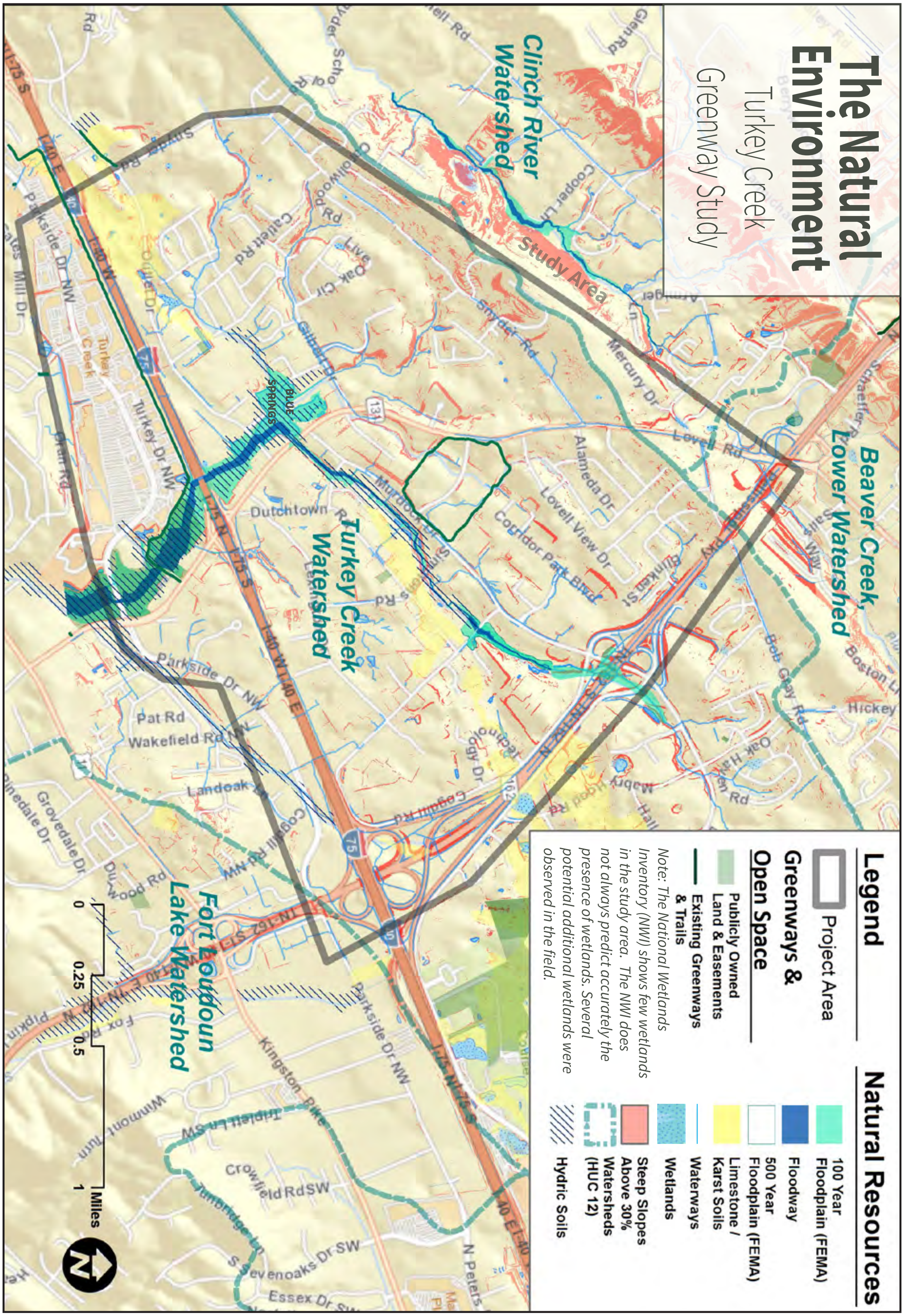
Part A

Existing Conditions of the Corridor


The Natural Environment
Turkey Creek
Greenway Study
Legend
Project Area
Greenways & Open Space
Publicly Owned Land & Easements
Existing Greenways & Trails
Note: The National Wetlands Inventory (NWI) shows few wetlands in the study area. The NWI does not always predict accurately the presence of wetlands. Several potential additional wetlands were observed in the field.
Natural Resources
100 Year Floodplain (FEMA)
Floodway
500 Year Floodplain (FEMA)
Limestone / Karst Soils
Waterways
Wetlands
Steep Slopes Above 30%
Watersheds (HUC 12)
Hydric Soils
Clinch River Watershed
Beaver Creek, Lower Watershed
Turkey Creek Watershed
Fort Loudoun Lake Watershed
Study Area
Blue Springs
0
0.25
0.5
1
Miles

Streams, Ponds, Lakes, Wetlands, and Hydric Soils

Several wetland areas were noted in field visits, particularly around the Blue Springs area (See Figure 1) and likely along Turkey Creek south of Blue Springs. However, National Wetlands Inventory (NWI) data do not identify these as wetlands, and hydrology data indicate them as open water. A comparison of aerial photos over time indicate these areas are likely a complex of wetlands and open waters that fluctuate consistently. Hydric soils can be an indicator of potential wetlands, drained wetlands, or indicate wetland areas not captured by NWI data. Hydric soils, which exist throughout the Turkey Creek floodplain, form under saturated conditions and are routinely flooded or prone to ponding. Guidelines for wetlands include:

- **Delineate future wetlands as part of corridor design studies.** NWI does not always identify wetlands, so in future plans, a survey of the property should delineate any potential wetlands prior to design.
- **Avoid impacts to wetlands**. If wetland impacts occur, a Section 401 certification through the U.S. Army Corps of Engineers (USACE) is required and the State is involved in 401 certification in partner with USACE.
- **Define a 25-foot buffer for wetlands**. Knox County requires a 25-foot buffer from wetlands in which no disturbance should occur.

Steep Slopes

The majority of steep slopes within this site are cut/fill slopes graded for buildings. The areas that are shown in red on most maps generally indicate the cut/fill areas that will make greenway development more challenging.

Threatened and Endangered Species

Threatened and endangered species may occur in some areas in the Blue Springs and/or the Turkey Creek floodplain. A table of these potential species occurrences is available in *Appendix C* in the *Knox to Oak Ridge Greenway Master Plan.* In the design and construction phases, future exploration should determine the potential impact to these species because use of federal money for greenway construction will trigger this requirement.

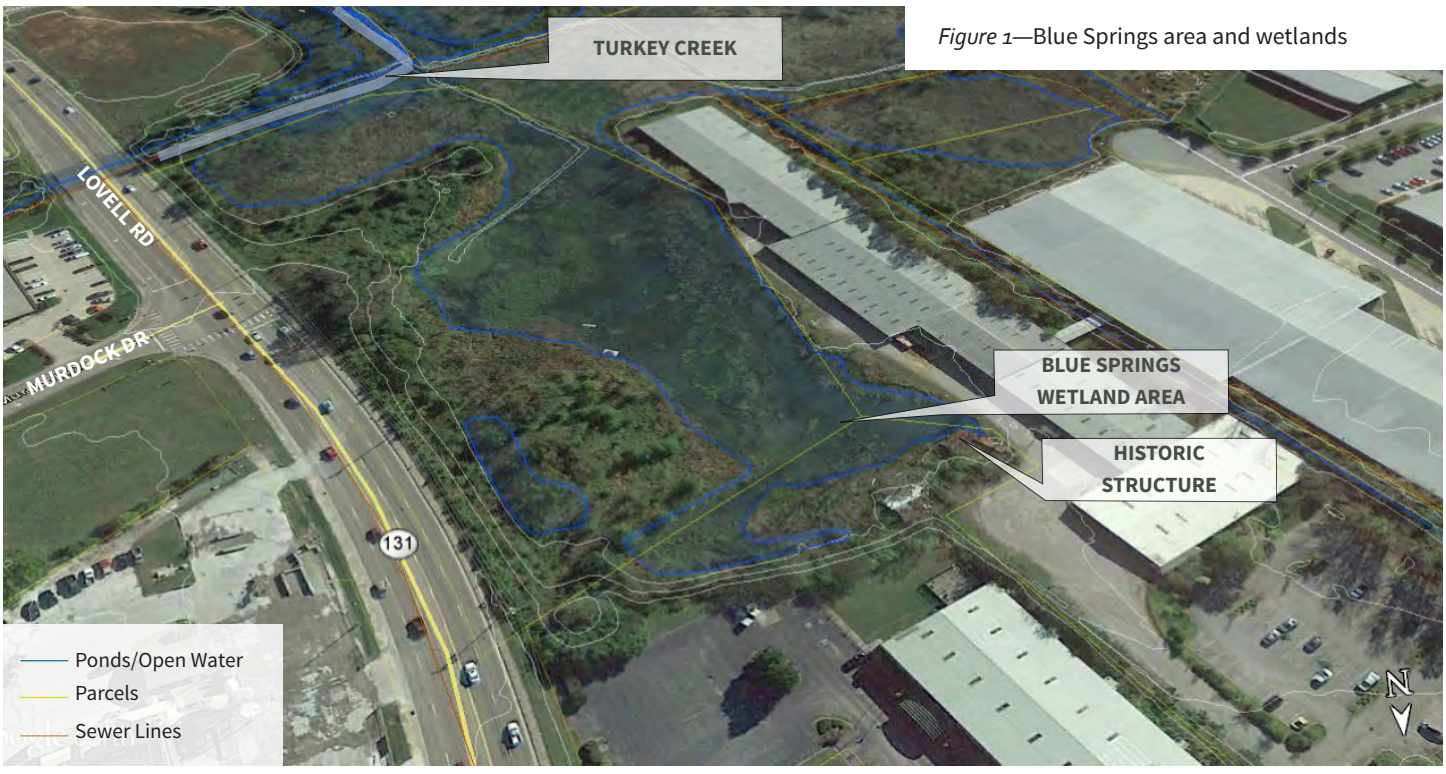


Figure 1—Blue Springs area and wetlands

Utilities

The study area has transmission lines, utility towers, and sewer infrastructure. Major utility corridors are indicated on the maps. It is important to note that the maps do not include minor utility lines, many of which were observed in site visits.

Transportation

Several aspects of the existing transportation network were analyzed in the study area, including ROW, planned improvements, existing on-street bicycle and pedestrian infrastructure (crosswalks, sidewalks, bicycle lanes, etc.), and existing greenways. Following are some existing conditions that inform opportunities and challenges for the development of a greenway.

The I-40/75 Interstate Crossing (At Lovell Road)

There are several considerations for crossing I-40/75 which are shown in the table below:

Figure 2—Interstate 40/75 Crossing Options (see pages 27 & 28)

	I-40/75 Crossing Option	Opportunity	Constraint	Future DOT Planned Improvements
Option **A**	**Lovell Road and I-40/75 Interchange, Bridge Attachment**	There is potential for pedestrian refuge islands.	Off and on-ramps would have some safety challenges for users, even if pedestrian islands and crossings were in place.	No
Option **B**	**Detached Pedestrian Bridge—Crossing From Existing Turkey Creek Greenway to North Side of Interstate**	There is potential for pedestrian refuge islands.	Off and on-ramps would have some safety challenges for users, even if pedestrian islands and crossings were in place.	No
Option **C**	**Turkey Creek Interstate Underpass With Box Culverts** (see note 19 on page 14)	TDOT may in the long-term redesign this bridge, at which time this crossing could be studied.	Clearance and flooding issues would likely make this option unfeasible in its current state.	Yes, bridge reconstruction (long-term)
Option **D**	**Lovell Road and I-40/75 Interchange, On-grade Crossing With Separated Path**	Wide 10- to 12-foot shoulders (See Figure 3) may allow for a separated path as well as potential for pedestrian refuge islands.	Off and on-ramps would have some safety challenges for users, even if pedestrian islands and crossings were in place.	Yes, interchange reconstruction

Figure 3—View of shoulder, Lovell Road Bridge overpass of Interstate 40/75

Other Two-Lane Bridge Crossings

Additional bridge crossings relevant to the greenway are:

Bridge Reference (Numbers Referenced on Maps on Page 13 and 15)	Bridge Crossings	Existing or Potential for Pedestrian / Bicycle Infrastructure and Connectivity
BR-1	**Dutchtown Road Bridge**	This bridge crosses over Turkey Creek and has no shoulder, making it unfeasible for use in greenway crossing of Turkey Creek, so a separate pedestrian bridge is needed.
BR-2	**Outlet Drive Bridge**	The bridge's shoulder allows for around 10 feet of room between the pavement and bridge headwall, making a parallel path to the road feasible. The road has a turning lane which could be removed, providing extra space for a shared-use path with barrier.
BR-3	**Private Drive Bridge**	This bridge has no shoulder and would not accommodate a greenway, making the need for a separate pedestrian bridge likely.

Existing Pedestrian and Bicycle Infrastructure

Sidewalks are shown on the Built Environment and Corridor Design maps and should be considered as key connectors to the greenway. Field visits indicate that not all sidewalks are represented on the Corridor Design maps. A Knoxville Regional Bicycle Program map evaluates routes for bicycle travel. Figure 4 shows an excerpt of the program map. Existing crosswalks are designated as opportunities on the Corridor Design maps.

One of the most important pedestrian/bicycle connectors is Outlet Drive/Snyder Road traveling west out of the study area. There are sidewalks on the majority of the stretch from Outlet Drive to Snyder Road. The Town of Farragut is also planning to make pedestrian improvements just outside of the study area on Campbell Station Road. These improvements would link Farragut pedestrian and bicycle facilities to the Turkey Creek Greenway.

The entire portion of Lovell Road within the study area has sidewalks, and much of it has bicycle lanes. Lovell should be considered as an important connector to the rapidly developing residential area just north of the study area.

Walkability and Schools

There are no public schools within the study area, but there are two large private schools within or adjacent to the study area (as shown on the built environment map on the following page).

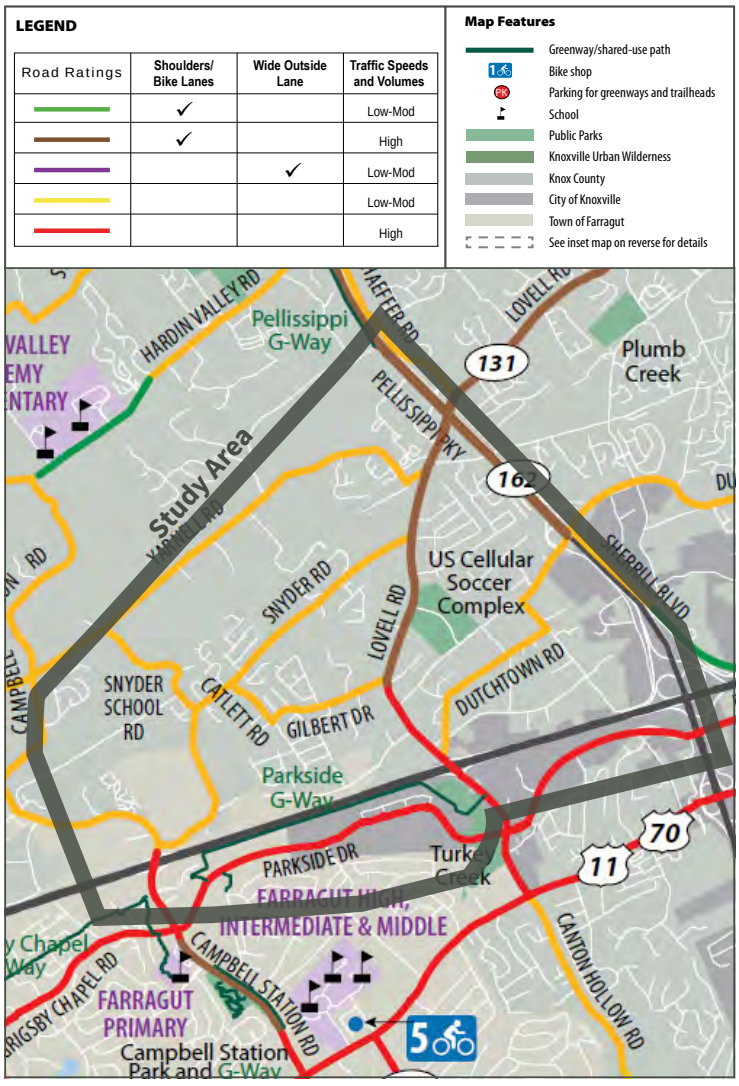
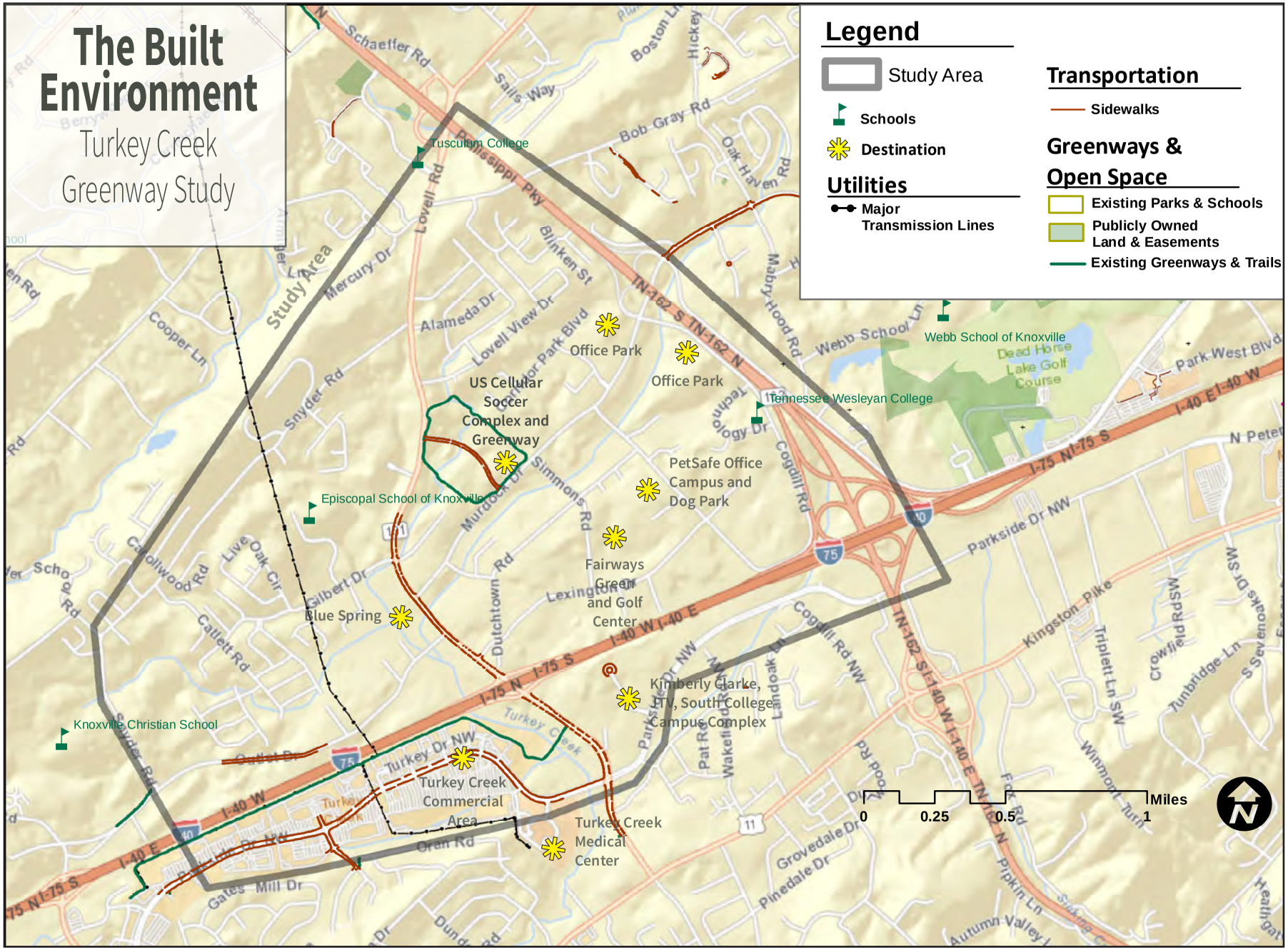


Figure 4—Knoxville/Knox County Bicycle Map, Knoxville Regional Transportation Planning Organization, 2014


The Built Environment
Turkey Creek Greenway Study
Legend
Study Area
Schools
Destination
Utilities
Major Transmission Lines
Transportation
Sidewalks
Greenways & Open Space
Existing Parks & Schools
Publicly Owned Land & Easements
Existing Greenways & Trails
Study Area
Tusculum College
Webb School of Knoxville
Tennessee Wesleyan College
Dead Horse Lake Golf Course
Office Park
Office Park
US Cellular Soccer Complex and Greenway
PetSafe Office Campus and Dog Park
Episcopal School of Knoxville
Fairways Green and Golf Center
Blue Spring
Kimberly Clarke, ITV, South College Campus Complex
Knoxville Christian School
Turkey Creek Commercial Area
Turkey Creek Medical Center
Schaeffer Rd
Sails Way
Bob Gray Rd
Oak Haven Rd
Mississippi Pky
Lovell Rd
Mercury Dr
Blinken St
Alameda Dr
Lovell View Dr
Snyder Rd
Cooper Ln
Mary Hood Rd
Webb School Ln
Park West Blvd
I-40 E I-40 W
I-75 N I-75 S
N Peters
Parkside Dr NW
Kingston Pike
Triplett Ln SW
Crowfield Rd SW
Tunbridge Ln
S Sevenoaks Dr SW
Winnmont Turn
Cogdill Rd
Cogdill Rd NW
TN-162 S TN-162 N
Simmons Rd
Murdock Dr
Dutchtown Rd
Lexington Dr
Callett Rd
Live Oak Cir
Carollwood Rd
Gilbert Dr
Turkey Creek
Turkey Creek Dr NW
Gran Rd
Gates Mill Dr
Dundee Rd
Parkside Dr NW
Pat Rd NW
Wakefield Dr
Landoak Dr
Grovedale Dr
Pinedale Dr
Pipkin Ln
Autumn Valley Ln
Heathgate
0
0.25
0.5
1
Miles
N

Connecting to Landmarks and Destinations

Input from the Technical Advisory Committee and an online public survey (see Part E) defined major destinations to which the greenway should connect. These spurs could be either greenways or other pedestrian/ bicycle infrastructure. Some of the most mentioned points of connection include:

- Private Schools: Episcopal School of Knoxville and Knoxville Christian School
- Kimberly Clarke, Jewelry Television Headquarters, and South College Campus Complex, as well as other businesses on the east side of Lovell Road along Parkside Drive
- Blue Springs
- Turkey Creek commercial area
- Turkey Creek Medical Center
- US Cellular Soccer Complex and Greenway
- Natural areas surrounding Turkey Creek
- The proposed Knox to Oak Ridge Greenway: With connection across the Pellissippi Parkway Interchange
- PetSafe Dog Park
- Multiple hotels surrounding Interstate 40/75 around Lovell Road
- Office/technology park complex north of Dutchtown Road and west of the Pellissippi Parkway

The Built Environment Map and the following maps will convey locations of these landmarks.

Existing and Proposed Greenways and Parks

A major goal of this study is to connect to existing and/or proposed parks and greenways including:

- *Existing Turkey Creek Greenway and Wetlands*—This 2-mile greenway travels west out of the study area and connects to a network of existing bicycle and pedestrian facilities, and wetlands.
- *Existing Ten Mile Creek Greenway*—This greenway is 4 miles east of the study area. It travels in an underpass south of I-40/75 and terminates at a movie theater off of North Peters Road. North Peters Road turns into Parkside Drive, which is the northern terminus of the existing Turkey Creek Greenway. This greenway connects to other greenways east, eventually leading into Knoxville.
- *Proposed Knox to Oak Ridge Greenway*—This 13.2-mile proposed greenway would connect into the Ten Mile Creek Greenway, and ultimately to Melton Lake Greenway in Oak Ridge.
- *US Cellular Soccer Complex and Greenway (privately owned park)*—These fields and greenway are leased to Knox County and open to the public. The lease could be terminated in the future and the complex is not considered public property. The greenway that circles the perimeter of the park is approximately 1.2 miles.

Figure 5—Turkey Creek Wetlands and Greenway: View from the greenway (right), wetlands area (left), *image courtesy of TN Isaak Walton League*

- PetSafe Dog Park *(privately owned park)*—This park is owned and operated by PetSafe, whose corporate headquarters are across the street. It is open to the public, with various restrictions on operating hours.

Housing, Employment, and Land Use

The study aims to connect the greenway to higher densities of housing and employment clusters. Figures 6 and 7 show these concentrations.

Higher density development is currently being constructed in the area shown in Figure 6.

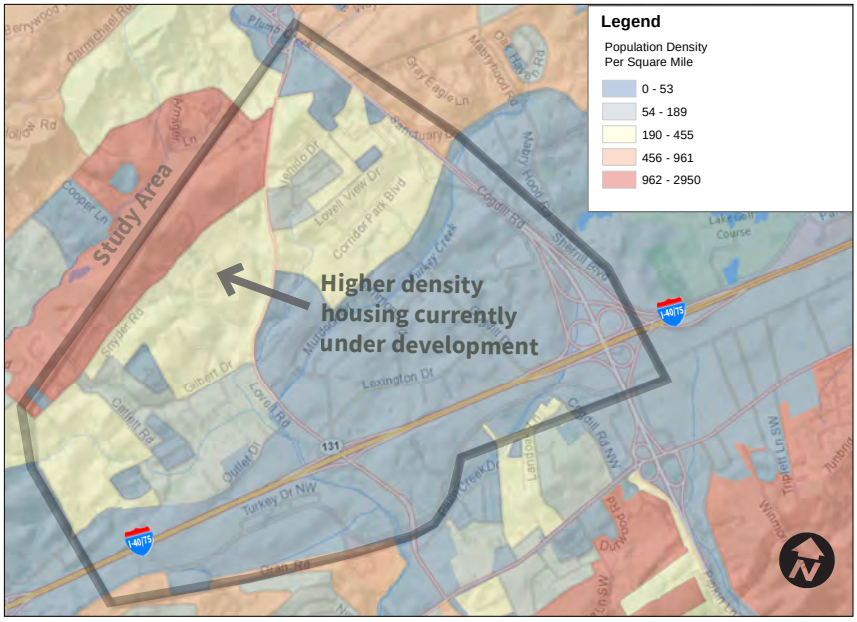


Figure 6—Concentration of Housing
(Population Density Per Square Mile), US Census Data, 2012

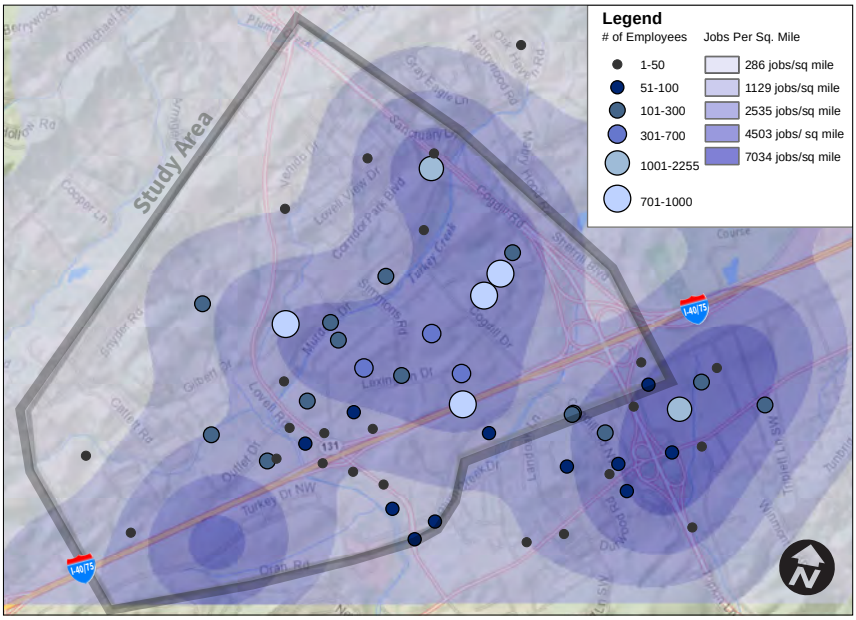


Figure 7—Concentration of Employment Centers
(Per Square Mile), US Census Data, 2013