

5. FREIGHT

INTRODUCTION

Purpose of Chapter

This chapter provides the freight element of the *Cape Fear Commutes 2035 Transportation Plan*. It describes the existing conditions and trends at the national level, at the statewide/regional level and within the MPO area. The chapter includes highway freight, rail freight and ports. Because many of the issues and trends are distinct from each other, these modes of transportation are discussed separately where appropriate.

Relevance to the Transportation System and the Plan

Freight movement is a critical element of an advanced industrial economy, and the ease of freight movement is one component of a region's economic competitiveness for attracting and retaining various types of industry and employment centers. Freight movement can also have an impact on a region's quality of life, particularly with the need to ensure heavy truck traffic has suitable routes to/from the national highway or rail networks and ports, avoiding established residential areas.

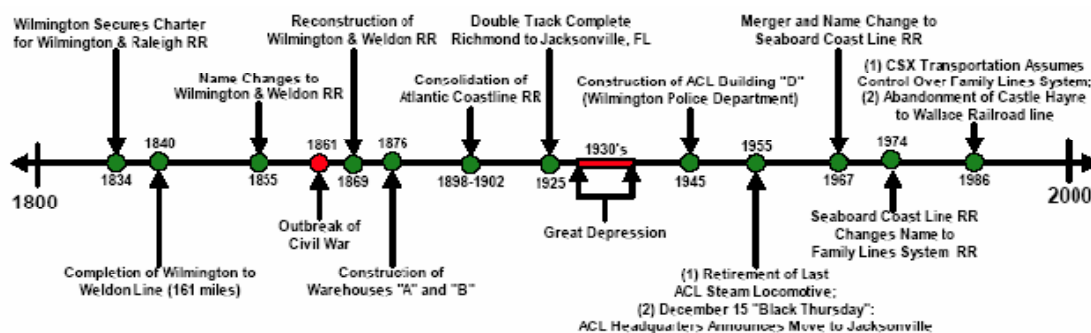
History

The movement of people and goods via the railroad has played an important role in the economic development and urbanization of the Greater Wilmington area. As indicated in Figure 1, the railroad has seen many changes over the past two centuries.

In 1840, the Wilmington & Weldon railroad was among one of the first railroads chartered by the General Assembly. This railroad was 161 miles long, which at the time of completion was the longest continuous rail line in the world.

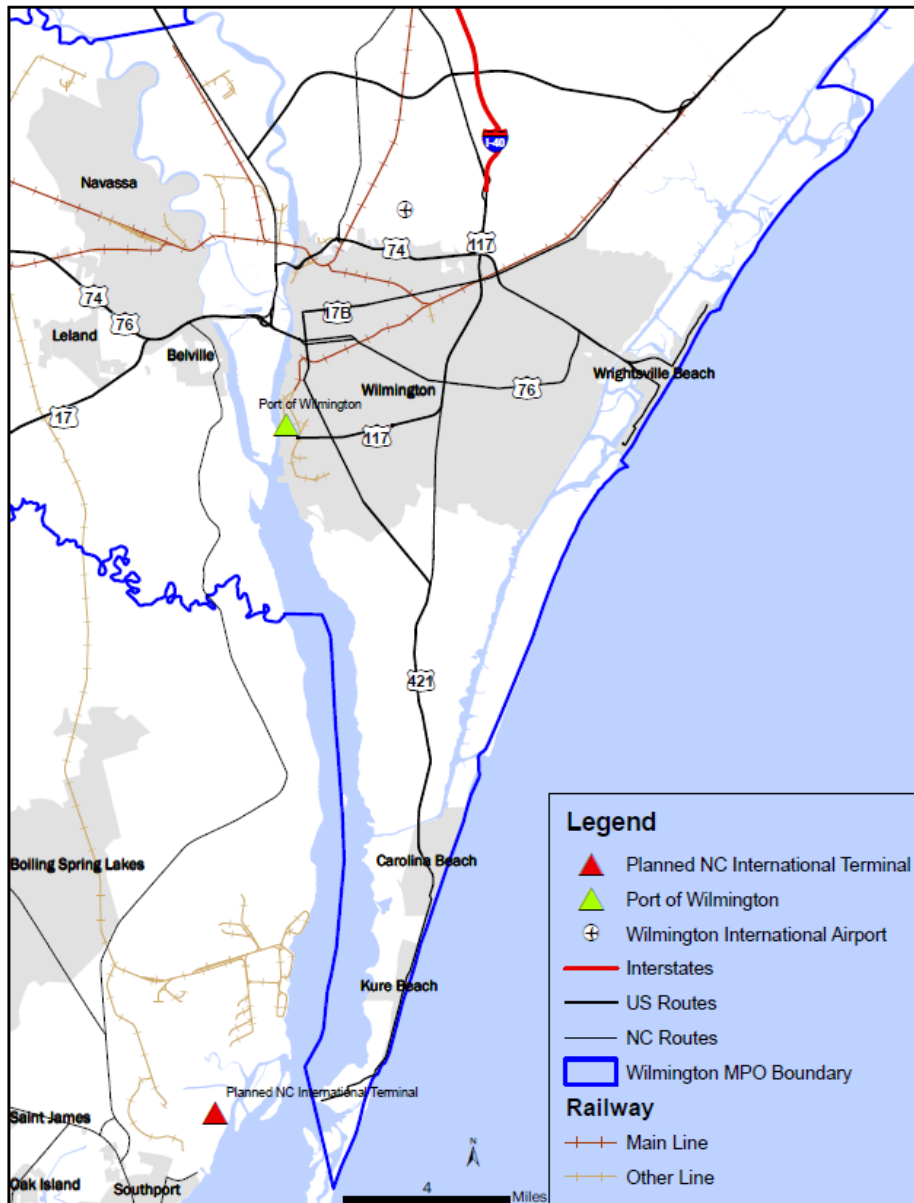
During the Civil War, Wilmington's rail link to Virginia provided for easy access to the Confederate armies and made it a prominent supplier to the Confederate troops. Near the turn of the Century, several railroads up and down the east coast, including the Wilmington & Weldon, consolidated to become the Atlantic Coast Line Railroad. The company was headquartered in Wilmington until 1960, when the company moved headquarters from Wilmington to Jacksonville, Florida.

Figure 1: History of Railroad in Wilmington



Currently, Wilmington is served by a single railroad, CSX, and one transfer facility, Wilmington Terminal Railroad LP, within the Wilmington planning area boundary (See Figure 2).

FIGURE 2 AREA MAP



EXISTING CONDITIONS AND TRENDS

Entire Freight System: Statewide and Regional Conditions and Trends

The Federal Highway Administration (FHWA) produces the Freight Analysis Framework (FAF), which examines freight movements for each mode of transportation. The Framework is not detailed

enough to give specific data for the MPO Area or a corresponding region, so the data for North Carolina are described here.

The analysis shows that trucks carried 75% of freight traffic in North Carolina in 2002, while rail carried 14% (See Table 1). The truck mode is expected to increase its share of freight traffic to over 76% in 2035, while overall truck freight tonnage nearly doubles. Rail freight is also expected to increase in tonnage terms, although losing market share to trucks.

TABLE 1 FREIGHT MOVEMENTS IN NORTH CAROLINA

Year	Mode	Millions of Tons				Percent
		Within NC	From NC	To NC	Total	
2002	Truck	272	82	79	433	75%
	Rail	13	6	61	80	14%
	Other	16	21	28	65	11%
	Total	301	109	168	578	100%
2035	Truck	423	173	158	754	76%
	Rail	17	11	112	140	14%
	Other	21	48	29	98	10%
	Total	461	232	299	992	100%

Source: Federal Highway Administration – Freight Analysis Framework

Highway Freight

Truck mileage has been consistently increasing nationally over the past decades, but has been accommodated in essentially the same amount of road space. Urban freeways and arterials in particular have become increasingly congested, and this trend is expected to continue. Trucks will be affected just as much as commuters, with implications for freight travel times and reliability.

Rail Freight

The US freight railroad industry is currently in a period of stability and growth following the major structural changes of the 1970s through the 1990s. The economic growth experienced in the past decade has particularly benefited some freight flows, such as containers to and from the major ports, with the result that railroads have been adding or reinstating capacity on their main lines. Although there is a strong focus on unit trains (entire trains of a single commodity, such as coal or containers), the more traditional, smaller-scale traffic flows of single cars or small numbers of cars to/from local industries (carload freight) remains an important part of the industry.

Wilmington Terminal Railroad LP

The Wilmington Terminal Railroad, L.P. (WTRY) was created in 1986 to lease and operate the rail switching operation for the North Carolina Ports Railway (NCPR) Commission. In 2002 the North Carolina Ports Authority abolished the NCPR and started leasing the railroad to WTRY on a long-

term lease. The cargos carried by WTRY are paper, steel, chemicals, lumber, agriculture products, waste oils and miscellaneous equipment. The Wilmington Terminal Railroad switches for all customers served by the ports and industry located on the main line.

The principle shippers that utilize WTRY are North Carolina State Ports, Vopak, Colonial Oil, Flint Hills Resources, Cape Fear Bulk, Rescar, Cape Fear Bonded Warehouse and Exxon. In 2003, WTRY handled approximately 8,300 carloads. Table 2 indicates the estimated monthly cars per company to utilize the WTRY rail service.

TABLE 2 WILMINGTON TERMINAL RAILROAD MONTHLY OUTPUT (CARS)

Supplier	Estimated Cars (Monthly)
North Carolina State Port	304
Cape Fear Bonded Warehouse	18
Apex Oil	15
Rescar	50
Vopak	128
Colonial Oil	120
Exxon	9
Cape Fear Bulk	14
Flint Hills Resources	77

Port

According to the US Department of Transportation, American Association of State Highway and Transportation Officials and the Congressional Budget Office, a 67 percent growth is anticipated in the freight industry by 2020. Capacity constraints in west coast ports mean more freight from Asia is being transported through the Panama and Suez canals and brought to the east coast ports. The freight transportation infrastructure and highways in the nation will be affected by this increase in the volume of freight.

Currently, the North Carolina Ports Authority has two ports in Morehead City and Wilmington, North Carolina. The Port at Morehead City is one of the deepest ports on the US East coast. It has a dry-bulk facility with a 225,000-ton capacity warehouse and has access to interstates I-95 and I-40 via US Highway 70 and 17. It also has daily train service from Norfolk Southern.

The Port of Wilmington is one of the few South Atlantic ports with readily available berths and storage for containers and cargo. CSX Transportation provides daily service for boxcar, tanker and general cargo services. Table 3 summarizes the estimate for origins/destinations of trucks for Port of Wilmington.

TABLE 3 WILMINGTON TERMINAL RAILROAD MONTHLY OUTPUT (CARS)

Port of Wilmington	Import	Export
Charlotte	25%	15%
East of I-95/South of I-40	20%	
East of I-95/North of I-40	10%	
Greensboro/Winston Salem/Hickory/Lenoir	35%	40%
RDU	10%	
Local		30%
Central NC		10%
N/E NC		5%
TOTAL	100%	100%

Source: North Carolina State Ports Authority

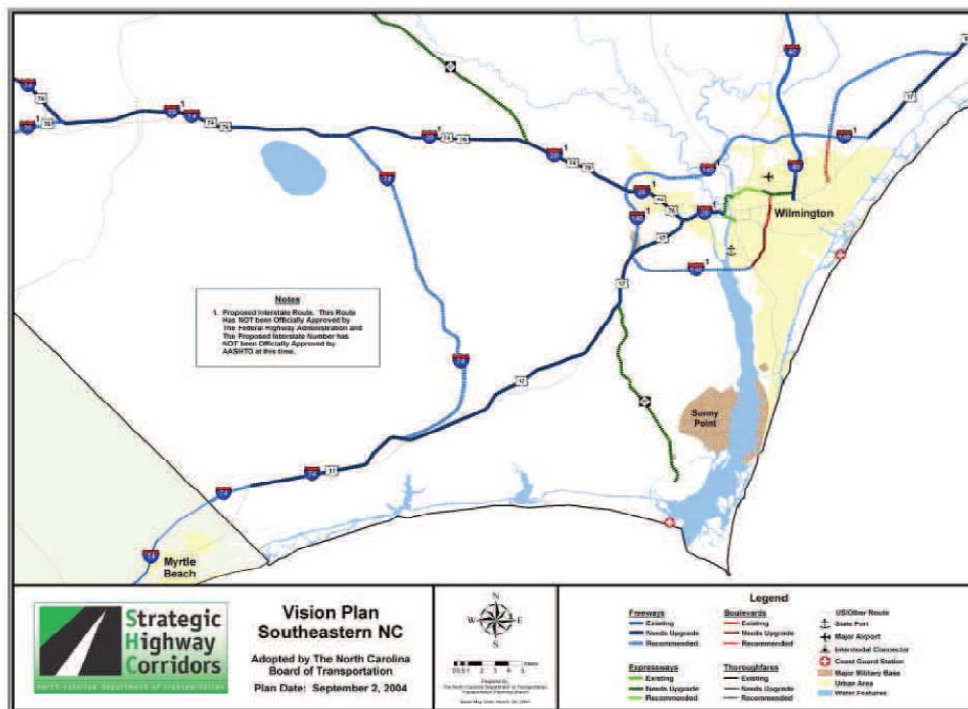
FUTURE PLANS

A key focus of improving freight movement in the WMPO area is promoting intermodal connections between the ports, highways, and rail networks. This focus includes making improvements to the US 74 highway corridor and the CSX rail line connecting the proposed North Carolina International Terminal at Southport to Charlotte, as well as restoration of the rail line between Castle Hayne and Wallace to provide rail access to Raleigh and the Northeast. It also may include upgrades to Independence Boulevard in Wilmington and development of the Cape Fear Skyway as an important connector. Because freight travel is impacted by roadway congestion, freight movement was a factor in ranking the Congestion Mitigation roadway projects.

Highway Freight

In order to accommodate the anticipated growth at the port of Wilmington and North Carolina International Terminal, the highway infrastructure will have to be improved. The completion of the Wilmington Bypass, the proposed Cape Fear Skyway and US 74 Highway Corridor between Wilmington and Charlotte will contribute to the infrastructure improvement. Figure 3 shows the existing and proposed strategic highway corridors in southeastern North Carolina.

FIGURE 3 STRATEGIC HIGHWAY CORRIDOR VISION PLAN, SOUTHEASTERN, NC



Source: North Carolina State Department of Transportation, Strategic Highway Corridors Vision Plan

Rail Freight

The demand for rail is increasing on an annual basis. The impact of rail on the movement of goods can be seen at the state and nationwide levels and could provide a significant impact to the economic growth of the area and the state port system.

CSX has announced the opening of its rail line between Wilmington and Charlotte for double-stack containers. This plan is part of CSX's National Gateway project to create a more efficient rail route linking Mid-Atlantic ports with Midwestern markets, improving the flow of rail traffic between these regions increasing the use of double-stack trains. The use of these trains to move containers from the proposed North Carolina International Terminal is fundamental to the plan. The plan involves using existing railroad through Boiling Spring Lakes to connect the terminal site to the CSXT railroad in Leland. The design assumption is that 882,000 containers will be moved each year by rail, and 900,000 more would be carried by truck.

The rail line between Castle Hayne and Wallace will be restored to provide rail access to Raleigh and the Northeast. The 27 mile-track will be replaced between Castle Hayne and Wallace. The tracks between Wilmington and Castle Hayne will be upgraded. New crossing gates and flashing lights will be installed at 30 public railroad-highway crossings between Castle Hayne and Wallace. Portions of the between Wilmington, Goldsboro, Raleigh and Northeast, including the tracks between Castle Hayne and Wallace have been out of service for about 20 years.

Ports

The North Carolina Ports Authority proposed the construction of the North Carolina International Terminal, in Southport, North Carolina, as an expansion of the container facilities at the Port of Wilmington. The container terminal will be built on 600 acres of undeveloped land in Brunswick County.

The North Carolina International Terminal will provide a state of the art facility with enhanced port security. It will be able to meet the national security missions and provide operational flexibility by means of robust infrastructure. The port will enhance the US intermodal transportation system, which is critical to the economic growth of the state as well as the nation. It would create more competitive market for other developments such as retail distribution centers and global manufacturing assembly plants, which also increases employment opportunities.