

**NEW HAVEN HARBOR
CONNECTICUT
NAVIGATION IMPROVEMENT STUDY**

**DRAFT FEASIBILITY REPORT
AND ENVIRONMENTAL IMPACT STATEMENT**

**APPENDIX B
PROJECT AUTHORIZATION AND CONSTRUCTION
HISTORY**

NEW HAVEN HARBOR
NEW HAVEN, WEST HAVEN AND NORTH HAVEN
LIST OF AUTHORIZATIONS

<u>Authorization</u>	<u>Work Authorized & Constructed</u>	<u>Construction Dates</u>
Act of 30 August 1852	Removal of Middle Rock from the Eastern Entrance to New Haven Harbor to -17 Feet MLW	July 1953 – Sept 1867 To -14 to -15 Feet
Acts of 1866 & 1867		
River & Harbor Act of 11 July 1870	Completion of the Removal of Middle Rock and for the Removal of Southwest Ledge and Two Intermediate Rocks to -17 Feet MLW.	<u>Middle Rock</u> – Sept 1870 – Oct 1870 (Removed in Part)
Act of 9 March 1871	Channel 200 Feet Wide by -14 Feet MLW Across the Middle Bar Up to the Wharves at New Haven, and Removal of Luddington's Rock in the Western Approach to -17 Feet	<u>13-Ft Channel</u> – July 1871 – Sept 1873 <u>Luddington Rock</u> – Aug 1871 – Oct 1874
House Ex. Doc. #137, 42nd Cong., 2nd Session, 14 February 1872	Dredging a Channel for 5,000 LF Across the Bar at Fort Hale to -16 Feet MLW by 200 Feet Wide, and the Removal of the Big Boil Rock	Bar Channel – Aug 1872 -
Act of 3 March 1873	Construction of a Stone Jetty at the Beach South of Fort Hale, Extending from the MHW Line Seaward	Aug 1873 – FY 1875
River & Harbor Act of 3 March 1875	Widen the Upper 13-Foot Channel to 250 and 415 Feet.	March 1876 – Aug 1876
River & Harbor Act of 18 June 1878	16-Foot Channel across the Fort Hale Bar and up to Long Wharf, 400 to 500 Ft Wide	Aug 1878 – Nov 1878 Aug 1897 – Oct 1897
River & Harbor Act of 3 March 1879	Two Stone Breakwaters across the Outer Harbor to Create a Harbor of Refuge. Southwest Ledge Breakwater – 3,300 LF and Luddingtons Rock Breakwater – 4,200 LF (Not Built under this Authority)	<u>Southwest Ledge Breakwater</u> - April 1880 – Feb 1890 To 3,450 LF
River & Harbor Act of 2 August 1882	Stone & Timber Crib Dike 2,160 LF from the West Shore along Sandy Point Bar, with a Second 3,200 LF Stone “T” Leg Parallel to the Bar Channel.	May 1883 – Aug 1889

Annual Reports for 1880, App. C-3, Page 444, and 1891, App. D-7, Page 761	Extend and Widen the 16-Foot Channel above Long Wharf to Steamboat Wharf at 400 to 600 Feet Wide.	March 1880 – June 1891
Annual Report for 1886, Appendix D-5, Page 636	Widen the 13-Foot Channel between Long Wharf and Sewer Dock and Dredging an 8-Foot Anchorage 400 by 200 Feet between the Sewer and Railroad Docks	Aug 1885 – Oct 1885 Nov 1892 – April 1893
River & Harbor Act of 19 September 1890	Redesign of Luddingtons Rock Breakwater – 5,000 LF, Addition of a New West Breakwater – 4,200 LF, and New Northeast Shore Arm Breakwater – 1,200 LF (Northeast Breakwater Never Constructed)	<u>Luddingtons Rock Breakwater</u> – Feb 1891 – Feb 1915 <u>West Breakwater</u> – FY 1896 – Feb 1915
River & Harbor Act of 3 March 1899	Channel -20 Feet MLW by 400 Feet Wide from the Sound to Fort Hale, then 300 Feet Wide to Tomlinsons Bridge, with Three Inner Harbor Anchorage Areas, 1) 12-Ft Anchorage West of the Channel below the Bridge, 2) 16-Ft by 300-Ft Wide by 1,000-Ft Long Anchorage West of the Channel between Long Wharf and Sandy Point, and 3) East of the Channel at -20 Ft by 1,000 Ft Long by 300 Ft Wide between Fort Hale and Cranes Bar Point	<u>20-Ft Channel and Anchorage</u> – Dec 1899 – Mar 1903 - 1904 <u>12-Ft Anchorage</u> – FY 1901 – Mar 1903 <u>16-Ft Anchorage</u> – FY 1902 - Mar 1903
River & Harbor Act of 13 June 1902	Channels -12 Feet MLW, 200 Feet Wide Up the Quinnipiac River to Grand Avenue (Built to 8 Feet by 50 Feet above Ferry Street), and 200 Feet Wide Up the Mill River to above East Chapel Street, then Further Upstream in Two Branches Each at 75 Feet Wide Up to Grand Avenue	<u>Mill River</u> – May 1903 – April 1904 <u>Quinnipiac River</u> – FY 1903 – Oct 1904
River & Harbor Act of 3 March 1905	<u>West River</u> : Channel -9 Feet MLW by 100 Feet Wide from the West Limit of the -16-Foot Anchorage in New Haven Harbor Westward to Oyster Point, along the Oyster Point Wharves and Upstream in the West River to Kimberly Avenue.	May 1906 – Sept 1906
River & Harbor Act of 2 March 1907	Widen the 9-Foot West River Entrance Channel	May 1907
River & Harbor Act of 25 June 1910	Widen the 20-Foot Channel along East Limit for about 6,000 LF between the Upper	<u>20-Ft Channel Widening</u> – June 1912

	Bend and Tomlinson Bridge, Deepen the Existing 12-Foot Upper Anchorage to 15 Feet, and Provide a Channel 12 Feet MLW by 100 Ft Wide Leading Off the Northwest Limit of the Upper Anchorage East of the Canal Dock to Brewery Street, and the Removal of Several Rocks in Morris Cove.	<u>15-Ft Anchorage</u> – March 1911 – June 1912 <u>12-Ft Brewery St Channel</u> – March 1911 – FY 1911 <u>Morris Cove</u> – Jan 1911
April 21, 1910, by the Chief of Engineers	Project Modification to Eliminate the Morgan Point (Northeasterly) Shore Arm Breakwater from the Project, the Omission of any Further Extension of the Middle Breakwater	Deauthorization Annual Report for 1910, Page 122
River & Harbor Act of 25 July 1912	<u>Quinnipiac River</u> - Abandon Unconstructed 12-Foot Channel of 1904 above Ferry Street, Replaced by Channel -8 Feet by 75 to 100 Feet Wide from Ferry Street up to Grand Avenue <u>Mill River</u> - Widen the Confluence of the Two -12-Foot MLW Branch Channels, Widen the East Branch Channel to 100 Feet and Widen the West Branch Channel to 125 Feet up to 375 Feet from its Upstream End and 150 Feet Wide through the Turn	<u>Quinnipiac River</u> – April 1913 – May 1913 <u>Mill River</u> – May 1913 – July 1913
River & Harbor Act of 25 July 1912	<u>West River</u> - 12-Foot Channel, Widen Bend at Oyster Point, Widen Channel to 125 Feet from Oyster Point to Kimberly Ave, to 150 Feet in the Turn at Mars Shipyard and the Approach to Kimberly Ave Bridge, and Extend the Channel at 75 Feet Wide above Kimberly Ave. to the Railroad Bridge, Widen through the Upper Turn to 100 Feet, and Adding a 6-Foot by 1.3 Acre Anchorage Basin on the South Channel Limit below the Mars Dock.	June 1913 – Dec 1913
River & Harbor Act of 4 March 1913	Widen the Upper Portion of the 20-Foot Main Channel by a Width Varying from 200 to 500 Feet	Sept 1913 – Oct 1915
River & Harbor Act of 3 July 1930	<u>Quinnipiac River</u> - 18-Foot by 200-Foot Wide Channel below Ferry Street and a 16-Foot by 200 Feet Wide Channel above Ferry Street to Grand Avenue.	Summer 1930 – July 1931

National Industrial Recovery Act of 6 September 1933 & River & Harbor Act of 30 August 1935	Deepening of the Main Channel to -25 Feet MLW up to Tomlinson Bridge at 400 Feet Wide in the Outer Reaches and 500 Feet Wide, Widened at the Bend through the Inner Reaches	Nov 1933 – July 1935
River & Harbor Act of 2 March 1945	Deepen Main Channel to -30 Feet MLW by 400 Feet Wide from the Sound to Fort Hale Park, then 500 Feet Wide, Widened at the Bend to 1,111 Feet, up to the Tomlinson Bridge. Also Two Anchorages West of the Channel below Long Wharf, -30 Feet by 1,100 Feet Wide by 4,900 to 2,700 Feet Long, and -16 Feet by 600 Feet Wide by 2,700 Feet Long	Never Constructed - Anchorage Areas Authorization Eliminated by Act of 1946
River & Harbor Act of 24 July 1946	<u>Main Channel</u> - Abandon the 30-Foot and Realigned 16-Foot West Anchorages, Deepen the Main Channel to -35 Feet to 300 Feet below Tomlinson Bridge, Relocate Upper Reach of Main Channel Eastward at 800 Feet Wide above New Haven Terminal Co. & 500 Feet between the Sound and the First Turn Inside the Breakwaters, and Enlarge the 16-Foot Anchorage to Incorporate Former Channel Areas. <u>Quinnipiac River</u> - Channel 22 Feet MLW by 250 Ft Wide Upriver to Ferry Street, then 250 to 400 Ft Wide to 1,000 above Ferry Street, with a 22-Foot Turning Basin at the Mill & Quinnipiac Confluence.	<u>Main Ship Channel</u> Sept 1947 – May 1950 <u>Quinnipiac River</u> – Never Constructed
Act of 16 August 1949, P.L. 234, 81st Congress, 1st Sess.	Declares as Non-Navigable the -12-Foot MLW by 100-Foot Wide Brewery Street Channel	Deauthorization
Act of 9 August 1955, P.L. 84-289, 84th Congress, 1st S, Ch. 649,	<u>West River</u> - Declares as Non-Navigable the Upper Portion of the West River Channel, above a Point 600 Feet Upstream of the Kimberly Avenue Bridge.	Abandonment
	1958 Groin Constructed at Lighthouse Point Beach by State and Corps	
Water Resources Development Act of 17 October 1986 §202(a)	Deepen the Main Channel to -40 Feet MLW by 500 Feet Wide Over its Entire 36,600 LF Length (Widening the Lower 20,900 LF From 400 to 500 Feet), Realigning 9,700 LF	Never Constructed

	of the Channel Slightly Eastward in the Upper Harbor to Ease a Bend, Widening the Channel at the Outer Bend at Southwest Ledge from 560 Feet to 780 Feet, and Providing a Common Turning Basin -40 Feet MLW in the Upper Harbor in a 1,200-Foot Wide Irregular Octagon	
Water Resources Development Act of 17 November 1986 §1002	Deauthorized the Unconstructed Deepening and Widening of the Lower Quinnipiac River Channel to above Ferry Street to 22 Feet, as Adopted by the Act of 1946. Also Deauthorizes Improvements Adopted by the River & Harbor Act of 25 June 1910, Including the 12-Foot Brewery Street Channel and the Deepening of the Upper Anchorage to -15 Feet MLW	Deauthorization
Chief of Engineers, 17 January 1995, under Authority of Section 103, River and Harbor and Flood Control Act of 23 October 1962	Stone Revetment Protection for the City Sewer Outfall Line along the Shoreward End of the Sandy Point Dike.	Sept 1995 – Dec 1995
16 April 2002 Fed Register Vol. 68 #123, 26 June 2003	Deauthorized the Unconstructed Project for Deepening the Main Channel to 40 Feet as Authorized by the Water Resources Development Act of 17 November 1986	Deauthorization

NEW HAVEN HARBOR - MILL RIVER, NEW HAVEN
LIST OF AUTHORIZATIONS

<u>Authorization</u>	<u>Work Authorized & Constructed</u>	<u>Construction Dates</u>
River & Harbor Act of 13 June 1902	Channels -12 Feet MLW, 200 Feet Wide Up the Mill River to above East Chapel Street, then Further Upstream in Two Branches Each at 75 Feet Wide Up to Grand Avenue	<u>Mill River</u> – May 1903 – April 1904
River & Harbor Act of 25 July 1912	Widen the Confluence of the Two -12-Foot MLW Branch Channels, Widen the East Branch Channel to 100 Feet and Widen the West Branch Channel to 125 Feet up to 375 Feet from its Upstream End and 150 Feet Wide through the Turn	<u>Mill River</u> – May 1913 – July 1913

NEW HAVEN HARBOR - WEST RIVER
NEW HAVEN AND WEST HAVEN
LIST OF AUTHORIZATIONS

<u>Authorization</u>	<u>Work Authorized & Constructed</u>	<u>Construction Dates</u>
River & Harbor Act of 3 March 1905	Channel -9 Feet MLW by 100 Feet Wide from the West Limit of the -16-Foot Anchorage in New Haven Harbor Westward to Oyster Point, along the Oyster Point Wharves and Upstream in the West River to Kimberly Avenue.	May 1906 – Sept 1906
River & Harbor Act of 2 March 1907	Widen the 9-Foot West River Entrance Channel	May 1907
River & Harbor Act of 25 July 1912	12-Foot Channel, Widen Bend at Oyster Point, Widen Channel to 125 Feet from Oyster Point to Kimberly Ave, to 150 Feet in the Turn at Mars Shipyard and the Approach to Kimberly Ave Bridge, and Extend the Channel at 75 Feet Wide above Kimberly Ave. to the Railroad Bridge, Widen through the Upper Turn to 100 Feet, and Adding a 6-Foot by 1.3 Acre Anchorage Basin on the South Channel Limit below the Mars Dock.	June 1913 – Dec 1913

Act of 9 August 1955, P.L. 84-289, 84th Congress, 1st Sess., Ch. 649	Declares as Non-Navigable the Upper Portion of the West River Channel, above a Point 600 Feet Upstream of the Kimberly Avenue Bridge.	Deauthorization
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QUINNIPIAC RIVER, NEW HAVEN AND NORTH HAVEN
LIST OF AUTHORIZATIONS

<u>Authorization</u>	<u>Work Authorized & Constructed</u>	<u>Construction Dates</u>
River & Harbor Act of 13 June 1902	Channels -12 Feet MLW, 200 Feet Wide Up the Quinnipiac River to Grand Avenue (Built to 8 Feet MLW by 50 Feet Wide above Ferry Street)	<u>Quinnipiac River</u> – FY 1903 – Oct 1904
River & Harbor Act of 25 July 1912	Abandon Unconstructed 12-Foot Channel of 1904 above Ferry Street, Replaced by Channel -8 Feet by 75 to 100 Feet Wide from Ferry Street up to Grand Avenue.	<u>Quinnipiac River</u> – April 1913 – May 1913
River & Harbor Act of 3 July 1930	18-Foot by 200-Foot Wide Channel below Ferry Street and a 16-Foot by 200 Feet Wide Channel above Ferry Street to Grand Avenue.	Summer 1930 – July 1931
River & Harbor Act of 24 July 1946	Channel 22 Feet MLW by 250 Ft Wide Upriver to Ferry Street, then 250 to 400 Ft Wide to 1,000 above Ferry Street, with a 22-Foot Turning Basin at the Mill & Quinnipiac Confluence.	Never Constructed
Water Resources Development Act of 17 October 1986 §1002	Deauthorized the Unconstructed Deepening and Widening of the Lower Quinnipiac River Channel to above Ferry Street to 22 Feet, as Adopted by the Act of 1946.	Deauthorization