RAILROAD INVESTMENT AND THE DEVELOPMENT OF THE CHICAGO REGION, 1850-1910

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ABSTRACT

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Chicago's status as a major population and economic center was built on a foundation developed over several decades from the mid-19th and into the early-20th centuries. A major part of this early foundation was made possible by the construction of a robust railroad and streetcar network. This study examines rail development in the Chicago region, from its inception until 1910. The research explores how investment in rail during this period shaped suburban development of Chicago. Data collection and mapping of railroad and streetcar lines in the Chicago region emerges as a major component of this research.

The maps in this study aim to show the expansion of the rail network and the growth of Chicago during the city's early years. The mapping of the regional investment in rail lines provides a comprehensive record of rail infrastructure that helped define Chicago as a transportation hub, and in the process explores the impact of rail on the development of the region. A detailed historical analysis is also provided on 13 of Chicago's suburbs, to illustrate the intertwined relationship between railroad investors and the region's real estate developers.

The study looks at the ongoing interplay between railroad investors and urban developers, and their coalitions to facilitate urban growth. It was commonplace for real estate investors to manipulate the location of rail investment for personal gain. Thus in a context of infrastructure under-provision within the region throughout the 19th century—and minimal access to infrastructure by residents—rail lines were being built simply because of strategies between developers and railroad investors to build new suburbs.

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CHAPTER 1: INTRODUCTION

Chicago, Illinois, is the third largest city in the United States in terms of population. In 2018, the nearly three million Chicagoans live in an area of over 230 square miles. The large population and territory support the third largest economy in the country as well. Chicago's status as a major population and economic center was built on a foundation developed over several decades in the 19th and early 20th centuries. A major part of this early foundational development was made possible by the construction and growth of an extensive and robust railroad and streetcar network across Chicago and its surrounding region.

Chicago's railroad network quickly became the most important transportation hub in the United States. More rail lines go in and out of Chicago than any other city in North America (Grossman, Keating, & Reiff, 2004). Rail had a profound impact on all facets of growth and development in Chicago: it contributed to the city's rapid population growth, the development of the economy, and the outward growth of the urban region. Incorporated in 1837, after the first railroad was built in the United States (Andreas, 1884), Chicago received its first rail line in 1848 when the Galena and Chicago Union Railroad began operation. Shortly after the initial railroad in the city, several more tracks were constructed, making it one of the largest networks in the world by the end of the century (Young, 1998). Developing in the age of railroads facilitated the outward growth of the Chicago region. Rail was able to dictate the development of Chicago more so perhaps than other regions because the city was growing outward along with the investment in railroads. In comparison, for example, New York, Boston, and other earlier developed cities were already established and developed prior to the advent of rail (Young, 2005). This made rail critical to the growth of Chicago with a close relationship maintained between developers, rail line investment, investors, and Chicago's suburban expansion.

The purpose of this study is to examine railroad development of the Chicago region over time and exploring the relationship between real estate developers and railroad investors in 13 suburbs. A major aspect of this analysis is the mapping of railroad and streetcar lines in the region. The maps in this study aim to show the region's growth over time as railroads expanded outward along with suburban development. The analysis of each of the 13 suburbs complement this regional mapping of rail as the spatial history of Chicago is examined.

These 13 suburbs were selected because they vary in when they were settled and developed, as does their location across the Chicago region. In addition to this variability in space and time, a sample of upscale and working-class suburbs were used to be a full representative of developments within the Chicago periphery. With this analysis, this research is able to examine the relationship between the expansion of the railroad network and land development.

This symbiotic relationship between the development of Chicago's suburbs and railroad construction is critical to understanding the pattern of growth throughout Chicago's history. Suburban growth and rail construction will be explored across several decades, starting from the mid-19th century and extending into the early 20th century. Through the exploration of the founding, development, incorporation, and eventual annexation or amalgamation of most of these suburbs or neighborhoods, there will be an analysis of the spatial relationship between real estate development and proposed or existing railroads, as well as the actual relationship between railroad companies and individual land developers and investors. These linkages and relationships will provide further support for the regionwide mapping of the rail system, which will facilitate a better understanding of the spatial history of the Chicago region from 1850

through 1910. The link between rail and real estate, and the mapping of this outward growth, is the focus of this thesis.

While this thesis covers the full history of Chicago's founding and development, the main study focus of the rail lines investment and growth starts in 1850 and extends to 1910. During these years, Chicago developed the rail infrastructure that would last into the 21st century (Young, 2005). Prior to this, however, Chicago developed different modes of transportation to varying success.

Before railroad and street railway construction, there were multiple transportation developments in the Chicago region. Being on the western edge of the Great Lakes network, commercial transportation by water was always available and was important in shaping settlement in the region's early history. This was especially the case following the construction of the Erie Canal in 1821 and the Illinois & Michigan Canal in 1848, essentially connecting Lake Michigan to major East Coast cities (including New York and Boston) and the Chicago River to the Mississippi River (Mayer & Wade, 1969). Water transport was naturally available in the region, and improvements were made to make it more efficient and accessible.

Overland transportation developments prior to rail had varying levels of success. Initial road development was created from paths often used by Native Americans in the region (Keating, 2012). These paths were usable mainly during dry weather. Many of these paths, among other areas of land, were used to create roads made with wooden planks (Cronon, 1991). The planked roads offered a path for travelers but had issues with water; mud would seep through the planks, and carriages would often slide off them. Other than individual private cars, omnibus carriages were an early public option in many urban regions, including Chicago. The omnibus operated on these various roads before streetcars and railroads were developed in the

region (Young, 1998). Omnibus service was a form of public transportation, but it was still slow and often unsafe (Cheape, 1980). It was introduced in Chicago in 1852, shortly after the first railroad appeared in the city in 1848 (Young, 1998). While the omnibus operated in Chicago for several decades, it was fully replaced with streetcars and commuter railroads starting in the 1860s (Young, 1998).

The timeframe for this thesis (1850–1910) was selected for several reasons. Most importantly, and central to this thesis, is that this time is the period of massive growth of railroads in the region (Keating, 2005). With railroad growth came the development of commuter suburbs. By 1910, Chicago had largely completed its annexations and legislative actions changing the city's boundaries (Keating, 2008). Rail has had a long history of consolidation and mergers in Chicago. Many railroads, like the Illinois Central and Chicago & North Western grew and absorbed several companies during their time of expansion. This happened throughout Chicago's history, but it was around 1910 that there was more of a shift to public ownership, and government-controlled operation (Keating, 2005).

While many factors contributed to the growth and development of cities, this study aims to focus primarily on the effects of commuter railroad and streetcar construction along and with its impact on the shaping of urban form. The thesis explores the interplay between railroad investment and urban development to offer an explanation for the pattern and purpose of Chicago's outward growth. The specific relationship between the two, particularly the partnership between railroad companies and the individual land developers, will be the focus. These relationships and patterns of development will be discussed through an analysis of 13 suburbs that developed in the Chicago area.

Historical Mapping of Rail and Streetcar Lines in the Chicago Area

The mapping of railroad growth in Chicago provides a spatial and historical representation of how the region was developed. The maps in this thesis show rail development in the region from 1848 to 1910. Along with all the railroad and streetcar lines in the region, the suburban case studies are also explored. This shows some key examples of suburban development over time, with the 13 case studies being throughout the metropolitan area and all nearby established or developing railroad lines. The linkage between rail and suburban development is central to this thesis and is represented through the different maps over time.

To map this growth in the region, data was collected from several sources. First, the boundaries to Chicago, along with the additions and annexations over time was collected digitally from the Newberry Library. Physical guide maps of Chicago for 1869, 1876, 1888, 1910 were collected at the Chicago Public Library, and digitized. Due to varying scales and map quality, railroad and streetcar data was used from multiple maps. In addition to the physical guide maps, railroad data was collected from Rand McNally maps in the digital archives at Lake Forest College, and from regional rail maps digitally from the Library of Congress, and the University of Chicago map collection.

These maps were created within ESRI's ArcGIS software, primarily using ArcMap. The map data was collected, georeferenced on a current shapefile of the city and its features provided by the City of Chicago. Georeferencing this data on the City of Chicago shapefile allowed for the creation of four new shapefiles with railroad, streetcar, and boundary data.

The representation of data spanning several decades contributes to the literature and supports the thesis that suburban development and the Chicago region developed very closely

with regional rail investment. This thesis, and these maps in particular, are unique and offer insight into Chicago's history through the examination of rail investment and the development of the suburbs. Railroad development and the outward growth of the region is mapped across Chicago's early history—including the years 1869, 1876, 1888, and 1910—showing how suburban development formed across the region. As the suburbs developed with rail, the area expanded and grew into the major urban region that it is today. This mapping and the exploration of the link between railroad investment and suburban expansion is the unique and important contribution of this research.

Thesis Structure

This study is separated into four chapters. Following the introduction is the literature review, which explores broad transportation developments across the United States in the 19th century, as well as some early transportation infrastructure investment in Chicago. In addition to transportation investment and innovation, critical 19th century events in U.S. history—including westward expansion and the Civil War—are discussed in relation to the nature of transportation investment and the development of the Chicago region.

The literature review aims to give geographic and historical context to the study. It also lays a foundation for the analysis of railroad investment and development in the Chicago region and the relationship between the expansion of the rail network and the growth of the suburbs. In the literature review, there is a discussion of both historical and geographic patterns in rail line investment, capturing both a temporal and spatial dimension. In addition, a broader review of the development of the United States will provide a context for the development of the Chicago region.

The first part of the literature review details the development of transportation infrastructure in the United States, particularly covering the early to mid-19th century. This discussion reviews water and land transport, as well as methods of transporting both goods and people. In this review, the pattern of development in the United States throughout the 19th century is discussed.

Following this broader discussion focused on national transportation patterns, the literature review will look specifically at Chicago. To give a foundation to analyzing transportation infrastructure investment, there is a historical review of Chicago's early settlement and development. Some of the important events discussed are the region's earliest settlements, European exploration, the founding of Fort Dearborn, and the incorporation of the city in 1837 (Andreas, 1884). This looks at early transportation, industry, and investment in the region. In addition to discussing Chicago's settlement and early infrastructure development, the chapter also begins a discussion of early railroad technology and how it affected urban development throughout the 19th century.

After the literature review, the analysis chapter explores the mapping of rail lines and the development of 13 suburbs. This analysis provides the mapping of rail lines, discussing streetcar and railroad development through an exploration of the 13 suburban settlements as they developed in Chicago during the 19th and early 20th centuries. The exploration begins with the inception and the development of early rail projects, starting in 1848, their link to the settlement of these suburbs, and in many cases, the eventual annexation or amalgamation of these jurisdictions into the City of Chicago.

The rail developments and case studies will be discussed in sections that are divided by decade and grouped into four periods. The first period covers the 1850s and 1860s. The second

period is from the end of the 1860s until 1876. The third period is from 1876 to 1888, and the last period is from 1888 to 1910. The first period is of early development in the region and takes Chicago through the first several legislative actions of adding land and the city's nascent outward expansion. After 1869, however, there were no additions or annexations to the city until 1889. However, even without the additions, there were many new developments in the region. The second period for mapping starts in 1876, just five years after a major fire destroyed large sections of the city. The third map covers the period between 1877 and 1888. Finally, the last map period covers 1889–1910. In this period, Chicago saw its largest land annexations, though fewer new developments emerged than in previous periods.

With the 13 case studies, this thesis uses primary and secondary document analysis to map rail investment and examine the relationship between the railroad, suburban development, and the developers who built and shaped the Chicago region. While Chicago's history has been extensively researched, this study offers railroad and suburban analysis through a spatial lens and provides a series of historical maps to show the temporal and geographic growth of the region with these suburbs in different decades. The linkage between railroad construction and land development is examined in-depth with the maps visually documenting the spatial history of Chicago's outward expansion.

The final chapter is the conclusion, wrapping up and reflecting on the relationship between railroads and the development of Chicago's suburbs. It provides an overview of the relationship between the railroad and suburban development in Chicago during the 19th and early 20th century and reflects on how the partnership between railroad companies and land developers shaped the region. The conclusion reviews the spatial and temporal analysis of Chicago's outward growth and the importance of rail. The analysis will show that the

relationship between railroad investment and real estate developers has been critical to the process of growth in Chicago and the shaping of the built form in the region.

CHAPTER 2: AN INTRODUCTION TO CHICAGO AND TRANSPORTATION INFRASTRUCTURE IN THE 19th CENTURY

Introduction

The role of infrastructure investment in affecting the nature of development patterns and the shaping of cities, particularly transportation infrastructure, has been explored in a number of urban contexts within North America (Jackson, 1985; Vojnovic, 2000, 2006, 2010; Warner, 1978). This literature review will focus on the history of transportation infrastructure investment and its impact in the shaping of early urban development in Chicago and its surrounding region. Chicago's history of development, from its settlement by European explorers to its emergence as a major metropolitan center, will be discussed in this chapter. This review will provide the context for the analysis of infrastructure investment and urban development processes that facilitated the growth of the city from the 1850s to 1910, which will be covered in subsequent chapters. Investment and development during this time became the infrastructural foundation for Chicago that still exists today. The overarching theme of this chapter is to show how specific types of infrastructure shaped Chicago's growth, both in population and spatially, over the course of its early history.

Chicago emerged as the shock city of the late 19th century and would eventually develop into a major world city recognized for its exceptional transportation infrastructure, which is evident in both its inner-city transportation system and its national and global transportation network (Young, 2005). The infrastructure development, and even the political institutions for this vast city, formed over a relatively short time—over the second half of the 19th century and into the early 20th century—which is the period of focus of this thesis.

Chicago is a major U.S. urban center that generally followed the development patterns of walking and transit cities such as Boston, Philadelphia, and New York City (Warner & Whittemore, 2012). The early development of these cities on the Atlantic seaboard, in turn, was extensively influenced by major European urban centers (Warner & Whittemore, 2012). The development of Chicago was also shaped by its early economic ties to surrounding regional and major national centers (Harpster, 2009). Infrastructure development throughout its history, in particular, was critical to ensuring these relationships with its trading partners, a topic that will begin to be explored in this chapter.

Early Settlement of the Chicago Region

Well before Chicago became the transportation capital of the world, the region was well traversed by fur traders and, before that, Native Americans (Pierce, 1937). Several paths and trails were created in what would eventually become the Chicago area. In fact, many of the trails in the region converged in the territory of present-day Chicago. These trails were used by explorers and settlers entering the region (Pierce, 1937). The region was very popular due to its abundance of timber, natural waterways, and proximity to the Mississippi Valley, where hunting for fur was prevalent (Pierce, 1937). These were the very same reasons that European explorers were interested in settling this location.

The first documented European explorers who traveled to Chicago were Louis Jolliet and Jacques Marquette in 1673 (Quaife, 1933). Over the course of the 18th century, a series of conflicts between Native American tribes and Europeans took place, as both the English and the French, including explorers and settlers, tried to dominate trade in the area (Pierce, 1937). Following a century of uncertainty, the first permanent American settlement, Fort Dearborn, was

established in 1803 (Mayer & Wade, 1969). The fort was designed to break English control of Native American trade in the region (Pierce, 1937).

In 1812, when settlers at Fort Dearborn set out for Fort Wayne, they engaged in a violent conflict with Native Americans (Mayer & Wade, 1969). This left Fort Dearborn in near ruins. A new Fort Dearborn was constructed, as well as several other military forts in the area, in 1816 (Cronon, 1991). The new Fort Dearborn maintained military control of the surrounding region until it was closed in 1836, and Chicago stood on its own (Mayer & Wade, 1969). By this time, Chicago had become an important site along the way of westward expansion. The region was becoming an increasingly attractive settlement for investment in the United States, particularly after the Native Americans (Potawatomi, Miami, Illinois, among others) were defeated and pushed out of the area during the early 1830s (Keating, 2005). Native Americans controlled land around the village of Chicago, acting as trade partners to the settlers in and around Fort Dearborn throughout the first three decades of the 19th century. However, in 1832, Sac, Fox, and Kickapoo natives were defeated as they attempted to reclaim lands in Illinois (Cronon, 1991). While the land they attempted to reclaim was not within the territory that would become Chicago, it did begin a wave of immigration to the region, particularly by farmers (Andreas, 1884).

In the first half of the 19th century, at the time of Chicago's settlement and development, there was a shared attitude of expansion and settlement westward, which was nationally promoted both culturally and politically. *The Frontier in American History* (1920) by Frederick Jackson Turner asserted the important of the idea of the "American frontier" and the push for westward settlement. As the United States expanded into the modern-day Midwest and beyond, with the region's rich network of waterways providing access between the major East Coast cities and the Mississippi River via the Great Lakes, Chicago became a natural place of transfer

and trade, enabling the region to develop its commerce and become a major transport node (Mayer & Wade, 1969). A transportation center was necessary to connect the major urban regions that were developed early in the United States' history, like New York, Boston, and Philadelphia. These cities were connected via navigable water routes and land paths but did not have connections west of the Great Lakes or into the Mississippi River Valley (Cronon, 1991). The shared desire to expand and move westward put Chicago in direct competition with other cities located on major lakes or situated on river banks. The idea of expansion, and the American frontier, is what gave Chicago an opportunity to become an important city in the development of the national urban network and United States more broadly.

Early Development and Growth of Chicago

Chicago grew from a small lake port town to one of the largest and most important cities in the United States in a period of some six decades. The city was incorporated as a town of 350 people in 1833 and then incorporated as the City of Chicago in 1837 with just over 4,000 residents (Cudahy, 1982). Once incorporated, the city grew rapidly. In 1860, with a population of over 110,000, Chicago became one of only three cities in the Midwest to have 100,000 residents (Gibson ,1998). In 1880, Chicago had grown to over 500,000, and then doubled its population to one million by 1890 (Gibson, 1998). By 1910, Chicago had 2.2 million residents (Gibson, 1998). Currently, the Chicago Metropolitan Area covers Cook, DuPage, Kane, Lake, McHenry, and Will counties in Illinois, and Lake and Porter counties in Indiana. This area consists of 4,401 square miles, mostly in Illinois, but some of the city's territory is also located in northwest Indiana (Keating, 2008). The following, Table 2.1, shows the city's population growth from 1840 to 1910.

Table 2.1: *Chicago's Population, 1840-1910*

Year	Population
1840	4,470
1850	29,963
1860	112,172
1870	298,977
1880	503,185
1890	1,099,850
1900	1,698,575
1910	2,185,283

Note: Data for population came from Gibson (1998).

By 1890, in a little over 50 years after its incorporation, Chicago became the second largest city in the United States behind New York City (see Table 2.1). Not only was the population increasing, the spatial area of the city was rapidly expanding outward. From 1880 to 1900, the area of the city of Chicago increased from 43 square miles to 169 square miles (Keating, 2008). This was due in large part to amalgamation of towns outside of the city. It was during the 1880s that the most extensive expansion of the city occurred, dramatically increasing the city's population. In 1889, Chicago consolidated with surrounding municipal jurisdictions, including Hyde Park, Jefferson, Lake, and Lake View (Spinney, 2000). This consolidation added 125 square miles of area and 225,000 people to the city (Keating, 1988). Figure 2.1 shows annexations and amalgamations into the city of Chicago and its spatial expansion up to 1910.

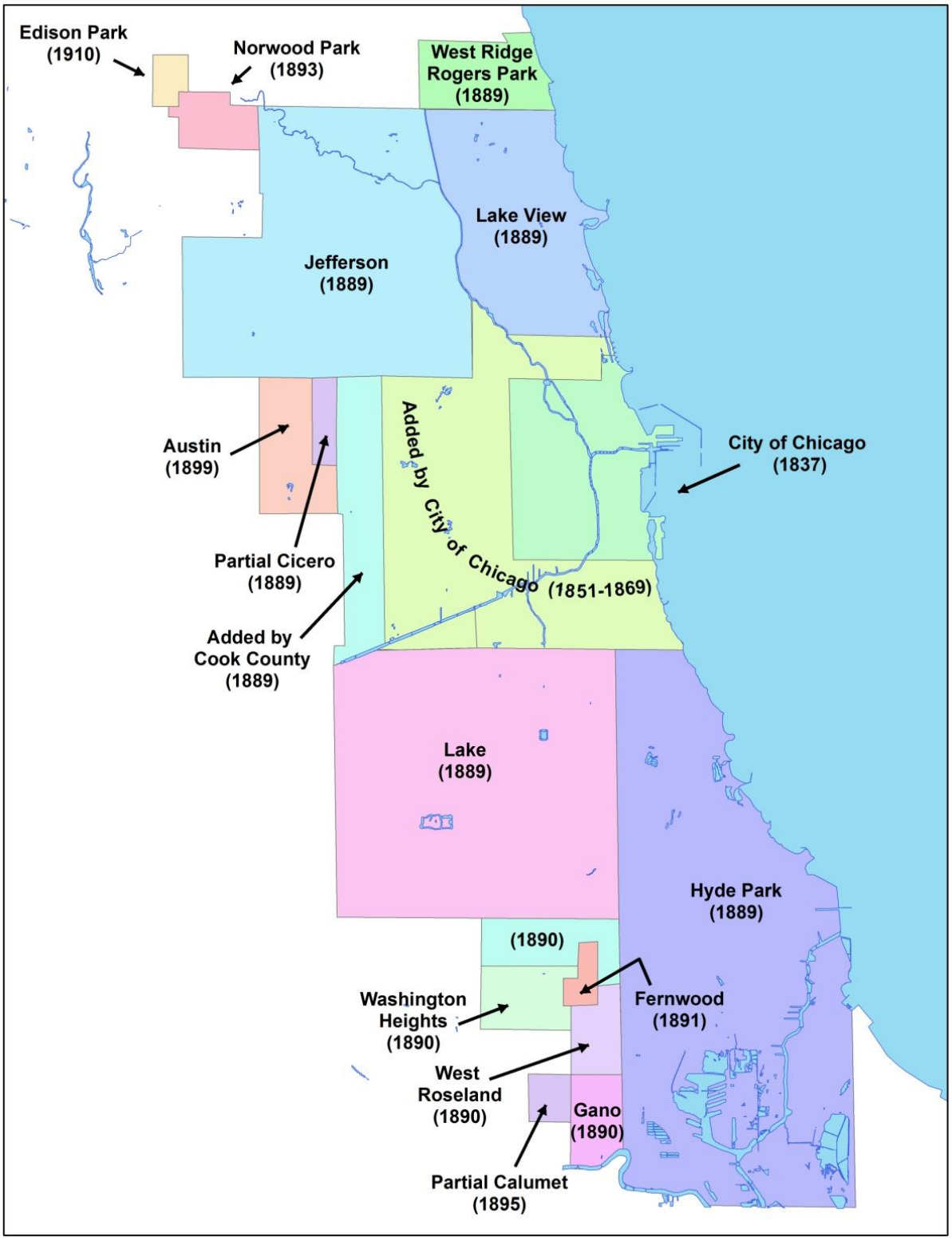

Figure 2.1. Amalgamations and Annexations to Chicago through 1910.

While area had been routinely added to Chicago by legislation, which enabled consolidations throughout the 19th century, the period of the city's spatial expansion would mostly be finished by the end of the first decade of the 20th century (Grossman et al., 2004). The existing suburbs wanted to control their own politics, culture, and make decisions that were independent of Chicago's (Spinney, 2000). Throughout much of the 19th century and early into the 20th, Chicago had the administrative structure and resources to provide public services and infrastructure into newly established surrounding towns (Keating, 1988). This approach to servicing Chicago's suburbs, without the need of annexations or amalgamations with the city, continued through the 20th century.

The focus of this research covers a period starting from the city's inception in the 1830s and into the first decade of the 20th century, with a particular emphasis placed on the six decades between 1850 and 1910. This period captures both the early streetcar investment in Chicago and its early railroad development. These early streams of rail investment, as it will be shown through this thesis, would facilitate the development of Chicago's early suburbs. The research ends after the first decade of the 20th century because most of the railroad communities in the region had been established by this time.

In addition, into the second decade of the 20th century, a massive consolidation of railway companies occurred under the operator called The Chicago Surface Lines (CSL) as mass transit in the city began to shift to a publicly operated system (Grossman et al., 2004). But also during this timeframe, Chicago transformed from a port settlement that relied on small, basic trade, such as fur, to a premiere world metropolis home to more railroad miles than any city in the world and a leading industrial center in both manufacturing and services (Grossman et al., 2004).

Chicago's 19th Century Economy

Throughout the 1840s, in the early economy of Chicago, there was one product that rose above all: wheat. As Bessie Louise Pierce notes about the early days of Chicago, wheat was central to the success of the economy (Pierce 1937). There were no railroads in Chicago yet, but wheat was being shipped through the region to the eastern United States due to its geographic relationship to the vast agricultural lands of the Great Plains (Pierce, 1937). In 1847, the year prior to the arrival of Chicago's first railroad, the Great Plains were sending wheat to and through the city in the millions of bushels and flour in the tens of thousands of barrels, and it was being shipped by water transport (Smith, 1933).

Once the railroad arrived, the local industry and the economy, more broadly, would begin to change—and in dramatic ways. Agricultural trade grew with better access to railroads (Spinney, 2000). Throughout the second half of the 19th century, as the railroad network expanded, wheat began to be transported to markets closer to where it was grown, due to it being more sensitive than goods like corn to long trips (Pierce, 1957). Corn, on the other hand, was much more durable than wheat, and with surpluses being used to feed livestock, none of the yielded corn was wasted (Andreas, 1884). Because of Chicago's location in relation to corn production, and also because of its burgeoning livestock industry, the city established and maintained a dominance in the corn industry throughout the 19th century (Cronon, 1991).

Chicago became one of the cities with an emerging meatpacking presence, partially because of its location on the northwest periphery of development in the United States. However, cities such as Cincinnati, Kansas City, and St. Louis were also developing this industry (Rifkin, 1992). While there were multiple cities pushing the population and economy westward, and also

promoting the meatpacking industry, Chicago eventually became the undisputed leader. One reason for gaining this advantage was associated with the growing transportation development, particularly the investment in rail. The first railroad appeared in Chicago in 1848, and with the addition of every new line, Chicago was becoming more connected to the rest of the United States and a more attractive place to ship goods to and through (Grossman et al., 2004). Another reason for this was because trade routes were shifted to Chicago during the American Civil War (Harpster, 2009). As the city and railroads continued to develop, Chicago became an increasingly important destination. Livestock traveled to Chicago, not through Chicago. But it was in large part the Civil War that facilitated the rise of the local meatpacking industry. Chicago quickly became the slaughterhouse center of the United States, and this became increasingly apparent as the second half of the 19th century progressed (Rifkin, 1992).

The Chicago stockyards and livestock industry were critical to the local economy and its surrounding region. In fact, Chicago's first omnibus route was developed to bring people to the stockyards (Mayer & Wade, 1969). Matthew Laflin developed and owned the first omnibus for the purpose of making a stop directly in front of his stockyard. In the same way that omnibus service was lacking in convenience, the stockyards, being spread throughout the city, were not satisfying the needs of the buyers (Mayer & Wade, 1969). There were growing calls for stockyards that could be used by multiple companies and multiple railroad lines. Transportation infrastructure would eventually be built around the Union Stock Yards in the 1860s (Keating, 2005). Other important technological developments came from the stockyards, including the conveyor belt (Stull and Broadway, 2004).

Lumber was another important industry in shaping Chicago's 19th century economy (Grossman et al., 2004). Chicago was on the periphery of regions; the growing city was equally

close to the wheat prairies of the plains and the abundant forests with valuable timber of the north, as well as at the edge of the Great Lakes region connecting to the east coast. This was important for several reasons. Of the most important, though, is that regions that supplied the lumber often did not—or could not—grow wheat or other crops that the midwestern prairies provided (Spinney, 2000). Unlike the agriculture industry, which sent goods to places in the eastern United States like New York City, the lumber supplying regions were located much closer to Chicago. Minnesota, Wisconsin, and Michigan all had vast, coveted forests for lumber (Cronon, 1991). In addition, the lumber and agricultural industries complemented each other. Wood could be easily chopped and transported in the winter when the soil was frozen (Pierce, 1957). Many of the farmers were lumber laborers who would have been idle in the winter months, but they became involved in this extraction economy (Pierce, 1957).

Transportation Infrastructure in the United States: A 19th Century Emphasis

Transportation infrastructure changed rapidly over the course of the 19th century. This section of the chapter will discuss the types of transportation found throughout the United States and in Chicago in the 1800s. This overview will present a timeline and context for an in-depth examination of Chicago's evolution and specific infrastructural development within the city and its region between 1850 and 1910.

Water Transport

Prior to rail or road, waterways were the major mode of transportation. There was ferry service for passengers moving through the city. The first ferry service in the United States began operation in the 1810s connecting Manhattan and Brooklyn (Jackson, 1985). Unlike some later forms of transportation, the ferry service was only accessible to the upper class due to its

expensive fare (Jackson, 1985). Shortly after it began operating in New York City, ferry service spread to other cities, like Cincinnati, Philadelphia, and Pittsburgh (Cudahy, 1990). By the 1860s, ferry ridership in New York City had reached 32 million people annually. At that time, there were 13 different companies offering regular service (Cudahy, 1990). While the ferry grew in popularity throughout the 19th century, there were limitations, such as water turning to ice in the winter that eventually led to other modes of transportation becoming more dominant forms of travel.

In addition to transporting people within and between cities, waterways were the preferred mode of transport for moving goods across large distances throughout the 19th century (Cronon, 1991). In the United States, the topography was a serious transportation challenge for settlers along the Atlantic coast (MacGill, 1917). Due to the topography and barriers such as the Appalachian Mountains, natural waterways were the most viable mode of transportation for early Americans to access the interior of the United States (MacGill, 1917). Navigable rivers, lakes, and investments in canals were critical for the success of a region. This was true not only for major rivers like the Mississippi and Ohio, but also for minor streams through Appalachia and beyond (MacGill, 1917). While water routes and ships have lost their role as the preeminent mode of passenger travel, canals and waterways continue to be a critical form of transporting goods in the United States into the 21st century.

Omnibus

The omnibus was an early form of public transportation within the United States. The omnibus was introduced to the United States in the 1820s and became a prevalent form of transport into the mid-19th century (Cheape, 1980). An omnibus is a horse-drawn carriage that seats several

people and moves about the city with the sole purpose of offering local transportation (Warner, 1978). Figure 2.2 provides an image of a typical omnibus. Before the introduction of the omnibus, most people walked, and those with the financial means took personal horse-drawn carriages (Jackson, 1985).

Figure 2.2. A typical omnibus. Reprinted from Grossman et al. (2004).

While the omnibus did offer a new form of transportation, it also had drawbacks and created serious risks. Manure and urine were scattered throughout the streets due to the number of horses pulling the carriages within the large cities (Jackson, 1985). There were also no network transfers on the omnibus (Warner, 1978). This meant that a person could not ride one omnibus and expect to be able to get off and transfer to another at a certain stop. Additionally, the roads were often poor in quality, which led to an uncomfortable ride (Young, 1998). The

poor roads, coupled with unpadded seats often meant that trips could be dangerous (Jackson, 1985). Not only was omnibus service uncomfortable, it was expensive; it was unaffordable for most people to use for daily commutes. Because of these various issues, the upper class would typically pay for private coach service. This left the urban middle class as the group that would use omnibus service (McShane & Tarr, 2007). While the omnibus had many problems from the beginning, it existed for decades even though streetcars appeared shortly afterward (McShane & Tarr, 2007). Because of all of its shortcoming, however, it was inevitable that the service would not be the main public transportation method operating in cities for long.

Railroads

In the United States, the first locomotive that operated on railroad tracks dates to 1831 (Grant, 2012). Even into the 1840s, however, there were many areas of the country that lacked rail and any interest to invest in rail (Grant, 2012). Part of this lack of excitement was due to canals and waterways still being the preferred method of transportation, whether for goods or people (Grant, 2012). The first decade of railroads in the United States was full of experimentation and trying to rationalize how to operate them efficiently (Wolmar, 2010). In addition, there was competition between railroad and canal/boat operators. Nevertheless, railroad networks continued to grow throughout the 19th century, and they were used for a variety of purposes (Wolmar, 2010).

The widespread regional and national development of railroads from the middle of the 19th century to the middle of the 20th not only allowed for the transportation of people and goods between cities, but also to more remote and less developed locations (Stilgoe, 1983). These developments allowed for reliable, year-round travel of goods and people for the first time

in North America (Fogel, 1964; Vojnovic, 2006). While rivers and lakes were still very important, railroad tracks became critical to the growth and development of cities and their regions. The pattern of urban settlement was, in part, directed by railroad development (Middleton, 1961).

The Civil War marked a shift in rail construction in the United States (Wolmar, 2012). Cities like Chicago benefited greatly as much of the new construction and development was away from the front lines (Harpster, 2009). While there were no battles in other burgeoning cities like St. Louis, Indianapolis, or Cincinnati, those cities were close to the war, which did take place nearby in Kentucky, Missouri, and other bordering states. In addition, some railroads were destroyed in battle. Though some of the railroad lines were destroyed during the war, every state in the south did have railroads in operation by the end of the 1860s (Wolmar, 2010). The period after the Civil War, and into the end of the 19th century, marked another major period of U.S. railroad construction.

The development of the railroad changed transportation in the United States in a dramatic way. The railroad was putting traditional stage coaches out of business in many places, because it offered faster service and a greater variety of travel options to passengers (Wolmar, 2010). Railroad construction during the 19th century was a driving force in westward expansion and development. Two early examples of this were evident with major railroads constructed by the Illinois Central and the Rock Island & Chicago Railroad. The Illinois Central passed the first land grant through Congress to allow the railroad company to sell land near their construction sites, which attracted population growth within the vicinity of the railroad (Wolmar, 2010). Additionally, the Rock Island & Chicago Railroad constructed tracks along the Mississippi River, but chose westward extension when possible (Wolmar, 2010).

These trends were common throughout the 19th century. From its first appearance in the 1830s through the end of the century, railroads expanded and increased settlement across the country in a way that had not been possible before. By the end of the 19th century, there were 250,000 miles of tracks (Wolmar, 2012). Railroads pushed the country westward and helped develop metropolitan areas away from the Atlantic seaboard, which included and encouraged the growth of the Chicago region.

Streetcars

Streetcars were the first major technological advancement in transportation to follow the railroad. Though the first streetcar system began operating just five years after the first omnibus started service in 1827, it took decades for street rail to surpass the omnibus as the common mode of transportation in cities (Cudahy, 1990). The streetcar would become a powerful and critical force that molded late 19th century cities in the United States (Smerk, 1967; Middleton, 1961). Streetcars operated on fixed tracks that were constructed and placed in the road itself. This allowed for less friction between car and path, more organized routes and the potential to transfer to a different car, and increased safety compared to the omnibus (McShane & Tarr, 2007). By the end of the 1850s, nearly ten American cities had streetcar service, with many more lines developing across U.S. cities during the 1860s (Cudahy, 1990).

The streetcar system was successful, with only one major issue: the costs, both public and private, associated with the animals which were required to operate the system (Cheape, 1980). It took many horses to operate one vehicle, and the slow speed of the cars became an issue. While the number of streetcars pulled by horses continued to grow in the United States throughout the second half of the 19th century, cable cars first appeared in 1873 (Cudahy, 1990). Cable cars

were the first alternative to animal power. Cable cars operated via a steam-powered wire rope that allowed the cars to move along the tracks (Cudahy, 1990). Cable car systems would eventually be adopted in most large cities in the United States during the 19th and early 20th centuries (Cudahy, 1990). Cable cars quickly faded, though, due to the preference for electric-powered streetcars (Cheape, 1980).

Two decades after cable cars were first used, electric streetcars were introduced. While horse-pulled streetcars continued into the 20th century, electric streetcars became the popular and dominant form of transit in the early 20th century, reaching their peak in service after the first decade of the century (Cudahy, 1990). Electric streetcars contributed to the growth of cities across the country more than the previous forms of street rail (Middleton, 1961). With the electric streetcar came growth in urban population all over the country (Middleton, 1961). Electric streetcars are still used in many major metropolitan centers, even though in many cases they were discontinued in the mid-20th century.

Chicago Transportation

While the development of transportation infrastructure in Chicago generally followed broader national trends, there is a distinct local history shaped by the geography, unique settlement patterns, and the economy. A general overview of the history of transportation infrastructure investment in the 19th century, with a particular emphasis on modes of transport considered responsible for shaping the Chicago region, will be discussed below starting with waterway transport and travel.

Rivers and Canals

One of the major precursors to the early success and development of Chicago was the construction of the Erie Canal. The Erie Canal opened in 1825 and was important in the growth of New York City and the westward expansion of Atlantic seaboard trade (Cronon, 1991). The opening of the canal was critical to Chicago because water was the primary transport method from the east until the 1850s, when widespread overland transportation became possible via rail (Mayer & Wade, 1969).

The opening of the Erie Canal connected New York City to the Great Lakes system. The construction of Erie Canal allowed farmers and businesses in western New York to expand their market and sell and trade their goods in the Midwest and eventually down the Mississippi River Valley (Roth, 1918). The purpose of the canal was to increase New York's presence as an economic center throughout the territories captured by the westward expansion. While that did occur, it also established Chicago as a viable trade partner (Cronon, 1991). As goods could reach New York City from all Great Lakes ports, and vice versa, there was tremendous opportunity for cities to develop and become successful along the natural water transportation routes in the region. Chicago had a great advantage over many cities west of the Atlantic seaboard because of its rich water transportation network and a network that enabled access to the Mississippi River. This became an important competitive advantage, particularly during the Civil War (Cronon, 1991).

It should be acknowledged that during the 1830s there were several other cities located along the same waterway network that maintained a similar locational advantage within the Great Lakes region and were connected to New York City, directly competing with Chicago.

Among them, Milwaukee, Wisconsin, and Michigan City, Indiana, were leading places for potential development along Lake Michigan (Harpster, 2009). In addition, St. Louis, Missouri, located on the banks of the Mississippi River, was another attractive and important entrepôt for transporting goods from the east. All of these cities competed during the 1830s, but it was Chicago that prevailed and became the major transportation center of the region (Pierce, 1957).

As the population increased, and in light of the competition with other settlements in the broader region, a canal was proposed to connect the city to the Mississippi River (Mayer & Wade, 1969). The Illinois and Michigan Canal, as it would be called, essentially used the successful model of the Erie Canal. It would be the first major transportation infrastructure project for Chicago (Mayer & Wade, 1969). Construction on the Illinois and Michigan Canal began in 1836 and the project was completed in 1848 (Grossman et al., 2004).

Prior to the Illinois and Michigan Canal, Chicago was connected to the Atlantic—and the markets of major Eastern cities—because of the Great Lakes and the Erie Canal, but it not connected to the west. The Illinois and Michigan Canal was constructed from Chicago and went to the Illinois River, which is part of the Mississippi River system. The Illinois and Michigan Canal would open up the Chicago network even further and allow the city to become a major transportation hub for trade between the Midwest, some southern parts of the United States, and the northeast portion of the country (Pierce, 1957).

The Erie Canal allowed for increased travel and trade from the eastern seaboard through the Great Lakes region (Spinney, 2000). The construction of the Erie Canal, along with the proposed Illinois and Michigan Canal, facilitated a real estate buying and investing frenzy in Chicago. Spinney (2000) shows that land sales in the Chicago area in 1832 were $2.4 million. By

1836, however, they increased more than tenfold to $24.9 million. This drastic increase was due in large part to the optimism about the Illinois and Michigan Canal.

While the investment in canal construction during the first half of the 19th century was certainly a major factor in the development of the Chicago region, there were other factors that also facilitated its growth. As William Cronon (1991) has argued, Chicago's growth during this period was also partially due to the continued removal of Native Americans from the region and the resulting increase in the in-migration of farmers and the development of agricultural land. Many businessmen and investors saw Chicago as not just a growing city with potential commercial success, but they also saw it as the transfer point for all commercial goods and people traveling to and from the Great Lakes region (Putnam, 1909). Putnam (1909) details that many residents and investors expected an extreme increase in economic activity from the completion of the Illinois and Michigan Canal. Thus, the combination of Native American removal, in-migration, and the construction of the canal systems into the first half of the 19th century all caused this increase of both population and further rounds of infrastructural investment and commercial activity.

Roads

Road development by settlers in Chicago started around the 1830s (Grossman et al., 2004). Prior to this, there was some development of early paths particularly around Fort Dearborn, but it began on a larger scale throughout the region in the 1830s. Many of the first roads in Chicago were paths created and used by Native Americans (Cronon, 1991). The paths were created in a way to avoid obstacles, which meant they were seldom straight. Settlers attempted to straighten the paths for roads but without much success (Grossman et al., 2004).

Chicago's first attempt to go beyond dirt paths was when some of the early trails were covered with wood planks (Cronon, 1991). This was necessary due to the landscape of Chicago, where these dirt paths would often turn to mud (Cronon, 1991). Even the roads which were planked were not necessarily effective for transport, as mud would seep through the planks (Mayer & Wade, 1969).

The poor conditions of constructed roads made it difficult for horses to pull wagons and effectively move about the region (Clutton-Brock, 1992). Not only were the planked roads not reliable, but they often broke or simply rotted. Following wood-plank roads came wood blocks. This surfacing development was essentially placing wood blocks together on a path to make a smoother surface than planks (Quaife, 1923). The planked and blocked roads would last into the 20th century, although they had plenty of problems. The roads were especially problematic for horse-drawn carriages. The carriages may get stuck between planks or even slide off the road due to the mud seeping through the blocks. They were, in general, not very efficient due to the friction between the wheels and the wood (Quaife, 1923). Stagecoaches would be pulled by four to six horses, carrying six to eight people, and along the Chicago area roads, they would move no faster than eleven miles per hour, and that was considered a speed only accomplished in optimal conditions (Young, 1998).

In early Chicago, paving roads was generally not a task assigned to the responsibility of local government. Rather, it fell upon the owners of the real estate property through which they ran, so it often did not happen (Einhorn, 1991). It was not until 1861 that a municipal effort was made to create and improve roads. In 1861, the Board of Public Works was created, which was the first of its kind in the state of Illinois (Grossman et al., 2004). The board laid the foundation for the road infrastructure that would last into the 21st century. For example, a scenic road was

built at the end of the 1860s from Chicago to Hyde Park, which was still an independent community (Young, 1998). This road was paved with concrete in the 20th century and eventually became Lake Shore Drive, which was a foundational road in the development of Chicago's expressway system (Young, 1998).

Railroads

The railroads, much like the other modes of transportation in Chicago, were privately owned and operated during the early years of their development (Young, 1988). In 1848, the Galena & Chicago Union train ran for the first time, but the rails were still not connected to the East Coast and the crucial markets of New York City, Boston, or Philadelphia (Pierce, 1957). Due to the immediate success of the initial railroad investment, funds were raised in 1850 to begin extending the network north, south, west, and east (Andreas, 1884).

Railroads quickly grew in Chicago in the 1850s, with several companies expanding networks throughout the region. In addition to the thousands of miles of track, many railroad companies were headquartered in Chicago, and railroad and train manufacturing were also concentrated in the city (Grossman et al., 2004). During the last five decades of the 19th century, Chicago developed an exceptional system of commuter railroads (Keating, 1988). This was due in part to real estate investment interest in the region. This allowed the region to grow in population and area, knowing that railroads could effectively and efficiently transport people to and from the city on a daily basis (Keating, 1988). But commuting at this time, due to the costs, was generally limited to Chicago's wealthier residents.

Omnibus and Streetcars

The omnibus was a completely new form of transportation in Chicago: It emphasized travel over land and was the first form of local public transit (Cudahy, 1990). Before the introduction of the omnibus in Chicago, most people walked or, if they were better-off, took a private horse-drawn carriage. The omnibus was unlike anything at the time, and first appeared in Chicago in 1850 (Fairlie, 1907). This form of transportation was privately owned and operated by local investors and businessmen. While the omnibus had only started operating in Chicago in 1850, there were ten privately operated omnibus service networks in the city by 1855 (Fairlie, 1907). Despite the many private omnibus companies, it was difficult to transfer from one to another in the middle of a route (Cheape, 1980). The routes were set but the companies generally did not coordinate with one another.

The omnibus companies paid taxes or license fees to the city. However, as Cheape (1980) points out, the city collected taxes and would either approve or deny routes, but it was not involved in shaping or designing the system in any way. The transit system both served and interfered with the public at the time, but the local government did not make any of the transportation decisions, regulations, or help with maintenance of this new form of public transportation. The independent operators developed the routes, chose and purchased the equipment they desired, and set schedules. There was not a high level of connectivity between networks, and even individual networks tended to be sparsely scattered across the city (Cudahy 1982).

The omnibus developed quickly and became very popular in Chicago. Although it was popular, there were many negative aspects to omnibus service. The large number of companies

operating omnibus lines made it difficult to coordinate routes. Also, the streets were of poor quality, which made for a slow and uncomfortable ride, which sometimes could become unsafe (Young, 1998). Because of this, the omnibus disappeared rather quickly, particularly after the introduction of the streetcar. Fairlie (1907) notes that there were ten separate companies operating omnibus lines in 1855, but there were only two in 1861. By 1865, there were none. Franklin Parmalee & Company operated several of the routes by 1855, but they soon disappeared from the Chicago landscape. Into the second half of the 19th century, technology and better design were moving toward streetcars (Smerk, 1967). It is important to note the importance of the omnibus and its role in accommodating intra-urban travel, while at the same time also allowing the city to expand outward. Complementing the omnibus, beyond the city limits, steam-powered railroad trains were effective in creating suburbs that allowed people to live away from their workplace and the fast-paced life of the city (Young, 1998).

The city began to grow around the omnibus routes, but the suburbs rapidly expanded with the railroads. It was not until the streetcar that the city population also started to grow at a rapid rate, economically and spatially. The streetcar was a much lighter structure than the original omnibus, which made it more efficient (Young, 1988). The lighter carriages were pulled by a single horse and could carry up to twenty passengers. There were also larger cars that were pulled by two horses and could carry thirty passengers. The streetcar was incredibly important to the growth and development of Chicago, as well as other cities. In Chicago, streetcars first appeared in 1859 (Cudahy, 1982). Though not as prevalent or necessary once electric-powered streetcars were implemented, horse-pulled streetcars still operated in Chicago until 1906 (Grossman et al., 2004).

The streetcars within the city, however, used a considerable number of horses: some 6,600 in the 1880s. Many horses that were serviceable died in the 1871 fire or were infected by an influenza-like equine virus (Grossman et al., 2004). Again, this reiterates that the streetcar system was very effective, much more so than the omnibus, but there were still issues with the horses pulling the cars. As David Young discusses:

> As the system grew in size, its limitations became increasingly clear. Horsecars were adequate for Chicago in 1860, a city comprised of 17.5 square miles with a population of 109,000, but when it doubled in size and nearly tripled in population in one decade, both the horsecar system and the riding public began to feel the strain. By 1880, when Chicago had grown to nearly 180 square miles with a population of 503,000, the street railways had become the brunt of a great deal of public criticism, and an active search for a replacement began (Young 1998, p. 16).

It was when the city had expanded spatially and grew in population that the cable cars and electric-powered streetcars, once introduced, were both viable and necessary.

As soon as electric-powered streetcars took over, the network began consolidating down to just a few companies, as opposed to dozens when the streetcars were first introduced (Cudahy 1982). Only two decades after consolidation at the turn of the century, the streetcar system was becoming less economically viable due to the street congestion in Chicago and began to lose its luster as the most feasible mode of transportation (Grossman et al., 2004). Elevated rail, which began operating in 1892, allowed the same service as streetcars but eliminated the congestion on the street (Cudahy, 1982). This was the critical difference between the two and a crucial factor in the eventual success of elevated rail in Chicago.

Conclusion

Throughout the 19th century, investment in transportation infrastructure facilitated the outward growth of Chicago and many other urban regions in the United States. While Chicago had the benefits of natural water transportation—specifically Lake Michigan and the Great Lakes water-route system, along with its surrounding system of rivers—it also developed an extensive overland transport network. In particular, railroads and streetcars were a major infrastructural investment in the region during the 19th century and into the early 20th century.

During the 19th century, Chicago became an economic force on a regional, national, and global scale in just a matter of decades (Grossman et al., 2004). This evolution from a small port settlement to the second largest city in the United States is due to several factors. The United States wanted to expand westward, with capital investments pouring into the western frontier from the eastern United States. Chicago had many natural geographic advantages, including its strategic location during the Civil War, so it emerged as an important site for attracting this capital investment. Ultimately, the construction of rail in Chicago was a critical aspect of its economic development and helped set the city apart from other competing urban regions in the Midwest. Chicago quickly became a critical transportation hub and an important U.S. industrial center in the late 19th century and into the 20th century.

This historical review of urban infrastructure and Chicago in the 19th century is meant to be a foundational basis for further analysis into the role of rail in the development and shaping of the early Chicago region, which will be the focus of the subsequent chapter. By understanding this broader historical context, the more detailed analysis into rail investment and its impact on the shaping of the city and the broader region will now be examined. The following chapter will

look specifically at the growth of the city of Chicago in the 19th and early 20th centuries, exploring the detailed transportation infrastructure investments and local development processes between 1850 and 1910.

CHAPTER 3: RAIL INVESTMENT AND SUBURBAN DEVELOPMENT IN THE CHICAGO REGION

Introduction

Each decade in Chicago's history is unique and important to telling how Chicago became the world city that it is today, but the six decades between 1850 and 1910 shaped Chicago's identity. It was during this time span that Chicago emerged as a major city, an urban region experiencing massive changes in social, cultural and economic life. In the same way that each individual year and decade has a unique history in Chicago's development, each individual suburb has a unique story of settlement and growth. The history of some of Chicago's suburbs will be explored in this chapter. The following section will examine how these early city and peripheral communities developed and the role of various actors in shaping Chicago's development and outward expansion during the second half of the 19th century. A particular emphasis will be placed on exploring how the growth and expansion of Chicago was tied to the development of rail during the second half of the 19th century.

Chicago's identity transformed over time, but at its core, it was and still remains a transportation center. Chicago saw the majority of its land expansions, annexations, and infrastructure construction in the 19th century, particularly the decades from 1850 to 1910. In terms of transportation, Chicago was already a railroad center by 1860. Several railroads were constructed in the 1850s by multiple companies (Keating, 2005). Even though it is important to discuss the 1850s in Chicago's suburban development, it is important to note that streetcars were not operational in Chicago before 1860. Throughout much of the 1850s, the only land transportation option outside of commuter railroads were omnibuses (Grossman et al., 2004). Boats and ships were critical during this time, but there were obvious limitations. The six decades of development during this period brought much of the infrastructure capable of serving

the nearly three million people in the city today, and the several millions more in the greater Chicagoland area. This period brought Chicago from an up-and-coming city to a city of world status.

Even before the railroad, it was clear that transportation was critical to the growth and shaping of Chicago. The city was connected to the Great Lakes transportation network, which provided a means for travel to and from Chicago and the eastern seaboard. The Illinois & Michigan Canal was also being constructed, which would connect the city to the Mississippi River in 1848 (Cronon, 1991). Up until the middle of the 19th century, water was an important method of transportation that connected Chicago to the rest of the country. Chicago's connection to the East Coast of the United States through the Great Lakes network made reliance and dedication to water transport a natural and obvious choice. The viability of transportation from the Chicago River and Lake Michigan made Chicago very attractive to easterners from the outset. Not only did it allow individuals to move, but it allowed goods and supplies to reach manufacturers or other commercial businesses. The water transportation network to Chicago allowed businesses to connect to New York City, and the East Coast more broadly, while enabling mid-continental trade south along the Mississippi River. Chicago's location along these waterway routes, which enabled connections between the East Coast and transportation down the Mississippi, gave the city its strategic advantage as a port city.

The Great Lakes system and the Chicago River were crucial to the city's industrial success from its initial settlement. One of the early U.S. settlements in the region was Fort Dearborn in 1803 (Keating, 2012). By 1804, the fort was completed on the southern bank of the Chicago River, near Lake Michigan. Most of the structures and activity occurred near the fort (Keating, 2012). South of the actual fort stood the homes, merchants, and most of the services

provided to the settlers. Fur traders stayed across the river on the north side (Keating, 2012). Most of the settling families engaged in fur trade with Native Americans in some capacity. This was done either independently or, more commonly, through the American Fur Company (Keating, 1988). This activity continued into the 1820s, even as the Erie Canal was being constructed. In 1825, the Erie Canal was completed, connecting New York City to the Great Lakes and, thus, the Chicago region. From that point, many more travelers and settlers came from the New York and New England area (Keating, 1988). Not only was the construction of new water transportation routes and greater connectivity taking place, but other factors were making the region's waterways and settlement in the area more attractive. The defeat of Black Hawk, the leader of the Sauk Indian tribe, and other tribes in the greater northern Illinois area spurred many investors to purchase farms in the region and take advantage of the readily available water routes that could be used for trading (Keating, 1988). Available water transport and the plan of more water infrastructure routes, such as the Illinois and Michigan Canal, were promising to many industries, investors, and residents. Seemingly unattractive land could become a valuable commodity if it had transportation routes in the vicinity (Cronon, 1991). Industry benefitted from these routes and especially its increasing capacity to send and receive goods. In Chicago, this started with fur trading companies and military posts along the Chicago River at the beginning of the 19th century and continued through Chicago's incorporation and initial growth in the 1830s with agricultural trade and the exchange of other goods (Grossman et al., 2004).

Beginning of the Railroad and the 1850s

Table 3.1 shows the new railroads developed during the 1850s and Chicago's early suburban communities that were established along the rail lines. The table also includes the company names that controlled railroad operations.

Table 3.1: *Suburbs and Their Railroad Lines, 1850s*

Year Rail Service Began	Railroad Company	Year Suburb Began to Develop	Suburb and Notes	Annexation Year
1854	Chicago & Milwaukee Railroad Note: The Chicago & Milwaukee was later absorbed by the Chicago & North Western Railway	1851	**Evanston**: Andrew J. Brown donated land near the campus of Northwestern University for a rail station. The Chicago & Milwaukee Railroad began operating daily service between Evanston and Chicago in 1854.	Not annexed
1856	Illinois Central Railroad	1853	**Hyde Park**: Paul Cornell donated 60 acres to the Illinois Central for rail construction and a station. The Illinois Central Railroad began offering daily service in Hyde Park in 1856.	1889

Note: Data for suburbs and their railroad lines came from Grossman et al. (2004), Andreas (1884), Cleaver (1882).

The opening of the first railroad line in Chicago showed the promise of rail and dramatically increased interest in not only land transportation but, just as importantly, real estate and land development. The first railroad appeared in 1848, the Galena & Chicago Union, which connected Chicago to the Des Plaines River. By 1856, there were ten railroads present in the city

(Mayer & Wade, 1969). Investment in rail fostered local economic expansion, which in turn led to a dramatic increase in the population.

Chicago's population began to grow dramatically shortly after it was organized as a city. Table 3.2 shows the population from 1845 to 1855, during which it would increase seven-fold. This early phase of growth emphasizes the city's development as shaped by the Illinois and Michigan Canal and the early railroad lines.

Table 3.2: *Chicago's Population, 1845-1855*

Year	Population
1845	12,088
1846	14,169
1847	16,859
1848	20,035
1849	23,047
1850	28,269
1852	38,733
1853	60,652
1854	65,872
1855	83,500

Note: Reprinted from *The City Transformed* by Benjamin Dreyfus, retrieved from https://www.hcs.harvard.edu/~dreyfus/history.html

As already noted, the first railroad—the Galena & Chicago Union—began operating in 1848, running westward from Chicago to the Des Plaines River (Cronon, 1991). The site of the first Chicago train station was on Kinzie Street just north of the Chicago River (Grossman et al., 2004). Soon after, an extension was built to the town of Elgin (Grossman et al., 2004). The railroad was first built to the edge of the Chicago city limits. Many thought that having a railroad come into the city would be good for getting necessary goods to the city. However, if goods

could be easily transported into the city, many people thought that that would limit travel into Chicago, which would negatively affect the economy and growth of the city. People would simply send their crops and goods to market via rail (Keating, 2005). While this was a concern, Chicago continued with the operation of the Galena & Chicago Union Railroad. In its first run in 1848, the rail car went from the Des Plaines River to the Chicago city limits with a wagonload of wheat and a farmer (Keating, 2005).

Though initially skeptical, residents and officials of the city were convinced by former Mayor Ogden—who assumed the role of president of the Galena & Chicago Union—that the future of Chicago was rail (Keating, 2005). The Galena & Chicago Union Railroad had very humble beginnings, but was incredibly important to the economic mindset of the city and to the early Chicago investors

The Galena & Chicago Union railroad had shown the economic potential of rail and the Chicago region itself. Early on, Ogden and others capitalized on this seemingly overnight sensation. The Galena & Chicago Union's initial success paved the way for railroads to follow in the city. It was the first tangible piece of evidence to show that this nascent railroad-centered vision for Chicago had potential. Figure 3.1 shows the railroad lines of Illinois that entered Chicago in 1855.

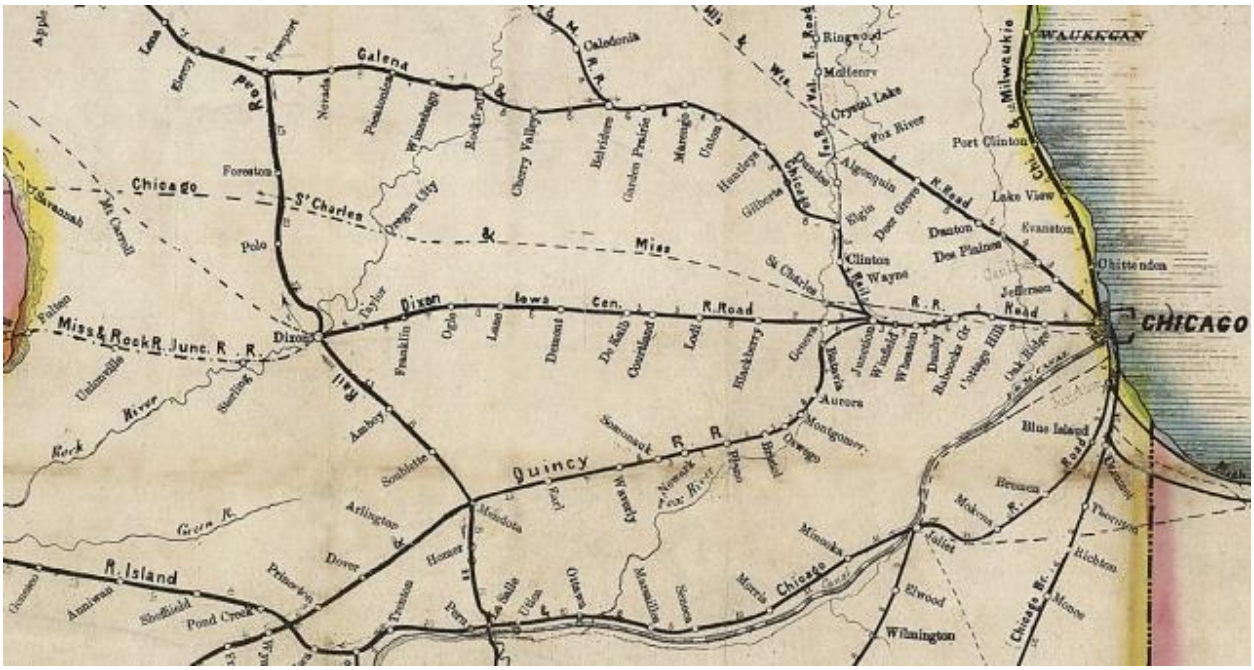

Figure 3.1. Railroads entering Chicago in 1855. Adapted from D.B. Cooke & Co's. railway guide for Illinois showing all the stations with their respective distances connecting with Chicago (1855).

Two things are most prominent in this map: First, Chicago is the central and most important location throughout this network, particularly as a transition hub between water and rail transport and travel. Second, looking closely at the specific points along rail lines, railroad towns were already very common outside of the city of Chicago by 1855. Some of these towns established after rail service began operating (Keating, 2005). This residential and physical infrastructural development in the suburban communities along the rail lines is one of the practices that allowed Chicago to grow so quickly. The railroads and the rail towns began the process of turning prairie and hinterland into an urban region.

Prior to the first streetcar in operation for transport with the city, passenger railroads serviced transit into and out of Chicago, whether for work or leisure (Mayer & Wade, 1969). Conversely, it was also a way for residents outside the city to enter Chicago. The success of these early railroad lines that operated passenger vehicles also allowed for permanent settlement

outside of the city in what would be Chicago's first suburbs. The efficiency and connectivity of the passenger railroad lines still in the infancy of Chicago's railroad history was naturally attractive to businesses. People could live outside of the city and commute into Chicago each day to go to work. Several residential communities had railroad lines that provided these services, with Hyde Park providing an early example.

Hyde Park

Paul Cornell, a real estate investor and lawyer, purchased 300 acres south of downtown Chicago in hopes of developing the land (Davis, 2013). At the time of purchase in 1853, Chicago was still a walkable city of under two square miles (Grossman et al., 2004). Cornell's purchase was not just a lucky success: he clearly saw the stretching of the Chicago area and the importance it would play within the region. The purchase and subsequent development of the land was very spatially strategic. The land, several miles south of the Chicago city limit at the time, was undeveloped and seemingly unpromising. The land purchased by Cornell was located between 51st and 55th Street (Grossman et al., 2004).

Cornell was able to secure an agreement with the Illinois Central Railroad to operate daily service from Hyde Park to downtown Chicago (Andreas, 1884). Cornell deeded 60 acres of his Hyde Park land to the Illinois Central, which constructed the 53rd Street Railroad Station (Andreas, 1884). The Illinois Central was already in the process of constructing rail from southern Illinois to Chicago by the time Cornell purchased the land. Because this plan was already in the works, Cornell was able to form an alliance with the railroad and give them the land to go through Hyde Park (Andreas, 1884).

From the perspective of the land developer, in this case Cornell, he needed rail to make his developments attractive and successful. The railroad company maintained a similar position, though. They relied on their relationship with land developers and the landholders to also make commuter settlements attractive, but with the purpose of increasing the demand for rail service. In addition, both the developers and the rail companies were highly dependent on Chicago and its growth since the city's urban and economic development would, in part, define value for rail into the city.

The Illinois Central gave Cornell the station he needed to effectively develop and promote Hyde Park (Davis, 2013). While the suburb's proximity allowed travel into the city, Cornell envisioned Hyde Park as its own town with its own adequate and necessary amenities (Davis 2013). This concept was a very new and attractive option for early residents in the Chicago region. They could live outside the city limits while still being able to travel into the urban core if necessary via the Illinois Central Railroad. Hyde Park was a pioneer in railroad suburbs in Chicago. It is also important to recognize that it is possible that Hyde Park may not have been as successful had Cornell not negotiated with the Illinois Central Railroad to operate regular commuter passenger lines between downtown and Hyde Park, particularly because the development was quite distant from the urban core of Chicago.

While Cornell and other large-scale investors dominated the development scene in the middle of the 19th century, there were many people investing and developing both the rail lines and early suburban developments during this period of rapid growth. From the construction period of the Galena & Chicago Union railroad up until 1857, there were eleven separate lines were constructed (Andreas, 1884). Josiah Seymour Currey detailed Chicago's early growth and found it astonishing that the city went from one railroad to more than 10 in a decade (Currey,

1918). Investors like Cornell used this construction to capitalize on their real estate ventures and developments.

Evanston

Another example of the strength of the relationship between rail and mid-19th century settlements around Chicago is provided by the development of Evanston. Evanston was planned and built in the mid-19th century along what would become the Chicago & Milwaukee Railroad and eventually the Chicago & North Western Railway (Cleaver, 1882). Evanston, home to Northwestern University, was being planned as early as 1851, was built by 1855, and officially became a city in 1857 (Ebner, 1988). In 1853, 379 acres of land was purchased for the development of Northwestern University (Andreas, 1884). Evanston developed two additional educational institutions as well. Garrett Biblical Institute and Northwestern Female College were developed and opened the same year as the main Northwestern University (Ebner, 1988). There was no rail service within the area at the time, though the land was being surveyed for that purpose.

Prior to the official settlement of Evanston, various farmers traveled through the area. In 1850, the township of Ridgeville was created (Perkins, 2013). Ridgeville preceded Evanston. Just a few years after the creation of Ridgeville, Northwestern University trustees requested a plat for a new village. The plat was submitted in 1854 with the name Evanston, after John Evans. In 1857, Ridgeville was officially changed to Evanston (Perkins, 2013). The location, which was mostly used by farmers until the 1850s and the development of Northwestern University, was perfect for individuals looking to settle outside of the city. Even at the beginning of the 1850s,

people were beginning to feel that Chicago was a bit crowded and moving elsewhere would provide cleaner air and a healthier life (Perkins, 2013).

With Evanston being one of the closest suburban communities north of the city in 1855, it was inevitable that rail would pass through soon after it first arrived in Chicago. As John Evans and others planned the city of Evanston, it was clearly more than just a bedroom suburb from the outset. Rail began servicing Evanston in 1855 when the Chicago & Milwaukee Railroad was constructed through the area (Andreas, 1884). Andrew J. Brown, the founder of Northwestern University, had previously purchased a farm. With his land holdings, Brown was able to influence the development of the railroad (Perkins, 2013). Brown wanted service near campus, so he donated land to the Chicago & Milwaukee Railroad for a station (Perkins, 2013). By donating the land, Brown ensured service would be provided near the university he founded and increase the value of the land he owned. The Chicago & Milwaukee split Evanston nearly down the middle as it operated north–south service (Chamberlin, 1874). This construction spurred some of the initial development in the area. Andreas (1884) details the increase in development, "The building of the Chicago & Milwaukee Railroad through the county, in the summer and fall of 1854 caused a rapid settlement of the country along its line" (p. 418). Starting on January 4, 1855, passenger trains from the Chicago & Milwaukee Railroad operated through Evanston. Initially, trains would leave Chicago heading north at 8:30 AM and arrived back in Chicago at 5:30 PM (Stennett, 1910). The Chicago & Milwaukee Railroad became part of the Chicago & North Western Railway in 1866, which connected Evanston to a larger rail network (Stennett, 1910).

During the mid-19th century, Evanston was developing as its own unique town. There were also many other settlements around Chicago that followed a similar path of development.

They were being developed as individual settlements that did not necessarily rely on Chicago but still had relatively quick access to the city. The development of land for residences and amenities near existing or promised rail lines was commonplace around mid-19th century Chicago. Hyde Park and Evanston were just two of the early examples.

Early Streetcars

Following this initial outward growth of railroads, streetcars also began appearing in Chicago. The first charter granted by the city for a horse-pulled rail car led to the construction of the first line in Chicago in 1858. The city council granted Henry Fuller, Frank Parmalee, and their partners a 25-year charter to operate on the south and west sides of Chicago (Grossman et al., 2004). Initially, when the charter was granted, the Chicago City Council simply required that the companies gain permission from property owners to construct track and operate through their holdings (Andreas, 1886). When many property owners began denying access to land, the Illinois General Assembly stepped in and gave the Chicago City Railway—which was owned by Fuller, Parmalee and others—the right to construct and operate on any street in the south or west of the city (Andreas, 1886). The Chicago City Railway began operation in 1859, with its first track running along State Street between Randolph and 12th Street (Andreas, 1886), operating north–south just south of the Chicago River in what is present-day downtown.

Soon after the Chicago City Railway Company laid its first track and then subsequently expanded, other companies entered the scene. The Chicago West Division Railway received a charter from the city in 1861 (Grossman et al., 2004). The Chicago West Division Railway constructed and operated on the west side, where the Chicago City Railway was originally granted charter and constructed tracks (Andreas, 1886). Following the Chicago West Division

Railway Company came the North Chicago City Railway. Just two years after the pioneer Chicago City Railway Company began operation, there were three companies operating in different sections of the city (Keating, 1988). In 1888, less than three decades later, the Chicago City Railway Company served over 52 million riders (Grossman et al., 2004).

Growth Before 1860

Prior to 1860, the city, still in its infancy, began its industrial and residential growth along early roads and, more importantly, rail lines (Mayer & Wade, 1969). Urban settlements and development were focused on and near railroad lines, both inside and outside of the city limits. The nature of this growth effectively served regional farmers, industrial manufacturers, and general commuters. Development outside of the city limits continued to push the growth of Chicago as the city either consolidated with existing and growing communities or simply expanded its land area (Keating, 1988). During the 1850s, legislation added some land to the city for expansion (Keating, 2008). In later decades, towns and villages that had already incorporated were consolidated with Chicago in order to take advantage of the city's greater resources and public services. The first few decades of Chicago's growth, and its initial rail construction, were critical to the positioning of the city within the region as an important trade and transfer center.

As the population increased, the city began to grow outward, particularly along available transportation routes. In 1850, urban development was largely restricted to the Chicago River and the city center. By 1860, however, the city began to increasingly spread outward from the city center. This growth was particularly evident along commuter railroad lines extending from the urban core. The outward expansion throughout the 1850s was necessary to facilitate the rapid population increase, which nearly quadrupled during the decade. The city of Chicago grew from

a population of 29,963 inhabitants in 1850, to a population of 112,172 inhabitants in 1860 (Gibson, 1998).

Many factors contributed to this decade of rapid population growth. For one, farming became much more attractive in the region. Due to railroad development and connectivity of the city with suburban and more rural places, as well as an established route to the eastern United States, the market for goods from farmers in the Chicago area increased dramatically. During this decade, the railroads also gave industries agency to expand both in production and spatial reach. There was greater access to employable talent and production locations. There was also a larger market of consumers. Rail and its early transportation routes expanded commercial activity across large areas of Chicago.

1860s

Table 3.3: *Suburbs and Their Railroad Lines, 1860s*

Year Rail Service Began	Railroad Company	Year Suburb Began to Develop	Suburb and Notes	Annexation Year
1864	Chicago, Burlington & Quincy Railroad	1862	**Hinsdale**: The Chicago, Burlington & Quincy had intentions of building tracks through the Hinsdale area. William Robbins and others bought land because of that. Rail operation began in 1864 with double-tracked service through the land that would soon become Hinsdale.	Not annexed
1863	Chicago, Burlington & Quincy Railroad	1868	**Riverside**: The Chicago, Burlington & Quincy built rail through the area that would become Riverside in 1863. Due to suburban growth around rail, investors developed Riverside in 1868 in the area of the tracks as an upscale community.	Not annexed

Note: Data for suburbs and their railroad lines came from Keating (2005), Grossman et al. (2004), Dugan (1949).

The 1860s marked the beginning of a complex period of development in the Chicago area. The development of the city and its region was influenced by railroads, perhaps more so than any other city in the country. Many other cities within the Midwest were developing during this period as a result of railroad expansion, including Indianapolis, Cincinnati, and St. Louis (Young, 2005). During the 1860s, railroad investment and construction was a constant driving force of not only urban settlement patterns across the cities mentioned and the Midwest, but more broadly the United States in general.,

Also contributing to growth within the city during the 1860s was the streetcar system (Andreas, 1884; Keating, 1988). As the city and region were growing, streetcars emerged as an additional option for transport and travel throughout parts of the city that had access to streetcar service. This not only made the city a more attractive place for potential residents, but for suburban residents traveling throughout the city from the Chicago suburbs.

The 1860s was a time of significant economic growth and development in Chicago and the surrounding region. The United States Civil War (1861–1865) influenced the entire country, but Chicago was in a unique position. Chicago was still in its infancy, yet had a substantial infrastructure foundation, including canals, rivers, railroad networks, streetcars, and a nascent industry that could contribute to the needs of the war-time economy (Keating, 1988). Not only had Chicago developed in the years leading up to the Civil War, but other competing cities were negatively impacted by this growth, and their routes and economic activity were further altered by it. Cincinnati, Indianapolis, and St. Louis were among the cities that began losing their competitive advantage to Chicago, a result of its growth, increasing industrial capacity, and transportation infrastructure investment. Cincinnati, Indianapolis, and St. Louis were also too close to the front lines of fighting, and much of their production and transportation was diverted to Chicago (Cronon, 1991). Particularly important in shaping Chicago's future during the 1860s, the city became the leader in meatpacking and wheat production and shipment, as well as various manufacturing industries in support of the war effort (Cronon, 1991). The following map, Figure 3.2, shows the railroad map of the United States in 1860, one year before the Civil War began.

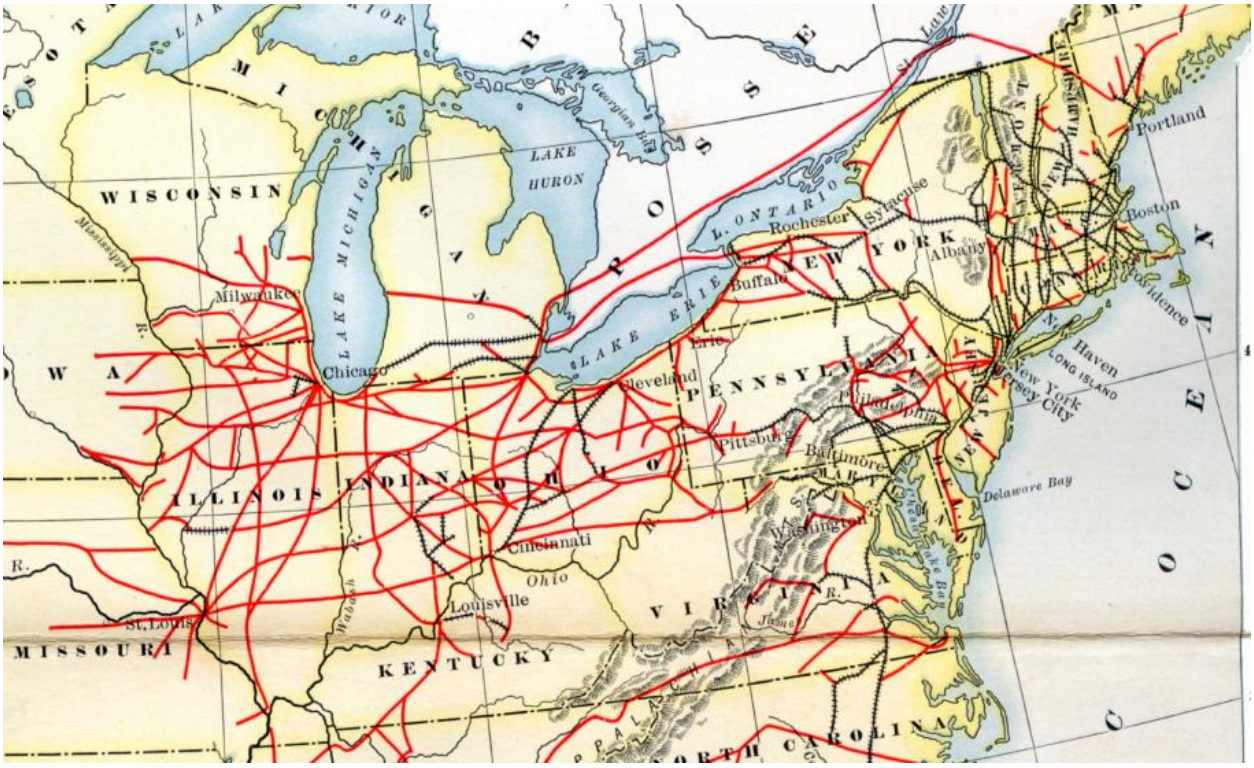

Figure 3.2. Railroad lines operating in 1860. Adapted from Harper & Brothers (1860), https://etc.usf.edu/maps/pages/2800/2889/2889z.htm.

As the map shows, St. Louis, Indianapolis, Cincinnati, and others were cities either on the western side of railroad expansion or that rail expanded through. This map shows the western edge of expansion and shows that Chicago was not alone in its reliance on rail. This growth of the 1860s laid the foundational infrastructure to allow migration and growth during the Civil War and the following decades. In 1860, the population was 112,172 (Gibson, 1998). The Civil War began the following year, in 1861. By 1870, the population had exploded to 298,977 (Gibson, 1998).

The growth of industry across the United States during the 1860s was fueled by the spread of railroad lines and the war economy. It was during the decade of the 1860s that Chicago became a critical national railroad center, and also the largest livestock processor in the world. The Chicago Union Stock Yards were completed in 1865, shortly after the end of the Civil War

(Pate, 2005). The stockyards grew much faster in Chicago than in other cities. To receive, process, and ship meat, access to a well-connected rail network was essential. Because of this service, J'Nell Pate (2005) wrote that the Union Stock Yards were considered "the eighth wonder of the world" by some. From the period of 1852, four years after the arrival of the first railroad, to 1865, the end of the Civil War, five railroads constructed their own stockyards in Chicago, which were directly adjacent to their tracks. Among these, the Illinois Central and Michigan Central purchased the largest yards (Keating, 2005).

In addition to the growing industry during and after the Civil War, Chicago also continued to experience suburban growth. With the rail network regionally expanding, many new communities began to sprout outside of the city's boundaries. Prior to the 1860s, there were a few communities that began to develop, such as Hyde Park and Evanston, but the growing investment in rail in the 1860s ensured the wider proliferation of suburban communities along the growing rail lines.

Hinsdale

Hinsdale is an example of a town that developed around rail during the 1860s. In 1858, the Chicago, Burlington & Quincy Railroad planned to build a rail segment from Aurora to Chicago (Grossman et al., 2004). The original plan was to go through Fullersburg, mainly because of real estate investor Benjamin Fuller's campaigning. Due to the topography, the rail segment had to be diverted one mile to the south, passing through an area that would eventually become Hinsdale (Keating, 2005).

In 1862, William Robbins purchased 640 acres of land that would become Hinsdale (Keating, 2005). Robbins purchased the land after he saw some of the early development

occurring in proximity to rail lines outside of the city of Chicago. He recognized the potential of suburban development linked to the expansion of rail (Dugan, 1949). The railroad had already been planned through this territory at the point of Robbins's purchase, so it was a safe assumption that the acreage was to be a future residential and commercial site serviced by the Chicago, Burlington & Quincy. Two years after the purchase by Robbins, in 1864, the Chicago, Burlington & Quincy rail completed the tracks through what would become Hinsdale (Dugan 1949). The railroad, which operated from Chicago to Aurora, was double tracked through Hinsdale, meaning rail service could operate in both directions at the same time. It returned to single track as it moved toward Aurora (Dugan, 1949). The next year, in 1865, Hinsdale was officially platted and began development (Keating, 2005). The planning and development of Hinsdale focused on the Chicago, Burlington & Quincy railroad. The following Figure 3.3 is the original plat of the village of Hinsdale.

Figure 3.3. Original Plat of Hinsdale. Reprinted*1874 Atlas and History of DuPage County, Illinois* (1975).

The land Robbins developed was located south of the Chicago, Burlington & Quincy Railroad (Keating, 2005). After Robbins began developing residential and commercial property, other investors followed with construction of their own subdivisions. Though not the next investor to construct around the railroad, some of the most extensive developments in the area were by Oliver J. Stough (Dugan, 1949). Stough came into possession and developed land north and northwest of the railroad beginning in 1866 (Dugan, 1949).

As the land began to develop residentially, Hinsdale was advertised as a town away from the city but with easy access to Chicago based on its proximity to a major railroad. The following image, Figure 3.4, is an advertisement published in *The Land Owner* in 1873.

Figure 3.4. Advertisement for Hinsdale. Reprinted from Grossman et al. (2004).

The railroad was critical to Hinsdale's growth. Because of the rail line and the aggressiveness of investors to develop the suburb, the village was incorporated in 1873 (Sterling, 1996). From the purchase of the land by multiple investors to its incorporation as a city, Hinsdale's success was contingent on the railroad. The first developer, William Robbins saw the early potential of the railroad in developing the area. Once the railroad and some of the other nascent infrastructure was built, other investors—most prominently Oliver J. Stough—began to develop their residential communities. Hinsdale continued to grow, with the railroad being central to the suburb's success.

Riverside

Perhaps one of the best-known suburban communities developed on a rail line during the 1860s was Riverside. Like many towns and cities being developed across the country, Riverside was designed and developed along water. It was situated along the Des Plaines River (Andreas, 1884). Being developed along water was important, but just as critical was that it was developed as a suburb to be serviced by the railroad. This suburb was developed after the Chicago, Burlington & Quincy Railroad was constructed. The rail line was laid in 1863 through the area that would become Riverside (Bassman, 1958). In 1868, a group of wealthy investors employed Frederick Law Olmsted and Calvert Vaux to plan and design the city. Olmsted and Vaux were renowned landscape architects credited with the design of Central Park in New York City (Grossman et al., 2004). The following image, Figure 3.5, is the original plan for Riverside, that dates to 1869.

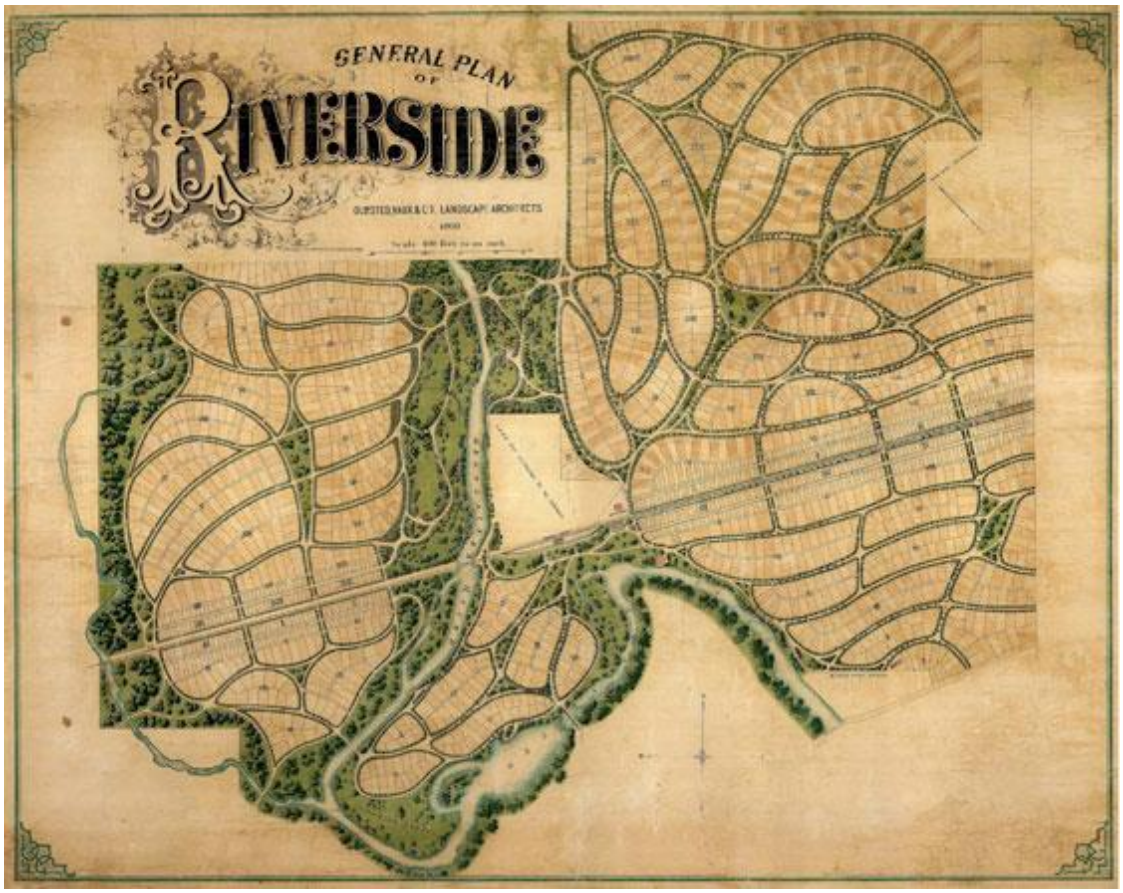

Figure 3.5. The General Plan of Riverside. Reprinted from http://www.fredericklawolmsted.com/riverside.html.

Prominent in the plan is the Chicago, Burlington & Quincy Railroad going through the center of the town. The city was designed to be an upscale suburb using the Chicago, Burlington & Quincy as one of the attractions to potential residents requiring a regular commute into Chicago (Andreas, 1884). The tract of land, which was located about four miles from the city when it was designed in 1868, was planned and advertised with the suburban ideal in mind (Andreas, 1884). It featured the natural beauty of many suburban communities yet was much closer to the city than most other peripheral developments during this period. The accessibility of water transport was important, but wealthy individuals and families may not have settled and developed the suburb if it were not for the ability to conveniently access the city via rail. Just a few decades prior to its development, communities like Riverside were not an option. The

accessibility of rail in the region allowed for the growth and outward spread of peripheral development across the region.

Streetcars

In addition to the growing number of railroad suburbs being developed across the Chicago region during the 1860s, the streetcar system, which started its existence at the beginning of the decade, was expanding its network throughout the city. In 1860, the eighth annual United States Fair was held in Chicago (Grossman et al., 2004). The fair was the event that pushed the Chicago City Railway Company to build double tracks, or an extra track so services could be operated in both directions at once, for faster and more frequent service. This investment in streetcar tracks was important not only for the United States Fair but for the in-migration after the Civil War and the continued growth of the Chicago region, especially its suburban communities (Grossman et al., 2004).

Concluding Commentary: 1860s

During the decade of the 1860s, Chicago's investment in rail grew rapidly, as did development and population growth within the city. Figure 3.6 shows a map of Chicago in 1869 with the railroads and street railways operating within the city limits. The outer border is the city limits after the annexation of land for O'Hare Airport in 1956.

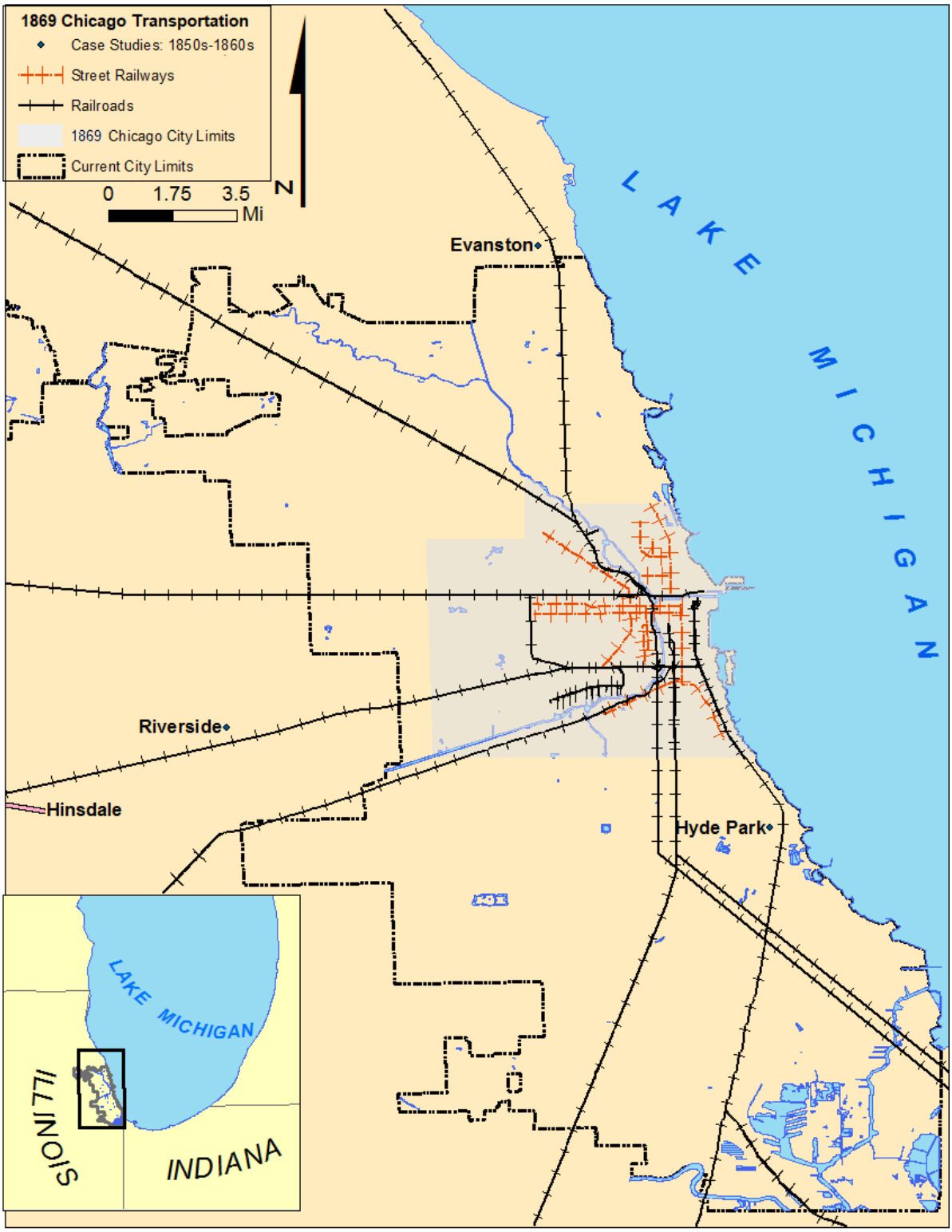

*Figure 3.*6. Railroads, streetcars, and period suburbs in the region in 1869, along with period city limits, and current boundaries.

The map shows that several railroad lines were connecting in Chicago's core in the 1860s. There were also several communities being built near or along rail lines. The four communities on the map are the four case studies discussed in the 1850s and 1860s. The communities appear to be far from the city core. These early developments stretched the Chicago metropolitan landscape and helped grow the regional economy. Many of the communities were eventually annexed by the city, increasing the population and the area of Chicago as well.

During the 1860s, the streetcar system was expanded and several railroad companies either entered or extended their lines within the region. The Chicago City Railway, the Chicago West Division Railway, and the North Chicago City Railway all expanded during the decade. During the 1860s, the Chicago, Burlington & Quincy Railroad constructed new tracks, including through Riverside and Hinsdale. Other companies, like the Chicago & North Western Railway, not only invested in the construction of new lines but also expanded their tracks through mergers with other railroads. Most notably, the Chicago & North Western Railway merged with the Galena & Chicago Union Railroad in 1865, the original railroad in Chicago (Grossman et al., 2004). Other railroads, like the Illinois Central, were investing in a network expansion throughout the country. In the 1860s, the Illinois Central was expanding into Iowa and other surrounding states, which opened up more opportunities for its lines in Chicago (Stover 1975).

The growth in population, the expansion of industry, and the construction of a more developed transportation network all occurred throughout the decade, and it was being facilitated in part by the geographic and economic needs of the Civil War. However, it was also the vision of the local entrepreneurs and public officials that ensured adequate regional investment to enable the development of Chicago as a major transportation hub and industrial center. These events, in turn, fostered the growth of commuter railroad suburbs. The impacts of this growing

transportation network, and the emergence of Chicago as an increasingly important transportation and industrial center, was not only being realized throughout the city and its region, but also throughout Illinois and, more broadly, across the U.S.

1870s

Table 3.4: *Suburbs and Their Railroad Lines, 1870s*

Year Rail Service Began	Railroad Company	Year Suburb Began to Develop	Suburb and Notes	Annexation Year
1853	Illinois & Wisconsin Railroad, and Chicago & North Western Railway Note: The Illinois & Wisconsin Railroad was eventually absorbed by the Chicago & North Western Railway	1868	**Norwood Park**: The Illinois & Wisconsin Railroad began operation in the area that would become Norwood Park in 1853. The railroad would later become the Chicago & North Western Railway. They constructed a depot in Norwood Park in 1864.	1893
1853	Illinois Central Railroad, and Michigan Southern & Lake Shore Railroad	1871	**Grand Crossing**: In 1853, a deadly train collision happened in what would become Grand Crossing. Paul Cornell, the investor and developer of Hyde Park, subdivided and sold lots in Grand Crossing throughout the 1870s.	1889
1868	Chicago & North Western Railway	1868	**Ravenswood**: The Chicago & North Western Railway wanted to expand north of Chicago. In 1868, it agreed to operate a flag stop in the area of Ravenswood. This was negotiated with the Ravenswood Land Company.	1889
1869	Chicago & North Western Railway	1869	**Irving Park**: The Chicago & North Western Railway began operation in Irving Park in 1869 after Charles T. Race built a train depot in the area.	1889

Note: Data for suburbs and their railroad lines came from Grossman et al. (2004), Keating (1988).

The 1870s in Chicago started with promise, and if the previous two decades were any indication, Chicago was on its way to becoming one of the world's largest and most successful industrial cities of the 19th century. After the first railroad appeared in Chicago in 1848, the 1850s was a decade of nascent railroad development and expansion. The 1860s witnessed a decade of impressive population and industrial growth with the ongoing development of the rail network as well as surrounding suburban railroad communities. This was the decade that Chicago also made its initial investment in horse-pulled streetcars, which would also become important to the development and growth of the city. Chicago's population would increase from 112,172 people in 1860 to 298,977 in 1870 (Gibson, 1998). Chicago quickly became one of the largest cities in the country and an increasingly important industrial center. The 1870s appeared as if it would be an ongoing reflection of the pattern of development set during the 1850s and 1860s.

Developing off the momentum of the previous decade, Chicago continued to grow as the 1870s began, but the tide would turn with the Great Chicago Fire of 1871. The fire left much of the city in ashes as it quickly destroyed a substantial portion of the heart of the city (Sawislak, 1995). The fire quickly spread across the city, which was mostly built of wood, and this included many of the famous wood-planked roads. The fire left hundreds of people dead, thousands homeless, and thousands of buildings burned (Sawislak, 1995). It devastated the city. Figure 3.7 shows the city of Chicago in 1871 after the fire.

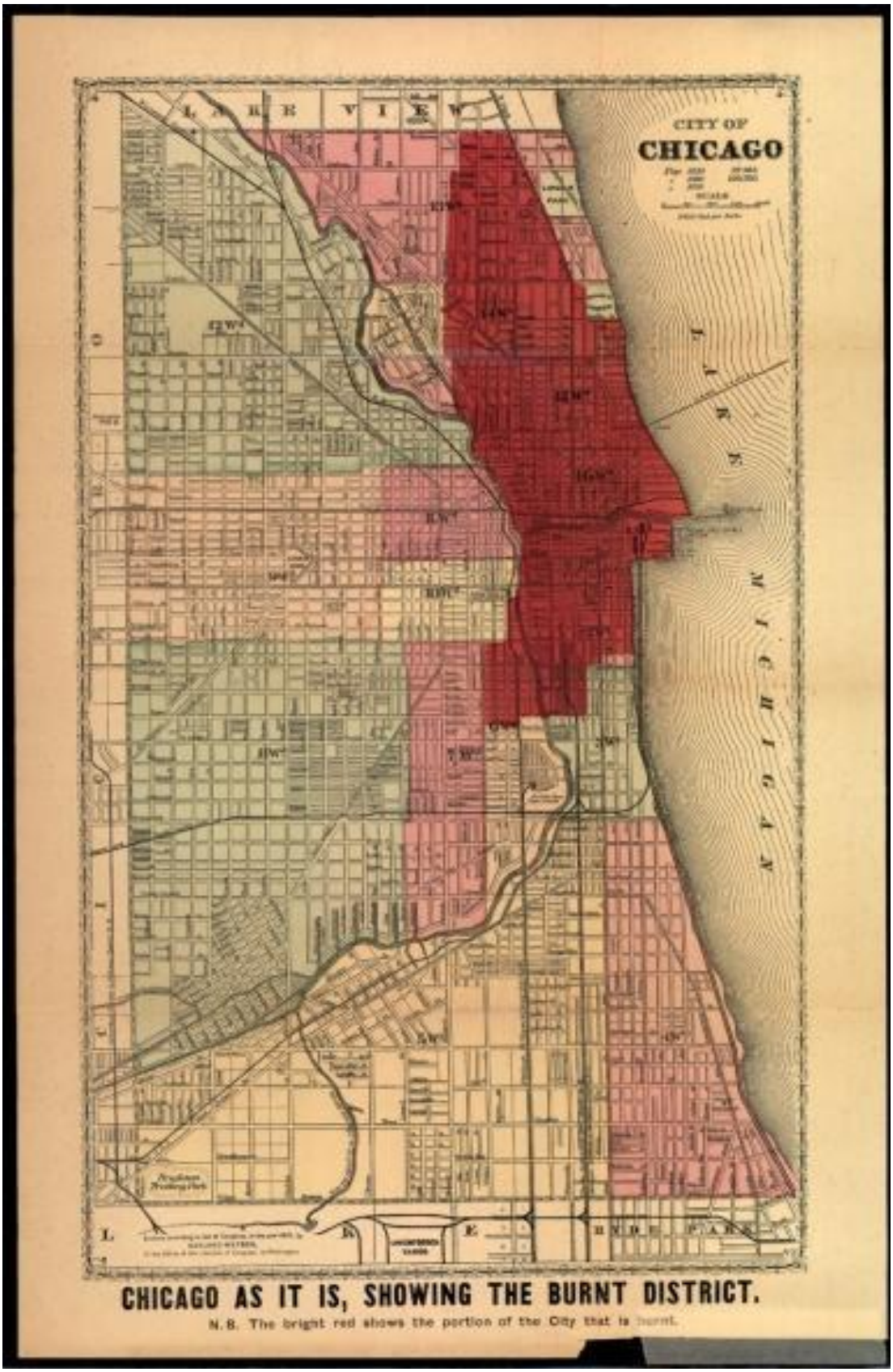

Figure 3.7: Fire of 1871 burn area. Reprinted from Watson (n.d.).

Some of the damage included Chicago's then central business district. The fire lasted for 36 hours, destroying 3.5 square miles of the city (Sawislak, 1995). Luckily for Chicago's economy and infrastructure, due to its devotion to rail, much of the region's production and economic activity was away from the city center, and thus distant from the fire.

After the fire, investors once again put their money in Chicago. Henry Blake Fuller (1895) wrote in his novel *With the Procession* that "it is the only great city in the world to which all its citizens have come for the one common, avowed object of making money" (p. 248). While somewhat of an exaggeration, this statement does reflect on the entrepreneurial spirit among Chicago investors. After the fire, not only was the burned area rebuilt, so were other sections of the city and the wider region.

As the city grew throughout the 1870s, there were several new suburban communities established along the railroad lines. Also during the 1870s, the city expanded its boundaries, and as the streetcar system continued to grow, many of these newly added sections to the city eventually were serviced by the streetcar rather than just the commuter railroads (Keating, 1988). Figure 3.8 shows the railroad and streetcar lines in 1876, along with the case study suburbs that will be examined for this decade. In comparing this map to 1869, it becomes evident that the development of a more robust streetcar system had a much greater impact on everyday life in Chicago in 1876 than it did in 1869.

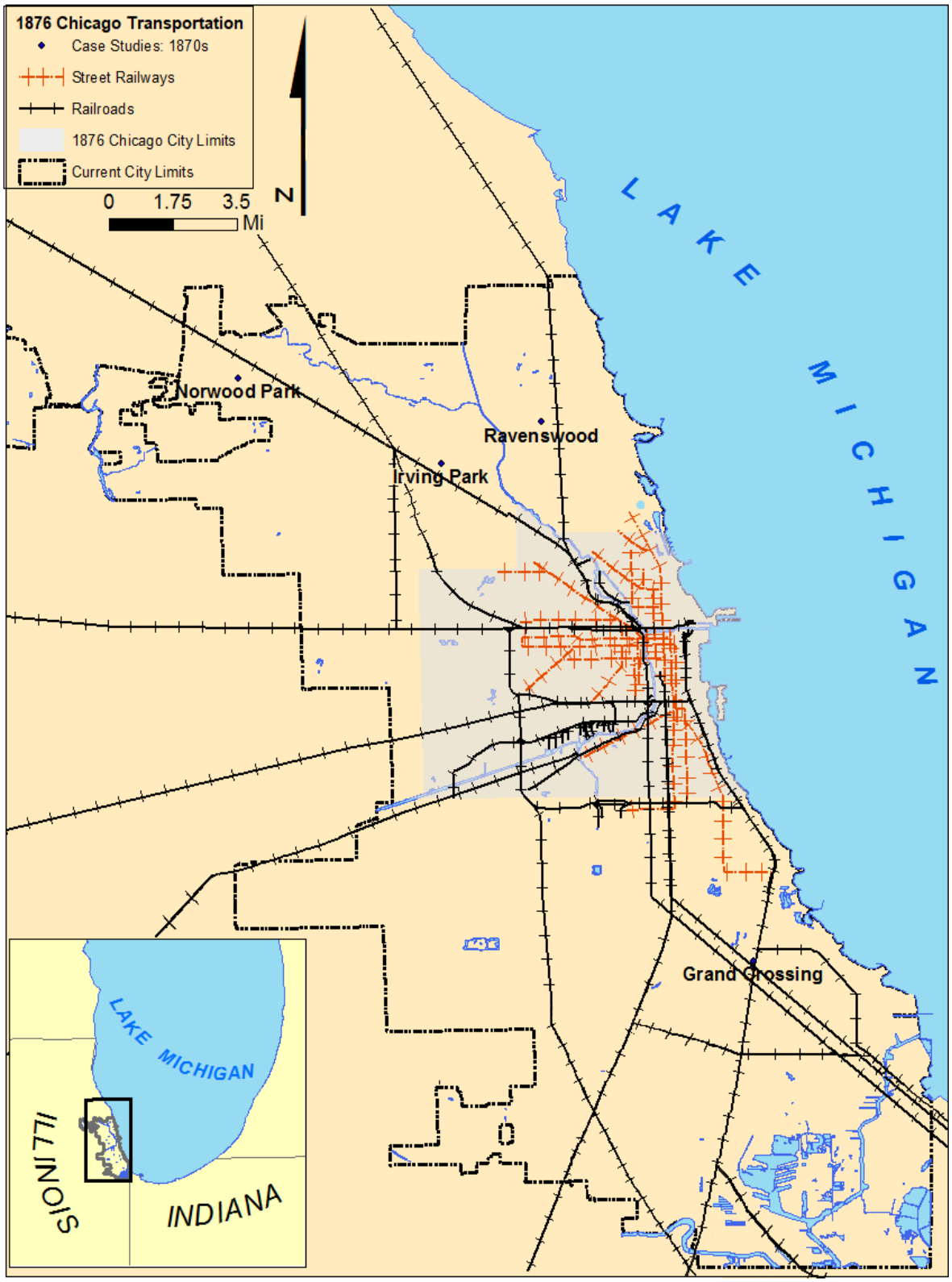

Figure 3.8. Railroads, streetcars, and period suburbs in the region in 1876, along with period city limits, and current boundaries.

Communities continued to develop along rail lines away from the city in the 1870s. This stretched the landscape in all directions and continued to facilitate regional economic growth. The four suburbs discussed in this section of the chapter were all annexed by Chicago before the turn of the century. During this decade, not only was the suburban landscape expanded, but considerable investment was directed to the development of the railroad network and the streetcar system.

In looking at the map, it is clear that streetcars in Chicago had expanded substantially in the 1870s. The Chicago City Railway Company, which was a leader throughout the first decade of Chicago's streetcar operations, did not grow as much as others during this period. The Chicago West Division Railway Company, on the other hand, would experience substantial growth in the 1870s (Andreas, 1886). For one, the Chicago West Division Railway Company's infrastructure and assets were not as damaged by the fire as some locations and property controlled by other companies. This allowed them to resume operations, and even grow, immediately after the fire (Andreas, 1886). In addition, the western area of Chicago that was serviced by the Chicago West Division Railway Company was also growing in population, allowing the railway company to expand with this population increase.

Furthermore, the rapid growth of the western parts of Chicago, as well as the post-fire conditions within the city, created an opportunity for the Chicago City Railway Company and the Chicago West Division Railway Company to work together. The two companies established one joint route between the two parts of the city (Andreas, 1886). The Chicago West Division Railway's losses in the fire were far less than the other companies operating in the city (Andreas, 1886). This was due to the fact that they provided rail service in an area that was west of the fire. Their tracks were not burned, even though their operation office was. However, the other

companies were not as fortunate. Immediately after the fire, more people were traveling between the south and west portions of the city. The two companies created a joint route that was not implemented permanently but did operate for several months (Andreas, 1886). Prior to this, each company operated independently throughout the city. As the street railways covered more area, it would be inevitable that they would work together or consolidate.

Horse-pulled streetcars certainly had their own unique impact on the city during the 1860s and 1870s. The *Chicago Tribune* discussed the mindset of many young people in Chicago in with an article titled "Cheap Transportation" on December 1, 1873:

> One of the first things done by a young man who is beginning to make money in Chicago is to hunt up a corner lot in one of the outlying districts near to the streetcar which takes him to his business. He invests in a lot or two, if he had the money builds him a home, and settles down as a member of the class of the community which is the backbone of our city, whose business interests are in the city proper, but whose homes are away off, where on one side the prospect is roofs and steeples and on the other green or snow covered prairie. (p. 3)

As the streetcars expanded outward, people could use them in the way that some used commuter railroads during the 1850s and 1860s. An individual could live away from the congestion of the city center, and closer to a natural or suburban environment, and still easily commute into the city for work (Keating, 1988). This is not to say that there were not new communities established along railroads within the Chicago region during this time. The railroad lines continued to play a key role in shaping the settlement and development of Chicago's fringe. Figure 3.9 is a map showing the new settlements that expanded throughout the area between 1861 and 1880.

Figure 3.9. New settlements in Cook County, 1861-1880. Reprinted from Keating (1988).

Everett Chamberlin described the attraction of suburban life during the mid-1870s, particularly in the context of a rapidly growing city and the increasing urban pressures. In *Chicago and Its Suburbs* (Chamberlin, 1874) he wrote:

> Until the suburban movement was fairly begun in 1868, little else of note transpired relating to this particular estate. At that time, the rush of population to the city caused increased demands and consequently higher prices for rents, and the railway companies began making commutation rates to the suburbs, putting on extra trains, etc. which has had the effect of inducing a large number of our citizens to seek homes within their

> boundaries where they could enjoy the freedom of the country; its pure and healthful airs, romantic sites, and enticing woodlawns and streams, and at the same time pursue their active business life in the city. (p. 385)

In Chamberlin's discussion of Chicago in 1874, he defined 64 communities in the Chicago area as suburbs. All 64 of these communities were located along railroad routes.

Ann Durkin Keating discusses the concept of the "suburb" to local residents during the 1870s in her book *Building Chicago*. To Chicago locals, a suburb was simply a settlement that was built along a rail line (Keating, 1988). The idea of the suburb was still a relatively new concept in Chicago during this period. It was just assumed that suburban communities would be accessible by rail. During the 1870s, several new suburban communities were established in the Chicago area, with many continuing to be located along rail lines.

Ravenswood

One thriving Chicago suburb built during the 1870s was Ravenswood. Ravenswood is another example of investors and developers responding to a railroad company's plans to expand. The Chicago & North Western Railway was extending its line and was set on placing a flag stop in the general area of what would become Ravenswood (Keating, 1988). Flag stops are ones that are not scheduled or permanent; rather the trains will stop and pick up passengers upon request. Flag stops were common initial stops for a place that did not have an established population. In 1868, a group of investors founded the Ravenswood Land Company and purchased land eight miles north of the city (Andreas, 1884). In the same year, a flag stop opened in the area (Keating, 1988). The Ravenswood Land Company guaranteed the Chicago & North Western Railway a certain number of riders if they placed a stop in the area (Grossman et al., 2004). The investors' original plan was to have Ravenswood be the first stop on a continuous line of suburban communities along the North Western Railway all the way to Waukegan near

the Illinois and Wisconsin border (Keating, 1988). The rail commute took about 20 minutes on the single track into Chicago, and when service began, there were 14 trains that served the line daily (Chamberlin, 1874). A year after purchasing the land, only one passenger regularly commuted from Ravenswood into the city for work. By 1874, there were 75 regular passengers commuting into Chicago (Keating, 1988).

Ravenswood became part of the city of Chicago when it was annexed in 1889. It was part of the largest annexation of land by the city in Chicago's history (Grossman et al., 2004). Ravenswood is an 1870s example of how the railroad helped expand the development of Chicago's fringe. Ravenswood, along with several other communities at the time, was able to develop quickly because of the relationship between railroad companies and land developers. Without this relationship, communities like Ravenswood may not have developed as quickly, or at all.

Irving Park and Grand Crossing

During the 1870s, several other well-known Chicago suburbs developed around regional rail lines, with Irving Park and Grand Crossing providing two examples. These two suburbs share a similar reliance on the railroad but provide two very different development paths.

Charles T. Race was a businessman who purchased land in 1869 in what would become Irving Park (Grossman et al., 2004). He initially intended to use the land for agricultural purposes, with the plan to become a farmer himself. However, Race saw the success of early residential suburbs in the Chicago area, and given the route of the Chicago & North Western Railway, he decided to subdivide and develop the land in the same fashion (Keating, 1988). After his initial purchase, Race created the Irving Park Land Company with investors and bought

more land. Race's priority was to build a train depot on the land. As with other suburban developments, the train station was a necessity to bring in residents. Race built the station in 1869, a year before the any other commercial structure was built (Andreas, 1884). Once the depot was constructed, the Chicago & North Western Railway agreed to operate through the area (Grossman et al., 2004). Race promoted the land as being a beautiful suburban enclave with easy access to downtown Chicago with trains every hour (Grossman et al., 2004). Irving Park was eventually annexed by Chicago in 1889 as part of Jefferson Township (Keating, 1988).

Paul Cornell, while best known for his development of Hyde Park during the 1850s and 1860s, was also responsible for other projects within the region. One of his development projects was Grand Crossing, a very different suburb from what was conventionally considered in the literature on 19th century peripheral development. Cornell purchased land for Grand Crossing, south and west of the Hyde Park location, in 1855 (Grossman et al., 2004). Given that the location was at the nexus of multiple railroad crossings, Cornell considered the site ideal for manufacturing businesses (Keating, 1988). The Illinois Central Railroad and the Lake Shore & Michigan Southern Railroad passed through the area (Stover, 1975). Cornell already had a relationship with the Illinois Central from his development of Hyde Park. Though Cornell saw it as potentially lucrative, he devoted his efforts to Hyde Park first. During the 1860s, the Civil War also delayed the construction of the project. Grand Crossing did not develop until the 1870s.

Before Cornell began buying large tracts of land near Hyde Park, two trains collided in 1853, killing several people in the area that would become Grand Crossing (Andreas, 1884). The accident led to railroad companies agreeing to require all trains to stop at track crossings (Andreas, 1884). The Grand Crossing area not only had operational railroad tracks, but the trains were also already stopping in the area when Cornell purchased the land. With the new

regulations, Cornell felt Grand Crossing would be lucrative for him to develop into a suburb (Andreas, 1884). Cornell filed a plat of the community in 1871 and promoted it as a manufacturing town (Keating, 1988). Just two years later, 150 trains passed through Grand Crossing daily. At that time, in 1873, two manufacturing companies were established there. While one company soon left for a town further west, several new manufacturing businesses settled in Grand Crossing by 1876 (Keating, 1988). Grand Crossing would eventually be annexed into Chicago, at the same time as Hyde Park Township, in 1889 (Grossman et al., 2004).

Norwood Park

Norwood Park began as a small farming suburb outside of Chicago. Railroad investment would transform it into a commuter suburb over the course of two decades (Keating, 1988). In the 1830s, Norwood Park was a place where farmers would build their own homes, often scattered across considerable distances (Keating, 1988). In 1853, the Illinois & Wisconsin Railroad, which would later become the Chicago & North Western Railway, began servicing the area (Grossman et al., 2004). In 1864, the rail company constructed a depot in Norwood Park, which aided in bringing commuters to reside within the vicinity (Keating, 1988). The commute into Chicago was a half hour train ride (Andreas, 1884). Even still, it was several years before many people moved to the area and started using the commuter service.

In 1868, a collection of businessmen formed the Norwood Park Land and Building Association and purchased six other farms surrounding the railroad stop, totaling over 700 acres (Grossman et al., 2004). They platted the area shortly after, in 1871. As in the case of some other suburbs of the period, the company built a large hotel in 1872 in the attempt to establish the

suburb as a summer resort in addition to a residential suburb (Andreas, 1884). In 1874, Norwood Park was officially incorporated as a village (Andreas, 1884).

The village appealed to individuals and families wanting to be away from the population pressures of the city. The lots were large and designed for spacious suburban homes (Andreas, 1884). It was far from the city but had rail transport to Chicago. The village grew as a commuter suburb from its inception to the point it was annexed by the city in 1893 (Keating, 2008). Much of the reason it grew continuously was because of the railroad. In 1869, one person regularly used the train between Norwood Park and Chicago (Andreas, 1884). By the time it was annexed into Chicago, there were about 160 homes in Norwood Park and 70 daily commuters into the city (Keating, 1988). While homes were located throughout the village, most were near the rail station (Keating, 1988). The 70 commuters were served by the nine daily trains to the city (Grossman et al., 2004). From its origins as a one-train stop to eventually being serviced by Chicago's electric streetcar system, Norwood Park developed and transformed largely because of the presence of rail.

Concluding Commentary: 1870s

The 1870s brought tragedy as well as redevelopment and transformational change to Chicago and its fringe. After the fire, Chicago grew rapidly in area and population. The streetcar system, as well as the railroad network, expanded and became more complete throughout the region. It was during the 1870s that the streetcars became adequately networked throughout much of the city to allow people to live on the outskirts of Chicago yet still travel into the urban core for work. Throughout the 1870s, this allowed continued growth of the commuter suburbs in the region.

During the decade of the 1870s, significant transportation investments were made within Chicago and its fringe. After the fire, the Chicago West Division Railway made large infrastructure investments in their efforts to expand. Their tracks were not damaged by the great fire, at least not like the other companies, namely the Chicago City Railway Company (Grossman et al., 2004). The growth throughout the western part of the city can be explained by the Chicago West Division Railway. They also collaborated with the Chicago City Railway Company to offer better service in the city. In addition to the growth and connectivity of streetcars during the 1870s, railroad companies were constructing tracks and growing the metropolitan area as well. Among the companies expanding and building throughout the 1870s, the Chicago & North Western Railway emerged as an important firm in not only investing in more robust rail infrastructure, but in actively facilitating suburban settlements within the Chicago region. The railroad bought up several companies, and began building stops in new suburban communities throughout the 1860s. Toward the end of the 1860s, the Chicago & North Western partnered with land development companies, like Charles T. Race and the Irving Park Land Company, to build depots and run its operations to the suburbs. In the 1870s, The Chicago & North Western Railway partnered with the Ravenswood Land Company, with this relationship flourishing throughout the decade, as evidenced by frequent daily service. While other companies developed through the 1870s, the Chicago & North Western is a notable example of one that actively partnered with communities and developers while expanding its rail network and operational infrastructure.

1880s

Table 3.5: *Suburbs and Their Railroad Lines, 1880s*

Year Rail Service Began	Railroad Company	Year Suburb Began to Develop	Suburb and Note	Annexation Year
1852	Illinois Central and Michigan Central Railroad	1881	**Pullman**: The town was developed by George Pullman as a new place for his Pullman Palace Car Company. It was designed as a place away from the city, while still having rail access to Chicago nearby. The town developed in the 1880s, eventually being annexed into the city in 1889.	1889

Note: Data for suburbs and their railroad lines came from Keating (1988).

By the start of the 1880s, the Chicago region had already been shaped by rail for about three decades. In the years following the fire, Chicago began to rebuild and redevelop, with increasing outward growth pressures. The city and its surroundings continued to rapidly develop during the 1880s. While several American cities experienced accelerated growth during this decade, none compared to Chicago in the added number of new residents. From 1870 to 1880, the population of Chicago increased from 298,977 to 503,185 (Gibson, 1998).

Though the city was growing rapidly, Chicago was still among the least dense cities in the country in 1880, with a density comparable to cities like St. Louis, Cincinnati, and Indianapolis (Mayer & Wade, 1969). Part of this was due to the growth and change of city boundaries resulting from annexation during the 1860s. This relatively moderate density was also attributed to the fire in 1871 and the nature of developments that followed, both within the city and at its fringe.

In general, Chicago continued to be shaped by railroad and streetcar investment into the 1880s, with the ongoing development of suburban communities following rail lines into the region's fringe. Despite all the population growth experienced between 1870 and 1880, the city continued to spread out and develop at a lower density than many cities in the eastern United States (Mayer & Wade, 1969). By 1880, Chicago was serviced by more rail than any other city in the world (Mayer & Wade, 1969). From the introduction of the railroad in the city, developers were taking advantage of this infrastructure investment by continuing to construct suburban communities along the lines. During the 1880s, investment in rail would continue as the network would expand across the Chicago region.

By 1880, Chicago had reached 500,000 residents. By the end of the decade, the city's population would double to over one million inhabitants (Gibson, 1998). Much of this population growth up to and through the 1880s was facilitated by a rapidly growing economy throughout the region that was being supported, in part, by a robust rail network centered on Chicago. This population growth was also being facilitated simply through consolidation of established suburban communities (Keating, 2005).

Chicago's most significant consolidations would take place during the 1880s. Jefferson, Lake View, Hyde Park, and Lake were all annexed in 1889. This was the largest growth of area in a single year in Chicago's history (Grossman et al., 2004). Chicago added about 125 square miles and 225,000 residents. Chicago became the largest city in the country in spatial area at the time, at about 170 square miles (Grossman et al., 2004). In this decade, the region saw less commuter railroad towns being established than in previous decades, but at the same time, it was a decade of municipal boundary restructuring and consolidation. Of course, there were still some communities being developed. Of those communities, Pullman was a prominent one.

Pullman

The suburb of Pullman further expanded Chicago's residential and manufacturing reach in the last decades of the 19th century and into the 20th century. The location of Pullman began with the village of Roseland in 1849 (Grossman et al., 2004). Roseland had its origins as a farming town south of the city of Chicago. The town established itself as a place for Dutch immigrants and had the nexus of the Illinois Central and Michigan Central stop nearby in the community of Kensington (Keating, 1988). James H. Bowen, whose company owned a large amount of land in the region, sold a large share to George Pullman for his planned town (Keating, 1988). In 1879, Bowen, who was president of the Calumet and Chicago Canal and Dock Company at the time, sold 4,000 acres of land on the eastern side of Rosedale to the Pullman Land Association (Keating, 1988).

The first residents of Pullman settled the area in 1881. George Pullman created a planned town for the employees of his popular sleeping-car manufacturing company. Pullman was designed as a well-landscaped, beautiful suburb that could provide its residents with all their necessary services (Beberdick, 1998). The motive for Pullman to create his company town was to provide a place for his employees to live away from the city. He attempted to provide residents with all the amenities needed so they would not have to travel into Chicago. The purpose was to simply build a town for a manufacturing facility within a quality residential community for his employees and their families to live (Grossman et al., 2004). George Pullman believed the Railroad Strike of 1877, which affected many companies across several states, was partially created by employees being corrupted by the city (Grossman et al., 2004). In the community, Pullman built shops and markets for his residents and employees, and the town was successful early (Grossman et al., 2004). By creating his own community for employees, he

could ensure they were living in a place that was up to his moral standards. The theoretical idea of being an isolated company town makes Pullman a unique case study. However, Pullman relied heavily on the railroad and the city as much as other communities in the region. While Pullman had shops, schools, and churches within the community, the lifeblood of the town was the Pullman Palace Car Company, which would not have been successful without rail. The company relied on rail to send and receive parts for manufacturing. In addition, the company carved out a niche in the railroad industry, certainly relying on the use and success of it.

In 1889, Pullman was annexed by Chicago along with many other communities on the city's south side. George Pullman continued to own the properties, even as they were part of Chicago (Keating, 1988). Shortly after annexation, in 1894, Pullman experienced a strike. The cutting of wages coupled with the rent and cost of living remaining the same led to the Pullman Strike (Keating, 1988). In 1898, the Illinois State Supreme Court ordered the company to separate itself from residential real estate. This ruling led Pullman to begin normalizing and become a regular neighborhood on Chicago's south side in the first decade of the 20th century (Grossman et al., 2004).

Streetcars

In many ways, Chicago was growing and developing into a modern city, but once the railroad and horse-pulled rail trolley were introduced, the transportation technology remained the same over multiple decades. The 1880s were incredibly important for streetcar technology in Chicago. During this decade, the city began using cable car technology that was initially introduced in San Francisco (Borzo, 2012). The Chicago City Railway, the company that introduced the streetcar to Chicago, began operating cable cars on State Street (Young, 1998).

The initial lines were so successful that Chicago eventually had over 80 miles of cable car track running in the city (Borzo, 2012).

Cable cars were different from the previous streetcar technology in many ways. One of the most important, and certainly most notable, was the absence of horses. From its inception in the city until the 1880s, Chicago streetcars were powered by horses. The only major change in city transportation was the switch from omnibuses to horse-pulled cars operating along rail tracks. It was not until 1881 that Chicago first used the cable car technology, which had already proven to be successful in San Francisco (Young, 1998).

The Chicago City Railway was much more open to investing in new transportation technologies than other Chicago transit companies. Most of the companies on the north and west sides of Chicago did not want to change their business practices at the time, because they thought the profit from horsecars was too good to abandon (Borzo, 2012).

In the 1880s, Charles Tyson Yerkes, who was one of the most well-known transportation and real estate magnates, moved to Chicago. When Yerkes arrived in Chicago, the city was dominated by the three long running companies: Chicago City Railway, West Division Street Railway, and North Chicago City Railway (Grossman et al., 2004). The West Division Street Railway and North Chicago City Railway continued to rely on horsepower after Chicago City Railway converted to cable cars. Shortly after arriving to Chicago, Yerkes, with the help of investors back in his hometown of Philadelphia, secured control of the North Chicago City Railway Company (Borzo, 2012).

After establishing a successful reputation in managing streetcars in Chicago, Yerkes partnered with local investors, namely George Pullman and Marshall Fields, to take control of

the West Division Street Railways in 1886 (Franch, 2006). Once he controlled two of the three main street railway companies, Yerkes converted them to cable lines and then eventually to electric power. It is remarkable that in one decade, Yerkes saw his street railway network grow from 75 miles to 575 miles of track (Grossman et al., 2004).

The following maps, Figure 3.10, shows Chicago railroad and streetcars in 1888. When comparing to Figure 3.8, streetcar and railroad development grew substantially. Streetcar development was also impacted by the increasing investment in the cable car. Railroad development continued as Chicago was not only becoming more connected to the national network but also the region's. The case study suburb for the 1880s, Pullman, further stretched the developmental landscape, and eventually grew the area and population of Chicago when it was annexed into the city.

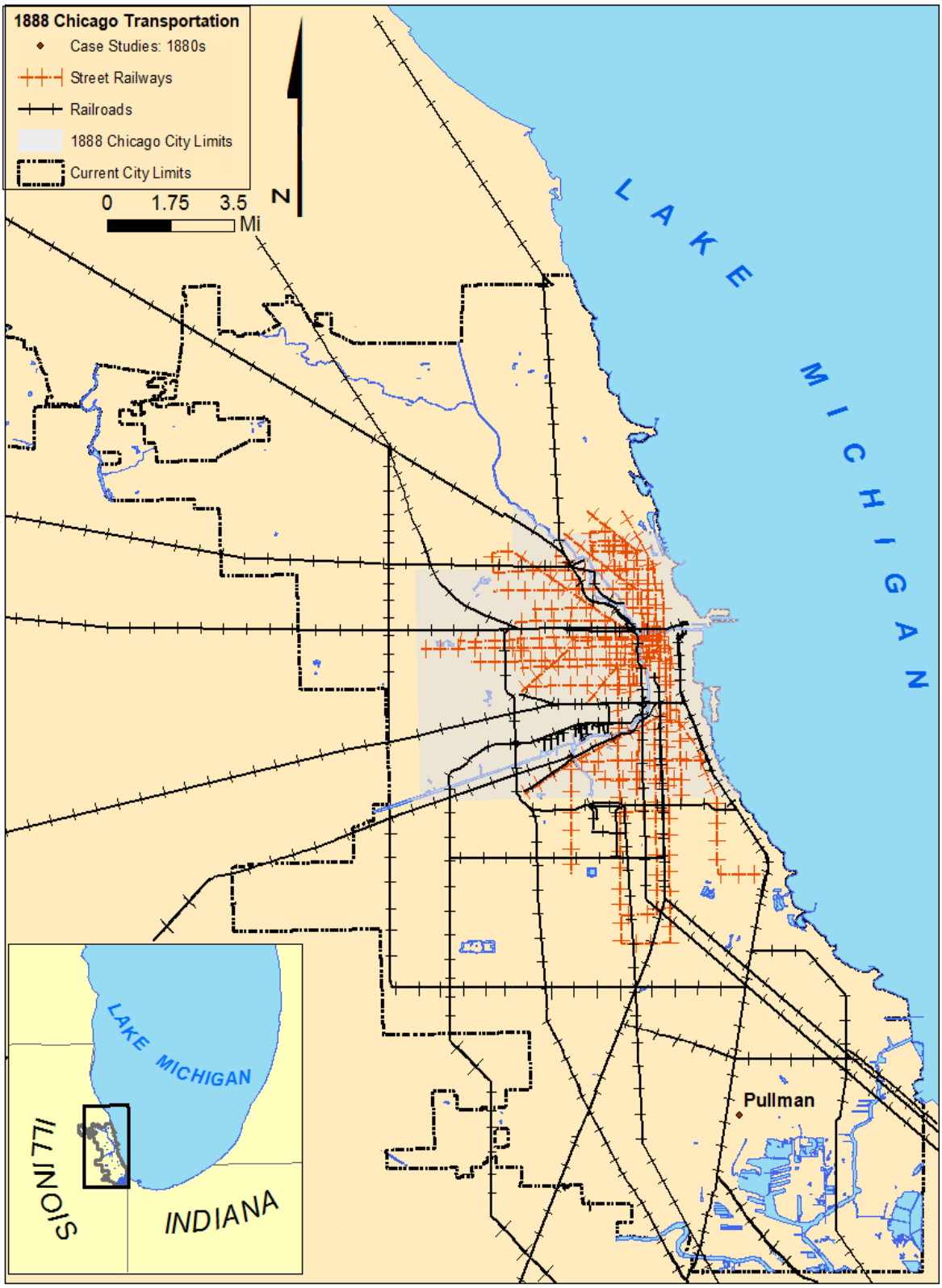

Figure 3.10. Railroads, streetcars, and period suburbs in the region in 1888, along with period city limits, and current boundaries.

Concluding Commentary: 1880s

The 1880s in Chicago represented an important breach with the past in terms of transportation infrastructure and technology advancement. It was also a decade that gave rise to new transportation entrepreneurs who would take mobility in the city in new directions. A small number of individuals substantially grew their portfolios while Chicago realized an expanded railroad and railway network. This was all also closely coupled with ongoing residential and commercial real estate development transforming the city and its fringe.

During the 1880s, Charles Tyson Yerkes emerged as one of the most prominent figures in Chicago's history, and this would be defined by his aggressive investment in new transportation infrastructure technology. The North Chicago City Railway and Chicago West Division Railway were converted to cable cars during the decade by Yerkes. As the 19th century came to an end, he helped bring Chicago ahead of most cities in implementing the latest rail technology. He also expanded the city's rail network, which allowed more of the urban and suburban residents to take advantage of transit.

While there were not many new suburban communities established during the 1880s, this was a decade in which the city of Chicago experienced its largest growth in spatial area up to this point in its history. In previous decades, the region saw many new peripheral communities being established, many of them along railroads. In the 1880s, the development direction was different as the city itself gained land and residents but fewer new settlements would emerge at its fringe. The streetcar network was expanding, and more residents were taking advantage of the newly available services. In nearly two decades since the fire, the city rebuilt to over one million people

and began preparing for the World's Fair and Columbian Exposition, which it would host in the next decade.

1890s

Table 3.6: *Suburbs and Their Railroad Lines, 1890s*

Year Rail Service Began	Railroad Company	Year Suburb Began to Develop	Suburb and Notes	Annexation Year
1856	Illinois Central Railroad	1889	**Harvey**: The Illinois Central Railroad began offering service in the area that would become Harvey in 1856. It went through the middle of the land. Turlington Harvey purchased much of the land and developed it through the 1890s.	Not annexed
1889	Chicago, Burlington & Quincy Railroad	1889	**Brookfield**: In 1889, Samuel Eberly Gross built a station in Grossdale, which would become Brookfield for the Chicago, Burlington & Quincy Railroad to make stops within his developments.	Not annexed

Note: Data for suburbs and their railroad lines came from Grossman et al. (2004), Keating (1988).

The last decade of the 19th century saw transportation developments that would become permanent fixtures of Chicago's urban landscape. In the two decades following the fire, Chicago grew to over one million residents and adopted new transportation technologies (Spinney, 2000). In the last decade of the 19th century, Chicago electrified its streetcar system. From horse-pulled, to cable, and then the move to electricity, Chicago's streetcars once again changed and continued to expand its spatial area of service. In doing so, Chicago continued to maintain its status as a major industrial center with an efficient and wide-ranging rail network (Spinney, 2000). The

urban area continued to grow, and the rail network continued to become more connected throughout the region and beyond.

While much of the suburban construction and development had already taken place by the 1890s, there were a few new settlements that emerged along railroad lines in the region. Figure 3.11 shows the new suburban settlements that developed in the Chicago area between 1881 and 1900.

Figure 3.11. New settlements in Cook County, 1881-1900. Reprinted from Keating (1988).

Harvey

One of the new settlements that emerged in the Chicago region during the 1890s was Harvey. Much of the land, which was vacant until 1870, was purchased by a group of real estate investors to develop a suburb (Keating, 1988). Some of this land was granted by the federal government to railroad companies to further develop their network (Keating, 1988). The plan for what would eventually become Harvey was to develop a town with railroad lines running through the middle of the jurisdiction. By developing a town with plenty of land outside of the city and rail access into it, investors hoped to attract industry (Keating, 1988). This land area was platted as South Lawn and grew slowly throughout the 1880s (Keating, 1988).

The area that was South Lawn and eventually became Harvey was purchased again in 1889. In that year, Turlington Harvey purchased much of the land in South Lawn and named it Harvey after himself (Grossman et al., 2004). The Illinois Central Railroad divided the residential and commercial area (Grossman et al., 2004). Turlington Harvey marketed the suburb not only as a manufacturing town, but as a quality place to raise a family with an affinity for the Temperance movement (Keating, 1988). In 1892, just three years after Turlington Harvey began purchasing land in the area, Harvey had 5,000 residents (Keating, 1988). By then, there were also 10 manufacturing businesses located in the town. Just three years prior, the community would not have been found on a map and had very little infrastructure. In 1892 however, there were 850 buildings in the city and 70 daily passenger trains to and from Chicago (Keating, 1988). With rapid growth and sufficient rail service, the community continued to grow into the 20th century as a manufacturing suburb (Keating, 1988).

Brookfield

Another important figure in Chicago's suburban development history was Samuel Eberly Gross. Gross left a major mark on Chicago development. He built more than 21 different subdivisions and 10,000 homes in his investment career (Grossman et al., 2004). He developed many communities, several of them designed around the railroad.

One of his communities that developed in the 1890s around rail was Brookfield. In 1889, Samuel Gross started a subdivision called Grossdale, which would later become Brookfield (Grossman et al., 2004). The location of Grossdale was chosen due to its proximity to the Chicago, Burlington & Quincy Railroad, which offered services to downtown Chicago. Once Gross gained control of the area, the first building he constructed was a train depot (Grossman et al., 2004). Gross clearly understood the importance of rail and the importance of prospective residents having rail options for commuting into the city. Gross made an agreement with the railroad to ensure that regular service would be offered.

In addition, the area of Grossdale quickly became attractive because there was the promise that the streetcar system would be extended from the city of Chicago into the subdivision (Keating, 1988). After subdividing and promoting Grossdale, Gross developed Hollywood in 1893 and West Grossdale in 1895. Each of these subdivisions came with their own train depot from the very beginning (Grossman et al., 2004). By the time Gross started the neighboring Hollywood in 1893, Grossdale had about 50 homes. By the end of the 19th century, the suburb had over 1,000 residents (Keating, 1988). In 1905, the name of Grossdale was officially changed to Brookfield (Grossman et al., 2004).

In the post-fire rebuilding period, Chicago's political and economic elites were eager to show their rebuilt city to the world. They got that chance with the Columbian Exposition. The Columbian Exposition was a celebration of the 400th anniversary of Christopher Columbus reaching America, though the event actually occurred in 1893 rather than 1892. While the World's Columbian Exposition lasted for several months in 1893, it was on October 9 that nearly 750,000 people attended "Chicago Day" (Grossman et al., 2004). This was the day that commemorated the anniversary of the Great Chicago Fire of 1871.

Elevated Rail

With the World's Columbian Exposition taking place in the early 1890s, coupled with the entrepreneurial spirit of local developers, the beginning of the 1890s would lead to transformational change for the city. This would also apply to the local transportation infrastructure, and it would be evident with the introduction of elevated rail. The first elevated rail operation in the city began on June 6, 1892 by the Chicago and South Side Rapid Transit Railroad (Borzo, 2007).

The Chicago and South Side Rapid Transit Company incorporated in 1888, and in the same year reached an agreement with the city of Chicago to build an elevated rail line (Borzo, 2007). The original elevated rail was a 3.6-mile stretch of track. It was built in coordination with the city with the goal of providing transit service where there was a need, at least for the purposes of the exposition. The city required the company to build the rail parallel to an alley from Van Buren to 37th Street (Pierce, 1957). This was in an effort to strategically place the elevated rail in a position to service the Columbian Exposition the following year.

Julia Ralph compiled a book on her Chicago study for *Harper's Magazine* prior to the exposition. Ralph (1893) wrote "It is a simple elevated road. It will be connected with the great terminal station, or main depot, in the Fair Grounds, with the south side 'alley L road' of the city, and with all the main entrances to the grounds" (p. 143). However, just a few years after the Chicago and South Side Rapid Transit Company incorporated and constructed the small elevated rail stretch for the Columbian Exposition, it went bankrupt and was sold in foreclosure (Borzo, 2007).

Though Chicago was not the first city to employ elevated rail, it was the first to implement electric powered trains on the elevated rail (Borzo, 2007). New York and Boston, for example, used cable cars on their elevated rails (Grossman et al., 2004). Electric rail was the future. The world's first electric-powered elevated railcar was put into operation by the Metropolitan West Side Elevated Railroad. This train, which began operation in 1895, served as the prototype for many early 20th century cars. Though the Metropolitan West Side Elevated Railroad was the first to use electric technology, it was the third elevated rail company in the city (Grossman et al., 2004). That did not stop the company from capitalizing on the ever-growing market.

Oftentimes in Chicago's history, rail was constructed based on real estate ownership or a partnership with real estate developers, which has been discussed with several case studies in this chapter. The elevated rail was a unique situation in that it was initially constructed for the purpose of transporting tourists and over a short duration of time. This was directed by the city to help showcase Chicago (Pierce, 1957). After the Columbian Exposition, Chicago worked on construction of the Loop. The Loop connected the downtown area to the neighborhood train stops on the elevated rail (Grossman et al., 2004). The Loop was officially completed in 1897,

and service was available throughout the central business district and the whole downtown area with trains operating out to Chicago's neighborhoods (Spinney, 2000).

Concluding Commentary: 1890s

The investment and construction of a well-developed and rich system of streetcars and railroads by the close of the 19th century allowed for many existing Chicago area communities to continue to populate and grow, and without a need for significant new fringe settlements, at least during this decade. By the turn of the century, most of the communities in the Chicago area had been settled, many of them along rail. Most of the communities that would join Chicago had already been annexed by the city by the beginning of the 20th century. While there would still be area added to the city in the following decade, and later in the 20th century, the closing decade of the 19th century had the landscape and layout of Chicago in less flux than previous decades. At the end of the 1890s, Chicago was largely growing its population within existing jurisdictional boundaries.

The 1890s witnessed infrastructural innovation and development that would be used throughout the 20th century. The construction of elevated rail, and the introduction of electric-powered rail, allowed Chicago to effectively use available space while implementing the newest technology to develop an efficient and well-connected network throughout the city. Most communities outside of the city had access to the city center via streetcars or commuter railroads by this time. By the 1890s, the rail network was well-connected across much of the Chicago region.

1900s

Table 3.7: *Suburbs and Their Railroad Lines, 1900s*

Year Rail Service Began	Railroad Company	Year Suburb Began to Develop	Suburb and Notes	Annexation Year
1853	Illinois & Wisconsin Railroad, and Chicago & North Western Railway Note: The Illinois and Wisconsin Railroad would be absorbed by the Chicago & North Western Railway	Organized as a village in 1896	**Edison Park**: Located between two railroad suburbs, Edison Park grew near the already existing Chicago & North Western Railway. The community was annexed by Chicago in 1910.	1910
1888	Rock Island Railroad	Organized as a village in 1882	**Morgan Park**: In 1888, the Rock Island Railroad constructed a suburban line in Morgan Park after the Blue Island Land and Building Company influenced the partnership. This was done because the president and treasurer of the Building Company were also executives of the rail company.	1914

Note: Data for suburbs and railroad lines came from Grossman et al. (2004), Keating (1988).

By the 1900s, Chicago had completed most of its annexations and land acquisitions (Keating, 1988). Into the 20th century, many suburbs began rejecting annexation and existed as separate jurisdictions, which became an increasingly viable option for most communities. While many of the annexations had occurred, there were still some municipalities that consolidated

with Chicago in the early 20th century (Grossman et al., 2004). The city did not expand significantly in spatial area during the first decade of the 1900s, however the city did grow in population. In 1900, Chicago had just under 1.7 million residents. By 1910, that number increased to nearly 2.2 million people (Gibson, 1998). This population increase, with a permanent transportation infrastructure in elevated electric rail operating in the city and a robust railroad network spanning the country, reflected the stable economic growth and ongoing commercial success that Chicago maintained throughout the decade.

Streetcars

As the 20th century began, Chicago had been converting cable cars to electric streetcars for a decade. The electrification of the cable cars operating in Chicago began in 1890 and was completed by 1906 (Borzo, 2007). It was also during the 1900s that Chicago's transit companies began major consolidations of their operations and lines. Consolidation had been occurring in some capacity throughout the previous decades, with some of the companies, particularly the Chicago City Railway, purchasing and merging with other operations in the city. While this was happening earlier, it was not until the 1900s that several major companies were combined, setting up a major, future consolidation (Grossman et al., 2004). In 1907, the Chicago Railways Company was created to merge several companies on the north and west sides of the city. Another major consolidation occurred with the Chicago City Railway Company. It was the Chicago Railways Company and the Chicago City Railway Company that would consolidate in 1914 to create Chicago Surface Lines, the largest streetcar operator in the world (Borzo, 2007). With a growing population and an established, albeit changing, streetcar system, Chicago annexed very few communities in the 1900s. There were some suburbs that developed in the 19th century that were annexed into the city later, but it was not as common as previous decades.

Edison Park and Morgan Park

Edison Park was a community that was developed during the 1890s and 1900s, with a large railroad depot as one of the main attractions (Keating, 1988). The suburb was touted as having many nice amenities, such as quality water provision and electricity. One of the attractive characteristics of Edison Park for developers and potential residents was its location between two already existing railroad suburbs of Norwood Park and Park Ridge (Grossman et al., 2004). While rail was available in the area via the Chicago & North Western Railway, stops and routes were not extensive throughout Edison Park, particularly because it was not in the city of Chicago. It did not serve the Edison Park community residents. So, in 1910, Edison Park was annexed by Chicago in part so the youth had access to close schools by railroad (Spinney, 2000). Though many suburban communities began resisting annexation and opted to remain independent communities, providing their own services and amenities, Edison Park showed that consolidating with the city of Chicago still made sense for some suburbs. Rail existed throughout the region, but by being annex by Chicago, higher volume rail service was made available. Another example of an annexation during this period, also due in part to accessing city schools, was the suburb of Morgan Park.

Morgan Park established itself as an independent town that eventually provided commuter rail service into Chicago during the 1880s. While it established as a suburb during the last two decades of the century, it was owned by Thomas Morgan, the area's largest landholder during the middle of the 19th century (Keating, 2008). Morgan used the land as a cattle and sheep ranch before selling much of it to the Blue Island Land and Building Company (Maloney, 2008). Once purchased, immediate discussion was made with the Rock Island Railroad. Both the president and treasurer of the Blue Island Land and Building Company were both executives

with the Rock Island Railroad (Chicago Daily Tribune, 1898, November 27, p. 13). The Rock Island Railroad constructed a suburban line in the town in 1888 (Keating, 2008). Morgan Park continued to develop through the turn of the century as an independent jurisdiction around the railroad.

Morgan Park was eventually annexed by Chicago. Part of Morgan Park's foundational values aligned with Protestantism, with the sale of liquor being banned in this suburb (Keating, 1988). Remaining a dry liquor zone was a major driving force among residents for wanting to remain an independent jurisdiction. However, by joining the city, Morgan Park would receive better police and fire services, a high school, and have improved rail access throughout the city for other services (Keating, 1988). Morgan Park eventually voted for annexation by Chicago in 1914 after extensive debate throughout the first decade of the 20th century (Grossman et al., 2004).

Figure 3.12 shows railroads, streetcars, as well as the newly constructed elevated rail in Chicago in 1910. Railroads entered and exited the city in all directions. Streetcars traveled throughout the city in all directions as well. Unlike much of the 1800s, the streetcars stretched across the entire city and well beyond its boundaries. Finally, the growth of elevated rail was still new but had expanded to the point where it facilitated very effective and efficient travel to, from, and within the central business district.

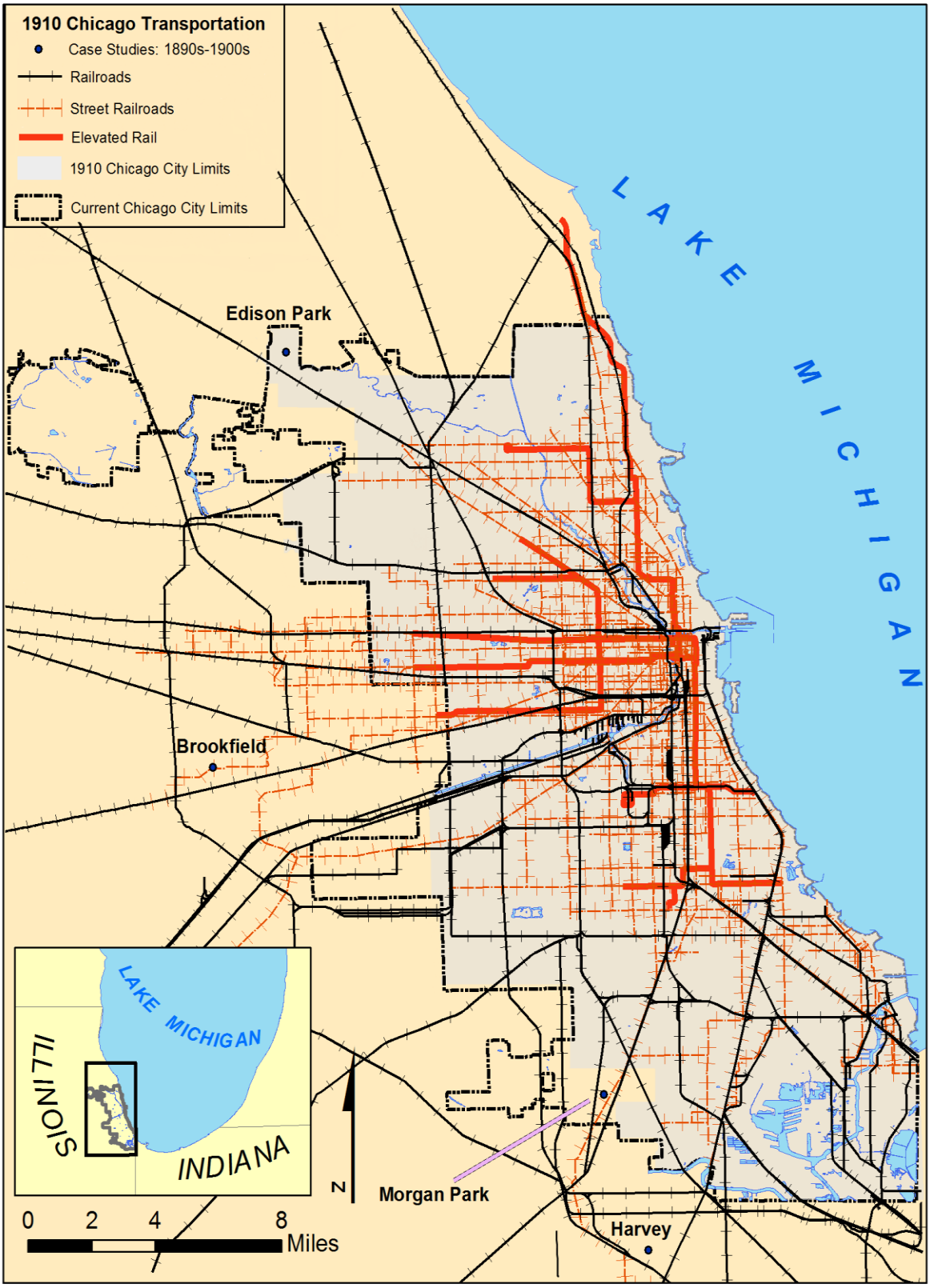

Figure 3.12. Railroads, streetcars, and period suburbs in the region in 1910, along with period city limits, and current boundaries.

The suburban growth and annexations in the last decade of the 19th century and first decade of the 20th expanded the physical development of Chicago further outward. Most of the communities, like the case studies discussed in this subsection of the chapter, were on the periphery of what is Chicago today. Without the growth of efficient railroads, these communities would not have been possible. In many of these suburban case studies, as has been evident historically, the developers worked closely with the railroad company. Without that level of partnership and cooperation, it is possible that these communities would have never developed.

Concluding Commentary: 1900s

The first decade of the 1900s was less eventful in Chicago than previous ones, despite gaining nearly half a million residents. In previous decades, Chicago gained many residents through annexations and amalgamations of existing communities. During the 1900s, Chicago was becoming more connected, partially because it was not annexing large areas of land like previous decades. This was because the city grew within its current area rather than constantly adding land and new communities through annexation. With the city growing in population, and more stagnant in area relative to previous decades, Chicago could focus its resources on making sure the existing network was connected and operating efficiently within the stable city boundaries.

Edison Park and Morgan Park were two of the communities that grew during the decade. While their developments were unique, they shared the same commonality with so many other communities throughout the 19th and early 20th century: rail. Edison Park developed along existing rail and eventually chose annexation by Chicago to take advantage of public services that were accessible by the railroad. Morgan Park worked closely with the Rock Island Railroad

to ensure service to this suburb. It was this partnership that allowed for Morgan Park to establish, grow, and eventually annex by Chicago.

Conclusion

Chicago's rapid growth and development over the second half of the 19th century was remarkable and can be attributed to several factors. One of those factors was simply a result of the city's geographic location. Chicago benefited greatly from geographic positioning within the region and the continent. The natural waterways, the abundance of resources, and the city's location in relation to conflict during the Civil War placed Chicago in one of the most ideal locations as a major transportation hub in the Midwest. And again, even before railroad investments, Chicago had ample access to natural water transport routes, which was the most commonly used form of transportation for goods and people over long distances into the early years of the mid-19th century.

This natural advantage drew the interest of eastern capitalists and industrialists. They saw the potential of Chicago to become a major transportation and commercial hub. While Chicago was an obvious choice to settle and build a new city due to the natural geographic features of the region, it was ultimately the investment in railroads that allowed the full commercial potential of the city to be realized. Beyond the commerce and industry, rail was also integral in shaping urban settlements and development patterns within the region. Most of Chicago's 19th century growth was developed by strong relationships between rail and real estate investors, who often partnered to ensure the successful development of suburban communities, as has been shown in this chapter. Investment in rail was a critical driving force in the development of the Chicago region. The chronology of the railroad network and the geographic shaping of the Chicagoland

area provided in this analysis illustrates the importance of the relationship between rail investment and suburban expansion.

The following map (Figure 3.13) of 1910 shows all railroads in the Chicago region, as well as streetcar and elevated rail, along with each of the 13 case studies discussed in this chapter. Along several different railroad lines, in all parts of the city, the case studies represent a spatial and temporal history of the growth and development in the Chicago region.

Figure 3.13. All railroads, streetcars, and period suburbs in the region in through 1910, along with period city limits, and current boundaries.

These case studies represent many unique communities across several decades in Chicago's history. All of these case studies have individual characteristics and development patterns, but they all share a common reliance on the railroad in some capacity. The relationship between residential and commercial developers and railroad companies is undeniable. The communities all featured an explicit relationship between real estate developers and railroads. From the 1850s to the early 1900s, these 13 case studies transformed Chicago's physical and economic landscape and turned it into the major world city that it became by the 20th century.

Chicago had an incredible impact on the United States' economic landscape during the 19th century. It grew faster than any city in the United States and quickly became a world city. In a little more than half a century, the region transitioned from a prairie, to a trading post, to a bustling urban center known for transportation and manufacturing, and eventually, to one of the greatest industrial cities in the world. Through the development of one of the largest railroad networks in the world, Chicago could develop a strong industrial economy, grow its population, and take full advantage of the region's natural geography. During the second half of the 19th century and through the first decade of the 20th, Chicago went from a few thousand people to well over two million inhabitants. This population can be attributed to investors, developers, and railroad entrepreneurs like Charles Yerkes, Samuel Gross, George Pullman, Paul Cornell, and many others. These 19th century and early 20th century capitalists built the city, the region, and its extensive rail network—an imprint that is still visible in present-day Chicago.

Chicago is a tremendous example of an American city that developed through the 19th century in large part because of rail and aggressive real estate development in partnership with railroad companies. The natural geography and waterways discussed in this and previous chapters would likely have made Chicago a water transportation hub, but it was rail that elevated

the city's status and made it a metropolitan area of manufacturing and industry. The rail network, along with growing industry, made Chicago a livable city in the 19th and 20th centuries.

CHAPTER 4: CONCLUSION

The history and growth of Chicago has been studied many times over, and the city's rail history has also been well-documented by historians, geographers, and other social scientists. This research is unique and contributes to the literature by mapping the investment in rail (both streetcars and railroads) within the city and its surrounding region, and in the process also examines the development of a number of its early suburbs that have been influenced by this investment in infrastructure. This thesis focuses on the exploration of the relationship between the investment in rail and real estate development, showing the patterns and direction of growth throughout the region for over half a century, Chicago's early phase of development.

The mapping of the regional investment in rail lines provides a detailed and comprehensive record of the infrastructure that defined Chicago as a transportation hub, and in the process also explores the spatial and temporal impact of rail on the development of the region. A historical analysis is provided on 13 suburban communities that developed along with the rail construction throughout the region in the second half of the 19th century and first decade of the 20th. City boundaries and rail development are mapped from the 1850s until 1910, along with the 13 suburban communities. The development of these suburbs is discussed from their establishment, often through their eventual annexation by Chicago. The combination of maps and the historical analysis of the communities show the important and close relationship between railroad construction and the outward expansion of the city. This research also illustrates the close relationship between land developers and investors of the railroad companies, who developed unique strategies in ensuring the growth of the region.

This thesis is broken into four sections. The introduction and the literature review provide a background to the study, giving a historical context for the role of transportation on the impact

of real estate development in Chicago and the broader United States context. This is then followed by the mapping of rail investment across the region, analyzing in the process the development of 13 suburbs in the region from their inception to, in most cases, eventual annexation by Chicago. Lastly, the conclusion aims to review the thesis, its relevance and contribution, and reassert the connection between rail and real estate development as it pertains to the growth and development of the Chicago region throughout the second half of the 19th century and the first decade of the 20th.

Chicago's development over the 19th century and beginning of the 20th was spurred by a complex railroad network that grew in all directions throughout the region. There were many land speculators, developers, and investors from all over the United States who took interest in Chicago. Oftentimes during this development, railroad companies strategically partnered with landholders and real estate developers to plan and construct rail through existing or proposed residential or commercial sites, as demonstrated by this research. Rail being tied to real estate development is evident all the way back to William Ogden's activities with the Galena & Chicago Union, the original railroad in the city (Mayer & Wade, 1969). After the initial appearance of rail with Ogden and the Chicago & Galena Union, railroad development was closely tied to real estate and commercial growth, as evident in all 13 suburban case studies across the region.

In the 1850s, during Chicago's nascent period of development, early railroad investment began within the region, facilitating the emergence of some of the city's most celebrated suburbs. The classic example, perhaps, is provided by Hyde Park. Paul Cornell wanted to develop Hyde Park, which at the time of purchase was undeveloped land. Cornell partnered with the Illinois Central Railroad by deeding 60 acres of the 300 to allow for the construction of a train station

that would have frequent commuter stops (Andreas, 1884). This close partnership allowed Cornell to develop the land into a thriving suburb that would eventually be annexed by the city of Chicago in 1889 (Grossman et al., 2004).

In Evanston, north of Chicago, a similar partnership emerged in the development of this northern suburb. Andrew J. Brown, a landholder in Evanston, wanted trains to service the newly constructed Northwestern University. Brown donated farmland he owned to the Chicago & Milwaukee Railroad in return for providing rail service to the area (Perkins, 2013). Through this railroad and development partnership, the value of land and this suburb appreciated, securing the development of the university and this residential suburb.

During the 1860s the railroad suburbs expanded even further outward from the original urban core. Hinsdale was a suburb that developed in the 1860s and was a bit different than Evanston or Hyde Park. When William Robbins purchased 600 acres in what would become Hinsdale, the Chicago, Burlington & Quincy Railroad already had intention of constructing rail lines in the area (Keating, 2005). Robbins purchased the land with a plan to develop around the railroad. Oliver J. Staugh was another major developer of the Hinsdale area. He too had the plan to develop around the existing Chicago, Burlington & Quincy line (Dugan, 1949). In some cases, therefore, the decision to invest in rail came first, and developers followed shortly after.

Another suburb that developed in part because of the Chicago, Burlington & Quincy Railroad was Riverside. While also chosen because of the Des Plaines River running through the land, investors saw the value in building around rail (Andreas, 1884). Riverside was designed with the railroad as a central feature in the development of the town. Water transport was still a major part of many new communities, but the partnership between Riverside and rail was undeniable. The train depot was the central location of the town, around which all other

structures would develop within this suburb. Continuing on development practices that began in the 1850s, developers donated land or partnered with railroad companies to construct train depots in Chicago's suburbs. These investment patterns would continue throughout the rest of the 1800s.

The 1870s saw tragedy but also rapid development and redevelopment. Ravenswood was developed in similar fashion to other communities at the time, with the railroad being critical to its growth. Though there was not an established rail line at the time, the Chicago & North Western was expanding, and Ravenswood seemed like a natural spot for the extension to the north (Keating, 1988). To persuade the Chicago & North Western to place a stop in Ravenswood, the Land Company guaranteed ridership for the railroad. Partnerships between land companies and their developers with railroad companies became common by this time. In 1889, Ravenswood would be annexed by Chicago along with a number of other suburbs (Grossman et al., 2004).

Another suburb that developed during the 1870s was Irving Park. Charles T. Race invested in land in what would become Irving Park. Race did not intend to use the land for residential development. However, when Race realized the economic potential of the land, based on the rapid growth of other communities near rail, he changed his strategy and attempted to partner with a rail company (Andreas, 1884). Race chose to build a train depot in the hopes to attract a station, with the Chicago & North Western eventually agreeing to make stops at his station, facilitating the development of Irving Park (Keating, 1988). It was once again the partnership between Race and the railroad company that helped spur growth in this suburb.

While Paul Cornell is best known for his Hyde Park development, he is also responsible for building the suburb of Grand Crossing. The Illinois Central Railroad and the Lake Shore &

Michigan Southern Railroad intersected through what would become Grand Crossing. Because of the intersection, Cornell considered the land ideal for a manufacturing town. This further stretched the development of Chicago in area and in manufacturing. Cornell already had a strong partnership with the Illinois Central Railroad from his development in Hyde Park, making the relationship at Grand Crossing easier to establish. Grand Crossing would eventually be annexed by the city in 1889.

Norwood Park, similar to previous communities like Riverside, was not developed until after a railroad was already constructed through the area. The Illinois & Wisconsin Railroad, which would later be consolidated into the Chicago & North Western Railway, constructed a depot and operated through the area. Once that happened, investors with the Norwood Park Land and Building Association purchased 700 acres of farmland surrounding the depot, with intent of developing a residential community that could use the rail line. When Norwood Park was annexed by Chicago, there were about 160 residents and 70 regular commuters into the city. The residential development relied heavily on the commuter rail for the adults living in Norwood Park to work in the city.

The railroad and commercial network of Chicago continued to grow in the 1880s. Pullman was a town that developed in the decade and relied on rail in more ways than one. When it began developing, there was a railroad operating through the area (Grossman et al., 2004). Pullman not only relied on the Michigan Central Railroad for its residents to travel back and forth to Chicago, but also for the Pullman Palace Car Company. Pullman was a true company town. George Pullman created a specific town for his employees, which was located outside of Chicago but still offered access to it via rail. Pullman would eventually be annexed by the city in 1889 along with many other suburban communities that were part of this large consolidation.

The focus of the 1890s was on the Columbian Exposition, with Chicago continuing to grow its rail and streetcar network. Very few communities were started or established during this decade, particularly after the city's large annexation of 1889. While new suburban development was scarce, there were some communities that grew and changed during the decade. Harvey was a suburb that developed because of existing rail. There were multiple railroad tracks in an area that was South Lawn, eventually Harvey, when it was planned. Due to multiple railroads, investors, namely Turlington Harvey, thought the space would be great for a manufacturing town. In 1889, he began purchasing land in the area. The most prominent railroad in the area was the Illinois Central, which operated commuter rail service through several suburban communities at the time. The Illinois Central divided Harvey into two parts: one residential and one manufacturing district. Just three years after Turlington Harvey began purchasing land in the area, the Illinois Central Railroad was operating 70 daily commuter trains through Harvey. The existence of rail in the area sparked investors to grow and develop the suburb.

Brookfield was developed by Samuel Eberly Gross. Gross was a well-known developer and investor in the Chicago area. The land that would become Brookfield was originally called Grossdale. Grossdale grew where and how it did because of rail. The space was chosen for development because it was near the Chicago, Burlington & Quincy Railroad and a feasible stop to and from the city. Once gaining control of the land, Gross's first order of business was to construct a train depot for the rail company. He also worked with the city to ensure that streetcar service would also be developed into Grossdale. Later becoming Brookfield, the town was well equipped to enter the 20th century with rail service and streetcars to follow.

Like the 1890s, the first decade of the 20th century had few newly established suburban communities. Edison Park began to develop in the 1890s with the train depot as one of its main

attractions. The suburb had rail service into Chicago before the turn of the century, but this suburb still had significant growth limitations due to the absence of a basic public service. While railroads did bring residents into the city, children did not have access to Chicago's schools because they were outside of the city. By being annexed by Chicago, Edison Park students would have access to Chicago's schools and also rail service to them.

Morgan Park was a suburb that wanted to stay independent of Chicago. The town, with its residents closely aligned with Protestant values, wanted to maintain their liquor ban. Like some previous suburbs, they wanted to remain outside of the city. However, the benefits of joining Chicago won out in the end. By the 20th century, transportation and public services were widely available across Chicago, which persuaded Morgan Park to join the city in 1910. With annexation, Morgan Park residents received a new high school and access into the city by train. Many of the individual municipal consolidations with Chicago in the 20th century were similar to that of Morgan Park.

The 13 suburbs analyzed were chosen specifically to represent a broad range of development processes, times, and locations. While sharing the common development characteristic of growing with the region's investment in rail, each suburb does have some unique qualities. In representing a variety of suburban developments in Chicago, it was important to detail the growth and relationship to rail for both exclusive peripheral enclaves and working-class suburbs. For example, Riverside, designed by Frederick Law Olmsted and Calvert Vaux, the world-renowned architects famous for New York City's Central Park, was planned and built for wealthy individuals and families who wanted to escape the city. In the plan for Riverside (Figure 3.5), the lots were large, and the roads were winding in order to accentuate a more informal rural setting around this upscale community. Contrasting Riverside, Paul

Cornell's Grand Crossing was designed as a manufacturing suburb, attracting factory workers and many working-class families who were pursuing suburban job opportunities. Both Riverside and Grand Crossing developed during the second half of the 19th century as a suburb outside of the city limits, attracting different types of people and businesses, but both relied on rail for their growth and success.

The suburbs analyzed also varied in proximity to the original center of the city. Hyde Park, which is the closest development to what is currently the central business district that was analyzed, at just six miles southeast (Grossman et al., 2004), began developing in the 1850s around the Illinois Central Railroad. The next decade, Hinsdale began to develop around the Chicago, Burlington & Quincy Railroad. Hinsdale was far outside of the city and remains outside of the current city limits as a suburb today. These two developments were in very different parts of the Chicago region, built within a decade of each other, with rail access being necessary and critical to their success.

In addition to selecting suburbs at different proximities to the city proper, it was important to analyze developments in several directions from the core of Chicago to accurately represent the region. Referring to Figure 3.13, the 13 suburbs are situated in a variety of locations surrounding early Chicago, with five being north and northwest of the urban core, three being west, and five being south and southeast. Beyond representing the full scope of different parts of the region, this also allowed for analysis of several different railroad networks across the six decades of the study.

The 13 Chicago suburbs all share the importance of rail in their growth and development. All 13 are different in their own respect—from location to time of development, to original purpose—but they all were made possible because of the same reason. Chicago's growth and

development over the second half of the 19th century and into the 20th was made possible and facilitated by rail investment. The following maps, Figure 4.1, 4.2, 4.3 show the progression of railroads in the region over time. Figure 4.1 shows new railroad construction from 1870 to 1876, the time of the second mapping period of the study. Figure 4.2 shows new growth from 1877 to 1888, the third period of study. Figure 4.3 shows new growth from 1889 to 1910. The series of maps show the expansion outward over time, and the growth of a robust and well-connected rail network over the six decades plus.

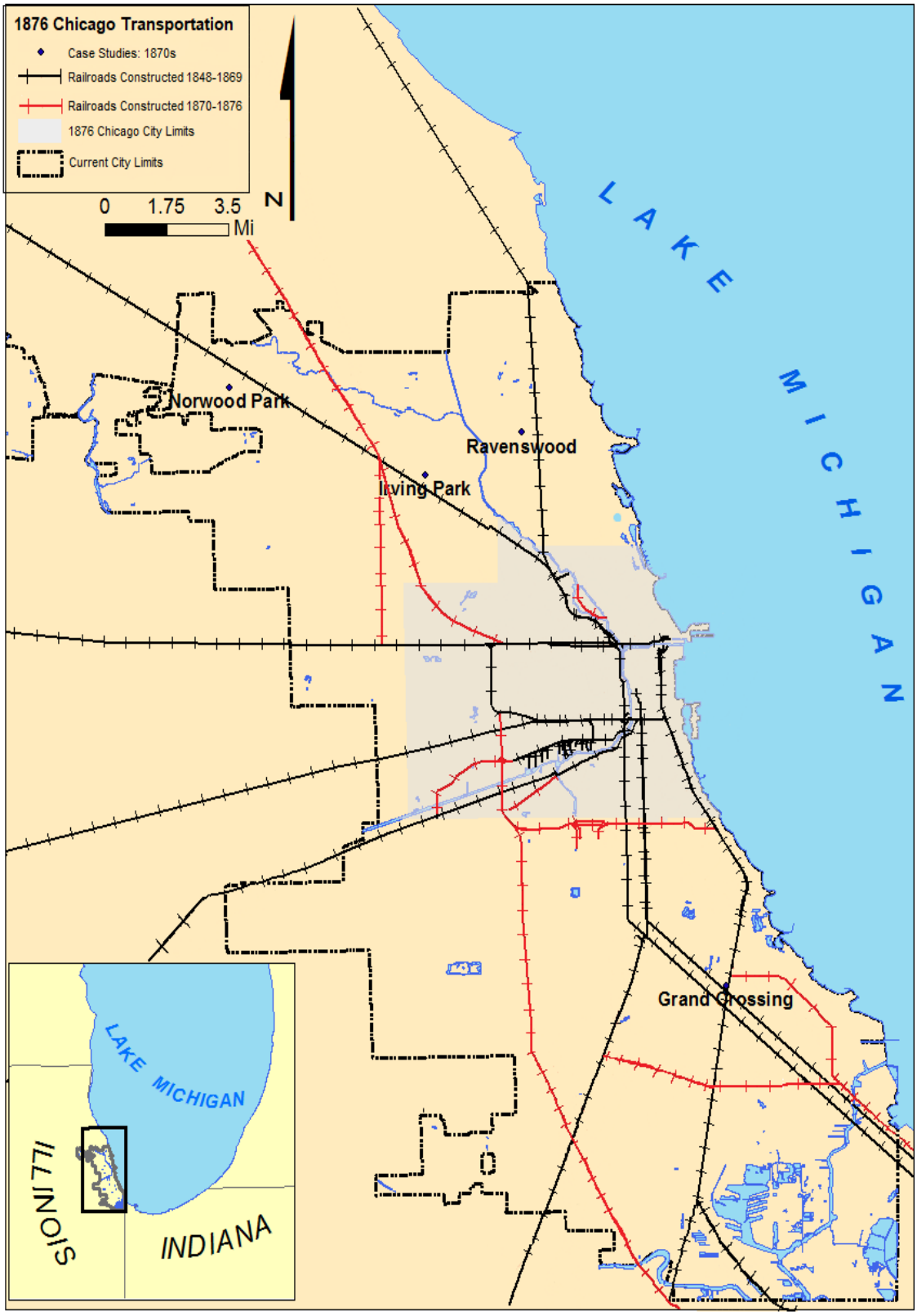

Figure 4.1. Railroad construction, 1870-1876, along with existing rail.

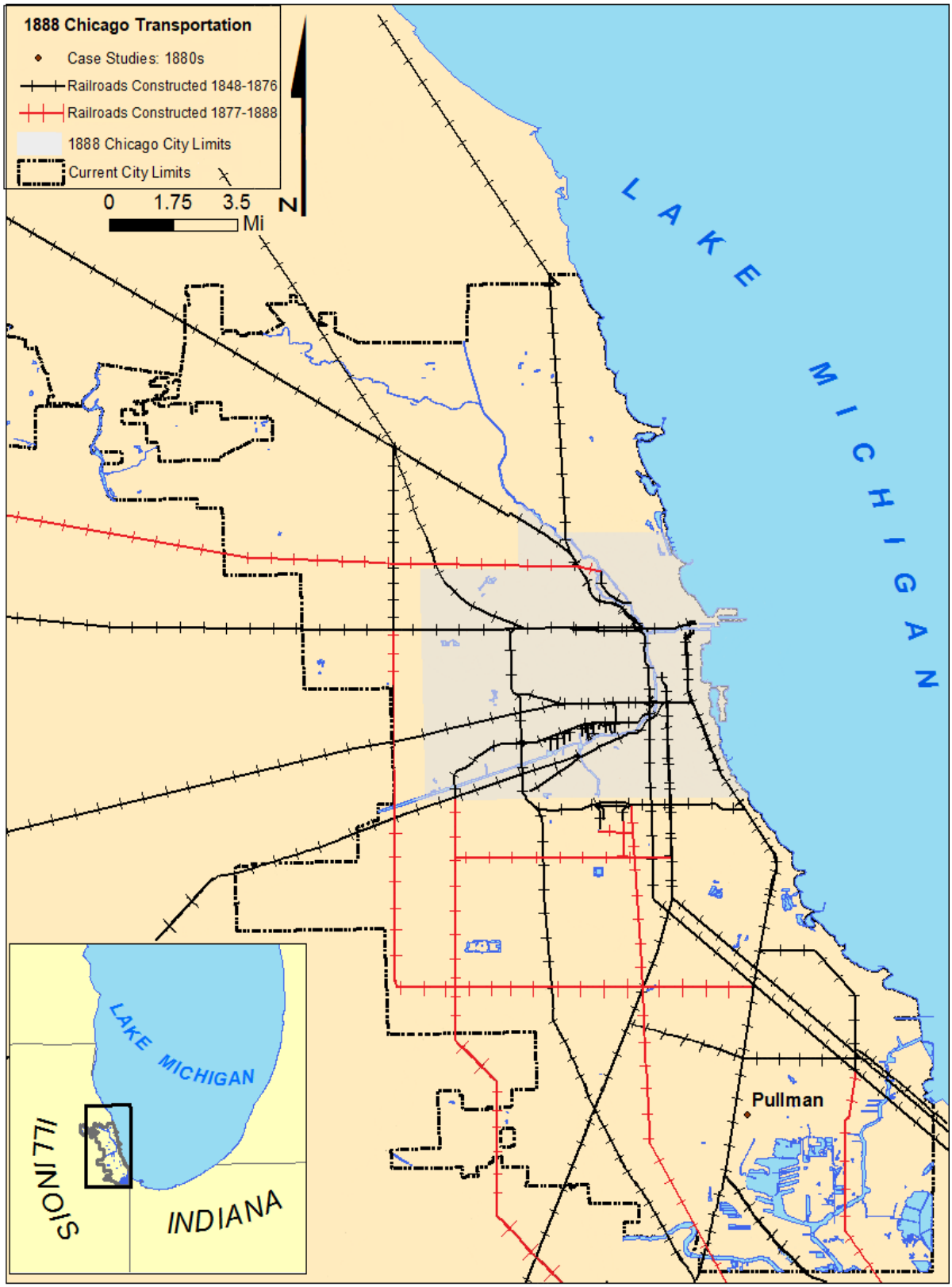

Figure 4.2. Railroad construction, 1877-1888, along with existing rail.

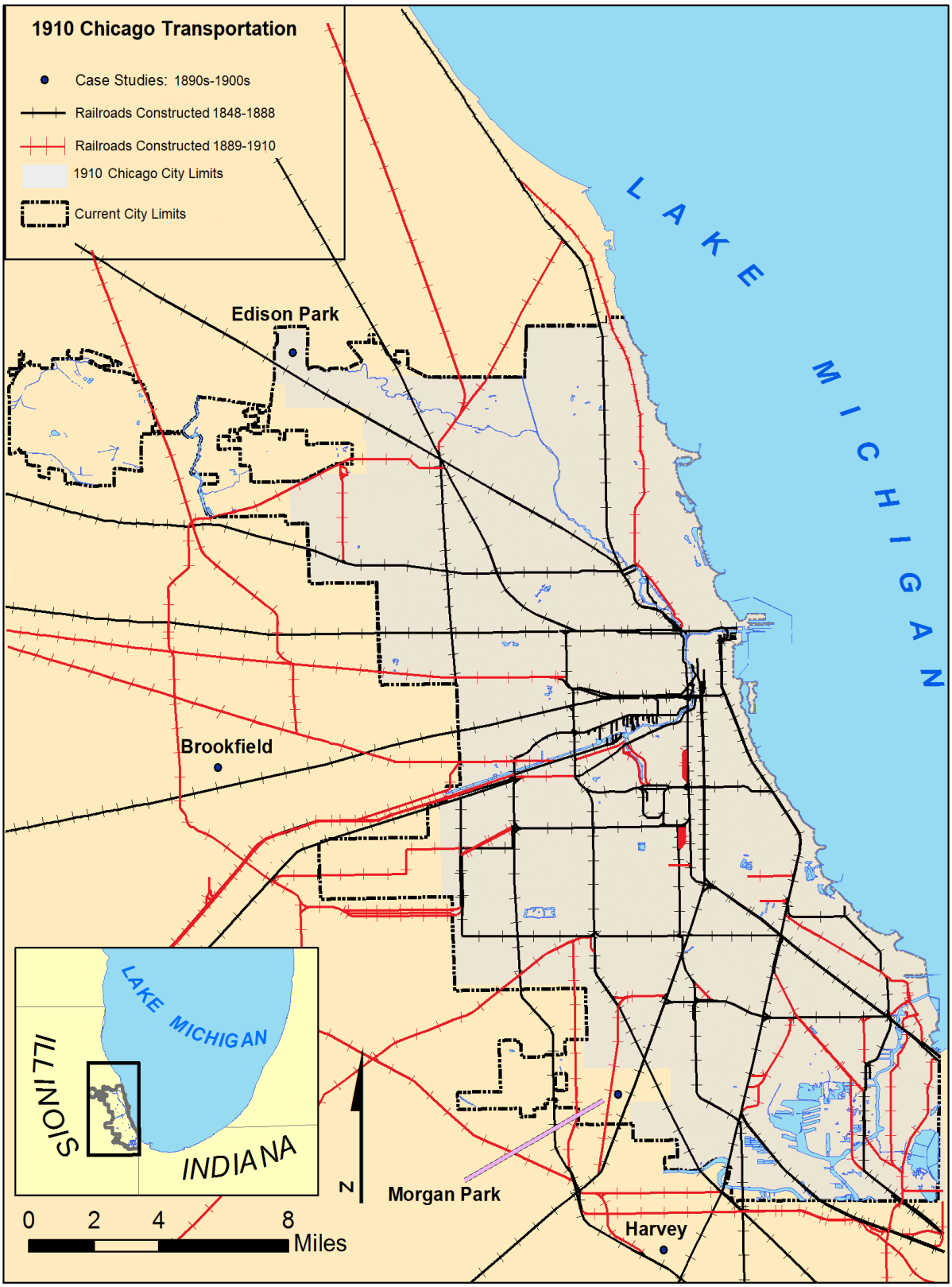

Figure 4.3. Railroad construction, 1889-1910, along with existing rail.

The mapping of rail investment, and the exploration of the development of the Chicago suburbs, and in particular the relationship between the suburbs and railroad companies provides a record of this growth, and an explanation of the detailed process, and particularly the strategic relationships between the real estate developers and rail line investors. In addition to contributing to existing research on Chicago's growth by providing a comprehensive record of rail investment across the region, this work leads to supplemental conclusions, as well as questions for further research. These suburban developments occurred as a result of partnerships between private real estate investors looking for personal financial gains, especially increasing property values, and railroad companies aiming to profit from donated land and guarantees for riders. This leads to a question of how the Chicago region would have been developed if public investment for the benefit of its residents were pursued, rather than private investment with the purpose of making a profit through collusion tactics.

These findings were found throughout the region in early Chicago. It was commonplace for real estate investors to strategically manipulate the location of rail investment for their personal gain, even if the practices were ethically questionable. In the cases like Hyde Park and Evanston, the landholder donated land and even a stake in the development in a private dealing to manipulate where the rail investment would take place. In other places, like Morgan Park, real estate investors had interests in the rail company profits, as well as land values, so they were able to privately deal with the company to ensure investment through their landholdings. These constant behind the scene arrangements for rail investment and peripheral development, and the standard strategies and interventions used in the market by railroad investors and real estate developers, ensured disproportionate profits for some economic agents involved, but had little to do with our understanding of a 'freely' functioning market, where rational decisions might be

made in pursuit of efficiency or equity. So in a context of serious infrastructure under-provision within the Chicago region throughout the 19th century, and hence minimal access to infrastructure by residents, rail lines were being built to 'nowhere' because of tactical agreements by investors, yet they had little to do with the needs of the existing population. This is yet another example that illustrates—and even during a period of history considered to be characterized by *laissez-faire*—the extensive manipulation of markets that produce strategic outcomes benefiting specific locations and investors, and are enabled by the disproportionate power and information that are possessed by key actors and/or institutions (Vojnovic, 1999; 2000; 2006; 2007; 2009).

Additional research can be done on the outcomes of rail preceding development, and rail following development. In this research, many of the cases, such as Hyde Park, Evanston, and Morgan Park preceded rail; they were established, and development was either planned or began prior to regular access to the city. All three of these towns worked directly with railroad companies to ensure transit to and from Chicago after they were established. To contrast this, suburbs like Norwood Park, Grand Crossing, Irving Park, and Pullman began development near rail that already existed. In the region this was partially a matter of timing, but also a shift from real estate speculation to proven investment.

The findings of this study warrant and allow further research to be done. The methods of mapping investment and the analysis of these suburbs can be applied to other urban areas to determine the role of transportation investment in the growth of regions. This will better explain how and why urban regions grew in the manner they did. In addition, analysis of private investment, like the for-profit partnerships that occurred in Chicago, and public development would help better understand historical urban development patterns.

From its settlement through incorporation in the 1830s, the Chicago region was bound to be a trading and transportation center. This was due to its location and its natural water routes. From fur traders to the construction of Fort Dearborn, Chicago emerged as a trading center for both Native Americans and European settlers. While Chicago was destined to be this trading center, it was not until the construction of the railroad that it began to grow into a key metropolitan transportation hub and a major urban industrial center in the United States. Rail not only expedited the growth of the Chicago region but facilitated the formation of the 19th century United States industrial belt.

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