



Bridgewater State University

Virtual Commons - Bridgewater State University

Honors Program Theses and Projects

Undergraduate Honors Program

5-10-2016

America's First Subway - History of the Massachusetts Bay Transportation Authority

Kelsey Lynch

Follow this and additional works at: https://vc.bridgew.edu/honors_proj



Part of the [Graphic Design Commons](#)

Recommended Citation

Lynch, Kelsey. (2016). America's First Subway - History of the Massachusetts Bay Transportation Authority. In *BSU Honors Program Theses and Projects*. Item 150. Available at: https://vc.bridgew.edu/honors_proj/150
Copyright © 2016 Kelsey Lynch

This item is available as part of Virtual Commons, the open-access institutional repository of Bridgewater State University, Bridgewater, Massachusetts.

America's First Subway—History of the Massachusetts Bay Transportation Authority

Kelsey Lynch

Submitted in Partial Completion of the
Requirements for Commonwealth Honors in Art

Bridgewater State University

May 10, 2016

Mary Dondero, Thesis Director
Rob Lorensen, Committee Member
Alain Blunt, Committee Member

Kelsey Lynch

May 10, 2016

America's First Subway - History of the Massachusetts Bay Transportation Authority

When contemplating a topic for my Honors' Thesis project, I listed several ideas based on areas of personal interest. One shone brightly in my mind: the history surrounding Boston's public transit system, including the first subway in the United States. My interest originates in high school. I participated in the country-wide National History Day competition, a year-long endeavor involving hours of research, organization, and arrangement of an attractive display. With this subject, I advanced to the national level in Washington D. C.

The appeal this topic presents is twofold. First, I saw the opportunity to expand a bank of knowledge on a subject that truly interests me. Second, I wanted to take my years of graphic design experience and formulate a new, more developed approach to presenting this information in an interesting format.

My posters present the foundation for a potential educational campaign intended for display in MBTA stations. Each poster includes a brief history of the local area's significance, as well as the influence it had over the transit system's development. Historical photographs comprise the main content, attracting the viewer's eye with yesteryear's perspective. These documents are intended for display on platforms in close proximity to existent railway maps. To create visual harmony, I integrated the shape of the four lines as a basic format, adjusting text and photographs as required. If this project were transplanted into real-life usage, a poster would exist in each station.

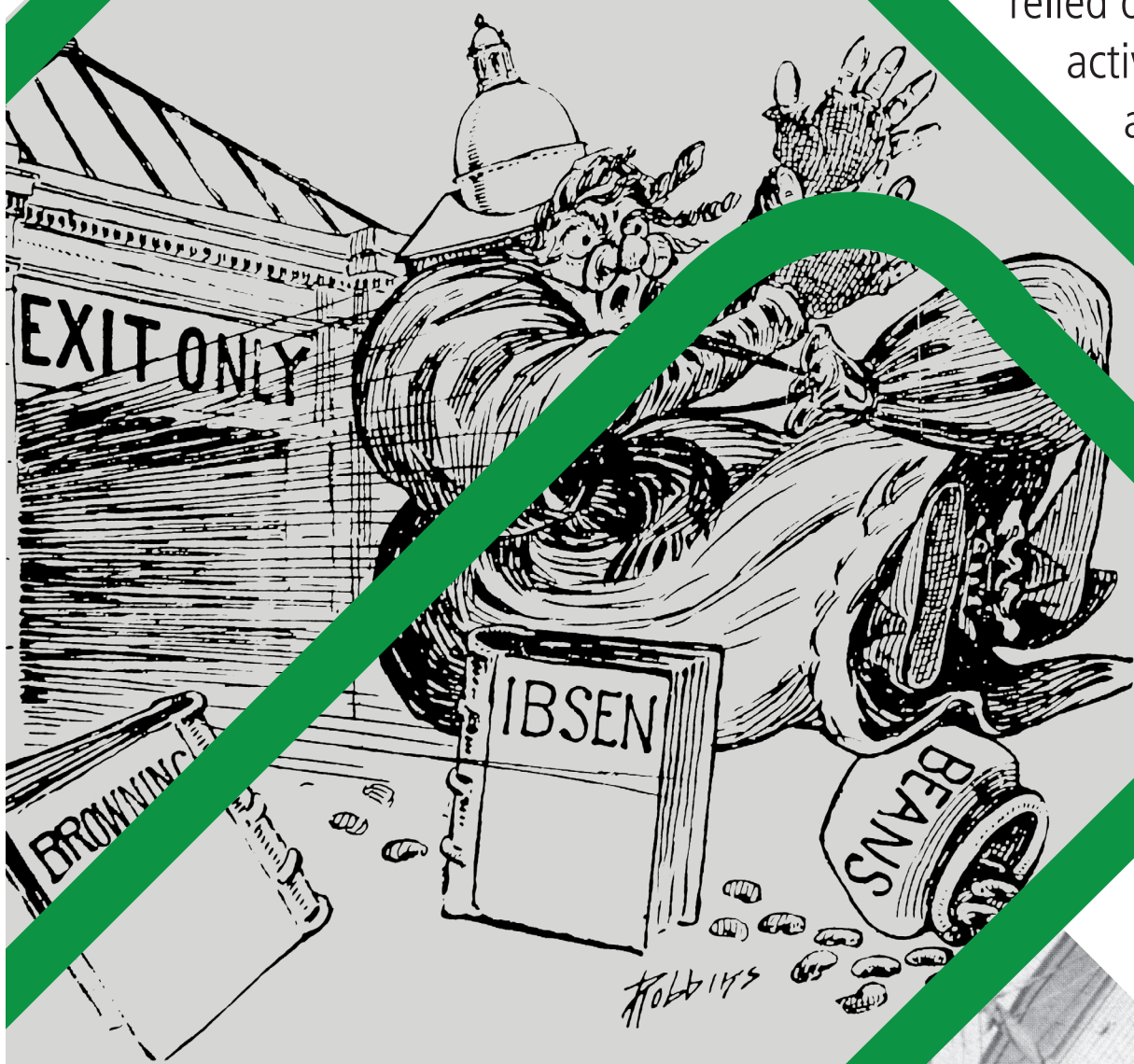
PARK STREET

Late nineteenth-century Boston was a crowded, dirty, and slow-moving place. Animals, wagons, steam engines, and people clogged its streets to such an extent that the municipal government declared downtown congestion a public health hazard.

Public transit afforded little relief. The city's streetcar company – the West End Street Railway (WERy) – operated a mix of horse- and electrically-drawn trollies that only added to the chaos in the streets. Local and state officials demanded that they be diverted into tunnels and onto viaducts, but the WERy was unwilling to shoulder the cost of such substantial construction projects.

In 1894, public frustration forced the state government to step in by passing the Subway Acts. These laid out plans for tunnels running under Tremont Street and Boston Harbor that were connected to elevated lines running to Charlestown and Roxbury. The tunnels would be built by the City of Boston; the elevated railways by a newly chartered Boston Elevated Railway Company (BERy). The WERy was dissolved, and the BERy became Boston's first modern rapid transit operator.

One of the two original stations in North America's oldest subway, Park Street Station opened in 1897. It was controversial because subway workers relied on a simple "cut-and-cover" technique to dig the tunnel beneath an active, busy thoroughfare. Construction was disruptive to the businesses above, and risky to the workers below. Cave-ins, gas explosions, and the disruption of a colonial cemetery shook the public's confidence in the project's success. Nevertheless, service began in 1897, only 3 years after the Subway Acts passed.



Top: The city's impression of the new subway system is portrayed humorously through Dame Boston's bewilderment.

Left: The first trolley rolled down the line on the morning of September 1, 1897.

Passengers await trolley cars in the summer of 1901. By then, commuters embraced the subway line.



GOVERNMENT CENTER

When original settlers to Beacon Hill established a signal light atop the incline, it attracted undesirable military visitors. As this area eventually evolved into a wealthy political center in the 18th century, the “fringe activities” such as bars, vaudeville theaters, and prostitution were pushed towards Scollay Square.

Scollay Square Station opened in 1898 as part of the Tremont Street Subway (Green Line), connecting the North End to Beacon Hill and State Street. In 1916, a lower level – Scollay Under – to accommodate service running from East Boston. In the 1960s, risqué Scollay Square was destroyed and replaced by a cleaner, more reputable Government Center that housed Boston’s new City Hall and several federal buildings.

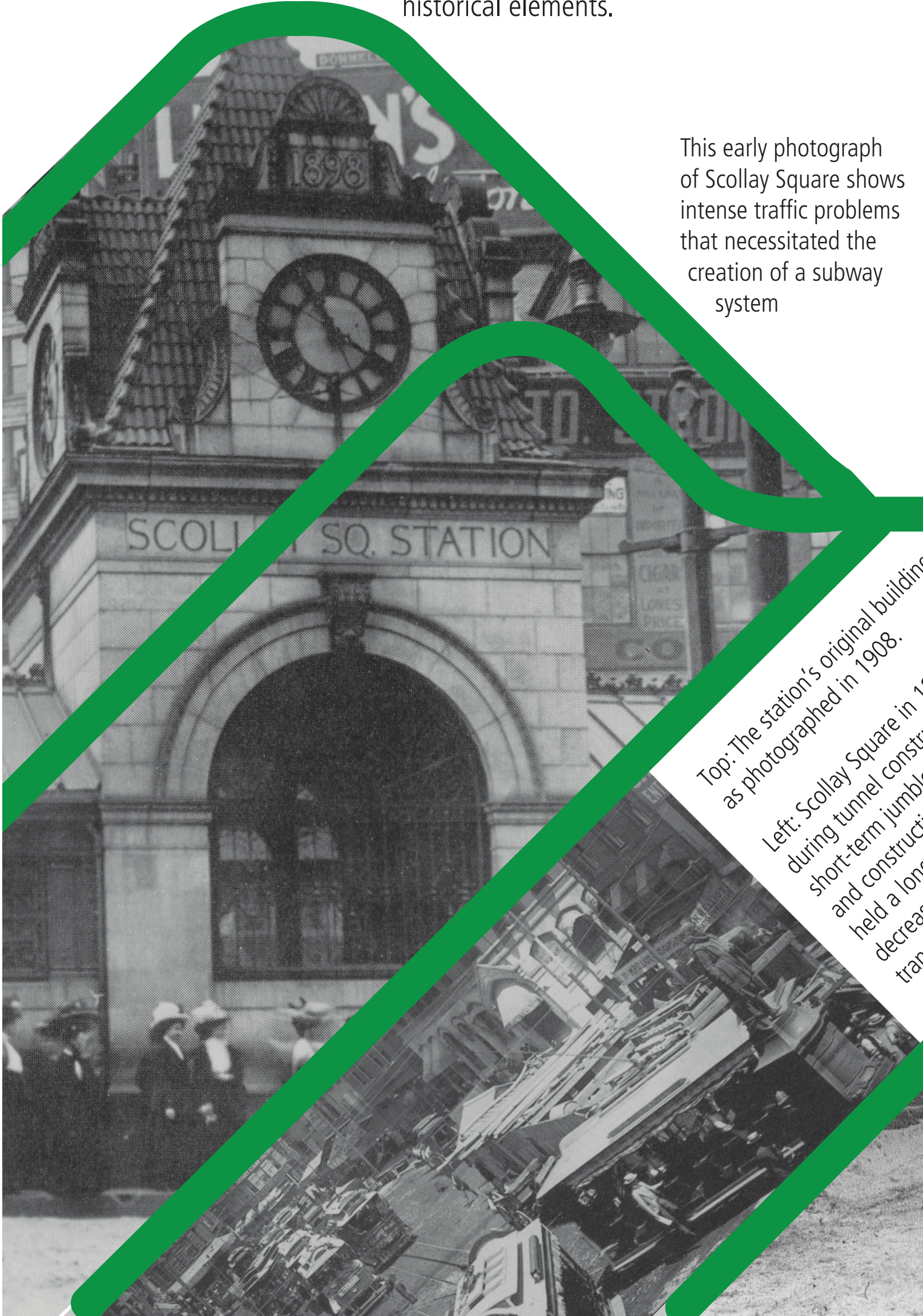
The subway station became Government Center Station in 1963, and was extensively rebuilt in 2016 to restore some of its historical elements.

This early photograph of Scollay Square shows intense traffic problems that necessitated the creation of a subway system



A historic view of Scollay Square during the winter of 1930. The subway became a vital part of commuters’ daily lives.

Top: The station's original building as photographed in 1908.
Left: Scollay Square in 1896 during tunnel construction. A short-term jumble of streetcars and construction materials held a long-term benefit of decreased congestion and easy transportation.



SULLIVAN SQUARE



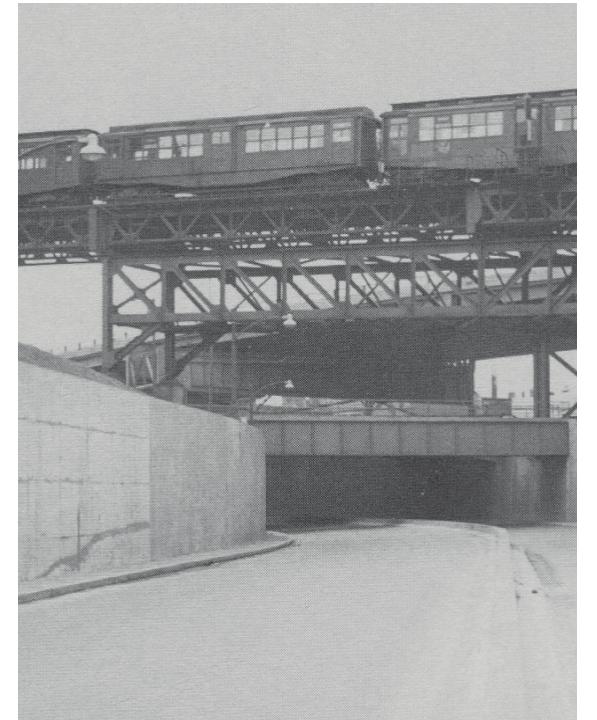
The first station in Sullivan Square was open and inviting. Unfortunately, it was lost to fire and eventually removed.

Opened in 1901, the Charlestown Elevated was part of the Orange Line that ran above ground in the Bulfinch Triangle and over the Charles River Bridge. Also built in 1901, the grand Sullivan Square Station was the largest of its three platforms and a major transfer point.

It was designed to serve both streetcars and an elevated railway – the Main Line Elevated – that connected Sullivan Square to Dudley Square through downtown Boston. Located near Boston Harbor and the Mystic River, this line's constant exposure to the salt air resulted in extensive corrosion of its cars.

Unpopular due to noise, vibration, aesthetics, and blocking of sun to Charlestown's residents, the Elevated was eventually rerouted through a new Haymarket North Extension tunnel segment in 1975. The once-grand Sullivan Square Station was demolished in 1976.

Original plans for the Sullivan Square Station



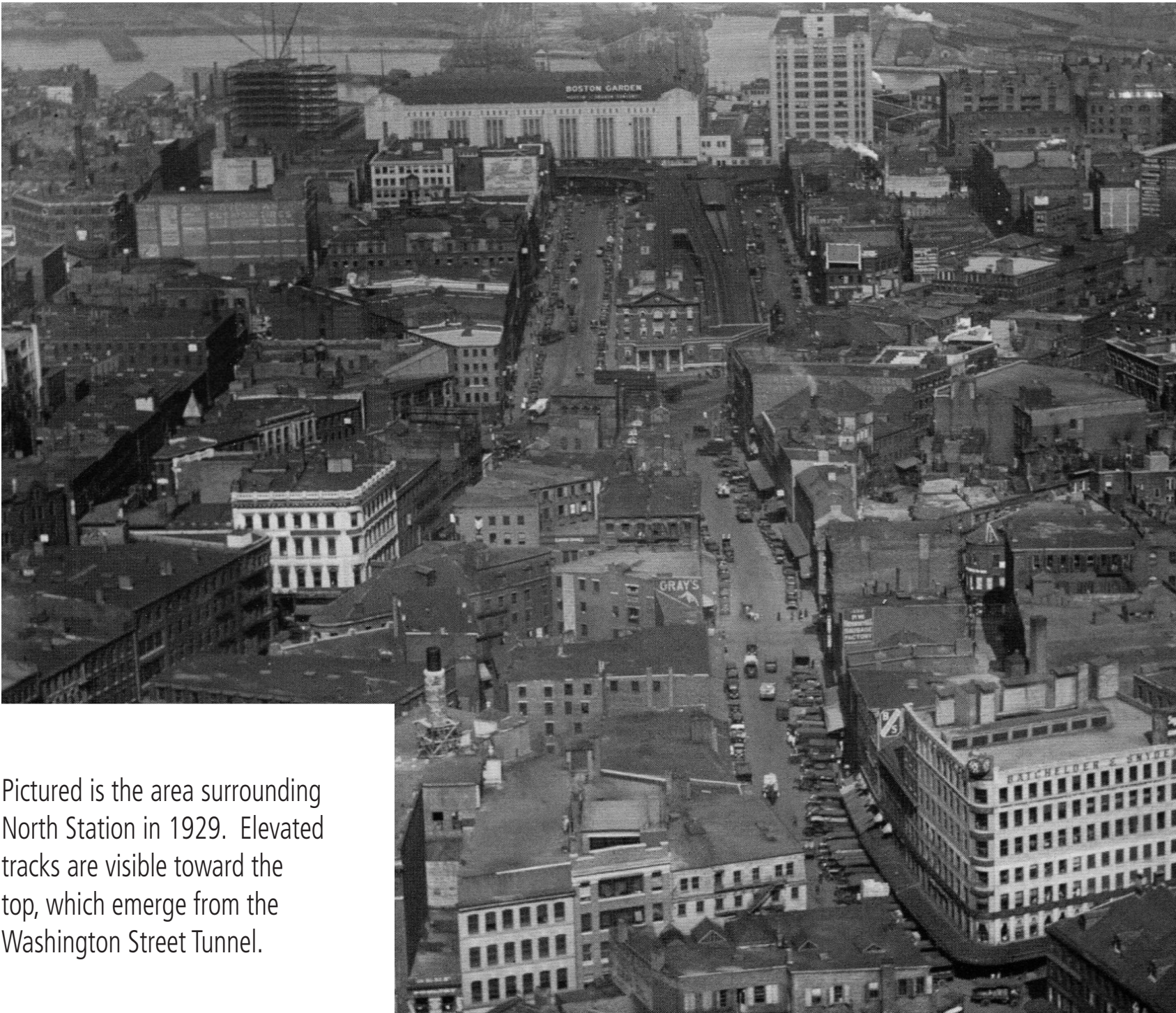
The Elevated Railway inadvertently caused a traffic nightmare due to a series of underpasses required to circumvent it.



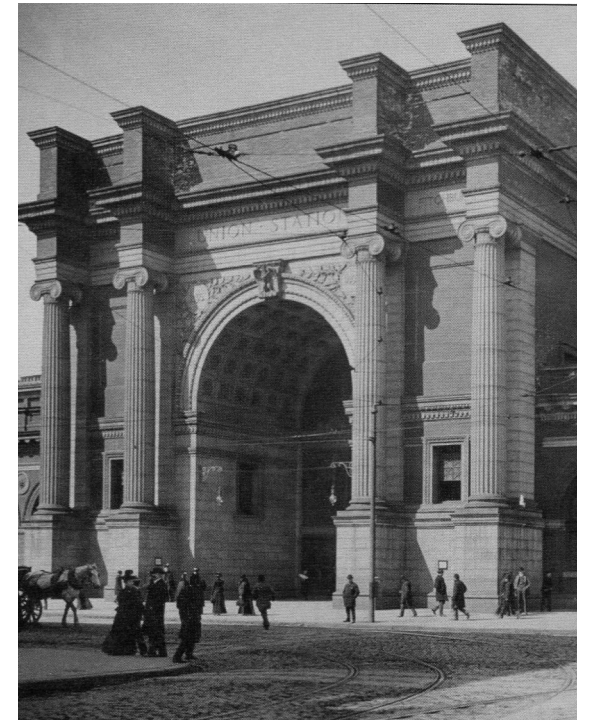
Excerpt from 1943 Cooperation, a newsletter for the Elevated Railway, urging citizens to exercise caution near trains.



NORTH STATION



Pictured is the area surrounding North Station in 1929. Elevated tracks are visible toward the top, which emerge from the Washington Street Tunnel.



The original Union Station building, the predecessor to today's North Station.



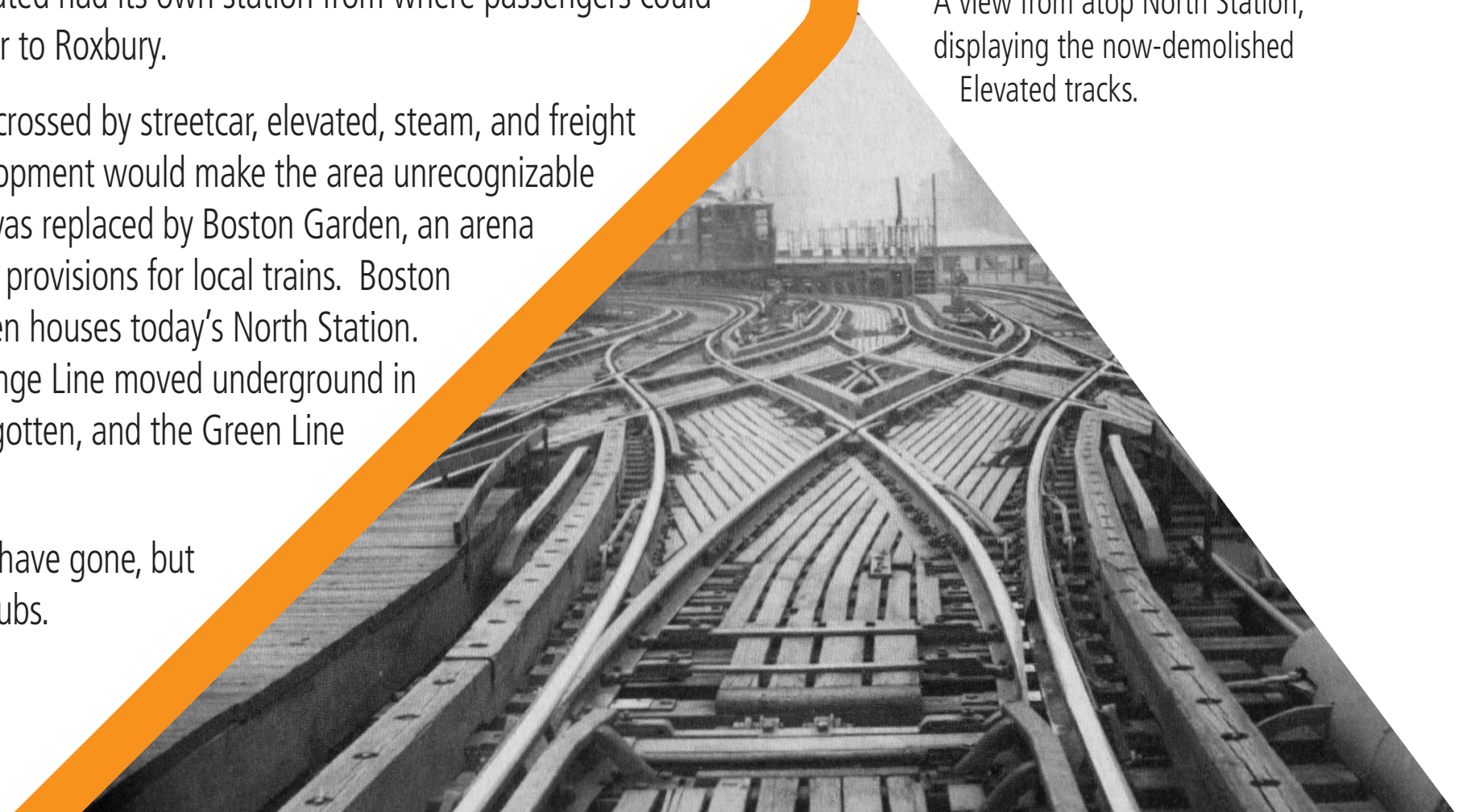
A view from atop North Station, displaying the now-demolished Elevated tracks.

North Union Station in Boston's West End was built in 1893, replacing four separate railroad hubs that had been scattered around the neighborhood. It was the terminal of all northbound passenger lines, and a transfer point between the city's busiest transit lines. The Tremont Street Subway had surface and elevated stations where passengers could travel south to Park Street, or north to points in Cambridge and Somerville. The Main Line Elevated had its own station from where passengers could travel around the waterfront, to Charlestown, or to Roxbury.

In 1900, the North Station area was crisscrossed by streetcar, elevated, steam, and freight railroad tracks, but urban planning and redevelopment would make the area unrecognizable a century later. In 1928 North Union Station was replaced by Boston Garden, an arena for sports and entertainment activities that had provisions for local trains. Boston Garden was demolished in 1998, and TD Garden houses today's North Station. Much changed at the street level, too. The Orange Line moved underground in 1975, its grand station being scrapped and forgotten, and the Green Line followed in 2004.

All traces of the steam- and elevated- train era have gone, but North Station remains one of Boston's transit hubs.

Right: Intricate tracks of the Elevated Railway



MAVERICK

Left and Right: Progress of Maverick's East Boston Tunnel



A view of Maverick Square from atop the East Boston Tunnel's entrance, which is flanked by Chelsea and Meridian Streets.

One of the original ferries, the Governor Russel, is pictured in 1905 carrying horse buggies and passengers across the harbor.



The East Boston Tunnel (Blue Line) was built in 1904 as the first subway in the world that passed under the ocean. An attractive alternative to overcrowded ferry boats, it connected Maverick Square in East Boston to Court Street near Scollay Square. It was excavated largely underwater: workers would use a tunneling shield to shape the tube, digging out sediment and clay as it pushed along. Teams worked from both sides of Boston Harbor, digging carefully so that they met precisely near its middle.

The tunnel was originally built for trolley service. In 1916, popular demand extended it to Scollay and Bowdoin Squares. In 1924, ridership had exceeded expectations enough that the BERY increased its capacity by converting it to rapid transit specifications.

Maverick Station marked the tunnel's eastern end, and was the rapid transit terminal after 1924. The wide island-platform accommodated large crowds transferring from streetcars and busses for their day in Boston, and is little changed today. In 1954, Blue Line service extended beyond Maverick to the Airport, Revere Beach, and Wonderland, but the station remains one of the line's busiest.

STATE

Left and Right: View of State Street and the Old State House



State Station — originally called “Devonshire” — was opened on the East Boston tunnel in 1904. In 1908, it was expanded to accommodate Main Line Elevated cars on additional platforms called “Milk” and “State”.

The subway station is one of Boston’s strangest because it is built beneath a colonial artifact. The Old State House was quasi-public property in 1904, and Boston officials deemed it cheaper to build a station there than under a private easement. Because it was built under Boston’s oldest streets, the station’s layout is labyrinthine.

Space constraints under Washington Street meant that the Milk had to be built on top of State, sufficiently close to Devonshire for convenient transfers, but not so close that it damaged the Old State House’s foundations. The station’s eight entrances, four platforms, and three names confused generations of riders until they were renovated in the 1970s.

SOUTH STATION



Dewey Square, South Station's locale, is shown during the subway tunnel's construction. The area witnessed the 1915-1916 expansion of the Cambridge-Dorchester tunnel and the 1956-1958 John F. Fitzgerald Expressway extension.

South Union Station opened in 1899 on a massive 35-acre waterfront plot near South Boston. Streets were rerouted, bridges built, and a retaining wall erected to accommodate 28 tracks, a vast train shed, waiting areas, freight stations, concessions, and a post office. South Station was the terminus of southbound and westbound passenger lines, including those going to Worcester, Albany, Providence, New York, and Washington DC.

Like North Station, South Station was a major transit connection. Between 1901 and 1938, the Main Line Elevated stopped there on its way from Roxbury to Charlestown. In 1916, the Cambridge-Dorchester Tunnel (Red Line) opened a subway station — South Station Under — where it terminated until after World War I.

After World War II, the station and its neighborhood fell into decay. The post-war demand for automobiles caused rail ridership to collapse, and the grand station sat, almost empty, as the Masspike and Central Artery went up around it. Through the 1960s, parts of the station were chipped away: for an expanded post office, a mail processing facility, office towers, and parking. By the late 1970s, local officials planned to demolish the crumbling, burnt-out headhouse until a grassroots campaign led to its being designated a historic landmark.

In the 1980s, South Station was renovated and substantially reconstructed as ridership began to grow again. Now, it is the Northeast's busiest rail station, and the Red Line station is one of the MBTA's most congested transfer points.

Portrayed in 1967 are Pullman-Standard model Red Line cars. Contrasting their modernity is a seedy, run-down South Station. Future decades would bring renovation and a new, pleasant appearance to the platform.



One advantage of South Station was the size of its tunnel: it was improved to accommodate six-car trains, which replaced the Red Line's previous four-car models. As patronage increased, so did the subway's ability to serve larger crowds.

DOWNTOWN CROSSING

In 1912, the Cambridge Subway (Red Line) was built between Harvard Square and Park Street Station. It opened to great acclaim, and was so popular that several extensions commenced almost immediately. The first was to Boston's shopping district: Washington Street. The area was already served by a subway built for the Orange Line, but it remained one of the city's most crowded neighborhoods. A second stop was deemed necessary: both to relieve congestion, and to allow transfers between rapid transit lines.

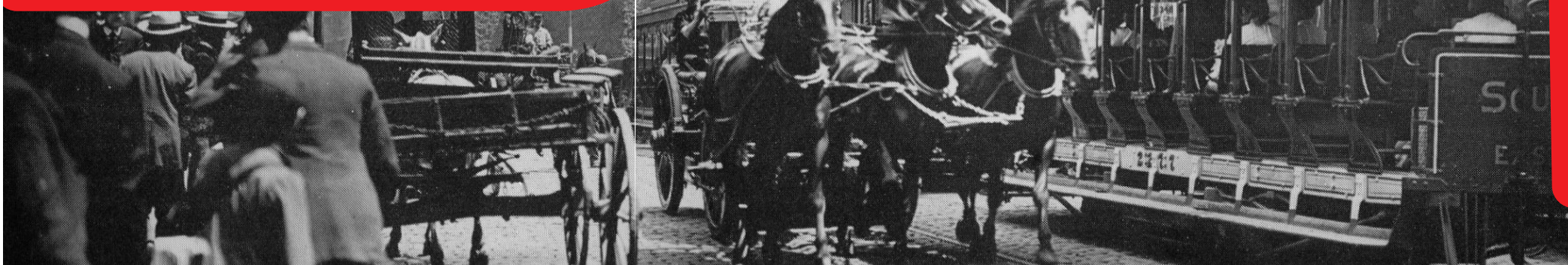
Washington Station opened in 1915. Like State Station, it was a sprawling complex of transit and commercial concessions. It also had three names. "Washington" referred to the Red Line platform, while the Orange Line platforms were called "Winter" and "Summer." Both stations were connected by a shopping plaza – the Winter Street Concourse – that had private entrances into the city's most popular department stores: Filene's, Jordan Marsh, and Kennedy's.

After World War II, Boston declined as a shopping center, and the Washington Street district fell into disrepair. By the 1980s, it sat on the edge of the Combat District, and through the 1990s, its great department stores were bought and liquidated. Since 2000, however, the area has been reborn, and it's becoming home to a new generation of stores and luxury housing. Washington/Summer/Winter station – now called "Downtown Crossing" – is considered one of the subway's four most important downtown stations, and will get only busier as the neighborhood continues to grow above it.

The first section of the Washington Street Elevated Railway is shown here in 1899, a precursor of future construction and controversy.

Occasionally, accidents happen – this 1906 photograph features a fully-loaded horse-drawn freight cart entangled in trolley wires beneath the Elevated track. Citizens required time to acclimate to the new structure.

Portrayed is Washington Street in 1904, four years prior to the construction of the rapid transit station. A jumble of trolleys and horse-drawn carriages, the future transit hub would be a boon to the area's congestion.



Kelsey Lynch

April 25, 2016

Works Cited

Primary Resources

“All It Asked.” *Boston Daily Globe* 13 May 1897: Pg. 1. Print.

“Bids for First Subway Station.” *Boston Daily Globe* 21 Mar. 1895: Pg. 9. Print.

Boston Elevated Railway Cooperation 22 (Nov. 1943). Print.

“Boston Transit.” *Boston Daily Globe* 29 Jan. 1901: Pg. 6. Print.

DiNatale, Pail. “Significant Dates in the History of the Orange Line.” Print.

Howe, Peter J. “Orange Line Opens to Mixed Reviews.” *Boston Daily Globe* 5 May 1987. Print.

Lynch, Christopher. Personal Interview. 20 February 2016.

Lynch, Kelsey. *Boston Photograph Collection*. 2016. Boston, Massachusetts.

Metropolitan Transit Authority. *Rapid Transit System of the Metropolitan Transit Authority*.

Boston: Massachusetts Transit Authority, 1957, Print.

Nolan, Martin F. “The Last Ride- Bidding Farewell to the El.” *Boston Globe Magazine*

26 Apr. 1987: 14+. Print.

“Progressing Under Tremont Street.” *Boston Daily Globe* 9 Nov. 1896: Pg. 10. Print.

“Slow Work on Subway.” *Boston Daily Globe* 10 Dec. 1895: Pg. 9. Print.

“Store Settled.” *Boston Daily Globe* 1 Jul. 1903: Pg. 3. Print.

“Subway and Tunnel.” *Boston Daily Globe* 1 Dec. 1903: Pg. 14. Print.

“Subway is Wide Open.” *Boston Evening Record* 1 Sept. 1897. Print.

“The Evolution of Transportation.” *The Electric Railroad* [Boston] Jul. 1901. Print.

Secondary Sources

Allison, Robert J. *A Short History of Boston*. Beverly, MA: Commonwealth Editions, 2004. Print.

Cheney, Frank. *Boston's Blue Line*. Portsmouth, NH: Arcadia, 2003. Print.

Cheney, Frank. *Boston's Red Line: Bridging the Charles from Alewife to Braintree*. Charleston, SC: Arcadia, 2002. Print.

Cheney, Frank, and Anthony M. Sammarco. *Boston in Motion*. Charleston, SC: Arcadia, 1999. Print.

Cheney, Frank, and Anthony M. Sammarco. *Trolleys Under the Hub*. Dover, NH: Arcadia, 1997. Print.

Cheney, Frank, and Anthony M. Sammarco. *When Boston Rode the EL*. Charleston, SC: Arcadia, 2000. Print.

Clarke, Bradley H., and O. R. Cummings. *Tremont Street Subway: A Century of Public Service*. Boston, Massachusetts: Boston Street Railway Association, 1997. Print.

Cudahy, Brian J. *Change at Park Street Under; The Story of Boston's Subways*. Brattleboro, VT: S. Greene, 1972. Print.

Elder, Andrew, and Jeremy C. Fox. *Boston's Orange Line*. Charleston: Arcadia, 2013. Print.

Kruh, David. *Always Something Doing: Boston's Infamous Scollay Square*. Boston: Northeastern UP, 1999. Print.

"Massachusetts Bay Transportation Authority." History. N.p., n.d. Web. 2 Mar. 2016.

McKendry, Joe. *Beneath the Streets of Boston: Building America's First Subway*. Boston: David R. Godine, 2005. Print.

Orwig, Timothy. *Historic Photos of Boston*. Nashville, TN: Turner Pub., 2006. Print.

Sanborn, George M., comp. *Chronicle of the Boston Transit System*. Boston: State Transportation Library, 1993. Print.

"Station History." South Station Boston. N.p., n.d. Web. 2 Mar. 2016.

"Subway Map." Massachusetts Bay Transportation Authority. N.p., 2016. Web. 2 Mar. 2016.

Vrabel, Jim. *A People's History of the New Boston*. Amherst: U of Massachusetts, 2014. Print.