL CAMPUS LEGACY

As one can discern from the above referenced information, Alabama A&M University has a rich legacy of vision, leadership, tenacity and resulting physical development. Much of the campus is full of historic landmarks and facilities.

Our recommendation is that to the extent possible, the university should adhere to the concepts represented in the Olmsted Master Plans. Care should be given to maintain the fabric of the physical campus history. Buildings that are the most representative of significant architectural styles and historic events in campus history should be preserved and maintained. Participation in the Historic State and Federal Historic Marker Programs should be undertaken. Careful and detailed study and documentation must be completed prior to the implementation of any treatment strategy. No action should be taken that would result in the Historic District or individual buildings being de-listed in the Nation Register for Historic Places.

The National Register for Historic Places named an area defined primarily (but not solely) by the historic Normal Hill as a national Historic District with contributing buildings and other historic resources. There is one building, James H. Wilson Hall, that has actually been placed on the National Register of Historic Places -- all others are contributing resources to the District, but are not on the Register itself.

It is worth noting that per representatives of the National Park Service office in Atlanta, NHS regulations for funding

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have changed in recent years. So, if AAMU anticipates applying for grants to assist with the rehabilitation of facilities within the Historic District, application must be made for each building. The facilities must each be individually named to the National Register for Historic Places in order to be eligible for funding.

**There are 46 historic resources at AAMU:**

36 of which are contributing resources to the National Register of Historic Places District Designation; 10 are non-contributing.

**Breakdown by Function:**

- 7 Academic
- 15 Residences
- 2 Athletic Facilities
- 8 Agricultural
- 2 Maintenance
- 2 Dining Facilities

**Also:**

- 2 Cemeteries
- 1 Hospital
- 1 Security Building
- 2 Utility Buildings
- 1 Post Office
- 1 Ornamental Gate
- 1 Agricultural Experiment Field

**Significant Architects:**

- Warren Knight & Davis
- John Anderson Lankford
- Olmsted Brothers (Master Plan & Landscape)

**Significant Architectural Styles:**

- Neoclassical
- Midcentury Modern

**Building Categories & Treatment Strategies**

The National Park Service has specific Guidelines for categorizing and treating/rehabilitating historic structures. The below is a listing of the Building Categories and Treatment Strategies:

**Building Categories:**

1. Worthy of long-term preservation
2. Should be considered for long-term preservation
3. Possess some historic and aesthetic merits but have limited potential for adaptive reuse
4. Possess limited value to AAMU; these resources may be candidates for removal or replacement with facilities that better serve the current mission of the Institute.



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## Treatment Strategies:

### 1. Extensive Rehabilitation

- James H. Wilson Hall
- Carnegie Library
- William Councill Hall
- Bibb Graves Hall
- Walker Wood Hall
- Virginia McCormick Hall
- Hopkins Gate

### 2. Moderate Rehabilitation

- Drake Dining Hall
- Grayson Hall
- Hillcrest
- Hopkins Hall
- Hurt Hall
- McCalep Building
- Ralph Lee Center

### 3. Minor Rehabilitation

- Carter Science Hall
- Drake Memorial Library
- Buchanan Hall
- Carver Complex
- Thomas Hall
- Councill Training Center
- Old University Stadium
- Polk Cottage
- Prentice Dining Hall

### 4. Corrective Maintenance

- Foster Irradiation Center
- Gym Annex
- Pope Building (old infirmary)
- Johnson Credit Union

- Eugene McKendrick Maintenance Facility
- Old ROTC Building
- Boiler House #2

### 5. Mothball

### 6. Demolition

See the Facilities Condition Assessment document for a detailed listing of suggested Building Categories and Treatment Strategies for AAMU historic resources.

Note: Before any treatment strategy is undertaken, additional detailed documentation of the resource is required. Under no circumstances should significant features of a facility be radically modified, nor should any demolition occur without adherence to proper procedures of documentation or notification to appropriate federal, state and local authorities and determination that removal will not result in the Historic District or individual buildings that are actually on the Register being de-listed from the National Register of Historic Places.

Adhering to these recommendations and guidelines will provide the best opportunity for a campus that is full of representative history of significant actions, development, landmarks, architecture and other resources, without overly constraining the continuing development of the campus and creation of historic resources for future AAMU students, faculty, staff and community.

Figure 1.e illustrates the overall boundaries of the historic area.

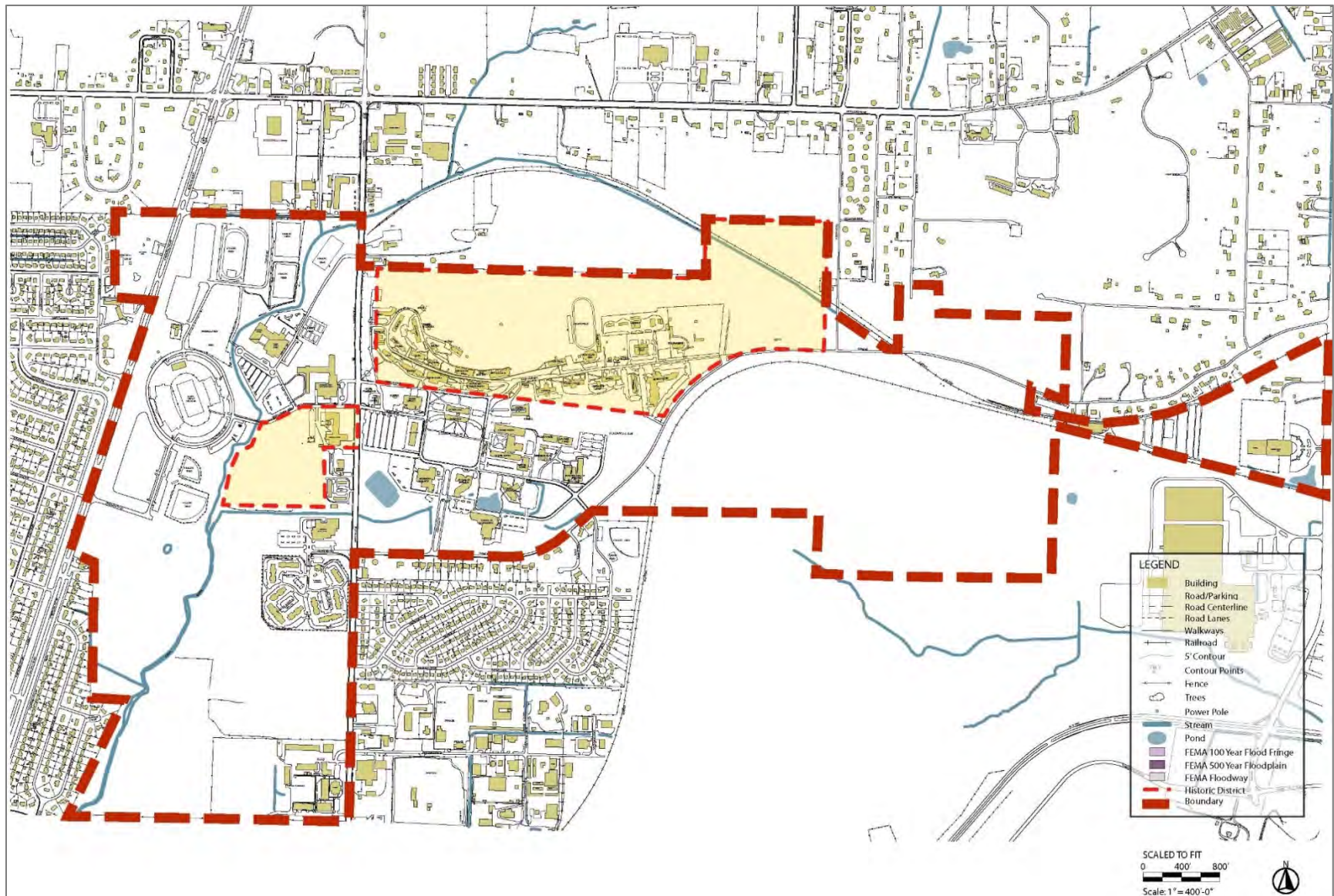


Figure 1.e: AAMU Historic District

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## II. GOALS

### A. Goals and Issues for Master Plan

These represent the client's aspirations and key directives for the master plan, based on input from Goal Session One, held on February 12, 2013, and a previous session with the Task Force. The goals have been organized into the following categories:

**Function Goals** relate to the occupants and activities on campus.

**Form Goals** relate to the character, look and feel of the campus.

**Economy Goals** relate to cost of capital improvements and life cycle.

**Time Goals** relate to schedule, phasing of critical milestones.

#### Function Goals

- To support strategic goals of AAMU
  - To provide more opportunities for experiential learning.
  - To accommodate and adapt to the technology of the 21st Century.
- To grow from 5,000 to 6,600 enrollment (1,600 growth: 1,000 on site and 600 online).
- To provide housing for 40% of all students (2,400) on campus.
- To focus on Science, Engineering Business, and Agriculture programs.
- To foster a sense of community on campus.
  - A pedestrian oriented environment
  - Mixed functions

- To activate the Quad and the Block. Consider opportunities to Socialize, Play, Intersect / Meet people.
- To reduce faculty ratio as appropriate for a more graduate-intensive program mix.
- To increase online learning:
  - Blended Model – in 10 years, maybe a 50/50 mix of onsite and online.
  - With a 6,600 enrollment, target 6,000 on site and 600 online.
- To maximize the use and productivity of instructional space. (Match course time and enrollment with the seats available).
- To mix types of functions within buildings.

#### Form Goals

- Provide a consistent look throughout campus.
- Re cast image of the quad. Consider images such as: a Park, Mall, Village green, Crossroads, etc.
- Transform or eliminate facilities in disrepair.
- Revitalize 'the block' / 'the hill'.
- Enhance the views towards the campus, as one approaches it, particularly off Meridian.
- To provide entrances that signal "you have arrived."
- To provide a pedestrian friendly environment.

#### Economy Goals

- Develop a 'green' (sustainable) campus.
- To develop a feasible funding strategy.

#### Time Goals

- To plan for a growth target of 6600 total enrollment.
- To develop a feasible phasing plan.

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The consultant team asked campus leaders, staff, and students to consider what they would like to: **change, preserve, expand or create** as part of this master plan. Following are responses, some of which helped articulate the goals listed above.

### ***Change***

- Have a more unifying theme (image): materials, roof shape, vegetation, colors
- Reduce the presence of boarded up facilities
- Functions that are not the right fit for the facility
- View to the campus
- Signalization of enter campus

### ***Preserve***

- View to / from the campus, to the Hill
- Bell Tower
- Gravesite of Founder
- Greek Stone area
- Historic sector
- Pond

### ***Expand***

- Focus on QUALITY of facilities, not QUANTITY of space.

### ***Create***

- Research communities
- Replication of older buildings
- Stronger Entrance off Meridian
- Tie between the historic hill and the rest of campus
- More gathering spaces: Hill, Wellness Center, Old Gym, Terry, Foster

- Shaded areas
- Opportunities for Intramural
- Design Standards: material, roof lines, signage, landscape, walkways, site furnishing

### ***Issues***

- Safety – lighting and traffic
- Where do the students congregate?
- How do we connect as we grow on line Alumni?
- How do we create a unifying theme? - Historically people thought of AAMU as “The Hill”— what will this focal point become in the future as more activities have shifted to lower campus? Can we broaden the image to include more of the environment on the lower campus?



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### III. EXISTING CONDITIONS

#### A. Campus Setting

##### 1.1 NATURAL SYSTEMS

###### Topography and Drainage

The historic portion of Alabama A&M University sits on the high point of the campus, with the college having expanded to the south of the original site. The site's topography drops over 200 feet from the northeastern portion of the campus to the southwest. This drop creates a natural drainage flow towards the river and the floodplains along the western portion of the campus.

The slope over the entire site is approximately 4%, however, the topography does drop more rapidly between the historic portion of campus along Buchanan Way and Campus Road, and the remainder of campus to the south. The slope between these two parts of campus ranges from 8% to 20%. (See Figure 3.a)

Stormwater is directed towards the river through manmade ditches and retention ponds, which are maintained by the City of Huntsville. Currently, the campus has a concern with the overflow of stormwater during heavy rains at the ditch and pond located behind the Engineering building. This issue is believed to be due to a clog under Carver Road.

Improper stormwater drainage is also creating problems with the road infrastructure, particularly on Campus Road and Buchanan Way. The asphalt on portions of these roads sits above the curb, creating drainage issues.



Figure 3.a: AAMU Topography

**Vegetation**

Throughout campus, mature trees line streets and walkways. Most notably, trees provide a pastoral landscape to the area surrounding the Duck Pond and much of the Quad.

The undeveloped land to the north of the historic portion of the campus, as well as the undeveloped land south of Chase Road, is heavily wooded with mature trees.

**Soils**

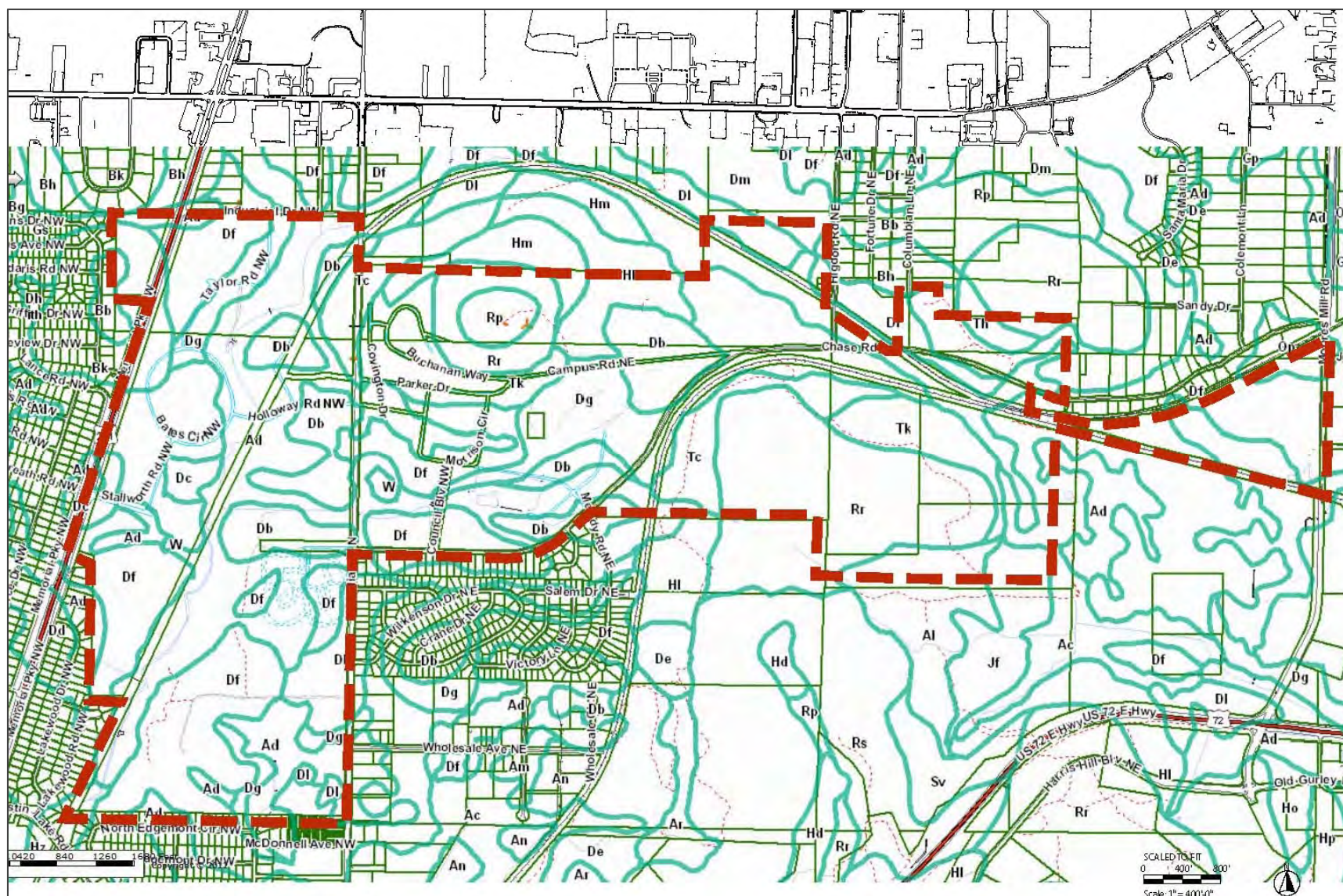
Soils in the area are generally listed below and illustrated on the soils map. (See Figure 3.b)

Soils Key:

Ad	Adrian muck
Dg	Decatur and Cumberland silty clay loam, eroded, rolling
DI	Dewey cherty silty clay loam, eroded, undulating
Df	Decatur and Cumberland silty clay loam, eroded, undulating
W	Water
Dc	Decatur and Cumberland silty clay, severely eroded, undulating
Db	Decatur and Cumberland silty loam, undulating
Tc	Talbott cherty silty clay loam, eroded, rolling
Rp	Rockland, limestone, rolling
Rr	Rockland, limestone, hilly

Tk	Talbott-Colbert cherty, silty clay loam, eroded, hilly
HI	Hermitage cherty silt loam, eroded, rolling
Th	Talbott silty clay loam, eroded, rolling





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## 1.2 CAMPUS FRAMEWORK

### Edges and Property Line

The Alabama A&M University campus is bounded approximately by Moores Mill Road to the east, Chase Road and J.F. Drake State Technical College to the south, Memorial Parkway to the west, and Industrial Drive to the north. The original main campus is defined by the Alabama A&M University Historic District.

The campus is framed to the west by residential land across Memorial Parkway. Light industrial uses occupy the land to the northwest and southeast. The land to the northeast and southwest is mainly residential along with undeveloped heavily wooded parcels.

The property illustrated in the tax maps appears to include Drake Technical College and exclude a 40+ acre site owned by Madison, and the right of way (100') along the railroad track. As per discussions with AAMU, the Drake Technical College property is no longer owned by AAMU. For the purpose of this report, Drake Technical College has been included in the AAMU boundary.

### Entry Points

The main entrance into Campus is from Chase Road, onto Council Boulevard, which is on axis with the Quad, a central point of the campus. Secondary entrances along Chase Road include an entrance at Akimbo Road and at Campus Road. Meridian Street runs directly through campus and therefore provides access into campus at Holloway Drake Drive and Parker Drive NW. It also creates challenges for pedestrian flow.

Vehicular access is limited at each of these entry points, with permit only accessible gates (Monday-Friday, 8am-5pm). Commuter and visitor parking lots are available prior to the access gates, allowing students and visitors to park, walk or utilize the bus system to arrive at their destination on campus.

### Streets

There are six main streets on campus, all of which provide access into the Alabama A&M University campus: Council Boulevard, Akimbo Road, Holloway Drake Drive, Parker Drive, Campus Road/Buchanan Way, and Meridian Street. Four of the six streets terminate into the Quad, creating a central focus on this gathering space. These four streets are Council Boulevard, Akimbo Road, Holloway Drake Drive, and Parker Drive.

Campus Road/Buchanan Way is the original main street of historic Alabama A&M University and where most of the student residence halls and Greek housing reside. Campus Road/Buchanan Way intersects with Parker Drive to connect to the southern portion of the campus. Campus Road/Buchanan Way becomes a one way street at Parker Drive to the west.

Pedestrian accessibility is provided via sidewalks and crosswalks throughout campus. Alabama A&M University has received funding, approximately \$250,000, to improve sidewalks along Campus Road/Buchanan Way. The sidewalks will be constructed of concrete with accent pavers. (See figure 3.d)

Meridian Street (figure 3.c) is a five lane road that bisects the majority of the campus to the east from the western side of campus. The western side of campus contains a



majority of the recreation and athletic facilities, along with a residence hall and the newly constructed Health & Wellness Center. A pedestrian bridge connects the east and west side of campus at Covington Drive. While the pedestrian bridge provides one access point, students still commonly cross at street level. There is only one signalized intersection with crosswalks along the entire stretch of Meridian Way between Chase Road and Industrial Drive, leading to a lack of pedestrian access points between these two sides of campus.

### 1.3 MAJOR ROADWAYS

The major roadways that lead into campus from the surrounding area include Memorial Parkway, which provides the most western border, Chase Road, which provides the southern border, and Moores Mill Road, which provides the most eastern boundary. Campus can be accessed from I-565 by exiting on either Memorial Parkway or Moores Mill Road. (See figure 3.e)



Figure 3.c: Meridian Street



Figure 3.d: Sidewalk with Accent Pavers

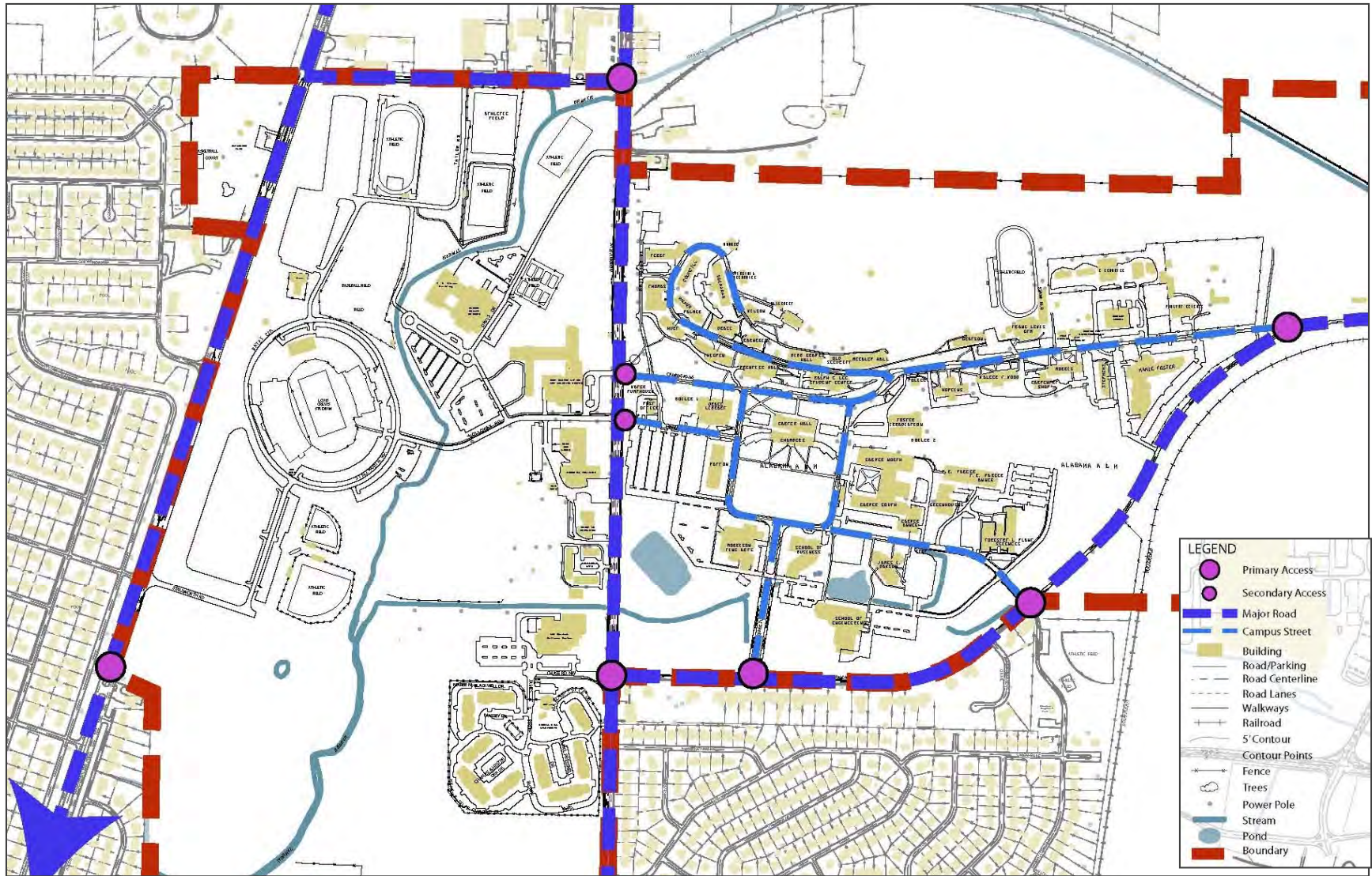


Figure 3.e: AAMU Campus Framework



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## 1.4 ADJACENT LAND USES

The Alabama A&M University campus is surrounded predominately by single family residential uses. Directly across Memorial Parkway, the western campus boundary, are residential neighborhoods. The land to the northeast and southwest is mainly single family residential, along with undeveloped heavily wooded parcels. Light industrial uses occupy the land to the east, northwest and southeast.

## 1.5 MAJOR COMMERCIAL DISTRICTS

There are no major commercial districts within walking distance to AAMU's campus. The closest commercial district is two to three miles south of campus along Memorial Parkway and is home to a Lowe's, a Gander Mountain, and a City of Huntsville office.

## 1.6 POLITICAL AND JURISDICTIONAL SUBDIVISIONS

The Alabama A&M University campus resides in the City of Normal, Madison County, Alabama, however the majority of the campus boundaries also sit within the City of Huntsville limits, with a small portion of the campus in unincorporated Madison County.

The campus is split between the City of Huntsville Council Districts 1 and 2, Higdon Road being the north-south boundary.

A portion of the Alabama A&M University campus also sits within the City of Huntsville Tax Increment Financing (TIF)

District 4, providing potential financing options for future development.

Refer to:

- Figure 3.f: Huntsville City Limits
- Figure 3.g: Huntsville City Council Districts
- Figure 3.h: Huntsville TIF 4

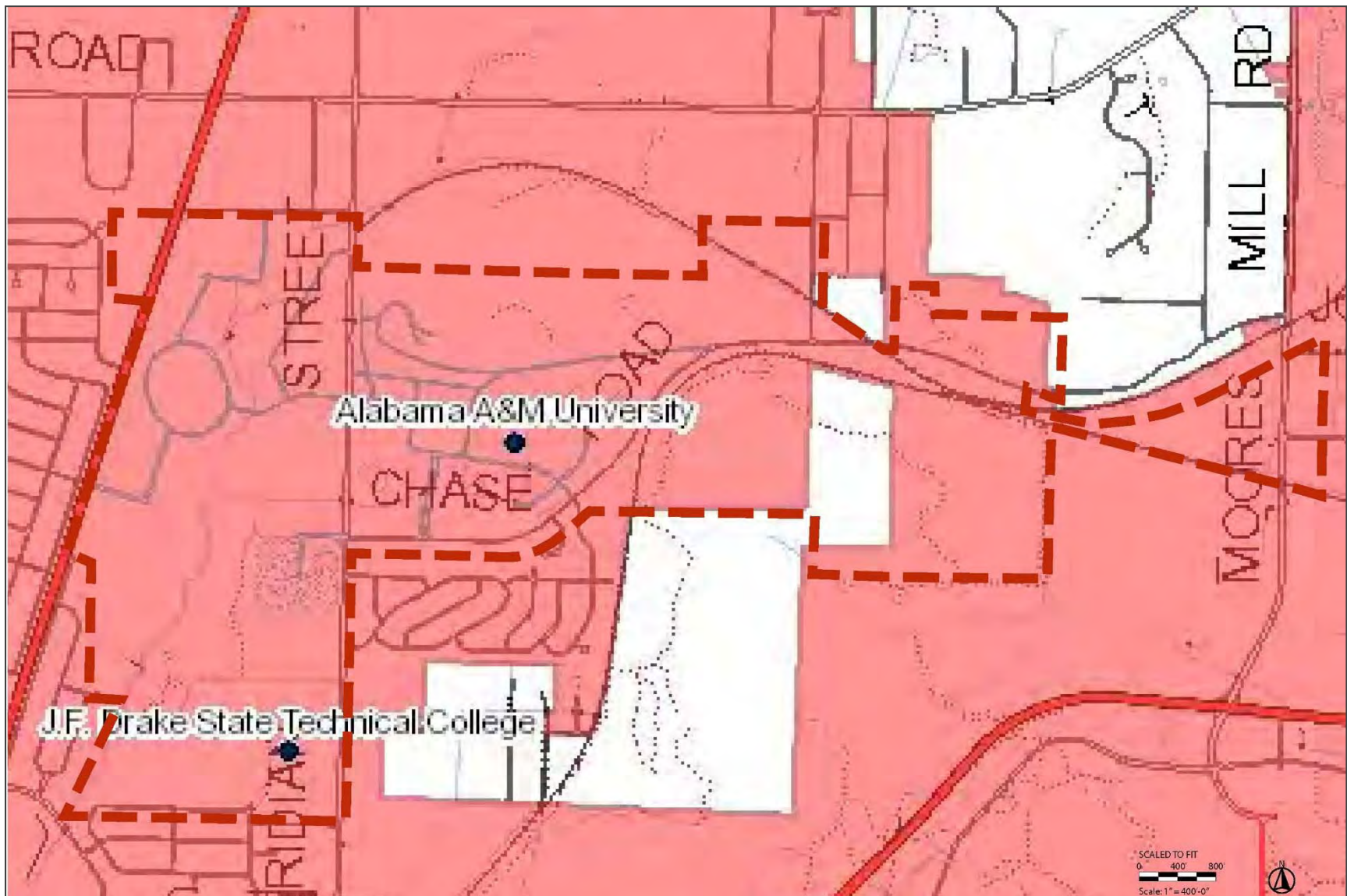


Figure 3.f: Huntsville City Limits



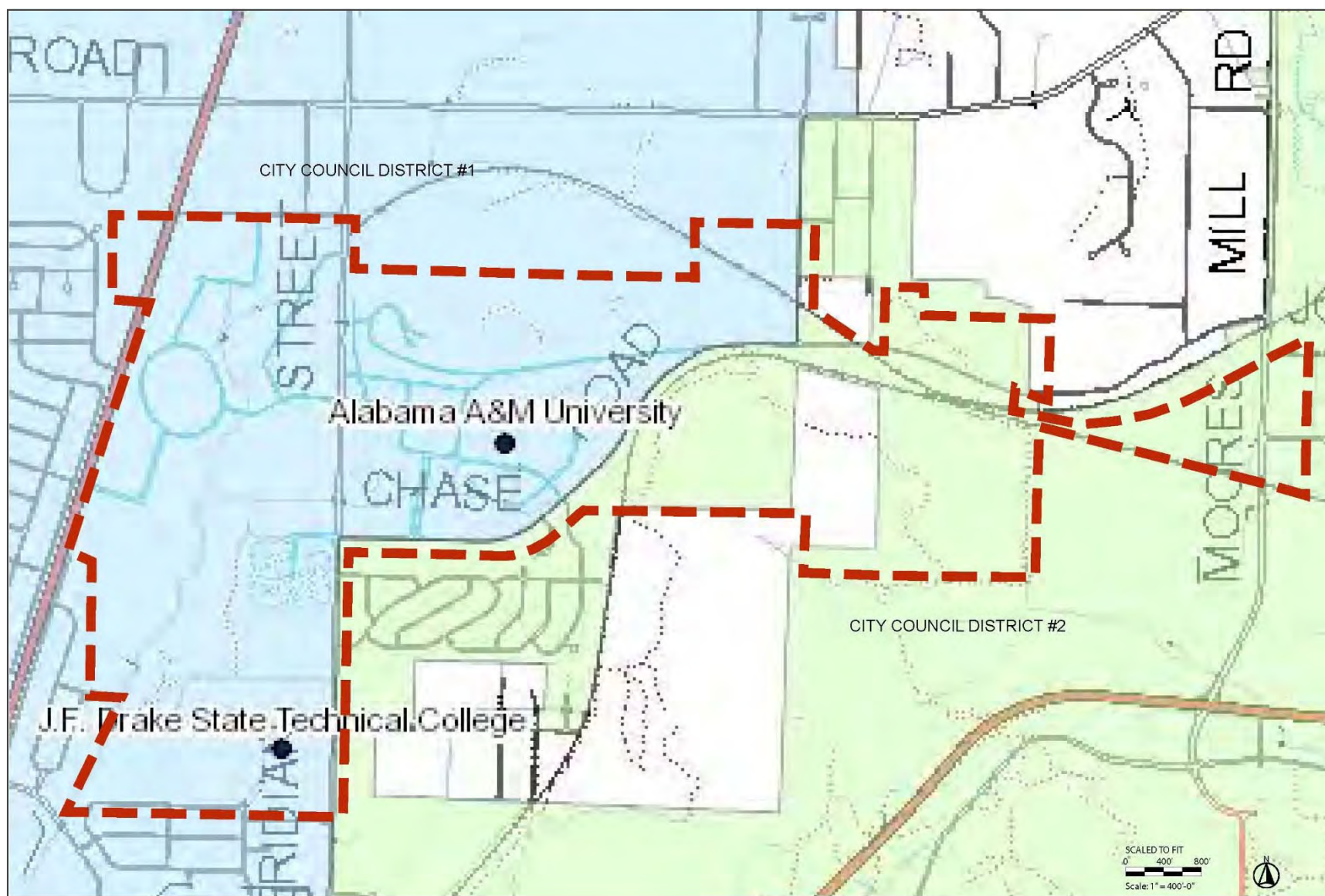


Figure 3.g: Huntsville City Council Districts



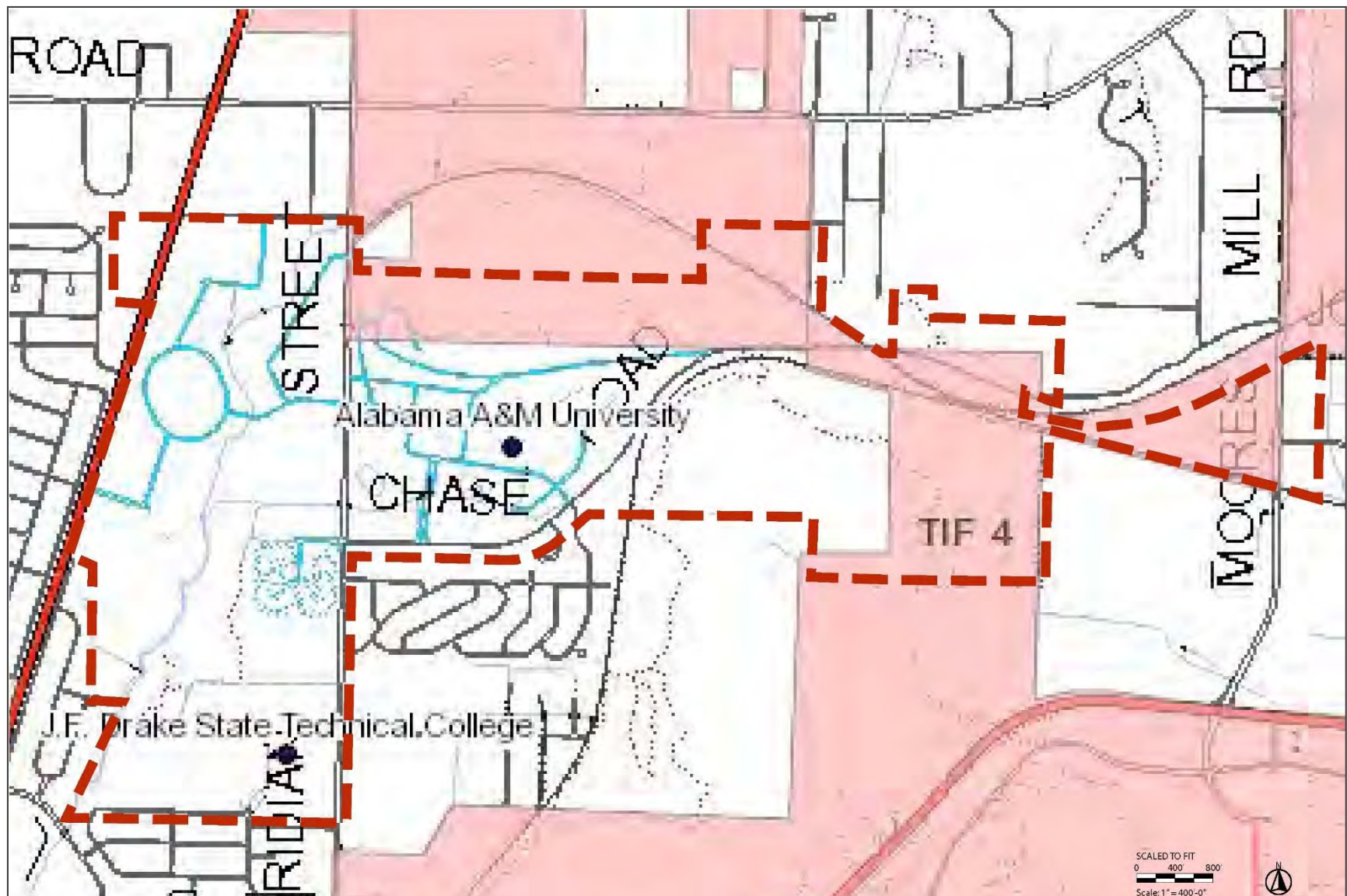


Figure 3.h: Huntsville TIF 4

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## B. Land Use

### 1.1 LAND USE PATTERNS

The distribution of land coverage is as noted below:

Land Use	Acres
Academic	8
Support	4
Residential	8.5
Athletics	30
Utilities	NA
Parking	50
Research	NA
Vacant/Undeveloped	

The northern portion of Alabama A&M University is located within the Alabama A&M University Historic District. With portions of the land undeveloped, particularly where the slope is highest, the views from the high points of campus can prove spectacular. This portion of campus is distinct from the newer, southern and eastern portions of campus, due to its building sizes, configuration, and the organic layout, designed to follow the topography. Many of the historic, renovated, and new buildings in the historic district are smaller in size and positioned closer together than the rest of campus, providing a much more walkable framework.

Refer to figure 3.i.

### 1.2 ADJACENT OWNED/LEASED/OPERATED PROPERTIES

The Alabama A&M University campus boundary extends to Moores Mill Road, to the east, and includes the property where Alabama A&M University's Agribition Center sits. This building is owned and operated by the University.

### 1.3 QUALITATIVE CHARACTERISTICS OF LAND USE

To the northeast and the southwest, undeveloped land is heavily wooded, providing a natural buffer between the University and some of the surrounding residential and light industrial uses.



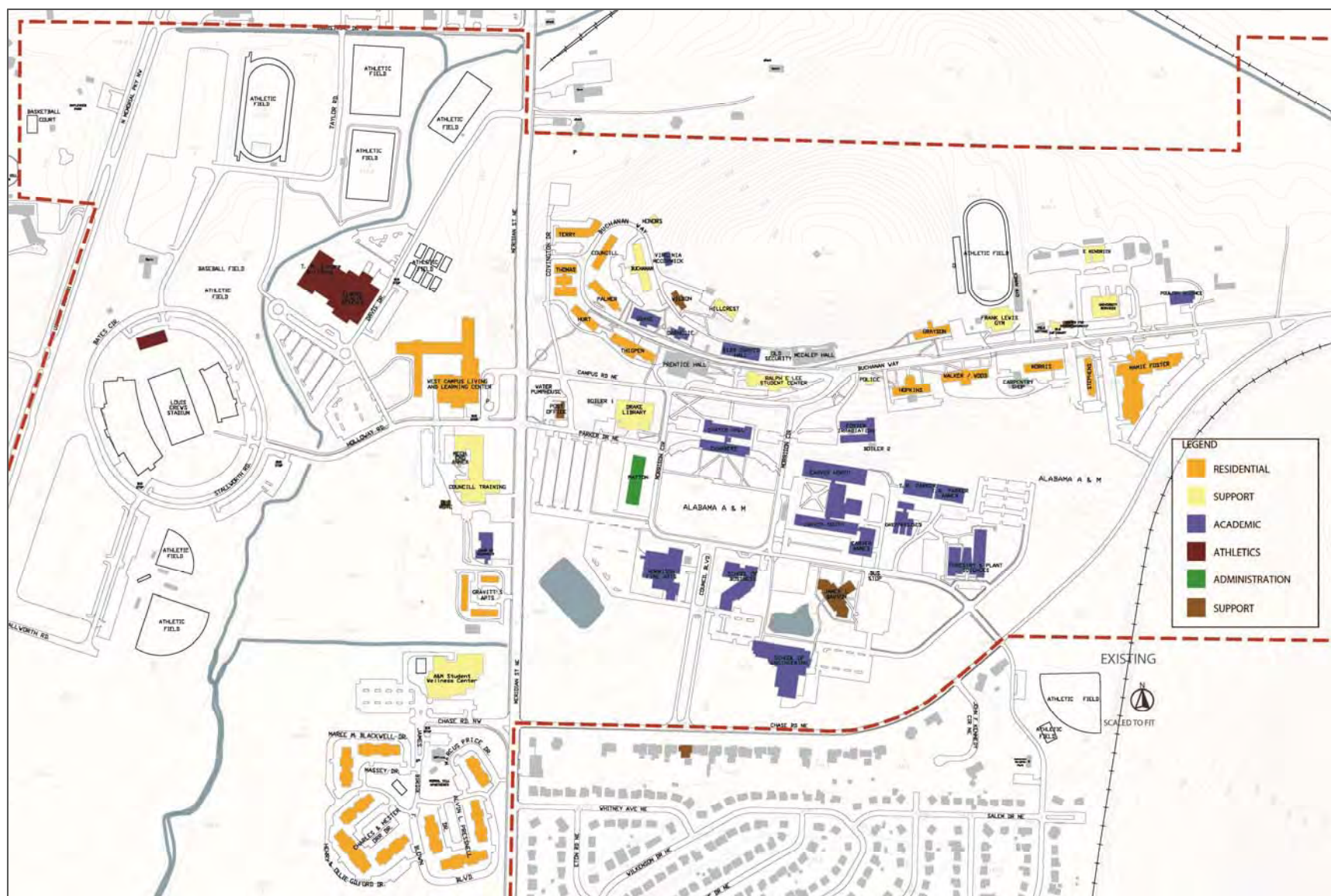


Figure 3.i: AAMU Existing Land Use

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## C. Building Condition and Use

Please refer to the following spreadsheets.

### 1. BUILDING CONDITION

The consultant team reviewed a limited number of the existing buildings in an effort to update the facilities assessment previously done in 1994 and updated in 2010. The assessment focused on those buildings that need most repair. A description of these findings, per building, is provided under a separate master plan document titled “Facilities Condition Assessment.” A chart, summarizing the condition of the buildings, is enclosed. It ranks each building based on comparing the amount of repair that may be needed against the replacement cost.

Categories are:

- A. Very Good – repair cost up to 14% of replacement.
- B. Good – repair cost is between 15% and 34% of replacement.
- C. Fair – repair cost is between 35% and 59% of replacement.
- D. Poor – repair cost is between 60% and 74% of replacement. (Potential demolition)
- E. Over – repair cost is over 75% of replacement.

See figure 3.j.



#	Name	GSF	ASF	Total Repair	Very Good 0 to 15	Good 15 to 35	Fair 35 to 59	Poor 60 to 75	Over over 75	Additional Historic Treatment Cost	TOTAL COST	
1	Crump Agricultural Mechanical Bldg.	10,002	6,994	\$328,566	\$328,566							
2	Old Barn and Drafting Building			\$0								
3	Old Barn and Silo			\$0								
4	Bibb Graves Hall	26,145	11,134	\$3,362,878			\$2,862,878			\$500,000	\$3,362,878	61%
5	Boiler #1			\$0								
6	Boiler #2			\$0								
7	Buchanan Hall	35,996	25,260	\$4,069,590			\$3,689,590			\$380,000	\$4,069,590	52%
8	School of Business	40,000	33,803	\$0								
9	Carnegie Library	7,684	5,057	\$317,403	\$267,403					\$50,000	\$317,403	18%
10	Carpentry Building	4,655	3,258	\$629,356				\$629,356				
11	Carter Science Hall	41,632	30,559	\$3,100,050		\$3,100,050						
12	Carver Complex (Bonner, Holland, Hobson)	131,000	76,451	\$6,220,250		\$6,220,250						
13	Carver Annex (Thomas)	35,218	16,316	\$2,209,930		\$2,209,930						
14	William Johnson Building (Credit Union)	1,454	954	\$206,977				\$206,977				
15	Chambers Science Bldg.	40,000	28,125	\$2,510,000		\$2,510,000						
16	Council Training Center (ROTC / Military	43,688	11,269	\$6,502,959					\$6,502,959			
17	W.H. Council Hall	31,200	11,268	\$4,415,600			\$3,915,600			\$500,000	\$4,415,600	62%
18	Louis Crews Stadium - with press box		22,201	\$0								
19	Dawson Building	50,000	30,840	\$0								
20	Drake Dining Hall	8,246	6,106	\$75,000						\$75,000	\$75,000	4%
21	Drake Memorial Learning Res. Ctr.(lib)	75,485	47,591	\$0						\$0		
22	T.M. Elmore Gym	104,297	102,571	\$11,942,006			\$11,942,006					
23	School of Engineering	85,249	57,825	\$0								
24	Ag Research Center Bldg	37,561	24,507	\$0								
25	Foster Irradiation Center	20,936	12,825	\$0								
26	Foster Living Learning Complex	183,321	101,926	\$0								
27	Frank Lewis Gym	20,572	17,229	\$3,122,143				\$3,062,143		\$60,000	\$3,122,143	73%
28	Gravitt Apartments	21610	14,688	\$0								
29	Grayson Hall	20,431	8,272	\$2,937,897				\$2,554,897		\$383,000	\$2,937,897	
30	Greenhouses - complex of 4	10300	4,319	\$0								
31	Gym Annex	7,505		\$1,117,119				\$1,117,119				
32	Hillcrest (President's Home)	5,538	4,177	\$383,823		\$283,823				\$100,000	\$383,823	39%
33	Honors Building	1,920	1,668	\$0								
34	Hopkins Hall	42,480	24,559	\$3,165,024		\$3,135,024				\$30,000	\$3,165,024	
35	Hurt Hall	17,010	8,480	\$2,260,000				\$2,260,000		\$0		
36	Infirmary	3,101	2,107	\$199,875				\$199,875				
37	Eugene Kendrick Maintenance Facility	10,000	8,100	\$0								
38	Ralph H. Lee University Center	29,254	13,876	\$4,486,503				\$4,411,503		\$75,000	\$4,486,503	66%
39	McCalep Vocational Building	23,305	19,275	\$3,929,922					\$3,929,922	\$0		
40	V. McCormick Building	4,154	2,178	\$504,863			\$454,863			\$50,000	\$504,863	57%
41	Mechanical Engineering Annex	2,360	2,365	\$0								
42	Morris Hall	32,000	22,942	\$3,280,000			\$3,280,000					
43	Morrison Building	68,068	36,764	\$7,453,446			\$7,453,446					
44	Palmer Hall	33,918	20,644	\$3,267,999			\$3,267,999					
45	T. G. Parker Building	10,500	13,235	\$1,483,999				\$1,483,999				
46	T. G. Parker Annex	10,425	7,772	\$570,769		\$570,769						
47	Patton Hall	52,272	28,972	\$5,357,880			\$5,357,880					
48	Polk Cottage	1,454	1,018	\$143,250				\$133,250		\$10,000	\$143,250	72%
49	Post Office			\$0								
50	Poultry Science Building	10,288	7,083	\$0								
51	Prentice Dining Hall	27,260	18,409	\$6,160,808					\$6,110,808	\$50,000	\$6,160,808	106%
52	(Old) ROTC Skills Center	1,500	912	\$213,525				\$213,525				
53	Campus Police Office	2,609	2,348	\$347,649				\$347,649				



#	Name	GSF	ASF	Total Repair	Very Good 0 to 15	Good 15 to 35	Fair 35 to 59	Poor 60 to 75	Over over 75	Additional Historic Treatment Cost	TOTAL COST
54	Old Security Office - (Public safety?)	2,585		\$344,451				\$344,451			
55	Old Silo			\$0							
56	Stephens Hall	33,872	20,366	\$3,454,900			\$3,454,900				
57	Terry Hall	33,700	22,445	\$4,490,525				\$4,490,525		\$0	
58	Thigpen Hall	41,888	30,802	\$2,146,760	\$644,028					\$0	
59	Thomas Hall	43,444	25,572	\$5,788,913				\$5,788,913		\$0	
60	Old University Stadium			\$200,000							
61	Walker Wood Hall	31,518	23,878	\$4,199,774				\$4,199,774		\$0	
62	Water Pump House	2,963		\$0						\$0	
63	Dr. Ernest L. Knight West Campus Living Learning C	256,188	202,692	\$0						\$0	
64	Wilson Building	8,400	4,352	\$459,900	\$137,970					\$0	
65	Baseball and Softball Fields			\$0							
66	Soccer Fields			\$0							
67	The Quad			\$0							
68	Tennis Courts			\$0							
69	The Duck Pond			\$0							
70	Covered Footbridge			\$0							
71	Student Health and Wellness Center	84,327	63,214	\$0							
72	HR Building		2,960	\$0							
73	Track and Field			\$0							
74	Football			\$0							
75	Agribition Center	92,379	87,799	\$0							
76	University Services	13,350	28,766	\$0							
77	Bulldog Transit	1,520	315	\$0							
OFF S Hazel Green											
<b>TOTAL</b>		<b>2,129,737</b>	<b>1,471,393</b>	<b>\$117,362,282</b>	<b>\$1,377,967</b>	<b>\$18,029,846</b>	<b>\$45,679,162</b>	<b>\$31,443,956</b>	<b>\$16,543,689</b>	<b>\$2,263,000</b>	
			69%								
Residential		803,048	528,462	\$40,208,983	Very Good	0 to d	15 t	35 r	60 t'er	over 75	
<b>Non Residential</b>		<b>1,326,689</b>	<b>942,931</b>	<b>\$77,153,299</b>							

Figure 3.j: Building Condition Chart

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## 2. SPACE USE INVENTORY

The consultant team conducted a space inventory and codified the room uses of a selected number of facilities. The focus was on those facilities that had the largest amount of space dedicated to those functions that support the academic mission: classrooms, labs and study spaces. Space use was codified using the Federal Room Use Code which organizes assignable space into nine categories:

100 – Classroom

200 – Lab

300 – Office

400 – Study / Library

500 – Special Use

600 – General Use

700 – Support

800 – Clinic (Health)

900 – Residential

Figure 3.k illustrates the breakdown of space for the buildings included in this inventory.

**BUILDING NAME**
**FICM ROOM USE CODE**

Sum of ASF

Column Labels

Row Labels

	100	200	250	300	400	500	600	700	800	900	INACTIVE	Grand Total
Ag Research Center Bldg			14,573	6,532	180		3,222					24,507
Agribition Center							87,799					87,799
Bibb Graves Hall	3,943	961		5,833	264						4,894	15,895
Buchanan Hall				301			1,270			23,689		25,260
Bulldog Transit				315								315
Carnegie Library				4,619								4,619
Carpentry Building											3,258	3,258
Carter Science Hall	7,043	12,148	3,244	6,414							1,303	30,152
Carver Annex (Thomas)			7,538	6,471	700		1,607					16,316
Carver Complex Middle (Hobson)	3,098	5,882		3,498		5,405						17,883
Carver Complex North (Hollins)	9,644	3,936		16,086	1,890	93		1,361				33,010
Carver Complex South (Bonner)	3,600	2,990	10,944	7,657	286							25,477
Chambers Science Bldg.	4,775	3,574	9,348	8,346	2,082							28,125
Council Training Center	2,397	474		6,537	2,716	13,368	240	3,127				28,859
Crump Agricultural Mechanical Bldg.	832	5,607		555								6,994
Dawson Building / Ag. Extension Bldg.		1,135	446	18,995	1,596	774	6,618				781	30,345
Drake Dining Hall	3,034			2,235								5,269
Drake Memorial Learning Res. Ctr.(lib)	1,436			1,778	39,928		2,137	2,312				47,591
Ernest L. Knight West Campus Living Learning Complex				6,178	4,054		27,209			164,676	575	202,692
Eugene Kendrick Maintenance Facility								8,100				8,100
Foster Irradiation Center				10,321			2,112					12,433
Foster Living Learning Complex				407	704		10,815					11,926
Frank Lewis Gym	1,025			1,095		15,109						17,229
Gravitt Apartments										14,688	-	-
Grayson Hall				149						9,964		10,113
Greenhouses - complex of 4				842		3,477						4,319
Gym Annex											6,815	6,815
Hillcrest (President's Home)											4,177	4,177
Honors Building											1,668	1,668
Hopkins Hall				310	1,811		316			22,122		24,559
HR Building				2,960								2,960
Hurt Hall											11,678	11,678
Infirmary				2,107								2,107
Louis Crews Stadium - with press box & field house				2,273		16,710	3,218					22,201
McCalep Vocational Building											14,790	14,790
Mechanical Engineering Annex		2,365										2,365
Morris Hall				262	1,232					21,448		22,942
Morrison Building	4,259	15,525		7,898	378	3,222	5,482					36,764
Old Security Office - (Public safety?)												
Palmer Hall				355	675					19,614		20,644
Patton Hall				28,972								28,972

BUILDING NAME	FICM ROOM USE CODE										
Polk Cottage / Hester House				1,018							1,018
Poultry Science Building			5,816	604			663				7,083
Prentice Dining Hall										18,249	18,249
Ralph H. Lee University Center				2,523			3,191			11,358	17,072
ROTC Skills Center		912									912
School of Business	10,266	1,231		17,832	1,891		126	1,795			33,141
School of Engineering	7,878	25,145	6,314	12,318	2,495		3,261				57,411
Stephens Hall				334			176			19,856	20,366
Student Health and Wellness Center				6,343		36,099	18,853		1,919		63,214
T. G. Parker Annex	6,012			1,009			20				7,041
T. G. Parker Building	7,223										7,223
T.M. Elmore Gym	6,117			6,168		75,961	543				88,789
Terry Hall				761	1,840		247			19,597	22,445
Thigpen Hall										30,802	30,802
Thomas Hall				2,800	2,950					20,765	26,515
University Services				5,415			50	23,301			28,766
V. McCormick Building				2,061							2,061
W.H. Councill Hall										16,508	16,508
Walker Wood Hall										23,878	23,878
William Johnson Building (Credit Union)				945							945
Wilson Building/ State Black Archives				493	504		3,355				4,352
Grand Total	82,582	81,885	58,223	220,925	68,176	170,218	182,530	39,996	1,919	315,654	1,378,919

Figure 3k: AAMU Space Use Inventory



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## D. Open Space and Pedestrian Circulation

### 1.1 CIRCULATION

Pedestrians on campus circulate using a combination of sidewalks, active roadways, abandoned roadways, and improvised pathways. The conditions of these facilities and their accessibility vary greatly depending on their age completeness, and quality of construction. All buildings are connected directly or indirectly to the campus pedestrian system. There are no designated bicycle facilities on campus such as bike lanes or bike paths. (See figure 3.l)

### 1.2 WALKABILITY

Some conditions on campus may discourage people from walking or riding bicycles. Meridian Street is a five lane roadway that bisects campus and may be perceived as a safety hazard to pedestrians. There are three signaled, accessible crossing points at the corners of Parker Drive, Holloway Drake Dr., and Chase Rd and a fourth pedestrian bridge crossing to the north which is not accessible. Steep grades separating the dormitories to the north from the campus core in the south may also be perceived as an impediment to walking. This condition may be exacerbated by a lack of accessible routes or clearly defined routes connecting living areas to academic buildings. Last, major pedestrian nodes like the wellness center and cafeterias are located on opposite ends of campus up to ten or fifteen minutes walking time apart. In most cases indirect access routes or sidewalks along a congested roadway discourage walking to these facilities.

### 1.3 OPEN SPACE

Alabama AMU's public open space falls into four categories: passive, athletic, agriculture, and un-programmed. Passive open spaces include highly visible spaces within the campus core. The most important of these on campus is the Quad. This large park like open space is the central gathering space for campus and the most important view upon arrival by Council Blvd. Other passive open spaces include the formal landscape plaza on the west side of the Carver Complex, The Block north of Buchanan Way used by Greek student organizations, and the Duck Pond in the SW corner of campus.

The athletic spaces on campus are primarily located on the west side of Meridian St. Athletic open space is used for collegiate level sporting events as well as intramural sporting events. Use of the facilities is scheduled.

The Agricultural open space on campus is located west of Meridian Street and used year-round as an outdoor laboratory.

Un-programmed open space areas include areas on "The Hill" or in the flood plain not suitable for development as well as undeveloped areas on the perimeter of campus that may be suitable for future development. Currently these areas have no programmed use. (See figure 3.m)

### 1.4 VEGETATION AND LANDSCAPE

The Alabama A&M Campus is located in the Cumberland Plateau section of the Appalachian Plateau natural region. This area lays on the western side of the Appalachian Mountains extending from Kentucky to Northern Alabama.

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Geologically the area is characterized as a plateau with low hills up to 350' in elevation composed primarily of eroded prehistoric sedimentary rocks. Historically the plateau was vegetated with large stretches of contiguous mixed hardwood/conifer forests whose primary species were oak, hickory, and pine.

Today the campus is largely void of the indigenous landscape due to agricultural activity and other development. It is characterized by four basic landscape types: native and adapted forest, agricultural, athletic, and the campus core. These areas are distinguished by their primary use, landscape make up, and maintenance requirements. On average 18% of the campus is covered with tree canopy and most understory areas are dominated primarily with turf grass and periodic landscape foundation plantings.

The native and adapted forested area occurs on the uninhabited areas of "The Hill" and selected areas of the flood plain on Normal Branch Creek. It makes up approximately 72 acres of the campus. Although both of these areas have probably experienced significant disturbance at some time in modern history, elements of the historic natural landscape have begun to reemerge over time. This area remains largely undeveloped and is unlikely to be developed in the future due to topographic and flooding constraints. Over 98% of this area is covered with tree canopy. This area requires little or no maintenance.

One agricultural area is located on the east side of Normal Branch that is approximately 13 acres in size. This area is intensely worked with rotating crops and used as a student laboratory. Its location and agricultural use make

this area highly susceptible to erosion in high water potentially threatening the water quality in Normal Branch. 0% of this area is covered in tree canopy. This is a high maintenance landscape area that is unlikely to be developed in the future because it is located in the floodplain.

Athletic facilities are located primarily on the west side of Meridian St. and cover roughly 135 acres. This area landscape is dominated by turf grass and parking lots. A significant length of Normal Branch traverses this area and is typified by engineered banks and a compromised riparian zone. Tree canopy covers less than 1% of the athletic complex. This areas size and the regular mowing required to maintain turf grass make it a high maintenance landscape.

The remaining campus core is over 210 acres. This area includes land on the east and west side of Meridian St. extending to the base of "The Hill". The campus core includes the buildings, roads, parking, and open spaces that make up the academic core. This area also includes a series of interconnected surface drainage ditches and ponds to handle storm water runoff. Approximately 10% of this area is covered in tree canopy with the balance of landscape being large open areas of turf with some understory trees and shrubs. This area is the most manicured portion of the campus and requires a high level of maintenance. Most of the future campus development is likely to occur in this area.

See figures 3.n and 3.o.



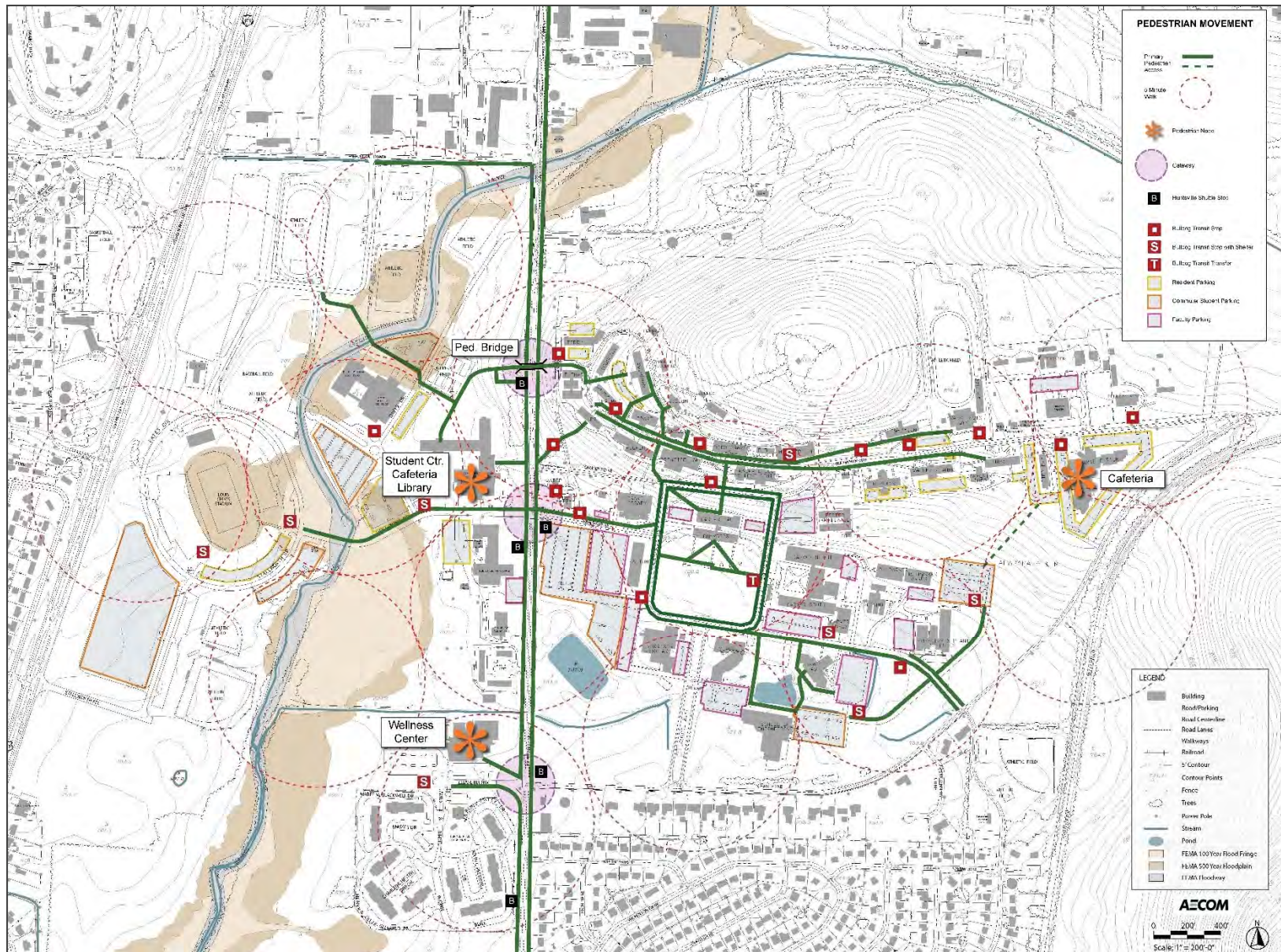


Figure 3.I: AAMU Pedestrian Movement





Figure 3.m: Open Space



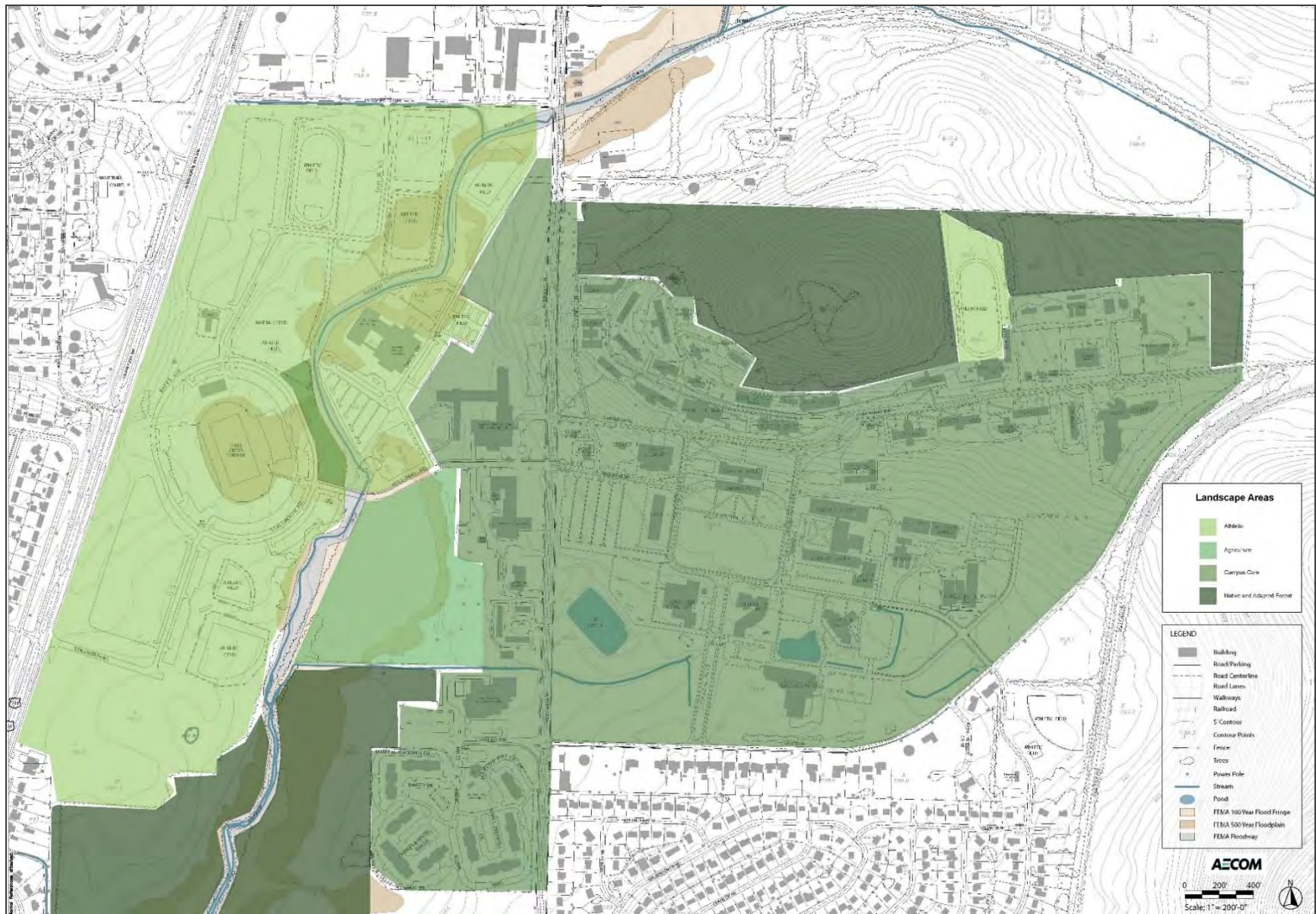


Figure 3.n: Landscape Areas





Figure 3.0: Tree Canopy



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## E. Vehicular Circulation and Parking

### 1. Transportation

#### 1.1 OVERVIEW OF TRANSPORTATION

For the last 5 years, in response to issues related to noise, traffic, congestion, etc., the FTA (Federal Transit Authority) gave AAMU a \$2,337,780 grant which was used for new parking, re-striping, identify lots, controlled access gates, etc. As a result, the University has moved cars to perimeter, improved their transportation system and created a new parking structure and shuttle service. Primary goals are to ensure that people are safe and to reduce accidents. Next phase will include ADA access: curbs, sidewalks, etc. (See figure 3.q)

#### 1.2 RIDERSHIP OF BULLDOG TRANSIT SYSTEM

3,000 to 4,000 on a daily average. Peak at 4,500. Around 99% is students. Peaks 10 to 2. Have 6 buses running – address food service peak. From 6 to 10 only one bus (paratransit).

#### 1.3 ROUTES

3 routes that run:

- Normal Hills (Council Route);
  - Bulldog route – constantly running;
  - Drake route – to Foster;
  - Paratransit – ADA – loops all time
- \*Ridership breakdown on website

Friday afternoon special service to the mall and Wal-Mart. As part of their inventory, AAMU has 3 paratransit buses.

#### 1.4 SCHEDULE

7:30 to 10:30 Monday thru Thursday, 7:30 to 6 PM Friday. No weekend. See website for details. Madison City Schools maintains bus fleet.

#### 1.5 FEE STRUCTURE

Transportation Fee = \$20 / semester.

#### 1.6 ISSUES

May not be charging enough fee. (not adjusted since they started) Break even on the operational but get other benefits - (Revenue generator – special trips. Indirect – from federal to do improvements)

Meridian at Knights Center and post office is used a lot at noon.

#### 1.7 GOALS AND OBJECTIVES

- On campus bus wash and maintenance facility
- Optimize the traffic flow. (Meridian at Knights Center and post office is used a lot at noon)
- Protect riders – more bus shelters
- Overhead rail – Optimize on the terrain. (West Virginia University model) FTA has been in these

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conversations. (The buses currently used are not best for this terrain)

- Joint venture with BioFuel production unit, Department of Agriculture. Collaboration with Toyota about 6 miles away – can do demonstration for cost / effectiveness of engines. Use oil from food service and oil from corn, sunflower, canola.

## 1.8 OTHER

- Participated in a webinar with Duke and others regarding Transloc and or Next Bus Systems: provides Real-time Transit
- Next priorities are to reconfigure/review traffic flow patterns particularly exiting/entering certain areas on campus to ease congestion at peak hours.

# 2. Parking Facilities

## 2.1 OVERVIEW

Alabama A&M University has a total of 78 on-campus parking lots, with approximately 5,025 parking spaces available to students, staff, and visitors. (See figure 3.r)

Dedicated staff parking: 2912 for faculty and staff (versus 1200 actual total)

Dedicated student parking: 2,088

## 2.2 EXISTING PARKING LOT CONDITIONS

Parking lots ranged from good to poor condition, with many commuter lots in need of repairs to potholes, cracks, and bulges in the asphalt.

## 2.3 PARKING POLICY: UNIVERSITY'S EXISTING POLICY

Dedicated commuter and guest parking lots surround the perimeter of the campus, and are accessible prior to the limited access gates at the main entry points to campus. Additional parking located beyond the access gates is available to faculty and staff during the business day, Monday-Friday, 8am to 5pm. After 5pm during the week, and all day on the weekends, the limited access gates are lifted and all parking lots are available to students and visitors. Resident students must park at residence hall ONLY. Commuters can park on other campus lots, such designated: White lots – students, Maroon lots – faculty and staff.

## 2.4 FEE STRUCTURE

Parking Fee for Student = \$45 / semester. (confirm)

## 2.5 ISSUES

Turning lane at Meridian on to Chase Road – needs to be widened or dedicated. Turning lane from Chase Road into Engineering, Agric. Building and commuter lot. (See figure 3.p)

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Fee structure may be low to sustain long term improvements.

## 2.6 GOALS AND OBJECTIVES

- To repair the parking lots.
- To eliminate flow issues noted above
- To provide bike lanes
- To provide walkway from Foster to Engineering area.



Figure 3.p: Images of Parking and Access Issues



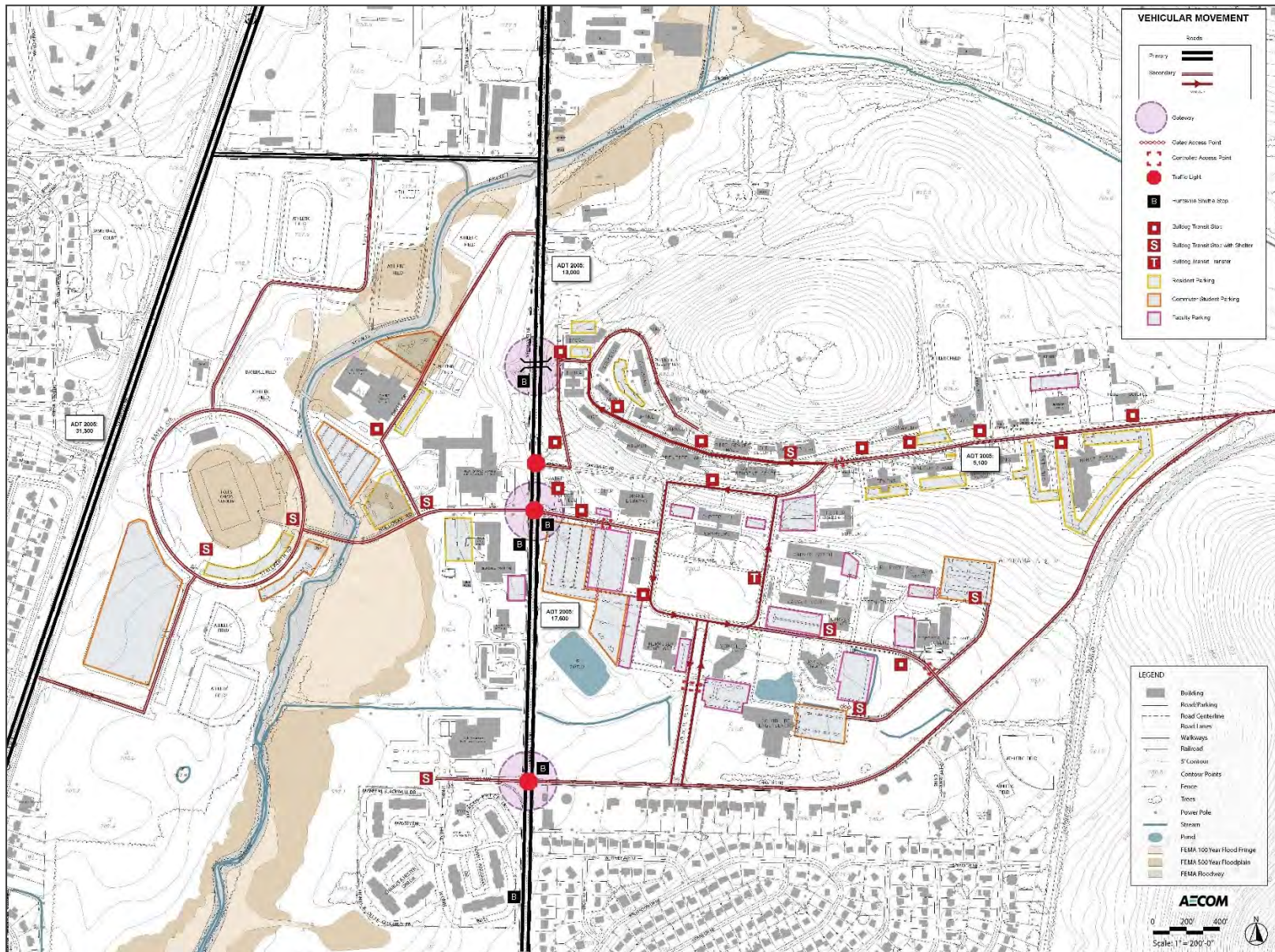
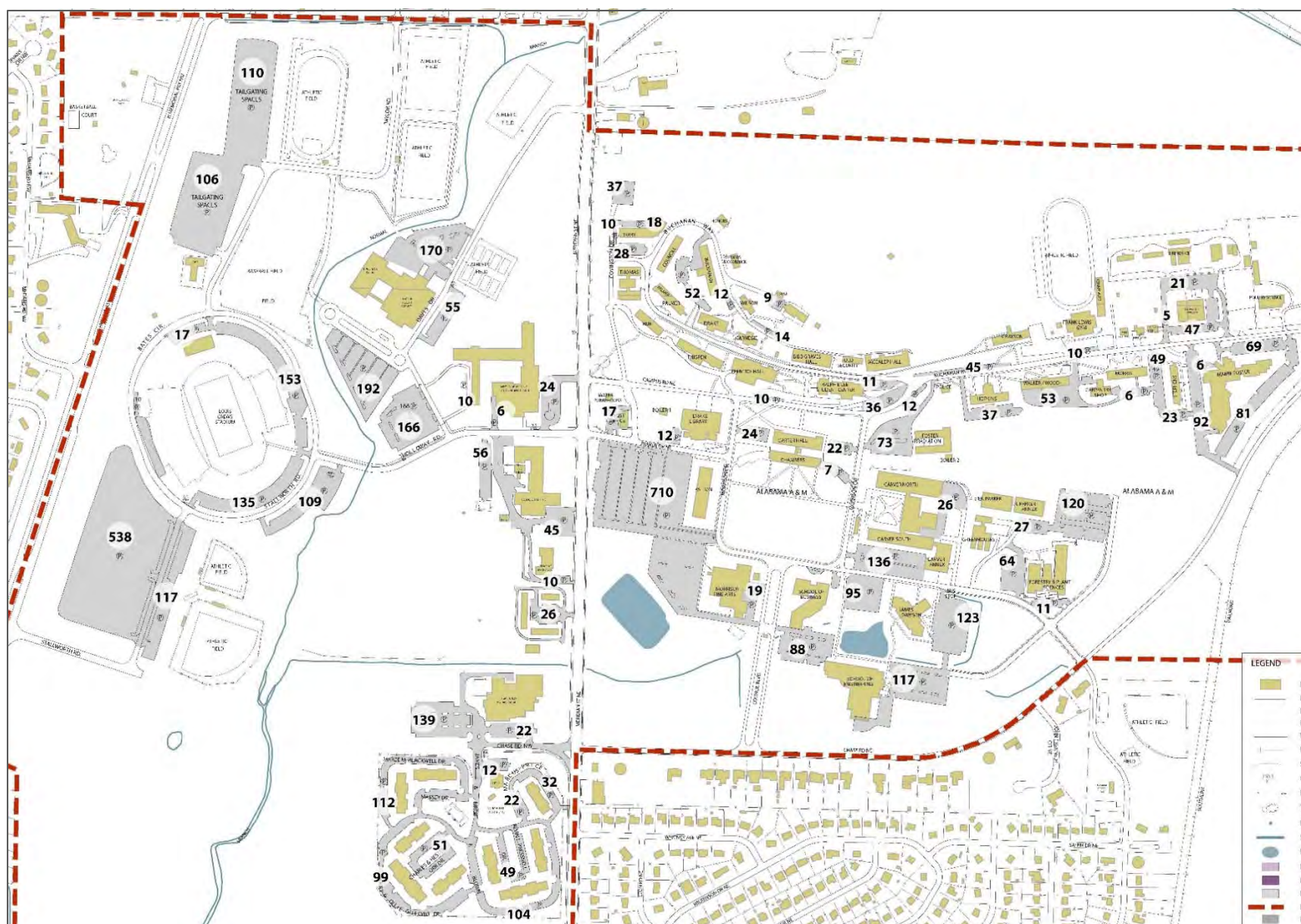


Figure 3.q: AAMU Vehicular Movement





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## F. Athletic and Recreation Facilities

### 1.1 OVERVIEW OF SPORTS

AAMU participates in the following sports:

<b>COMPETITION:</b>					
<b>Sports</b>	<b>Male</b>	<b>Female</b>	<b>Time</b>	<b>Spectators</b>	<b>Field</b>
Football	X		Fall	21,000	New turf. Practice on field Northeast
Soccer		X	Fall	150 to 200	North
Cross Country		X	Fall	NA	Open
Volleyball		X	Fall	3600 +	Elmore Gym
Basketball	X	X	Winter	3,600 to 3,800	Elmore Gym
Indoor Track	X	X	Winter		Practice outdoor, no indoor competition facility
Bowling		X	Winter		Health & Wellness Center
Baseball	X		Spring		Bulldog Field
Softball		X	Spring		Lady Bulldog Field
Golf	X		Fall & Spring		Municipal Courses
Out Track	X	X	Spring		Track
Tennis	X	X	Spring		Next to Gym



The City of Huntsville is looking to build a baseball stadium. AAMU may partner with them to have it built on site. This presents an opportunity for a strategic partnership between AAMU and the City to locate a stadium adjacent to the university that could serve as a catalyst for growth in North Alabama.

**1.3 INVENTORY ATHLETIC AND RECREATIONAL FACILITIES**

Refer to figure 3.s.

**1.2 INVENTORY OF EXISTING FACILITIES**

Following is the acreage of land dedicated to sports and recreation:

Facility	Acres	Uses
Track	3.5	Intercollegiate
Women's Soccer Field	2	Intercollegiate
Men's Soccer Field	2	Intercollegiate
Intramural Field	2	Intramural and Recreation
Football Practice Field	3	Intercollegiate Practice
Elmore Gymnasium	2	Intercollegiate and Intramural
Tennis Court	1	Intercollegiate, Intramural, and Recreation
Louis Crews Stadium and Hobson Field House	12.5	Intercollegiate
Softball Field	1	Intercollegiate
Baseball Field	2	Intercollegiate

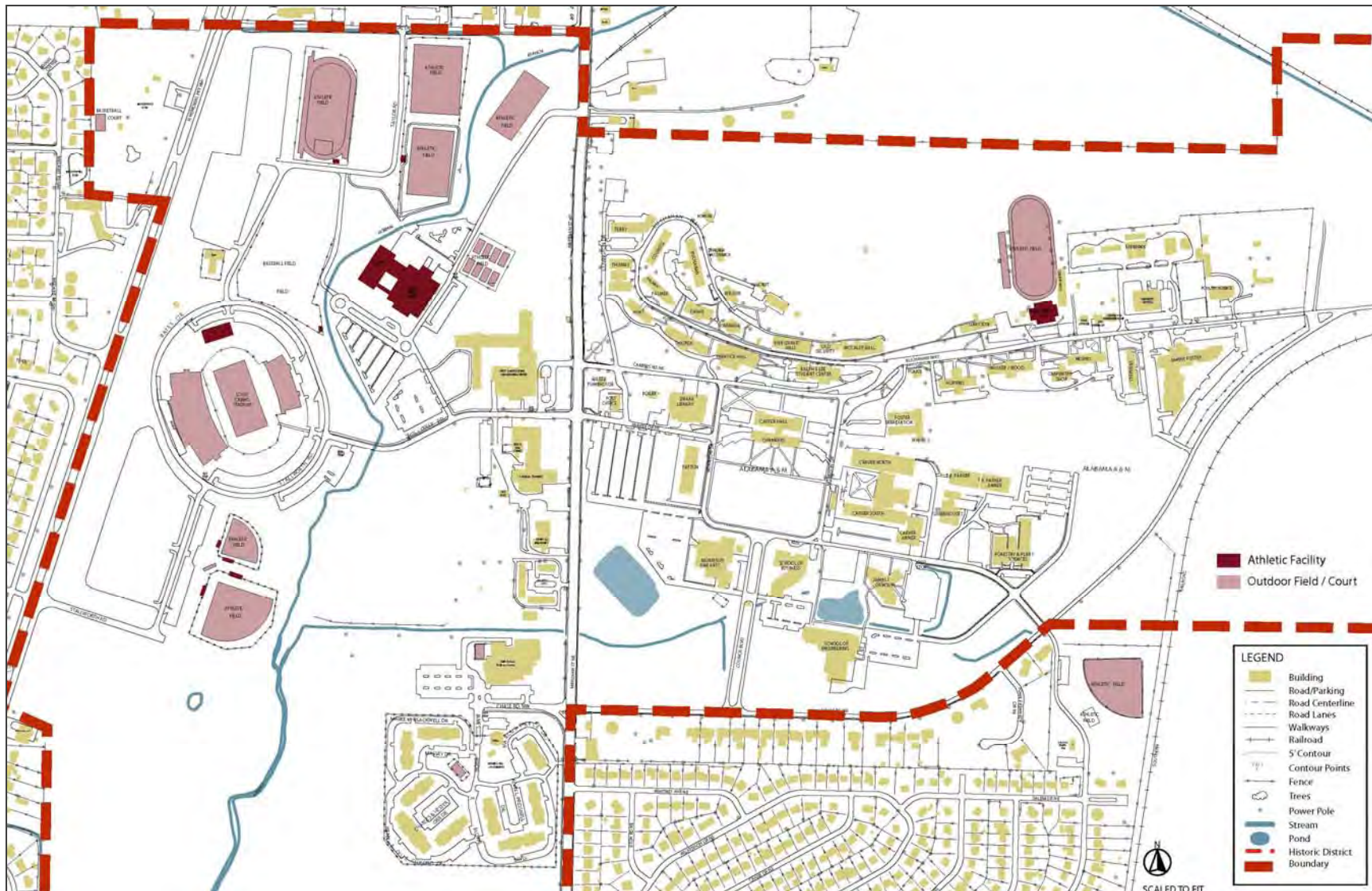


Figure 3.s: AAMU Athletic and Recreational Facilities

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## 1.4 ISSUES

- Use of Elmore Gym, conflicts with PE and lockers – home and visitor team share shower space. As an option they put the visitor team in the football locker room. To get to it, go through same door.
- Council Training – used for academic enhancements. Has infrastructure issues – wiring (IT, etc.) Computer lab used for academic enhancements. Ideally this would be next to Gym and athletic department.
- Field house – has coaches’ offices in it. Not a good setting (cubicles – no privacy)
- Elmore Gym does not have good space for officials, particularly with male and female officiating.
- Stadium Parking – gravel is not good for ADA. Need better lighting. How to get ADA in / out of the Stadium?

## 1.5 GOALS AND OBJECTIVES

World class athletic program with a focus on academic achievement. Student Athlete focus.

### **Intramural – Wellness Center**

Sports

Spectators

### **Recreation**

Sports

Spectators



---

## G. Dining and Food Service

### 1.1 LOCATIONS

Food services were originally in Prentice Hall. Additional service was provided at the Greasy Spoon at Ralph Lee. There were issues with the infrastructure in Prentice Hall and trying to put in a food court was not possible.

Food service is currently at Foster and Knights Center. (Note on housing: Foster was originally Co-Ed. When Knights was built, it was designated as a female residence and Foster was designated as a male residence). AAMU put a Burger King in Knights, where Greasy Spoon is currently located. (Had a “decline and balance” plan that was discontinued.) The dining halls currently operate as follows: (See figure 3.t)

- **FOSTER** (split meal approach) Breakfast 7 to 9, Lunch 11 to 2, Dinner 4 to 6; Weekend Meal plan – from 7 to 9 on Saturday and Sunday.

Typical Dinner – majority meal (seating) last less than an hour.

(Most athletes live at Foster).

Seating capacity is 375 (includes special dining area)

- **KNIGHT** (continuous meal approach) 7 to 7 Monday and Friday (at some point in the day it is only grille, pizza and deli) Weekend – Continental Breakfast, Lunch and Dinner.

Typical Dinner – 200 when they open at 4:00, peak is from 5:30 to 6:30 – socialize. It is the place to mix and mingle. Seating capacity is 550.

### 1.2 MEAL PLANS, PARTICIPANTS AND MANAGEMENT

- a. 21 Meal plan = 3 x 7 days.
- b. 80 block Commuter = 5 meals x 16 weeks (can be renewed).
- c. Plans are managed through housing. The university also offers individual purchase = \$5.00 for staff and students; \$8.00 others. Not a lot of faculty and staff use the plan. (Used to have more when it was at Prentice Hall.) Overall, there is 65% to 70% participation on meal plan. (% of total that actual use / total subscriptions.)

#### Number of Dinners for a week, by meal time:

Following is the breakdown of dinners per meal:

- Breakfast – average 700 to 800 (more at West – female = 600 with continental; Foster 270 to 320).
- Lunch – average (Foster = 400 to 425; Knight 700 to 800).
- Dinner – average (Foster = 400 to 450; Knight = 700 to 800; close to 1000 during football season – peaks September through November).

### 1.3 ISSUES

- Number of options: deli, pizza, grille, home zone, exhibition - cook, salad and soup; students go to multiple and create congestion and waste.
- The layout of Knights is not great – the station lines are too close. Islands are not spread enough. Moved salad bar to center. Limited by air return.
- Students don’t move plates.
- Commuters don’t use it as much because of the time it takes to go into full dining.

- 
- Long travel distance for females to get to dining: cross street or walk to Foster if you live on the hill.

#### **1.4 GOALS AND OBJECTIVES**

- To adjust the layout of Knights.
- To increase service – through more options that are financially affordable.

#### **1.5 OTHER**

- New idea: Coffee at LRC, Juice Bar at Health and Wellness, portables at various locations.
- For faculty and staff who do not use as much: consider a plan with 10 meals per week. (Breakfast and lunch.) Provide a separate eating area.
- For commuters who do not use as much: Consider using more national brands like: Chick-Fil-A, Subway, etc.
- Consider food service where there are no security checkpoints for cars.
- Consider more places for student activities, events, socialize. Right now it is primarily the Knights Center. This hinders their ability to serve dining, flow in and out, no parking, etc.

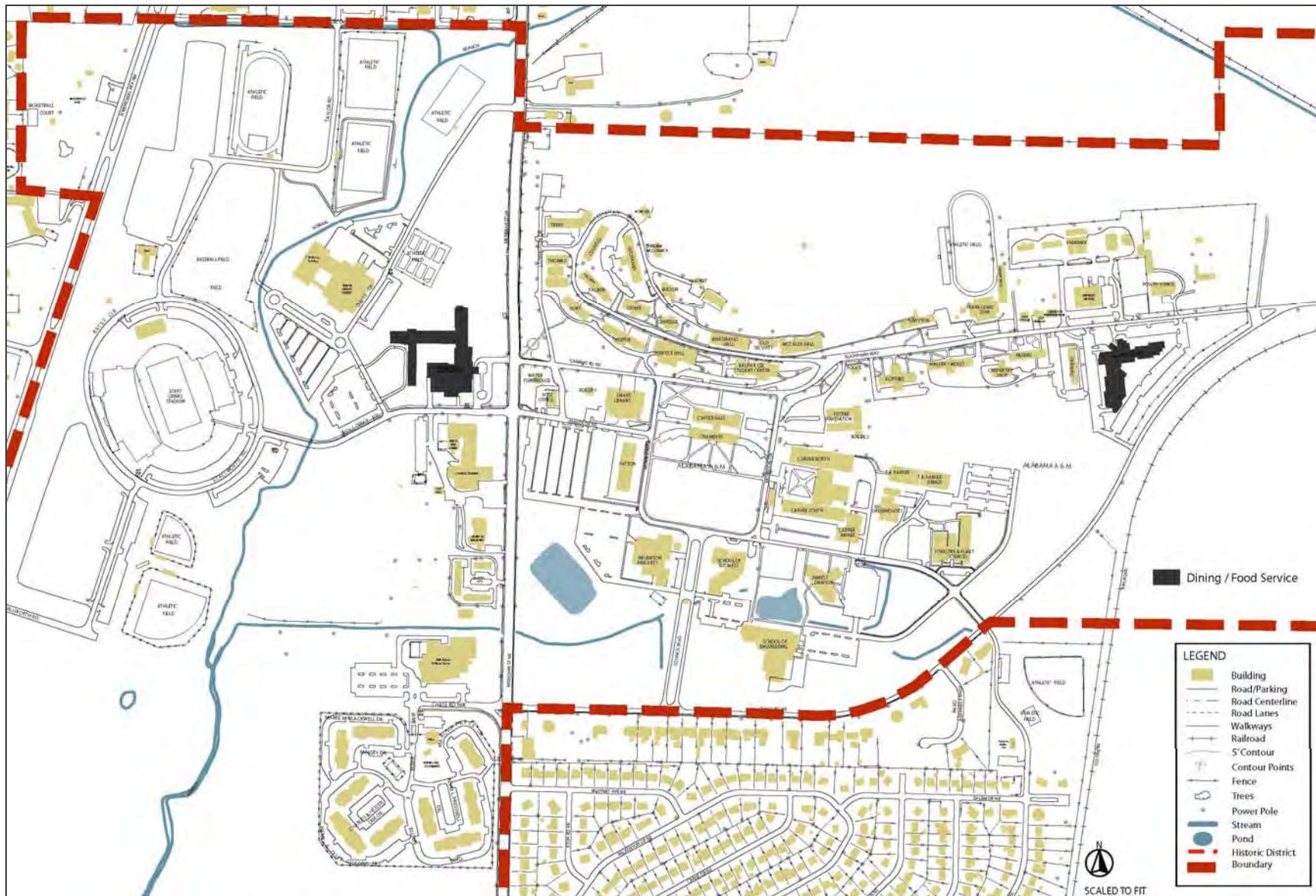


Figure 3.t: AAMU Dining and Food Service



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## H. Housing and Residential Life

### 1.1 INVENTORY OF NUMBER OF BEDS PER BUILDING AND GENDER

Following is a breakdown of the total number of beds on campus:

#### MALE RESIDENTIAL BEDS

Foster Complex - 500  
Grayson Hall----- 98 Currently Closed  
Hopkins Hall----- 175  
Morris Hall----- 166  
Stephens Hall--- 167  
Walkerwood--- **Closed Indefinitely**

#### FEMALE RESIDENTIAL BEDS

Council Hall----- 82 Closed  
Terry Hall----- 153  
Thomas Hall----- 188 Closed  
Knight Complex-- 726  
Thigpen Hall----- 200 Closed  
Palmer Hall----- 167  
Hurt Hall----- **Closed Indefinitely**

#### Male Residents occupied spring 2013

Stephens Hall----- 148  
Morris Hall----- 142  
Hopkins Hall----- 118  
Foster Hall----- 461  
TOTAL= 869

#### Female Residents occupied spring 2013

Palmer Hall----- 135  
Terry Hall----- 141  
Knight Complex-----637  
TOTAL=913

Actual Occupancy – most are double occupancy, communal showers unless noted.

Foster – 450; suite style  
Grayson – closed due to consolidation and no furniture  
Hopkins – 110  
Moores – 150  
Stevens – 150; good furniture  
Walker Hall – closed indefinitely due to facilities condition

Council – closed due to building condition  
Thigpen – closed due to occupancy – consolidated  
Terry – 149, can bring refrigerator  
Thomas Closed – University College is there  
Knight – 600; suite style: 4 people / 2 bedrooms + 2 bathrooms  
Palmer -150; traditional: first floor have singles with interconnecting room; good furniture  
Hurt Hall – closed indefinitely due to condition

Refer to figure 3.u.

Total occupancy is 1760 +/- . Freshmen and sophomores are 'required' to live on campus but not strictly enforced. No CoEd occupancy.

Normal Hills is owned and run by the Foundation. Total beds is 420. Not all full. Occupied only by students and some faculty. These are mostly upper class and not

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required to be on meal plan. One, two and three bedroom apartments for male and female.

## **1.2 HOUSING FEE**

Traditional, per semester:

\$1200 + \$141 telecom + \$1432 meal – double

\$2400 + \$141 telecom + \$1432 meal – single

(Unused doubles, if renovated, would sell with right furniture. If turned to singles, also an option)

Suite

\$2100 + \$141 + \$1432 – all double (Microwave, refrigerator)

## **1.3 ISSUES**

- Meal plan is perceived to be 'expense'.

## **1.4 GOALS AND OBJECTIVES**

- A meeting area in each floor to enable the living / learning aspect into the halls. Renovate, renovate, renovate.

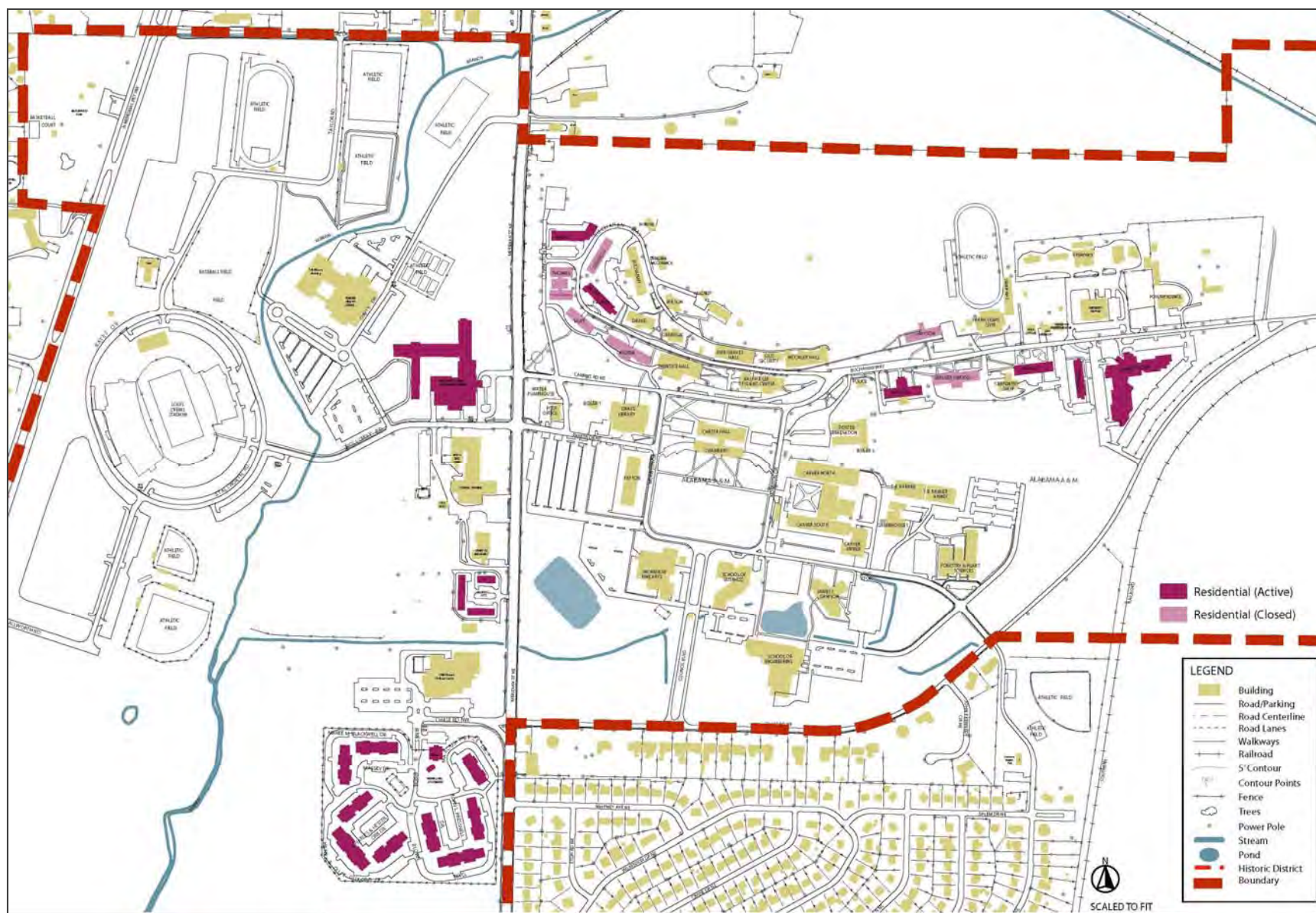


Figure 3.u: AAMU Housing and Residential Life



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## I. Campus Infrastructure

### 1. EXISTING UTILITY INFRASTRUCTURE

(Sanitary Sewer, Water Distribution, Natural Gas, and Storm Water Drainage)

Utility line locations were compiled from a variety of sources including record drawings supplied by the University, Huntsville Utility record maps and construction drawings from various architectural and engineering companies that had performed work at the University (as provided by Aramark). These compiled records provided a general layout of the existing utilities. Based on these records a walking tour of the site was performed to confirm the locations which appeared to be consistent with the compiled drawings. Confirmation of the actual size of buried utilities was beyond the scope of this project.

The utility infrastructure (water, sewer, gas and storm sewer systems) at this campus appear to be serviceable at this time based on field observation and discussions with University Facility Maintenance personnel. However, some of the utility lines are quite old and their internal condition is unknown.

#### General comments about the existing utility systems

- Sanitary Sewer. Information gathered from previous Master Plan indicates that many of the older sewer mains are six inch diameter pipes, particularly in the areas around Buchanan Way. Some of the lines and manholes are quite old. If this information is correct, these sewer lines do not meet current plumbing code requirements, particularly if additional flow from new construction is added to the system. Reconstruction and up-sizing of the affected sewer lines should be

included in the site work budget for new building construction. Overall, the distribution of sewer lines throughout the campus should allow relatively easy access for any new building or facilities

- Water Distribution. 6 inch and 8 inch water lines are distributed throughout the campus. Flow rates and pressures appear adequate for existing conditions. The available flow rates and pressures for future construction would need to be evaluated during the design process depending on building requirements.

It was reported by the facilities maintenance department that many of the irrigation water lines are metered through domestic water meters. Thus the University may be paying a higher rate for irrigation water because the domestic water includes a charge for wastewater treatment.

- Natural Gas. Natural gas is readily available from Huntsville Utilities gas mains along the perimeter of the campus and from existing gas distribution lines currently on the campus.

The physical locations of the various utility lines appear to be such that they can be accessed or extended for future building expansions for most areas of the campus without unusual expense. However, existing utility line capacities would need to be evaluated in the planning process for campus expansion.

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## 2. RECOMMENDATIONS FOR EXISTING UTILITIES

### 1. Update Utility Location Maps and Records

- a. Having readily available accurate maps and detailed records of all utility lines and the facilities they service is a valuable tool for an institution the size of Alabama A&M University. Precise locations of all utility lines and their basic information (size, materials, and depths) should be recorded on one master electronic drawing. Individual records for specific utilities should be recorded in data files linked to the master drawing. This map and records of underground utilities will aid the overall campus maintenance operations, facilitates campus planning and aids in financial programming for recurring expenditures.
- b. The University already has the electronic mapping available which provides the campus layout and building locations in the standard Alabama State Plane Coordinate System (ASPCS). Utility mapping information can be added during new construction or renovation projects as funding permits. Utility data information can be compiled as routine maintenance occurs.
- c. Many older buried utility lines are very difficult to precisely locate from surface observation. Additionally, these older utility lines were installed without magnetic or electrically detectable tapes or wires, which significantly reduce the reliability of surface detection methods. Older sanitary sewer lines and associated service laterals are particularly difficult to locate with precision using surface detection methods.

### 2. Sanitary Sewer Condition Survey

- a. Much of the older sanitary sewer system appears to be in excess of 50 years old. Older sewer manholes, sewer main pipes and sewer service laterals can crack, become disconnected at joints, develop saddles or depressions, become clogged with roots and become generally deteriorated without periodic maintenance. Cracks and defective joints allow infiltration of ground water into the sewer system that can significantly increase the cost for wastewater treatment. Maintenance plans should be developed based on periodic internal inspection of the system.
- b. Internal cleaning and inspection of sanitary sewer systems is usually performed by a contractor. These contractors will typically flush the sewer lines between manholes, inspect the manholes and run a television camera mounted on a small robot through the sewer pipes. The television inspection will allow detection of most defects, pinpoint leak and locate service lateral positions. The information recorded by the TV camera is recorded in a digital format for the owners use.
- c. The cost for a contractor to flush a sewer line, visually inspect manholes, conduct a television inspection of sewer mains and provide condition reports and digital records ranges from \$1.75 to \$2.00 per linear foot of sewer line depending on quantity and size of pipe to be inspected.

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### 3. Domestic Water, Irrigation Water and Fire Water Lines

- a. All irrigation water should be metered separately from the domestic water. Install separate meter connections for irrigation water service and separate irrigation piping as necessary.
- b. Test the flow capacity of the existing water mains by testing each fire hydrant and maintain a central record of the test results. For each fire hydrant the test report should indicate:
  - i. Date and time of the test
  - ii. Static Pressure.
  - iii. Flow rate.
  - iv. Residual Pressure.
- c. Fire flow quantity and pressure data is important to have available when planning for new construction in that this information may indicate the need for fire pumps in one location as opposed to not being necessary if another location were selected.

### 4. Storm Sewer System

- a. The stormwater collection and conveyance system should be mapped and evaluated for overall condition and capacity. This would be especially helpful information when considering the new construction. This project should be considered as an engineering student class project.
- b. Require that there be no net increase in stormwater discharge rate from the site of any new construction. Implementation of this policy will achieve long term savings through elimination of the costs associated

with increasing the size of existing drainage infrastructure.

- c. Consider requiring permeable pavements for all new and reconstructed walkways, parking areas and vehicular drive areas. Permeable pavements can be constructed of concrete, asphalt and modular pavement blocks. These pavements allow stormwater to percolate into the underlying ground and eliminate or significantly reduce the requirement for drainage structures and piping.
- d. Existing storm sewer piping and structures should be periodically flushed of accumulated debris and accumulated silt. During the cleaning and flushing process the interiors of the pipes and structures should be examined for structural defects and misalignments.
- e. Open ditches should be examined for erosion and repaired as necessary. Accumulations silt and debris in shallow grade ditches will diminish the capacity of the ditch which can result in localized flooding.

Refer to figure 3.v and 3.w.





Figure 3.v: AAMU Existing Utilities

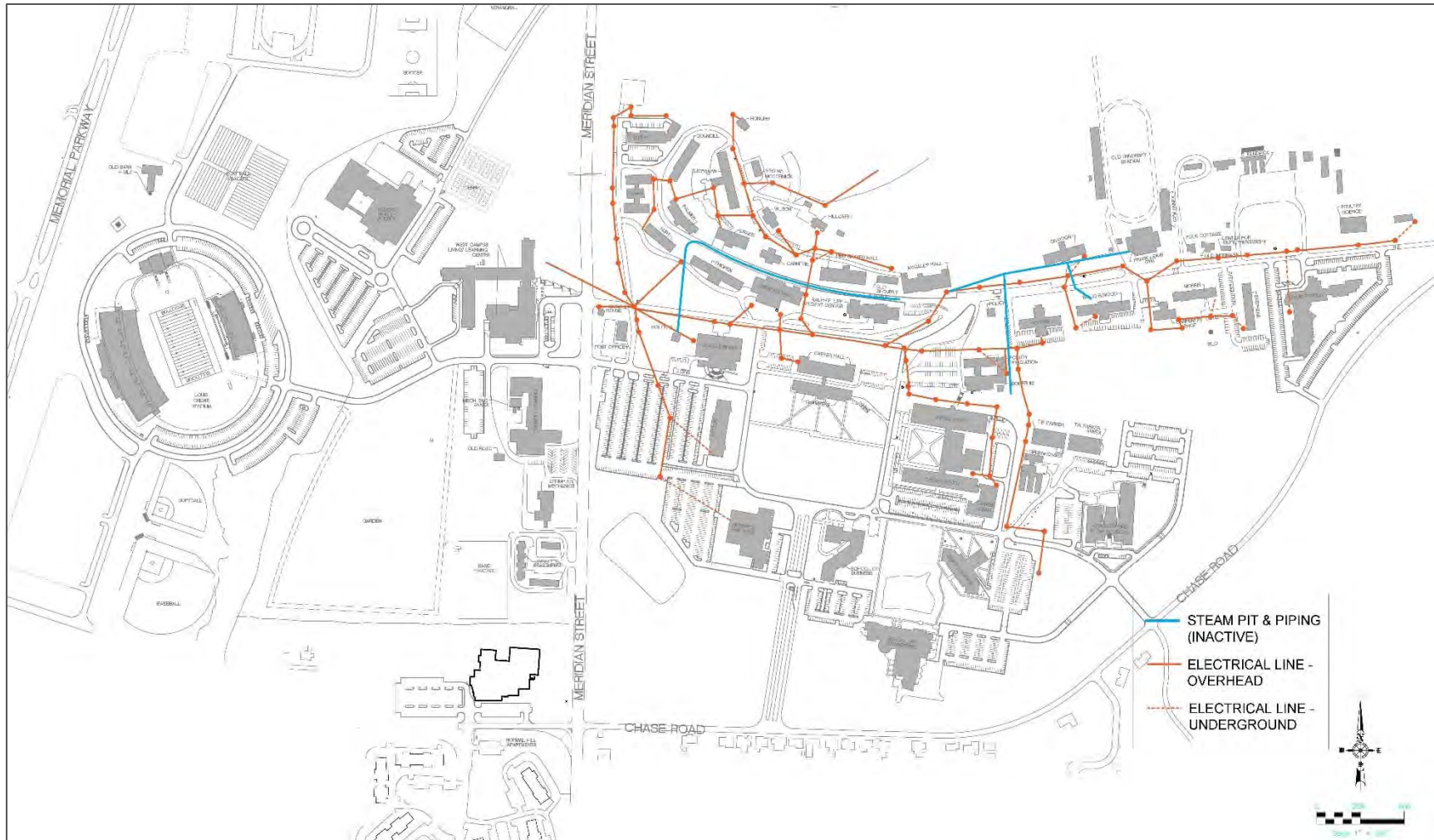


Figure 3.w: AAMU Existing Electrical / MEP

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## J. Community Setting

### J.1 Regulatory Issues

#### 1.1 ZONING AND LAND USE REGULATIONS

Alabama A&M University is within the City of Huntsville limits and, therefore, regulated by City of Huntsville zoning and land use policies.

According to the City of Huntsville zoning ordinance, Alabama A&M University is zoned Research Park District. The following regulations apply, per article 50 of the City of Huntsville Code of Ordinances. The items below are not inclusive; please refer to the City of Huntsville Code of Ordinances for more details.

##### 50.1 Uses Permitted

No building, structure, or land shall be used and no building or structure shall hereafter be erected, structurally altered, enlarged, or maintained, except for one or more of the following uses:

- Dwellings only in connection with bona fide agricultural operations, or as living quarters for bona fide caretakers and/or watchmen and their families.
- Agricultural use, provided no sales are made on the premises, but not including commercial animal or poultry farms or kennels.
- Federal, state, county, city or public utility owned or operated buildings or uses.
- Office buildings for general purpose offices.
- Research, experimental and testing laboratories.
- Educational, scientific and research organizations.

- Research and development and limited manufacturing and processing where at least 30% of the building area is devoted to non-manufacturing activities to include offices, laboratories, technical support, etc.
- Structures accessory to uses permitted by section 50.1.
- Accessory uses permitted in the research park district such as recreational facilities and dining facilities in connection with the operation of an establishment and primarily for employees, students, or faculty.
- Heliports and radio and television studios.
- Retail sales and consumer service establishments (not including wholesale sales), accessory to any permitted uses.
- Limited, temporary sleeping quarters for scientists, laboratory technicians, custodians and caretakers.

##### 50.3 Required Yards

50.3.1 Yards facing an existing or proposed street shall be considered a front yard. No principal or accessory structure shall be located less than 150 feet from any existing or proposed street except those residential uses permitted by section 50.1 hereof, which shall conform to the building setback lines established by the approved subdivision plat or 30 feet, whichever is greater.

50.3.2 No principal or accessory structure shall be located less than 50 feet from any side or rear lot line.



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## **50.4 Density Regulations**

50.4.1 Buildings shall not cover an area greater than 30 percent of the total area of the tract upon which the buildings are located.

50.4.2 Minimum lot area shall be not less than three acres for each tract, except for a permitted single-family use.

50.4.3 Minimum lot width of each tract shall be not less than 200 feet as measured at the building line except lots for a permitted single-family use.

## **50.5 Street Access and Frontage**

50.5.1 Each lot shall have a minimum frontage of 150 feet on a public road; provided however, the manager of planning may approve a lesser frontage to a minimum of 100 feet for lots located on cul-de-sacs or on street curves, or having other extraordinary characteristics.

## **50.8 Height Requirements**

Maximum number of stories and maximum height are unlimited.

## **1.2 ZONING MAP**

Refer to figure 3.x.

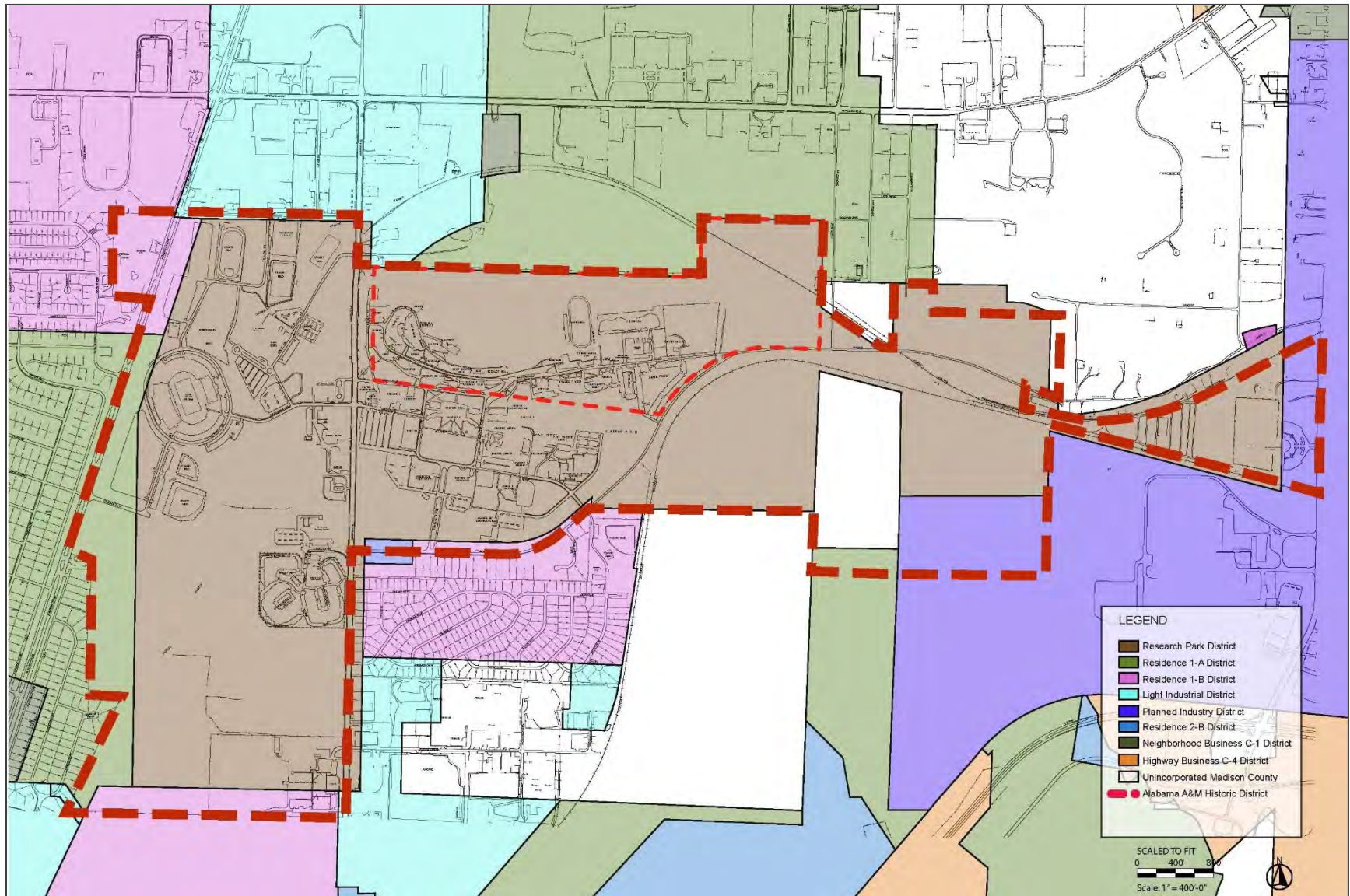


Figure 3.x: Zoning

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### 1.3 PROCEDURE FOR ZONING CODE AMENDMENTS

In order to make amendments to the current zoning regulations, Alabama A&M University must contact the City of Huntsville Department of Urban Planning. A variance application must be obtained from the Zoning Administration in the Department of Urban Planning. The zoning variance will be presented to Huntsville's Boards of Zoning Adjustments for approval.

### 1.4 OTHER REVIEW BOARDS

Other than review by the City of Huntsville, potential review boards for campus physical planning at Alabama A&M University would include Madison County and the surrounding neighborhood associations, including Edmonton Heights Neighborhood Association, the Meadow Hills Neighborhood Association, the East Mastin Lake Neighborhood Association, the Mount Vernon Neighborhood Association, and the Northeast Huntsville Neighborhood Association.

### 1.5 POTENTIAL LAND USE CHANGES

Much of the land uses surrounding Alabama A&M University, are single-family residential, much of it already developed. This land use will be difficult to change and or expand campus functions onto, beyond residential uses. The Industrial land uses, to the northwest, southeast, and east, however, do provide an opportunity for land use changes and expansion of the campus functions. Prior to expanding development outside of the campus boundaries, though, potential development should take

advantage of undeveloped University owned property, already zoned Research Park District, within the existing campus boundaries. Beyond infill between existing buildings, potential developable land exists to the east of the main campus between the intersection of Chase Road and Higdon Road and the Agribition Center. Additionally, undeveloped land between Chase Road and J.F. Drake State Technical College may have potential for campus expansion.

### 1.6 AMERICANS WITH DISABILITIES ACT (ADA)

As a part of the Master Plan process, the team reviewed an ADA report prepared by the Office of Facilities. Most significant deficiencies were:

1. No access to multiple floors (elevator)
2. Limited access to ground floor.



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## **J.2 Environmental Issues**

### **2.1 ENVIRONMENTAL AUDIT OF NATURAL RESOURCES**

The Normal Branch river runs north-south along the western side of Alabama A&M University's campus, near the University's athletic fields and football stadium. 100-year and 500-year floodplains associated with this waterway do make much of the surrounding land undevelopable. Please refer to the Floodplain Map.

There are a few areas where wetlands exist within the campus boundaries. Wetlands are present at the baseball fields and within the existing floodplain boundaries south of the baseball fields. (See figure 3.y)

### **2.2 PROTECTION OF RESTORATION OF HISTORIC NATURAL RESOURCES**

There are currently no regulations associated with the Alabama A&M University Historic District. Consideration should be given to creating regulations for this district in order to preserve its character and identity as the founding location of Alabama A&M University.

### **2.3 QUALITY OF STORMWATER**

All drains discharge to the sanitary system which is treated by the City of Huntsville.

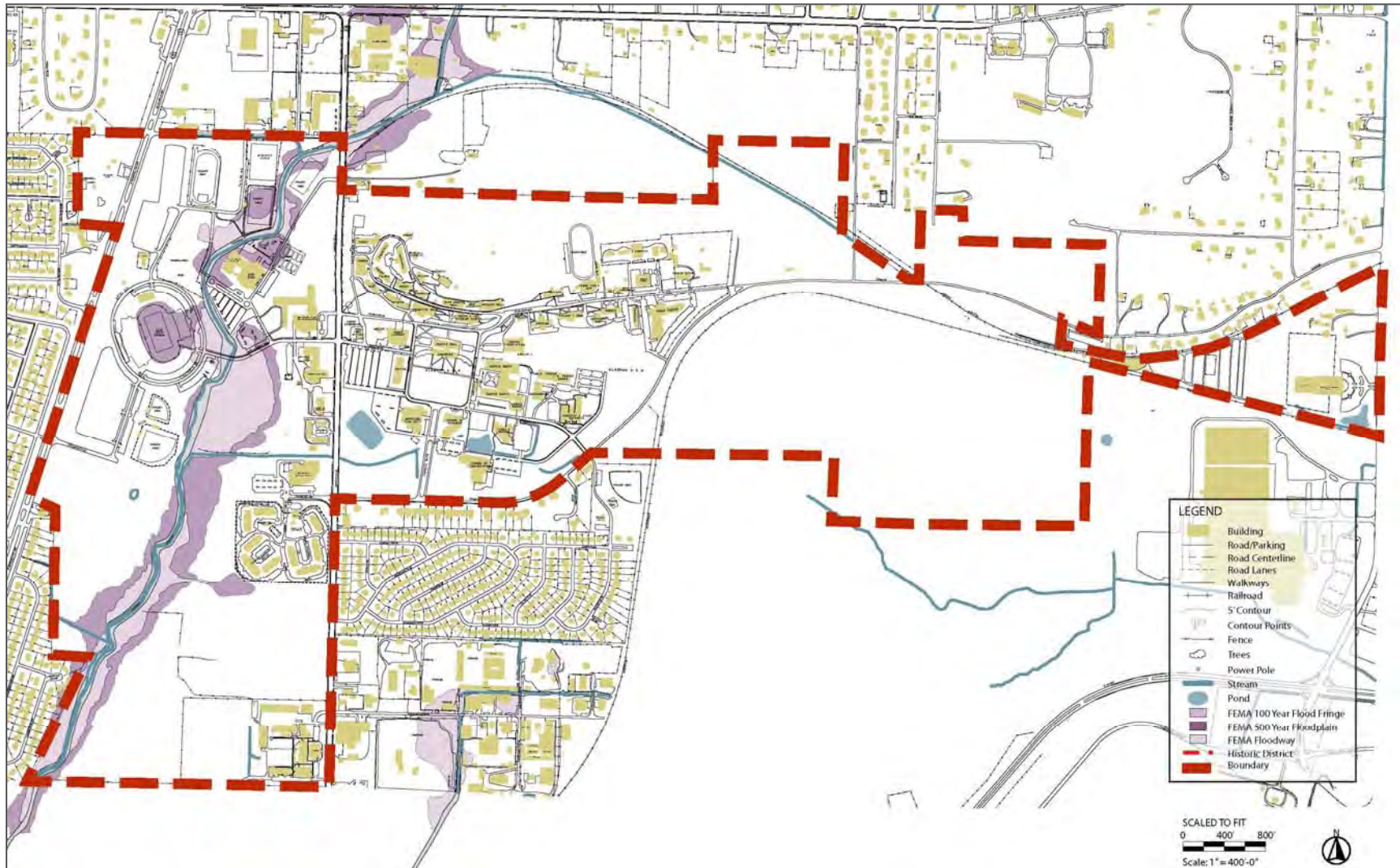


Figure 3.y: Floodplains

## IV. FUTURE REQUIREMENTS

The purpose of this section is to evaluate the quantity and quality of non-residential space at Alabama A&M University. Current and planned enrollment and staffing levels, taken together with academic aspirations and the nature of the desired learning environment provide the basis for determining the amounts and types of space that will be needed to support educational and student support programs and other administrative functions.

### A. Baseline Data

Founded in 1875 by a former slave, today Alabama A & M University is a public university within the Alabama System offering degree programs at the baccalaureate, masters and doctoral level. AAMU is an HBCU and an 1890 Land-Grant institution. AAMU currently is classified as Master's L in the Carnegie classification system.

As shown in Figure 4.a, headcount enrollment at Alabama A&M dropped from about 5,700 students in 2007 to just over 5,000 students in 2013. At the time of this analysis in Fall 2012, enrollment was 4,945 HC. Full-time students comprised 86% of the total enrollment. About 16% of the students were enrolled in graduate programs. There were 58 students enrolled in the University's four doctoral programs.

Approximately 1,100 individuals worked on the campus in Fall 2012. Most were employed by the University, but a number were ARAMARK employees who supported dining and physical plant functions. As shown in the table 4.b, there were 272 full-time and 75 part-time faculty members.

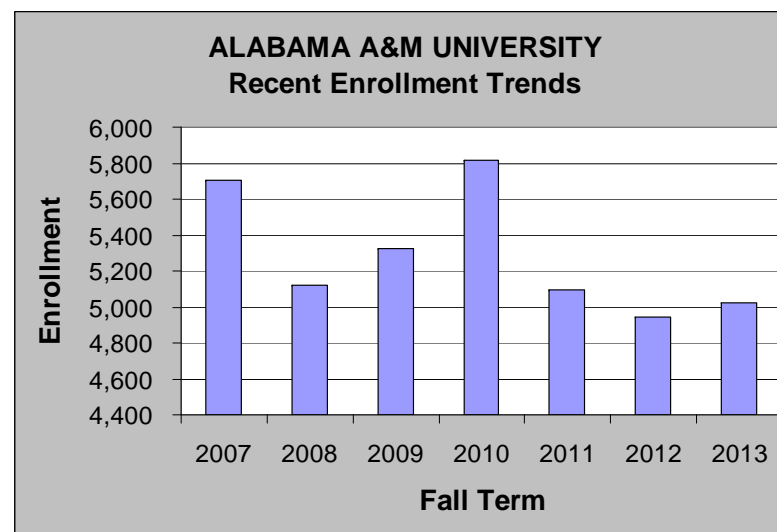


Figure 4.a: Enrollment Trends Fall 2007 to Fall 2013

Employee Category	FT	PT	FTE of PT	FTE	FT/(FTE)
<i>President</i>	1	0	0.0	1.0	100%
<i>Admin/Managers</i>	115		0.0	115.0	100%
<b>Faculty</b>	<b>272</b>	<b>75</b>	<b>37.5</b>	<b>309.5</b>	<b>88%</b>
<i>Professional</i>	343	76	38.0	381.0	90%
<i>Secr/Clerical</i>	123	2	1.0	124.0	99%
<i>Tech/Paraprof</i>	33	1	0.5	33.5	99%
<i>Skilled Crafts</i>	25		0.0	25.0	100%
<i>Serv/Maintenance</i>	188		0.0	188.0	100%
<b>University Total</b>	<b>1100</b>	<b>154</b>	<b>77</b>	<b>1177</b>	<b>93%</b>

Table 4.b: Distribution of Employees by EEO Group and FT/PT Status



In Fall 2012, the University owned more than 2,300 acres, most located on the main campus in Normal, Alabama. There are about 80 buildings on the main campus. Together, they provide approximately 1.5 million square feet of assignable space. Of this total, about 185,000 ASF was inactive (out-of-service) in Fall 2012. Of the remainder, about 1/3 (about 435,000 ASF) is residential, while 2/3 (about 900,000 ASF) is non-residential. (See figure 4.c)

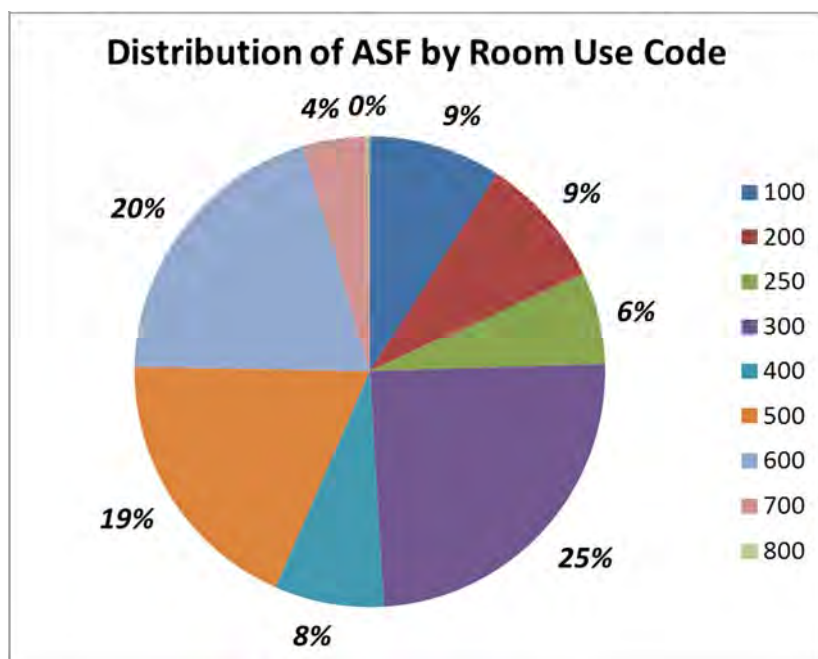


Figure 4.c: Distribution of Active Non-residential Space by Type of Space

## B. Goals for the Campus Master Plan

Early in the planning process, the University leadership identified several important goals and guiding principles:

### Qualitative

- To activate the Quad and the Hill
- To create a pedestrian oriented campus
- To foster a sense of community on campus

### Quantitative

- To grow from 5,000 to 6,600 students (1,000 on site and 600 online)
- To reduce student to faculty ratio as appropriate for a more graduate-intensive program mix
- To provide housing for 40% of all students

### Programmatic

- To focus on Science, Engineering, Business and Agriculture
- To incorporate 21st Century technology in all programs
- To provide more opportunities for hands-on and experiential learning.

Alabama A&M University aspires to become a Carnegie Doctoral University. To do so, it must award at least 20 doctoral degrees annually. Achieving Carnegie Doctoral University status will require increasing the ratio of graduate to undergraduate students. It also will require adjusting ratio of students to faculty and likely will require additional financial support for graduate students.

The University’s desire to change both the level and mix of programs offered and to increase enrollment will have implications for the size and nature of facilities that AAMU will need going forward.

C. Space Needs Analysis

The space needs analysis asks two questions:

- 1) How much non-residential space is needed to support current enrollment and staffing levels?
- 2) How much non-residential space will be required to support target enrollments and staffing levels?

C.1 PROCESS

Space “needed” is estimated using normative standards developed by the Council of Education Facilities Planners (CEFPI). CEFPI guidelines are widely used by public and private colleges and universities and by most state systems to evaluate the quantity of space found on their campuses. CEFPI guidelines are expressed as ranges. Some institutions have much more space than guidelines regard as essential while others function quite effectively with less.

The primary drivers of space needs are enrollment and staffing counts, though, as shown in table 4.d, other factors are considered for some categories of space.

Type of Space	Variable Used
Classroom Space	weekly student contact hours
Instructional Lab Space	disciplines & enrollment
Research Space	faculty numbers and institutional type (Research Univ)
Office Space	number & mix of staff
Library Space	volumes, student FTE
PE/Athletic Space	core plus pool, dance, seating
Performance& Exhibit Space	program mix and student FTE
Student Union Space	student FTE
Physical Plant	amount of built space

Table 4.d: Variables used to Calculate CEFPI Guidelines

Normally, we compare the amount of existing space with guideline recommendations then adjust the analysis to take into account the condition of the space. However, determining whether AAMU has enough space of good quality to place it within the CEFPI range for each space type is more complicated.

- a. We do not have a complete inventory of all space at AAMU. Space at the Agricultural Research Station has not been inventoried. Also, some spaces on the main campus were not accessible to the team that prepared the room-by-room Facilities Inventory (FI) for buildings there.
- b. Several facilities on the main campus were INACTIVE or out-of-service at the time of our study. Those facilities cannot be considered as contributing to the support of current programs.

Thus, the tally of “Existing Space” underestimates the total non-residential space at the University. In addition, any estimate of space that might be AVAILABLE IN THE FUTURE must take into account spaces now inactive that could be reactivated and perhaps repurposed in the years ahead.

## C.2 PLANNING FOR ENROLLMENT INCREASES

To determine the amount of space that will be needed as enrollment increases, we could apply the CEFPI guidelines using projected enrollment and staffing levels. However, in the case of AAMU the question can be answered more simply.

Generally there are economies of scale that occur as enrollment increases. Consequently, the amount of space needed doesn't increase in a linear fashion in many categories. For example, because the numbers of faculty or staff needed generally does not increase as rapidly as enrollment increases, the amount of office space required also will increase more slowly than enrollment. That being the case, we can estimate that an increase of (say) 20% in enrollment will require AT MOST a 20% increase in space. Following that logic, increasing enrollment at AAMU from 5,000 student to 6,600 students (an increase of 32%) would require AT MOST 32% more space than is needed for 5,000 students.

## C.3 KEY FINDINGS

To better understand how space at AAMU compares with CEFPI guidelines recommendations for current and target enrollments, we prepared three (3) space needs analyses. Two are found here with the third included in the appendix.

Our first space needs analysis for fall 2012 compared the amount of **ACTIVE** space in the AAMU FI with CEFPI Guideline Recommendations. As shown in Table 4.e, AAMU had approximately 905,000 ASF of non-residential space ACTIVE (available and in use) during the fall 2012

term. Normative standards indicate a need for about 666,000 ASF to support Fall 2012 enrollment and staffing levels. There is a surplus of nearly 240,000 ASF (36%) over the guideline recommendation.

SPACE NEEDS ANALYSIS Alabama A&M University Baseline Year - Fall 2012					
Space Needs Calculation - NON-RESIDENTIAL Space					
Room Use Code	SPACE TYPE	Existing Assignable Square Ft. ACTIVE2012	Guideline Assignable Square Ft	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (vs Guideline)
100	Classroom & Service	82,582	53,179	29,403	55%
200	Instructional Labs	82,422	54,050	28,372	52%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	220,917	171,201	49,716	29%
400	Library (collection, study, service)	69,249	70,327	(1,078)	-2%
500	Special Use Space	178,166	85,131	93,034	109%
600	General Use Space	173,834	164,847	8,987	5%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
GRAND TOTAL ALL SPACE TYPES		904,947	665,794	239,152	36%

Table 4.e: Space Needs Analysis for Fall 2012

A subsequent update of the fall 2012 date was done to include the activation of study spaces in Foster Hall. These spaces, originally inactive or used as storage, were returned to use as study as per discussions by the end of 2013. As a result, an additional 1600 ASF were included in study under category 400. (See table 4.f)



## SPACE NEEDS ANALYSIS

Alabama A&M University

UPDATE – FALL 2013

### Space Needs Calculation -- NON-RESIDENTIAL Space

Room Use Code	SPACE TYPE	Existing Assignable Square Ft. ACTIVEF2012	Guideline Assignable Square Ft	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (vs Guideline)
100	Classroom & Service	82,582	53,179	29,403	55%
200	Instructional Labs	82,422	54,050	28,372	52%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	220,917	171,201	49,716	29%
400	Library (collection, study, service)	69,249 + 1600 = 70,849	70,327	522	1%
500	Special Use Space	178,166	85,131	93,034	109%
600	General Use Space	173,834	164,847	8,987	5%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
GRAND TOTAL ALL SPACE TYPES		904,947	665,794	239,152	36%

Table 4.f: Space Needs Analysis FALL 2013 UPDATE

The initial analysis considers only amount of space. A facilities condition assessment prepared by Matrix 3-D found that some active facilities are in such poor condition that they cannot be regarded as providing space of “good quality.” The second “what if scenario” analysis which does not include substandard space is included in the appendix. (See section XIII)

A final “what if scenario” space needs analysis for fall 2012 explores the implications of reactivating five of the older buildings on the Hill. The table below calculates the effect of renovating all or portions of: Bibb Graves (auditorium); Ralph Lee University Center; Frank Lewis Gymnasium; McCalep Vocational Building and Prentice Dining Hall. For this exercise, we assumed that once renovated, these spaces would be used for their original purpose.

If substandard space is removed from the pool of active space and the above named historically significant buildings are renovated and reactivated, the overall surplus in non-residential space is estimated to be over 250,000 ASF, or about 38%. See Table 4.g. The total amount of space available on the campus under this scenario would be adequate to support a total enrollment of 6,600 students.

A subsequent update of the fall 2012 date was done to include the activation of study spaces in Foster Hall. These spaces, originally inactive or used as storage, were returned to use as study as per discussions by the end of 2013. As a result, an additional 1600 ASF were included in study under category 400. (See table 4.h)

SPACE NEEDS ANALYSIS					
Alabama A&M University					
RE-ENERGIZE THE HILL - Option 1					
Space Needs Calculation -- NON-RESIDENTIAL Space					
Room Use Code	SPACE TYPE	Reactivated & Existing Assignable Square Ft.	Guideline Assignable Square Ft.	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (vs Guideline)
100	Classroom & Service	83,451	53,179	30,272	57%
200	Instructional Labs	85,337	54,050	31,287	58%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	211,608	171,201	40,407	24%
400	Library (collection, study, service)	70,064	70,327	(263)	0%
500	Special Use Space	164,798	85,131	79,667	94%
600	General Use Space	202,891	164,847	38,044	23%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
GRAND TOTAL ALL SPACE TYPES		915,926	665,794	250,132	38%

Table 4.g: Space Needs Analysis – Energize the Hill

**SPACE NEEDS ANALYSIS**  
**Alabama A&M University**  
*RE-ENERGIZE THE HILL - Option 1*

***Space Needs Calculation -- NON-RESIDENTIAL Space***

Room Use Code	SPACE TYPE	Reactivated & Existing Assignable Square Ft.	Guideline Assignable Square Ft	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (vs Guideline)
100	Classroom & Service	83,451	53,179	30,272	57%
200	Instructional Labs	85,337	54,050	31,287	58%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	211,608	171,201	40,407	24%
400	Library (collection, study, service)	70,064 + 1600 = 71,664	70,327	1,337	2%
500	Special Use Space	164,798	85,131	79,667	94%
600	General Use Space	202,891	164,847	38,044	23%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
<b>GRAND TOTAL ALL SPACE TYPES</b>		<b>915,926</b>	<b>665,794</b>	<b>250,132</b>	<b>38%</b>

Table 4.h: Space Needs Analysis **FALL 2013 UPDATE** – Energize the Hill



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## D. Other Data

The space needs analysis presented above considers only QUANTITY of space and the overall physical CONDITION of buildings. There are a number of other variables that contribute to (or detract from) educational effectiveness. Among the most important of those are functionality of space, number of spaces (as opposed to amount of space), location of space, adjacencies, equipment, and technology infrastructure.

At AAMU, we have observed problems with regard to several of those features. Individual offices often are much larger than CEFPI guidelines recommend, so there may be enough space (in ASF), but not enough rooms (spaces) to accommodate faculty and staff. Often the location of space works against creating the University's desire to foster student and faculty interaction and to create a hands-on learning environment. In several disciplines, faculty offices and research labs are far removed from classrooms and teaching labs. Some buildings have only instructional space, with no faculty offices and no spaces where students or faculty could linger.

As the University implements the master plan for the AAMU campus, we strongly recommend that it seize this as an opportunity to energize the academic core and improve the learning environment by ensuring that EVERY academic building will include:

- Teaching and Learning Spaces
- Faculty Offices
- Appropriate Technology Resources
- Informal Gathering & Group Study Spaces
- Facilities that Integrate Teaching & Research
- Opportunities for Interdisciplinary Collaborations

## E. Assessing the Proposed Campus Master Plan

The Master Planning Team, in collaboration with the University's senior leadership, has selected a framework that will guide the full build-out of the main campus of AAMU. With that framework in mind, the team proposed a near-term plan for campus development to support the target enrollment of 6,600 students. (See section V)

Because the total space available on the campus is more than enough to support current and projected enrollment, the mantra **REALLOCATE – RENOVATE – REPURPOSE** guided the development of an implementation plan for the near term. The strategy recommended would:

- Limit new construction
- Demolish several older dysfunctional facilities
- Focus on adaptive reuse of many existing buildings
  - What is the highest, best and most cost-effective use for older facilities?
  - Upgrade for existing functions, where appropriate & feasible
  - Convert to different use to address unmet needs.

In the first phase of implementation, the plan recommends that several substandard buildings be demolished and that inactive space in several others be renovated and reactivated. The final task of the space needs assessment is to investigate the implications of these actions on the University's ability to support current enrollments, then to ascertain whether any additional actions will be required to provide sufficient space for the projected enrollment of 6,600 students.

## E.1 IMPACT OF PROPOSED SHORT-TERM DEMOLITIONS & REACTIVATION OF HISTORIC BUILDINGS

As shown in Table 4.i, when the buildings proposed for demolition in Phase 1 are removed from the University's facilities inventory and other buildings are reactivated, the total amount of space available on the main campus exceeds CEFPI normative standards by over 230,000 ASF, or 35%. The total amount of space available therefore would be adequate to support an enrollment of 6,600 students IF the space were distributed appropriately by type of space and among programs. Unfortunately, it is not.

If space continues to be used as it is now, there will be surpluses of more than 32% in many categories. But in several categories, the space available at the end of Phase 1 does not meet that target. In some cases, repurposing or reallocating space will resolve the anticipated deficits, but there are a few instances where additional new space may be required.

A subsequent update of the fall 2012 date was done to include the activation of study spaces in Foster Hall. These spaces, originally inactive or used as storage, were returned to use as study as per discussions by the end of 2013. As a result, an additional 1600 ASF were included in study under category 400. (See table 4.j)

SPACE NEEDS ANALYSIS					
Alabama A&M University					
CMP Phase 1: REACTIVATE HISTORIC BLDGS & DELETE Short Term DEMOS					
Space Needs Calculation -- NON-RESIDENTIAL Space					
Room Use Code	SPACE TYPE	Projected Assignable Square Ft. Proposed CMP	Guideline Assignable Square Ft	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (vs Guideline)
100	Classroom & Service	77,439	53,179	24,260	46%
200	Instructional Labs	84,716	54,050	30,666	57%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	214,151	171,201	42,950	25%
400	Library (collection, study, service)	70,064	70,327	(263)	0%
500	Special Use Space	156,850	85,131	71,719	84%
600	General Use Space	195,814	164,847	30,967	19%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
GRAND TOTAL ALL SPACE TYPES		896,811	665,794	231,017	35%

Table 4.i: Phase 1 Impact on Non-Residential Space

## SPACE NEEDS ANALYSIS

### Alabama A&M University

#### *CMP Phase 1: REACTIVATE HISTORIC BLDGS & DELETE Short Term DEMOS*

#### Space Needs Calculation -- NON-RESIDENTIAL Space

Room Use Code	SPACE TYPE	Projected Assignable Square Ft. Proposed CMP	Guideline Assignable Square Ft	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (vs Guideline)
100	Classroom & Service	77,439	53,179	24,260	46%
200	Instructional Labs	84,716	54,050	30,666	57%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	214,151	171,201	42,950	25%
400	Library (collection, study, service)	70,064 + 1600 = 71,664	70,327	1,337	2%
500	Special Use Space	156,850	85,131	71,719	84%
600	General Use Space	195,814	164,847	30,967	19%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
<b>GRAND TOTAL ALL SPACE TYPES</b>		<b>896,811</b>	<b>665,794</b>	<b>231,017</b>	<b>35%</b>

Table 4.j: **FALL 2013 UPDATE** Phase 1 Impact on Non-Residential Space



## E.2 INSTRUCTIONAL SPACE

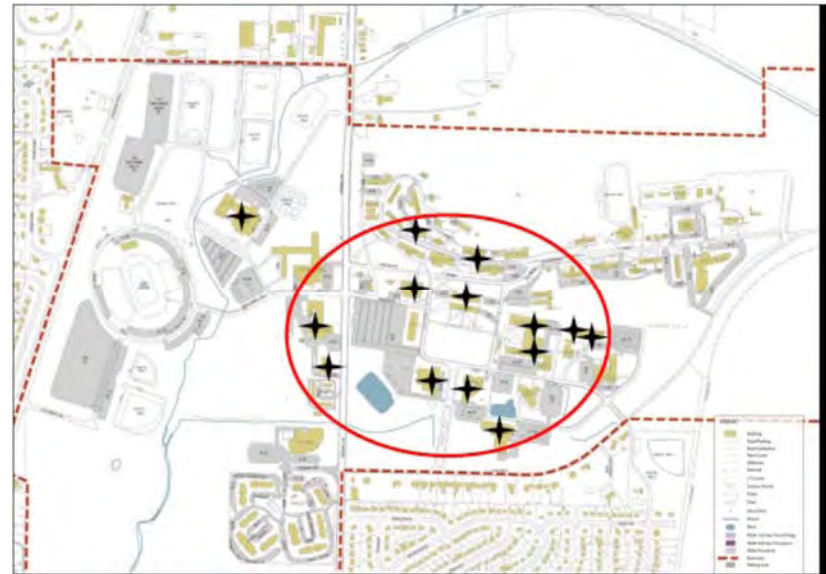
### Classrooms

The proposed campus master plan will improve the quality of instructional space by removing space in poor condition and replacing it with renovated space in historic buildings. In the longer term, renovations and selective additions to existing facilities will enhance the learning environment by housing faculty offices and instructional space in the same buildings, integrating learning and research facilities, providing appropriate technology resources and providing opportunities for hands-on learning experiences. By incorporating informal gathering and study space, the academic facilities also will encourage interdisciplinary collaboration and foster faculty-student interactions.

A second benefit of the proposed master plan is that it consolidates the majority of instructional/academic buildings on the central campus, east of Meridian. As shown in Figure 4.j, when the buildings slated for demolition are removed, the remaining academic facilities will be located the area of or immediately adjacent to the Quad. A more consolidated academic core increases energy and expands opportunities for interaction among students and faculty members and across disciplinary boundaries.

How will the removal of substandard buildings and the consolidation of the academic core affect instructional capacity? Specifically, can the University still provide instruction to at least 6,600 students in on-campus courses? The answer to that question is YES.

Existing



Proposed

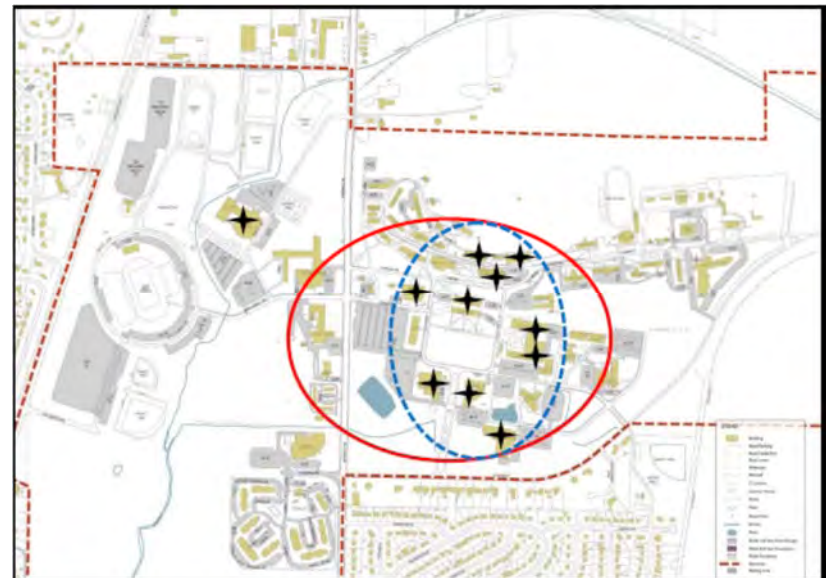


Figure 4.j: Master Plan Compacts Academic Core

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Our analysis of classroom utilization confirms that there are at least three ways to support enrollment of 6,600 HC taught in traditional on-campus courses:

- Assign students to vacant seats in sections currently offered

OR

- Renovate McCalep, adding about 18 classrooms to the classroom pool

OR

- Schedule classrooms for 36 hours per week

Furthermore, we have determined that if all classrooms remaining after the proposed demolitions are completed are scheduled 30 hours per week, the proposed CMP will support an enrollment of 5,000 HC without requiring the renovation of McCalep.

### **Teaching Laboratories**

After the proposed near-term demolitions occur, there will be a 58% surplus of space in instructional labs. Note, however, that unlike general purpose classrooms, teaching labs are discipline specific. Labs in some disciplines may be overcrowded while others may be underutilized. In general, the teaching labs for the professional disciplines appear to have sufficient capacity to support an enrollment increase of 50% or more. However, there are fewer labs and demonstration rooms available for the Education program than would be expected in an institution that purports to “incorporate 21<sup>st</sup> century technology in all programs.”

Entry-level labs in the natural sciences generally are scheduled much more heavily than upper-level labs. Often, overcrowding can be reduced by teaching labs for

some entry-level sections in more specialized labs used for upper-division courses. As program mix shifts and enrollment increases, we recommend that AAMU carefully track the use of labs assigned to introductory courses.

Normative guidelines recommend that teaching labs be scheduled for 16 to 20 hours per week. Many institutions schedule introductory labs more aggressively than that. Based on our experience with other institutions, we have found that when labs are scheduled for more than 30 hours per week there is not sufficient time between sections for lab staff to set-up and breakdown necessary equipment and supplies.

### **Research Laboratories**

Research space allocations are determined by disciplinary mix and type of institution (community college, undergraduate only, masters programs, etc.). Because the programmatic mix at AAMU is shifting, we applied a general multiplier to estimate the amount of research space needed. Furthermore, when calculating the guideline recommendation for AAMU, we applied the highest guideline level, that for level 1 research intensive universities. Those guidelines generally are applied only at the top-ranked private research universities and at flagship campuses within public university systems.

Currently, the University has more than twice as much space as the normative standards recommend for research-intensive universities of comparable size. Keep in mind that the total research ASF for AAMU does not include space located at the Agricultural Research Station. Clearly, the total amount of space available for research is sufficient to support current and projected enrollments. That said, the allocation of space among

disciplines and departments should be reviewed to determine whether the space is properly configured and distributed to support actual research activities.

As new programs are added, different types of research space may be needed. In many cases, the new space can be created by reallocating and renovating research space currently assigned to other programs.

### Offices & Office Service

There was a 25% surplus of office and office service space in Fall 2012. The University anticipates that only small numbers of employees will be added as enrollment grows to 6,600 HC. Most of the increases will be in faculty positions as the University reduces the student to faculty ratio to reflect the planned focus on graduate education.

The amount of office space available should be adequate to support planned staffing levels. Typically, offices at AAMU are larger than guidelines recommend, so while there may be enough space to accommodate faculty and staff, there may not be enough spaces (offices). It may be necessary to reconfigure some offices to reduce office size, double up faculty or staff in larger offices and/or reallocate space to provide enough offices in some buildings as staff increases occur.

### Student Center Space

During the last decade, AAMU has dramatically improved student support facilities. The Knight Living Learning Complex includes new food service and student gathering space. The Student Health and Wellness Center is a first-class fitness and recreational facility that would be the envy of many larger institutions. Despite the increase in

the quantity and improvements in the quality of student support space, we heard repeatedly that the sense of community and the energy that had long characterized the AAMU campus has deteriorated in recent years.

Most of the space typically is found in Student or University Centers falls within the RUC 600 range. Figure 7 suggests that there is a surplus of nearly 20% in the RUC 600 based on Fall 2012 enrollments. That said, and perhaps counter-intuitively, the proposed campus master plan recommends construction about 30 to 35,000 ASF of new student center space on the Main Campus.

An in-depth analysis of student center space identified two factors that may be contributing to the lack of community students and faculty report. First, as shown in Table 4.k, while the total amount of student support space in RUC 600 categories exceeds the normative guideline recommendation, there are large surpluses in space for dining and recreation, but significant deficits in merchandizing and gathering spaces.

<i>Type of Space</i>	<i>Surplus or (Deficit)</i>	
	<i>Enrollment</i>	
	5000 HC	6000 HC
<i>Food Service</i>	14,000	11,300
<i>Recreation</i>	9,300	7,800
<i>Assembly/Meeting Rms</i>	3,000	(2,500)
<i>Lounge/Gathering</i>	(4,000)	(5,000)
<i>Merchandizing</i>	(5,500)	(7,000)

Table 4.k: Current and Projected Surpluses & Deficits of Student Support Space



The second, and in our judgment, the more important factor contributing to the loss of a strong sense of community at AAMU, is the LOCATION of student support space. As shown in Figure 4.I, space in the student-support category is widely dispersed. Much of it is located far distant from academic and residential facilities. Even dining facilities are located at the eastern and western ends of the campus, rather than in the central core.

At many institutions, the Student (or University) Center serves as the hub of student activity. Combining offices for student services, dining, lounges, meeting rooms for student group and recreation facilities in a single building, the Center creates an indoor town-square. Like the town squares of old, this becomes a crossroads where people meet. If properly configured, it creates opportunities for informal and fosters the sense of community that AAMU wished to restore to its campus.

We believe such a facility could help to re-energize the Hill and reactive the central campus if it were located on the site of the Prentice Dining Hall. Our analysis indicates that the Prentice Dining Hall itself would not be suitable for this function, so we recommend that it be demolished and replaced with a building of about 30 to 35,000 ASF (approximately 50,000 GSF) on the same site.

A building of the size that can be accommodated on the Prentice site will not provide the very large gathering space for several thousand people that some have requested. Though it may be tempting to consider expanding the building to incorporate a large gathering space and relocating it to the west side of Meridian adjacent to either the Student Health and Wellness Center or the Knight Living Learning Complex, we believe that

would be a mistake. To do so would destroy any hope there might be for reenergizing the Hill and restoring the sense of community in the foreseeable future



Figure 4.I: Distribution of Student Support & Student Services Space, Fall 2012



Figure 4m: Proposed Distribution of Support & Student Services Space

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### Library & Study Space

The amount of space provided for the library collection and for study campus-wide is adequate for current enrollment levels. As computers have become ubiquitous more and more colleges and universities have recognized that lounges and meeting rooms can (and are) being used as study space. It is no longer deemed appropriate to centralize all study space in a single building, whether it is called “the library” or “the learning resource center.”

In recent years, the University has closed a number of study rooms in active residential facilities and, by taking other residence halls off-line, has lost study space there as well. As enrollment grows and residential facilities are reopened or constructed, we recommend increasing the amount of study lounge and small group meeting space in those buildings. Further, as academic buildings are renovated, including study rooms in proximity to faculty offices and instructional spaces should be a priority.

### D. Summary & Conclusions

For several decades, the University replaced deteriorating facilities by building new space and taking older buildings out of service. As a consequence:

- AAMU has more than enough non-residential space in total to support current and projected enrollments.
- A significant portion of the non-residential space is substandard;
- Facilities have been spread over such a wide area that the sense of place and feeling of community have deteriorated.

The preferred strategy for reactivating the Quad, re-energizing the Hill and providing high quality space to support all programs:

- concentrates academic programs east of Meridian, on or immediately adjacent to the Quad;
- reactivates several historic residential and academic facilities on the Hill;
- proposes the demolition of several buildings that are in poor condition and of limited historic significance;
- recommends addressing most other space needs by reallocating, repurposing and/or renovating space in existing buildings;
- in the near term, limits new construction to a new Student Center on the site of Prentice Dining Hall;
- acknowledges that additional new space may be needed as graduate enrollment increases and faculty research interests evolve.

## V. PRELIMINARY MASTER PLAN

The purpose of this section is to present the preliminary physical master plan options that were considered. As an intermediate step towards arriving at a strategic long-term master plan, two preliminary master plan options were developed. Both were developed to accommodate the full programmatic needs of a future head count beyond 6,600 students. The overall intent of these was to create a road map for the LONG TERM growth of the campus portion located east of Meridian Road.

Both options followed the principles introduced by the Olmstead Brothers and the preferred programmatic strategy to re-activate the Hill. Within that context, they tested the capacity of the east side of Meridian to accommodate growth. It is estimated that the illustration shown could support between 10,000 and 12,000 HC student enrollment.

The options address the need for additional student housing, new academic buildings, enhanced student services and the design of open spaces and parking to include landscaped courts, quadrangles, stronger pedestrian connections and accessible parking locations. In terms of future land acquisition, neither option tested the acquisition of land. The following is a summary of the options.

### Option 1: Olmstead Plan

This option tested what it would be like to re-interpret the quadrangle configuration suggested in the original Olmstead plan. (See figure 5.a) A distinct feature of this plan was the open axis from Bibb Graves and towards the Chase entrance. In this case, Carter is demolished and

two new footprints, oriented East / West are created along the edge of Campus Road and directed across from Prentice and Ralph Lee.

Additional academic growth is accomplished by infilling the quadrangle where Business and Engineering are located. New residential buildings would be built at a higher density and along Buchanan Way. Specifically, some of the residential buildings that are demolished, are replaced with new residential buildings that would provide a higher number of beds.

For circulation, new entrances: one at the north end of Meridian and into a new parking area that serves the hill. The second, south to Council Training. This is to serve a new road that would connect the southern end of the quad to the athletic facilities on the west side. (See figure 5.b)

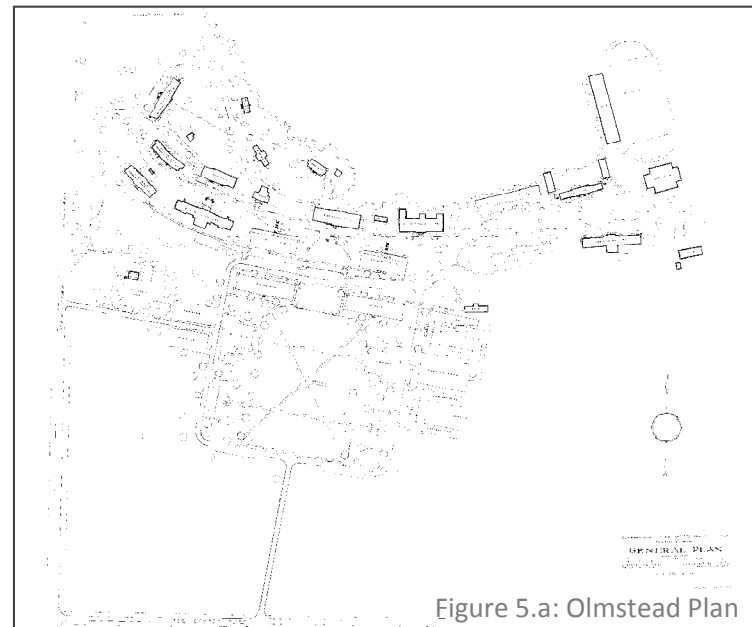


Figure 5.a: Olmstead Plan





Figure 5.b: Option 1 – Olmsted Plan

### Option 2: Olmstead Alternate

This option tested what it would be like to use an alternative quadrangle configuration tested in the second Olmstead plan (See figure 5.c), but not used as the final.

A distinct feature of this plan was also an open axis from Bibb Graves and towards the Chase entrance. In this case, Carter is demolished and two new footprints, oriented North / South are created along the edges of the quad: one on the East and the other on the West. Additional academic growth is also accomplished by infilling the quadrangle where Business and Engineering are located. As with Option One:

New residential buildings would be built at a higher density and along Buchanan Way. Specifically, some of the residential buildings that are demolished, are replaced with new residential buildings that would provide a higher number of beds.

For circulation, this option adds new entrances: one at the north end of Meridian and into a new parking area that serves the hill. The second, south of Council Training. This is to serve a new road that would connect the southern end of the quad to the athletic facilities on the west side.

Refer to figure 5.d.

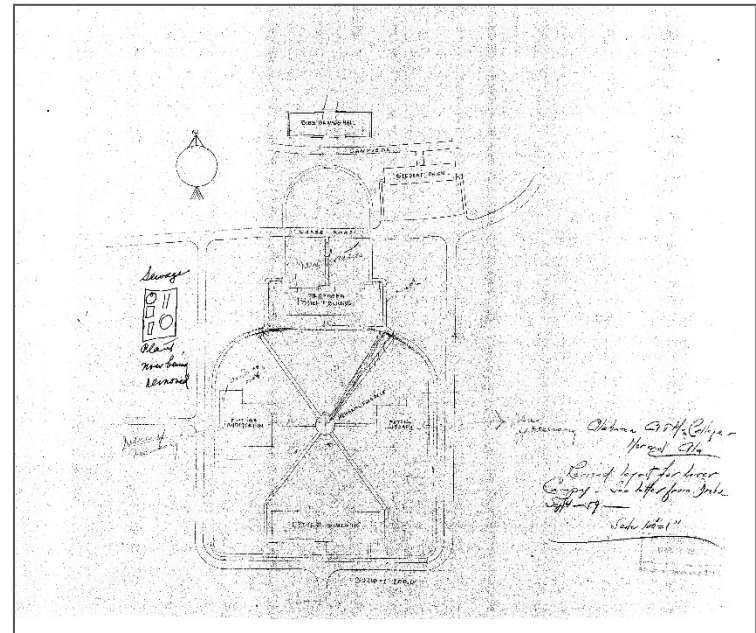


Figure 5.c: Olmstead Alternate

After reviewing the preliminary options with the core team the overall direction was accepted with the following exceptions:

1. Carter must be preserved.
2. It is important to energize the Hill with a variety of functions including more new housing that is shown. Additional will be added.



Figure 5.d: Option 2 – Olmsted Alternate



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## VI. MASTER PLAN

### Overview:

In order to respond to the goals, existing condition and future needs, these strategic decisions were made:

1. Growth will be concentrated on the East side of Meridian.
2. A number of inactive facilities will be reactivated and renovated.
3. Non-effective assets will be removed.
4. The Hill will be reactivated by mixing functions of housing, academic, and the student center.
5. AAMU's history and use of sound planning principles will be used as guides for future plans.

Five guiding principles express the values of the master plan and will be accommodated in the new design:

1. A "Learning Community" – promote synergy by how we use buildings and spaces.
2. Distinct "Edges" – that are attractive, define the identity of AAMU, and provide ease of access to campus.
3. A "Walkable" place – protect pedestrians, and encourage the use of alternative transportation: bikes, busses, etc.
4. Look at "Past and Future" – use the best of the past as a foundation for the future. Make decisions today that enable AAMU to achieve their plan.

5. Create a "Sustainable" environment – physically, financially, and programmatically. Invest so that future generations have a better place.

When outlining options for planning the team also considered key findings from the space needs assessment:

- Overall, AAMU appears to have additional capacity to accommodate the projected space IF all were in good condition.
- Not all spaces are up to standards for the 21<sup>st</sup> Century.
- Functions are dispersed throughout campus and, at times, not in the right location.
- A few areas are in need of space. This includes lounge/gathering, merchandizing, and support.

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## A. Land Use and Building Use

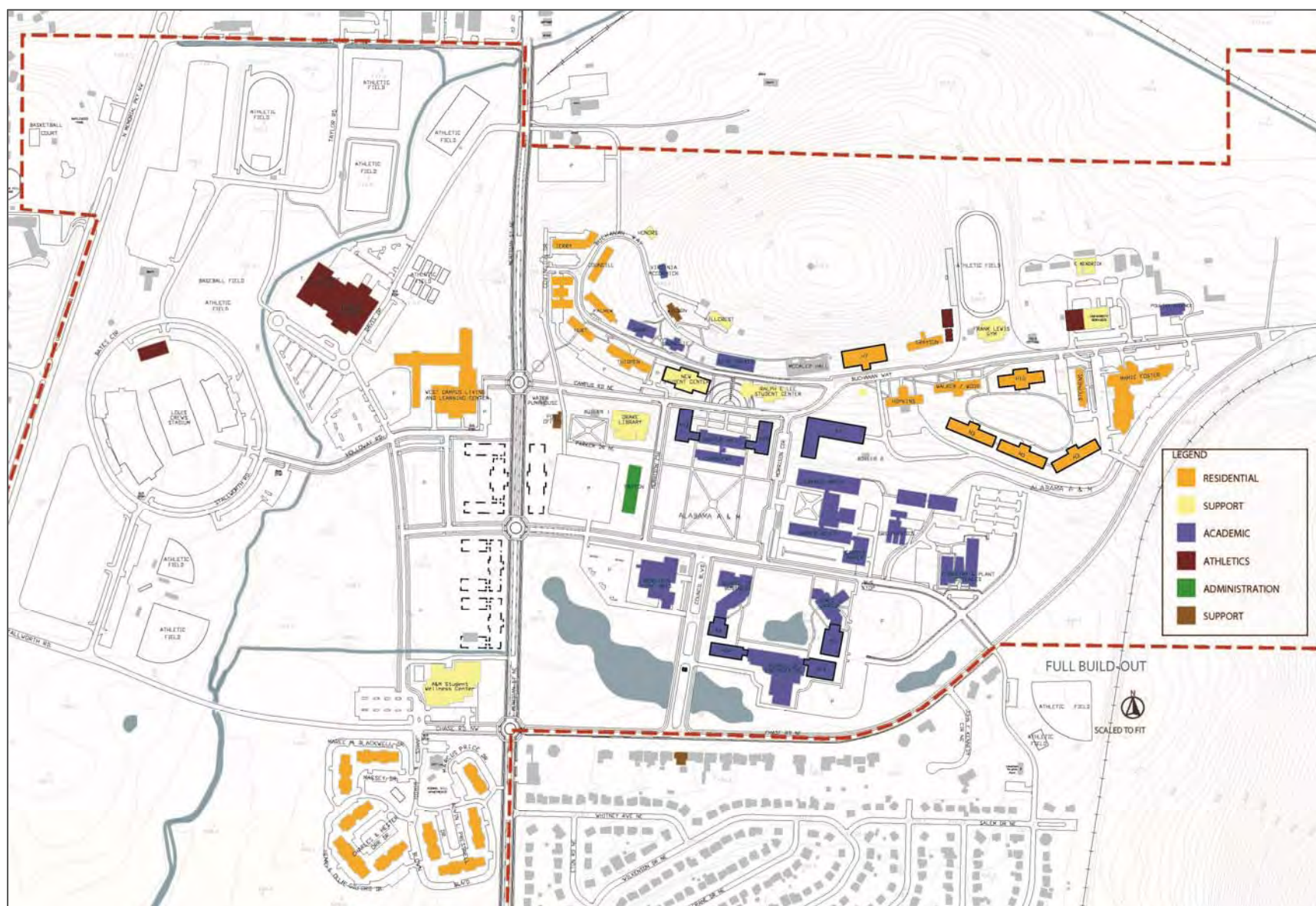
The long term building and land use strategy focuses on re-activating the hill by maintaining key land use strategies that are in place: location of mostly housing on the Hill with a mix of student services and academics.

The land and building use strategy begins with the demolition of non-effective buildings. Renovations of key buildings will follow allowing for consolidation of uses. Housing renovation and new construction will be focused primarily on the Hill. New and renovated student support services, along with academic building improvements will activate this historic portion of the campus.

Renovation of and new academic buildings are recommended to infill in a manner that encloses important outdoor spaces. New academic buildings are shown to reinvigorate the Quad and the plaza in front of the School of Engineering Building. Academic buildings will make up the majority of uses south of the Hill.

The facilities on the west side of Meridian will remain mostly athletic in use. Long term housing, beyond 6600 students, is recommended to line Meridian, creating an activated edge along this corridor and providing on-campus housing as the need increases. The other significant function on the west of Meridian is the possibility of a conference center. This could accommodate both large scale meeting needs as well as training needs.

Figure 6.a refers to the land and building use after the second phase, the Full Build-Out. The first phase, Phase 6600, accounts for the increased enrolment to 6600 students, whereas the Full Build-Out provides a long term plan for the campus. Both phases are further explained in Section VII.





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## B. Open Space and Landscape

### 1. Landscape Goals

The landscape goals for AAMU build on the guiding principles for the master plan and are the basis of the sustainable landscape framework. The goals focus on reducing the cost of infrastructure, maintenance, and creating an attractive comfortable pedestrian oriented campus.

- Reduce Grey Infrastructure: Deploy a blue green infrastructure approach that focuses on treating, reusing, and infiltrating stormwater as close to the point it hits the ground as possible.
- Integrate stormwater infrastructure into landscape as attractive open space amenities when practical.
- Decrease impervious surfaces.
- Eliminated potable water use: Use native landscape materials to reduce landscape irrigation requirements. Capture and reuse stormwater runoff in ponds for irrigation.
- Visual impact: Define campus gateways and elements with a unique identifiable palette of materials.
- Enhance and define the pedestrian realm within campus to promote walking and biking to class.

- Reduce landscape maintenance: Define natural landscape areas that require little or no maintenance over time.
- Comfort: Develop a mature continuous shade canopy covering outdoor walkways.

### 2. Landscape Framework Plan

The team developed a landscape framework plan showing key corridors, gateways, hierarchical pedestrian circulation and programmatic level development of major open spaces.

- The landscape framework builds on historic development patterns established on the campus over the years and are interconnected green infrastructure and pedestrian walkways. This plan identifies 4 distinct zones for the AAMU Campus that share a similar palette of materials and elements with subtle variations driven by functional and aesthetic considerations.

#### 2.1 THE HILL

This zone includes the area planned in the 1930's Olmstead Plan, historic district, the Hill, and the majority of the student housing. The dominant landscape features in this area are associated with student life and connectivity.

##### Key Character Areas

- Open Spaces
- Streetscape

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### **Landscape Performance Goals**

- 0% potable water use in landscape
- Vegetated open space requirement: 20% of the total site area
- All new construction to have minimum of 50% paving area with Solar Reflectance Index (SRI) of at least 29
- 80% shade canopy coverage after 5 years of all pedestrian walkways and plazas; 55% coverage of all paved areas
- Implement a stormwater management plan that reduces the peak discharge rate and quantity to the pre 1950 peak discharge rate and quantity for the one and two-year 24-hour design storms.
- 90% native or adapted native landscape materials
- Covered secure bike storage areas or all residential buildings equal to 20% of the occupancy; bike parking at all academic buildings equal to 10% of the building capacity
- Implement a bicycle and pedestrian circulation system that connects core academic facilities to residential buildings: 75% within a 5 minute walk, 100% within a 10 minute walk.

### **2.2 ACADEMIC CORE**

This zone includes the area predominately planned with the 1950's Olmstead plan and houses the majority of the academic buildings. Dominant landscape features include the large central campus open space.

#### **Key Character Areas**

- Campus Green
- Streetscape

#### **Landscape Performance Goals**

- 0% potable water use in landscape
- Vegetated open space requirement: 20% of the total site area
- All new construction to have minimum of 50% paving area with Solar Reflectance Index (SRI) of at least 29
- 80% shade canopy coverage after 5 years of all pedestrian walkways and plazas; 55% coverage of all paved areas
- Implement a stormwater management plan that reduces the peak discharge rate and quantity to the pre 1950 peak discharge rate and quantity for the one and two-year 24-hour design storms.
- 90% native or adapted native landscape materials
- Bike parking at all academic buildings equal to 10% of the building capacity

- 
- Implement a bicycle and pedestrian circulation system that connects core academic facilities to residential buildings: 75% within a 5 minute walk, 100% within a 10 minute walk.

## 2.3 EDGE

This zone is located at the public edge of the campus and includes gateways, monuments, signage, and landscapes that project the brand of the university.

### Key Character Areas

- Gateways
- Walkways
- Signage

### Landscape Performance Goals

- 0% potable water use in landscape
- Vegetated open space requirement: 20% of the total site area
- All new construction to have minimum of 50% paving area with Solar Reflectance Index (SRI) of at least 29
- 80% shade canopy coverage after 5 years of all pedestrian walkways and plazas
- Implement a stormwater management plan that reduces the peak discharge rate and quantity to the pre 1950 peak discharge rate and quantity for the one and two-year 24-hour design storms.

- 75% native or adapted native landscape materials
- Bike and pedestrian access that provides direct routes between facilities on the east and west side of Meridian St.

## 2.3 ECO GREEN

This is a continuous blue green infrastructure zone comprised of connected natural areas designed to utilize natural processes for stormwater treatment and handling. This area is that connects all areas of campus combining walking paths, open space, landscape, and stormwater handling into a contiguous high performance landscape zone and outdoor learning lab.

### Key Landscape Elements

- Watercourses
- Open Space
- Ponds
- Walkways

### Landscape Performance Goals

- No irrigation
- Vegetated open space requirement: 80% of the total site area
- 100% native of adapted native landscape materials
- 70% shade canopy coverage after 5 years





Figure 6.b: AAMU Proposed Landscape Framework

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## C. Pedestrian Circulation, Vehicular Circulation, and Parking

The main circulation concept for this master plan involves improving and redefining circulation routes. Meridian will act as a “frame” for the “bones” of the campus main circulatory network. Meridian will connect to the campus via four main access points: Chase Rd, a new street south of the Quad, Parker Dr, and a new access on the northern edge. These multiple entries will reduce and calm traffic loads on the main roads. Parking will be accessed off the main campus routes.

### 1. GOALS

Goals and objectives for development of the campus transportation system:

- Consolidate parking along the campus perimeter
- Create a pedestrian-first campus
- Clearly define and enhance pedestrian, bicycle, and vehicular rights-of-way
- Create hierarchy of mobility
- Enhance Meridian Street as a pedestrian scale campus gateway and link between east and west campus
- Create direct pedestrian connections between residential areas and academic/recreational facilities

### 2. CIRCULATION FRAMEWORK PLANS

Figures 6.c to 6.f identify the master plan’s circulation framework providing connectivity and routing for vehicles, bikes, pedestrians, and transit.



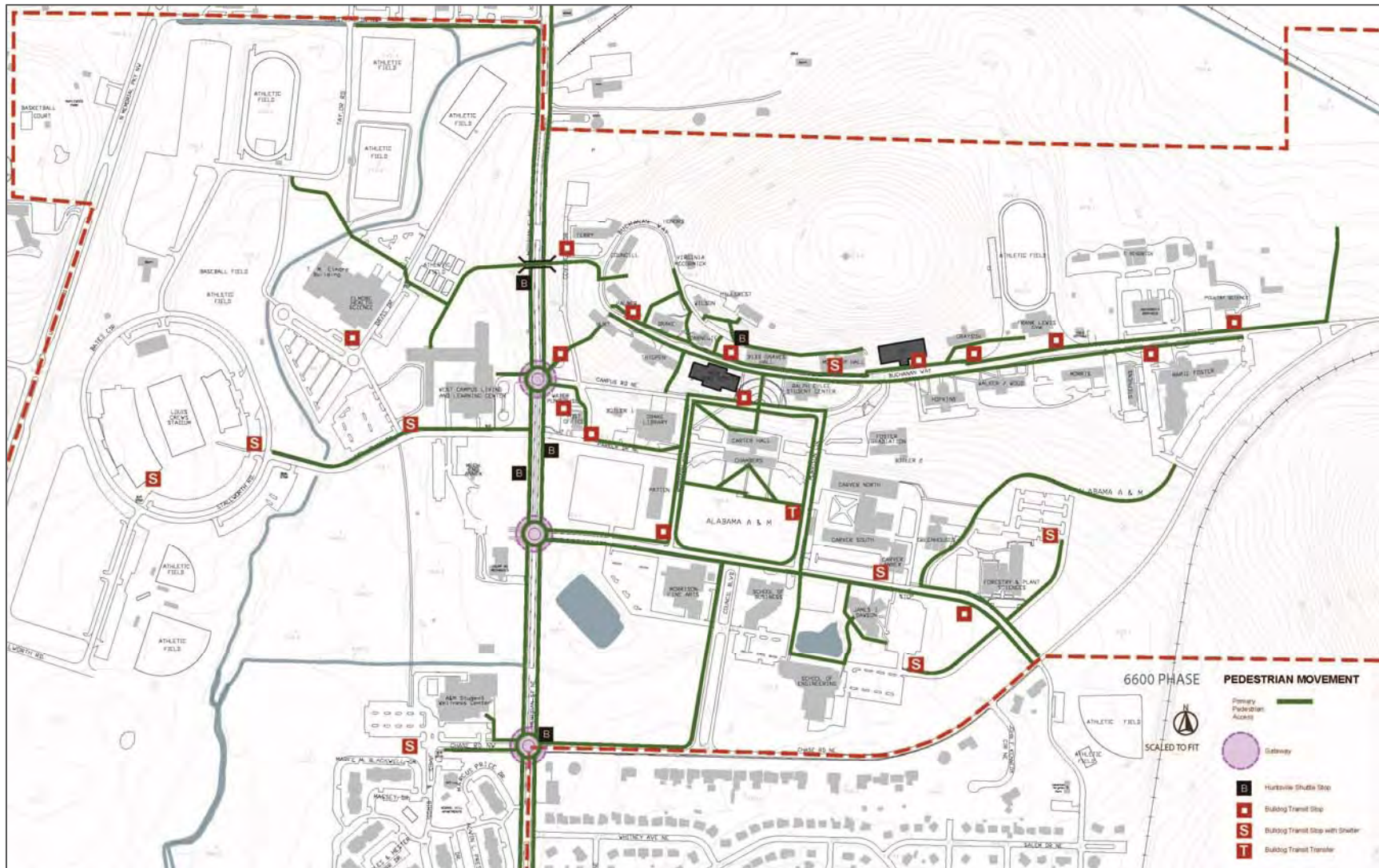


Figure 6.c: AAMU Phase 1 Pedestrian Movement



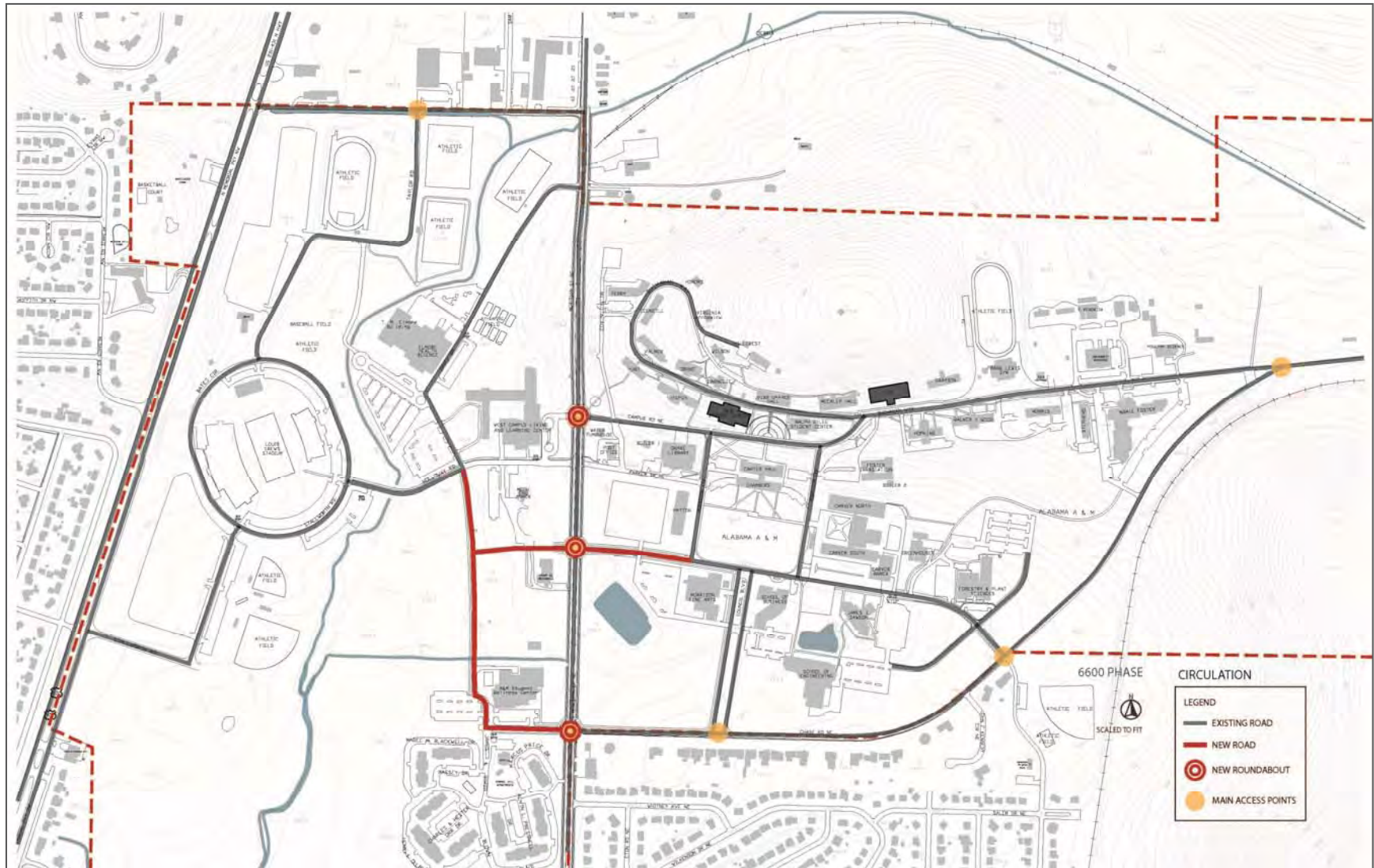


Figure 6.d: AAMU Phase 1 Vehicular Circulation

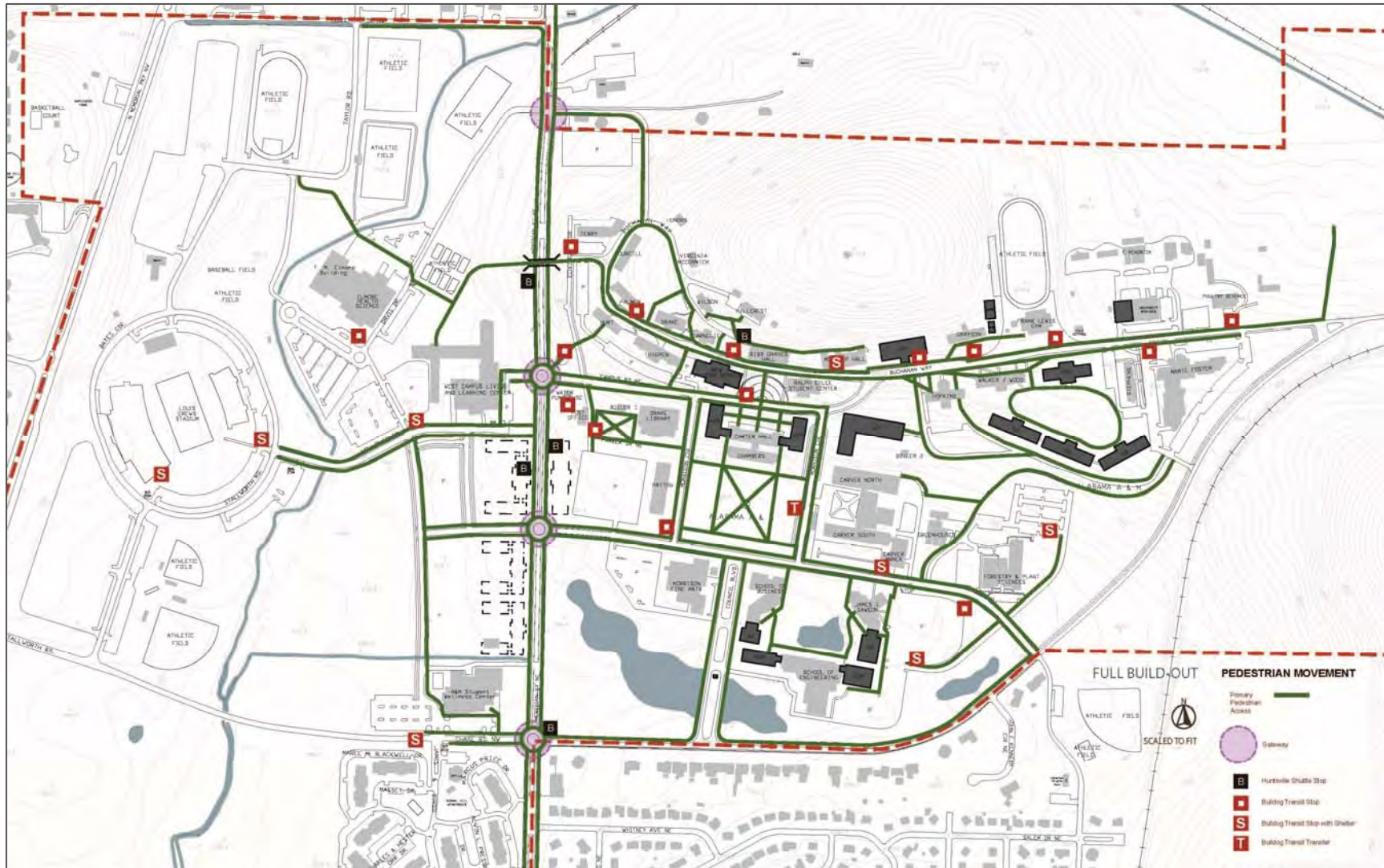


Figure 6.e: AAMU Phase 2 Pedestrian Movement



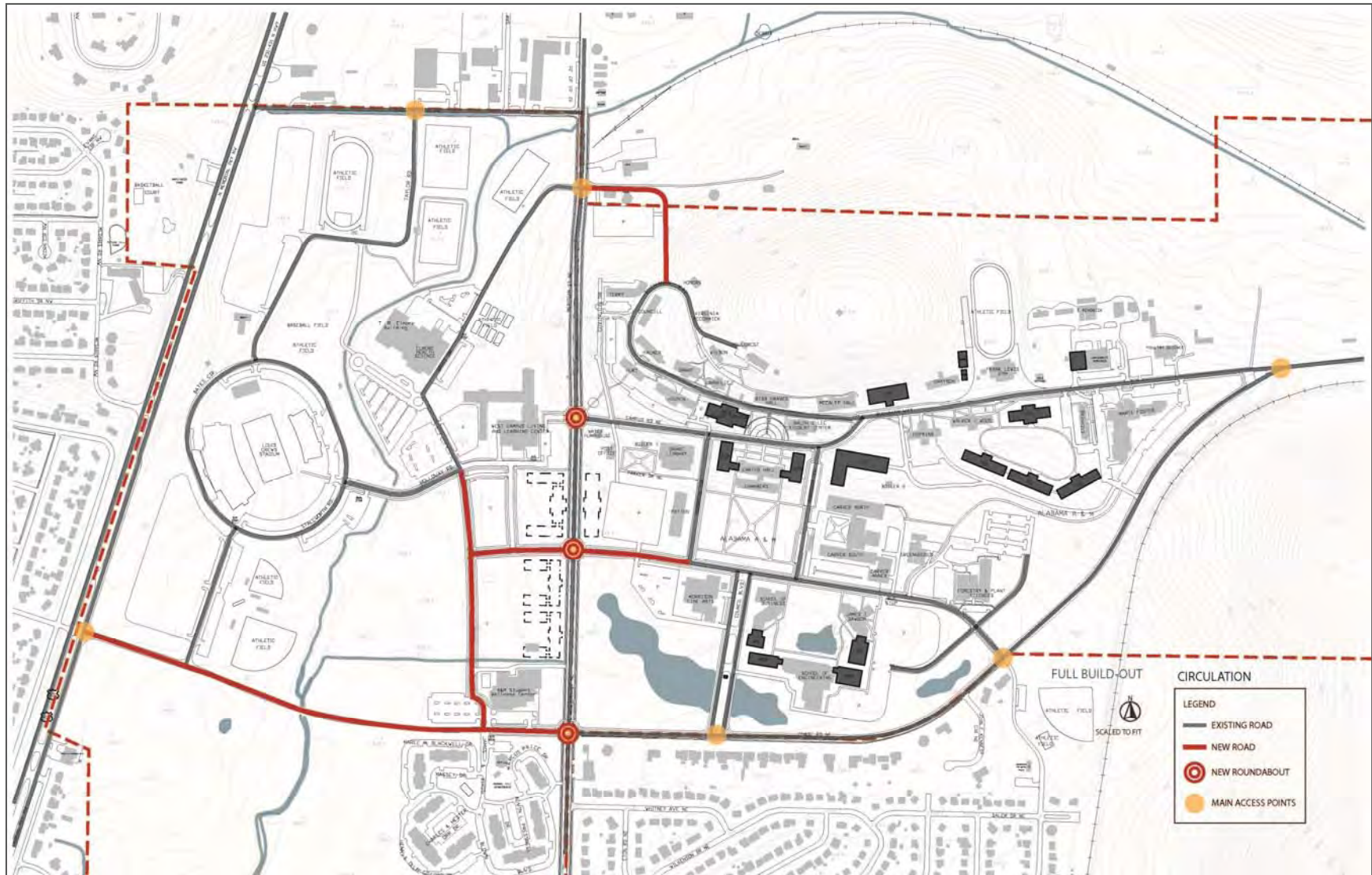


Figure 6.f: AAMU Phase 2 Vehicular Circulation

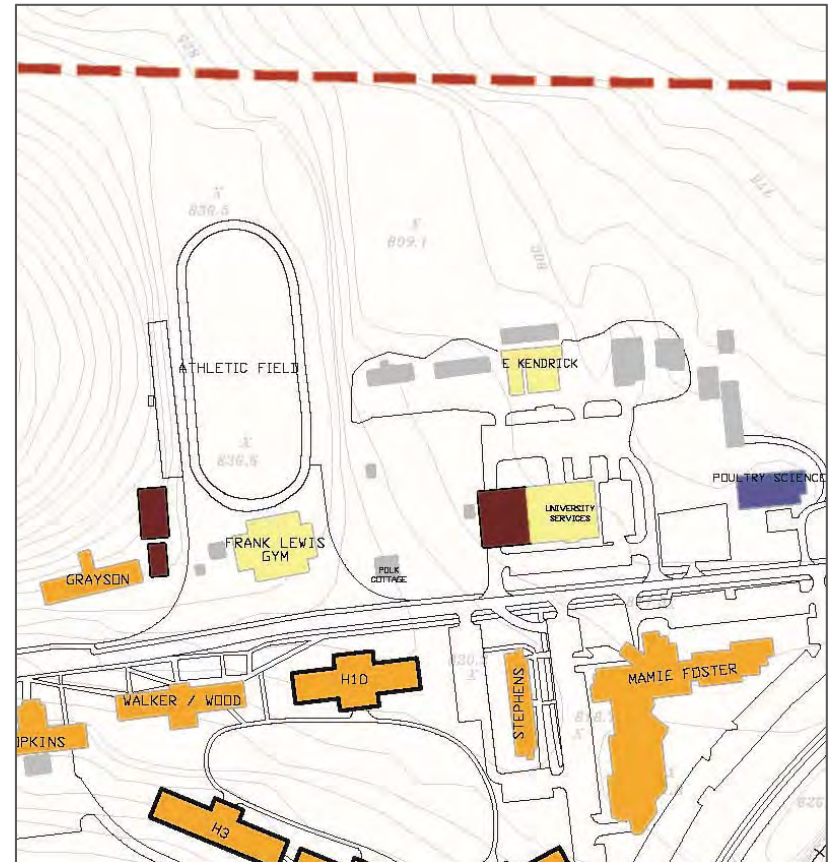


## D. Athletic and Recreational Facilities

The master plan enhances existing athletic and recreational facilities with improved vehicular and pedestrian circulation. This improved circulation provides better access to the Louis Crews Stadium, the baseball and softball fields, the track, Elmore Gym, the Health and Wellness Center and the outdoor recreation fields.

New roads are included near the stadium to provide alternative means to access the stadium and other facilities on the west side of Meridian. Pedestrian paths and improved sidewalks are included in the master plan to increase circulation and access for all modes. In particular, the master plan shows pedestrian paths connecting the West Campus Living and Learning Center to the Wellness Center, along the new roadway, and improved pedestrian amenities along Holloway Rd. and Meridian Rd.

In line with the goal of reenergizing the Hill, it is recommended to renovate the Frank Lewis Gym and athletic field into a recreational amenity for students. (See figure 6.f) Additionally, in the long term, full build out phase, new outdoor athletic facilities can be constructed adjacent to the Frank Lewis Gym and field, including a tennis courts and volleyball fields.



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## **E. Campus Infrastructure**

### **1. Phase 6600**

The proposed construction projects shown on the Short Term goal to provide facilities to support a 6600 student institution should have a relatively minor impact on the utility infrastructure based on the information available. The locations indicated for the new buildings (New Student Center and New Residence Hall) lie within the area already served by water, sewer and gas utilities, therefore providing these services to the new construction should be relatively inexpensive assuming that the utility lines have sufficient capacities. For each of the indicated facilities the following comments are offered:

#### **1.1 NEW STUDENT CENTER**

##### **Location**

The proposed location is shown at the approximate current location and footprint of Prentice Hall which takes advantage of water, sewer, gas service and electrical lines in the area. The proposed site appears to take advantage of the existing grades which should minimize site preparation costs.

The location of Prentice Hall falls within the City of Huntsville Slope Development District Zoning. Planning for construction of the proposed Student Life Center must take into account the potential impact of demolition of Prentice Hall and replacement with the Student Life Center.

##### **Sanitary Sewer Service**

The final design of the new Student Center should be based on a careful topographic survey including the location of the existing sanitary sewer lines. It appears that there is a conflict with an existing sewer line along the east side of Prentice Hall which serves Carnegie Hall and Bibb Graves Hall on the north side of Buchanan Way. Relocation of this sewer line would require approximately 350 feet of sewer piping and 4 manholes. Alternatively the new footprint may be to the west of existing lines to avoid conflict.

##### **Water Service**

Existing water mains are along Buchanan Way. These water mains should be tested for flow capacity, residual and static pressures. This information is important in determining the budget for new construction when considering building fire sprinkler flow and pressure requirements.

##### **Gas Service**

Sufficient natural gas service lines appear to be readily available in the area.

##### **Storm Water Runoff Management**

The proposed site drains naturally from north to south. The additional impervious surfaces created by the proposed building and supporting hardscape (sidewalks, parking and drive areas) will increase the amount of runoff from the site and must be considered in the design process. Therefore sizes and capacities of any drainage structures and conveyances located south of the proposed site should be examined in the design process.

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There is a potential cost for having to upgrade these facilities as a result of construction of the proposed building. Consideration should be given to using pervious paving materials and products on the exterior of the building to help reduce the excess rainfall runoff generated by the parking and pedestrian walkway areas.

### **Electrical Distribution**

For the most part, new primary cable will be extended underground in concrete encased ductbanks. The primary system shall include: Pad mounted primary switchgear to serve aerial and underground loop feed circuits. This will provide 3 phase circuit protection to all underground circuits. New underground loop feed circuits and Mini-loops for redundant distribution paths.

## **1.2 PROPOSED AMPHITHEATER**

### **Location**

The proposed layout appears to take advantage of the existing sloping ground thereby minimizing site excavation costs. It appears that the majority of the construction costs would be involved with the retaining walls required to establish the different terrace levels.

The location of the proposed Amphitheater falls within the City of Huntsville Slope Development District Zoning. Planning for this facility should take into consideration the requirements of this ordinance and its potential impact.

### **Sanitary Sewer Lines**

Based on the available mapping, it appears that there is a sanitary sewer line and manhole within the proposed amphitheater site. The design for the amphitheater must

be based on a careful topographic and utility survey of the site to determine if there are conflicts with the sanitary sewer manholes and piping. Design may need to be adjusted accordingly.

### **Water Lines**

Based on the available utility mapping, it appears that there is a water service line running north to south directly across the amphitheater site. Relocation of this water line may be necessary for the amphitheater construction.

### **Gas Lines**

Available mapping does not indicate any gas lines within the proposed amphitheater site. However, the area should be surveyed to ascertain that there are no conflicts.

### **Storm Water Runoff Management**

The proposed site drains naturally from north to south. The additional impervious surfaces created by the proposed structure will increase the amount of runoff from the site and must be considered in the design process. The sizes and capacities of existing storm water conveyance structures may have to be increased as a result of this project. Consider using pervious materials and products on any flat paved surfaces within the amphitheater in order to reduce excess runoff.

## **1.3 PROPOSED STUDENT RESIDENCE HALL (H7)**

### **Location**

The proposed location for the proposed residence hall takes advantage of existing water, sewer, gas service and electrical lines in the area. Providing utility services to the proposed building should be a relatively minor portion of



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the overall construction budget assuming that the existing utilities have sufficient capacity.

A portion of proposed location appears to fall within the City of Huntsville Slope Development District Zoning. This zoning regulation should be carefully examined prior to commencement of detailed planning for this project.

### **Sanitary Sewer Service**

Information available at this time indicates that there is an existing 8" sanitary sewer line serving Hopkins Hall. Connecting to this sewer line appears to be the least expensive option in terms of pipe length. However, this route requires installation across a paved street and the possibility of having to dig through rock.

### **Water Service and Fire Line Service**

The available information indicates that there is a water main immediately adjacent to the proposed Residence Hall. The water line should be tested for flow capacity and pressures during the design stages for the residence hall to determine the availability of water quantity for domestic and fire protection requirements. The height of the building will have a significant influence on the need for a fire pump at this location.

### **Gas Service**

The available information indicates that there is access to a gas main at the site.

### **Storm Water Runoff Management**

The proposed site drains naturally from north to south. The additional impervious surfaces created by the proposed building and supporting hardscape (sidewalks, parking and drive areas) will increase the amount of runoff

from the site and must be considered in the design process. Therefore sizes and capacities of any drainage structures and conveyances located south of the proposed site should be carefully examined in the design process. There is a potential cost for having to upgrade these facilities as a result of construction of the proposed building. Consideration should be given to using pervious paving materials and products on the exterior of the building to help reduce the excess rainfall runoff generated by the parking and pedestrian walkway areas.

### **Electrical Distribution**

For the most part, new primary cable will be extended underground in concrete encased ductbanks. The primary system shall include: Pad mounted primary switchgear to serve aerial and underground loop feed circuits. This will provide 3 phase circuit protection to all underground circuits. New underground loop feed circuits and Mini-loops for redundant distribution paths.

Refer to figures 6.h and 6.i.

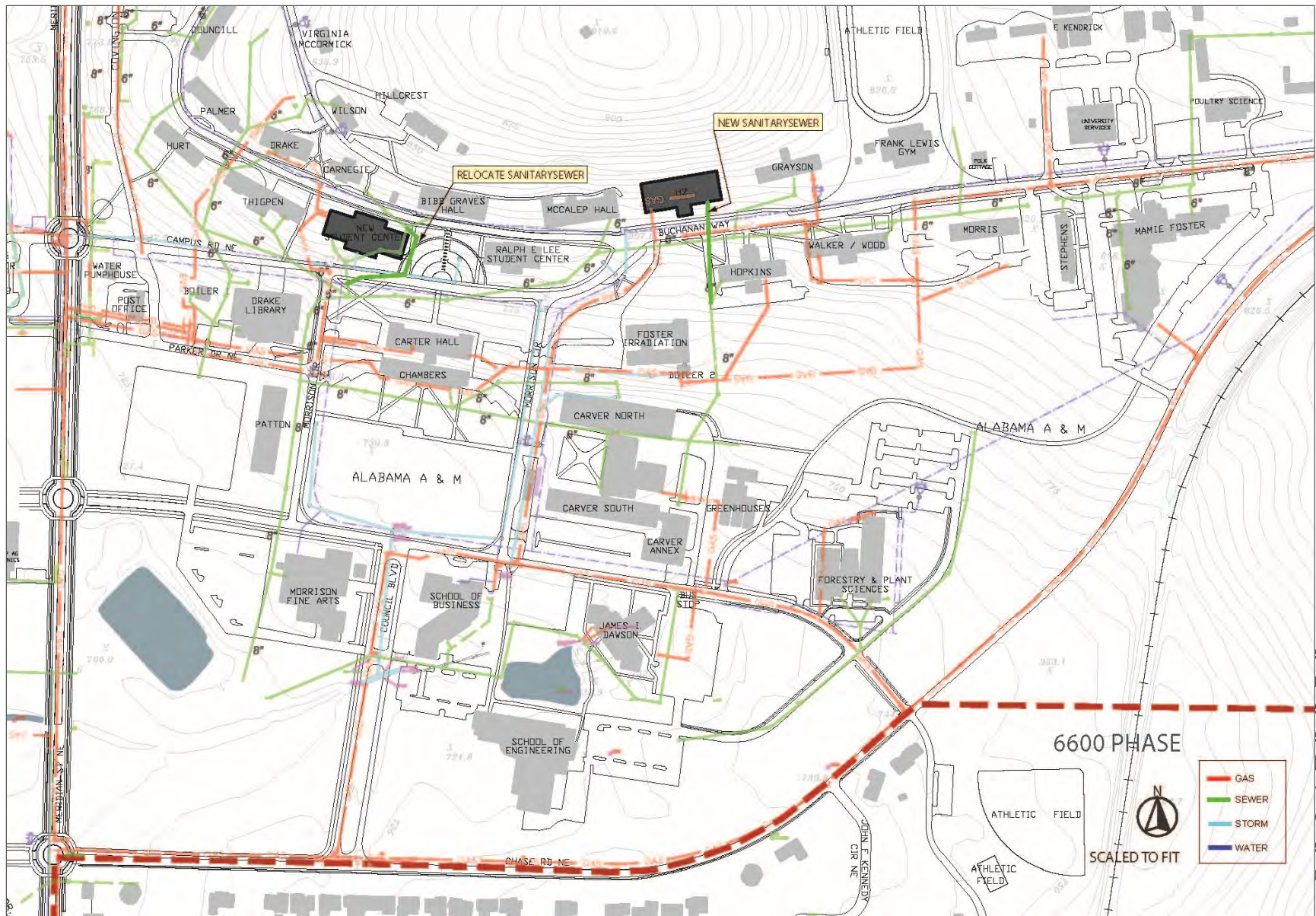


Figure 6.h: AAMU Phase 1 Campus Infrastructure



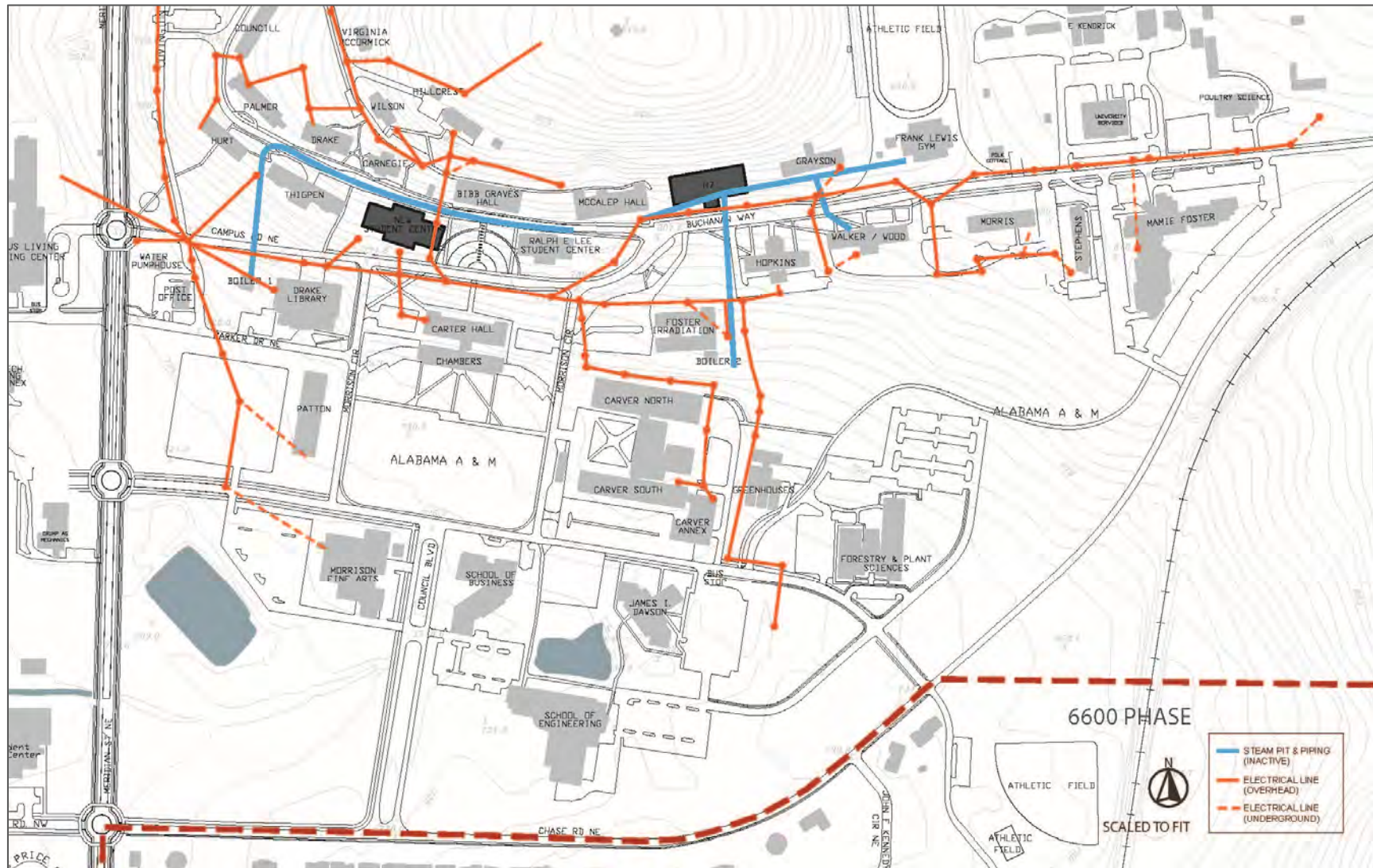


Figure 6.i: AAMU Phase 1 Electrical Distribution



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## 2. Phase 2 – 10,000 to 12,000 students

This phase represents a future build-out on the east side of campus. It will support 10,000 to 12,000 students within this area, with the possibility that additional housing and conference center may need to be located along Meridian.

### 2.1 SANITARY SEWER LINES

- a. The sanitary sewer line between Meridian Street and Council Boulevard is currently identified as an eight inch (8") line. This section of sewer line appears to be collecting wastewater from the majority of the campus north of Chase Road and east of Meridian Street. This section of sewer line should be evaluated to determine its ability to handle the increased flow with the addition of those residential and academic buildings shown in the Full Build-Out Plan in order to prevent system flooding and overflow.
- b. The proposed academic buildings A4, A5A, A5B and A6 as shown on the plan will require rerouting the existing sanitary sewer line that currently lies south of the School of Business and Dawson Hall. Proposed buildings A4 and A6 are shown directly over this sewer line. Consideration should be given to rerouting this line to the south side of the School of Engineering which would involve approximately 2,000 feet of sewer line and 6 manholes. Alternatively, the expansions may set back and have a bridge over the sewer lines or happen along the northern end of quad.
- c. The location of proposed building A2B appears conflict with the location of an existing sanitary sewer line on the south side of Campus Drive. Depending on grades of the

sewer line and any service laterals, it may be possible to relocate this sewer line to the middle of Campus Drive. This would involve approximately 500 feet of new sewer line and three manholes. Alternatively, the expansion may set back and have a bridge over the sewer line.

- d. Sewer service for the three proposed residence halls (H3) can be provided by extending the existing sewer line that is parallel to Chase Road. Extension of this sewer line would require approximately 700 feet of sewer pipe and three manholes.

### 2.2 WATER DISTRIBUTION LINES

- a. The proposed building layouts do not appear to have any adverse effect on any existing water lines.
- b. Flow rates and pressures on existing water lines will have to be determined in order to assess the capability of existing water distribution lines to support all of the proposed buildings. In particular, the altitude of those buildings proposed to be located on the north side of Buchanan Way will be a determining factor in whether or not fire pumps will be required for these buildings.

### 2.3 NATURAL GAS LINES

- a. Natural gas lines are plentiful throughout the campus. The determination of gas line sizes and pressures will be made after the individual buildings are under design and their energy requirements are calculated.

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## 2.4 STORM WATER CONVEYANCE

- a. The proposed location of academic buildings A4 and A6 are challenging due to the presence of existing drainage swales and piping. Building A6 is shown directly on top of a large ditch that catches water from the northern part of the campus and empties into the detention pond on the north side of the Engineering Building. Building A4 is currently located on top of existing storm water piping that drains from the Engineering Building pond and also from a pipe network north of the School of Business. Rerouting this water may be a very difficult undertaking due to the volume of water and the relatively gentle grades in this area. Alternatively, A4 expansion may happen off the northwest end of the building.
- b. Proposed buildings A2, A2A and A2B will generate additional stormwater runoff due to the impervious roofs, parking and drive areas and pedestrian walkways. The existing stormwater piping along Morrison Circle and south toward Council Boulevard will have to be reviewed for capacity and upgraded as required. Consideration should be given to creating underground detention for these building additions in lieu of upsizing the existing stormwater piping and structures around Morrison Circle and Council Boulevard.
- c. The location of the additional residential halls (H10 and the three H3 buildings) indicate that the natural drainage would be from north to south. In order to preclude overloading the existing drainage structures near the Forestry and Plant Sciences building consideration should be given to constructing a pipe network parallel to Chase Road to the detention pond shown on the plan.
- d. The smaller buildings proposed to the north side of Buchanan Way appear to be located on terrain that would

drain to the north and northeast. The plan presents these as smaller structures or small additions to existing buildings and should have a minor impact on the overall stormwater runoff rate for that area due to the existence of extensive paved areas. Consideration should be given to employing pervious pavements and materials to the extent practical for any additional driveways, parking areas and pedestrian walkways in order to reduce the stormwater runoff as much as possible.

- e. Stormwater detention pond. The Full Buildout Plan indicates an expansion of the existing stormwater detention facility in the southwest quadrant of the main campus area. This feature can be incorporated into the overall landscape plan to provide a pleasing amenity to the campus. The design of this feature must consider and protect the existing sanitary sewer line that crosses this area. The final design might consider building the detention feature as a series of ponds and providing sufficient separation between the ponds so that the sewer line is fully protected and can be accessed for repair and maintenance as necessary.

Refer to figures 6.j and 6.k.



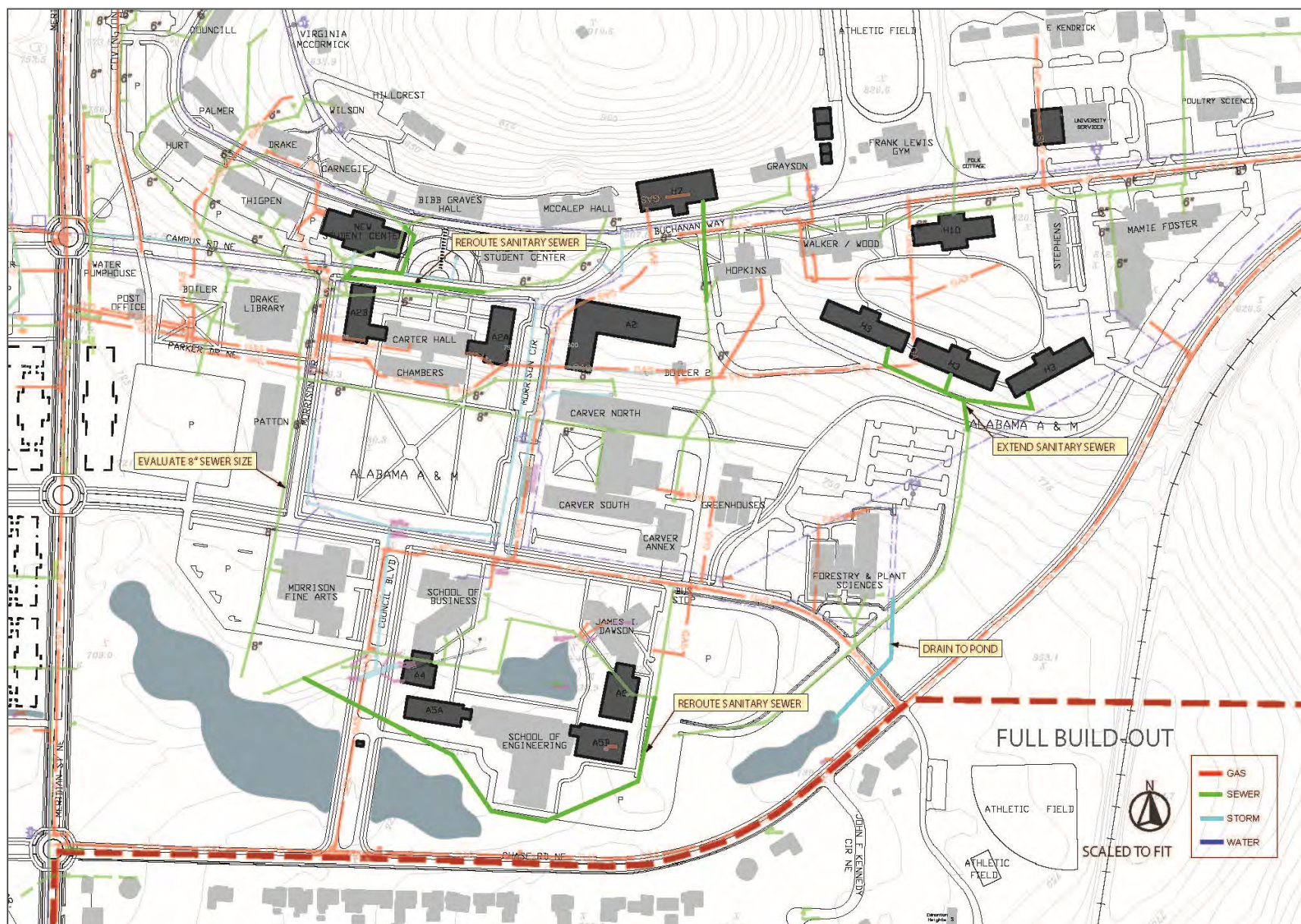


Figure 6.j: AAMU Phase 2 Campus Infrastructure



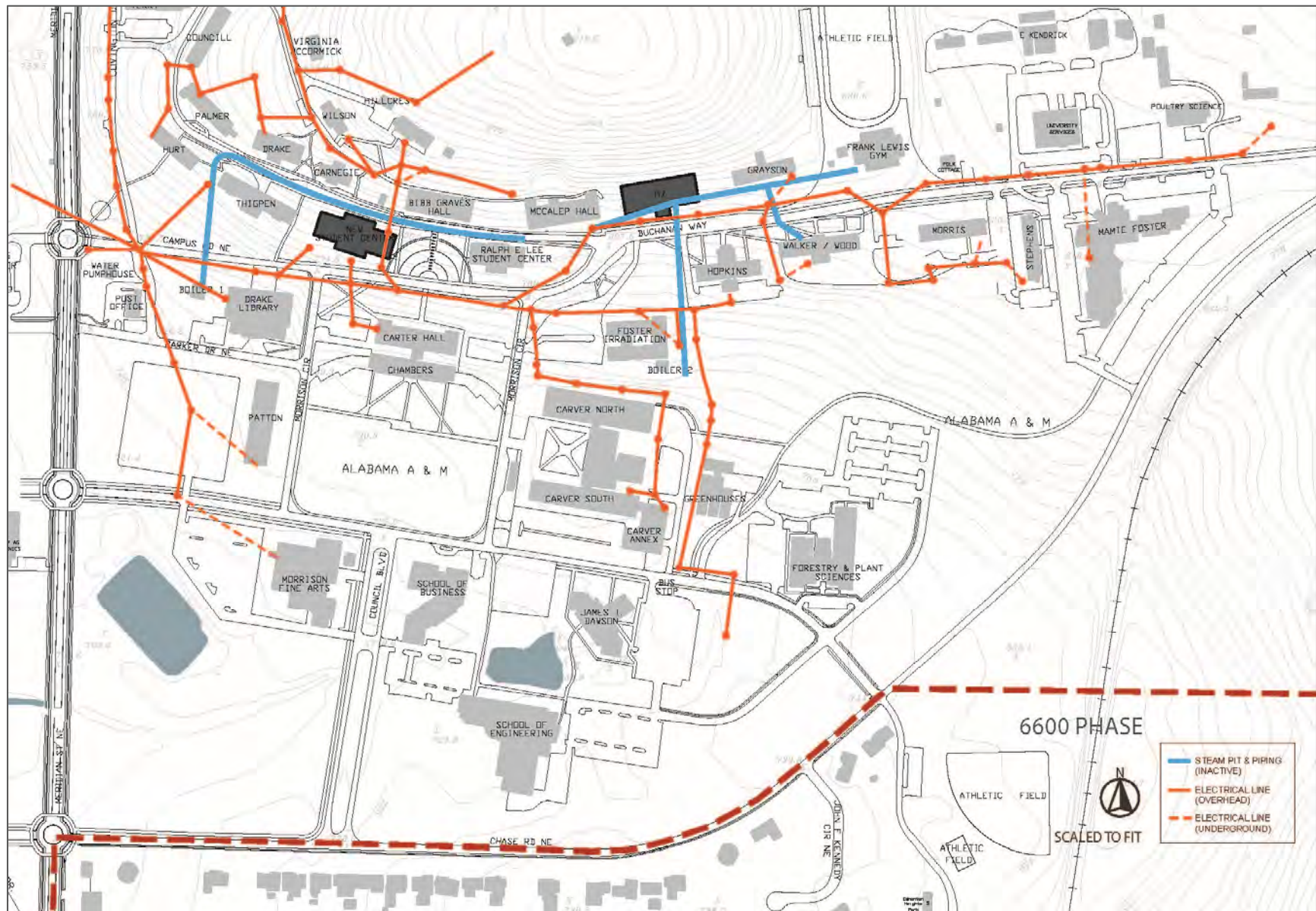


Figure 6.k: AAMU Phase 2 Electrical Distribution

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## F. Illustration

Following are three dimensional and two dimensional illustrations of the master plan. Figures 6.l to 6.o present the phasing of the plan on aerial views. Figures 6.p and 6.q are rendered site plans and figures 6.r to 6.t present key views of campus roads and buildings.



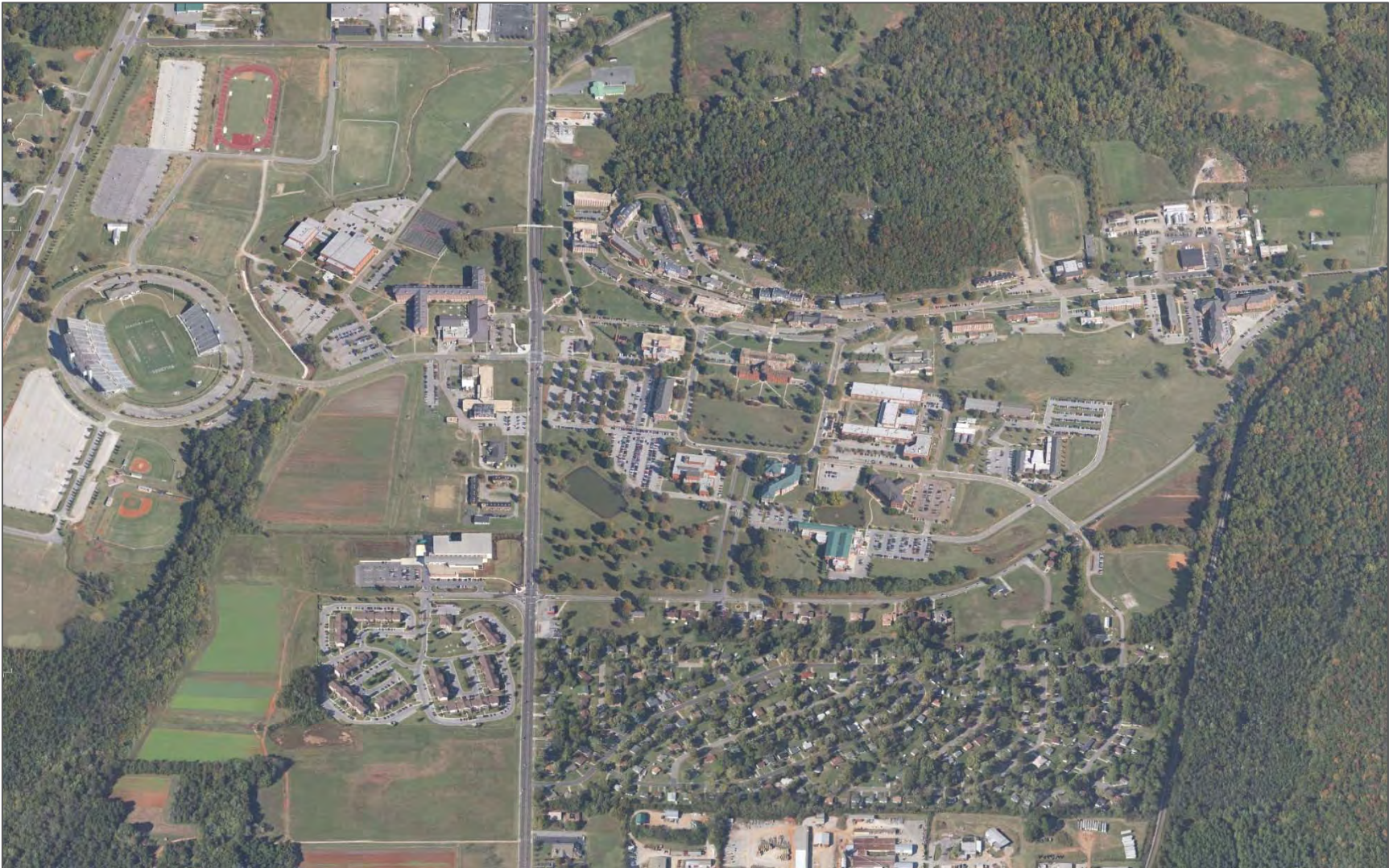


Figure 6.I: AAMU Existing Birdseye





Figure 6.m: AAMU Demo Birdseye





Figure 6.n: AAMU East Campus Birdseye





Figure 6.o: AAMU Full Campus Birdseye





Figure 6.p: AAMU Phase 6600





Figure 6.q: AAMU Phase Full Build Out





Figure 6.r: AAMU View of Meridian





Figure 6.s: AAMU View of Amphitheater



Figure 6.t: AAMU View of Amphitheater and New Student Center

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## VII. IMPLEMENTATION

### A. Priorities and Phasing

The master plan is divided into two phases; the first Phase (6600) and a Full Build-Out. Both phases focus on removing non-essential assets and limiting new construction by focusing on adaptive reuse. Renovated buildings will either be upgraded for existing functions or converted for a different use.

#### 1. Phase One - 6600 students

The short term plan (Phase 6600) will focus east of Meridian, removing non effective facilities, reactivating some of the vacated program, and renovating those in that need improvement.

##### 1.1 REMOVING NON EFFECTIVE FACILITIES

To be removed include:

- Buchanan
- Campus Police
- Carpentry
- Councill Training Center
- Gravitt
- Gym Annex
- Infirmary
- W. Johnson Building (Credit Union)
- Old ROTC
- Old Security
- TG Parker
- TG Paker Annex

- Prentice Hall
- Thomas

See figure 7.a.

##### 1.2 RENOVATION - RESIDENTIAL

An estimated \$20 million will be spent on improvements including converting remaining inactive interconnected singles, and another \$8.75 million will provide new housing on the Hill. This accommodates 2,582 beds, meeting and exceeding the goal of 2,400. Residential improvements in Phase One include:

- WH Councill Hall
- Grayson Hall
- Hurt Hall
- Terry Hall
- Thigpen Hall
- Walker Wood Hall

##### 1.3 RENOVATION - ACADEMIC

The existing academic space meets the needs for 6600 students, but it is not in good condition. 30,000-35,000 ASF of new construction will be included in this phase to account for demolitions. In its current arrangement, instructional space is dispersed throughout the campus; Phase 6600 will consolidate these spaces by renovating nonresidential facilities east of Meridian and reallocating their uses. To account for increased enrollment, students can be assigned to vacant seats in sections currently



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offered, classrooms can be scheduled for 36 hours per week, or McCalep can be renovated for an additional 18 classrooms. Fee Based renovations include:

- Hillcrest
- Ralph E. Lee Student Center
- Frank Lewis Gymnasium

Bond-based renovations include:

- Carter (ongoing)
- Chambers (ongoing)
- Bibb Graves
- Carver North
- Carver Annex
- Elmore Gymnasium
- McCalep Vocational Building
- Morris Fine Arts Building

See figure 7.b for all renovations.

## **1.4 NEW CONSTRUCTION**

Student services spaces are also currently dispersed throughout campus; new construction during this phase will provide a new 50,000 SF Student Center to help consolidate these spaces. The new Student Center will house food service, recreation, assembly/meeting rooms, lounge/gathering spaces, merchandizing, and offices for Student Affairs and Student Services. A mixed function open space (amphitheater and recreational plaza) will be built on the hill adjacent to the new Student Center also in this phase.

See figure 7.c for new construction.



Figure 7.a: AAMU Phase 1 Demolition

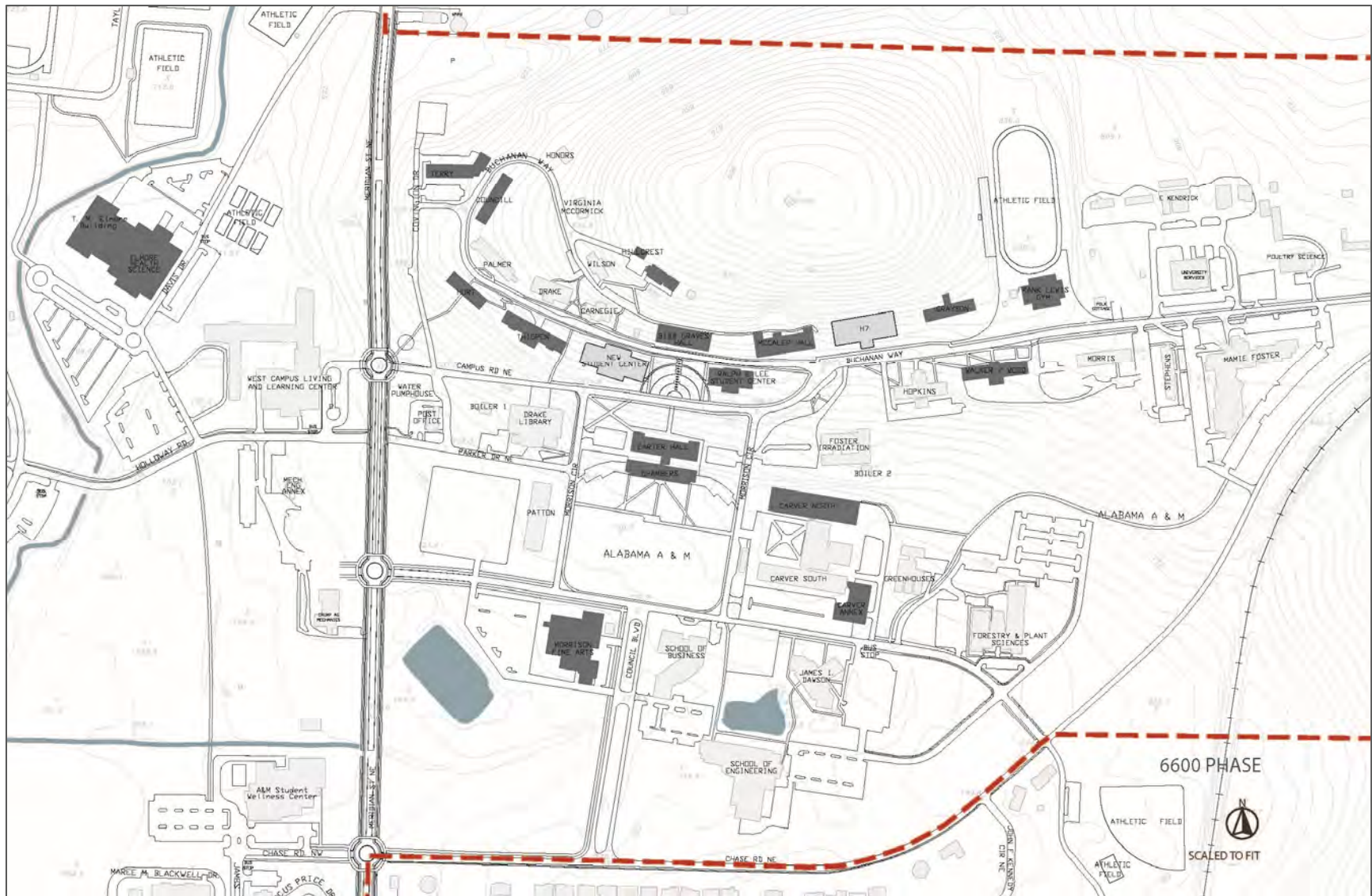


Figure 7.b: AAMU Phase 1 Renovations



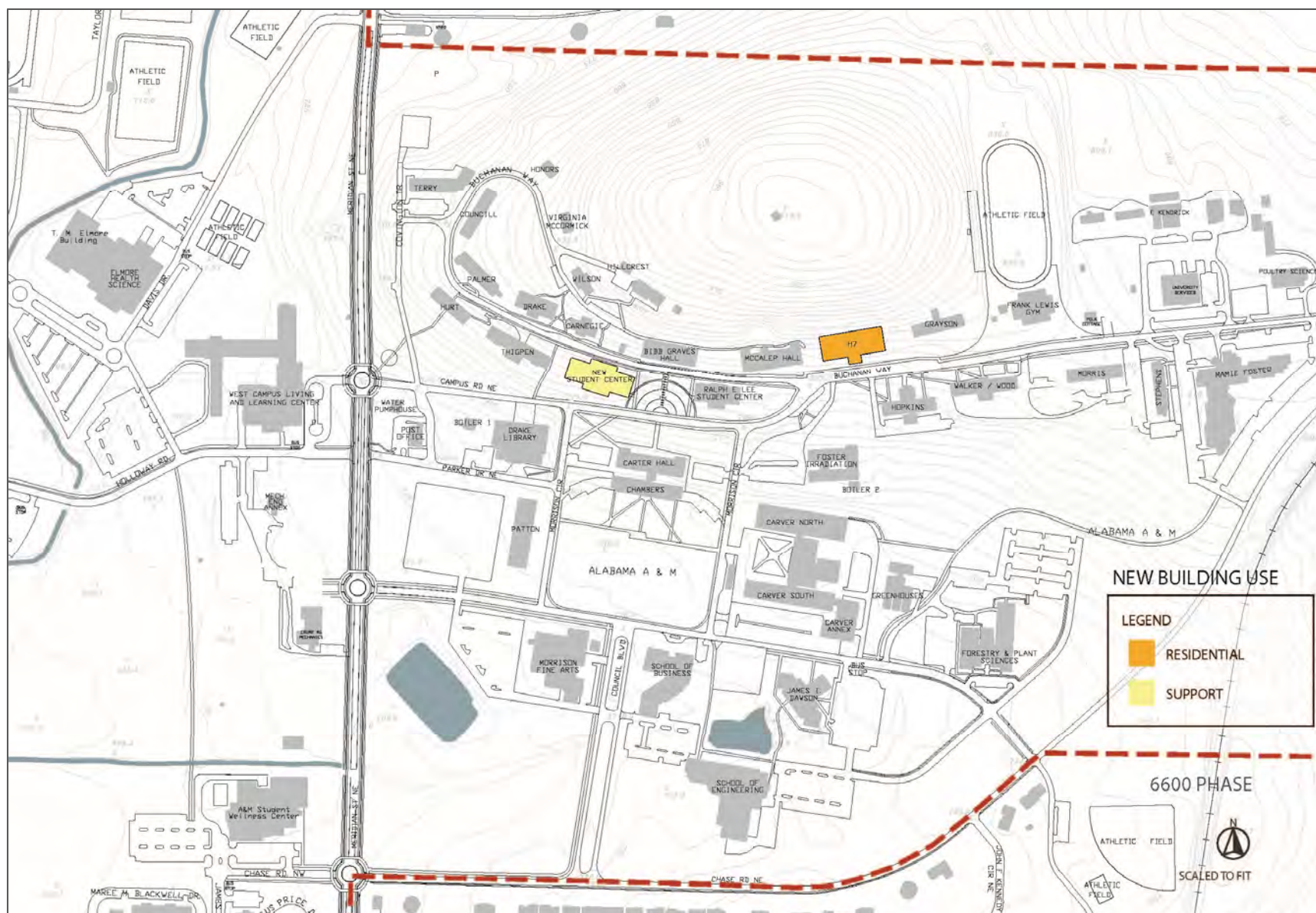


Figure 7.c: AAMU Phase 1 New Construction

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The following is a description of mechanical, plumbing, and electrical systems for Phase I residential renovations:

### **William H. Council Hall**

a. Mechanical. Building HVAC system type is a 2-pipe hot water/chilled water with individual floor-mounted fan coil units in each room of the building. Provide new 80-ton outdoor air-cooled chiller and indoor 750 MBH gas-fired hot water heating boiler. Replace existing room fan coil units with new chilled water/hot water coil units. Provide new digital control system for all major HVAC components. New suite and shared bathroom design to include new localized exhaust ventilator for each bathroom.

b. Plumbing. Remove all existing plumbing fixtures and cap existing piping systems as required. New suite and shared bathroom design to be provided with new plumbing fixtures, including new lavatories, toilets, and showers. All common area restrooms to be provided with new lavatories, toilets, and urinals as required. Existing hot water heater and distribution system to be expanded for anticipated increased capacity, with additional piping extended to new bathroom locations as required.

c. Electrical. The building Electrical Distribution system should be replaced completely. The existing electrical service is a 1200 amp, 120/208 volt, 3 phase, 4 wire service fed from a pad-mounted transformer on the campus primary. The existing Fire Alarm System was recently replaced and appears to good working order. All existing luminaires should be replaced with new energy efficient fluorescent luminaires. Battery packs should be provided in the new fluorescent luminaires for code required egress lighting. Dwelling units shall have receptacles per NEC.

### **Grayson Hall**

a. Mechanical. Building HVAC system type is a 2-pipe hot water/chilled water with individual floor-mounted fan coil units in each room of the building. Provide new 60-ton outdoor air-cooled chiller and indoor 500 MBH gas-fired hot water heating boiler. Replace existing room fan coil units with new chilled water/hot water coil units. Provide new digital control system for all major HVAC components. New suite and shared bathroom design to include new localized exhaust ventilator for each bathroom.

b. Plumbing. Existing common restroom plumbing fixtures to remain as allowed by new floor plan. New suite and shared bathroom design to be provided with new plumbing fixtures, including new lavatories, toilets, and showers. Existing gas-fired water heater and hot water heating system to be replaced with a new gas-fired water heater and distribution system sized for anticipated capacity, with additional piping extended to new bathroom locations as required.

c. Electrical. The building Electrical Distribution system should be replaced completely. The existing electrical service is an 800 amp, 120/208 volt, 3 phase, 4 wire service fed from a pad-mounted transformer on the campus primary. The existing Fire Alarm System will need to be replaced with a new voice evacuation system. All existing luminaires should be replaced with new energy efficient fluorescent luminaires. Battery packs should be provided in the new fluorescent luminaires for code required egress lighting. Dwelling units shall have receptacles per NEC.

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## Hurt Hall

a. Mechanical. Current building HVAC system type is a centralized heating only with individual floor-mounted steam radiators in each room of the building. Provide new 60-ton outdoor air-cooled chiller and indoor 500 MBH gas-fired hot water heating boiler. Replace existing room radiators with new chilled water/hot water fan coil units. Provide completely new chilled water/hot water distribution piping to new fan coil unit locations throughout building. Provide new digital control system for all major HVAC components. New suite and shared bathroom design to include new localized exhaust ventilator for each bathroom.

b. Plumbing. Remove all existing plumbing fixtures and cap existing piping systems as required. New suite and shared bathroom design to be provided with new plumbing fixtures, including new lavatories, toilets, and showers. All common area restrooms to be provided with new lavatories, toilets, and urinals as required. Existing steam hot water heating system to be replaced with a new gas-fired water heater and distribution system sized for anticipated capacity, with additional piping extended to new bathroom locations as required.

c. Electrical. The building Electrical Distribution system should be replaced completely. The existing electrical service is a 1200 amp, 120/208 volt, 3 phase, 4 wire service fed from a pad-mounted transformer on the campus primary. The existing Fire Alarm System will need to be replaced with a new voice evacuation system. All existing luminaires should be replaced with new energy efficient fluorescent luminaires. Battery packs should be provided in the new fluorescent luminaires for code required egress lighting. Dwelling units shall have receptacles per NEC.

## Terry Hall

a. Mechanical. Building HVAC system type is a 2-pipe hot water/chilled water with individual floor-mounted fan coil units in each room of the building. Provide new 80-ton outdoor air-cooled chiller and replace existing temporary steam boiler and steam-to-hot-water heat exchanger with new indoor 750 MBH gas-fired hot water heating boiler. Replace existing room fan coil units with new chilled water/hot water coil units. Provide new digital control system for all major HVAC components. New suite and shared bathroom design to include new localized exhaust ventilator for each bathroom.

b. Plumbing. Remove all existing plumbing fixtures and cap existing piping systems as required. New suite and shared bathroom design to be provided with new plumbing fixtures, including new lavatories, toilets, and showers. All common area restrooms to be provided with new lavatories, toilets, and urinals as required. Existing steam hot water heating system to be replaced with a new gas-fired water heater and distribution system sized for anticipated capacity, with additional piping extended to new bathroom locations as required.

c. Electrical. The building Electrical Distribution system should be replaced completely. The existing electrical service is a 1600 amp, 120/208 volt, 3 phase, 4 wire service fed from a pad-mounted transformer on the campus primary. The existing Fire Alarm System was recently replaced and appears to good working order. All existing luminaires should be replaced with new energy efficient fluorescent luminaires. Battery packs should be provided in the new fluorescent luminaires for code required egress lighting. Dwelling units shall have receptacles per NEC.



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### Thigpen Hall

a. Mechanical. Building HVAC system type is a 2-pipe hot water/chilled water with individual floor-mounted fan coil units in each room of the building. All major mechanical equipment underwent a full replacement during the last 2010 renovation. At this time minor repairs may be required but replacement of the mechanical system or any components is not necessary.

b. Plumbing. New suite and shared bathroom design to be provided with new plumbing fixtures, including new lavatories, toilets, and showers. All common area restrooms to remain have existing fixtures that are in good condition and shall remain as well. No further replacement is required, excluding any upgrades required for current ADA regulations. Existing hot water heater and distribution system to be expanded for anticipated increased capacity, with additional piping extended to new bathroom locations as required.

c. Electrical. The building Electrical Distribution system should be replaced completely. The existing electrical service is a 1600 amp, 120/208 volt, 3 phase, 4 wire service fed from a pad-mounted transformer on the campus primary. The existing Fire Alarm System was recently replaced and appears to good working order. All existing luminaires should be replaced with new energy efficient fluorescent luminaires. Battery packs should be provided in the new fluorescent luminaires for code required egress lighting. Dwelling units shall have receptacles per NEC.

### Walker Wood Hall

a. Mechanical. Building HVAC system type is a 2-pipe hot water/chilled water with individual floor-mounted fan coil units in each room of the building. Provide new 80-ton outdoor air-cooled chiller and indoor 500 MBH gas-fired hot water heating boiler. Replace existing room fan coil units with new chilled water/hot water coil units. Provide new digital control system for all major HVAC components. New suite and shared bathroom design to include new localized exhaust ventilator for each bathroom.

b. Plumbing. Remove all existing plumbing fixtures and cap existing piping systems as required. New suite and shared bathroom design to be provided with new plumbing fixtures, including new lavatories, toilets, and showers. All common area restrooms to be provided with new lavatories, toilets, and urinals as required. Existing steam hot water heating system to be replaced with a new gas-fired water heater and distribution system sized for anticipated capacity, with additional piping extended to new bathroom locations as required.

c. Electrical. The building Electrical Distribution system should be replaced completely. The existing electrical service is a 1200 amp, 120/208 volt, 3 phase, 4 wire service fed from a pad-mounted transformer on the campus primary. The existing Fire Alarm System will need to be replaced with a new voice evacuation system. All existing luminaires should be replaced with new energy efficient fluorescent luminaires. Battery packs should be provided in the new fluorescent luminaires for code required egress lighting. Dwelling units shall have receptacles per NEC.

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## 2. Full Build-Out

The long-term plan (Full Build-Out) will complete the Academic Quad, add housing, greater strengthen Meridian, and increase access to Hillcrest for meetings and archives.

### 2.1 REMOVING NON EFFECTIVE FACILITIES

Non-essential assets in this phase to be removed include:

- Crump Agricultural Mechanical Building
- Foster Irradiation Center
- Mechanical Engineering Annex
- Morris Hall

See figure 7.d.

### 2.2 RENOVATION

Nonresidential renovations in this phase include:

- Drake Dining Hall
- V. McCormick Building
- Patton
- Polk Cottage
- Wilson Building

Residential renovations in this phase include:

- Hopkins Hall
- Palmer Hall
- Stephens Hall

See figure 7.e.

### 2.3 NEW CONSTRUCTION

New construction within the Full Build-Out has potential at central campus to: provide 1.10-1.15 million ASF of academic and support facilities, support 10,000-12,000 students on campus, and provide 2,900-3,100 beds in new residence halls.

See figure 7.f.



Figure 7.: AAMU Phase 2 Demolition



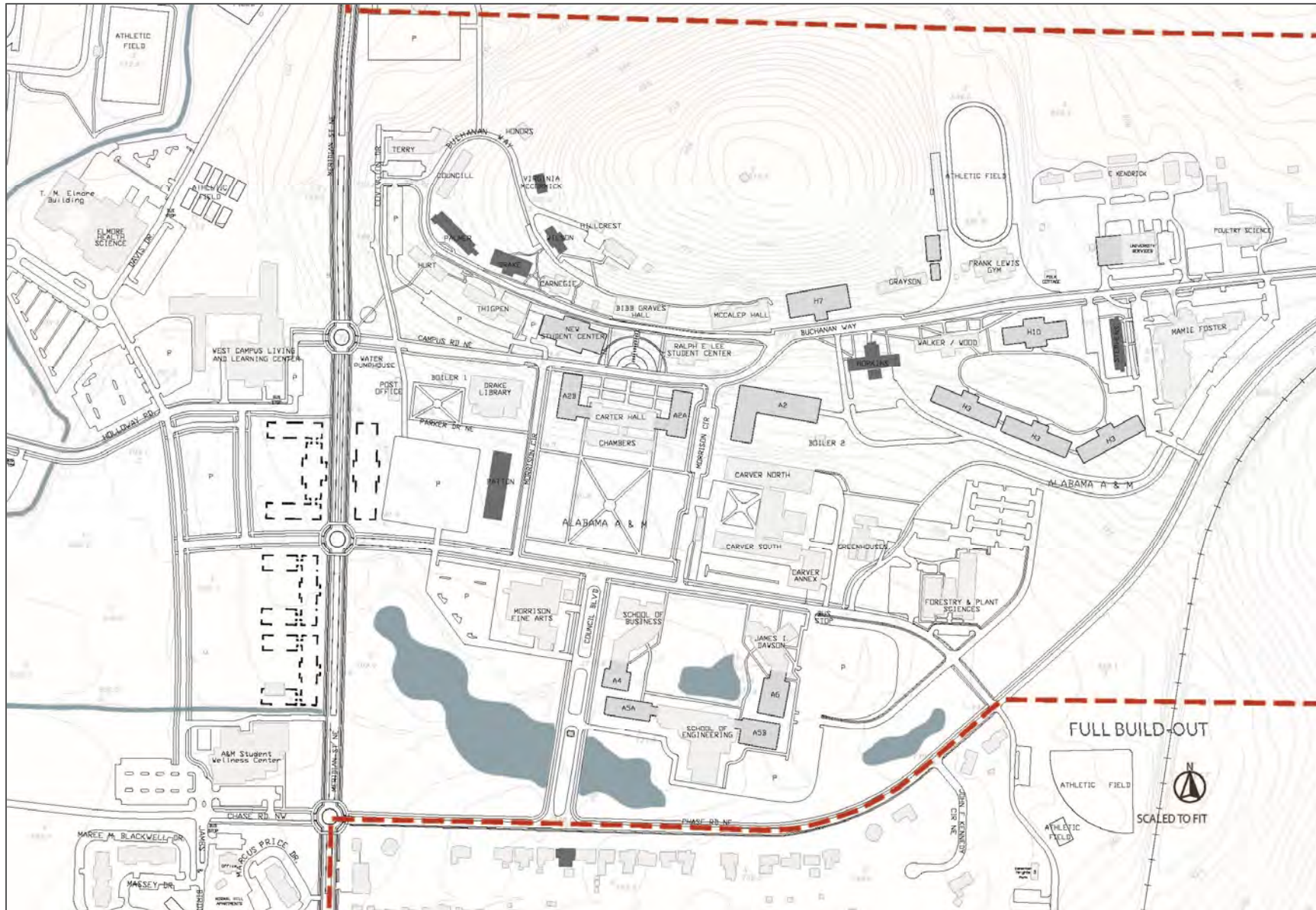


Figure 7.e: AAMU Phase 2 Renovations



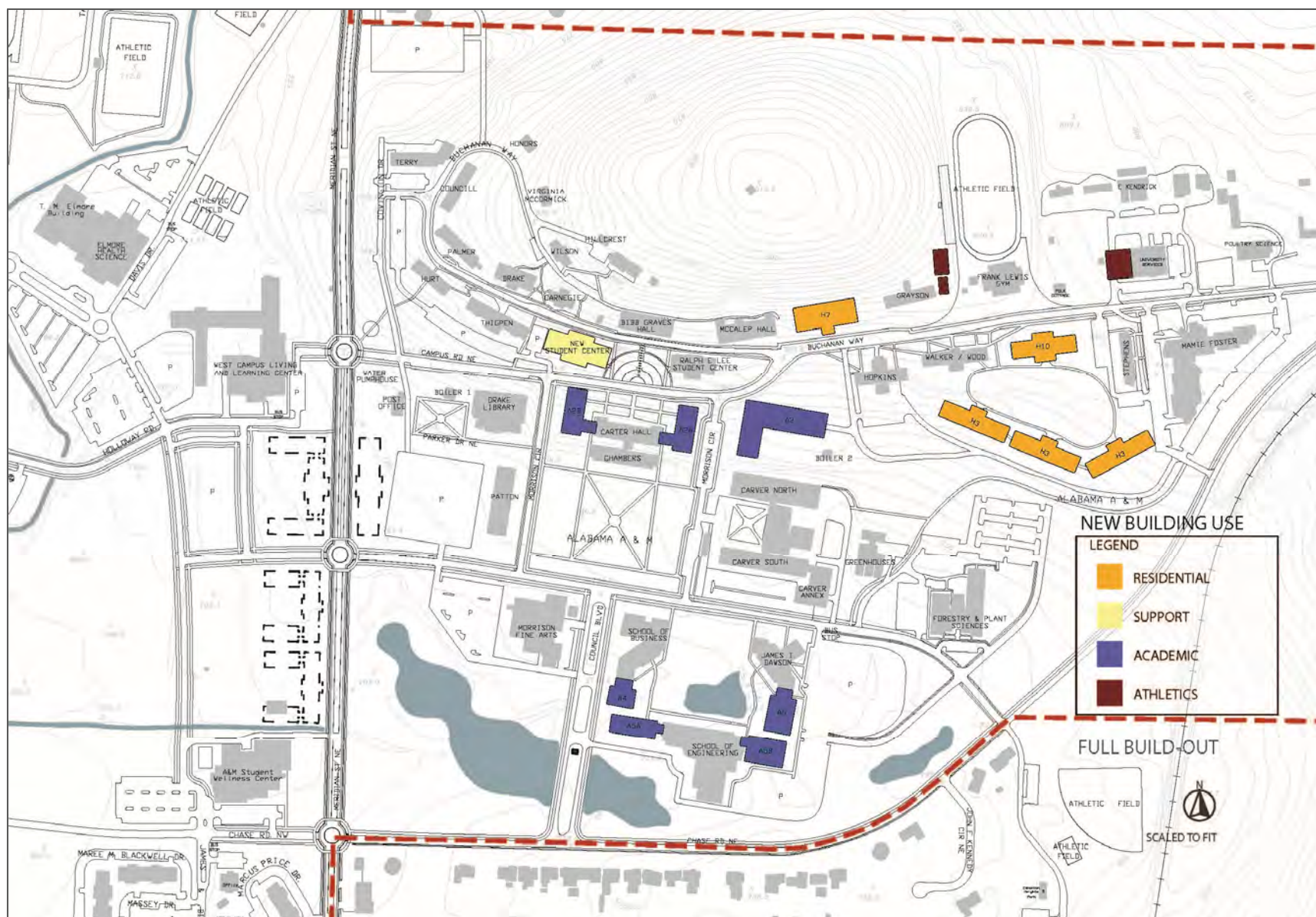


Figure 7.f: AAMU Phase 2 New Construction

## B. Cost

The purpose of this section is to provide cost estimates for each phase of the final master plan for Alabama A&M University. These cost estimates include estimates for buildings (new, renovations, and demolitions). A reserve for other reallocations is provided as a separate line item.

These estimates are based on the value of construction in 2013. Periodic updates of these cost values will be required to reflect escalation or any other market adjustments.

The estimates are broken down into "construction cost" and "Total Project Budget".

The Construction Cost: The total allowable direct costs (awarded to a builder) incurred by the institution to carry out an approved project or activity.

The Total Project Budget: The total allowable direct and indirect costs incurred by the institution to carry out an approved project or activity. This includes professional fees, furniture, equipment, technology, contingencies, etc.

## 1. Potential Sources of Funding

### 1.1 BOND OR APPROPRIATION (PUBLIC)

State Bond Funding

Other Public (Local, State, Federal)

### 1.2 FEES / REVENUE (PRIVATE)

Student fees

Other user fees (parking, conferences, etc.)

Developer – Example: (TUFF) The University Financing Foundation

Energy (solar)

### 1.3 OTHERS

HBCU Capital Financing Loan Program

(EDA) Economic Development Administration Grants

(FEMA) Federal Energy Management Safe Rooms Grants

Capital Campaigns and Other Gifts (Alumni, Normal Historic Preservation, etc.)

## 2. Implementation Plan – Highest Priority

Phase I (Priority)	Construction Cost	Total Project Budget
Remove Non Effective Assets	\$ 938,000	\$ 1,080,000
Renovations - Residential	Construction Cost	Total Project Budget
(W. H.) Council Hall	\$ 4,415,600	\$ 5,942,667
Grayson Hall	\$ 2,937,897	\$ 3,897,168
Hurt Hall	\$ 2,269,000	\$ 3,009,868
Terry Hall	\$ 4,490,525	\$ 5,956,755
Thigpen Hall	\$ 2,176,760	\$ 2,887,507
Walker Wood Hall	\$ 4,199,774	\$ 5,571,070
TOTAL	\$20,489,556	\$27,265,035
New 50K SF Student Center	\$11,250,000	\$ 15,780,804
Reserve for other reallocations	\$ 2,000,000	\$ 2,730,000
New 250 Bed/ Student Residence	\$ 8,750,000	\$ 12,283,156



### 3. Implementation Plan – Funding

Phase I (Priority)	Total Project Budget	Source
Remove Non Effective Assets	\$ 1,080,000	Bond
Renovations - Residential		
(W. H.) Councill Hall	\$ 5,942,667	Fees
Grayson Hall	\$ 3,897,168	Fees
Hurt Hall	\$ 3,009,868	Fees
Terry Hall	\$ 5,956,755	Fees
Thigpen Hall	\$ 2,887,507	Fees
Walker Wood Hall	\$ 5,571,070	Fees
TOTAL	\$27,265,035	
New 50K SF Student Center	\$ 15,780,804	Fees
Reserve for other reallocations	\$2,726,500	Bond
New 250 Bed/ Student Residence	\$ 12,283,156	Fees

### 5. Implementation Plan – Full Build Out

	Construction Cost	Total Project Budget
Remove Non Effect.	\$ 2,040,000	\$ 2,340,000
Renovate Non Residential		
Drake Dining Hall	\$ 75,000	\$ 113,063
V. McCormick Building	\$ 504,863	\$ 727,441
Patton	\$ 5,357,880	\$ 7,107,315
Polk Cottage	\$ 143,250	\$ 223,740
Wilson Building	\$ 459,900	\$ 685,653
TOTAL	\$ 6,540,893	\$ 8,857,212
Renovate Residential		
Hopkins Hall	\$ 3,135,024	\$ 4,140,900
Palmer Hall	\$ 3,267,999	\$ 4,335,054
Stephens Hall	\$ 3,454,900	\$ 4,582,982
TOTAL	\$ 9,857,923	\$13,058,936
Reserve Reallocations	\$ 650,000	\$ 750,000

### 4. Implementation Plan – Beyond Highest

Phase I (Beyond Priorities)	Construction Cost	Total Project Budget
<b>Fee Based</b>		
Hillcrest	\$ 383,823	\$ 626,740
Ralph Lee University Ctr.	\$ 4,486,503	\$ 6,182,543
Frank Lewis Gymnasium	\$ 3,122,143	\$ 4,302,412
TOTAL	\$ 7,992,469	\$ 11,011,695
<b>Bond</b>		
Finish Carter Renovations	\$ 3,100,050	\$ 5,061,954
Finish Chambers Renovations	\$ 2,510,000	\$ 4,098,484
Bibb Graves	\$ 3,362,878	\$ 5,491,116
Carver North	\$ 6,220,250	\$ 8,046,734
Carver Annex	\$ 2,209,930	\$ 3,608,510
Elmore Gymnasium	\$11,942,006	\$ 15,585,216
McCalep Vocational Building	\$ 3,929,922	\$ 6,417,020
Morrison Fine Arts Building	\$ 7,453,672	\$ 9,549,617
TOTAL	\$40,728,708	\$ 57,858,651
Reserve for other reallocations	\$ 4,073,000	\$ 5,800,000

### 6. Cost – All Phases

	Construction Cost	Total Project Budget
<b>Removal</b>	\$ 2,980,000	\$ 3,420,000
<b>Residential</b>		
Renovations	\$ 30,350,000	\$40,320,000
New Student Residence	\$ 8,750,000	\$12,280,000
<b>Non Residential</b>		
Renovations	\$55,260,000	\$ 77,730,000
New Student Center	\$11,250,000	\$15,780,000
<b>Re Allocations</b>	\$ 4,720,000	\$ 6,550,000

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## 7. Breakdown of Sources of Funding

### 7.1 THE UNIVERSITY FINANCING FOUNDATION (TUFF)

TUFF is a non-profit 501(c)(3) operating foundation whose mission is to assist Institutions of education and research in the planning, development, and financing of facilities and equipment at below-market costs. Unlike a passive foundation or public charity, TUFF actively partners with Institutions to help them achieve their academic goals, while maximizing the economic efficiency of their critical real estate projects.

### 7.2 THE ECONOMIC DEVELOPMENT ADMINISTRATION (EDA)

The EDA was established under the Public Works and Economic Development Act of 1965 to generate jobs, help retain existing jobs, and stimulate industrial and commercial growth in economically troubled areas of the United States. EDA assistance is available to rural and urban areas of the United States experiencing high unemployment, low income, or other severe economic distress. A Regional office of EDA is located in Atlanta.

### 7.3 THE HBCU CAPITOL FINANCING PROGRAM

The mission of the U. S. Department of Education's (the Department) Historically Black College and University (HBCU) Capital Financing Program (The HBCU CF Program) is to provide access to low-cost capital for HBCUs that historically could not access the capital markets. Through this program, the HBCUs are able to broaden their exposure to capital markets by obtaining

loans backed by the full faith and credit of the U.S. Government.

### 7.4 DIRECTSUN SOLAR ENERGY AND TECHNOLOGY

DirectSun specializes in solar energy technology solutions. The firm made a presentation to AAMU together with other consultants. They offer several levels of development for solar energy: small (independent projects) medium (campus wide energy savings) and large (potential revenue stream).

## 8. Implementation Plan – Schedule

Phase One, accommodating an enrollment of 6600, includes the renovation of six residence halls and the construction of a new student center. Residential renovations will be tiered with one per year:

2014 – Grayson Hall  
2015 – (WH) Council Hall  
2016 – Hurt Hall  
2017 – Terry Hall  
2018 – Thigpen Hall  
2019 – Walker Wood Hall

The timeline for the new student center occurs during a three-year period from 2015 to 2017.

Refer to figure 7.g.

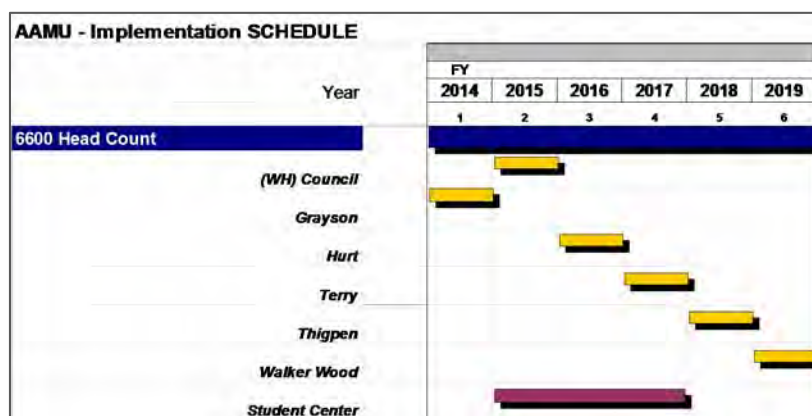


Figure 7.g: AAMU Implementation Schedule

## 8.1 NEXT STEPS FOR STUDENT CENTER

- Market analysis or survey (if this is to be funded by fees) – test what programmatic elements student are willing to pay for and how much.
- Facility program and additional site due diligence.
- Determine delivery method and need for appropriate professional services: program Manager, designer, and builder.
- Procure professional services: starting with advance planning / programming and through design and construction.

## 8.2 NEXT STEPS FOR HOUSING

- Market Analysis or Survey (if this is to be funded by fees) – test which unit types and price point.

- Additional due diligence on the site.
- Determine delivery method and need for appropriate professional services: program Manager, designer, and builder.
- Procure professional services: starting with advance planning / programming and through design and construction.

## 8.3 90 DAY SCHEDULE

- Due Diligence
  - Market analysis for housing and student services
  - Program Student Services
  - Hazardous materials abatement
  - Confirming flow of water
  - Historic documentation for demolition and renovation
- Professional Services
  - Abatement Contractor
  - Consultant for Market Study, Programming and Historic
  - Consulting services for other special materials services
- Funding
  - Develop funding strategy: internal or external
  - Start preparing collateral – renderings, submittals, proposals



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## **C. Three Dimensional Images and Design Standards**

### **1. Images**

Please refer to the images on the following pages for potential landscape and design elements that may be incorporated into University design standards.

### **2. Landscape Standards**

Develop landscape standards for the CMP based upon the existing standards that convey the desired character and performance for landscape: site furniture, paving and walkways, lighting, gateways, corridors, tree canopy, irrigation, etc.

A uniform pallet of site furniture and materials will help define the campus as a distinct place. The following list of elements is a combination of existing standards and some new standards that can be used as a guide for future design work. The basic materials are Brick, Stone, Concrete, and wood.

- Signs
- Benches
- Trash Receptacles
- Lights
- Bike Racks
- Boulders
- Walkways
- Walls

## 1. SIGNS

Street Name



Building Place



Way-Finding





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## 2. BENCHES



## 3. TRASH RECEPTACLES





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## 4. LIGHTS

Single Luminaire



Double Luminaire



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## 5. BIKE RACKS

Dero Swerve



## 6. BOULDERS

Indigenous Stone





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## 7. WALKWAYS

Concrete with Brick Banding



Crosswalks – ADA DWS



Dry Set Clay Pavers



Mortared Clay Paver Field and Banding





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## 8. WALLS

Boulder



Brick Columns



Local Stone Rubble



Red-Brown Brick



## VIII. APPENDIX

### Less Substandard Space Analysis

As described in Section III, Matrix 3-D evaluated building systems, then estimated the cost of repairing or replacing those that were substandard. The projected repair cost then was compared with the cost of completely replacing the building. Buildings were assigned to one of five categories based on the ratio of repair to replacement costs. See Table 8.a.

Condition	Definition
<b>Level A</b>	Repair cost between 0% to 15% of replacement cost
<b>Level B</b>	Repair cost between 15% to 35% of replacement cost
<b>Level C</b>	Repair cost between 35 and 59% of replacement cost
<b>Level D</b>	Repair cost between 60% and 74 % of replacement cost
<b>Level E</b>	Repair cost over 75% of replacement cost

Table 8.a: Definitions of Condition Levels

For purposes of looking at “what if scenarios,” we looked that the impact of what would happen if buildings in levels D and E were considered “substandard.” In Table 8.b, the 70,000 ASF of space in active buildings rated D or E is removed from the “Active/Existing” totals. This space needs analysis indicates that there is still an overall surplus of 25%, or just under 170,000 ASF.

Most of the shortfalls identified in Table 8.b can be addressed by renovating and reallocating space in buildings already located on the AAMU campus. The number of possible combinations of spaces that could be reactivated and/or repurposed, while not infinite, is quite large. Thus, this scenario’s apparent deficits will be overcome easily.

SPACE NEEDS ANALYSIS Alabama A&M University Baseline Year - Fall 2012 - LESS SUBSTANDARD SPACE					
Space Needs Calculation – NON-RESIDENTIAL Space					
Room Use Code	SPACE TYPE	Existing Assignable Square Ft. ACTIVE	Guideline Assignable Square Ft.	Surplus or (Deficit) in ASF	Percent Surplus or Deficit (w Guideline)
100	Classroom & Service	71,937	53,179	18,758	35%
200	Instructional Labs	81,036	54,050	26,986	50%
250	Research Laboratories & Service	58,989	24,060	34,929	145%
300	Offices & Office Service	203,131	171,201	31,930	19%
400	Library (collection, study, service)	60,670	70,327	(9,657)	-14%
500	Special Use Space	149,689	85,131	64,558	76%
600	General Use Space	170,156	164,847	5,309	3%
700	Support	36,869	41,460	(4,591)	-11%
800	Health Care	1,919	1,540	379	25%
GRAND TOTAL ALL SPACE TYPES		834,396	665,794	168,602	25%

Table 8.b: Remove SUBSTANDARD Space