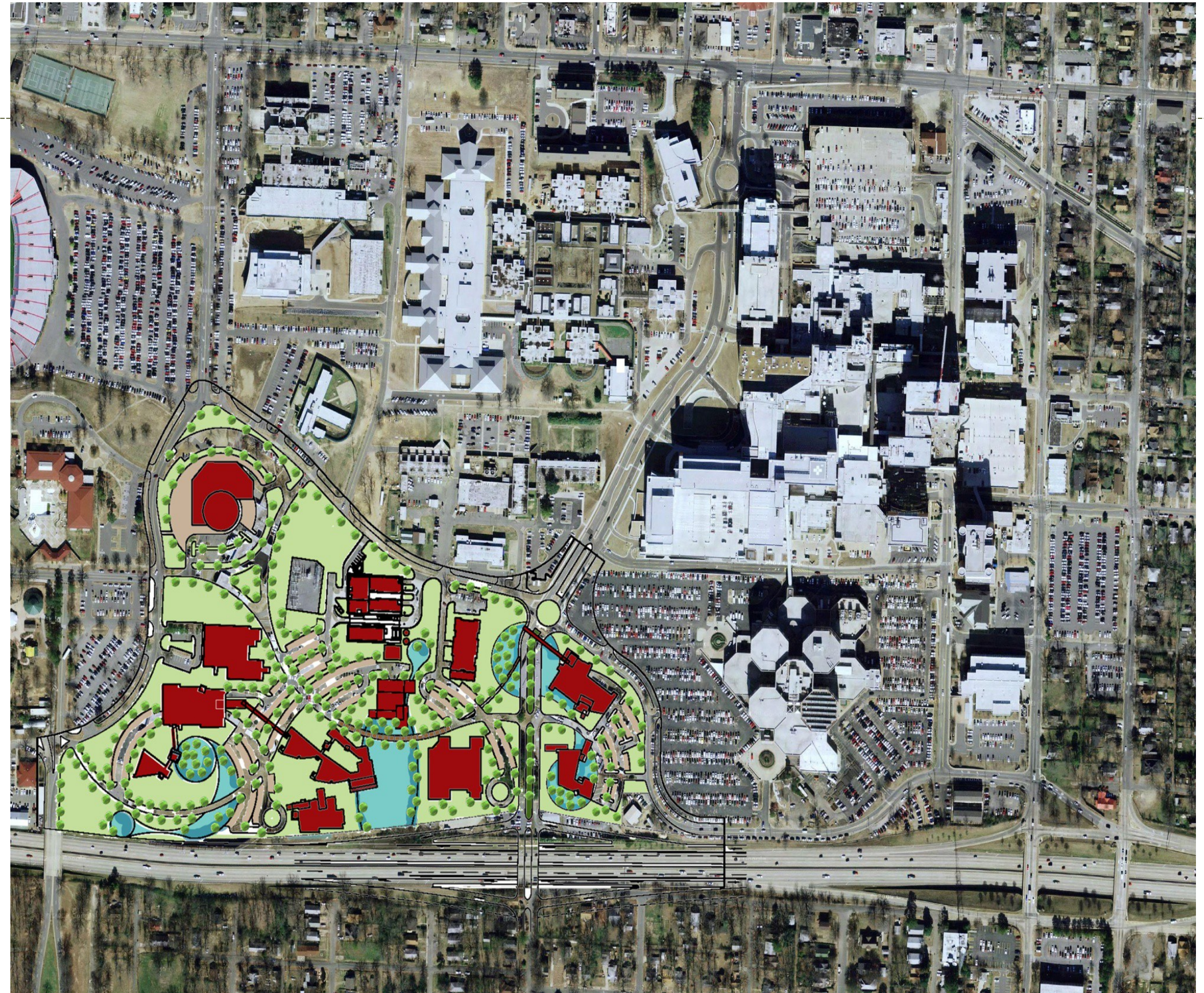


# *“HEALTHY INNOVATIONS”*

## *A Sustainable Business Village Master Plan Concept*

**SUSTAINABILITY** - “the linking of economic vitality; ecological integrity, and social well-being within a unified conceptual framework”

**UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES**





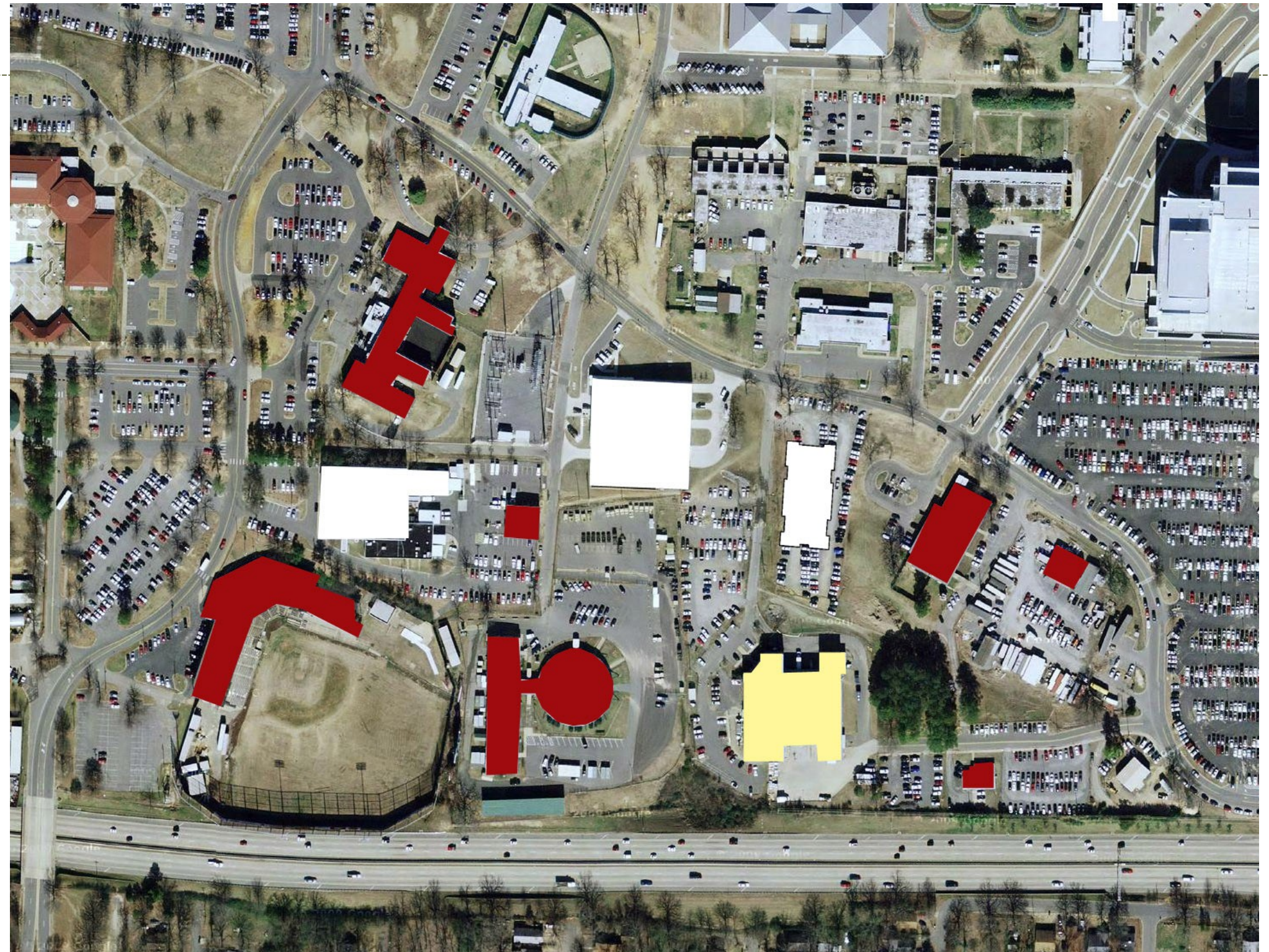
## SITE ANALYSIS - Structures

### LEGEND

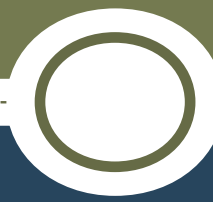
Buildings to Remain 

Buildings to be Removed 

Building Renovated 



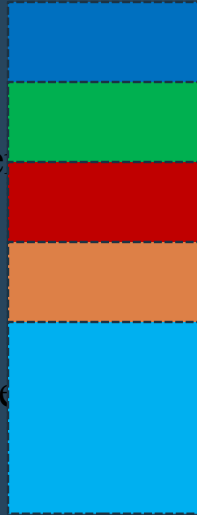
UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES



## SITE ANALYSIS - Utilities

### LEGEND

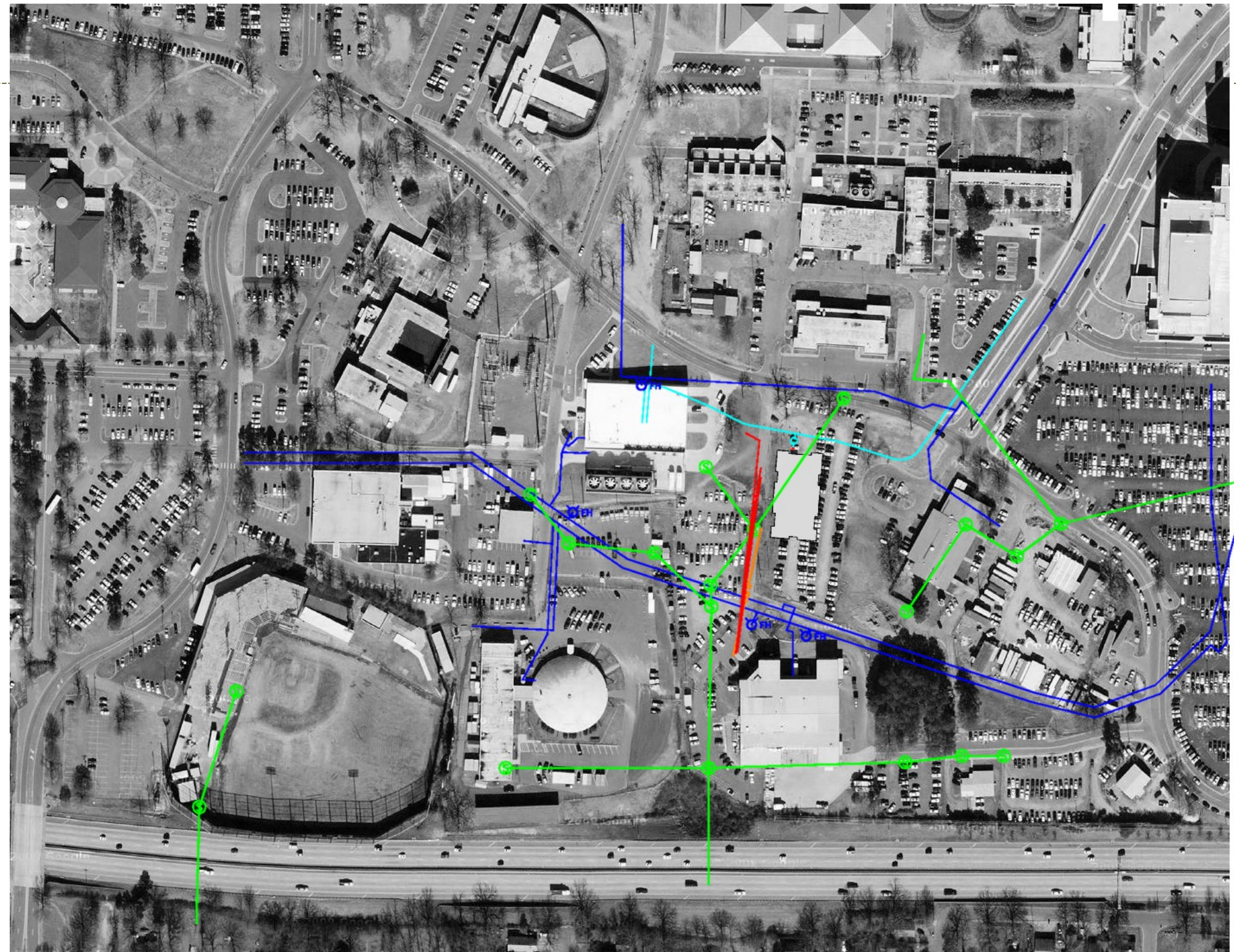
- Water
- Storm/Sewer
- Electric
- Fiber Optic
- Chilled Water



Water - To be minimized through high-efficiency building systems and natural planting choices. Capture and re-use of storm water.

Wastewater – Potential use of building wastewater treatment systems incorporated into the site consisting of filtering equipment, man-made wetlands allowing the water to be re-used like gray-water or discharged to non-sanitary systems such as streams.

Electric – Potential use of solar panels and wind turbines to harness the energy created by the surrounding environment and tied to the west central energy plant to reduce required electrical loads.



UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES



## SITE ANALYSIS - Topography

### LEGEND

0-5% Slope 

5-15% Slope 

15-25% Slope 

Low Areas 

**SOILS** - Carnasaw-Mountainburg Association

**WATERSHED** - Lower Arkansas – Maumelle

**ECOREGION** - Ouachita Mountains – Fourche Mts.

Topography - Gently sloping generally north to south. Grading constrained by buildings to remain.

Design Approach - Campus design will minimize grading to reduce impacts and integrate with existing facilities in area.

Storm Water – Two primary drainage basins flowing from north to south across I-630. Detention required for increased runoff.

Design Approach – Mimic forested original site runoff volume, minimize pollutants. Rain gardens, Porous Paving and Wetland s incorporated into site to achieve storm water goals.

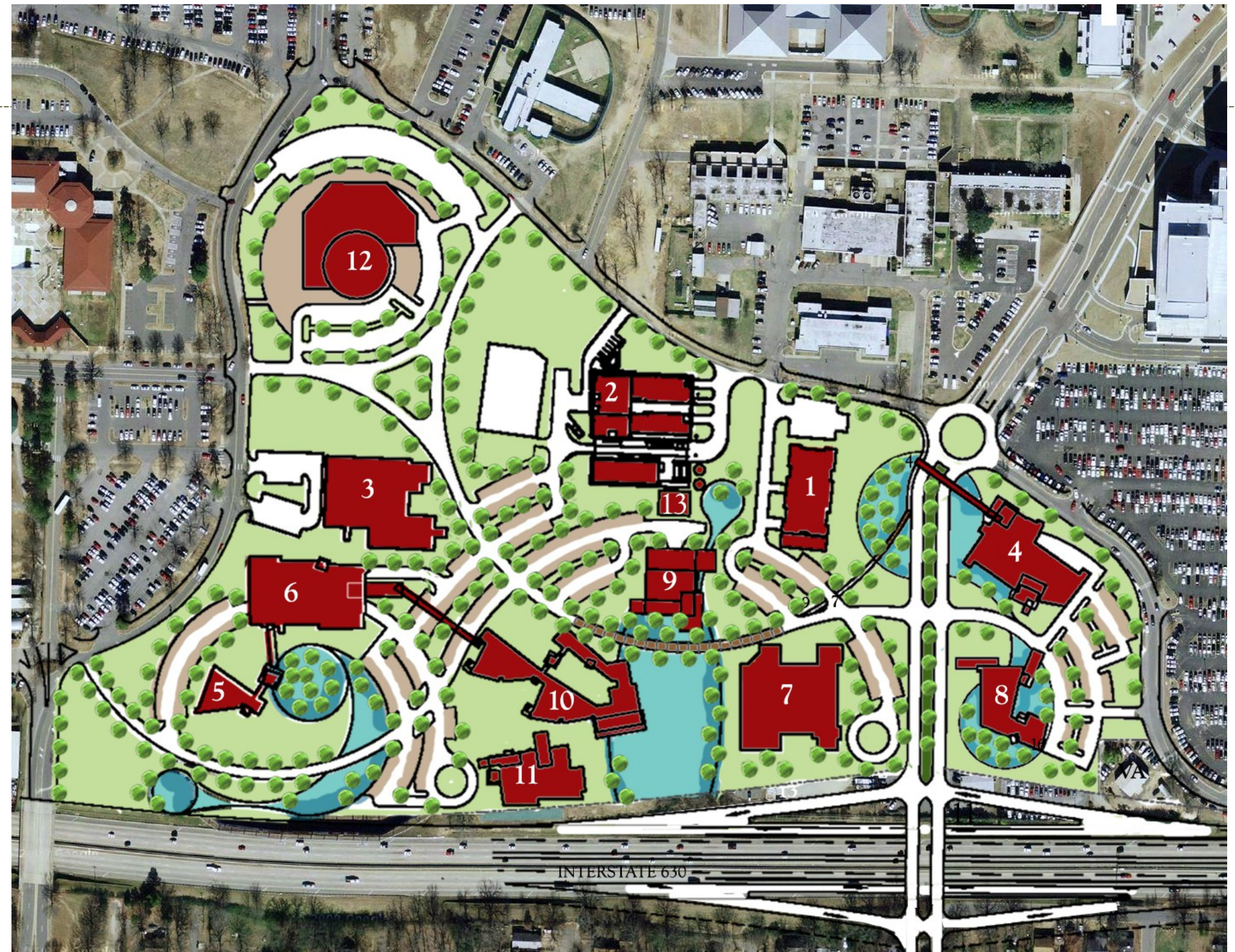


UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES

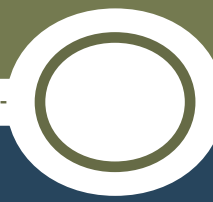


**HABITAT** - “an area or environment where an ecological community normally lives”

- 1 PDC
- 2 West Central Energy Plant
- 3 Red Cross
- 4 I.T. Support - 26,000 sf (52,000x2)
- 5 Day Care (10,000 sf)
- 6 Parking Structure
- 7 Materials (Recycling)
- 8 Facilities Administration - 13,000 sf (39,000x3)
- 9 Decision Support - 17000 sf (34,000x2)
- 10 “Healthy Innovations” Demonstrations 33,000 sf (66,000x2)
- 11 Learning Center - 15,000 sf (30,000x2)
- 12 Business Tower Development
- 13 Cryo



**UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES**

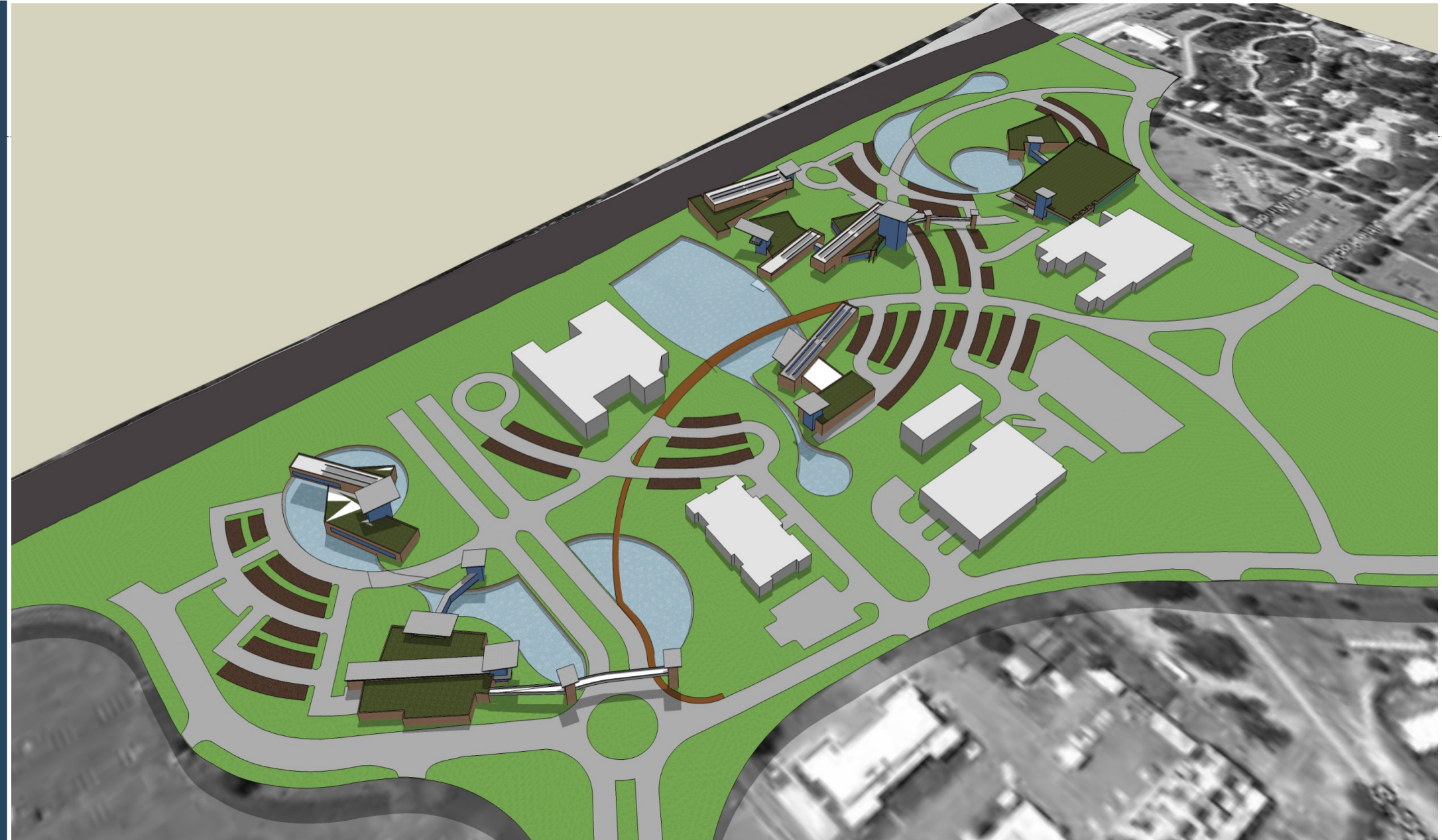


## ARCHITECTURAL OVERVIEW

The University of Arkansas for Medical Sciences campus has been developed incrementally over the years with an overriding trend towards increasing the density of services and facilities in the central core.

The intent for the proposed Sustainable Business Village, however, is to make valuable area in the central core available for clinical functions by relocating “soft”, non-clinical services to the southwest portion of the campus in a lower density configuration.

This low density approach will improve accessibility and improve the quality of workplace environment by taking advantage of innovative environmental opportunities.



## UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES





## ARCHITECTURAL

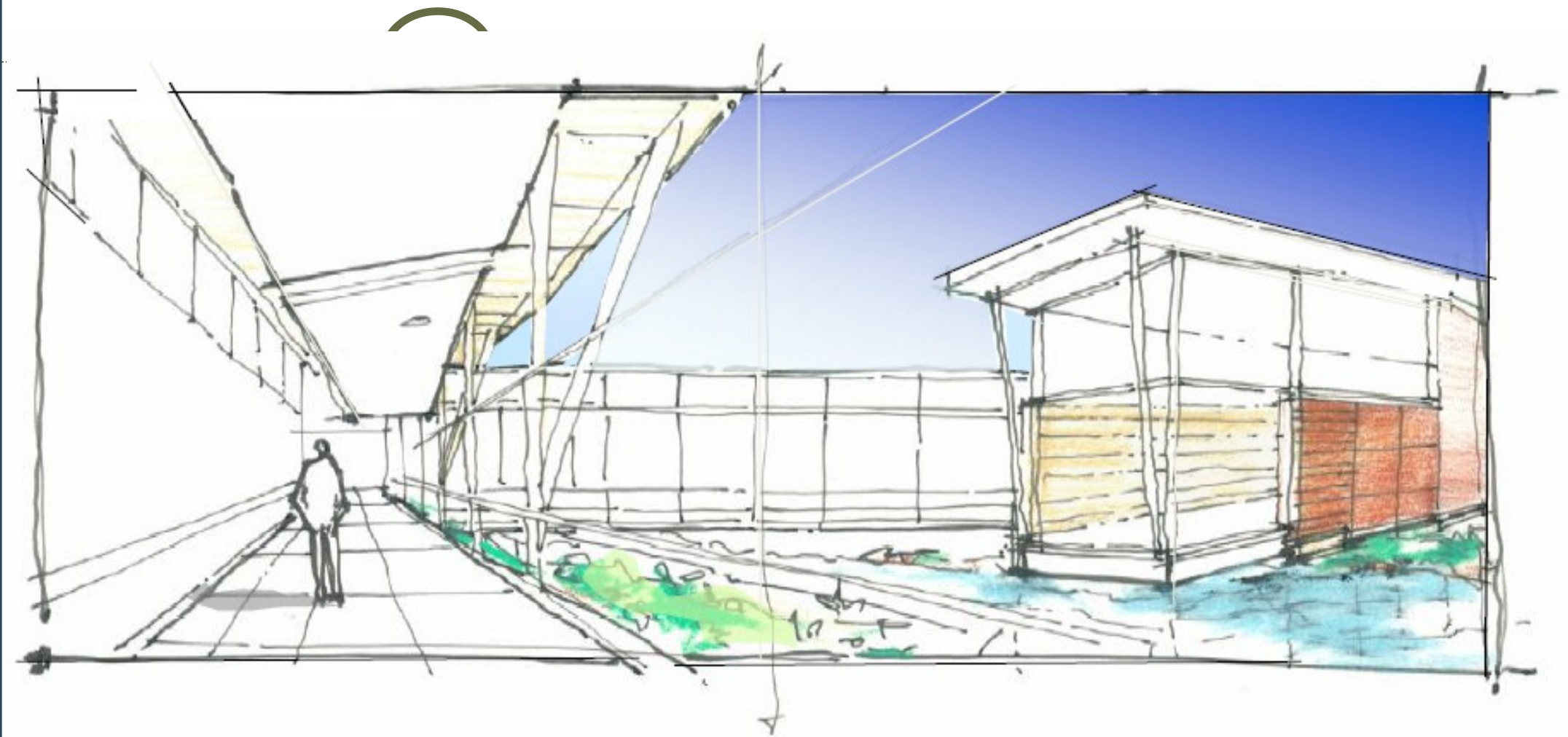
### Guiding Principles

- Attain LEED\* Platinum Certification U.S. Green Building Council Leadership in Energy and Environment Design
- Building materials should be compatible in type, color and appearance to the existing materials found on the UAMS Campus. These materials should be environmentally appropriate.

Architecture should utilize energy systems and environmental features that demonstrate innovation.

Buildings should be oriented on the site to take advantage of daylighting, passive solar and active solar energy systems.

Architectural layout and design should recognize the importance of providing a quality environment that provides views, comfort, wayfinding and accessibility.



UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES





## ARCHITECTURAL

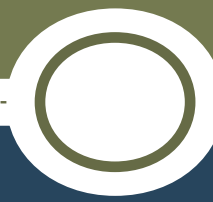
### Green Opportunities

- Green Roofs
- Daylighting
- Passive Solar
- Active Solar Panels
- Vegetative Walls
- Wind Turbines



UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES





## RESTORATION ECOLOGY -

“an intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity and sustainability”

- 1 Wetland – Storm Water Retention
- 2 Shallow Water Marsh
- 3 Cypress/Tupelo Bosque
- 5 Storm water Overflow-Outlet
- 6 Porous Parking
- 7 Reflective Concrete Paving
- 8 Native Grass Wildflower Meadow
- 9 Bio-Retention
- 10 Organic Sustainable Farm
- 11 Wind Turbines
- 12 Green Boulevard/Street
- 13 Boardwalk
- 14 Maintenance Yard
- 15 Round-a-bout



UNIVERSITY OF ARKANSAS  
FOR MEDICAL SCIENCES



## SITE GUIDING PRINCIPALS

*“Design strategies that incorporate storm water to create innovative, resourceful and compatible spaces for people, plants and wildlife.”*

- Constructed Wetlands
- Shallow Marsh Ecology
- Bio-Retention
- Porous Parking
- Green Streets
- Bicycle Lanes
- Pedestrian Trails and Boardwalks
- Traffic calming
- Rain Gardens

## BEST MANAGEMENT PRACTICES

*“Structural, vegetative or managerial*

*practices used to protect and improve*  
**UNIVERSITY OF ARKANSAS**  
*our surface waters and groundwater”*  
**FOR MEDICAL SCIENCES**

