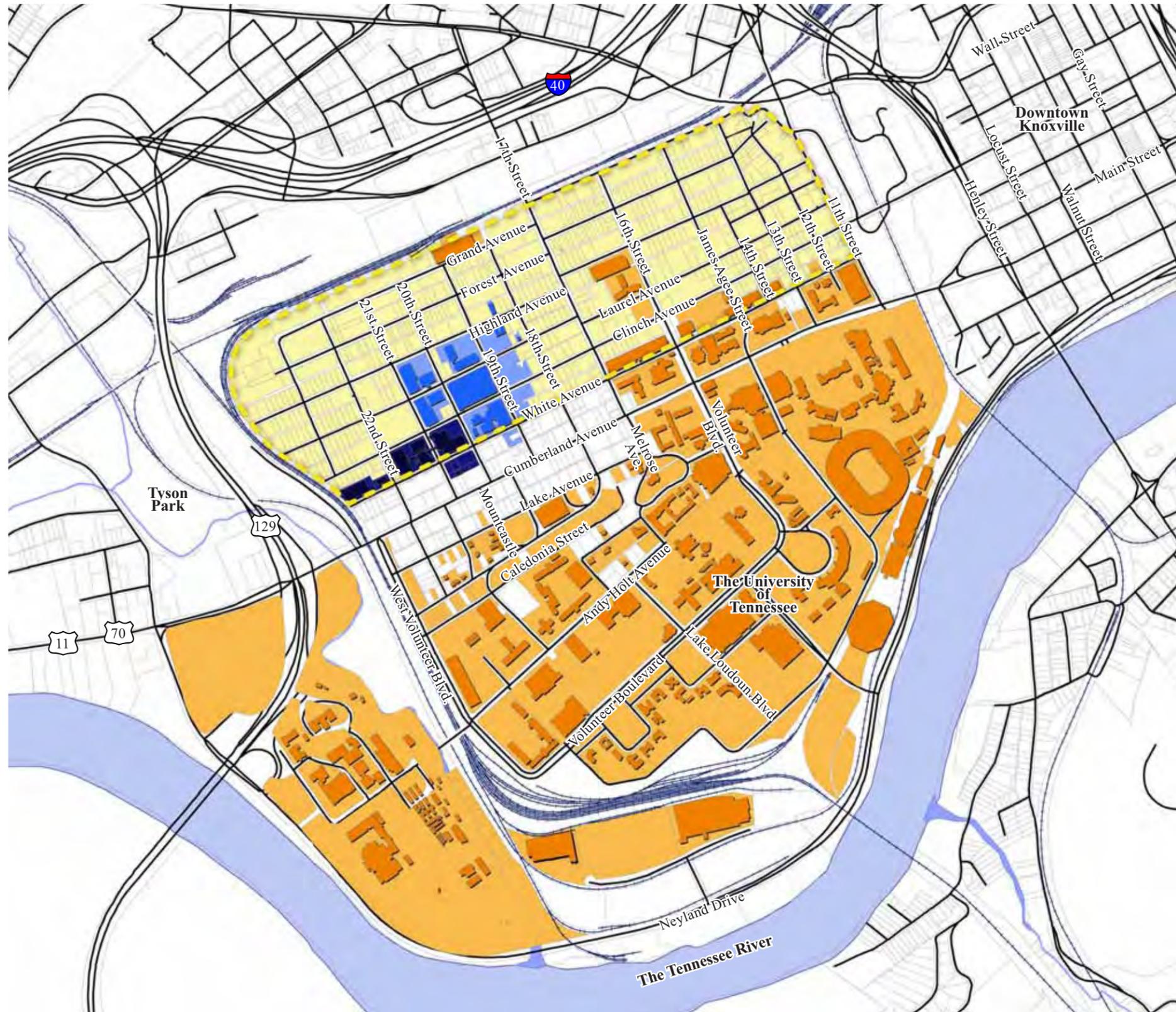




2.0 Context Analysis

Existing conditions throughout the Cumberland Avenue area are analyzed in the context analysis. Field surveys, Geographic Information Systems, and stakeholder and advisory committee meetings were used to gather information. This section is both an inventory and an analysis of the physical conditions and the potential for development.



Fort Sanders Neighborhood
 University of Tennessee
 East Tennessee Children's Hospital
 Fort Sanders Regional Medical Center

Major Stakeholders

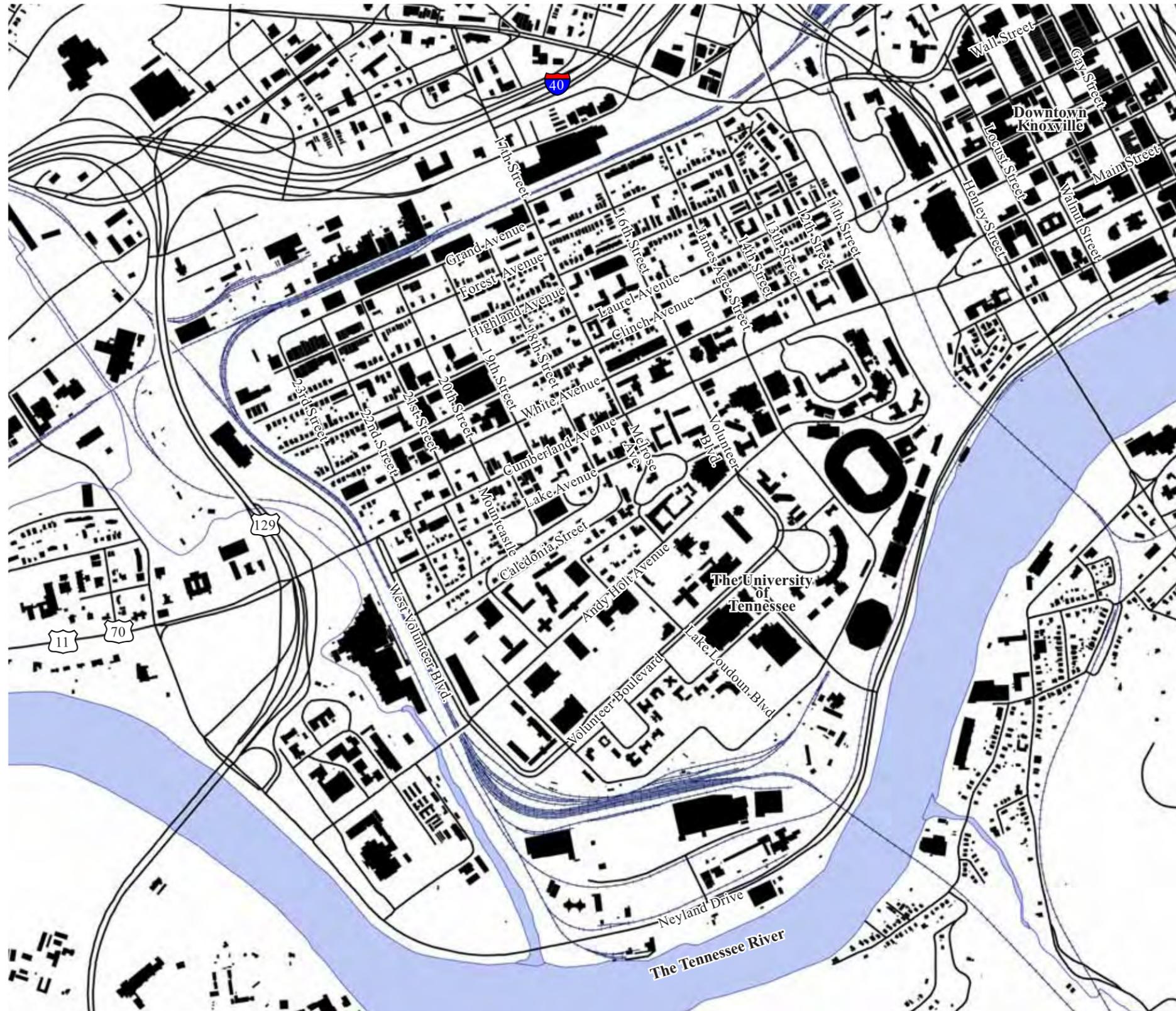
Cumberland Avenue is surrounded and influenced by a set of major area stakeholders.

The University of Tennessee – The University’s beginnings in the area date back to the 1820s with its first building built on “the hill”. The University has experienced significant expansion since the 1950s and is currently planning on accommodating an additional 8,000 students in the coming years.

The Fort Sanders Regional Medical Center – This hospital has been in this location since 1919 and is a major institution and employer in the area. Its growth and expansion continue to serve as an important economic engine for the Cumberland Avenue.

The East Tennessee Children’s Hospital – This hospital has been in this location since 1937 and is continuing to grow and expand.

The Historic Fort Sanders Neighborhood – This neighborhood dates back to the area’s original urban expansion from downtown after the Civil War with many historic homes dating to the 1890s. It faces the challenge of continued growth of student housing, parking demands and protection of historic resources.



Built Environment

The built environment reflects a variety of patterns and scales that are sometimes conflicting.

University

- Large-scale built form/buildings
- Large blocks
- Campus inwardly focused

Hospitals

- Large-scale built form/buildings
- Built within the historic block pattern
- Absorbing surroundings for surface and structured parking

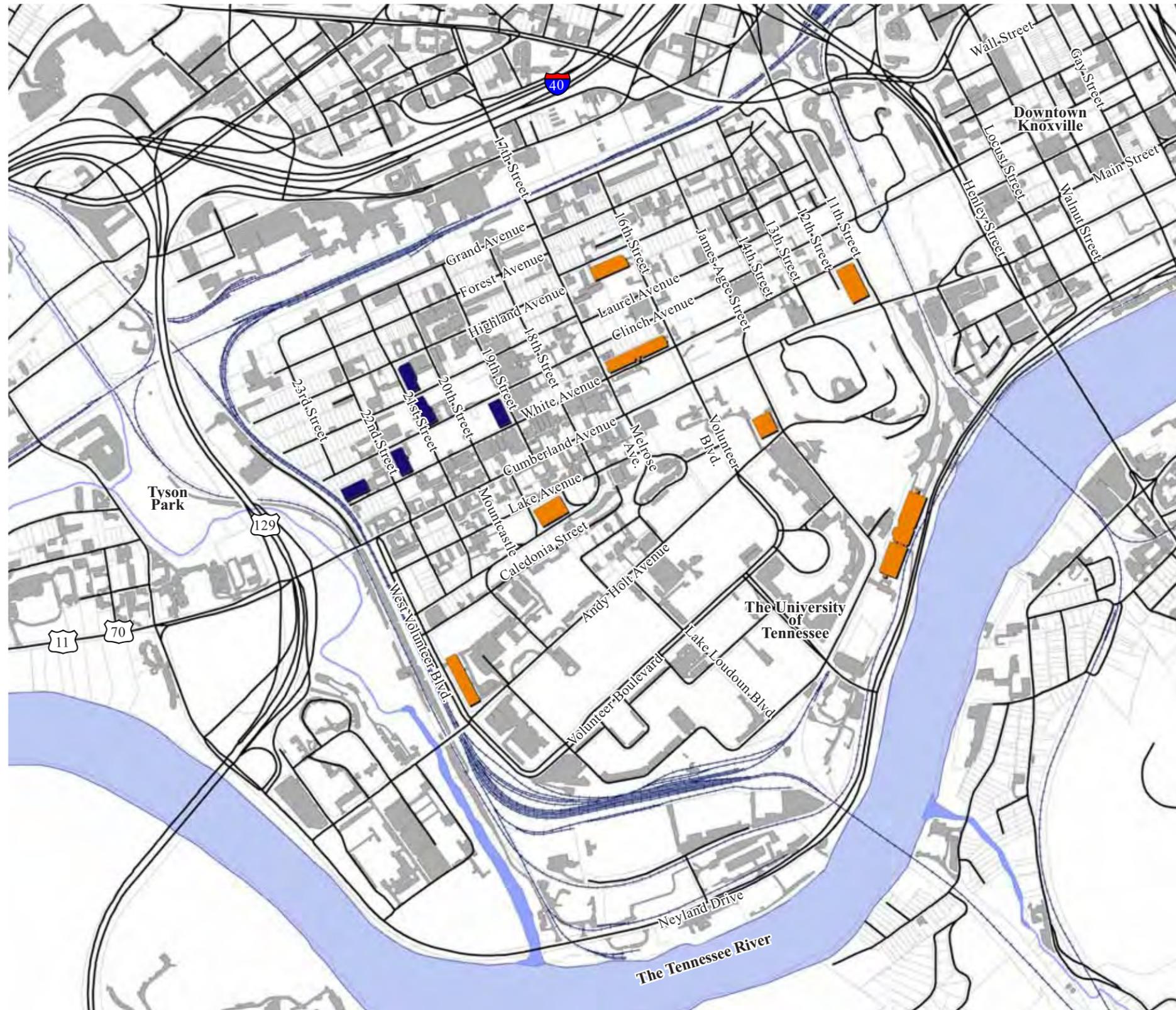
Fort Sanders Neighborhood

- Small-scale built form/buildings
- Built within historic block pattern
- Increasingly encroached upon by University and hospitals
- Transitioning from historic single-family homes to multi-family student housing

Cumberland Avenue Strip

- Small-scale, single-story commercial strip pattern of buildings
- Built within historic block pattern
- Inconsistent building-to-street relationship creates a “missing tooth” pattern along Cumberland Avenue

Existing Built Environment

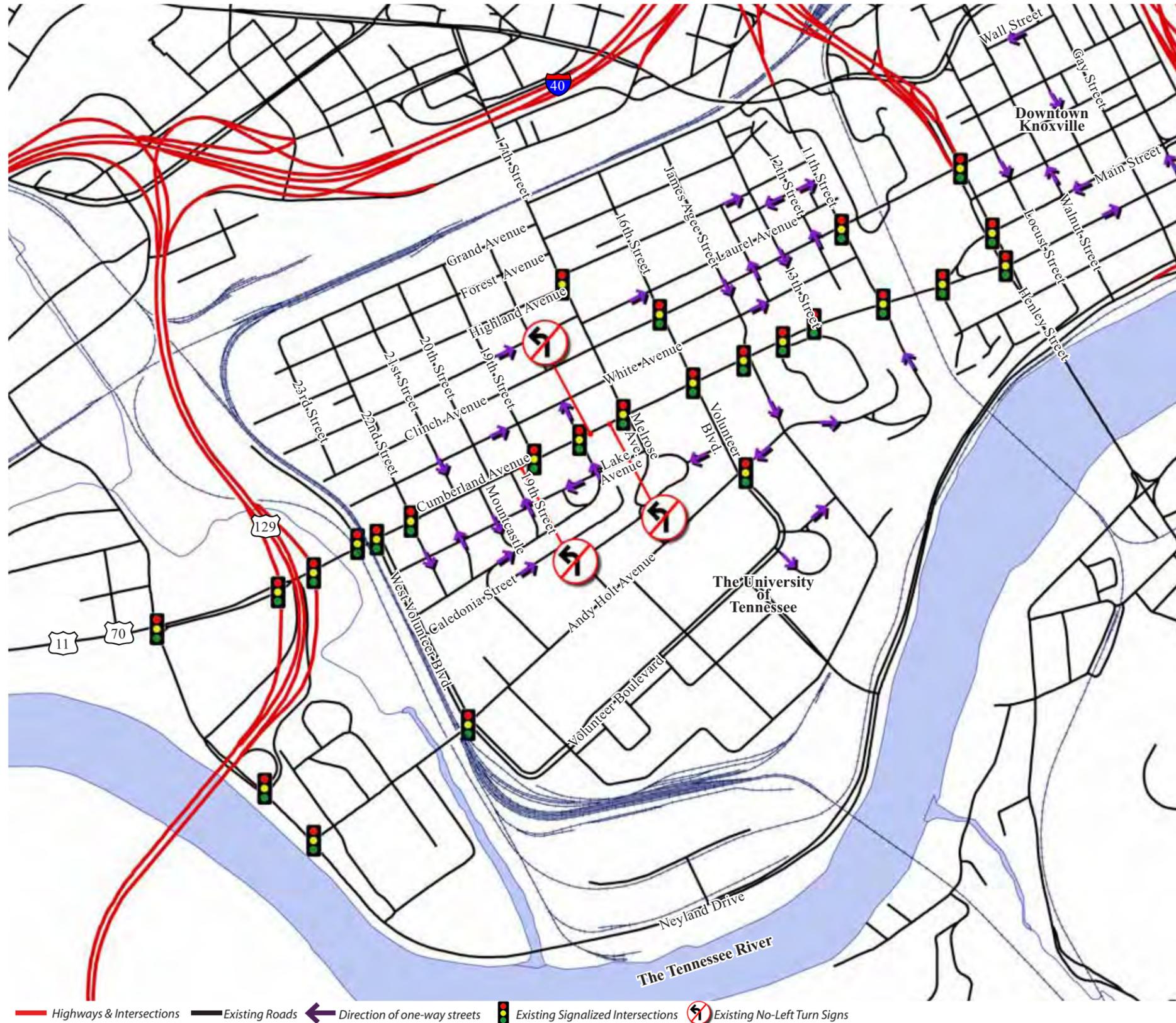


■ University of Tennessee Parking Structures
 ■ Hospital Parking Structures
 Surface Parking Lots

Parking

Parking is a major issue for all the stakeholders along the Cumberland Avenue strip. This diagram highlights the pattern of surface parking lots and structures in the area. Key issues include:

- The University’s parking approach has been to locate new parking structures on the “edges” of the campus in order to minimize vehicular traffic in the center.
- The hospitals follow a similar strategy but on a smaller geographic scale with their parking decks located in a 3-4 block area, focused on Highland Ave. and 22nd Street for access.
- A significant amount of land along the Cumberland Avenue strip and around the hospitals is taken up in surface parking lots, owned and managed by many different entities.
- There exists a clear potential to work with the hospitals and the University to strategically plan future parking decks to accommodate shared parking that could serve both the strip and the institutions.



Street Network & Signalized Intersections

The pattern of access and connectivity in the area is a major influence on development and the character of Cumberland Avenue. Key issues include:

- The Tennessee River, railroads and Interstate 40 effectively “box in” the area, limiting connections to surrounding areas. Cumberland Avenue, Neyland Drive, 17th Street, Clinch Avenue and 11th Street are the only streets that connect to outside of the study area.
- The pattern of one-way streets is largely due to the desire to maximize on-street parking, it results in a confusing pattern for visitors and limits the effectiveness of the area’s street network.
- The restricted left turns (17th, 18th, 19th) reflect the lack of a left-turn lane on Cumberland Avenue and add to the area’s confusing way-finding and limit accessibility.



xx,xxx ADT: Source - Tennessee DOT (xx,xxx ADT) Tube Counts by Project Team, Fall 2006

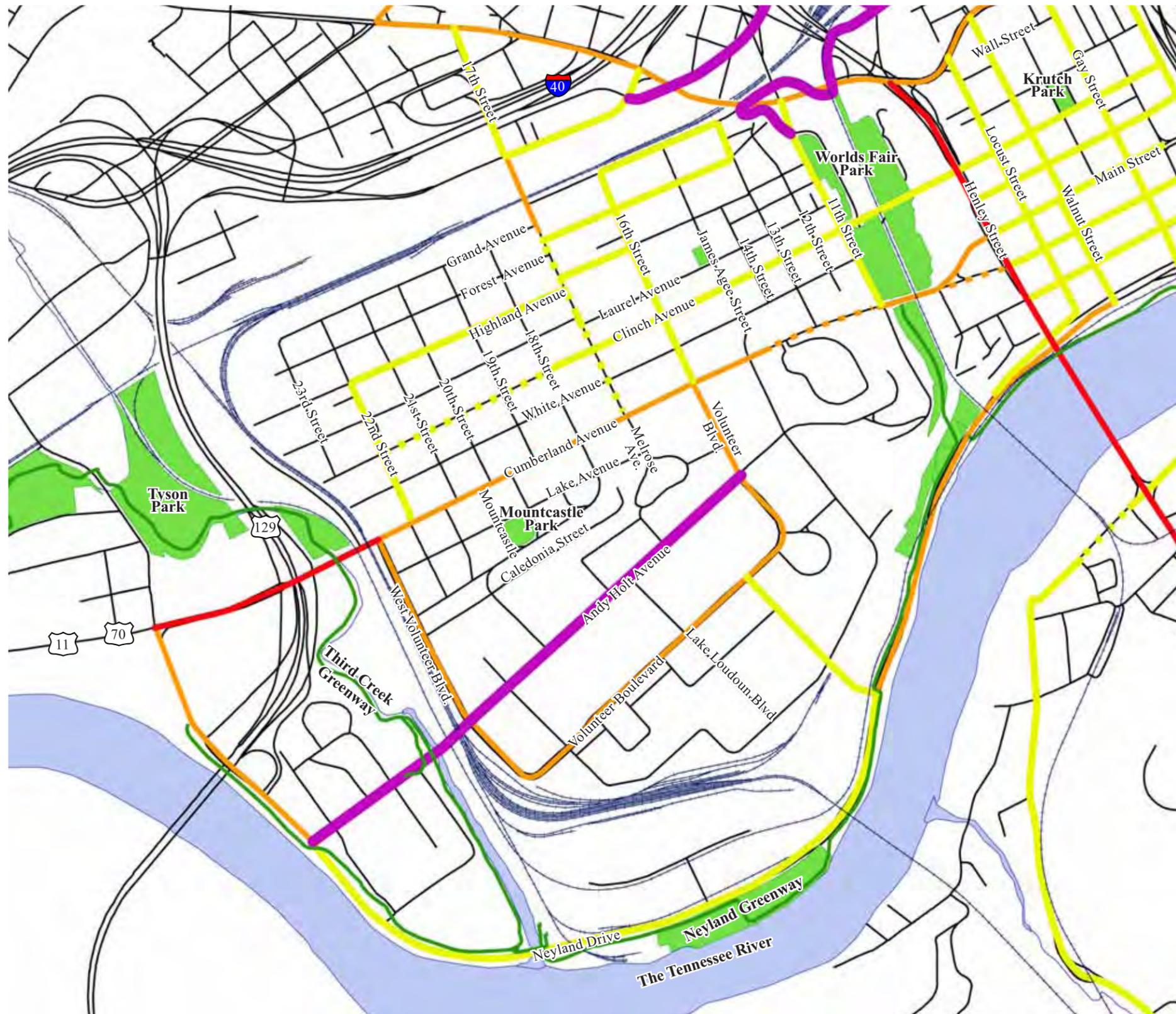
— Key streets that carry traffic

— Key route for major destinations

Traffic Volumes

The volume of traffic on key streets reflects how drivers gain access to the destinations of the University and hospitals.

- 17th Street from Interstate 40 decreases in volume, reflecting trips going to the hospitals using Highland Avenue.
- Cumberland Avenue from west of Alcoa Highway decreases in volume reflecting the use of Neyland Drive and West Volunteer as access to the University, and 22nd Street as access to the hospitals.
- The University's parking and transportation strategy will continue to reinforce this pattern with an emphasis on Neyland Drive, major entrances at West Volunteer, and future emphasis on the James Agee Street entrance as the major eastern point of access.
- This volume pattern offers a clue to where critical access routes are and where flexibility exists on Cumberland Avenue to explore lane alternatives (between West Volunteer and 16th Street).



Open Space & Bicycling Comfort Levels

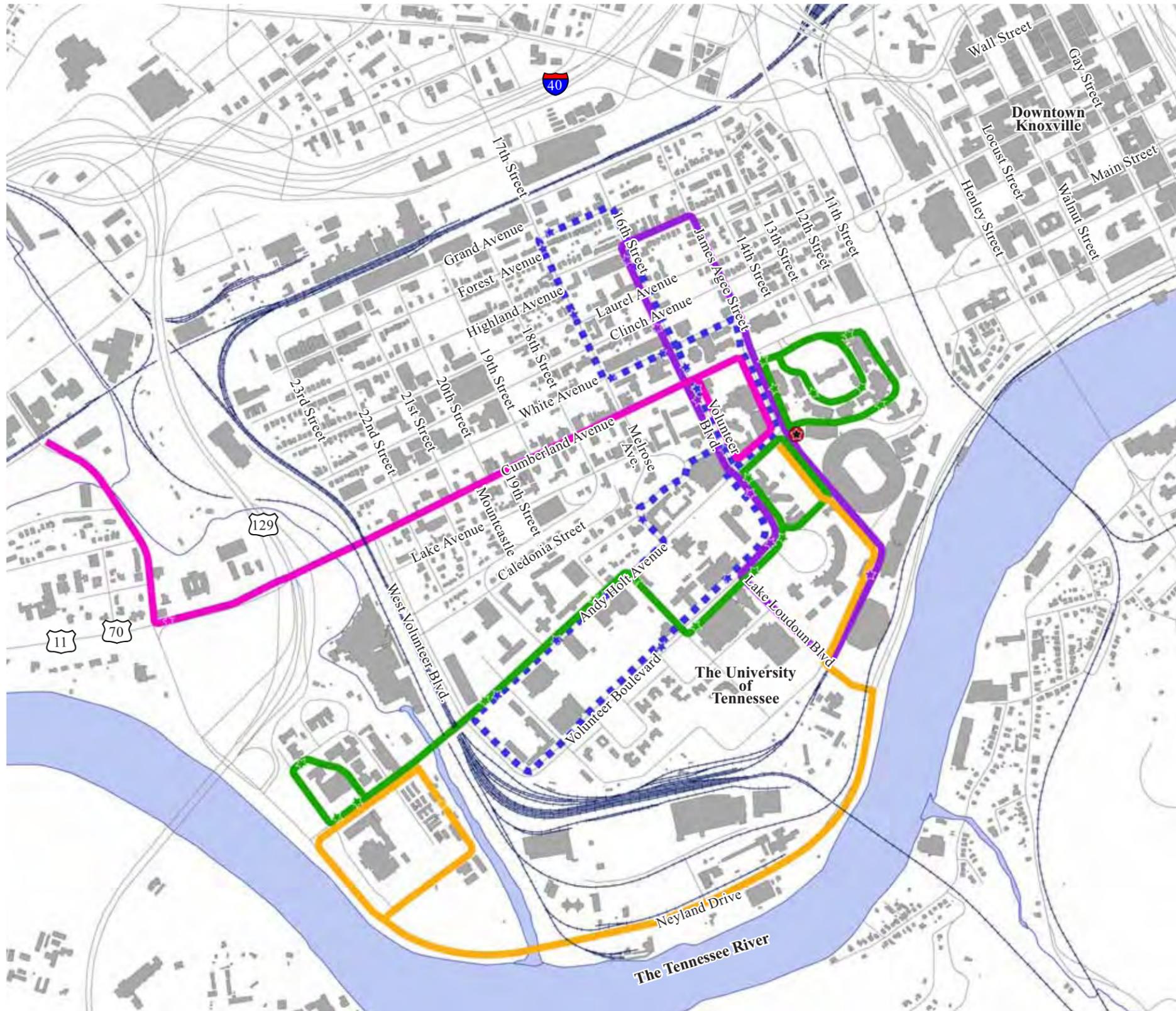
The area is bordered by significant open spaces and greenways, but is limited in its ability to connect these resources to Cumberland Avenue.

- Tyson Park and the Third Creek Greenway run along the western edge of the study area but are disconnected from the Cumberland Avenue strip by the railroad overpass that limits space for sidewalks or bike lanes on Cumberland Avenue. The existing sidewalk is narrow and in disrepair.
- Cumberland Avenue is an important link in the area’s bicycle system yet it is designated as a “low comfort” street due to the traffic conditions and lack of bicycle accommodations on the street.

Transit

The Cumberland Avenue corridor is well served by Knoxville Area Transit (KAT), encompassing three distinct services: the T (funded by the University of Tennessee), the Trolley (connecting to downtown), and KAT’s fixed routes.

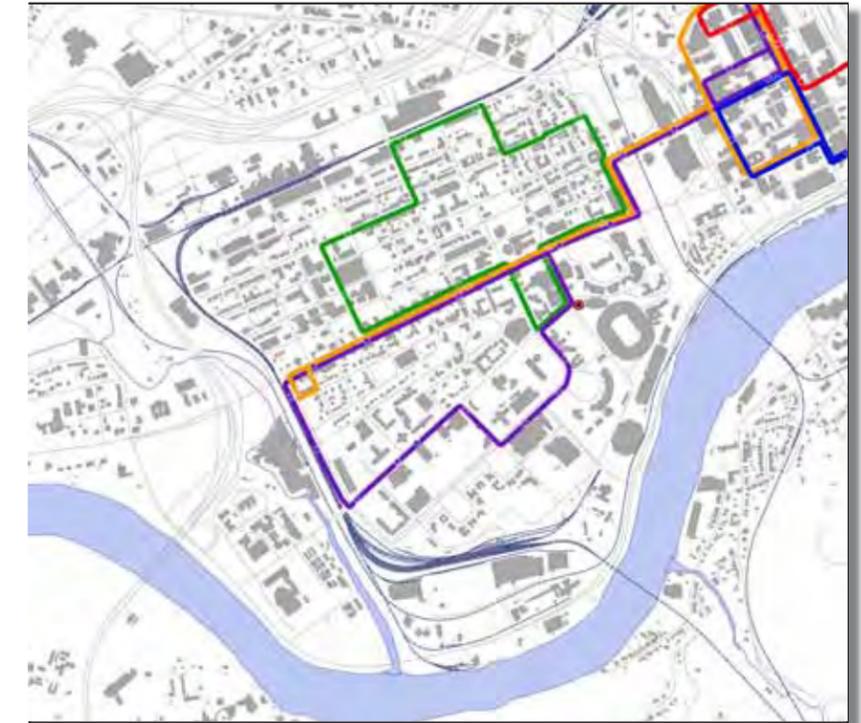
Open Space Greenways High Comfort Medium Comfort Low Comfort Not Recommended Steep Grade (Source: Knoxville Regional Transportation Planning Organization)



T-Routes: — East-West Route — North-South Route — The T — The T: Late Night — Ag Express Route (Source: University of Tennessee Transportation System, July 2006)

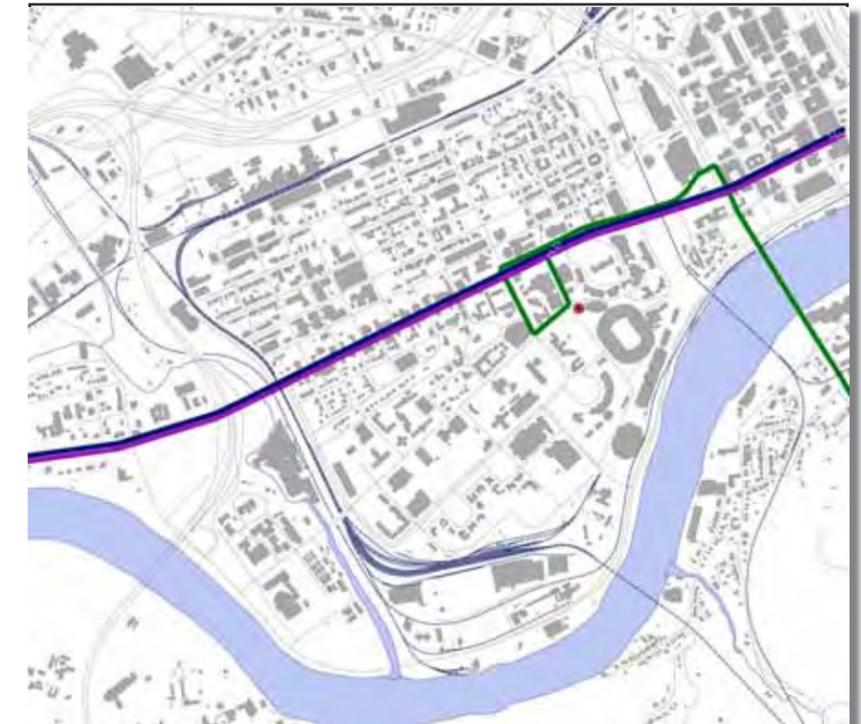
Transit Routes

Trolley Routes



Orange Line Blue Line Green Line Red Line Late Line

KAT Fixed Routes



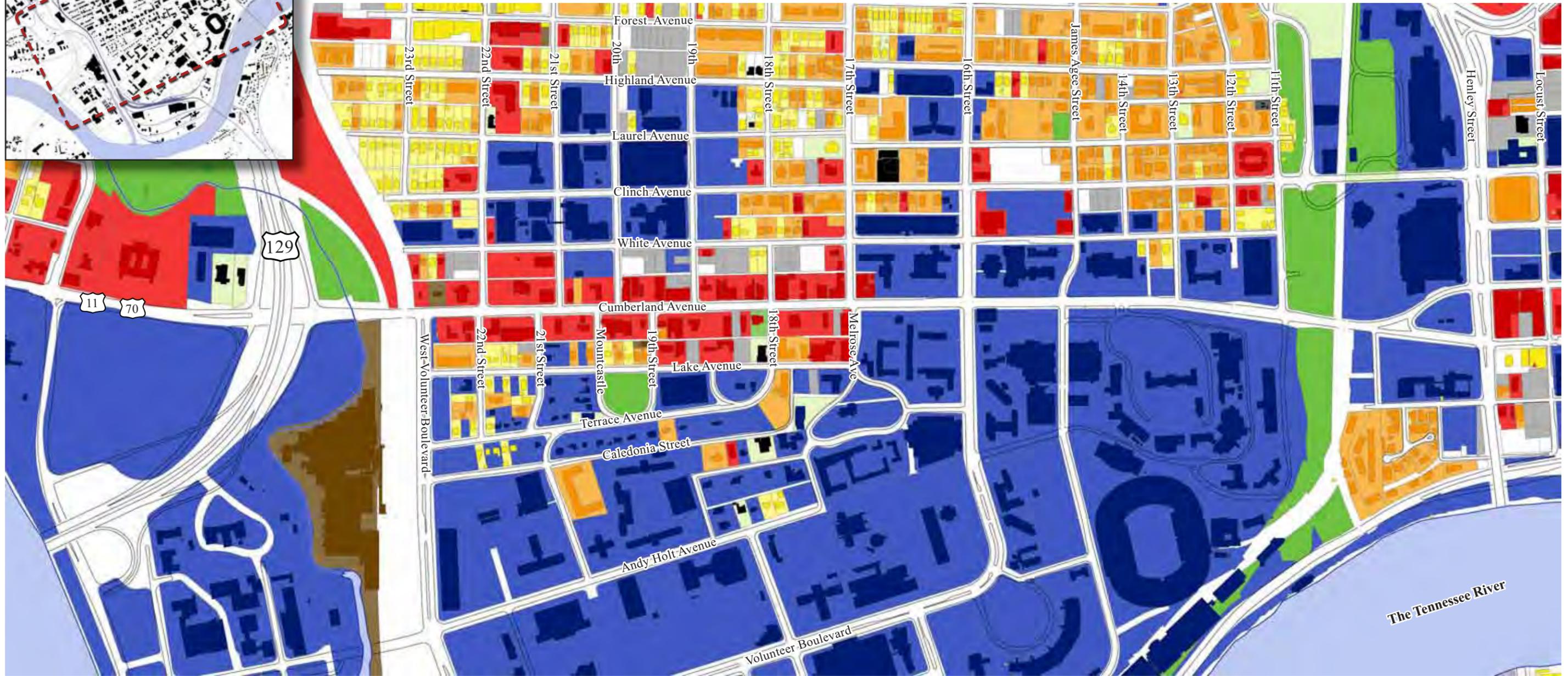
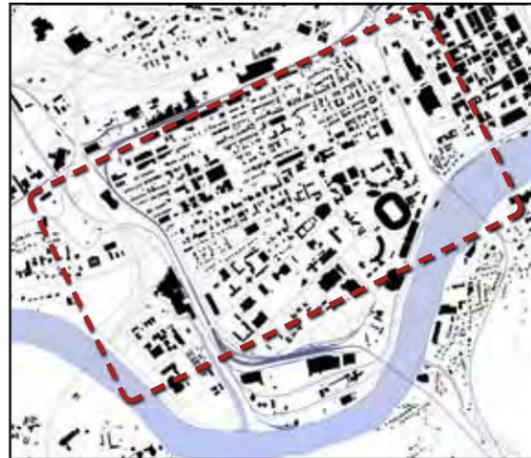
Route 10 Route 11 Route 44

Context Analysis

Existing Land Use

The pattern of existing land use reflects influence of the University and hospitals on the surrounding area. The Cumberland Avenue strip sits clearly in the middle of an expanding pattern of institutional uses and a densifying historic neighborhood.

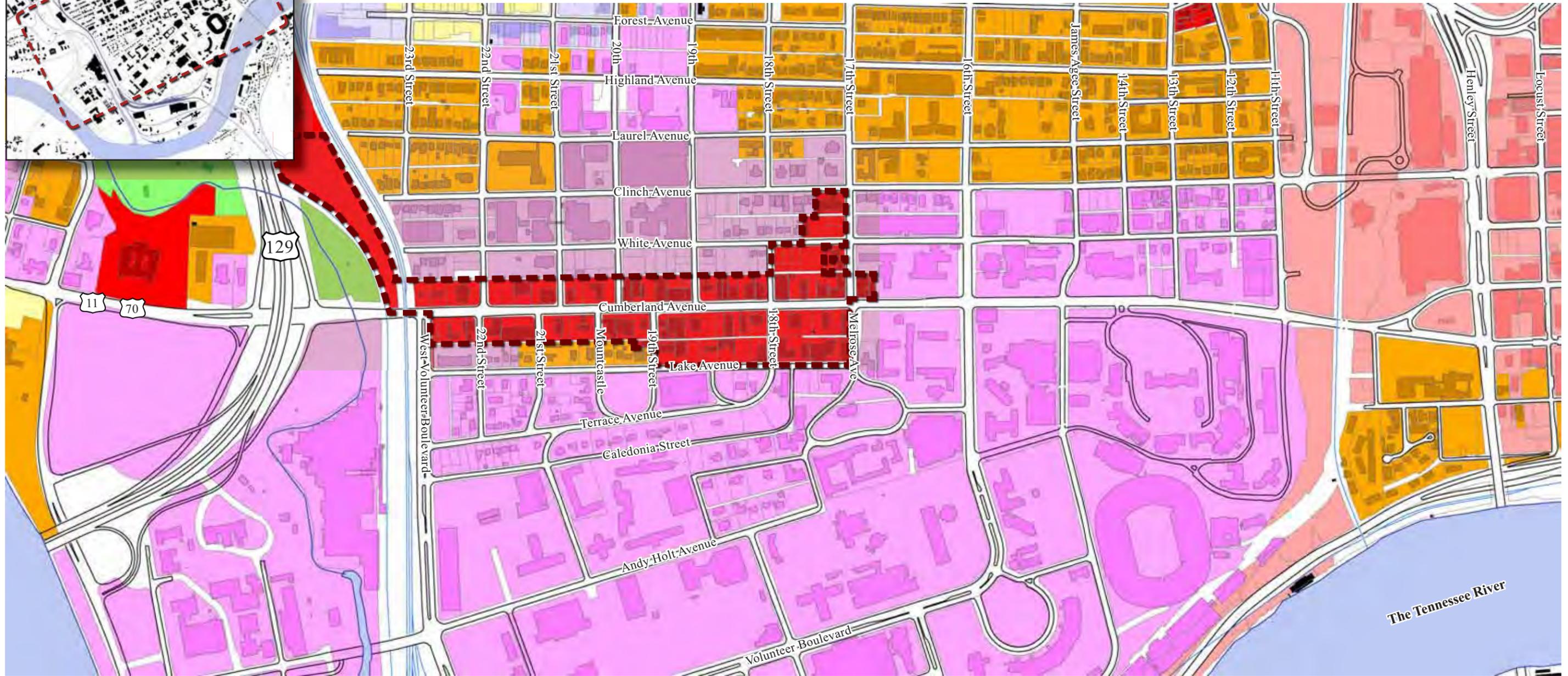
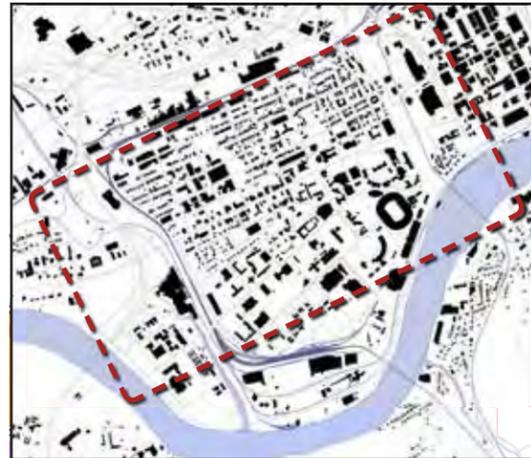
Cumberland Avenue is well-positioned for new housing and mixed-use development to help take pressure off of the Fort Sanders neighborhood and reconnect the University and hospitals to the strip.



Existing Zoning

The zoning pattern further reflects and codifies the important role the University and hospitals play in the land use of the area.

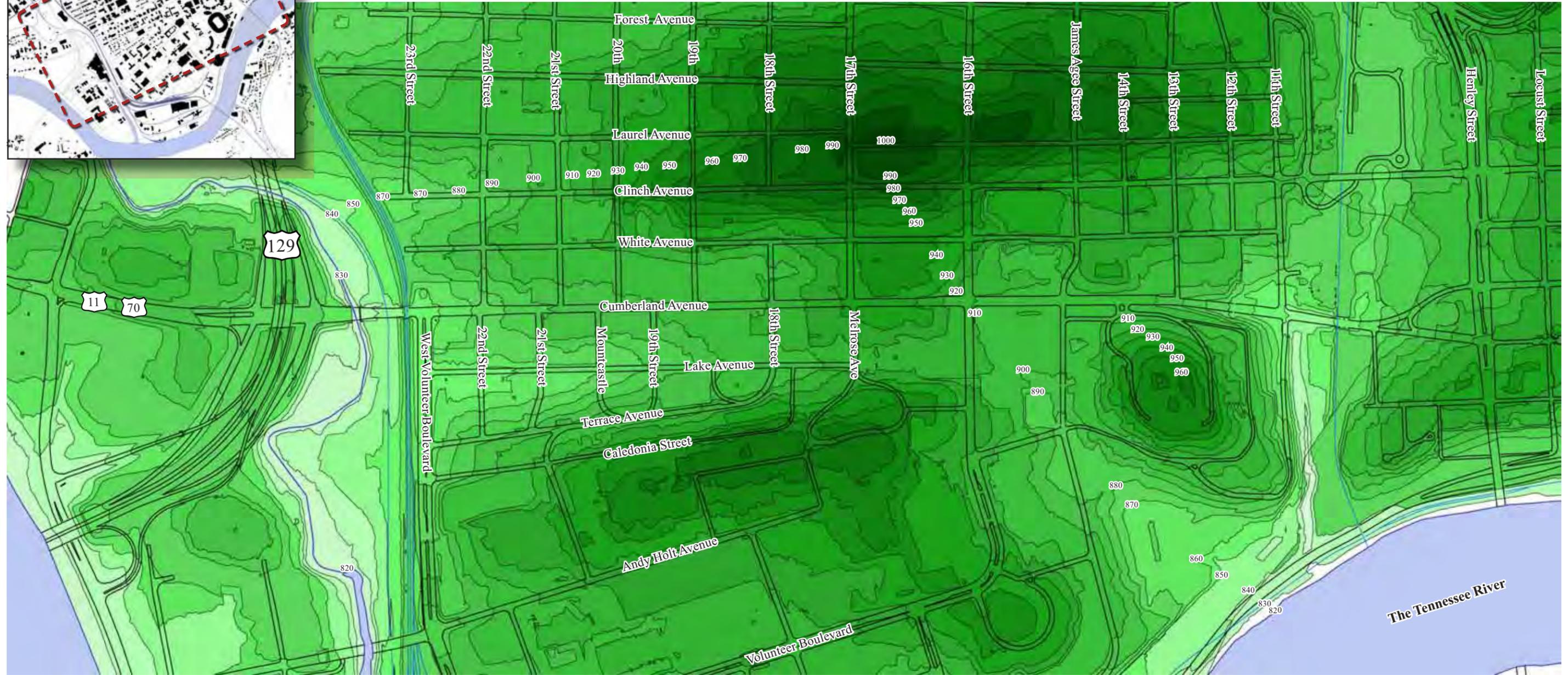
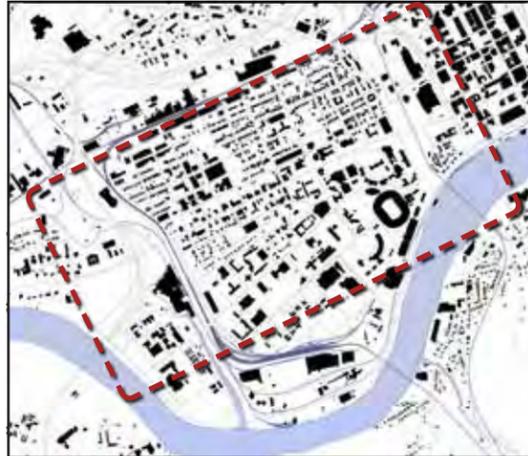
A critical issue is the boundary of the commercial (C-7) district that encompasses the Cumberland Avenue strip. The current boundary along the alleys does not recognize either the importance and value of regulating the form and use of the full blocks, or the long-term likelihood that development along Cumberland will get larger in scale and begin to expand to White and Lake Avenues.



Planned Residential
 Multifamily Residential
 Commercial
 Central Business District
 Office
 Light Industrial
 Open Space
 C-7 Zoning Boundary
 (Source: Knoxville-Knox County, Knoxville Utilities Board, Geographic Information System, 08/03/06)

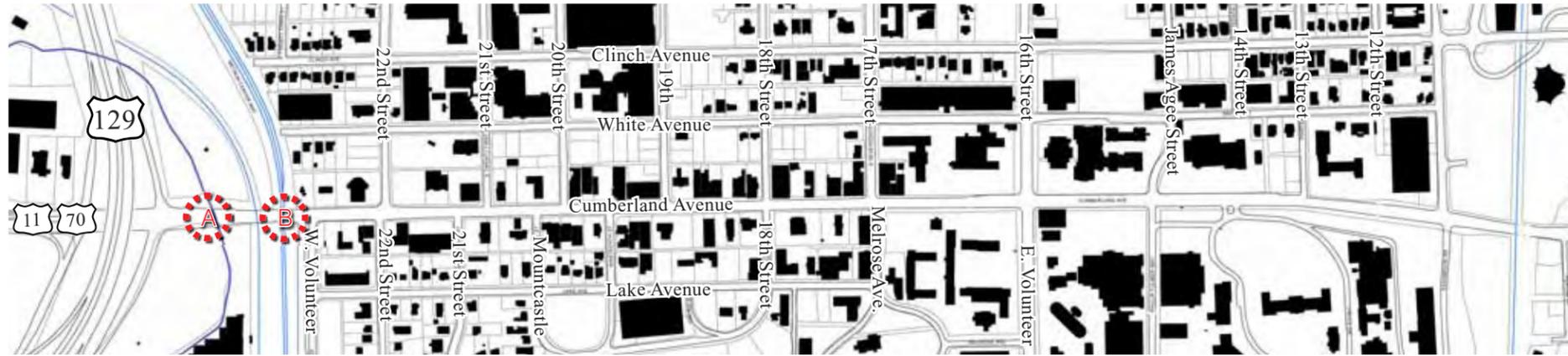
Topography

The area's topography has been an important factor in its history, including the location of Fort Sanders at the top of what is now 17th Street and the early development of the University of Tennessee on "the hill." This topography influences development today as Cumberland sits on the side of a significant slope, affording the ability to "tuck" development and structured parking into the hill, allowing for more density at potentially less cost and physical height.



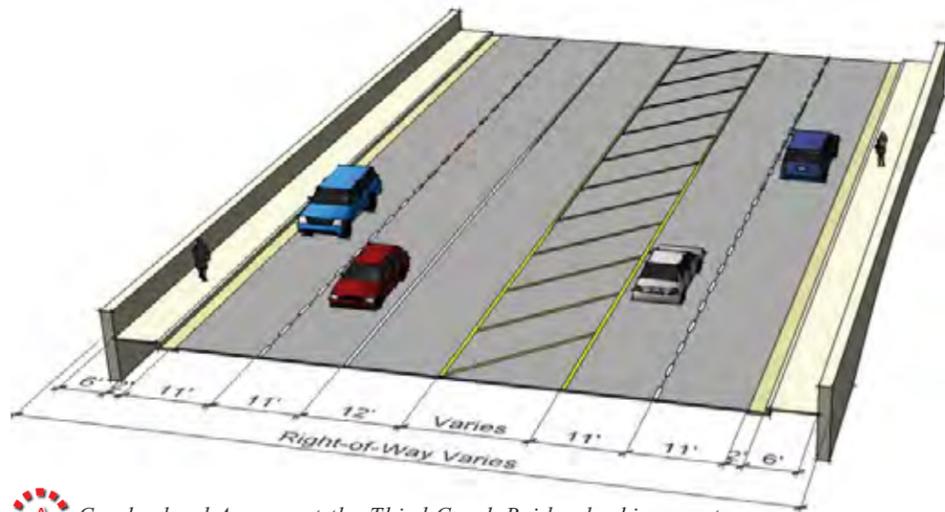
10' Contours

Context Analysis

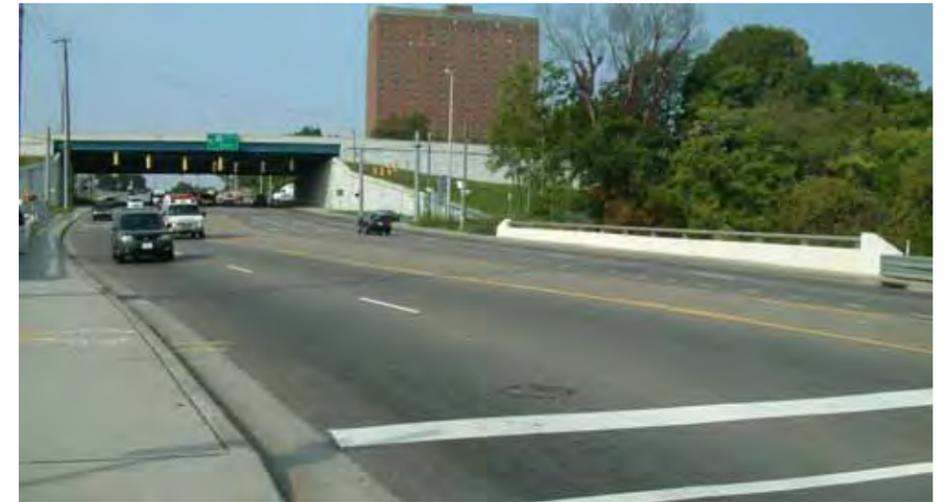


Key Map

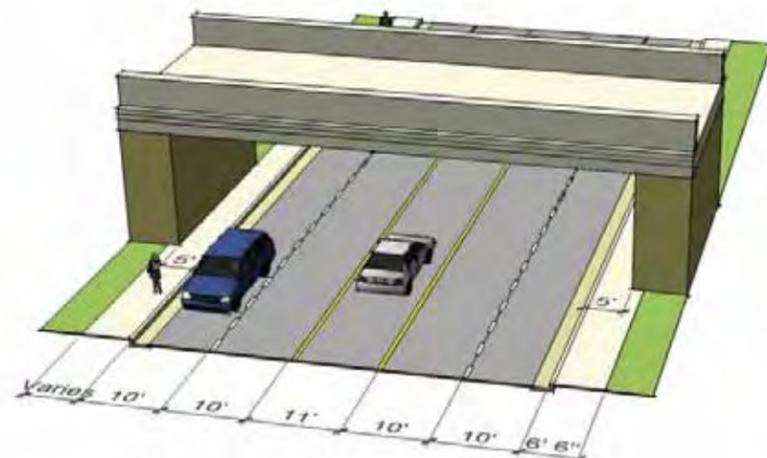
Existing Street Sections: Cumberland Avenue-West of Rail Bridge



A Cumberland Avenue at the Third Creek Bridge looking west



Cumberland Avenue at the Third Creek Bridge looking west

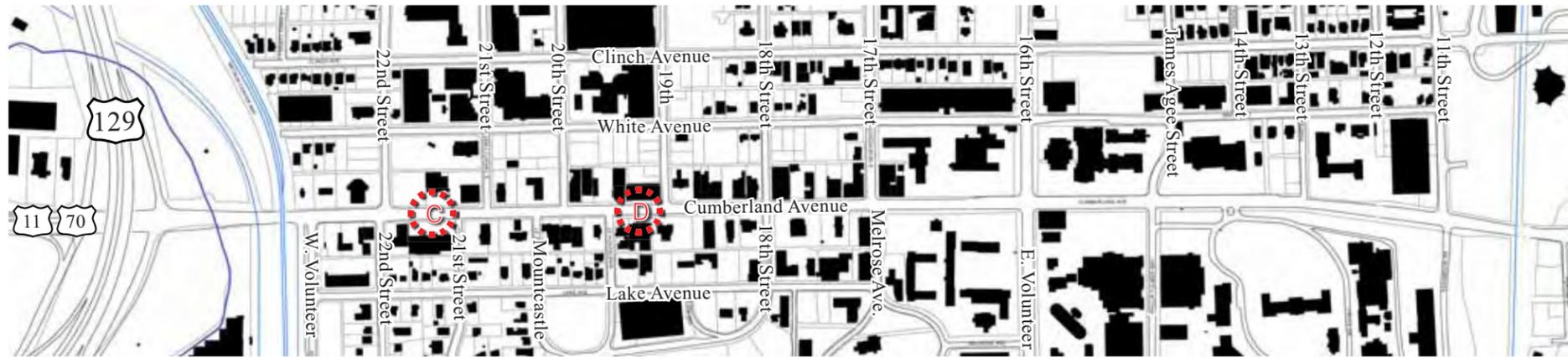


B Cumberland Avenue at railroad bridge looking east



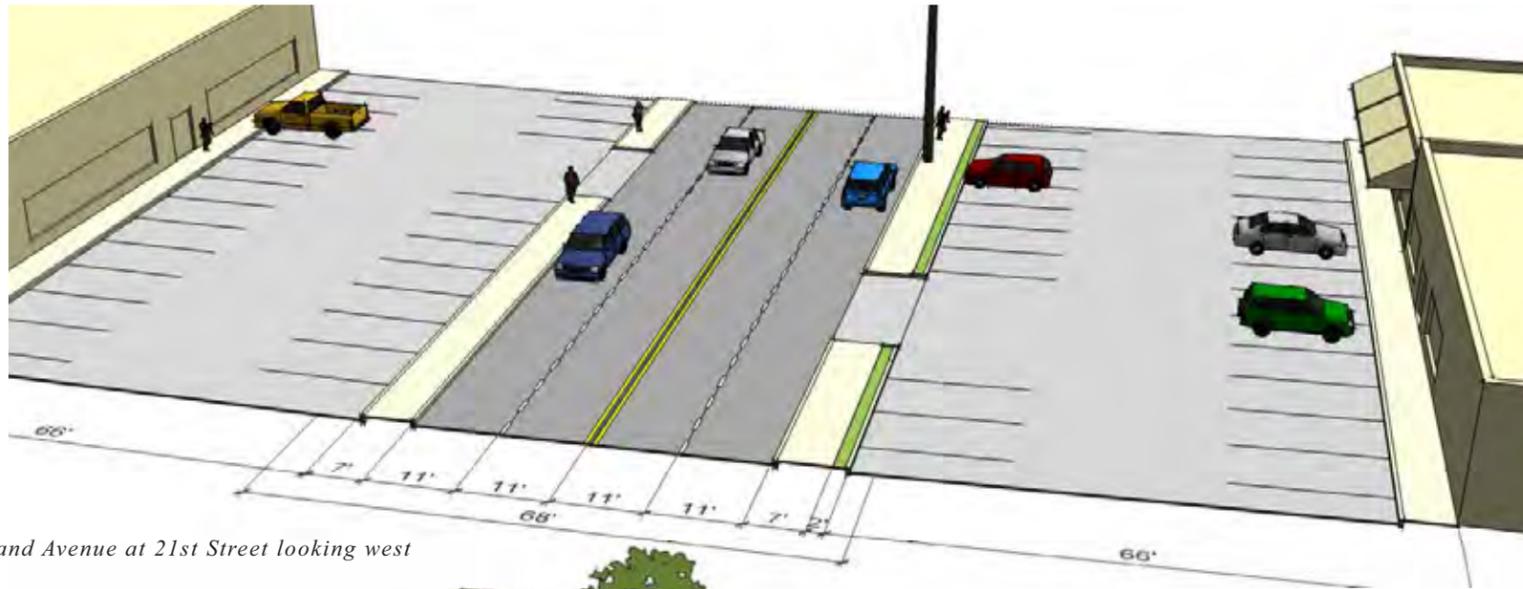
Cumberland Avenue at railroad bridge looking east

Context Analysis



Key Map

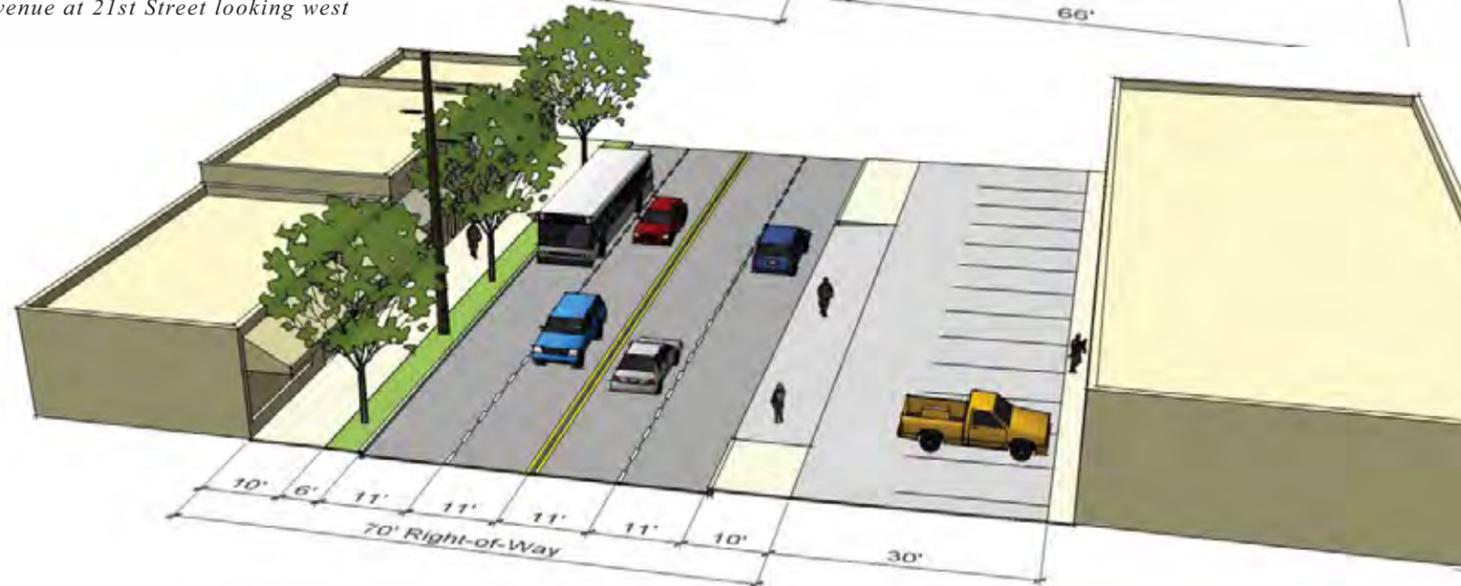
Existing Street Sections: Cumberland Avenue-22nd Street to 17th Street



Cumberland Avenue at 21st Street looking west



60'-0" setbacks along Cumberland Avenue at 21st Street looking west

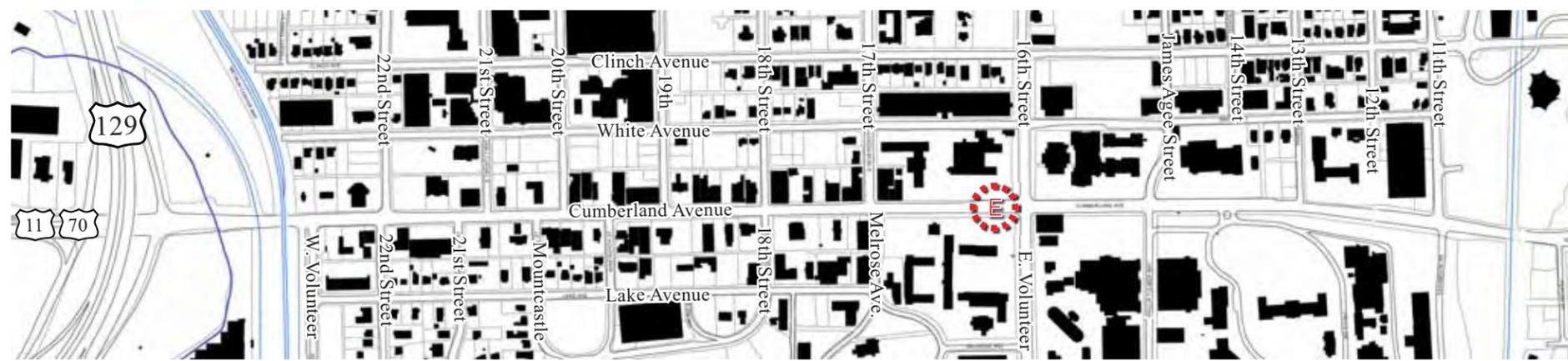


Cumberland Avenue at 19th Street looking to the east



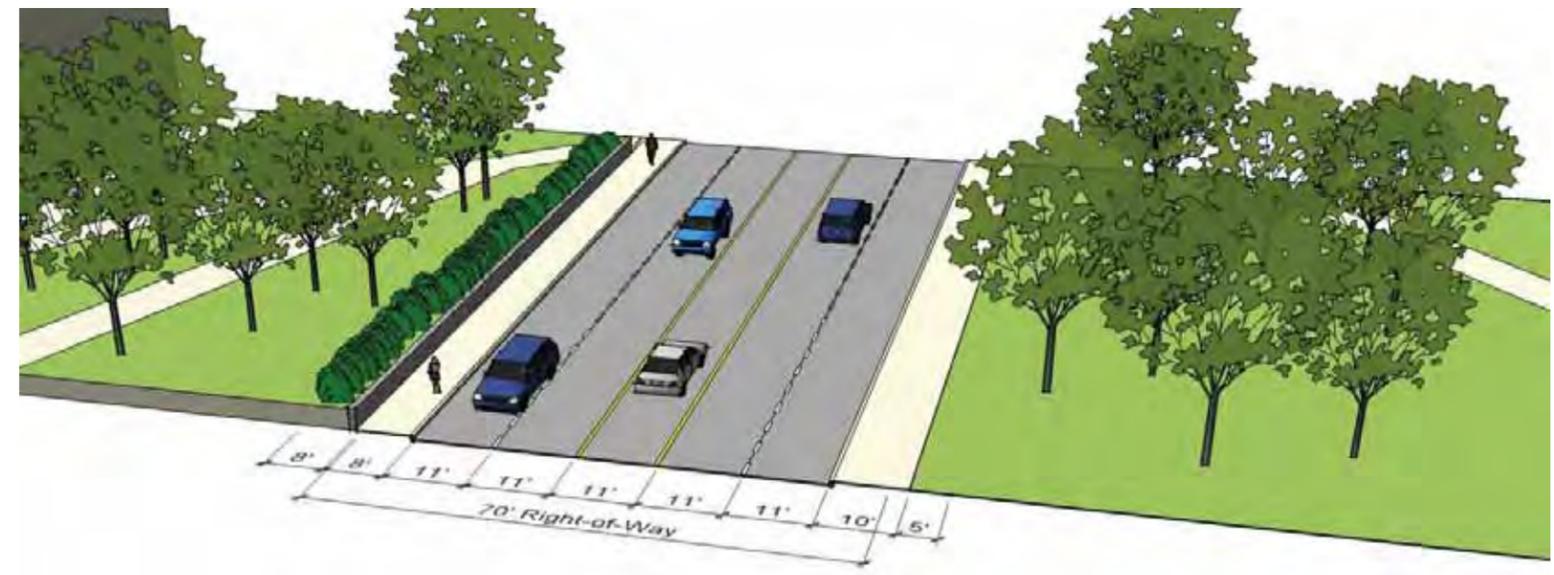
Sidewalk condition along Cumberland Avenue looking east

Context Analysis



Key Map

Existing Street Section: Cumberland Avenue-East of 17th Street



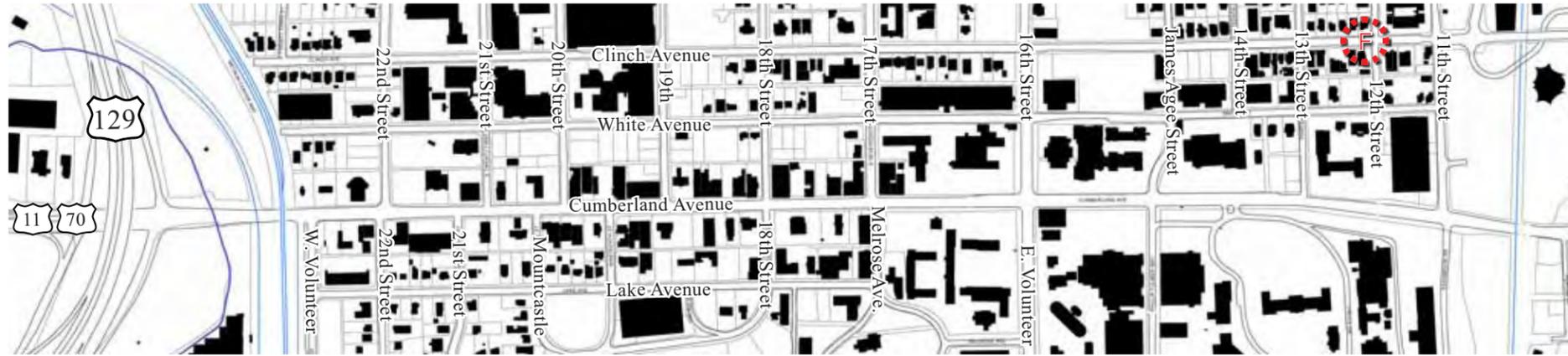
Cumberland Avenue at 16th Street looking west



Approach to 16th Street on Cumberland Avenue looking west

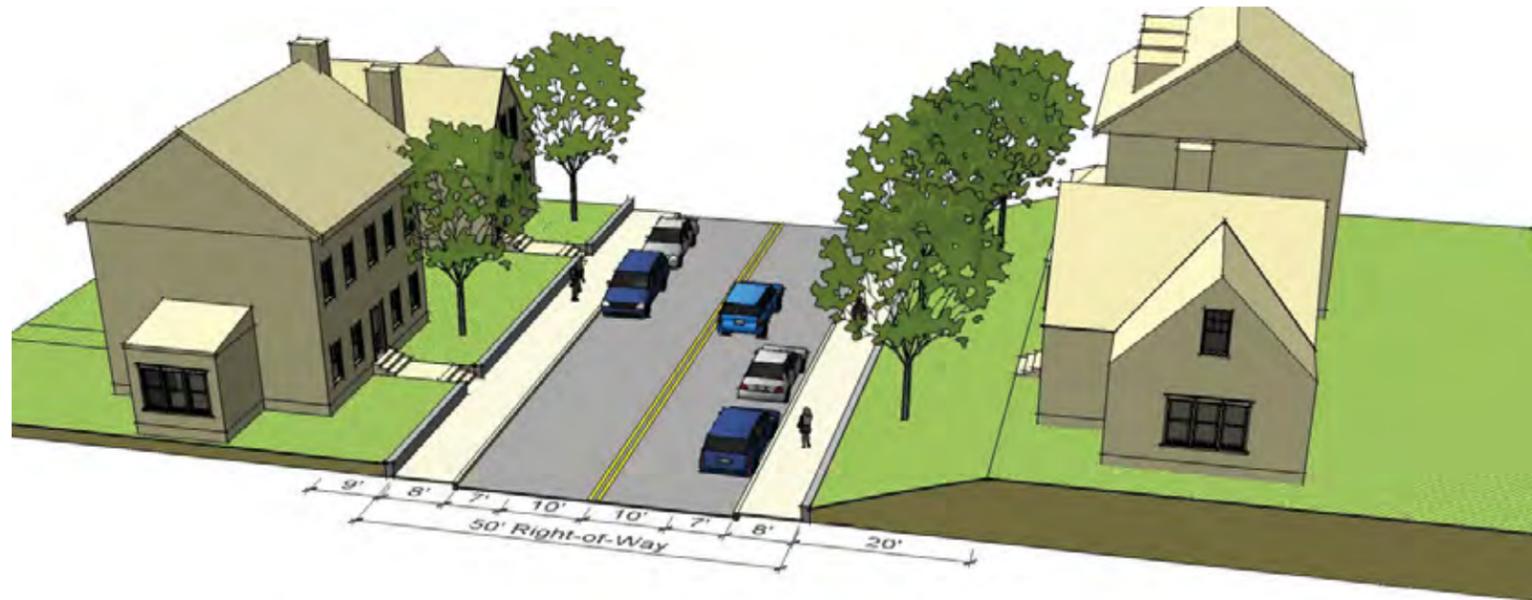


Context Analysis



Key Map

Existing Street Section: Clinch Avenue

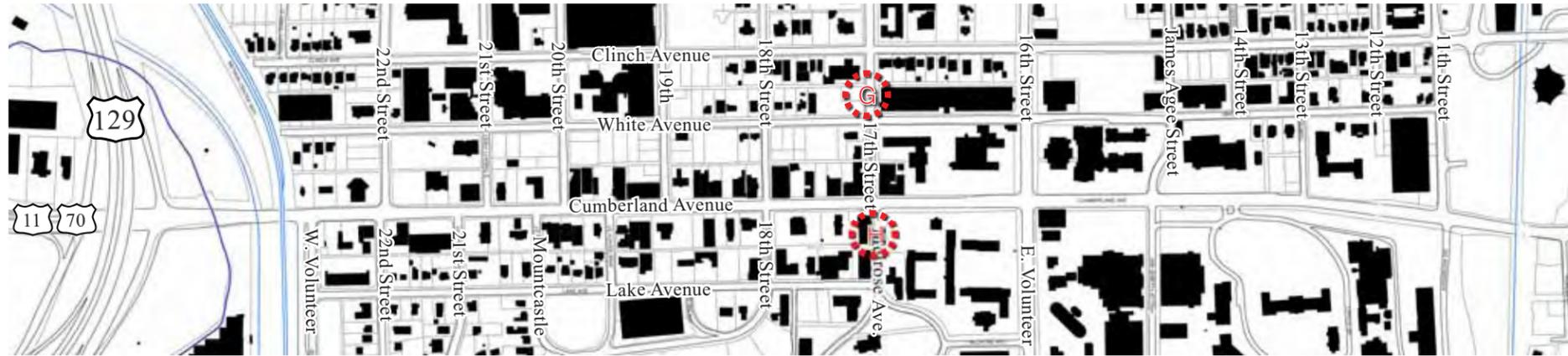


 Clinch Avenue at 12th Street

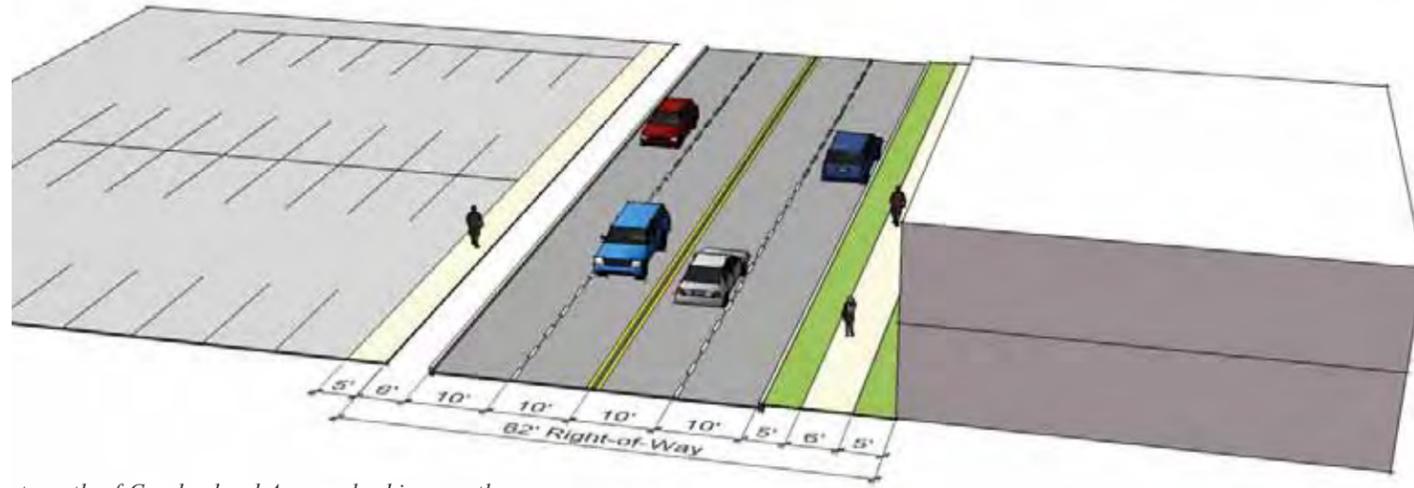


Residential section along Clinch Avenue

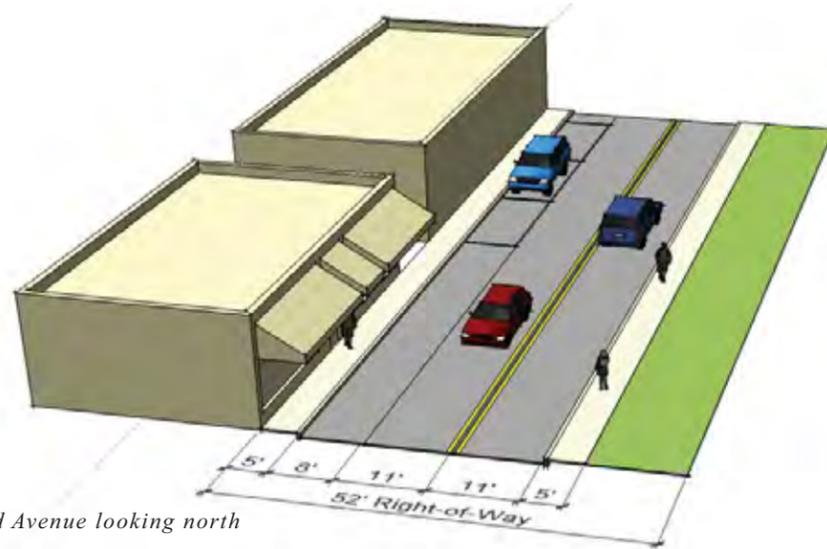
Context Analysis



Key Map



17th Street north of Cumberland Avenue looking north



Melrose Avenue south of Cumberland Avenue looking north

Existing Street Sections: 17th Street



17th Street north of Cumberland Avenue



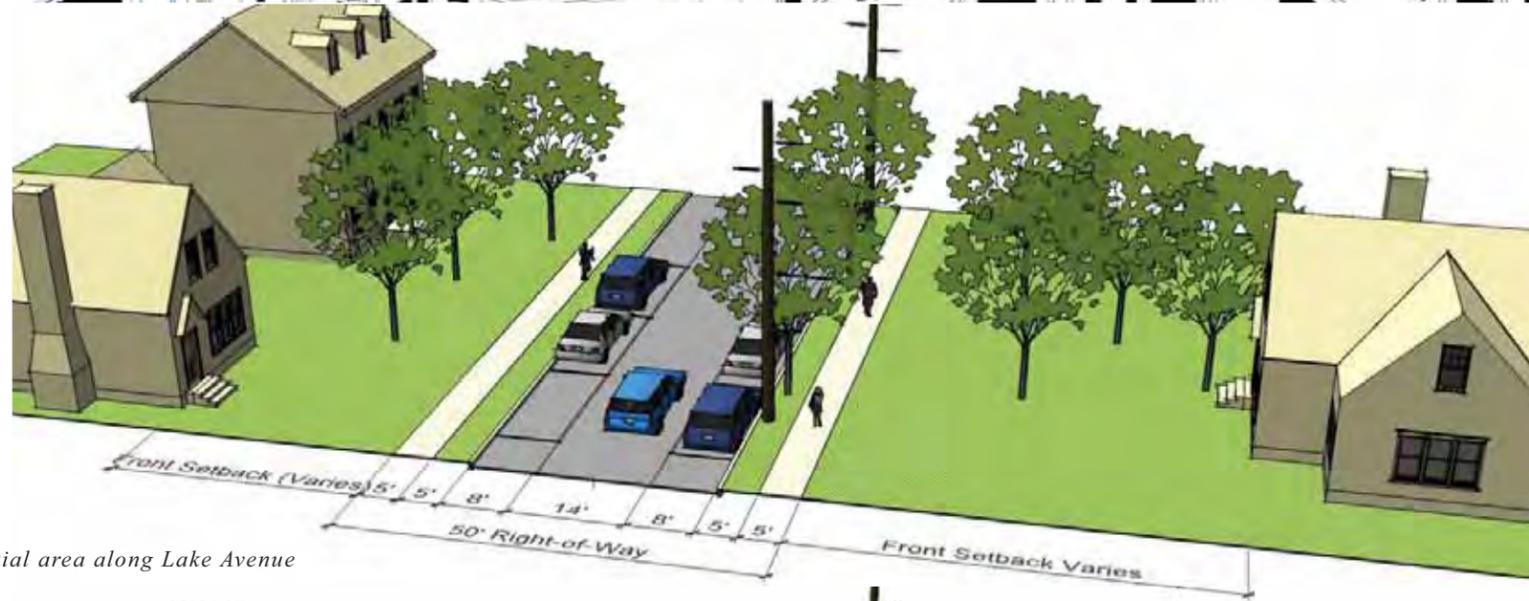
Melrose Avenue south of Cumberland Avenue

Context Analysis



Key Map

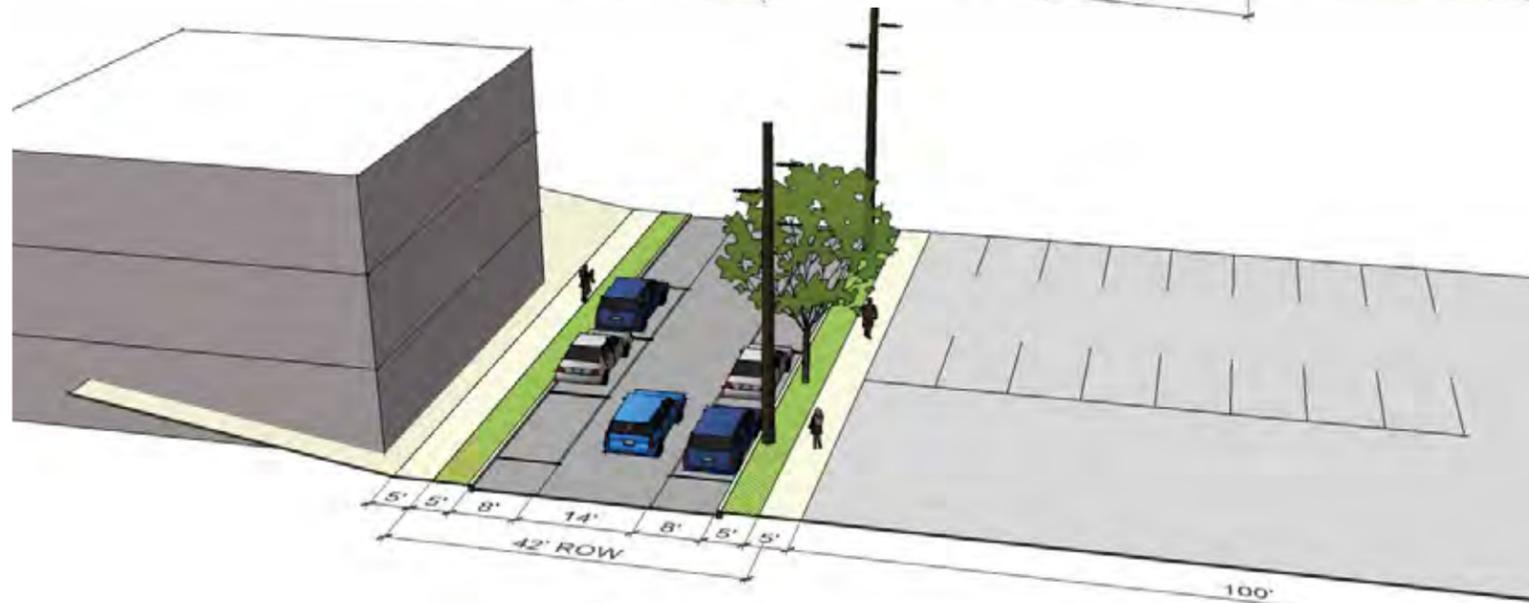
Existing Street Sections: Lake Avenue and White Avenue



Residential area along Lake Avenue



Typical on-street parking along Lake Avenue



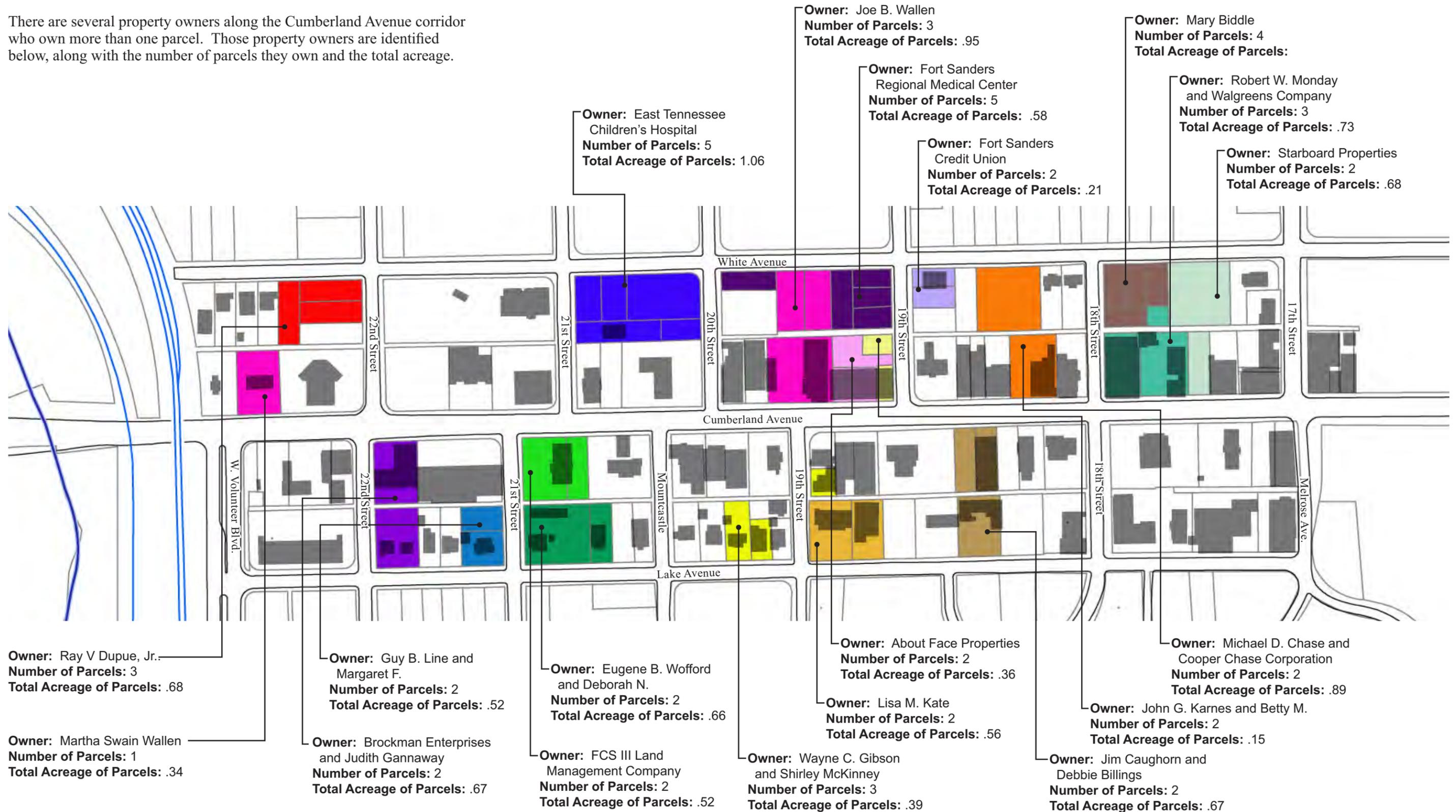
Commercial area along Lake Avenue



Sidewalk condition along Lake Avenue east of 19th Street

Major Property Owners

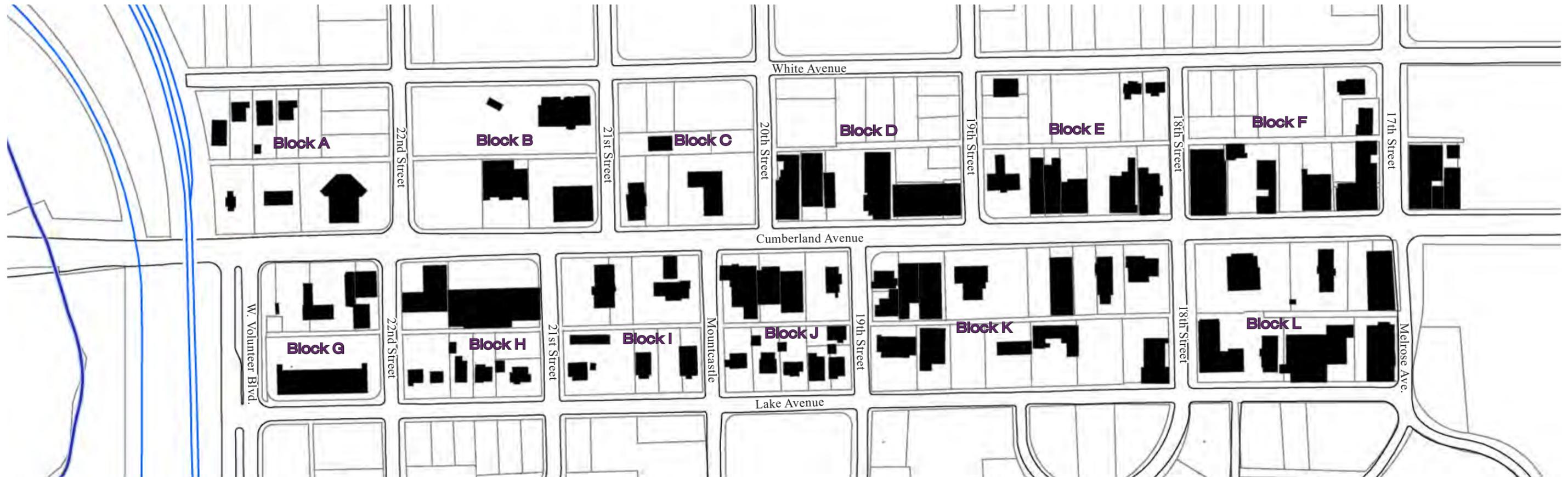
There are several property owners along the Cumberland Avenue corridor who own more than one parcel. Those property owners are identified below, along with the number of parcels they own and the total acreage.



Cumberland Avenue Block Data

An analysis of the existing block data reveals the existing condition of parking along the Cumberland Avenue corridor. Public parking in the corridor is limited, there is no shared parking and private parking areas are tightly controlled. The lack of shared parking in the area can be seen during business hours when all available public parking spaces are full while a significant amount of private parking areas are available.

While the area has a typical suburban parking ratio of almost 4 parking spaces per 1,000 square feet of commercial this parking is not open to all visitors in the corridor and much of it is being used by university commuters and hospital staff and visitors.



	A	B	C	D	E	F	G	H	I	J	K	L	TOTAL
Block Size	410 X 300	390 X 300	285 X 305	300 X 390	395 X 305	405 X 305	250 X 290	295 X 290	295 X 290	270 X 290	630 X 290	430 X 290	
Building Square Footage	17,076	25,343	10,078	32,542	30,131	40,333	20,277	29,721	26,833	27,479	52,950	48,230	360,992
Parking Count	32	76	114	224	143	171	92	88	86	25	204	119	1,374
# of Spaces Per 1,000 S.F.	1.87	3.00	11.31	6.88	4.75	4.24	4.54	2.96	3.20	0.91	3.85	2.47	3.81