

## Chapter 2 Affected Environment

Title 14 Code of Federal Regulations (CFR) Part 150 requires the identification and evaluation of land uses surrounding an airport. This chapter identifies the existing land uses and the residential and other noise-sensitive land uses in the area surrounding Charlotte Douglas International Airport (Airport or CLT). A further discussion of the land use mapping methodology and zoning information is provided in **Appendix D, Land Use Methodology**.

### 2.1 Airport Environs

The Airport Environs refers to the regional area that experiences most of the aircraft overflights from an airport. The Airport Environs for CLT encompasses an area of approximately 45 square miles that includes portions of the City of Charlotte and unincorporated Mecklenburg County as shown in **Exhibit 2-1, Airport Environs**. The exhibit includes jurisdictional boundaries, local roads and major highways, the Airport property line, and significant geographical features such as a portion of the Catawba River. The Airport Environs extends to the north by approximately 3.8 miles from Runway end 18C, to the east by approximately 1.3 miles east of Runway 18L/36R, to the south by approximately 5.0 miles south of Runway end 36C, and approximately 1.0 mile to the west of Runway 18R/36L.

The Airport Environs boundary was delineated based upon previous noise exposure contours, as well as radar data showing the location of existing flight tracks. The Airport Environs represents the area in which detailed land use data was collected to satisfy Part 150 requirements to assess land use compatibility within the Day-Night Average Sound Level (DNL) 65 dB noise exposure contour.

### 2.2 Existing Land Uses and Noise-Sensitive Sites Within Airport Environs

Land uses located within the Airport Environs were identified, mapped, and categorized in accordance with the Appendix A in 14 CFR Part 150 Land Use Compatibility Guidelines general land use classifications: residential (single, multi-family, and mobile homes), commercial, manufacturing and production, public uses, recreational, and vacant/open space. Land use compatibility guidelines are presented in Appendix A, Table A-1. These uses were identified based on Mecklenburg County's Geographic Information System (GIS) database, and supplemented as necessary by field verification. Appendix D provides additional detailed information regarding the classification and identification of land uses. **Exhibit 2-2, Generalized Existing Land Use**, depicts the existing land uses within the Airport Environs.

The area for which existing land uses were identified involves two levels of delineation: 1) the area directly adjacent to the Airport and the areas directly in line with the orientation of the runways; and 2) the regional area that may experience the broader effects of aircraft overflight and noise impacts. To the immediate north and northeast of CLT, land uses are characterized by commercial, institutional, and residential areas. To the south of CLT, land is predominantly residential and open space properties mixed with commercial and institutional land uses. To the east of CLT, land is predominantly residential and commercial land uses. To the west of CLT, land is predominantly vacant with wooded areas and with some scattered residential land uses.

Land uses that could be considered noncompatible with airport operations include more than just residential uses. FAA guidelines define certain public facilities as noise-sensitive, which are herein referred to as noise-sensitive sites and include: places of worship, schools (and daycare facilities at which licensed education occurs), nursing homes, libraries, and hospitals. Detailed information on noise-sensitive sites was collected within the Airport Environs. Within the Airport Environs, there are 18 schools, 45 places of worship, and 36 daycares as shown on **Exhibit 2-3, Existing Noise-**

**Sensitive Sites.** Appendix D discusses the methodology for collecting and organizing the noise-sensitive site data and Table D-2 provides a list of all facilities.

## 2.3 Existing Historic Sites

Per FAA guidance, historic properties in the vicinity of CLT have been identified and displayed on the NEMs. Historic properties include those properties that are listed on the National Register of Historic Places (NRHP) and properties that are listed with the North Carolina State Historic Preservation Office that have been surveyed and determined to be eligible or potentially eligible for inclusion on the NRHP. There are three properties listed on the NRHP within this area, and 15 properties which are potentially eligible or determined eligible as shown on **Exhibit 2-4, Historic Resources** and listed in Appendix D.

## 2.4 Land Use Policies and Regulatory Authority

Neither CLT nor the Federal government has the authority to implement or enforce local land use policies and regulations. That responsibility falls to the local jurisdictions, which in North Carolina could include a county, city, or township.

In most cities and counties, the chief land use regulatory document is the zoning ordinance, which regulates the types of uses, building height, bulk, and density permitted in various locations. Subdivision regulations are another important land use tool, regulating the platting of land. Local communities also regulate development through building codes and, in some cases, enforce noise regulations. The local capital improvements program, a schedule for constructing and improving public facilities such as streets, sewers, and water lines, is another important policy document that could influence development; although, on its own it does not involve regulation.

The Part 150 Study process does not propose, recommend, or fund the mitigation of future proposed development. It does, however, identify areas of potential future noise exposure for use by local planners in the development of comprehensive planning documents and land use policies. By preparing a comprehensive plan and setting land use policies, a jurisdiction or community can develop land appropriately and according to a locally accepted, approved plan. It is important that these planning efforts identify the likely development potential of land near the airport, within the published airport noise contours, or under existing or proposed future aircraft flight tracks. The local land use planning policies provide the airport sponsor with a description of the types of future development that should occur in areas not yet developed or to be redeveloped within the community.

### 2.4.1 Jurisdictions With Land Use Authority Within the Airport Environs

Local jurisdictions have the authority to conduct land use planning and to implement land use controls, such as zoning, subdivision regulations, and building codes. Two jurisdictions have land use authority within the Airport Environs, the City of Charlotte and Mecklenburg County. The City of Charlotte has a City Manager form of government with a Mayor and 11 Council Members and a City Manager that oversees the day-to-day operations of the City. In Mecklenburg County a nine-member Board of County Commissioners is the governing body. Most government services are provided by joint departments that serve both the City of Charlotte and Mecklenburg County, including the Charlotte-Mecklenburg Planning Department. The Charlotte-Mecklenburg Planning Department is directed by Planning and Zoning Commission, was formed by an Inter-local Agreement as a planning advisory body to the City of Charlotte and Mecklenburg County in 1954. The Commission advises City Council on short and long range land use and design plans and general planning matters including zoning, land development, transportation/transit, economic

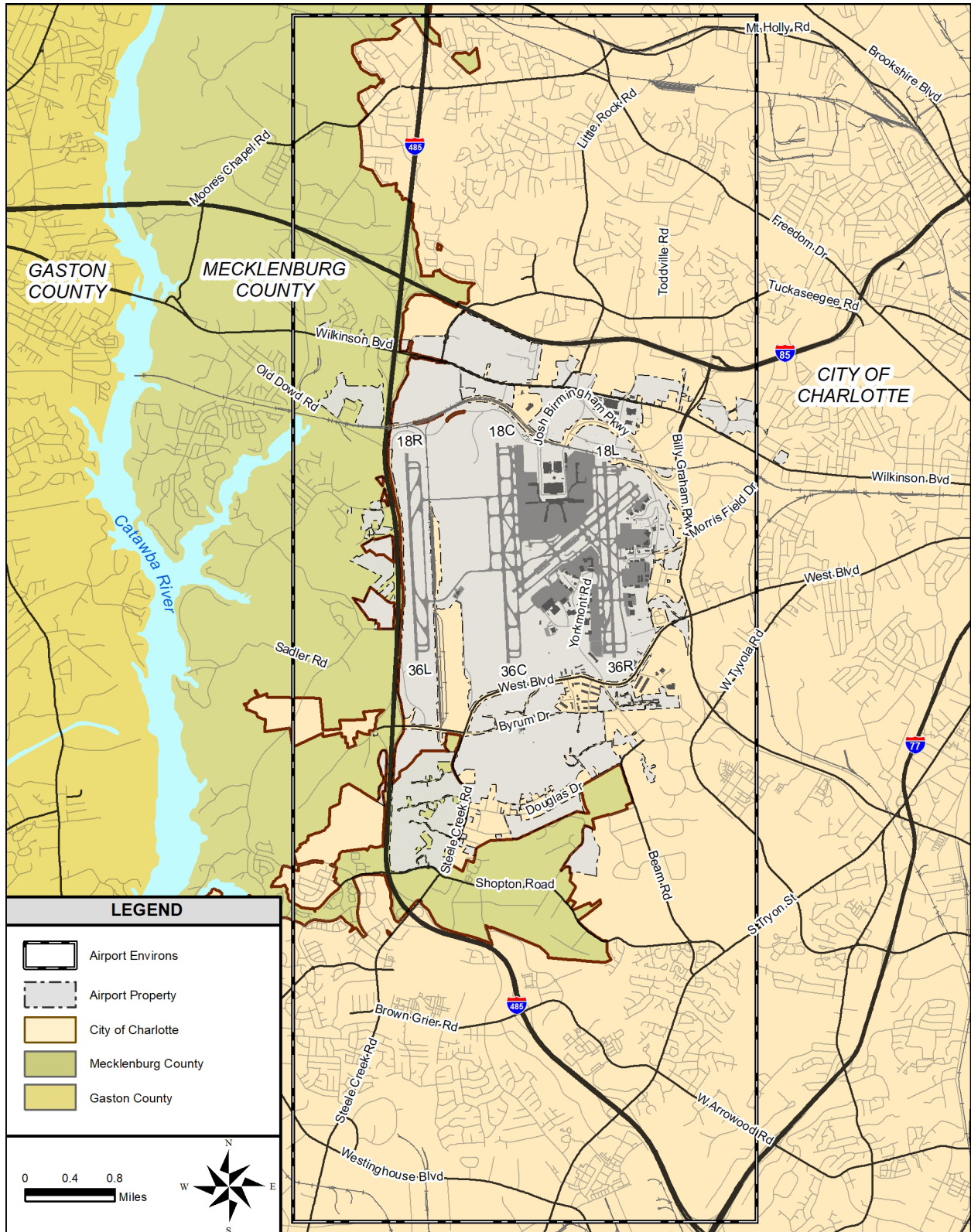
development, and community facilities. The Commission's authority extends to the City of Charlotte and the unincorporated portions of Mecklenburg County.

The previous Part 150 Study (accepted in 1996) recommended the establishment of an Airport Overlay District to assist in controlling residential development within the higher noise levels resulting from Airport activity. The Charlotte-Mecklenburg Planning Department adopted an Airport Noise Disclosure Overlay District to provide a mechanism to disclose to residential property owners and prospective residential property owners in the CLT environs that the use and enjoyment of property located within the district is subject to overflights and aircraft noise that may be objectionable.

#### 2.4.2 Current Zoning and Future Land Uses Within the Airport Environs

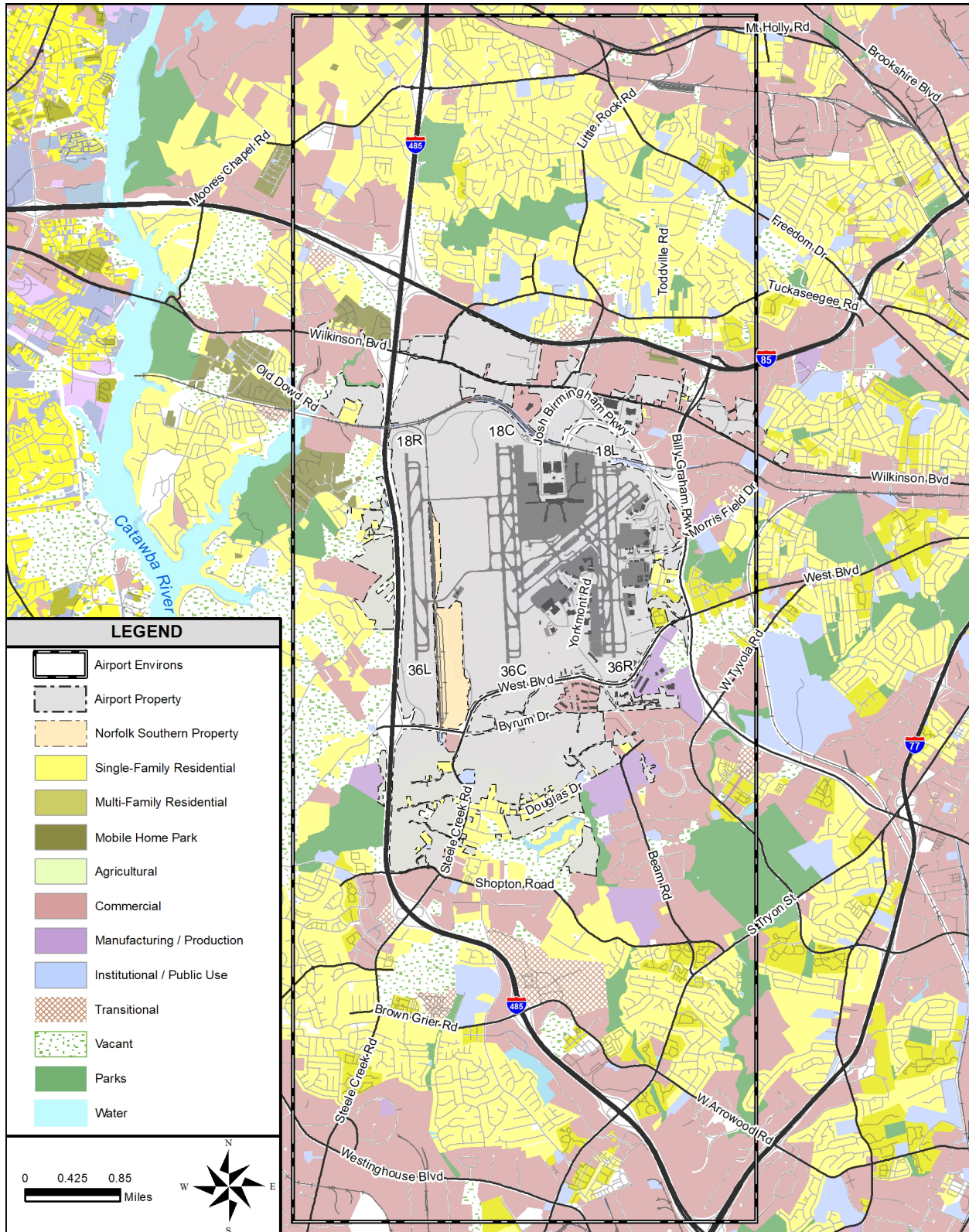
Zoning data was obtained from the Charlotte Mecklenburg Planning Department and was used to identify areas of potential future growth and redevelopment within the Airport Environs. The Charlotte Mecklenburg Planning Department develops plans that are used to guide zoning decisions made by the City and County. Zoning data was mapped and categorized based on Appendix A of 14 CFR Part 150, which includes residential (single, multi-family, and mobile homes), commercial, manufacturing and production, public uses, recreational, and vacant/open space. This data can be used to identify areas in which new noncompatible land uses may be developed. Mapping data showing planned subdivisions submitted by developers to the Planning Department was also used to identify areas in which new development is expected to occur. Appendix D provides additional detailed information regarding the classification and identification of zoning districts. **Exhibit 2-5, *Current Zoning***, depicts the current zoning within the Airport Environs.

**Exhibit 2-1 Airport Environs**



Source: Landrum & Brown, 2023

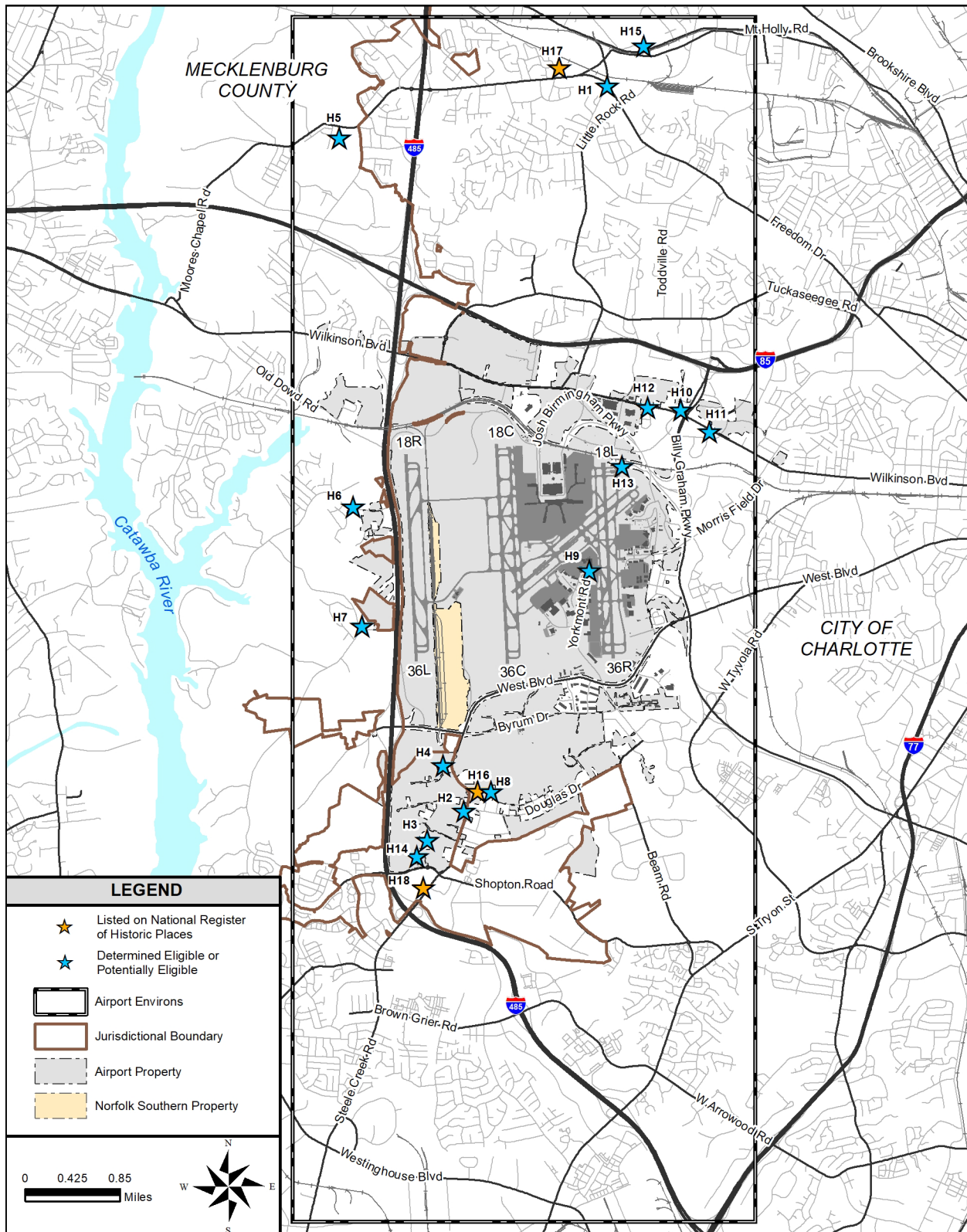
### Exhibit 2-2 Generalized Existing Land Use



Source: Landrum & Brown, 2023

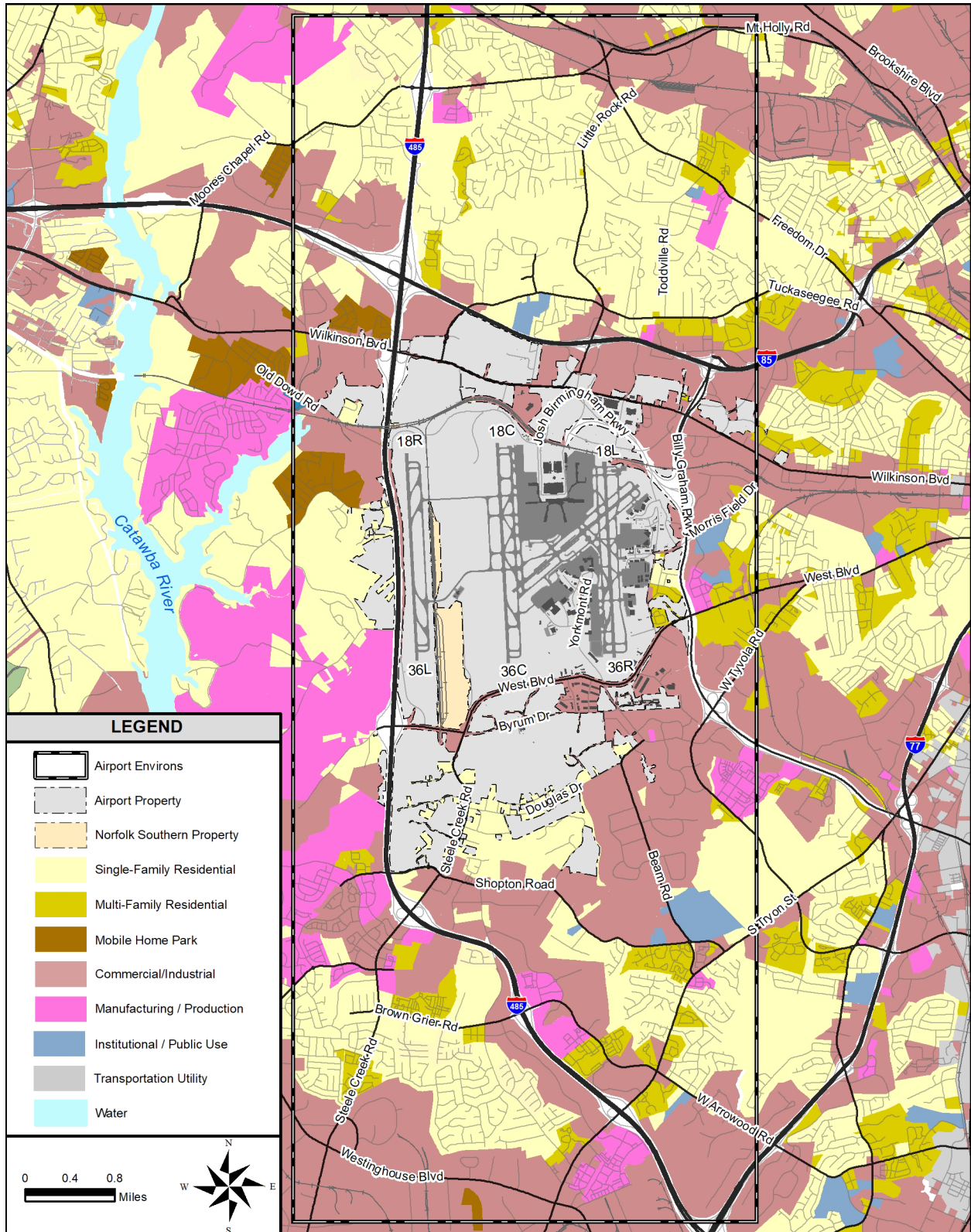


**Exhibit 2-4 Historic Resources**



Source: Landrum & Brown, 2023

**Exhibit 2-5 Current Zoning**



Source: Landrum & Brown, 2023