



**STIP # U-4434 New Hanover
County**

**NCDOT
Land Use Scenario
Assessment
Narrative Report**

July 2019

Table of Contents

| | |
|---|-----------|
| Executive Summary | 1 |
| Summary of Study, Time Horizon, and Notable Features..... | 1 |
| Summary of Growth Trends Occurring and Expected, Development Regulations..... | 1 |
| Indirect Effects Matrix..... | 2 |
| Land Use Scenario Assessment Matrix | 2 |
| Cumulative Effects Matrix – Natural Environment..... | 2 |
| Cumulative Effects Matrix – Human Environment | 2 |
| Indirect and Cumulative Effects Summary..... | 2 |
| 1.0 Project Initiation | 1 |
| 1.1 Pertinent Land Use and Transportation Plans | 1 |
| 1.2 Project Stakeholders | 1 |
| 1.3 Future Land Use Study Area..... | 1 |
| 2.0 Base Screening | 4 |
| 2.1 Project Overview..... | 4 |
| 2.2 Time Horizon..... | 4 |
| 2.3 Other Transportation, Infrastructure, and Active Development Projects in the FLUSA..... | 5 |
| 2.4 Population Trends and Projections..... | 8 |
| 2.5 Employment Trends and Projections..... | 8 |
| 2.6 Notable Human Environmental Features | 8 |
| 2.7 Notable Natural Environmental Features..... | 11 |
| 3.0 Analytical Screening | 13 |
| 3.1 Scope of the Project..... | 13 |
| 3.2 Travel Time Savings..... | 13 |
| 3.3 Water and Sewer Availability..... | 14 |
| 3.4 Available Land | 16 |
| 3.5 Market for Development | 18 |
| 3.6 Public Policy | 18 |
| 4.0 Indirect Effects Matrix | 19 |
| 5.0 Probable Development Areas | 21 |
| 5.1 Existing Conditions within PDA 1 | 23 |
| 5.2 No-Build Scenario for PDA 1 | 23 |
| 5.3 Build Scenario for PDA 1 | 23 |
| 5.4 Existing Conditions within PDA 2 | 25 |
| 5.5 No-Build Scenario for PDA 2 | 25 |
| 5.6 Build Scenario for PDA 2 | 25 |
| 6.0 Evaluation of Scenarios | 27 |
| 6.1 Scope of Development..... | 27 |
| 6.2 Development Intensity..... | 27 |
| 6.3 Future Shift of Regional Population Growth..... | 27 |
| 6.4 Future Shift of Regional Employment Growth..... | 28 |

6.5 Pressure for Land Development Outside Regulated Areas..... 28

6.6 Planned/Managed Land Use and Impacts 28

7.0 Land Use Scenario Assessment Matrix29

8.0 Indirect and Cumulative Effects Assessment31

8.1 Summary of Past, Present, and Future Projects in the FLUSA..... 31

8.2 Cumulative Effects Analysis 32

8.2.1 Cumulative Effects Matrix – Natural Environment 32

8.2.2 Cumulative Effects Matrix – Human Environment 34

8.3 Water Quality Statement..... 36

Sources.....37

Tables

Table 1: Project characteristics 1

Table 2: Summary of pertinent land use and transportation plans..... 1

Table 3: Project stakeholders..... 1

Table 4: Other transportation and infrastructure projects..... 6

Table 5: Summary of transportation impact causing activities 13

Table 6: Summary of available land..... 16

Table 7: Land use summary – PDA 1..... 23

Table 8: Land use summary – PDA 2..... 25

Table 8: Summary of past projects 31

Table 9: Summary of current projects 31

Table 10: Summary of future projects..... 31

Table 11: Notable water quality features 32

Table 12: Notable natural habitat features 32

Table 13: Notable community features 34

Figures

Figure 1: Future land use study area 3

Figure 2: Other transportation, infrastructure, and active development projects in the FLUSA..... 7

Figure 3: Notable human environmental features 10

Figure 4: Notable natural environmental features..... 12

Figure 5: Water and sewer availability 15

Figure 6: Available land..... 17

Figure 7: Indirect effects matrix..... 20

Figure 8: Probable development areas..... 22

Figure 9: Overview – PDA 1..... 24

Figure 10: Overview – PDA 2..... 26

Figure 10: Land use scenario assessment matrix..... 30

Figure 11: Cumulative effects matrix – natural environment..... 33

Figure 12: Cumulative effects matrix – human environment..... 35

Appendices

- Appendix A: Interviews
- Appendix B: City of Wilmington Zoning Map

Executive Summary

The North Carolina Department of Transportation (NCDOT) is proposing to construct a multi-lane roadway on new location in New Hanover County, North Carolina. Located within the urban core of the City of Wilmington, the proposed 1.7-mile long Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) on new location from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed project is designated in the Current 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434 and described as “Independence Boulevard Extension, Randall Parkway to US 74 (MLK Jr. Parkway) multi-lanes on new location.”

Table 1: Project characteristics

| | | | |
|---|--|-------------------------------|-----|
| Table 1: Project characteristics | | | |
| STIP Number: | U-4434 | | |
| Project Location: | City of Wilmington, New Hanover County, North Carolina | | |
| Project Type <input type="checkbox"/> Interchange Modification <input checked="" type="checkbox"/> Creation of Interchange <input type="checkbox"/> Roadway Widening <input checked="" type="checkbox"/> Roadway on New Location | Project Scale <i>Length</i> <input type="checkbox"/> Interchange Project <input checked="" type="checkbox"/> Roadway Project 0 – 2 miles <input type="checkbox"/> Roadway Project 2 – 4 miles <input type="checkbox"/> Roadway Project > 4 miles <i>Right-of-Way</i> <input type="checkbox"/> Project within existing ROW <input checked="" type="checkbox"/> Project requires additional ROW | | |
| Existing control of access: <input checked="" type="checkbox"/> No Control <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input type="checkbox"/> Full Control | Proposed control of access: <input type="checkbox"/> No Control <input type="checkbox"/> Partial Control <input type="checkbox"/> Limited Control <input checked="" type="checkbox"/> Full Control | | |
| Existing Number of Lanes: | 2-6 | Existing Median: | No |
| Proposed Number of Lanes: | 4-8 | Addition of Median(s): | Yes |

Summary of Study, Time Horizon, and Notable Features

The potential for land use effects resulting from the proposed project were considered through 2040. This horizon year corresponds with the *Create Wilmington Comprehensive Plan* and the Wilmington Urban Area Metropolitan Planning Organization (WMPO) *Comprehensive Transportation Plan*.

Summary of Growth Trends Occurring and Expected, Development Regulations

- The population of New Hanover County in 2017 was 229,501 and projected to reach 315,475 in 2038, according to the North Carolina Office of Budget and Management. This results in a 1.5 percent annualized growth rate.
- The American Community Survey indicated the annualized growth rate between 2000 and 2010 for the Future Land Use Study Area (FLUSA) was 2.6 percent. Recent growth is anticipated to continue.

- The City of Wilmington’s Land Development Code, *Create Wilmington Comprehensive Plan*, and *Market Street Corridor Plan* include policies that encourage high intensity development, redevelopment, and infill within the FLUSA.

Indirect Effects Matrix

The Indirect Effects Matrix indicates a moderate to high concern for indirect and cumulative effects potential. Considering the scope of the project, annual population growth in the FLUSA, and the amount of economic growth expected in the area, indirect effects are possible.

Indirect Effects Matrix Result

Possible Land Use Scenario Assessment

LUSA Warranted

Yes No

Land Use Scenario Assessment Matrix

Development intensity, population growth, and employment growth are anticipated to continue at similar rates under both a No-Build and Build scenario. The City of Wilmington’s Land Development Code, *Create Wilmington Comprehensive Plan*, and *Market Street Corridor Plan* includes policies that encourage high-intensity development, redevelopment, and infill within the FLUSA. The build scenario is likely to increase the rate of development of undeveloped parcels within the Burnt Mill Business Park and redevelopment of underutilized parcels around the proposed Independence Boulevard and Market Street intersection. This is anticipated to result in a moderate increase in the change in developed lands within the probable development areas.

LUSA Matrix Result

Indirect Land Use Impacts Not Likely

Indirect and Cumulative Effects Assessment Required

Yes No

Cumulative Effects Matrix – Natural Environment

The section of Burnt Mill Creek within the FLUSA is identified on the North Carolina Division of Water Resources (NCDWR) 303(d) List of Impaired Waters; multiple stressors were identified including development in the watershed and degradation due to sedimentation. Fragmented forestland is present in the northern portion of the FLUSA. No notable natural habitat features were identified.

Cumulative Effects Matrix – Natural Environment

Cumulative Effects Not Likely

Cumulative Effects Matrix – Human Environment

Past transportation projects have included landscaping, bike lanes, sidewalks, and/or multi-use paths to accommodate pedestrians and preserve the community’s character.

Cumulative Effects Matrix – Human Environment

Cumulative Effects Not Likely

Indirect and Cumulative Effects Summary

Based on the information gathered, most of the categories on the screening tool reflected moderate to high concern for indirect and cumulative effects potential. The proposed project would improve intrastate/intermodal linkages and increase system traffic capacity. Continued population growth, undeveloped land, and available public utilities suggest possible indirect and/or cumulative effects.

1.0 Project Initiation

Chapter 1 discusses the land use and transportation plans pertinent to the project, identifies project stakeholders, and presents the Future Land Use Study Area (FLUSA). The 2012 Indirect Land Use Screening (ILUS) Report was used as a foundation and updated to reflect current conditions and data.

1.1 Pertinent Land Use and Transportation Plans

The potential for land use effects resulting from the proposed project were considered through 2040. This horizon year corresponds with the *Create Wilmington Comprehensive Plan* which sets the general direction for future growth and redevelopment within the City of Wilmington through 2040. The Wilmington Urban Area Metropolitan Planning Organization (WMPO) *Comprehensive Transportation Plan* (CTP) identifies multi-modal transportation needs within the City of Wilmington to support growth and development over a 25-30-year horizon. The WMPO *Cape Fear Metropolitan Transportation Plan* focuses on regional transportation priorities and actions.

Table 2: Summary of pertinent land use and transportation plans

| Plan Title | Horizon Year | Planning Boundary |
|--|--------------|---|
| Create Wilmington Comprehensive Plan | 2040 | City of Wilmington Municipal Boundaries |
| Cape Fear Metropolitan Transportation Plan | 2040 | WMPO Boundary |
| CTP | 2040 | WMPO Boundary |
| Market Street Corridor Study | | Market Street from Porters Neck Road to 23 rd Street |

1.2 Project Stakeholders

Table 3 contains the names and contact information for project stakeholders. Planning departments providing long range and current planning to the jurisdictions within the FLUSA were identified for having direct knowledge of the study area and development activities. They were either interviewed by telephone or by email, and interview records are located in Appendix A of this report. Additional stakeholders were contacted as part of the Community Impact Assessment and the information provided was incorporated where appropriate.

Table 3: Project stakeholders

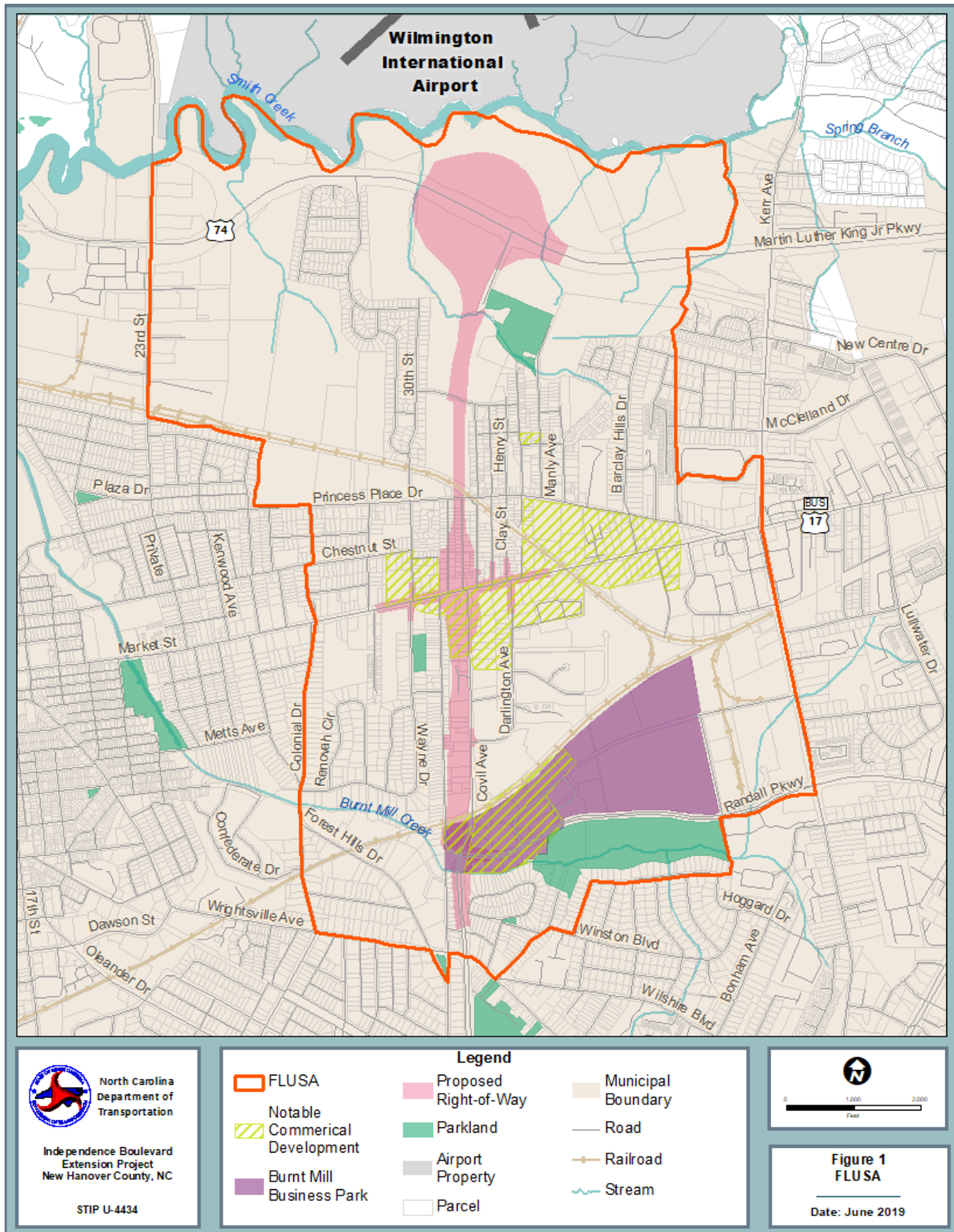
| Affiliation | Name | Email | Phone | Response (Y/N) |
|--|------------------|--|--------------|----------------|
| City of Wilmington Planning, Development, and Transportation | Christine Hughes | Christine.hughes@wilmingtonnc.gov | 910.341.5885 | Y |
| WMPO | Abby Lorenzo | abigail.lorenzo@wilmingtonnc.gov | 910.341.7890 | Y |

1.3 Future Land Use Study Area

The FLUSA is the area surrounding the proposed project that could be indirectly affected by increased development pressure (Figure 1). The general boundaries of the FLUSA are: Smith Creek to the north; to

the east the FLUSA boundary zigzags back and forth across Kerr Avenue to capture areas identified by the City of Wilmington as targeted for development or redevelopment and bulbs out to the CSX railroad; to the west follows Colonial Drive and 23rd Street; and to the south the FLUSA extends south of the Burnt Mill Business Park.

Figure 1: Future land use study area



2.0 Base Screening

Chapter 2 provides a project overview, documents the Indirect and Cumulative Effects Time Horizon determined, and surveys other transportation, infrastructure, and active development projects in the FLUSA.

2.1 Project Overview

The NCDOT is proposing to construct a multi-lane roadway on new location in New Hanover County, North Carolina. Located within the urban core of the City of Wilmington, the proposed 1.7-mile long Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) on new location from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). Interchanges are proposed at Market Street and Martin Luther King Jr. Parkway. Two interchange options, a single point urban interchange (SPUI) and tight urban diamond interchange (TUDI), are being considered at the intersection with Market Street. A trumpet interchange will be constructed at the intersection with Martin Luther King Jr. Parkway. The proposed project is designated in the NCDOT Current STIP (2018-2027) as STIP Number U-4434 and described as “Independence Boulevard Extension, Randall Parkway to US 74 (MLK Jr. Parkway) multi-lanes on new location.”

The proposed project would follow the existing Independence Boulevard alignment from Malpass Avenue to north of Randall Parkway. A new alignment is proposed between Covil and Mercer Avenue north of Randall Parkway. The CSX railroad track crossing at Covil Avenue would be eliminated, severing Covil Avenue. The intersections of Covil and Mercer Avenue at Market Street would be removed to accommodate the proposed interchange. An extension of Darlington Avenue via an underpass of the Independence Boulevard Extension is proposed to provide access to Covil Avenue. An elevated roadway, via berm and bridges, is proposed to accommodate overpasses at the CSX railroad tracks, Darlington Avenue extension, and Market Street.

North of Market Street, the proposed project would continue along a new alignment between Evans Street and 31st Street. Access to Evans and 31st Street from Market Street would be eliminated. The proposed project would also convert Market Street from a no-control-of-access roadway to a full-control access roadway from its intersection with Wayne Drive and 30th Street east to Darlington Avenue and Henry Street. The proposed project would conclude at Martin Luther King Jr. Parkway.

The proposed project would include a 10-foot multi-use path that would run adjacent to the project on the east side from Randall Parkway north to Hurst Street, where it would turn east towards Maides Park. The multi-use path would be at the base of the berm, on the south side of Market Street, and at the base of the Independence Boulevard Extension bridge north of Market Street.

2.2 Time Horizon

The potential for land use effects resulting from the proposed project were considered through 2040. This horizon year corresponds with the *Create Wilmington Comprehensive Plan*, WMPO CTP, and WMPO *Cape Fear Metropolitan Plan*.

2.3 Other Transportation, Infrastructure, and Active Development Projects in the FLUSA

The following STIP projects are within the FLUSA:

- U-3338 Kerr Avenue (SR 1175) widening from Randall Parkway to MLK Jr. Parkway. Construction is underway.
- U-4902B Market Street Access Management from CSX Railroad to Cinema Drive; Jacksonville Street to north of College Road. Right-of-way started in 2018 and construction is anticipated to start in 2021.
- P-5740 CSX SE Line rail rehabilitation, grade crossing improvements, realignment, and upgrades north of Burnt Mill Drive.
- TD-5298 Bus stop amenities along Wave Route 101 – Princess Place. Construction is anticipated to start in 2026.

Active developments include the following:

- Haynes-Lacewell Police, Fire, and City Training Facility at 3100 Hurst Street; construction is anticipated to finish in late 2019.
- Cypress Cove Apartments at 821 Emory Street; anticipated completion in 2019.
- GLOW Leadership Academy at 4100 Sunflow Drive; anticipated completion in 2019.
- Commercial building within Burnt Mill Business Park at 3320 Jaeckle Drive.

The City of Wilmington identified the following developments as permitted for construction:

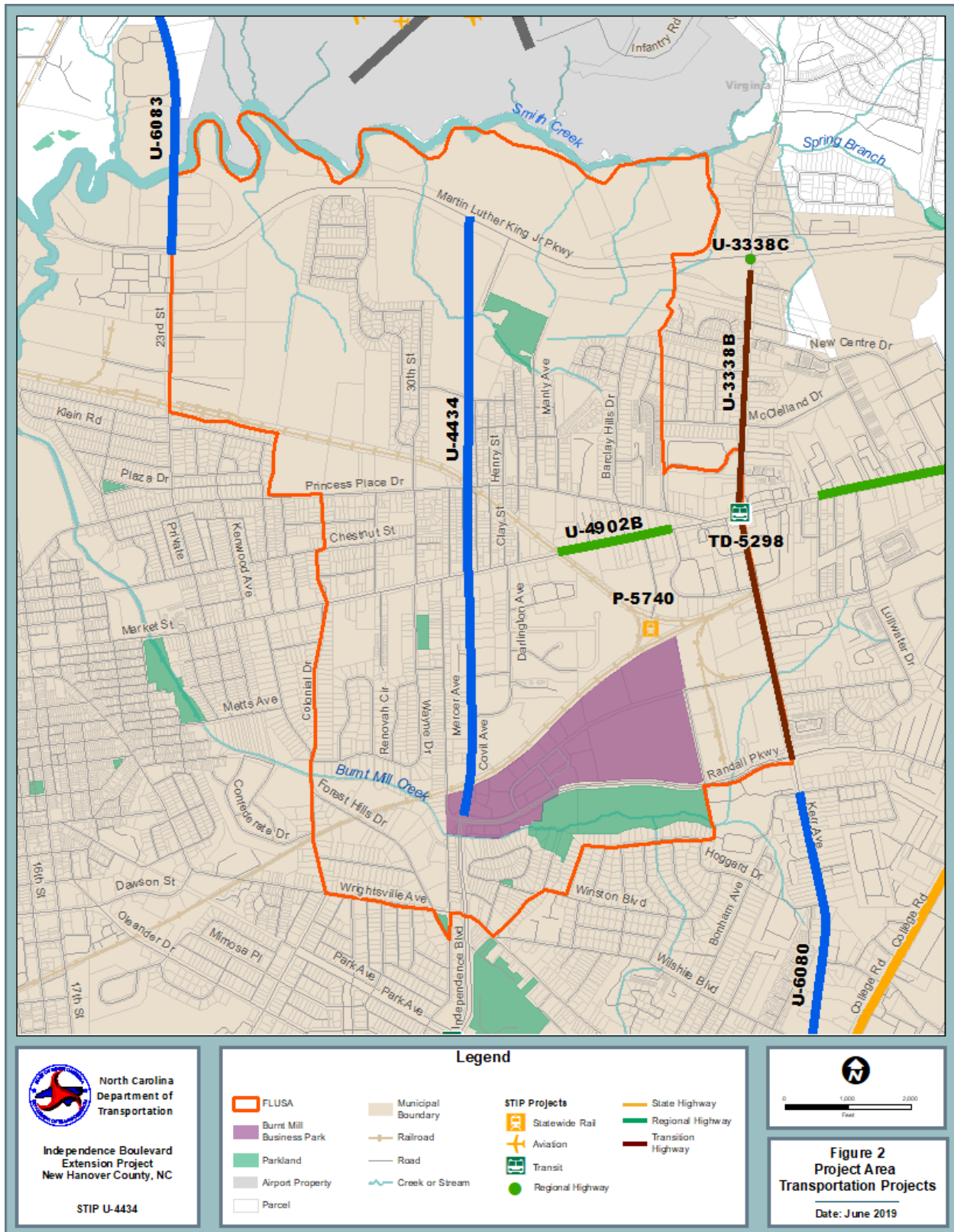
- Salvation Army Corps Community Center and Center of Hope at 1220 North 30th Street.
- Atlantic Packaging Expansion at 806 North 23rd Street.
- YMCA Market Street Expansion at 2710 Market Street.
- Take 5 Oil Change at 4440 Market Street.

Other notable projects proposed within the vicinity but outside of the FLUSA are listed in Table 4 and shown on Figure 2.

Table 4: Other transportation and infrastructure projects

| STIP Number | Description | Right-of-Way | Construction |
|-------------|--|--------------|--------------|
| U-5702A | College Road access management and travel time improvements from New Centre Drive to Shipyard Boulevard (US 117) | 2022 | 2024 |
| U-5881 | College Road improvements from Gordon Road to New Centre Drive | 2022 | 2024 |
| U-6080 | Widening Kerr Avenue to multi-lanes from Patrick Avenue to Wrightsville Avenue | 2025 | 2027 |
| U-6083 | Widening 23 RD Street from Martin Luther King Jr. Parkway (US 74) to Castle Hayne Road (NC 133) | 2025 | 2027 |
| TD-5290 | Cape Fear Public Transportation Authority bus stop amenities route 106 | | 2026 |
| TD-5298 | Cape Fear Public Transportation Authority bus stop amenities route 101 | | 2026 |

Figure 2: Other transportation, infrastructure, and active development projects in the FLUSA



2.4 Population Trends and Projections

Medium-High

The population of New Hanover County in 2017 was 229,501 and is projected to reach 315,475 in 2038, according to the North Carolina Office of Budget and Management (NCOBM). This would result in a 1.5 percent annualized growth rate. The state of North Carolina has a 0.99 percent annualized growth rate projection for the same period. According to NCOBM, growth in New Hanover County is expected to slow to approximately 1.2 percent from 2020 to 2030.

In addition, the City of Wilmington Senior Planner noted areas where mixed-use redevelopment and high-density residential development are proposed within the FLUSA, including Cypress Cove, a 200-unit multifamily residential development along Emory Street currently under construction. Cypress Cove will contribute to population growth within the FLUSA. Hurricane Florence related damage to the Market North Apartment (low-income housing) forced the relocation of 700 residents, resulting in a short-term impact to the population within the FLUSA. If the property is repaired in-kind, no long-term impact to population is anticipated; however, if the property is redeveloped as high-density housing, it would contribute to population growth. The population growth within the FLUSA is anticipated to outpace the county's growth rate. For this reason, a medium-high ranking was selected.

2.5 Employment Trends and Projections

High

According to the *Cape Fear Commutes 2035 Transportation Plan* (2010), the number of jobs in the Wilmington Urban Area is expected to increase 96 percent between 2008 and 2035, an average annualized growth rate of 2.5 percent. According to the Greater Wilmington Chamber of Commerce, the top five non-governmental employers are the New Hanover Regional Medical Center/Cape Fear Hospital; Wal-Mart Stores, General Electric Wilmington, University of North Carolina at Wilmington, and PPD, Inc. (Greater Wilmington Chamber of Commerce, 2019).

The unemployment rate of the Wilmington Metropolitan Statistical Area was 4.6 percent in January 2018 and 4.4 percent in January 2019, according to the Bureau of Labor Statistics. New Hanover County's unemployment rate was slightly lower in January 2018 at 4.5 percent and 4.3 percent in January 2019. The census measures employment based upon whether a person is 16 years and older and had not worked in the past 12 months. Based on this, in 2010 the unemployment rate for the demographic study area (DSA) was 10 percent; while percentages from the United States (US) Census for New Hanover County for the same period was 7.1 percent. This shows that the DSA has a higher unemployment rate than New Hanover County.

The *Create Wilmington Comprehensive Plan* identifies potential commercial, industrial, and mixed-use development or infill development areas within the FLUSA. These areas include the Burnt Mill Business Park and Market Street at Mercer Avenue areas. If developed, these sites will bring new employment opportunities to the FLUSA.

2.6 Notable Human Environmental Features

There are several well-established neighborhoods throughout the FLUSA that range from modest developments along Princess Place Drive, East Wilmington, and Creekwood neighborhoods to the more

affluent Forest Hills neighborhood. Indicators of strong community cohesion were noted during the site visits in May of 2009 and April 2019, which included neighbors assisting each other with unloading groceries from the car, repairing a vehicle, neighbors chatting on front porches, and children playing outdoors. City of Wilmington planners indicated neighborhoods within the FLUSA have a high occupancy rate partially due to a mix of price points, varied densities, and proximity to goods and services.

Creekwood South and Woodridge are public housing developments, with 198 units and 24 units respectively, located near the center of the FLUSA. The Market North Apartments is a low-income housing development located on Darlington Avenue. Due to hurricane-related storm damage, the Market North Apartments are currently vacant. Cypress Cove, currently under construction, will offer 200 affordable (below market rent) units.

There are 11 places of worship within the FLUSA, including: Iglesia Vision Trinidad Divina Pentecostes, Light of the World Ministry, Glad Tidings Community Church, Impact Church of Wilmington, Rock Church, Wilmington Seventh Day Adventist Church, Ebenezer Missionary Baptist Church, Praise and Deliverance AME Church, Macedonia Missionary Baptist Church, House of God Church, and Mount Herman Baptist Church.

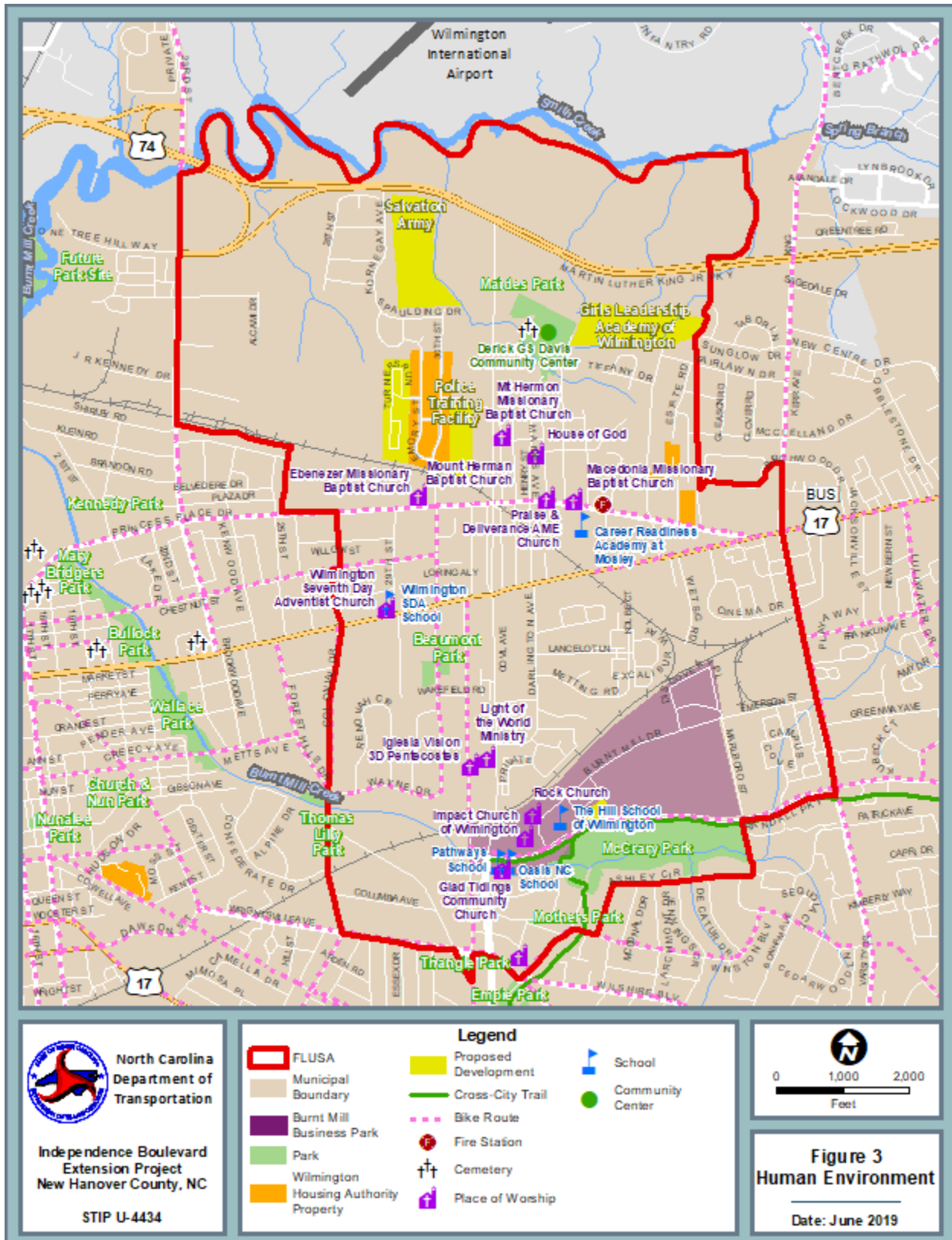
One public school is within the FLUSA, the Rachel Freeman School of Engineering and Career Readiness Academy at Mosley which is part of the New Hanover County School District. The following private schools are also within the FLUSA: Oasis NC, Pathways School, The Hill School of Wilmington, Wilmington Preparatory Academy, Wilmington Adventist School, and the Girls Leadership Academy of Wilmington, currently under construction.

The Cross-City Trail, a multi-use path, crosses through the eastern portion of the FLUSA parallel to Rosemont Avenue and Randall Parkway. Bike lanes were observed along both sides of Princess Place Drive through much of the FLUSA.

Wilmington Fire Department: Station 3 is located on Cinema Drive near the eastern border of the FLUSA. The Haynes-Lacewell Police and Fire Training Facility is currently under construction along North 30th Street.

Six city-owned and operated parks are located within the FLUSA: Beaumont, Empie, McCrary, Mother's, Triangle, and Maides Park which includes the Derick G.S. Davis Community Center and walking trail (Figure 3).

Figure 3: Notable human environmental features



2.7 Notable Natural Environmental Features

Low

The FLUSA is located within the Cape Fear River basin, hydrologic unit code 03030007.

Burnt Mill Creek, Smith Creek, and Spring Branch Creek along with several unnamed tributaries are within the FLUSA. These streams are designated as Class C; Sw and are not located in a water supply watershed. Class C waters are suitable for aquatic life propagation and survival, fishing, wildlife, secondary recreation, and agriculture. The supplemental classification “Sw” refers to “swamp waters” which are characterized by low velocities and other natural characteristics which make them different from adjacent streams.

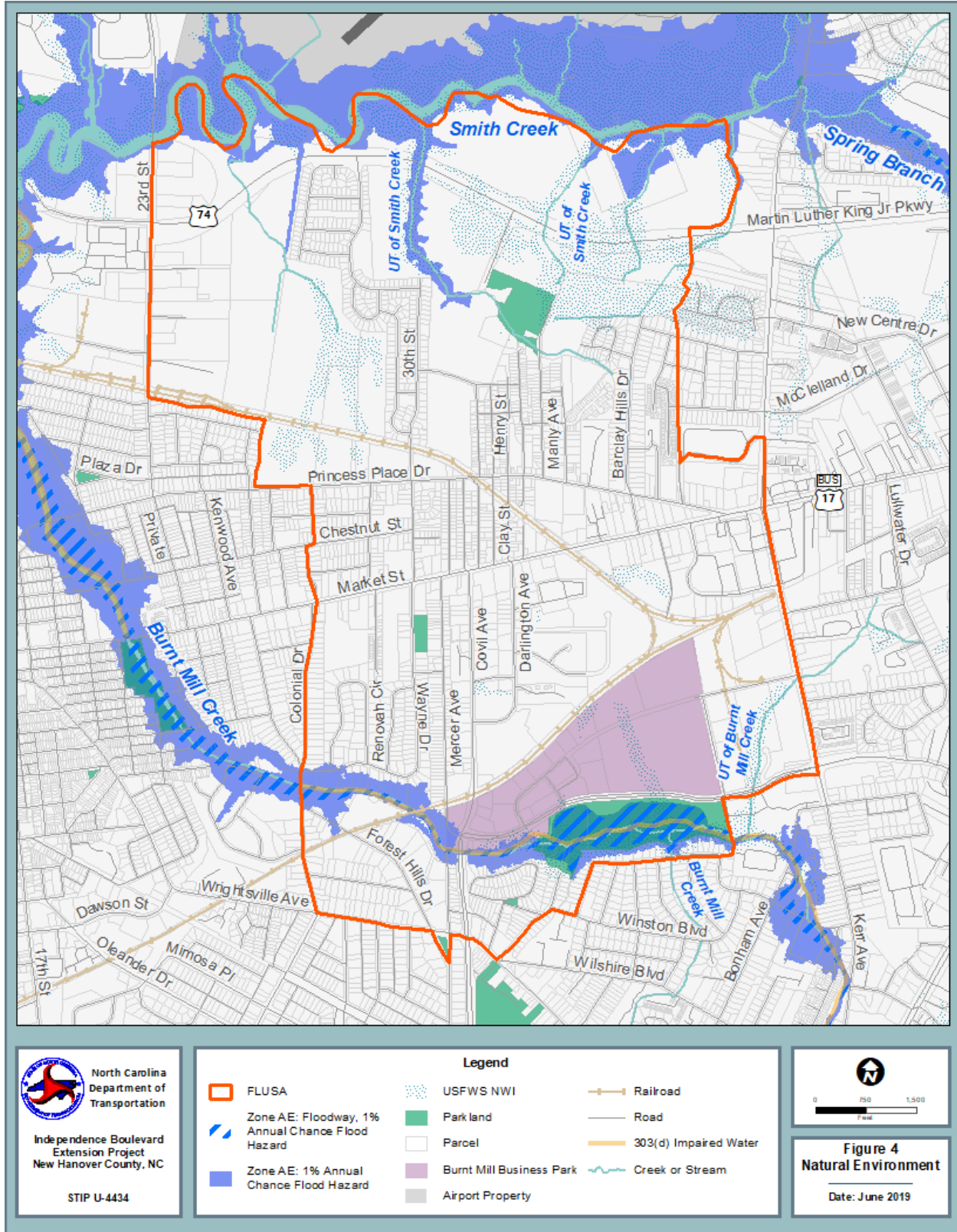
Smith Creek is a navigable water and identified as a Coastal Area Management Act (CAMA) Area of Environmental Concern (AEC).

The section of Burnt Mill Creek within the FLUSA is identified on the North Carolina Division of Water Resources (NCDWR) 2018 Final 303(d) List of Impaired Waters due to it exceeding criteria for chlorophyll and benthos.

There is a 100-year floodplain and regulatory floodway within the FLUSA associated with Burnt Mill Creek.

No wild and scenic rivers or outstanding resource waters exist within or near the FLUSA (Figure 4).

Figure 4: Notable natural environmental features



3.0 Analytical Screening

Chapter 3 assesses the scope of the project, travel time savings, water and sewer availability, market for development, and public policy.

3.1 Scope of the Project

Medium

One alignment (Alternative 7) with two interchange options at Market Street is being considered. The two interchange options are a TUDI and a SPUI. A four-lane cross section with grass median and shoulders is proposed with design speeds of 60 miles per hour. The proposed alternative would have full control of access and would be elevated in many places to avoid two railroad crossings and existing roadways. Within the urban core of Wilmington, there are only two continuous north-south connectors: College Road (NC 132), which is operating over capacity, and 23rd Street. The proposed project would create an additional continuous north-south connector.

Table 5 discusses the transportation impact-causing activities likely to influence nearby land uses.

Table 5: Summary of transportation impact causing activities

| Activity | Likely to Occur? | Expected Changes |
|-----------------|------------------|--|
| Travel Time | Yes | The time savings is expected to be less than five minutes. The proposed project would improve north-south connectivity, improve system linkages, and increase system traffic capacity. However, the proposed project would create less than two miles of new roadway. |
| Travel Patterns | Yes | The proposed project would provide an additional north-south travel route within the urban core of Wilmington. Currently, there are only two continuous north-south routes: 23 rd Street and College Road. The remaining north-south routes are discontinuous. The proposed project will increase north-south capacity which is anticipated to reduce congestion along 23 rd Street and College Road. In addition, the proposed project is anticipated to reduce congestion along east-west routes where travelers currently “stair-step” along east-west routes to access discontinuous segments of north-south routes. |
| Property Access | No | Given the project is proposed as a full-control-of-access roadway, it is not expected to provide access to adjacent properties. |

3.2 Travel Time Savings

Medium

Travel time savings is expected to be less than five minutes based on qualitative methods. The project proposes a four-lane divided, full-controlled-access thoroughfare that would connect with existing thoroughfares. Time savings is anticipated due to existing congestion in the area. The proposed project is likely to alter travel patterns by providing an improved, dedicated north-south connector. In addition, the

proposed project would improve intrastate/intermodal linkages and increase system traffic capacity. For these reasons, a medium rating was selected.

3.3 Water and Sewer Availability

High

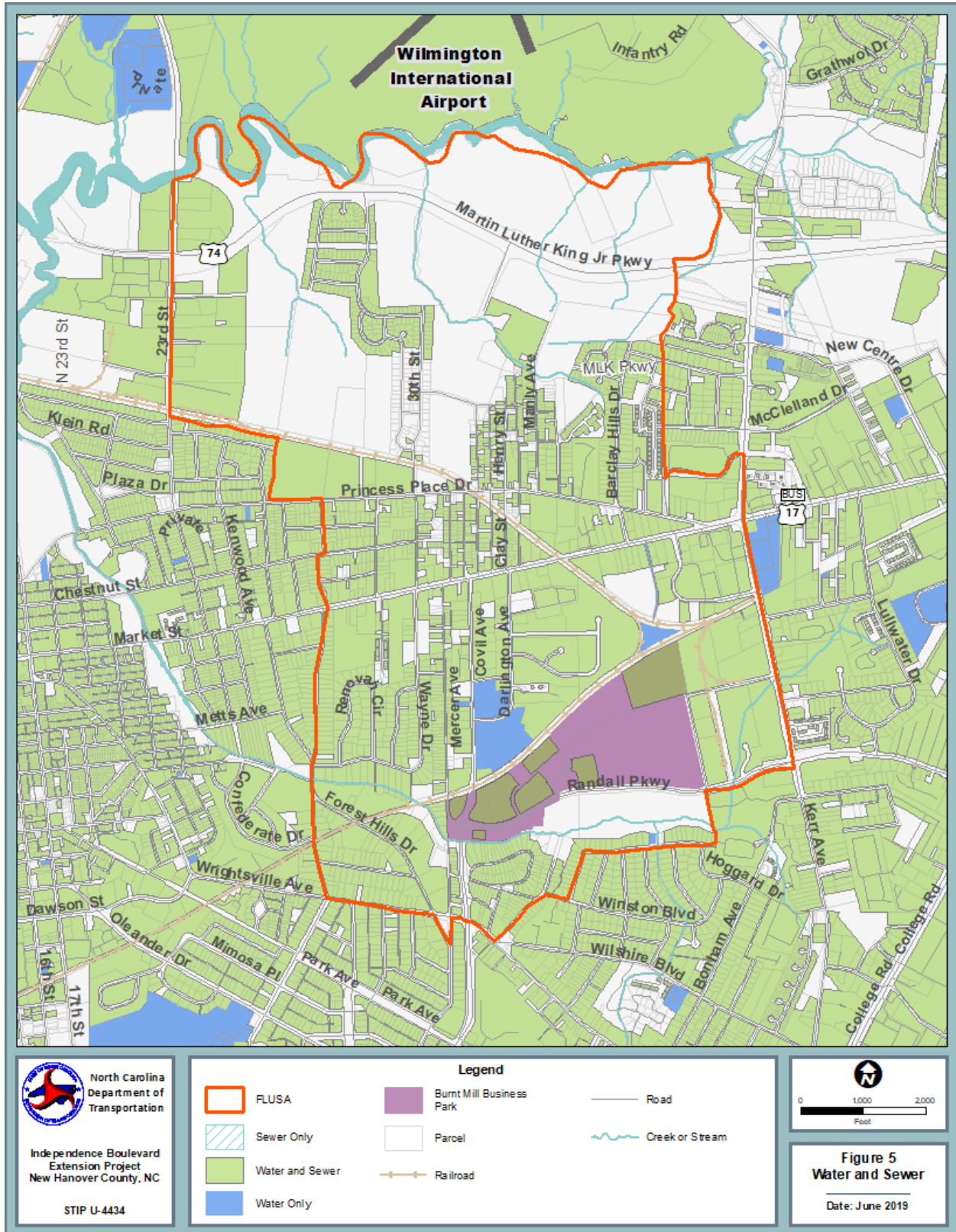
A high ranking was selected because the entire FLUSA is located within the water and sewer service area of the Cape Fear Public Utility Authority (CFPUA). Additional sewer capacity is available within the FLUSA (Figure 5).

Water service in the FLUSA comes out of the Sweeny Water Treatment Plant, which can treat up to 35 million gallons a day (MGD) of water. Water for the City of Wilmington comes primarily from the Cape Fear River. CFPUA processes and distributes approximately 16 MGD of drinking water. Groundwater is also pumped from the Pee Dee and Castle Hayne Aquifers and treated at the Michael E. Richardson Nanofiltration Plant. This plant can treat up to 6 MGD. No water pumps lie within the FLUSA. The nearest pumps are west of the Cape Fear River. No public water supply sources (wells) are located within the FLUSA.

Wastewater treatment services in the FLUSA are handled by the James A. Loughlin (Northside) Wastewater Treatment Plant, which can treat up to 10 MGD. This plant is in the far northwest corner of the FLUSA off North 23rd Street. The CFPUA substantially upgraded its plant capacity and treatment quality in anticipation of serving the city and county needs for the next 30 years.

The FLUSA falls within the City of Wilmington's Public Storm Sewer System, which is governed by a National Pollutant Discharge Elimination System (NPDES) Phase II Stormwater Permit. All activities within the Storm Sewer System must comply with this permit and Wilmington's associated Stormwater Management Plan.

Figure 5: Water and sewer availability



3.4 Available Land

Medium

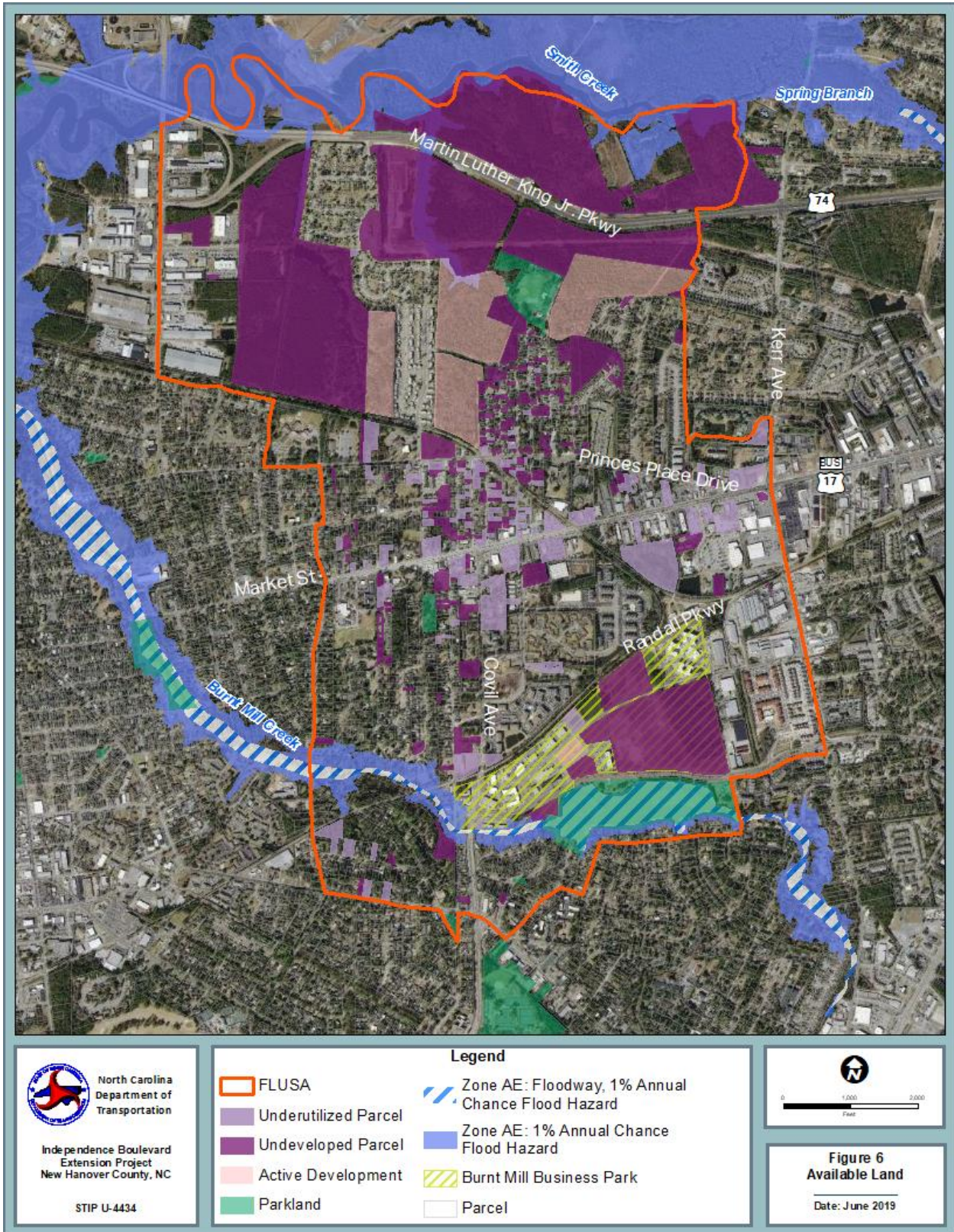
Available land for development was determined to include undeveloped parcels of land (those without building structures) and underutilized parcels. The available land analysis excludes protected lands such as city-owned parks (e.g., Maides Park), transportation right-of-way, rivers, streams, and floodways. Within the FLUSA, 160 acres were excluded from the available land analysis.

There are approximately 529 acres of undeveloped and underutilized land within the FLUSA. Underutilized lands were identified by selecting parcels in which the total value of improvements (i.e., buildings/structures) is less than the value of the parcel (i.e., land) without improvements. The FLUSA was also assigned an ease of assembly ratio based on the number of property owners. There are 316 undeveloped and underutilized parcels within the FLUSA, 272 with unique owners, resulting in a parcel-to-owner ratio of 1.2. A weighting factor of 0.75 was assigned and resulted in a 30 percent weighted available land score. This score denotes a medium amount of available land (Table 6).

Table 6: Summary of available land

| Area | Acres | Percent of FLUSA |
|--|-------|------------------|
| FLUSA | 1,408 | 100% |
| Developed land | 946 | 67% |
| Land available for development: Undeveloped (vacant) and underutilized | 529 | 38% |
| Available land weighted by ease of assembly | | 30% |

Figure 6: Available land



3.5 Market for Development

High

The FLUSA is centrally located east of the Central Business District, west of the University of North Carolina at Wilmington (UNCW), and south of the Wilmington International Airport. The proximity of the land within the FLUSA to such points of interest has influenced development patterns. Access to I-40 and the northern section of the Wilmington Bypass (I-140) are present north of the FLUSA. A notable amount of undeveloped and underutilized land is present within and around the FLUSA, particularly at the northern end of the FLUSA.

Notable development has occurred in the Burnt Mill Business Park. Two multi-tenant commercial buildings were recently completed. The construction of an additional commercial building is nearing completion along Jaeckle Drive and two more buildings are under construction on an adjacent parcel.

Over the last ten years, several new housing developments have been constructed within the FLUSA in the general vicinity of Princess Place Drive. One of the driving forces has been the Wilmington Housing Authority who has been shifting residents from its older, concentrated housing projects to scattered site developments. The Annexe at the Reserve, a luxury apartment complex completed in 2017, is located near the now vacant Market North Apartments (low-income housing). In addition, three large apartment complexes were constructed along Randall Parkway, primarily to provide off-campus housing for UNCW students. The City of Wilmington identified the Grey Commons Apartments at 15 South 29th Street as a planned development within the FLUSA. Due to the amount and intensity of development, a high rating was selected.

3.6 Public Policy

Medium

This criterion refers to the presence of growth management plans in the area surrounding the project. Land use plans, overlay districts, zoning, and other restrictions on growth are evaluated. The City of Wilmington's Land Development Code controls how land may be developed to implement the objectives in the comprehensive plan. Several areas in the FLUSA are targeted for development, infill development, and redevelopment.

The Market Street Corridor has been targeted for redevelopment in the *Market Street Corridor Plan*. The city plans to target this area for redevelopment, upgrades to infrastructure (e.g., sidewalks), and landscaping on an opportunistic basis when land use changes occur.

The Wilmington International Airport is located just north of the FLUSA. The Federal Aviation Administration restricts the type of development that can take place in the area along the northern border of the FLUSA.

The project lies within New Hanover County, which is one of the twenty CAMA designated counties. A CAMA permit will be required for this project, as the project is expected to impact streams and wetlands.

The FLUSA falls within the City of Wilmington's Public Storm Sewer System, which is governed by an NPDES Phase II Stormwater Permit. All activities within the Storm Sewer System must comply with this permit and Wilmington's associated Stormwater Management Plan.

4.0 Indirect Effects Matrix

Chapter 4 summarizes the results of the indirect effects matrix (Figure 7), noting the primary factors that affected the result.

Based on the information gathered, most of the categories on the screening tool reflected moderate to high concern for indirect and cumulative effects potential. A summary of justification for each category rating follows.

Scope of Project - The project will be a north-south thoroughfare that will connect with other existing thoroughfares. In addition, the project will have full control of access, two-lanes in each direction, and will be approximately 1.7 miles in length. This category was rated medium.

Travel Time Savings – Travel time savings is expected to be less than five minutes based on qualitative methods. The project proposes a four-lane divided, full-controlled-access thoroughfare that would connect with existing thoroughfares. Time savings is anticipated due to existing congestion in the area. This category was rated medium.

Forecasted Population Growth - The ACS indicated the annualized growth rate between 2000 and 2010 for the FLUSA was 2.6 percent. This growth rate is anticipated to continue based on recent and planned housing developments within the FLUSA. For these reasons, a medium-high ranking was selected.

Forecasted Employment Growth –Employment projections for the region are expected to have an average annual growth rate of 2.5 percent through 2035. With the land use plan designating several large tracts of land for the purpose of office, commercial, and industrial development, the FLUSA is likely to see a large increase in employment opportunities through 2030. Therefore, this category received a rating of high.

Available Land - There are 233 undeveloped and underutilized parcels, totaling 470 acres within the FLUSA, 187 parcels with unique owners resulting in a parcel-to-owner ratio of 1.3. A weighting factor of 0.75 was assigned and resulted in a 25.5 percent weighted available land score. This score denotes a medium amount of available land.

Water and Sewer Availability – The entire FLUSA is served by all public utilities. Thus, this category was rated high.

Market for Development – The major planned development areas are the Burnt Mill Business Park and residential development near North 30th Street and Princess Place Drive. This category was rated high.

Public Policy – Existing city ordinances and plans encourage new development and redevelopment. In addition, the project is required to follow CAMA regulations. Thus, this category was rated medium.

Notable Environmental Features - Stream and wetland systems exist within the FLUSA that would be crossed by the project; a low rating was selected.

The overall result, considering the scope of the project, annual population growth in the FLUSA, and the amount of economic growth expected in the area, suggests assessment through a Land Use Scenario Assessment Warranted.

Indirect Effects Matrix Result

Possible Land Use Scenario Assessment

LUSA Warranted

Yes No

Figure 7: Indirect effects matrix

| Indirect Effects Matrix - U-4434 Independence Boulevard | | | | | | | | | | |
|---|------------------|---------------------------------|-----------------------------------|-----------------------------------|----------------------------------|--|-------------------------------|--------------------------------------|---|-------------------------------------|
| Rating | Scope of Project | Travel Time Savings | Forecasted Population Growth | Forecasted Employment Growth | Available Land | Water/Sewer Availability | Market for Development | Public Policy | Notable Natural Environmental Features | Result |
| More Concern | High | > 10 minute travel time savings | > 3% annualized population growth | > 3% annualized employment growth | 40% or greater of available land | Services available (80 - 100% of FLUSA served) | Development Activity Abundant | Less stringent; no growth management | Notable Feature(s): Abundant / More Sensitive | |
| High | | | | X | | X | X | | | |
| Medium-High | X | | X | | | | | | | Likely Land Use Scenario Assessment |
| Medium | | X | | | X | | | X | | Coordinate with CS |
| Medium-Low | | | | | | | | | | |
| Low | | | | | | | | | X | |
| Less Concern | Low | No travel time savings | No population growth or decline | No employment growth or decline | 0 - 9% of available land | Limited or no service available now or in future (0 - 20% of FLUSA served) | No Development Activity | More stringent; growth management | Notable Feature(s): Minimal / Less Sensitive | |

*Refer to ICE Guidance Document for rating descriptions

5.0 Probable Development Areas

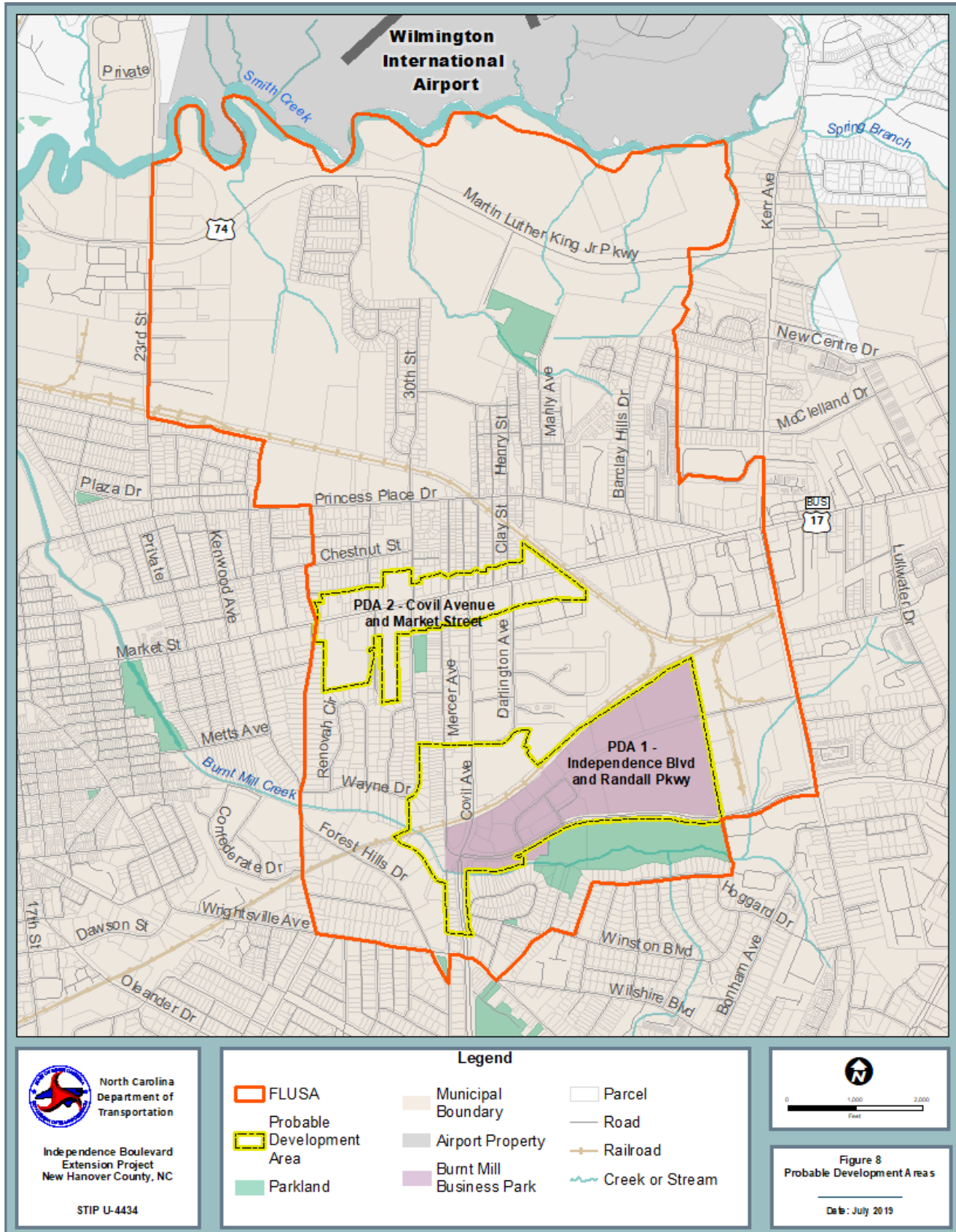
Chapter 5 provides an overview of each probable development area (PDA) and predicts how each PDA would develop under the no-build and build scenarios (Figure 8). These predictions are related to the local land use policies, adopted zoning regulations, the current development trends in the area, and development trends in and around similar nodes.

Two PDAs were identified within the FLUSA. PDA 1 encompasses the Burnt Mill Business Park and PDA 2 follows Market Street.

PDA 1, Burnt Mill Business Park, is located along Randall Parkway from Covil Avenue to South Kerr Avenue. *Create Wilmington Comprehensive Plan* identifies this area as having the greatest potential to accommodate future growth, infill, and new development. In addition, the area is designated as a mixed-use center where higher-density development is encouraged. Several large undeveloped parcels are located near Randall Parkway and Marlboro Street. This area is seen as an attractive area for development, and development will likely continue to occur with or without the project but may develop at a faster pace with the completion of the project.

PDA 2 follows Market Street from Covil Avenue to Princess Place Drive. This area is designated as a mixed-use center and high-capacity transit is proposed along Market Street in the *Create Wilmington Comprehensive Plan*. This area is also identified as having the potential to accommodate future growth, infill, and new development in the plan. However, this portion of Market Street has experienced a loss of several businesses over the years, as is evident by numerous vacant storefronts and restaurants. The construction of the project would create a new transportation node that would likely spur redevelopment.

Figure 8: Probable development areas



5.1 Existing Conditions within PDA 1

PDA 1 encompasses 225.7 acres along Randall Parkway in the southern portion of the FLUSA. Nearly 67 percent (150.6 acres) of PDA 1 is developed (Figure 9). Approximately 33 percent (75.1 acres) of the PDA contains undeveloped or underutilized lands. Public utilities are available throughout the entire PDA 1. The widening of Independence Boulevard south of Randall Parkway has increased accessibility and increased development potential in PDA 1. Development within PDA 1 includes a general office building at 3320 Jaeckle Drive, where construction is nearly complete, and two more commercial buildings on an adjacent parcel, where construction is underway. Table 7 shows the breakdown of vacant and developed land within PDA 1.

The majority of PDA 1 is zoned industrial and light industrial (City of Wilmington Zoning Map Appendix B). Industrial facilities line Marlboro Street and include a building material supplier and heating, air conditioning, and ventilation supplier. The area near the Randall Parkway and Covil Avenue intersection is zoned office and institutional. This portion of the PDA is heavily developed with numerous multi-tenant commercial buildings. The area along the PDA 1 boundary is zoned for multi-family residential.

Notable features include several government offices, such as the Internal Revenue Service and State of North Carolina Department of Health and Human Services Regional Centers for the Deaf and the Hard of Hearing.

Table 7: Land use summary – PDA 1

| Area | Acres | Percent of PDA |
|---|-------|----------------|
| PDA 1 | 226 | 100% |
| Developed Land | 151 | 67% |
| Land Available for Development: Undeveloped and Underutilized | 75 | 33% |

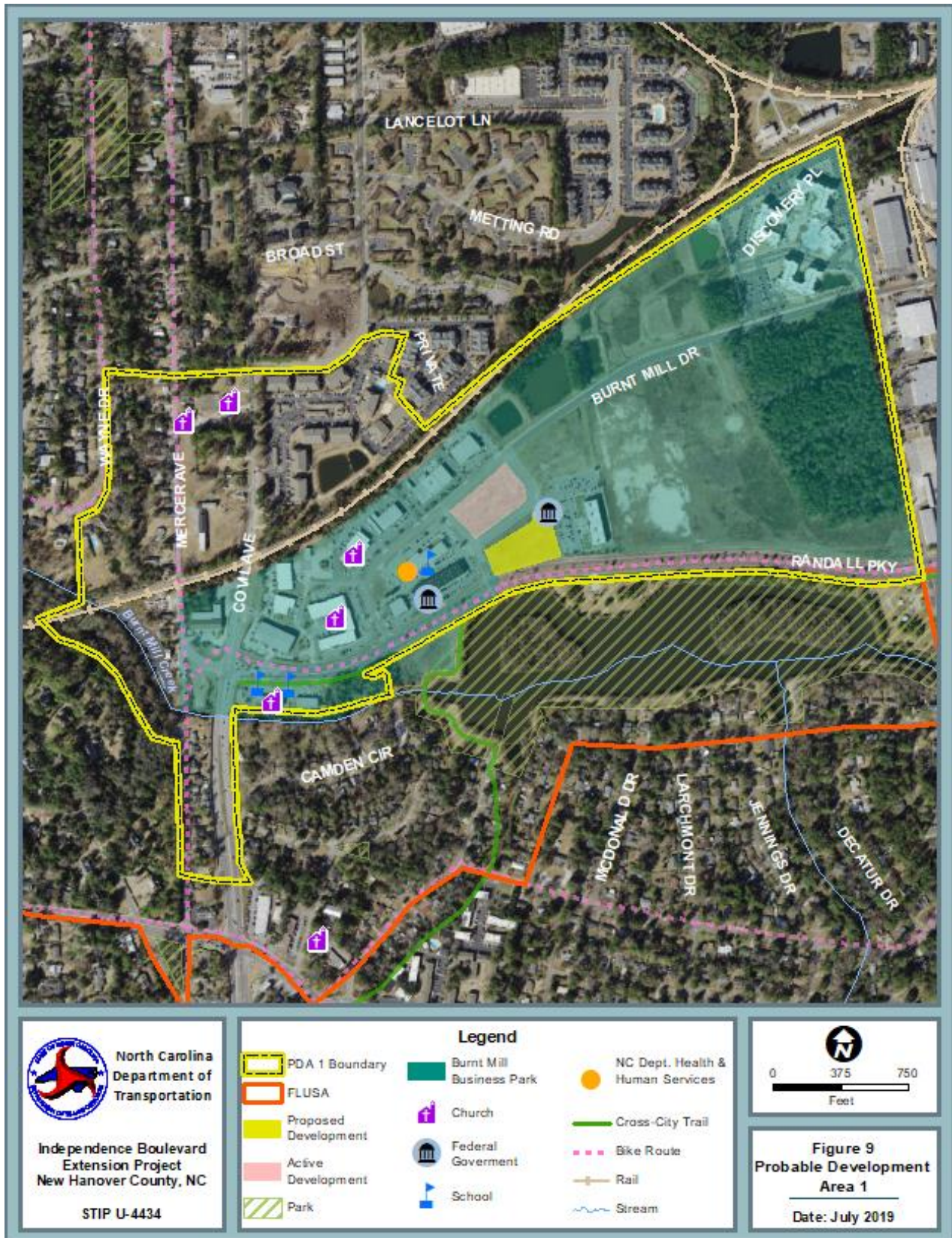
5.2 No-Build Scenario for PDA 1

Recent development, including a large apartment complex, in PDA 1 indicate development is likely to continue regardless of the construction of the proposed project. The recently constructed housing development is anticipated to encourage neighborhood retail and commercial development within PDA 1. Large, undeveloped lots are located within PDA 1 and utilities are widely available to support future development. The vision for the City of Wilmington outlined in *Create Wilmington Comprehensive Plan* identifies PDA 1 as a Live/Work Innovation Zone which encourages multiuse and higher intensity development. In addition, the PDA's proximity to UNCW and growing student enrollment is likely to drive development pressures. Several newly constructed large, off-campus housing developments are located just west of PDA 1.

5.3 Build Scenario for PDA 1

Improved north-south accessibility is likely to increase the rate of development within PDA 1. The improved connection to Martin Luther King Jr. Parkway provides more efficient access to the Wilmington International Airport and I-40. Improved regional accessibility is likely to attract development and several large undeveloped lots are available and zoned for commercial and/or industrial use. A spectrum of housing types appropriate for a range of income levels would encourage economic development by ensuring workers can find housing near their employment location. The proposed project would connect residential areas to the Burnt Mill Business Park, an employment center within PDA 1 (Figure 9).

Figure 9: Overview – PDA 1



5.4 Existing Conditions within PDA 2

PDA 2 encompasses 110.3 acres along Market Street near the center of the FLUSA. Nearly 95 percent (104.4 acres) of PDA 2 is developed lands (Figure 10). Approximately, 5 percent (5.9 acres) of PDA 2 is undeveloped or underutilized lands. Table 8 shows the breakdown of vacant and developed land within PDA 2. In 2010, the *Market Street Corridor Study* provided a redevelopment strategy for the Market Street corridor. NCDOT STIP U-4902 proposes access management improvements along Market Street from the CSX railroad to Cinema Drive, and Jacksonville Street to north of College Road (US 117 / NC 132) facilitating the implementation of recommendations in the *Market Street Corridor Study*.

The majority of PDA 2 is zoned residential R-3 (moderate to high-density) to R-15 (low-density). Zoning along Market Street and Princess Place Drive are community business, community services, and office and institutional facilities. This area is heavily developed with commercial development. A portion of the northwestern corner of PDA 2 is within a Historic District Overlay (HDO). The purpose of the HDO is to protect and preserve the elements of the character and heritage of the city, county, and state.

Table 8: Land use summary – PDA 2

| Area | Acres | Percent of PDA |
|--|-------|----------------|
| PDA 2 | 110.3 | 100% |
| Developed Land | 104.4 | 94.7% |
| Land Available for Development: Undeveloped (Vacant) and Underutilized | 5.9 | 5.3% |

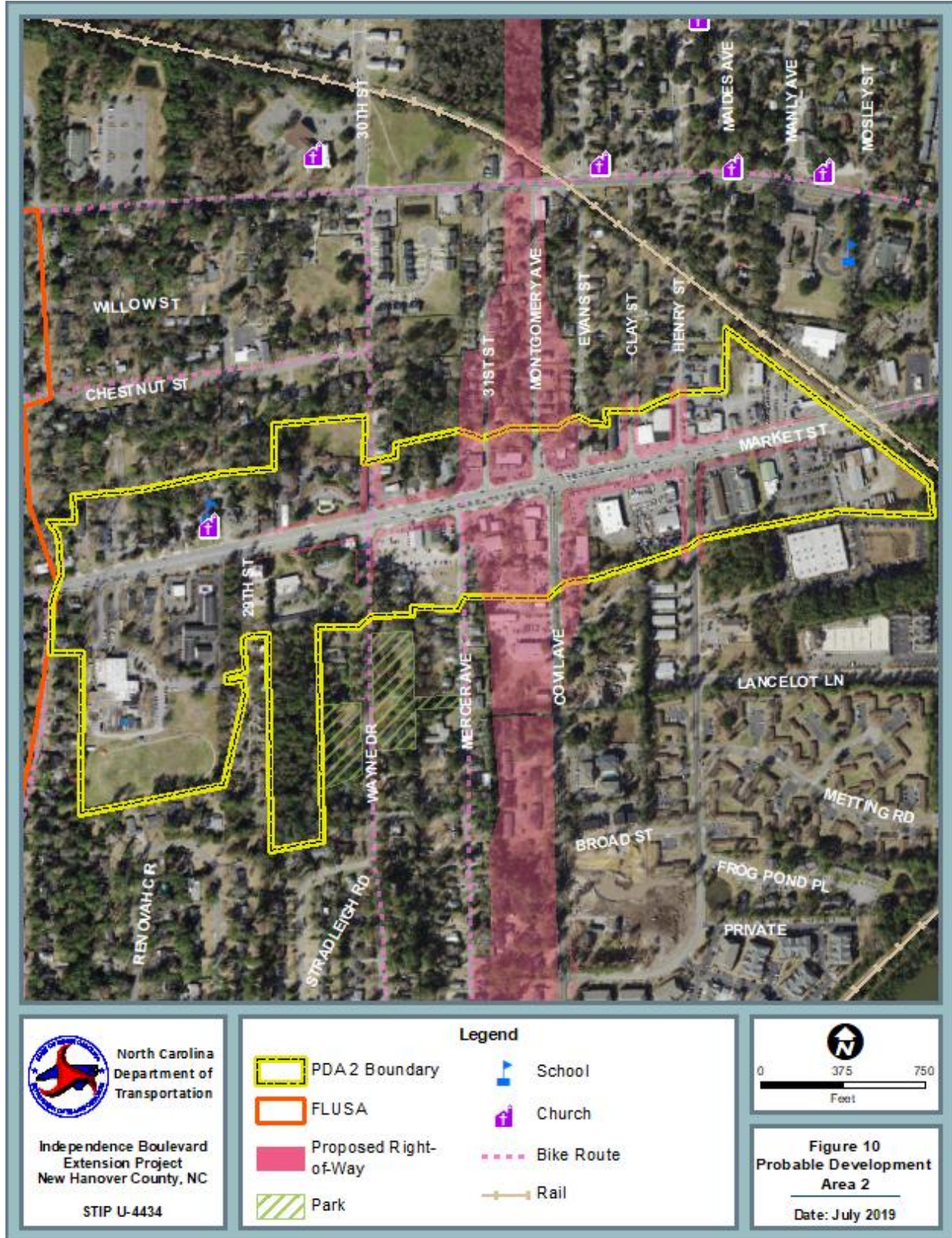
5.5 No-Build Scenario for PDA 2

Market Street is a gateway spine for the City of Wilmington. PDA 2 is heavily developed by auto-oriented, multi-tenant strip malls. The *Create Wilmington Comprehensive Plan* identifies PDA 2 as a Suburban Commercial Retrofit area which proposes to address suburban sprawl patterns that have resulted in declining investment and barriers to pedestrian mobility. The implementation of the comprehensive plan would encourage mixed-use development in place of commercial strip malls. A notable cluster of undeveloped and underutilized parcels within PDA 2 is likely to attract such developments. In addition, the NCDOT is planning to install a median along much of Market Street and is exploring a road diet for the western portion of the road within PDA 2. The road diet proposes reducing the typical section from 4 lanes to 2 lanes, with a raised, landscaped median, left turn lanes where appropriate, bike lanes, and some on-street parking. These improvements are likely to encourage redevelopment and infill by improving pedestrian accessibility and overall safety.

5.6 Build Scenario for PDA 2

Improved north-south accessibility is likely to increase the rate of development within PDA 2. The improved connection to Martin Luther King Jr. Parkway provides more efficient access to the Wilmington International Airport and I-40. An interchange is proposed at the Independence Boulevard Extension and Market Street intersection within PDA 2. The proposed interchange is likely to create a transportation node. A cluster of underutilized parcels are located where the interchange is proposed. The construction of the interchange may encourage auto-oriented commercial redevelopment. In addition, the project would likely consolidate much of the north-south traffic onto a single route and reduce pressure on east-west routes which would improve the flow of traffic along the east-west corridor. This may improve the viability of businesses along Market Street.

Figure 10: Overview – PDA 2



6.0 Evaluation of Scenarios

Chapter 6 evaluates the differences between the no-build and build scenarios for each project alternative in the following areas: scope of development, development intensity, regional population and employment growth, pressure for land development, and planned/managed uses and impacts.

6.1 Scope of Development

No-Build Scenario: Medium

Build Scenario: Medium

Approximately 66 percent of the land within PDA 1 and 95 percent of the land within PDA 2 is currently developed. Under both a build and no-build scenario, development is anticipated to continue at the existing rate. The proposed project is not anticipated to increase the rate of development because the full control of access means no new access to undeveloped parcels.

6.2 Development Intensity

No-Build Scenario: Medium-High

Build Scenario: Medium-High

Development within both PDAs is currently medium to high-intensity commercial and residential development. Under the Build Scenario, development and infill are anticipated; however, the intensity is not anticipated to change.

Under the No-Build Scenario, development intensity is expected to remain the same.

6.3 Future Shift of Regional Population Growth

No-Build Scenario: Medium-High

Build Scenario: Medium-High

The projection for population growth for the FLUSA is 2.6 percent, a medium-high matrix rating. Recently constructed high-density housing has spurred population growth in PDA 1. The City of Wilmington Senior Planner noted areas where mixed-use redevelopment is likely in PDA 2. The build scenario is not anticipated to spur additional population growth within the PDAs. The available land in PDA 1 is zoned for commercial and/or industrial use, not residential. The proposed project includes full control of access and would not provide new access within residential areas of PDA 2 and would reduce available land for development.

Under the no-build scenario, population growth projections within the PDAs would be similar to FLUSA projections discussed in 2.4.

6.4 Future Shift of Regional Employment Growth

No-Build Scenario: Medium

Build Scenario: Medium-High

The 2010 Census found that the FLUSA has a higher unemployment rate than New Hanover County, 10 percent and 7.1 percent respectively. The *Create Wilmington Comprehensive Plan* identifies areas where potential commercial, industrial, and mixed-use developments may occur within the PDAs. If developed, these sites would bring new employment opportunities. The proposed project is likely to increase the rate of development in PDA 1, where vacant commercial and/or industrial parcels are available. The proposed interchange at Market Street is anticipated to increase redevelopment; a cluster of underutilized parcels surround the proposed location. In addition, the project may improve the viability of businesses by consolidating north-south traffic onto one route and improving the flow of traffic along east-west corridors, including Market Street, in PDA 2.

Under the no-build scenario, employment growth within the PDAs would be similar to FLUSA projections discussed in 2.5.

6.5 Pressure for Land Development Outside Regulated Areas

No-Build Scenario: Low

Build Scenario: Low

Polices included in the *Create Wilmington Comprehensive Plan* intend to manage the growth and development of all lands within both PDAs. A portion of PDA 1 is within the Burnt Mill Creek floodplain. The existing regulations would limit development outside of regulated areas.

6.6 Planned/Managed Land Use and Impacts

No-Build Scenario: Medium

Build Scenario: Medium

The City of Wilmington requires Stormwater Management Permits to address both water quality and flood control for development and redevelopment within the PDAs. The City of Wilmington's Land Development Code and *Create Wilmington Comprehensive Plan* control how land may be developed to implement the objectives and vision developed in the comprehensive plan. The proposed project is consistent with land uses identified in the comprehensive plan.

Under the no-build scenario development is expected to occur in areas where these plans are in place.

7.0 Land Use Scenario Assessment Matrix

Chapter 7 summarizes the results of the Land Use Scenario Assessment Matrix and identifies whether an Indirect and Cumulative Effects Assessment is required.

The Land Use Scenario Assessment Matrix resulted in “Indirect Land Use Impacts Not Likely.”

The City of Wilmington’s Land Development Code, *Create Wilmington Comprehensive Plan*, and *Market Street Corridor Plan* include policies that intend to encourage high intensity development, redevelopment, and infill within the FLUSA. These policies have increased development pressure within the FLUSA under a no-build scenario.

Under a build scenario, the scope of development, development intensity, and future shift of regional population growth is not anticipated to change because the proposed project includes full control of access and would not result in new access to undeveloped parcels. If built, the proposed project is likely to increase the rate of commercial development in PDA 1, creating a future shift in regional employment. The proposed project is within the municipal boundaries of the City of Wilmington so the no-build and build scenarios were ranked similarly for development outside of regulated areas and planned area.

LUSA Matrix Result

Indirect Land Use Impacts Not Likely

Indirect and Cumulative Effects Assessment Required

Yes No

Figure 11: Land use scenario assessment matrix

| Land Use Scenario Assessment Matrix - U-4434 Independence Blvd Extension | | | | | | | |
|--|---|--|--|---|---|--|--------------------------------------|
| Rating | Scope of Development | Development Intensity | Future Shift of Regional Population Growth | Future Shift of Regional Employment Growth | Pressure for Land Development Outside Regulated Areas | Planned / Managed Land Use and Impacts | Result |
| More Concern | 40% or Greater Change in Developed Land within the PDAs | Higher Development Intensities Anticipated | Strong Attraction of Development in the PDAs | Strong Attraction of Development in this Area | All PDAs are Outside a Regulated Area | Land Development and Stormwater Management Goals Not Set | |
| High | | | | | | | |
| Medium-High | | No-Build and Build Scenarios | No-Build and Build Scenarios | Build Scenario | | | |
| Medium | No-Build and Build Scenarios | | | No-Build Scenario | | No-Build and Build Scenarios | |
| Medium-Low | | | | | | | Indirect Land Use Impacts Not Likely |
| Low | | | | | No-Build and Build Scenarios | | |
| Less Concern | 0-9% Change in Developed Land within the PDAs | No Current or Proposed Development Anticipated | No Population Shift Likely | No Employment Shift Likely | All PDAs are Inside a Regulated Area | Land Development, Stormwater Management Goals, and Growth Management Provisions in Place | |

Indirect and Cumulative Effects Summary Required

8.0 Indirect and Cumulative Effects Assessment

An Indirect and Cumulative Effects Assessment is required for this project. Chapter 8 assesses the indirect and cumulative effects of past actions, current activities, and future development on notable water quality, natural habitat, and community features within the FLUSA.

8.1 Summary of Past, Present, and Future Projects in the FLUSA

The following projects, listed in Table 9, Table 10, and Table 11 were complete, current, or are proposed within the FLUSA.

Table 9: Summary of past projects

| Project | Description of Action |
|------------------------------|---|
| U-3338B | Kerr Avenue widening between Martin Luther King, Jr. Parkway and Patrick Avenue. Widen to four-lane divided with bicycle lanes and sidewalk. |
| Widen Independence Boulevard | Independence Boulevard widen to four lanes from Shipyard Boulevard to Carolina Beach Road. |
| Widen Randall Parkway | Randall Parkway widen to four-lane divided roadway from Independence Boulevard to South College Road. Improvements include bike lanes and 10-foot multi-use path. |

Table 10: Summary of current projects

| Project | Description of Action |
|--|---|
| Haynes-Lacewell Police, Fire, and City Training Facility | Construction of a 30,000 square foot training and office facility at 3100 Hurst Street. Construction is anticipated to finish in late 2019. |
| GLOW Leadership Academy | An all-girls public charter school at 4100 Sunglow Drive. Construction is anticipated to finish in 2019. |

Table 11: Summary of future projects

| Project | Description of Action |
|---------|---|
| U-4902B | Market Street access management improvements (Phase II) including the installation of a median from CSX Railroad to Cinema Drive and Jacksonville Street to College Road. |

8.2 Cumulative Effects Analysis

This section summarizes the indirect and cumulative effects of past actions, current activities, and future development on notable water quality, natural habitat, and community features (Table 12 and Table 13).

8.2.1 Cumulative Effects Matrix – Natural Environment

The portion of Burnt Mill Creek within the FLUSA is identified on NCDWR’s 303(d) List of Impaired Waters; multiple stressors were identified including development in the watershed and degradation due to sedimentation. Fragmented forestland is in the northern portion of the FLUSA. No notable natural habitat features were identified.

**Cumulative Effects Matrix –
Natural Environment**

Cumulative Effects Not Likely

Direct natural environmental impacts resulting from NCDOT projects would be addressed by avoidance, minimization, or mitigation consistent with programmatic agreements with the natural resource agencies during the merger and permitting processes.

Table 12: Notable water quality features

| Feature | Past Actions | Current Activities | Future Development |
|--|---|--|---|
| Burnt Mill Creek: 303(d) List of Impaired Waters due to exceeding criteria for chlorophyll and benthos | Widening of Randall Parkway and private development likely increased runoff | Best Management Practices included in the proposed project are likely to minimize impacts to water quality | Increased impervious surface from this project and proposed development in proximity to Burnt Mill Creek may increase runoff and sediment |

Table 13: Notable natural habitat features

| Feature | Past Actions | Current Activities | Future Development |
|---------|--------------|--------------------|--------------------|
| None | | | |

Past Actions – a medium-low ranking was selected because past develop had increased impervious surface; however, numerous retention ponds to mitigate the potential impacts, were observed within the FLUSA.

Current Activities – the City of Wilmington requires Stormwater Management Permits to address both water quality and flood control for development and redevelopment within the FLUSA. In addition, Wilmington’s Land Development Code establishes density and intensity standards for development. For these reasons, a medium-low ranking was selected.

Future Development – the Burnt Mill Creek is not explicitly protected and high intensity development pressures within the FLUSA will likely increase impervious surfaces, increasing sedimentation. A high ranking was selected for this reason.

Figure 12: Cumulative effects matrix – natural environment

| Cumulative Effects Matrix - Natural Environment - U-4434 Independence Boulevard | | | | | | | |
|---|--|--------------------|--------------------|--|--------------------|--------------------|-------------------------------|
| Rating | Notable Water Quality Features | | | Notable Natural Habitat Features | | | Result |
| More Concern | Unique Resources Not Protected / Recognized | | | Unique Resources Not Protected / Recognized | | | |
| | Past Actions | Current Activities | Future Development | Past Actions | Current Activities | Future Development | |
| High | | | X | | | | |
| Medium - High | | | | | | | |
| Medium | | | | | | | |
| Medium - Low | X | X | | | | | Cumulative Effects Not Likely |
| Low | | | | | | | |
| Less Concern | Features Incorporated in Local Planning and Protection | | | Features Incorporated in Local Planning and Protection | | | |

*Refer to LUSA Guidance Document for rating descriptions

8.2.2 Cumulative Effects Matrix – Human Environment

Past transportation projects have widened portions of Kerr Avenue, Independence Boulevard, and Market Street, increasing pedestrian crossing lengths and durations. However, the Kerr Avenue and Market Street projects included landscaping, bike lanes, sidewalk, and/or multiuse path to accommodate pedestrians and preserve the community’s character.

**Cumulative Effects Matrix –
Human Environment**

Cumulative Effects Not Likely

The proposed project would impact pedestrian access to Maides Park and Derick G.S. Davis Community Center from the Creekwood neighborhood. The *Create Wilmington Comprehensive Plan* notes pedestrians use the utility corridors in both the Creekwood and Old East Wilmington neighborhoods. However, a multi-use path is proposed along the proposed project that would provide improved access to Maides Park and Derick G.S. Davis Community Center. In addition, the proposed project would result in the relocation of two places of worship.

Table 14: Notable community features

| Feature | Past Actions | Current Activities | Future Development |
|--|--|--------------------|---|
| Maides Park and Derick G.S. Davis Community Center | The park underwent extensive renovations in 2009 | None | The proposed project would impact pedestrian access from the Creekwood neighborhood |
| Iglesia Vision Trinidad Divina Pentecostes | None | None | The proposed project would result in the relocation of this church |
| The Light of the World Ministry | None | None | The proposed project would result in the relocation of this church |

Past Actions – a low ranking was selected because previous transportation project have included pedestrian facility improvements, bike lanes, and landscaping to preserve the community’s character.

Current Actions – the proposed project includes a multi-use path; however, it would result in the relocation of two places of worship. For this reason, a medium-low ranking was selected.

Future Actions – a medium-low ranking was selected because the polices included in the *Create Wilmington Comprehensive Plan* intend to manage the growth and development of all lands within the FLUSA.

Figure 13: Cumulative effects matrix – human environment

| Cumulative Effects Matrix - Human Environment - U-4434 Independence Blvd Extension | | | | |
|---|---|---------------------------|---------------------------|--------------------------------------|
| Rating | Notable Community Features | | | Result |
| More Concern | Unique Resources Not Protected / Recognized | | | |
| | Past Actions | Current Activities | Future Development | |
| High | | | | |
| Medium - High | | | | |
| Medium | | | | |
| Medium - Low | | X | X | Cumulative Effects Not Likely |
| Low | X | | | |
| Less Concern | Features Incorporated in Local Planning and Protection | | | |

8.3 Water Quality Statement

The City of Wilmington requires Stormwater Management Permits to address both water quality and flood control for development and redevelopment within the FLUSA. In addition, Wilmington's Land Development Code establishes density and intensity standards for development. These ordinances and regulations mitigate potential water quality effects due to increased impervious surfaces, water runoff, and sedimentation. The potential for the degradation of water quality also exists through erosion and stream sedimentation. Under a build scenario, any direct natural environmental impacts by NCDOT projects would be addressed by avoidance, minimization, and mitigation consistent with programmatic agreements with the natural resource agencies during the merger and permitting processes.

Under the no-build scenario, private and public development is unlikely to notably increase impervious surface.

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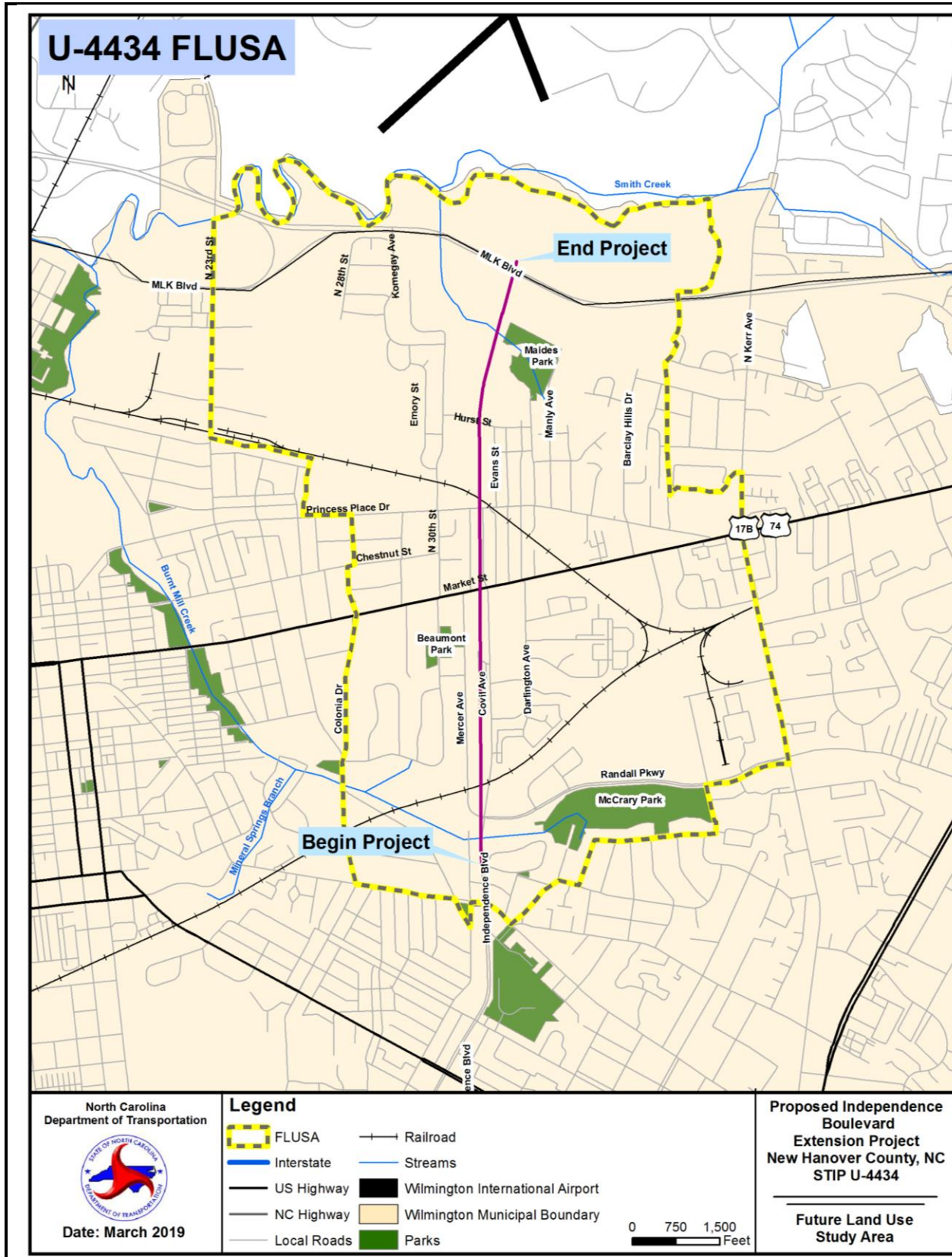
Appendix A: Interviews

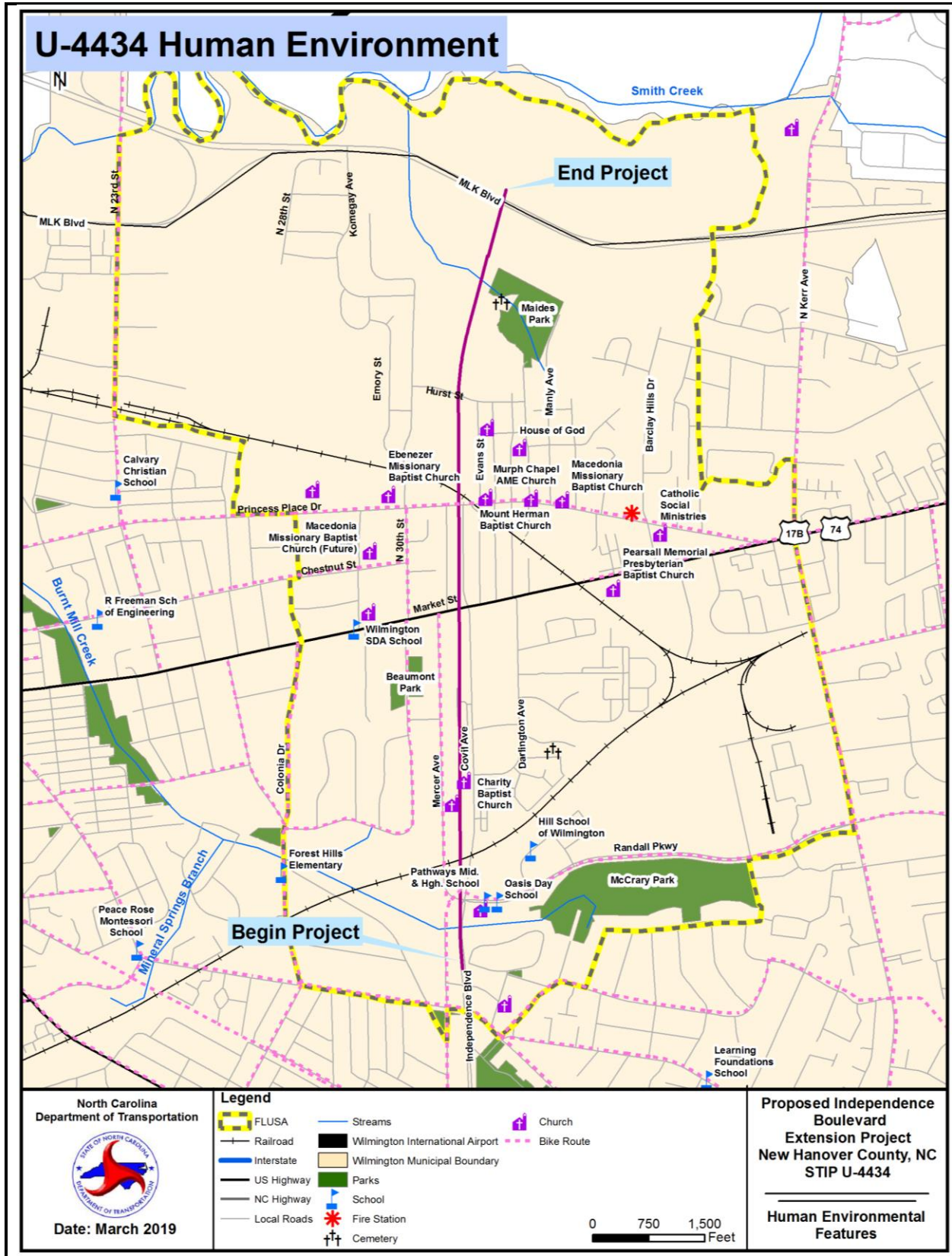
| Interview Contact Summary #1 | | |
|------------------------------|---|---|
| Name: | Christine Hughes | |
| Title: | Senior Planner | |
| Agency: | City of Wilmington Planning, Development, and Transportation | |
| Phone: | 910.341.5885 | |
| Email: | Christine.hughes@wilmingtonc.gov | |
| First Contact Date | Method(s) | Result |
| 4/8/2019 | <input checked="" type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> In-person | <input checked="" type="checkbox"/> Form returned on: 4/8/2019 <input type="checkbox"/> Interviewed on: Click here to enter a date. <input type="checkbox"/> No response Comments: Click here to enter text. |

| Interview Contact Summary #2 | | |
|------------------------------|---|--|
| Name: | Abby Lorenzo | |
| Title: | Senior Transportation Planner | |
| Agency: | WUAMPO | |
| Phone: | 910.341.7890 | |
| Email: | Abigail.lorenzo@wilmingtonc.gov | |
| First Contact Date | Method(s) | Result |
| 5/23/2019 | <input checked="" type="checkbox"/> Email <input type="checkbox"/> Phone <input type="checkbox"/> In-person | <input checked="" type="checkbox"/> Form returned on: 6/4/2019 <input type="checkbox"/> Interviewed on: Click here to enter a date. <input type="checkbox"/> No response Comments: Concurred with C. Hughes comments; no additions provided |

Completed ICE Comprehensive Interview Form

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|--|--|
|  | <p>NCDOT Community Studies Group, Human Environment Section Comprehensive Interview Form for STIP Project U-4434 LAND USE SCENARIO ASSESSMENT</p> |
| Contact Information | |
| <p>Interviewee Name: Christine Hughes Title/Position: Senior Planner Organization/Agency: City of Wilmington Planning, Development, and Transportation Email: christine.hughes@wilmingtonnc.gov</p> | <p>Date: 4/8/2019 Phone Number: 910.341.5885 Completed via: <input checked="" type="checkbox"/> Email <input type="checkbox"/> Phone</p> |
| Interview Information/Instructions | |
| <p><i>If completed by email:</i> Using the project information and map below, please respond to the following questions by typing your answers in the space provided. Then save (using the Save As command) this file with a new file name for your records and e-mail the new file back to the original sender. If you would prefer to complete a hard copy of this form, please send all sheets to the address below:</p> <p>AECOM c/o Todd McAulliffe 6000 Fairview Road, Suite 200 Charlotte, NC 28210 Todd.mcaulliffe@aecom.com</p> | |
| Project Information | |
| <p>Independence Boulevard Extension would be an extension of existing Independence Boulevard (SR 1209) from the intersection with Randall Parkway and Mercer Avenue to Martin Luther King Jr. Parkway (US 74). The proposed action (or proposed project) is designated in the Draft 2018-2027 NCDOT State Transportation Improvement Program (STIP) as STIP Number U-4434. There is currently one alignment alternative (Alternative 7) with two interchange options at Market Street being considered. The two interchange options are a tight urban diamond interchange (TUDI) and a single point urban interchange (SPUI). The designs of both of the interchange options would limit the footprint of the interchange and require less right-of-way than a traditional interchange.</p> <p>The map below shows the Future Land Use Study Area (FLUSA) for the project, and the subsequent maps show the community and natural features in the vicinity of the project.</p> | |



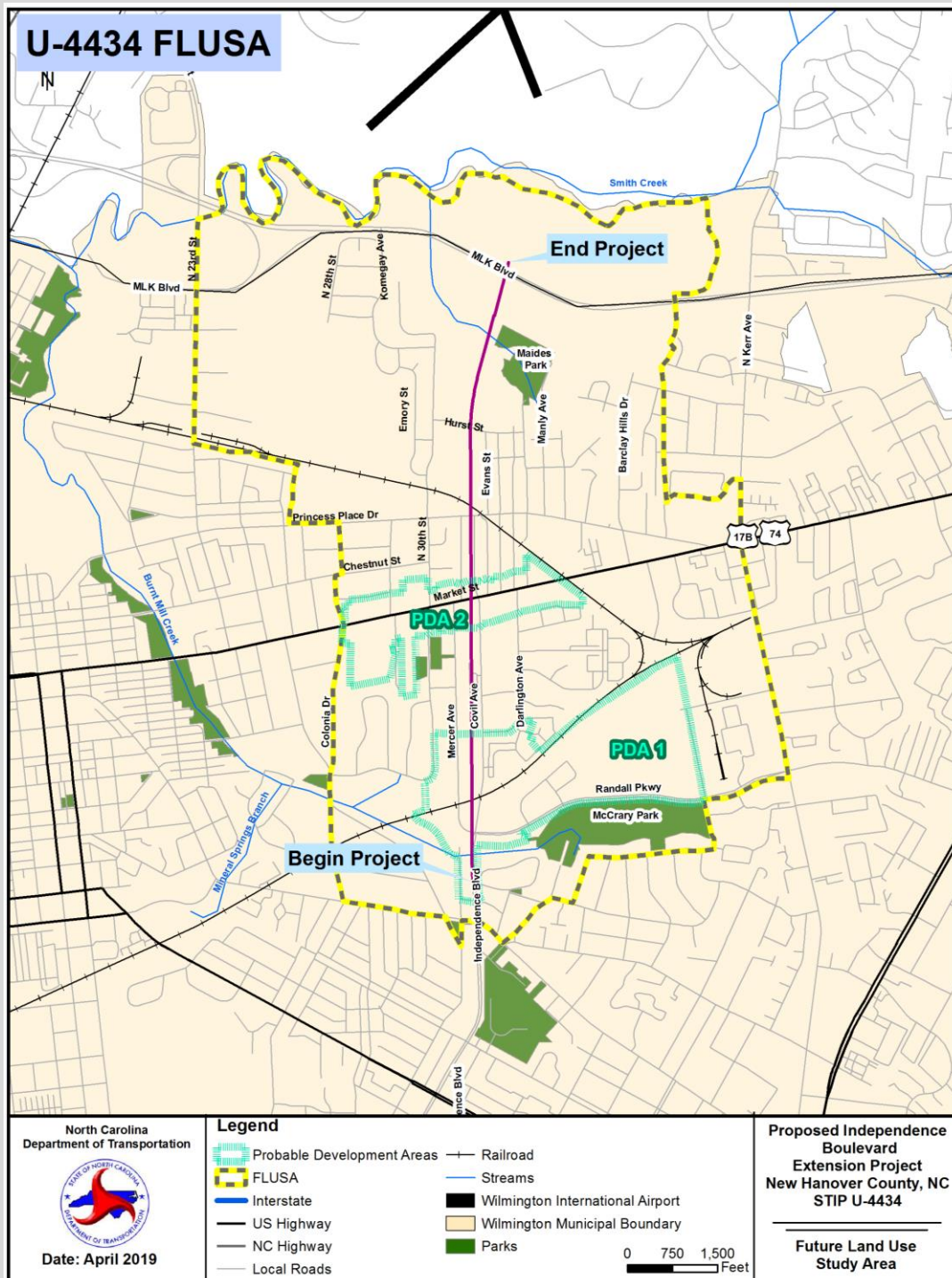




| Verify and Update Information from the ICE Report | |
|---|--|
| Please provide a detailed response in the field provided or check the box if the question is not applicable. | Check if item is <u>not</u> applicable: |
| Future Land Use Study Area (FLUSA) Characteristics | |
| 1. Does the Preliminary ICE Study Time Horizon of 2035 seem appropriate for this project particularly in terms of consistency with the planning horizons of local transportation and land use plans? If not, please indicate what the year should be. | Required Question |
| 2. Are there notable public or private transportation, infrastructure, or development projects underway or foreseeable in the FLUSA? Please describe the current status of these projects, noting if they are permitted or planned. Please see other worksheet | <input type="checkbox"/> N/A |
| 3. How do population and employment trends within the FLUSA compare to the county or multi-county area trends? Are there areas of the FLUSA that are growing or declining more so than other areas? You'd want to consult ACS data for that information | <input type="checkbox"/> N/A |
| 4. Please verify the accuracy and completeness of the Human Environmental Features Map provided above. Are there additional features that should be included? Please see other worksheet | <input type="checkbox"/> N/A |
| 5. Please verify the accuracy and completeness of the Natural Environmental Features Map provided above. Are there additional features that should be included? | <input type="checkbox"/> N/A |
| Additional comments or information regarding FLUSA Characteristics: | |
| Growth and Development | |
| 6. Is the FLUSA currently served by water and sewer service? If not, are there plans and funding to extend service? Please contact CFPUA for this info | <input type="checkbox"/> N/A |
| 7. Please identify land/parcels within the FLUSA that are likely to be developed or sold. Please see other worksheet for developments. | <input type="checkbox"/> N/A |
| 8. Describe the type and location of any public or private development that is currently occurring within the FLUSA. Please see other worksheet | <input type="checkbox"/> N/A |
| 9. Are there any known plans for public or private development in the FLUSA? If so, has this development been permitted and/or initiated yet? | <input type="checkbox"/> N/A |
| 10. How would development patterns likely be different if a) the project is built or b) the project is not built? Building the project will impact Old East Wilmington, a historically African-American community and cause demolition of some National-register eligible structures. There is also a cemetery in the vicinity. | <input type="checkbox"/> N/A |
| Additional comments or information regarding Growth and Development: | |
| Public Policy | |
| 11. What are the local plans, policies, or regulations that pertain to development and growth within the FLUSA? | <input type="checkbox"/> N/A |

| | |
|--|------------------------------|
| Create Wilmington Comprehensive Plan | |
| 12. Describe the effectiveness of these plans, policies, and regulations at balancing development and natural resource protection within the FLUSA. | <input type="checkbox"/> N/A |
| Additional comments or information regarding Public Policy: | |
| Next Steps | |
| 13. Should others be consulted regarding this Indirect and Cumulative Effects analysis? (e.g. municipal utilities, county planners, etc.) WMPO, CFPUA | <input type="checkbox"/> N/A |
| Additional comments or information regarding this Indirect and Cumulative Effects analysis: | |

Land Use Scenario Assessment – Probable Development Areas (PDA)



This map shows the areas that have been preliminarily identified as probable development areas, or PDA's, where the project may influence land use changes.

| | | |
|--|---|----------------|
| PDA Name: | Independence Blvd and Randall Parkway | |
| General Description: | The vicinity of Independence Boulevard, Covil Avenue, and Randall Parkway | |
| Land Availability | Acres | Percent |
| Land Available for Development: <i>Undeveloped (vacant) and underutilized</i> | 75.1 | 33.2% |
| Developed Land | 150.6 | 66.8% |
| Total: | 225.7 | |
| PDA Name: | Independence Blvd (future) and Market Street | |
| General Description: | The vicinity of Independence Boulevard, Covil Avenue, and Market Street | |
| Land Availability | Acres | Percent |
| Land Available for Development: <i>Undeveloped (vacant) and underutilized</i> | 5.9 | 5.3% |
| Developed Land | 104.4 | 94.7% |
| Total: | 110.3 | |


| |
|--|
| Land Use Development Scenarios |
| 1. Describe any public or private development that would be likely to occur in the near-term (next five years) within the Probable Development Areas (PDAs). |
| 2. How would each of the PDAs likely develop if the proposed project is <u>not</u> constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable. |
| 3. How would each of the PDAs likely develop if the proposed project is constructed? Take into account the current zoning regulations and land use / comprehensive plan, if applicable. |
| 4. Would building the project influence the type (e.g. residential vs. commercial) and/or density of development within the PDAs? |
| 5. How does future population and employment growth within the PDAs compare to the surrounding area? For example, is future growth anticipated to be greater within the PDAs compared to the region? |
| Additional comments or information regarding Land Use Development Scenarios: |



Tue 6/4/2019 2:16 PM

Abigail Lorenzo <Abigail.Lorenzo@wilmingtonnc.gov>

FW: Independence Boulevard Extension (NCDOT STIP U-4434)

To  Kim, Jessica You replied to this message on 6/4/2019 2:20 PM.U-4434 LUSA Comprehensive Interview Form.docx
2 MBU-4434 Planner Input Form - CIA.docx
419 KB

Hi Jessica,

I am forwarding to you the responses to the questionnaire previously provided by Christine Hughes, a Senior Planner with the City of Wilmington. She typically assists us with answering questionnaires concerning land use in the City.

Thank you,

Abby Lorenzo
Senior Transportation Planner
Wilmington Urban Area Metropolitan Planning Organization (WMPO)
City of Wilmington
[305 Chestnut Street, 4th Floor](#)
[Wilmington, NC 28401](#)
(910) 341-7890

City of Wilmington Zoning Map

