

Detroit's City Rail Systems

From Private Operations to Municipal Ownership

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Fall 2020 – URBP 200

1 Background

Detroit was not always a transport center, but it has always been a center of economic activity. Situated at a crossroad of trading – fur and timber from the north, grain and gold from the west all being sent to the East Coast – Detroit has been a long-standing trading post¹ and home to several different groups of Native Americans and First Nations. Some of the nations, removed in 1838 during the Trail of Death,² have returned to their ancestral lands.³ At the time of the treaty in 1807 that ceded their land to the US, the nations specified were the Chippewa, Ottawa, Potawatomi, and Wyandot.⁴ Although Treaty 66 does allow for hunting and fishing rights on the land for Native groups, it also develops specific small reservations on which they will live while giving their tribal lands to the settlers' new city of Detroit.

Just two years before that treaty, though, the small city had been completely leveled by a fire. With a population of only about 600 people, this fire in Detroit is not discussed in the same historical context as Chicago, San Francisco, or London.⁵ However, it had a similar impact on the structure of the city. A young lawyer named Augustus Woodward working in DC had made friends with then-Vice President Thomas Jefferson, who appointed Woodward the Judge of the Territory of Michigan.⁶ While in DC, Woodward had also managed to make friends with Charles L'Enfant,⁷ the designer of the new city's circles and radial streets⁸ and he brought this intriguing new idea to a city that had just been literally wiped clean.

¹ Wikipedia, History of Detroit, [Accessed 26-Sep-2020], Last Edited September 21, 2020, https://en.wikipedia.org/w/index.php?title=History_of_Detroit

² "History of 1838 Trail of Death," Potawatomi Trail of Death Association, June 30, 2006, <http://www.potawatomi-tda.org/ptodhist.htm>

³ "History of the Nottawaseppi Huron Band of the Potawatomi," Nottawaseppi Huron Band of the Potawatomi, <https://www.nhbpi.org/history/>

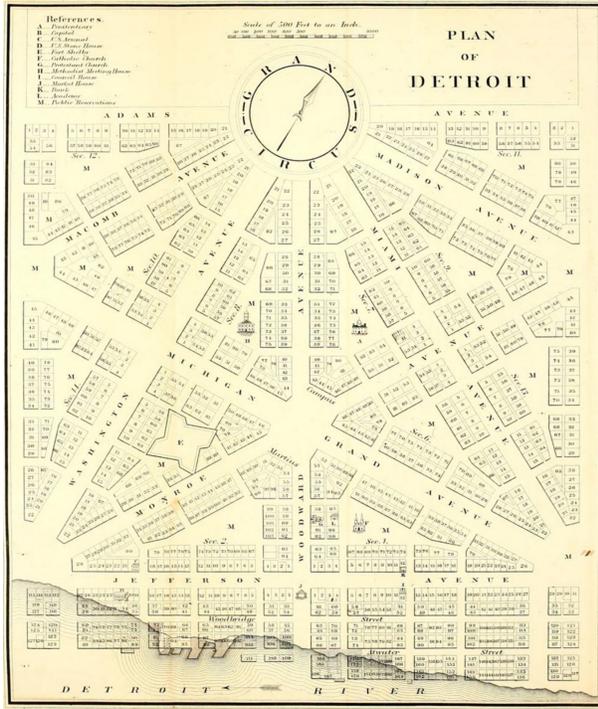
⁴ Indian affairs : laws and treaties, 1807, vol. II U.S.T., [s.l. : s.n., 1975] [hereinafter Treaty 66], <https://babel.hathitrust.org/cgi/pt?id=uc1.31210003349790&view=1up&seq=100>

⁵ "Great Fire of 1805: Encyclopedia of Detroit," *Detroit Historical Society*, <https://detroithistorical.org/learn/encyclopedia-of-detroit/great-fire-1805>

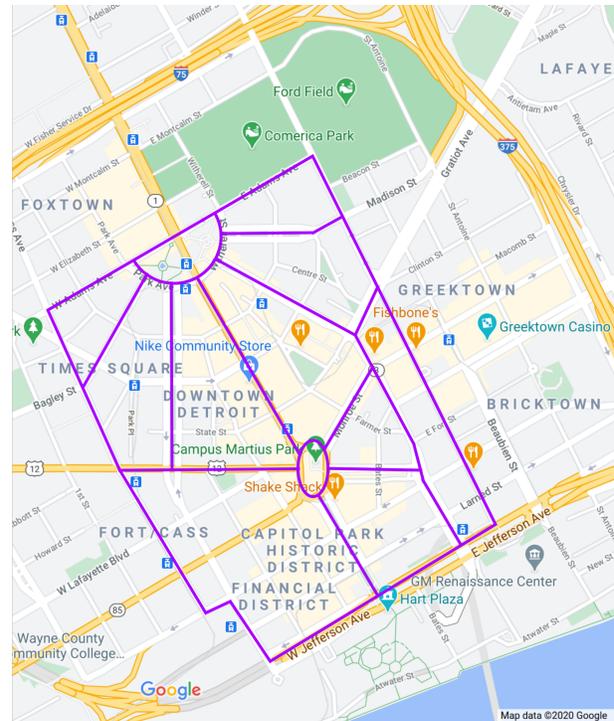
⁶ "Augustus Woodward," Michigan Supreme Court Historical Society, <http://www.micourthistory.org/justices/augustus-woodward/>

⁷ Richard H. Sands, "Judge Augustus Woodward," Bonisteel Masonic Library, 2010, <https://www.bonisteelm1.org/Judge.Woodward.htm>

⁸ Pierre Charles L'Enfant, "Plan of the city intended for the permanent seat of the government of t[he] United States. [Map]," Norman B. Leventhal Map & Education Center, 1887, <https://collections.leventhalmap.org/search/commonwealth:4m90f3803>, (accessed September 28, 2020)



Left : Woodward's plan from 1832.



Right : Modern Detroit on Google Maps.

Along with the governor (William Hull) and two other Justices (John Griffin and Fredric Bates), Woodward completed the quad of legislative power over the whole territory.⁹ Together with Hull, he developed a familiar-looking plan for another city by a river.¹⁰ For the first time in Detroit's history, though, the focus was no longer on the river itself but on streets and buildings. Not all of the plan was built on the ground, as many of the streets would have needed to be greatly widened which met with resistance.¹¹ While most of the greater metropolitan Detroit area is now built on a very rigid grid, the central downtown district still shows Woodward's radial stamp.

2 Industry and Population

Detroit has been a hub of manufacturing with an international population for nearly two centuries, and public transit has figured in all of its industrial eras. In 1863, horse-drawn streetcars provided rides along the main east-west and north-south routes through town for

⁹ Wikipedia, Augustus B. Woodward, [Accessed 30-Sep-2020], Last Edited April 7, 2020, https://en.wikipedia.org/w/index.php?title=Augustus_B._Woodward

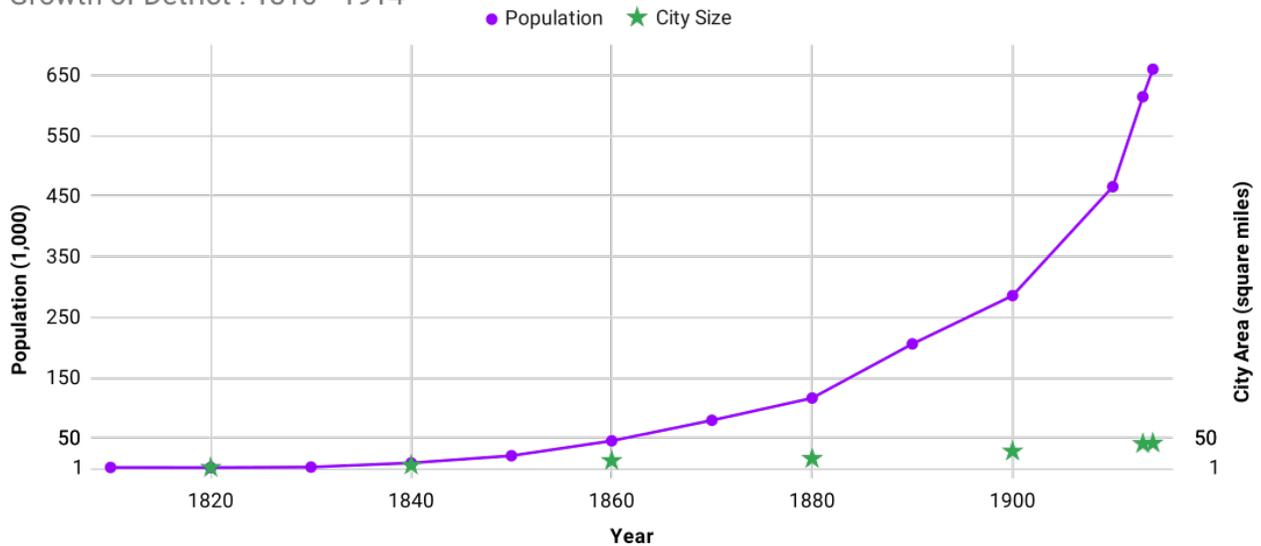
¹⁰ Augustus Woodward, "Plan of Detroit [Map]," University of Pittsburg Library System, 1832, <https://archive.org/stream/americanstatepap06unit/#page/n299/mode/1up>, (accessed September 28, 2020)

¹¹ "Woodward Avenue, Detroit's grand old 'Main Street'," *The Detroit News* (Detroit, MI), June 13, 1999, <https://archive.vn/20090104004403/http://apps.detnews.com/apps/history/index.php?id=205>

5¢.¹² Barely 30 years later, all routes in an expanded system were running on electric lines.¹³ The population those electric streetcars were serving was one of the most diverse in the US at the time, with over 40 nationalities and nearly 12% who didn't speak English by 1900.¹⁴

The population of Detroit more than doubled in the last 20 years of the nineteenth century, from barely 116,000 in 1880 to nearly 286,000 in 1900.¹⁵ People came from all over to work in the steel mills that were churning out rails and locomotive parts, stoves, tobacco products, seeds and other goods that were core to supporting the modern American life as well as expansionism out west. The first modern steel plant opened in 1864 in Detroit,¹⁶ based on a process industrialized in England and supported by Andrew Carnegie in the US. This Bessemer process allowed foundries to produce large volumes of quality steel very quickly and therefore very cheaply.¹⁷ The opening of the Bessemer-based Eureka Iron Works in 1864¹⁸ set the stage for further manufacturing developments at the turn of the century.

Growth of Detroit : 1810 - 1914



Data from Parsons, Brinckerhoff, Quade & Douglas, page 36

Increases in manufacturing industry led to massive population growth. Between 1900 and

¹² "Industrial Detroit (1860-1900)," *Detroit Historical Society*, <https://detroithistorical.org/learn/timeline-detroit/industrial-detroit-1860-1900>

¹³ "Detroit's 5 biggest transit misses," *Curbed* (Detroit), April 20, 2020, <https://detroit.curbed.com/2020/4/20/21224917/detroit-regional-transit-past-streetcars-subway>

¹⁴ "Industrial Detroit (1860-1900)"

¹⁵ Clarence M. Burton, "The city of Detroit, Michigan, 1701-1922," VIII (1922): 1503, <https://archive.org/details/citydetroitmich01compgoog/page/n24/mode/2up>

¹⁶ "Industrial Detroit (1860-1900)"

¹⁷ Wikipedia, Bessemer process, [Accessed 30-Sep-2020], Last Edited September 8, 2020, https://en.wikipedia.org/w/index.php?title=Bessemer_process

¹⁸ "Industrial Detroit (1860-1900)"

1930, the population of Detroit rocketed it from the 13th¹⁹ to the 4th most populous city in the country with 1.6 million people²⁰ - nearly a six-fold increase. All of these people needed somewhere to live, so Detroit began to expand to accommodate them. Some of this land expansion came from annexation, though not much. Most of it was the slow build-out of housing for the workers who flocked to the reliable jobs that the area provided. As people arrived, more job markets opened up, in turn attracting more people to the area... In particular, the move away from waterfront manufacturing to suburban factories in the flat, unobstructed plain enabled both residential and factory sprawl that would eventually hollow out the downtown area.

3 Land Use

Lack of geographic boundaries meant that people had to find other ways to set themselves apart from their neighbors and instead turned to political, economic, and racial barriers. Suburbs that were being settled and incorporated into the city were broken up along the minimal geographic features available – non-industrial waterfront properties were middle- and upper-class white (American-born or European immigrant) families, housing near factories was set up specifically for Black workers who were coming up from the South to escape Jim Crow laws, another specifically set up for former sharecroppers and included enough land to have a small subsistence farm. Although the latter was later overrun with post-WWII suburbia, it still was a predominantly Black neighborhood derided by white neighbors. Initially through attraction of the familiar, and later through explicit policies like redlining, Detroit became one of the most fragmented cities in the US, both racially and socio-economically.²¹

Being a fairly flat area with nothing but an international water border to limit it, building could happen anywhere in the Detroit area. Initially, industry developed along the water because both the lake and the river area easily navigable and connect to other productive regions of both the US and Canada. As rail moved in to the area, industry moved away from the waterfront to connect better to inland markets and material sources. Local architect Albert Kahn helped move this trend along, with his single-story factories made with reinforced

¹⁹ Peter Weber, "The rise and fall of Detroit: A timeline," *The Week*, July 19, 2013, <https://theweek.com/articles/461968/rise-fall-detroit-timeline>

²⁰ Thomas J Sugrue, "From Motor City to Motor Metropolis: How the Automobile Industry Reshaped Urban America," *Automobile in American Life and Society*, University of Michigan, http://www.autolife.umich.edu/Race/R_Overview/R_Overview2.htm

²¹ George Galster, "Sculpting Detroit: Polity and Economy Trump Geology," in *Driving Detroit: The Quest for Respect in the Motor City* (University of Pennsylvania Press, 2012), 45–68, ISBN: 9780812244298, <http://www.jstor.org/stable/j.ctt3fj663.6>

concrete.²² These enormous buildings were preferred by manufacturers, since they had enough space to take in raw or early-stage materials and turn them into finished products under the same roof. Factories in this style needed more land than could be accommodated in a downtown area, furthering the integration of industry into suburban residential life. The spread of manufacturing across the whole area in the 1920s marked the beginning of the decline of industry in downtown Detroit, as multi-story waterfront factories couldn't keep up with the long, smooth production lines of the suburban plants. With the manufacturing boom during World War II, this "industrial suburbanization" accelerated the city into what has become the popular image of the Motor City.²³



The Ford Rouge Plant, 1924 from The Henry Ford Museum (CC BY-NC-SA)

²² Wikipedia, Albert Kahn (architect), [Online; accessed 4-Oct-2020], Last Edited August 1, 2020, [https://en.wikipedia.org/w/index.php?title=Albert_Kahn_\(architect\)](https://en.wikipedia.org/w/index.php?title=Albert_Kahn_(architect))

²³ Galster, "Sculpting Detroit: Polity and Economy Trump Geology"

4 Street Cars

Detroit's original horse-drawn streetcars were the beginning of municipally-owned transit in the city. The city-owned Detroit City Railway Company ran several lines, all terminating in the downtown area, from 1863 until it was sold to a private owner to continue operations in 1891. Soon after the launch, though, several other private companies also entered the market with their own lines and services – all along different streets but converging on the same downtown blocks. The Detroit City Railway Company had decided to waive its rights to be the first to build lines along streets other than where it was currently operating, allowing these other private enterprises to snap up rights along alternate routes for the rest of the 1860s. Barely 10 years after the first ride, at least half a dozen private companies were operating within downtown and many were expanding their lines into the growing suburbs.²⁴

Longer routes meant that an alternative power source was needed, and in 1892 the Detroit Electric Railway Company began service along a single line powered by overhead electric wires. This service could pull three cars and was better able to serve the longer route into the suburbs. Some companies were operating entirely in suburbs, and individuals would connect to other routes to take them downtown.²⁵ This allowed people to move freely between the suburban factories and homes, as well as get to the downtown factories and attractions. The electric trolley system that replaced the horse-drawn streetcars in 1896 was in heavy use, with the city nearly doubling in population between 1880 and 1900.²⁶ The streetcars couldn't keep up with the number of people moving to the area for jobs, though, and streets became more and more crowded. Even as early as 1904, ideas for alternatives to relieve congestion were being considered.

In the midst of all of this was a buying and selling of the companies that ran the trams, as well as a 30-year legal battle for municipal control that began with Mayor Hazen Pingree. A Civil War prisoner who ran a shoe factory in Detroit and was coached into being the mayor in 1889, Pingree brought with him reforms and improvements to help a city that was growing faster than it could handle. His two biggest contributions to transport was the paving of many of the roads – previous surfaces had been only brick and wood cobbles at best, and packed dirt otherwise – and lower fares on the streetcars. Pingree was fighting against entrenched corruption and cronyism at every turn, and wasn't making much progress until the "street car riot" in 1891; operators took to the streets demanding better wages and hours, the year before

²⁴ "The Early History of Public Transit in Detroit (1863 – 1890)," *Detroit Transit History .info*, May 29, 2014, <http://www.detroittransithistory.info/TheEarlyYears.html>

²⁵ *ibid.*

²⁶ "Industrial Detroit (1860-1900)"

the private streetcar company's 30-year contract with the city was set to expire.²⁷

The strike was exactly what he needed to push for reform of the streetcar companies, and was supported in his veto of renewing the exclusive city contract for streetcar transit. This opening of the opportunities allowed a competitor to enter the market offering the cheaper fare, though not the municipal ownership, that Mayor Pingree wanted – the Detroit Railway Company. The competing lines also had back-door politicking going on, and eventually were all rolled into one major provider, Citizens Traction Company, in 1897. By then, it was also clear that the city was not going to benefit financially from any of these contracts. Pingree had gotten himself elected Governor of Michigan, and was able to secure legislation allowing Detroit to “construct, acquire, maintain and operate a street railway system under the control and authority of a three-person Street Railway Commission” that included himself. Both of the remaining streetcar companies were combined into the Detroit United Railway (DUR) in 1900.²⁸ The DUR was still a private company that charged a higher fare than what Mayor Pingree had aimed for, and the legal battle for municipal ownership continued.



Cadillac Square in downtown Detroit in the early 1920s (via the Library of Congress)

²⁷ Bill Loomis, “Hazen Pingree: Quite possibly Detroit’s finest mayor,” *The Detroit News*, February 8, 2020, <https://www.detroitnews.com/story/news/local/michigan-history/2020/02/08/hazen-pingree-quite-possibly-detroits-finest-mayor/4686854002/>

²⁸ “Public Transit in Detroit 1863- 1890”

Despite all the promises of a new company and expanded lines, the city was doubling in population every 10 years. The creaking transit systems were not coping, and people were piling onto the fenders of the cars because there was regularly no space inside. The DUR was doing its best to keep up, and by 1915 “operated twenty-one streetcar lines within [the] city, owned ten carhouses, and by 1919 had acquired a fleet of 1,434 cars, that averaged 10.67 miles per hour along city streets. Weekday service required over 1,800 scheduled runs, with headways along a number of the heavy lines as close as 30 seconds during rush hours.”²⁹ Despite providing what sounds like exemplary service, something was clearly not working in Detroit.

5 DUR, MO, and DSR

It didn’t take long for the idea of the subway to migrate from London (1863) to Boston (1897) and New York (1904)³⁰ and Detroit – the first recorded Detroit subway plan was part of a 300 page report on rapid transit published in 1915. Data gathering had begun in 1904 with ridership data collection, which seems to have involved someone riding each route on each line and counting the number of passengers on and off at each stop. Planners took a population survey of half-mile squares in the city, and detailed traffic counts at major and minor intersections. In addition to financing descriptions and data tables are 21 maps and plans, all hand drawn, depicting everything from the existing network to proposed subway station designs to population distribution.³¹ It seems like the idea of a subway had been in the minds of Detroit planners since New York opened theirs.

Great detail is given about population concentrations, and where those individuals worked. Getting them to and from work was a central concern to this rapid transit overhaul of downtown (and outlying) Detroit, because most of them were living and working in the downtown area. Particular focus is given to the underlying causes of congestion and presents its solution of improving the routing of “cars” – meaning the streetcars, not private automobiles – by avoiding crossing major streets, increasing the number of cars per route, collecting fares before boarding, and other forward-thinking measures. Streetcars were also removed from busy automobile streets to avoid both congestion and collision. A similar, though less extensive, treatment is given to inter-urban lines coming into the city from other places in addition to reconfiguring the specific downtown area. They even tackle the issue of changing the style of

²⁹ Jack E. Schramm and William H. Henning, “Detroit’s Street Railways Volume I: City Lines 1863-1922,” *Central Electric Railfans’ Association Bulletin* 117, 1922, <https://archive.org/details/citydetroitmich01compgoog/page/n24/mode/2up>

³⁰ History.com editors, *New York City subway opens*, [Online; accessed 06-Oct-2020], November 6, 2019, <https://www.history.com/this-day-in-history/new-york-city-subway-opens>

³¹ Parsons, Brinckerhoff, Quade & Douglas, “Report on Detroit street railway traffic and proposed subway,” Detroit Municipal Street Railway Commission, 1915, <https://archive.org/details/reportondetroits9582pars>, (accessed September 30, 2020)

parking along streets – removing 45° parking along narrow streets, and designating passenger loading zones to avoid pedestrians in the middle of roadways to ease the travel of streetcars.³² This whole great work was simply a recommendation, however, and unfortunately no action was taken on it.³³

It took four years for this issue to reach the mayor's desk. In the office was another reformer – James Couzens – who wanted lower fares and for the system to be run by the city. Another plan was drafted in 1917, with the city very concerned about the population reaching 1 million in the next few years and not having space for them all on the streets. This document, only half the size of the 1915 report, also evaluated the population and employment distribution across the area as a rational basis for the rapid transit and subway proposals.³⁴ Again, the plan contained information about the building of a subway in addition to surface improvements that would create a rapid transit system. All of this was to be run by the private DUR.³⁵ With the backing of Governor Pingree's 1900 law allowing Detroit to run its own streetcars, Mayor Couzens made an attempt to purchase the system for the city. Unfortunately, the \$31.5 million needed to purchase the whole system outright in 1919 was too much and was voted down by the people.³⁶

Just a year later, an alternative was passed; the city would issue \$15 million in bonds to finance the building of a parallel municipal system, but only as surface-based transit. This hastily-built "Municipal Operation" (MO) alternative was slow, used small cars... and didn't access the downtown area due to the private DUR monopoly on those streets. The city knew that they couldn't compete on infrastructure, so they simply started buying up DUR-built track and facilities. Within two years, nearly a third of the approximately 90 miles of the MO track were purchased from DUR, and the system was extended well into the suburbs. With so much of the system now being city-run, the DUR gave up in 1922 and was sold to the city for just shy of \$20 million. The Department of Street Railways (DSR) took over what was left of the DUR and the MO, combining them into a municipal streetcar system of 363 miles across four urban areas, and created America's first municipal transit agency.³⁷

³² [ibid.](#)

³³ ["Detroit's transit misses"](#)

³⁴ Parsons, Brinckerhoff, Quade & Douglas, "Report on a rapid transit system for the city of Detroit," Board of Street Railway Commissioners, 1918, <https://babel.hathitrust.org/cgi/pt?id=mdp.39015048549821>, (accessed September 30, 2020)

³⁵ ["Detroit's transit misses"](#)

³⁶ ["Public Transit in Detroit 1863- 1890"](#)

³⁷ [ibid.](#)