Congress St. Bascule Bridge
Spanning Fort Point Channel at Congress St.
Boston
Suffolk County
Massachusetts

HAER MA-38

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

PHOTOGRAPHS

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HAER
MASS,
13-BOST,
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HISTORIC AMERICAN ENGINEERING RECORD

HAER MA-38

CONGRESS STREET BASCULE BRIDGE

Date: 1930

Location: Spanning Fort Point Channel at Congress St. Boston, Suffolk County, Massachusetts.

Owner: City of Boston

Significance: The Congress Street Bridge, built in 1930, is a trunnion bascule bridge and the most recent of the five movable-truss bridges spanning the Fort Point Channel. It replaced a steam operated swing draw and was electrically operated.

Transmitted by: Dan Clement, 1984. Historical information written by Peter Stott.

Addendum to:

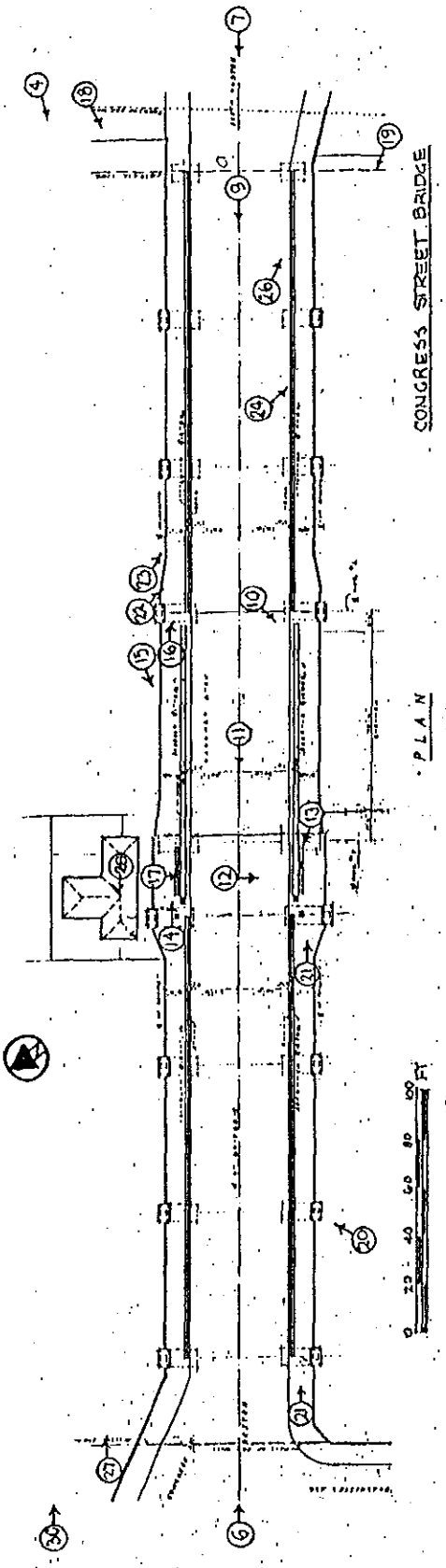
Congress Street Bascule Bridge
Spanning the Fort Point Channel, located on the boundary
between Boston Proper and South Boston
Boston
Suffolk County
Massachusetts

HAER No. MA-38

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
Mid-Atlantic Regional Office
National Park Service
U.S. Department of the Interior
Philadelphia, Pennsylvania 19106



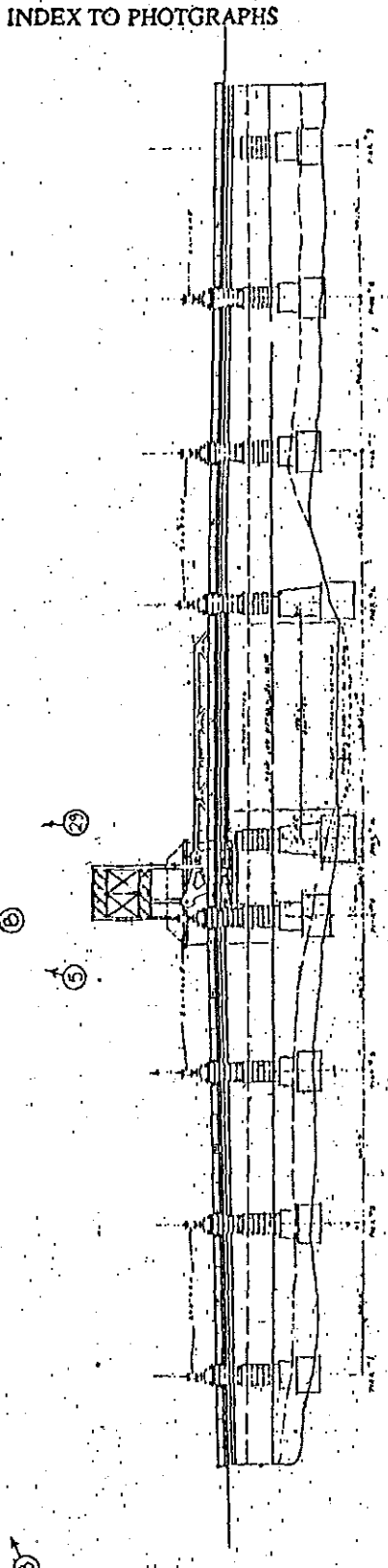


Photo Key Plan — Locates Existing Conditions photograph viewpoints. McGinley-Hart & Associates on Boston PWD base plan.

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One page of documentation was previously submitted to the Library of Congress.

Location:	Spanning the Fort Point Channel, located on the boundary between Boston Proper and South Boston Boston, Suffolk County, Massachusetts UTM: 9.331000.4690660 Quad: Boston South
Date of Construction:	1929-1931; altered 1954-1955, 1974-1976, 1980, 1984
Present Owner:	City of Boston Public Works Department Joseph F. Casazza, Commissioner 1 City Hall Plaza Boston, MA 02201
Present Use:	Vehicular/Pedestrian Bridge
Significance:	The Congress Street Bascule Bridge is one of the few surviving electrically-operated Strauss overhead-counterweight bascule drawbridges with a Warren-with-verticals pony truss. The masonry piers are carried above deck level and are topped with ornamental lanterns which give the bridge a unique architectural character. Despite the loss of some of its operating equipment and deterioration of auxiliary structures (fenders), many original components (superstructure, lighting, gates, and operating machinery) remain. The Tender's House is incorporated within the Boston Tea Party Ship Museum, a prominent feature adjacent to the existing structure. The bridge is located in the proposed Fort Point Channel Historic District, which includes five surviving movable bridges.
Project Information:	This documentation was initiated in June 1989, in accordance with the Memorandum of Agreement by the city of Boston as a mitigative measure prior to the rehabilitation of the bridge.
Documentation Prepared by:	McGinley Hart & Associates 77 North Washington Street Boston, MA 02114 Under subcontract to: STV/Seelye Stevenson Value and Knecht 230 Congress Street Boston, MA 02110

Site Description - Context

The Fort Point Channel area was developed during the nineteenth century as a result of the filling of the South Boston Flats. Originally known as Dorchester Neck, South Boston was incorporated into the City of Boston in 1804. The peninsula initially attracted residential development as a result of the toll bridge built by South Boston Associates on the alignment of the present Dover Street in 1805. The marshy area known as the Flats and the intervening South Bay later became available for commercial development as a result of the efforts of three entities, the Boston Wharf Company, the Commonwealth of Massachusetts and various railroad companies. The Boston Wharf Company was incorporated in 1836 to capitalize on new wharf development, acquiring areas along Fort Point Channel. Throughout the nineteenth century the Company built 45 buildings which are potentially eligible for listing on the National Register as part of the Fort Point Channel Historic District. [1]

This construction was promoted by the reclamation and filling of the area by the Commonwealth for industrial and commercial development in the last quarter of the nineteenth century, culminating in the construction of the Commonwealth and Fish Piers in 1913. The railroad, attracted to the waterfront by the Wharf Company in the 1850's, began a large rail yard in the 1880's which became the New York, New Haven and Hartford Railroad's principal Boston freight depot in 1893. The existing row of five movable bridges were built across Fort Point Channel between 1870 and 1930. These include those at Broadway (swing span, 1875/1915), South Station Old Colony Railroad Bridge (Scherzer rolling lift,1900, HAER MA-35), Summer Street (paired retractile draw, 1899, HAER MA-41), Northern Avenue (Pratt truss swing span, 1908, HAER MA-37) and Congress Street (Strauss overhead counterweight bascule, 1930, HAER MA-38). An earlier steam-operated iron swing bridge was built at this crossing on Congress Street in 1874. It was remodelled in 1905, and finally deemed obsolete and removed in 1929.[2]

The present Congress Street Bascule Bridge was a cooperative design of the Strauss Bascule Bridge Co., the Boston Public Works Department Bridge & Ferry Division, and Desmond and Lord, architects. It was constructed in 1930 for the City of Boston by the Boston Bridge Works and Coleman Brothers, Inc. under the direction of its Public Works Department, linking downtown Boston on the northwest with the South Boston waterfront on the southeast. The bascule bridge is located on Fort Point Channel between Atlantic Avenue on the northwest and the warehouse district properties on the southwest. The bascule section is at the center of the bridge which is supported by eight approach span masonry piers and one lower bascule pier between masonry abutments. On the north side toward the harbor are the Russia Wharf buildings, a National Register property at the west end, and the Children's Museum and Computer Museum at Museum Wharf on the east end of the bridge in the proposed Fort Point Channel National Register Historic District. On the south or upstream side at the west end is the Federal Reserve Bank, and on the South Boston end is 303 Congress Street, a modern steel and glass office building especially designed to be compatible with the form of the bascule bridge. Behind 303 Congress are the masonry Boston Wharf Company buildings in the proposed historic district. The bridge is a

focal point of area attractions, including Museum Wharf with its landmark Milk Bottle refreshment stand, the nearby Boston Fire Museum and the Boston Tea Party Ship Museum which is located on the Congress Street Bascule Bridge itself.[3]

Fort Point Channel is a tidal estuary which serves as anchorage for fishing, shellfishing and lobstering vessels as well as pleasure boats and rowing shells. Boston Harbor is located to the northeast on the other side of the adjacent Northern Avenue Swing Bridge (HAER No. MA-37) with commercial marinas and businesses surrounding the basin between it and the Congress Street Bascule Bridge. Several old vessels anchored here include the "Beaver," the Boston Tea Party Museum replica eighteenth century ship, a ferryboat, a tug boat and a floating restaurant. Although no longer active, the Congress Street Bascule Bridge is, with its ornamental piers surmounted by lanterns, the most architectural of the five remaining movable bridges on the Fort Point Channel and a major tourist stop for sightseeing trolleys and visitors. The bridge has been determined eligible for listing on the National Register of Historic Places.[4]

Construction and Alterations

The complete history of the Congress Street Bascule Bridge, including its original construction, rebuilding, repairs and maintenance, is well-documented in the collections of the Boston Public Works Department Bridge Division and Annual Reports of the earlier Bridge and Ferry Division, and other photographic collections such as those of the Bostonian Society, as well as newspaper archives. The original and existing conditions of both the site and the bridge are documented by the drawings and photographs accompanying the following text.

The present Congress Street Bascule Bridge, the second bridge at this crossing, was preceded by earlier structures at the other four bridge crossings along Fort Point Channel, the nearest of which is the Summer Street Retractile Bridge (HAER No. MA-41). Congress Street's Strauss trunnion bascule bridge was built according to the precedent of earlier Strauss bascule designs which were constructed around Boston. These include the Saugus River Drawbridge (HAER MA-84), built on the MBTA Eastern Route for the Boston and Maine Railroad, and the MBTA East Cambridge Viaduct, both built in 1911 and the First Street Drawbridge in South Boston, built in 1924. The Congress Street Bascule Bridge, a multiple-trunnion bridge with overhead counterweight and two steel girder approach spans supported by ornamental granite piers, was designed between 1924-1929 and constructed in 1930 to replace the obsolete steam-operated swing bridge of 1874. The present bridge was completed in January 6, 1931 at a cost of $765,041. An additional charge of $6,006 was allocated for the reconstruction of streets for changes in street grades, particularly on the South Boston approach.[5]

The existing bascule bridge of 1930 has undergone several repairs and alterations as follows:

1954-55 - Wooden block deck on draw span replaced with steel grid.

1974-75 - Approach and draw spans redecked with bituminous paving; approach span granite block paving retained beneath on most approach spans.

1976 - North machine room fire destroyed equipment and Tenders' House roof.

1984 - Roadbed and stringer repairs.

General maintenance over the years has included painting and miscellaneous minor repairs such as the installation of steel patch plates and additional lights; machinery, gate and railing repairs; and grouting of the mortar joints in the granite piers. The bridge is presently welded shut and inoperable.[6]

Key Individuals

The bridge was designed by the Strauss Bascule Bridge Company of Chicago, Illinois along with Boston Public Works Department Bridge Division Engineer, John E. Carty. Strauss & Co. was the leading designer of trunnion-bascule bridges and did much to promote the use of their patented design with initial construction in 1905. The innovative design utilized concrete instead of cast-iron counterweights to reduce costs; the multiple trunnions allowed the counterweight to pivot as it moved which utilized less space and increased efficiency. Two 1924 plans show the bridge "as Proposed by Engineers" and "as Proposed by Architects". Architects, Desmond and Lord, added architectural design details to the bridge which was built in 1929-30. Henri Desmond and Israel P. Lord were founders of a prominent Boston firm which practiced architecture from 1915 to 1980. Among their projects were work for the Boston School Department and collaborative work on the Eastern Airlines terminal at Logan airport and the State HEW Lindeman Mental Health Building in Government Center. Norwood Noonan Co. of Chicago, Illinois , electrical-mechanical engineers, provided the design for electrical systems, motors, gate machinery and warning signals. The construction of the bridge was started under a contract with Coleman Brothers, Inc. dated September 13, 1929. Granite was supplied by H.E. Fletcher of Chelmsford, Massachusetts. The Boston Bridge Works fabricated the superstucture which was completed January 6, 1931. Among the notable works of this major New England bridge building company were the Massachusetts Avenue Harvard Bridge to Cambridge, built in 1892; the Broadway Bridge over Fort Point Channel, rebuilt in 1914; and many other movable and fixed spans, as well as building frames in Boston and vicinity in the period of 1878 to 1938.[7]

There have been relatively few changes to the Congress Street Bascule Bridge since its construction. Boston Public Works Department engineers worked on bridge repairs and alterations in the succeeding years. Recent repairs have been done in consultation with Lawrence J. McCluskey, P.E., Senior Vice-President of Seelye Stevenson, Value and Knecht, engineering consultants to the Department. Balfour Engineering Co. Inc. has executed repairs and provided mechanical services during the past decade. The movable portion of the bridge is no longer in operating condition and has been welded shut since the 1970's.

Construction Techniques - Technical Description

Foundations - The granite rock-faced masonry foundations were built on concrete footings which rest on wood piles below the channel. The old bridge of 1874, which was a steam operated iron swing bridge with wood floor and wood pile approaches, was entirely removed prior to the beginning of construction for the new bridge. New oak piles were said to have been driven to about 70 feet below the city base. The westerly abutment on the Boston side is a granite masonry structure in line with the old seawall of the channel which narrows on the west end at the downstream (north) side of the bridge. The easterly abutment on the South Boston side was constructed over the site of a granite seawall built in 1878. Both abutments were apparently modified in 1897-99, prior to the reconstruction of the earlier bridge in 1905.

A slight change was made in the bridge elevation, primarily to keep machinery out of the water at high tide. The required reconstruction of approach street grades, primarily on the South Boston side. Eight fixed-span piers are constructed of cut granite and project above the bridge deck, terminating with ornamental caps and cast-iron decorative lanterns. The center pier which supports the bascule draw span is truncated and does not extend above the bridge deck. The draw fender pier, comprised of oak wood piles braced and partially decked with hard pine, supports the Tenders' House which is a "T" plan hip-roofed structure on the northwest side of the draw. The nine-span bridge has a total length of 561 feet.

Superstructure - The Congress Street Bascule Bridge employs a riveted steel frame on both the approach and the draw spans. The active leaf of the bridge is a single-leaf Strauss multiple-trunnion, overhead counterweight bascule bridge; the leaf structure is a single-intersection Warren-with-verticals pony truss with transverse deck girders and longitudinal floor beams. The cross-braced counterweight support tower, supported by four columns, extends 40 feet above the trunnion pivot point which is 13 feet above the bridge deck and 16 feet above the truncated center pier. The six approach spans are each constructed with two half-through-plate girders, each about 60 feet long, spaced at 40 feet on center. These support the four-lane roadway and two outboard cantilevered sidewalks. The fixed-span sidewalks rest on closed web cantilevered beam brackets which decrease in section to the outer edge, while the bascule leaf has open web truss-brackets to reduce weight; both types terminate at the roadway level with steel channel edge stringers. The main fixed-span girders at each end of the bridge terminate in downward curves which meet the bridge deck. The two shorter approach spans at each end continue to the abutments; these are about

half as long, and of simple longitudinal floor beam construction. The approach span floor was paved with six-inch granite blocks laid with pitch joints and some of this paving is still intact. Sidewalks were originally four inches of asphalt laid on four-inch thick plank.

The 65 foot wide draw leaf spans a 75 foot wide channel. The steel truss towers provide lateral stability to the hinged drawbridge and the counterweight upon opening. The draw span of the bridge was assembled in an open position and was closed upon completion of the truss and machinery assembly. When closed, the bridge ends are supported on the end locks of the opposite fixed span pier. The draw span roadway consisted of six inch by eight inch creosoted ties covered with creosoted four inch tongue-in-groove sub-planking upon which was placed a three-ply layer of roofing felt laid in hot pitch. Paving of the drawspan was three inch creosoted wood paving blocks with joints sealed with paving pitch. Sidewalks of the draw span were two by eight inch plank spaced half an inch apart and nailed to creosoted nailing strips bolted to beams. Fixed span decks were a reinforced concrete slab overlaid with a waterproofing membrane, a 3/4 inch layer of sand and granite cobbles. Sidewalks of the fixed spans were of "granolithic" material. The wood-framed Tenders' House had asbestos shingle siding and a slate hipped-roof.

Repairs and Alterations - In 1954 the Boston Public Works Department replaced the wood decking of the draw span with open-steel grate decking which was filled with concrete in the 1980 repairs and soon after covered with asphalt; the granite block paving of the approach spans has also been covered by asphalt pavement. The wood fender piers and draw tenders' house have deteriorated in intervening years, although they substantially retain much of their original fabric. Recent repairs have included replacement of the hipped roof of the Tenders' House with a flat roof. The bridge is presently in a deteriorated state and requires repair; its operating load rating (type 3S2) of 46 tons has been reduced to (type 3S2) 33 tons.

Description and Operation

The bridge has a steel superstructure which rests on granite faced piers and abutments; which are supported by concrete foundations and and friction piles. The Congress Street Bridge consists of nine spans: the two minor approach spans are simply-supported floor beams; the six principal fixed-spans are paved-deck, steel through-girders averaging 60 feet on support bearings, each girder carrying steel stringers. The center draw span is a single-leaf, paved-deck bascule which is 91 feet in length from trunnion pier face to cantilever leaf end. The deck width is 47 feet center-to-center of the bascule trusses and 65 feet (out to out) and now consists of four vehicular lanes totalling 40 feet clear with two cantilevered, 8 foot sidewalks projecting outboard a total of 9 feet each.

The fixed spans are made up of paired half-through-plate girders, with transverse deck girders and longitudinal floor beams. Lateral bracing for the deck is provided by crossed diagonal tie rods. The center draw span has lateral bracing between all four counterweight support posts. The center tower, 53 feet high measured from the bridge deck, carries the counterweight, and has an 18 foot vertical clearance over the deck. The draw section, which opens to an 87° 30' angle,

rolls on two main trunnions. The total length of the active leaf of the draw is 91 feet, exclusive of the short 30 foot fixed span which supports the trunnion end. The minimum horizontal clearance through each of the two channel ways of the draw is 75 feet between fenders; the vertical clearance is 6 feet from mean high water to bottom of steel and is unlimited when the bridge is open.

The bridge is operated by a draw tender to allow the passage of boats, with gatemen manning the gates. The original operating mechanism consisted of a system of rack-and-pinion gears powered by electric motors. A manual crank-drive system was provided in the event of electrical failure. The machinery was organized to include two racks, two operating pinions, four rack-pinion bearings and two main drive motors (see operating machinery drawings). An oak bumping block stopped the bridge when fully open, with emergency brakes provided on each drive mechanism. A lock motor on the downstream (north) side of the draw leaf operated the end lock system.

The motors were controlled from the operating room of the Tenders' House on the fender pier which also contained an office, work room and locker room. A manual drive system was designed for use in operating both the draw and the gates, in the event of electrical failure.Power for draw machinery operation was originally provided by two 35 horsepower electric motors. The operating controls in the Tender's House consisted of a control stand with levers to operate the bridge and lock motors, signal lights, a slate switchboard with circuit breakers, a resistor and meter panel.

The draw is opened by the two electric motors with drive trains attached to the pier; the final pinion of each train on a rack attached to the draw. These two sets of apparatus, each protected by a machinery room with four small windows visible below the draw leaf, can operate independently and raise the draw if one is out of service. The end locks, one at each free end of the two truss lines, are activated by the end lock motor through a drive shaft and gear system. The four gates at each end of the bridge are operated manually from the roadway deck by the gateman who uses a signal switch to notify the Draw Tender when the gates are open. The draw is closed, gates opened, and traffic then passes onto the draw. Electric power and the new bascule design greatly improved efficiency of bridge operation over the earlier swing bridge design, as it requires only two and one-half minutes to open the draw.

Historical Significance

a. Engineering Significance

The significance of the Congress Street Bascule Bridge of 1930 is its design. It is the largest and most highly ornamented of the three Strauss overhead counterweight bascule bridges identified in the Massachusetts Department of Public Works Historic Bridge Inventory. Strauss was the chief proponent of the overhead counterweight bascule bridge, a patented design. The other two overhead-counterweight bascule bridges in the MDPW bridge inventory list are the First Street Bridge (1924) and Cambridge Parkway Drawbridge (1957). The original Tender's house, despite the loss of its roof and some operator controls, survives along with some of the operating machinery and the gates.

b. Cultural Significance

The bridge has secondary cultural associations with the development of South Boston; the bridge is at the focal point of commercial construction activity on the South Boston waterfront. The Congress Street Bridge is an integral part of the promotion of the area by the Boston Redevelopment Authority as the link to Museum Wharf. It is a significant link for tourist activity at the Boston Tea Party Museum, the Children's Museum, and the Boston Fire Museum. It is a most prominent fcature visible from the Fort Point Channel walkways and from Russia Wharf. The bridge is a familiar landmark to Boston Harbor and automobile traffic, and visible from other nearby landmark bridges as well.

c. Architectural Significance

The bridge has much importance from an architectural standpoint as it was consciously ornamented by the noted Boston architects, Desmond and Lord. Two original drawings document the bridge "as proposed by engineer", and "as proposed by architect". The cut-stone piers surmounted by ornamental lanterns enhance the setting for the Strauss Bascule, the engineering feature. The architectural characteristics of the bridge survive and preserve the original ornamental appearance of the bridge. The design of the bridge and the principles involved in its original construction and operation are significant features. The bridge is an integral part of the proposed Fort Point Channel Historic District and a visual landmark on the Boston waterfront.

Contextual Information

The Fort Point Channel area was the subject of a study in 1988 by the Greater Boston Chamber of Commerce, Physical Change and Programming in and around the Fort Point Channel, a Report of the Fort Point Channel Project. This was followed in March of 1989 by the Fort Point Channel Plan Progress Report, issued jointly by The City of Boston, the Fort Point Citizens Advisory Committee and the Boston Redevelopment Authority.

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Jacoby, Henry S. and Davis, Roland P. Foundations of Bridges and Buildings, (New York: McGraw-Hill Book Co., Inc., 1925.

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Stott, Peter. Bridge Row, The Drawbridges of Fort Point Channel, Unpublished typescript, Boston, June 1987.

Todd Lee / Clark / Rozas Associates, Inc. Northern Avenue Bridges Study , for the Boston Redevelopment Authority, Boston, May 1988.

Fort Point Channel Plan Progress Report. Issued jointly by The City of Boston, the Fort Point Citizens Advisory Committee and the Boston Redevelopment Authority, March 1989.

ARCHIVAL COLLECTIONS

Boston Public Works Department, Bridge Division Records, 400 Frontage Road, South Boston, Massachusetts 02118.

Boston Public Library, 666 Boylston Street, Boston, Massachusetts 02117, Government Records, Print Department

Seelye Stevenson Value & Knecht, Engineers and Planners, 230 Congress Street, Boston, Massachusetts 02110, Engineering Files.

1 Inventory of Historic Resources, South Boston, pp. 59 - 66.

2 Stott, Peter , Bridge Row, The Drawbridges of Fort Point Channel, pp 1-11.
Roper, Stephen MDPW Historic Bridge Inventory, Survey Form, Aug. 1984.

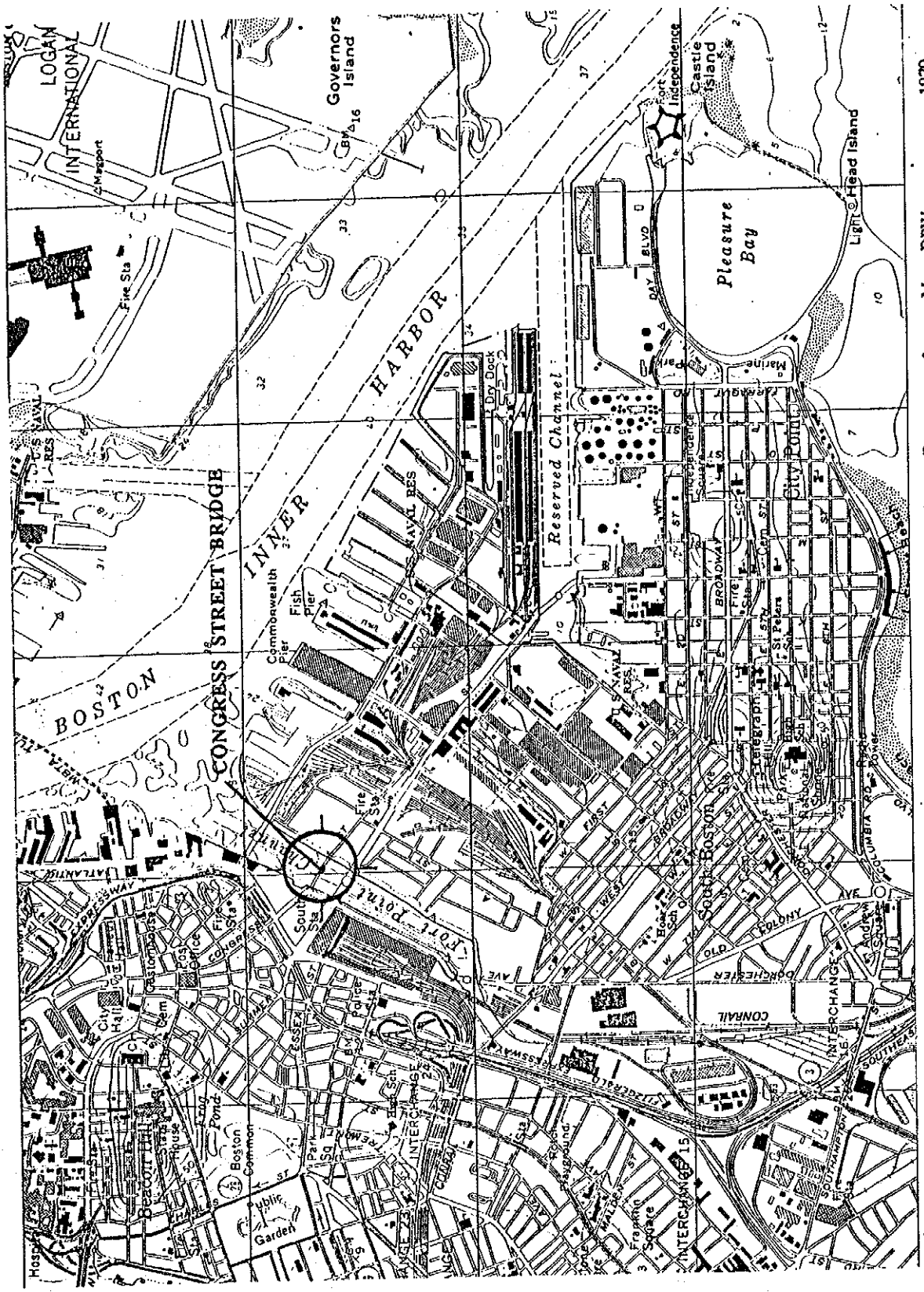
3 Boston Public Works Department Annual Report, 1930; Bridge Division Records.

4 MDPW Bridge Inventory, Survey Form, Aug 1984; Inventory of Historic Resources, Central Artery/ Third Harbor Tunnel, April 1989, Figure 5.

5 Boston Engineering Department Annual Reports, 1930 - 1910; MDPW Bridge Inventory Form; Bridge Division Records.

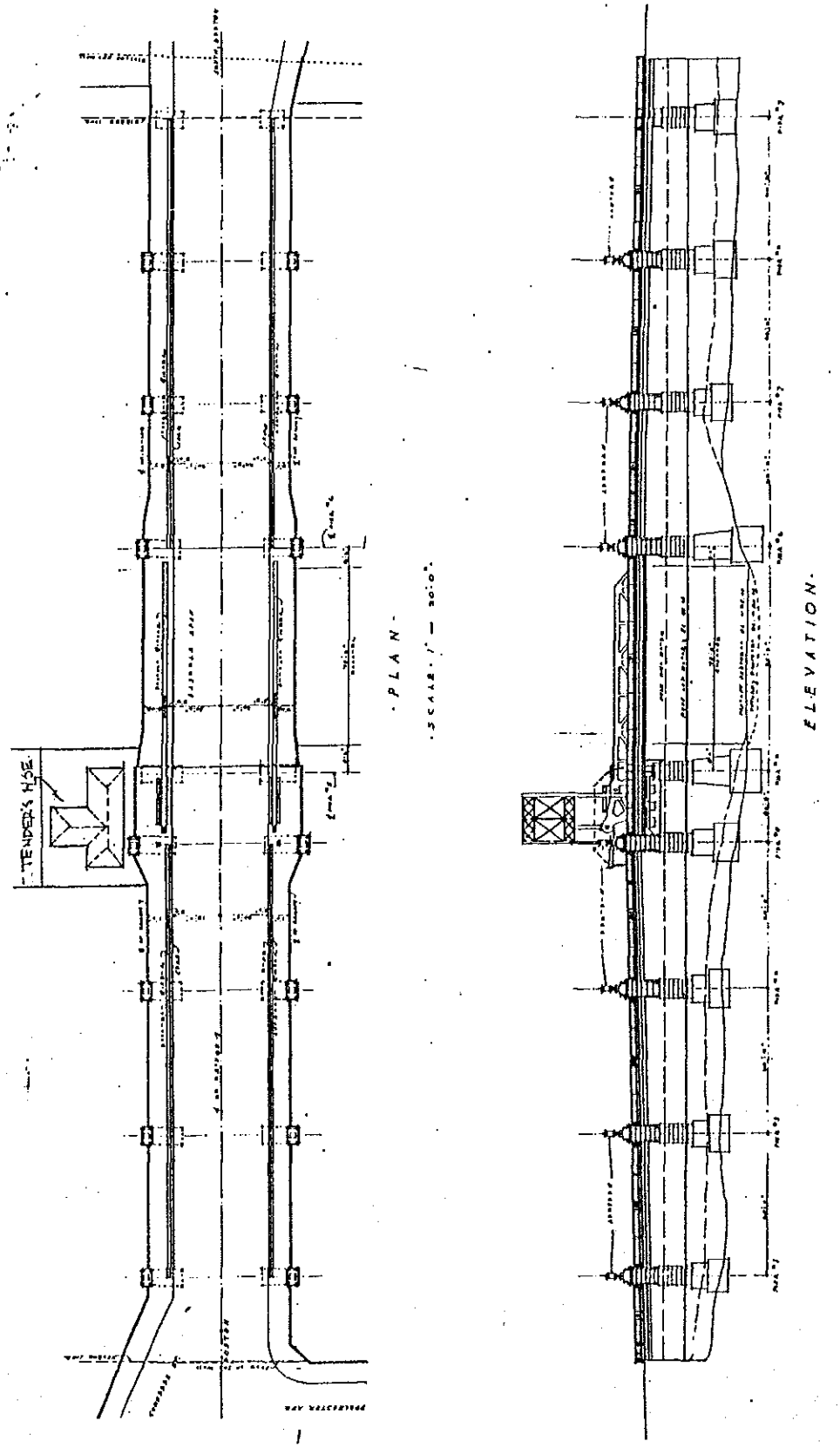
6 Boston Public Works Department, Bridge Division Records, Seelye Stevenson Value & Knecht, Engineers and Planners, Engineering Files.

7 Schrock, Nancy, Architectural Records in Boston, Cambridge, & Vicinity (New York, Garland Publishing, 1983), p.17.
Eldredge, Joseph L.The Boston Society of Architects. Architecture Boston, (Barre,MA: Barre Publishing, 1976), pp. 3,4, 17 .
Galer, G.J. The Boston Bridge Works, pp. 51-54, 108-113.
Darnell, Victor C., Directory of American Bridge Building Companies, pp. 22-3, 76.



USGS Boston South - UTM Zone 19 Massachusetts Department of Public Works Mass. DPW 1979

Location Plan



General Plan of Location from Desmond & Lord Architects 1924, Revised 1974, 1989.

Boston Public Works Department

LIST OF DRAWINGS

Year	Dwg. No.	Drawing Title/Description	Notes	Agency/Engineer
1923	5810	Boring Plan	Shows old center pier of earlier Swing Bridge, revised 1929	Boston DPW/J. E. Carty Smith/Gaddis
1924	5806	General Plan as Proposed "Substantially as built"	"By Architects, Desmond & Lord" "All piers are on pilings." Revised 1974	Boston DPW/J. E. Carty Smith/Gaddis
1924	5808	General Plan	"No. 489-Approved by PWD... Nov. 28, 1924	Boston DPW/John E. Carty, Div. Eng.
1929	5805	General Plan as Proposed by Engineers	Shows Tender's House with hipped roof. Superceded by 5806 approved 1924	Boston DPW/John E. Carty, Div. Eng.
1929	5807	General Plan as Proposed	"Superceded - See 5806"	Boston DPW/John E. Carty, Div. Eng.
1929	5814	Pier 4 Const. Details		Boston DPW/Bridge & Ferry Division
1929	5815	Pier 5 Const. Details		Boston DPW/Bridge & Ferry Division
1929	5812	Pier 1 Details		Boston DPW/Bridge & Ferry Division
1929	5816	Pier 6 Const. Details		Boston DPW/Bridge & Ferry Division
1929	5816A	Pier 9 Const. Details		Boston DPW/Bridge & Ferry Division
1929	5817	Elevation/Section of Seawall		Boston DPW/Bridge & Ferry Division
1929	5818	Elevation/Section of Seawall		Boston DPW/Bridge & Ferry Division
1929	5821	Steel Plan - Fixed Spans		Boston DPW/Bridge & Ferry Division
1929	5852	General Drawing - Bascule	Includes Operator's (Tender's) House and List of Drawings	Strauss Bascule Bridge Co., Chicago, IL
1929	5853	"Stress Sheet"	Framing Drawings	Strauss Bascule Bridge Co., Chicago, IL

1929	5854	Masonry Plan	Bascule Section	Strauss Bascule Bridge Co., Chicago, IL
1929	5855	Bascule Truss - Front End		Strauss Bascule Bridge Co., Chicago, IL
1929	5857	Bascule Truss - Trunnion End		Strauss Bascule Bridge Co., Chicago, IL
1929	5858	Inside "A" Frame		Strauss Bascule Bridge Co., Chicago, IL
1929	5859	Outside "A" Frame		Strauss Bascule Bridge Co., Chicago, IL
1929	5860	Floor System Tower		Strauss Bascule Bridge Co., Chicago, IL
1929	5861	Tower - Upper Part		Strauss Bascule Bridge Co., Chicago, IL
1929	5862	Counterweight Frame		Strauss Bascule Bridge Co., Chicago, IL
1929	5864	Machinery Supports & Enclosure		Strauss Bascule Bridge Co., Chicago, IL
1929	5865	Floor Deck	With paving	Strauss Bascule Bridge Co., Chicago, IL
1929	5866	End Lock Platform & Hand Rail		Strauss Bascule Bridge Co., Chicago, IL
1929	5867	Trunnions, Pins & Bearings		Strauss Bascule Bridge Co., Chicago, IL
1929	5813	Piers 2, 3, 7 & 8 - Front & End Elevations	Pilings and masonry with lamp detail	Boston DPW/Bridge & Ferry Division
1929	5819	Fender Pier and Fenders		Boston DPW/Bridge & Ferry Division
1929	5822	Girders A & F		Boston DPW/Bridge & Ferry Division

1929	5813	Piers 2, 3, 7 & 8 - Front & End Elevations	Pilings and masonry with lamp detail	Boston DPW/Bridge & Ferry Division
1929	5819	Fender Pier and Fenders		Boston DPW/Bridge & Ferry Division
1929	5822	Girders A & F		Boston DPW/Bridge & Ferry Division
1929	5824	Girders B, E1 & E2		Boston DPW/Bridge & Ferry Division
1929	5823	Girders C1, C2, & D		Boston DPW/Bridge & Ferry Division
1929	5825	Floor Beams - Span 1		Boston DPW/Bridge & Ferry Division
1929	5826	Floor Beams & Sidewalk Bascules		Boston DPW/Bridge & Ferry Division
1929	5827	Floor Beams - Span 8		Boston DPW/Bridge & Ferry Division
1929	5828	Bracing, North Side - Span 1		Boston DPW/Bridge & Ferry Division
1929	5829	Bracing, South Side - Span 1		Boston DPW/Bridge & Ferry Division
1929	5830	Bracing, North Side - Span 8		Boston DPW/Bridge & Ferry Division
1929	5831	Bracing, South Side - Span 8		Boston DPW/Bridge & Ferry Division
1929	5832	Details - Expansion Joints		Boston DPW/Bridge & Ferry Division
1929	5833	Details - Fascias		Boston DPW/Bridge & Ferry Division
1929	5834	Miscellaneous Details		Boston DPW/Bridge & Ferry Division
1929	5836	Details - Typical Floor Sections		Boston DPW/Bridge & Ferry Division
1929	5847	Details - Girders at Gates		Boston DPW/Bridge & Ferry Division
1929	5933	Stone Cutter - Granite	Stone cutting details	H. E. Fletcher Chelmsford, MA
1929	5934	Piers 2 & 8		H. E. Fletcher Chelmsford, MA
1929	5835	Lantern & Pier Details		

1929	5871	Layout-Trunnion End	Sections with machinery	Strauss Bascule Bridge Co., Chicago, IL
1929	5811	General Plan of Piers		Boston DPW/J. E. Carty, Desmond & Lord, Archs.
1929	5844	Draw Tender's House	Plans, elevations, framing	Boston DPW/John E. Carty, Div. Eng.
1929	5841	Roadway Gates - Details Dwg. 1		
1929	5842	Roadway Gates - Details Dwg. 2		
1929	5843	Housings - Gate Machinery		
1929	5845	Castings		
1929	5846	Elevations and Profiles		
1929	5848	Details of Ties for Draw Span		
1929	5849	Draw Control - Plan of Operating Room	Includes drawtender's instructions to open and close draw and gatemen's instructions.	Boston DPW
1929	5850	Wiring Diagram		
1929	5851	Plan & Profile - Water Pipe Platform - South Boston		
1929	5895	Counterweight	Casing with concrete block fill.	
1929	5896	Pipe Railing		
1929	5898	Machinery Supports		
1929	5899	Machinery Housing Frame		
1930	5874	Details Bascule Truss - Trunnion End	Riveted construction	Boston Bridge Works, Inc.
1930	5875	Details Bascule Truss - Middle	Riveted construction	Boston Bridge Works, Inc.
1930	5876	Details Bascule Truss - Toe	Riveted construction	Boston Bridge Works, Inc.
1930	5877	Lift Span - Floor Beams 5-9		Boston Bridge Works, Inc.
1930	5878	Lift Span - Floor Beams 4 & 10		Boston Bridge Works, Inc.

1930	5880	Sidewalk Brackets, Bracing	Construction details	Boston Bridge Works, Inc.
1930	5884	Details outside "A" Frame		Boston Bridge Works, Inc.
1930	5897	Assembly Drawing	Trunnion - Fabrication Details	Boston Bridge Works, Inc.
1930	5916	Cast Iron Snow Dump		Coleman Bros., Inc.
1930	5932	Fabrication Details		McClintic-Marshall Construction Co., Buffalo Works
1930	5941	Pier 1	Stonework - molded pier caps	H. E. Fletcher Chelmsford, MA
1930	5943	Curb Stones		H. E. Fletcher Chelmsford, MA
1930	5906	Gate & Machinery Warning Signals	Stop sign	Norwood Noonan Co., Chicago, IL
1930	5902	Wiring Diagram	Elec-Mech Engineer	Norwood Noonan Co., Chicago, IL
1930	5903	Conduit Layout for Bascule	"General Overview (motors, brakes, etc.)	Norwood Noonan Co., Chicago, IL
1930	5904	Layout of Control Stand and Switchboard	Includes operating instructions	Norwood Noonan Co., Chicago, IL
1934	6521	Plan of Fender Piers from Congress to Summer		
1946	2516	End Lock Repairs		
1954	6521	Plan of Fender Piers	John J. McCall, Dwg. Engineer	Boston DPW/Bridge Div.
1954	6916, 1	Proposed Steel deck for Draw Span		Boston DPW/Bridge Div.
1954	6917, 2	" " Details		Boston DPW/Bridge Works
1954	6918,3	" " Details at Draw Crack		Boston DPW/Bridge Div.
1974	5806	"Substantially as built"	Revisions, 1974	Boston DPW/ John E. Carty, Div. Eng.
1974	5803, 1	Granite Seawall/"Fence" Repairs	Dorchester Avenue end	Boston DPW/Universal Eng'g. Corp.

1974	5804, 2	Granite Seawall/[Railing] Repairs		Boston DPW/Universal Eng'g. Corp.
1979	Dwg. A	Location Map	USGS Boston South - UTM Zone 19	Massachusetts Department of Public Works
1980	1 of 2	Lateral Bracing/Deck Repairs		Boston DPW/Universal Eng'g. Corp.
1980	2 of 2	Deck Repair - Draw Span		Boston DPW/Universal Eng'g. Corp.
1984	1	Repair Plan - Roadbed, stringers		Boston DPW/Universal Eng'g. Corp.