Descriptive Summary
Title: Charles Derleth papers
Date (inclusive): 1865-1952
Collection Number: WRCA 035
Extent: 15 linear feet19 manuscript boxes and oversize flat boxes
Repository: Rivera Library. Special Collections Department.
Riverside, CA 92517-5900
Languages: English.
Access
Collection is open for research.

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Preferred Citation
[identification of item], [date if possible]. Charles Derleth papers (WRCA 035). Water Resources Collections and Archives. Special Collections & University Archives, University of California, Riverside.

Biography
Charles Derleth, Jr., was born on October 2, 1874, in New York. He received a bachelor of science degree at the City College of New York in 1894 and civil engineering degree at Columbia University in 1896. He served as Instructor and Lecturer at Columbia from 1896 to 1901. He moved westward in 1901 to become Professor of Civil Engineering at the University of Colorado. In 1903 Derleth accepted appointment as Associate Professor of Structural Engineering at the University of California, Berkeley. In 1907 he became Professor and Dean of the College of Civil Engineering, and in 1930, when the Colleges of Civil, Mechanical, and Electrical Engineering were combined, he was appointed Dean of the College of Engineering. He served in this capacity until 1942.

The hallmark of Derleth's career as a civil engineer is undoubtedly his work on San Francisco Bay bridges. He was Chief Engineer for the Carquinez Strait Highway Bridge, which, at the time it was built in 1927, was the longest cantilever bridge west of the Mississippi. He was a member of the Board of Consulting Engineers for both the Golden Gate Bridge and the San Francisco-Oakland Bay Bridge. He also visited, usually in the company of the Chief Engineer, nearly every major bridge construction site in northern California.

In addition, Derleth played a pivotal role in the design and construction of some of the best-known buildings, bridges, foundations, dams, highways, and tunnels in northern California. He was in charge of engineering work for the San Francisco Bureau of Architecture and was Consulting Engineer for Alameda County on numerous municipal structures, including the 1915 Panama Pacific International Exposition, the San Francisco Civic Center and Auditorium (which he also designed), Grace Cathedral, and the Native Sons Hall in San Francisco, First National Bank of Berkeley, and Contra Costa County Hospital. Derleth also served as Chief Consulting Engineer on the Oakland-Alameda Estuary Tunnel (now called the George A. Posey Tube) and as Consulting Engineer to the University of California, designing and constructing California Hall, Wheeler Hall, Doe Library, Gilman Hall, LeConte Hall, the Campanile, and other structures on the Berkeley campus. In 1930 Derleth received an honorary degree from the University of California in recognition of his service.

Charles Derleth died on June 13, 1956.

Collection Scope and Contents
Correspondence, engineering reports, blueprints, photographs, notes, and news clippings relating to Derleth's work as a consulting engineering on the Golden Gate Bridge, Carquinez Bridge, San Francisco-Oakland Bay Bridge, a proposed Richmond-San Rafael Bridge, Antioch Bridge, U.S. Engineer Foundation's Committee on Arch Dam Investigation, Spring Valley Water Company, and others. Also includes materials on masonry structures (chiefly dams), the Hetch Hetchy Project, Lake Spaulding Dam, and other bridges and dams in California and elsewhere.

Related Collections
Charles Derleth Papers, ca. 1886-1965. BANC MSS 91/116 c, The Bancroft Library
Charles Derleth Papers, ca. 1900-1938. BANC MSS C-B 717, The Bancroft Library
Collection Number
Collection number updated January 2019. Legacy collection number was DERLETH. This change was part of a project in 2018/2019 to update the collection numbers for collections in the Water Resources Collections and Archives.

Indexing Terms
The following terms have been used to index the description of this collection in the library's online public access catalog.

Subjects
Golden Gate International Exposition (1939-1940 : San Francisco, Calif.)
Engineering Foundation (U.S.). Committee on Arch Dam
Spring Valley Water Company (San Francisco, Calif.)
University of California, Berkeley. College of Engineering
Antioch Bridge (Calif.)
Arch dams -- Design and construction
Bonneville Dam (Or. and Wash.)
Bridges -- California -- San Francisco Bay -- Design and construction
Calaveras Dam (Calif.)
Carquinez Bridge (Calif.)
Dams -- California -- Design and construction
Earth dams -- Design and construction
Eleanor Dam (Calif.)
Exchequer Dam (Calif.)
Golden Gate Bridge (San Francisco, Calif.)
Hetch Hetchy Reservoir (Calif.)
Lake Hodges Dam (Calif.)
Lake Spaulding Dam (Calif.)
O'Shaughnessy Dam (Calif.)
Richmond-San Rafael Bridge (Calif.)
San Francisco-Oakland Bay Bridge (Oakland and San Francisco, Calif.)
Stevenson Creek Test Dam (Calif.)

Golden Gate Bridge 1918-1952

Engineering 1929-1945
Scope and Contents
Bridge structure, foundations, design, materials, model studies, etc.

Box 1, folder 1 Models 1931-1934
Scope and Contents
Correspondence with George E. Beggs(Princeton University), C. E. Paine, and others concerning the tower models of Golden Gate Bridge. Includes photographs.
Box 1, folder 2  Foundations, 1929-1945.
Scope and Contents
Correspondence with H. Ries (New York) and members of the Board of Engineers;
engineering reports and specifications for the bridge piers. Partial contents: Special
report on change of construction method of south pier, by Joseph B. Strauss;
Memorandum of piers, Golden Gate Bridge, by Leon S. Moisseiff; Contract for the land
and water test borings at the sites of the main piers and anchorages of the Golden
Gate Bridge between Fort Point and Lime Point, by Golden Gate Bridge and Highway
District.

Box 1, folder 3  Consulting Board of Engineers- records, 1930-1937.
Scope and Contents
Minutes, reports, and correspondence of the Consulting Board of Engineers of the
Golden Gate Bridge and Highway District.

Box 1, folder 4  Cables, 1931-1936.
Scope and Contents
Correspondence between the Consulting Board of Engineers and John A. Roebling's
Sons Company (cable contractors).

Box 1, folder 5  Pacific Bridge Company, 1934-1935.
Scope and Contents
Correspondence between Derleth and the Pacific Bridge Company, contractor,
regarding drawings for pier fenders.

Box 1, folder 6  Bronze, 1930-1931.
Scope and Contents
Correspondence between Derleth and American Manganese Bronze Company, with
accompanying data.

Box 2, folder 7  Fender model - Kuss, 1934.
Scope and Contents
Description of test on model of the fender surrounding the San Francisco main pier of
the Golden Gate Bridge. Includes photographs.

Box 2, folder 8  Ellis theory, 1930-1933.
Scope and Contents
Article by C. A. Ellis (September 1930) and correspondence between him and
Consulting Engineers, Derleth, Leon S. Moisseiff and others, concerning controversy
over tower structure.

Box 2, folder 9  Design and specifications, 1933.
Scope and Contents
Reports on piers, towers, and anchorages by Leon S. Moisseiff, and related data
regarding Golden Gate Bridge.

Box 2, folder 10  Wind tunnel tests, 1941 March 15.
Scope and Contents
Report on wind tunnel tests of Golden Gate Bridge model. Prepared by Elliott G. Reid,
Stanford University. Includes photographs.
| Box 2, folder 11 | **Stability studies, 1941.**  
Scope and Contents  
Correspondence between the Consulting Engineers, Russell G. Cone, Glenn B. Woodruff, and others concerning aerodynamic tests of bridge models and the possible effects of winds on the Golden Gate Bridge. |
| --- | --- |
| Box 2, folder 12 | **Tower travelers - A. F. McLane, 1935.**  
Scope and Contents  
Correspondence and related data from A. F. McLane of McClintic-Marshall Corporation, regarding scaffolding and tower travelers. |
| Box 2, folder 13 | **A. F. McLane, 1936-1937.**  
Scope and Contents  
Correspondence to and from A. F. McLane regarding progress of work by Bethlehem Steel, interference with the work of Pacific Bridge Company and clearances for navigation under the bridge. |
| Box 2, folder 14 | **Lightweight aggregates, 1928-1931.**  
Scope and Contents  
Correspondence and data pertaining to Haydite and other lightweight aggregates. |
| Box 2, folder 15 | **Marin abutment extension, 1936-1937.**  
Scope and Contents  
Correspondence, estimates and blueprints regarding Golden Gate Bridge abutment extension. |
| Box 2, folder 16 | **Golden Gate Bridge main steel structure, 1937 March**  
Scope and Contents  
Report by Herbert J. Baker, Chief Inspecting Engineer, Golden Gate Highway and Bridge District, on quality of materials and shop workmanship. Includes photographs. |
| Box 2, folder 17 | **Wire for the cable for the Golden Gate Bridge, 1935 June 12.**  
Scope and Contents  
Report by A. E. White, concerns quality of galvanizing and cracks found in surfaces of wire. |
| Box 3, folder 18 | **Golden Gate Bridge structure blueprints, 1931-1935.**  
Scope and Contents  
| Box 3, folder 19 | **Tower construction, 1932 November**  
Scope and Contents  
Blueprints of structural details and correspondence from McClintic-Marshall Corporation relating to procedure of fabrication of Golden Gate Bridge tower segments. |
| Box 3, folder 20 | **Civil Engineering 113 - notes, 1938.**  
Scope and Contents  
Published articles and negatives used for Derleth's CE 113 (University of California, Berkeley) class lectures. Partial contents: Bombing out subaqueous rock at Golden Gate Bridge pier; Battling storm and tide in founding Golden Gate pier, by Russell G. Cone; Tidal currents of Golden Gate create hazard in fender and pier construction, by Fred W. Crocker. |
Box 3, folder 21

**Inspection re Strauss contract, 1931-1934.**

Scope and Contents
Correspondence, memoranda and legal briefs concerning the contract of Chief Engineer Joseph B. Strauss and responsibility for cost of inspection of work on the Golden Gate Bridge.

Box 3, folder 22

**Geological Studies, 1931-1937**

Scope and Contents
Geology of foundations, earthquake vibration, etc.

Box 3, folder 23

**Geology - Willis correspondence, 1934-1935.**

Scope and Contents
Correspondence, memoranda and transcripts of a meeting concerning Prof. Bailey Willis' criticism of the south pier foundation. (Willis was Professor Emeritus of Geology, Stanford University.)

Box 4, folder 24

**Golden Gate Bridge and Highway District. Investigation of criticism of foundation by Dr. Bailey Willis, 1934 November 27.**

Scope and Contents
Report of the Building Committee to the Board of Directors, addressing Willis' criticism of the south pier foundation.

Box 4, folder 25

**Geology - general, 1931-1934.**

Scope and Contents
Reports, data and correspondence concerning the geology of foundations of the Golden Gate Bridge. Includes Foundations of the Golden Gate Bridge: the Golden Gate Bridge and Highway District, by A.E. Sedgwick, Consulting Geologist (February 1931). Also includes minutes of a meeting of the San Francisco Board of Supervisors concerning the south pier site (June 17, 1931).

Box 4, folder 26

**Earthquake vibration, 1935-1937.**

Scope and Contents
Contains advance copy of the U.S. Coast and Geodetic Survey, California Seismological Program vibration report of the Golden Gate Bridge (1935) and other data.

Box 4, folder 27

**Miscellaneous, 1924-1952**

Scope and Contents
Contracts, insurance, approaches, toll plaza, traffic, lighting and color, rapid transit, costs, engineers’ reports, accidents, etc.

**Charles Derleth, Jr., contracts and payments, 1929-1931.**

Scope and Contents
Contract and correspondence with the Golden Gate Bridge and Highway District concerning payment for services as consulting engineer.
Contracts, 1929-1937.
Scope and Contents
Contains brief concerning inspection and extra charges, and other information concerning contract and work of Joseph B. Strauss; and supporting materials pertaining to the suit between Strauss and the Golden Gate Bridge and Highway District in the matter of field inspection.

Insurance, 1931-1937.
Scope and Contents
Description of the principal features and insurable risks of the Golden Gate Bridge.

Records and bills, 1924-1937.
Scope and Contents
Handwritten notes by Derleth giving a chronological account of his activities on behalf of the Golden Gate Bridge.

Floors, 1936.
Scope and Contents
Correspondence and blueprints regarding specifications for the bridge flooring. Correspondents include Leon S. Moisseiff, O. H. Ammann and C. E. Paine.

Approaches, 1932-1936.
Scope and Contents
Correspondence, reports, and plans regarding the northern and southern approaches to the Golden Gate Bridge. Includes conceptual drawings by artist Chesley Bonestell.

Toll plaza, 1932-1936.
Scope and Contents
Blueprints and conceptual drawings of proposed toll plaza construction.

Toll plaza, 1931-1939.
Scope and Contents
Correspondence between Joseph B. Strauss, the Consulting Engineers, the Golden Gate Bridge and Highway District, and others regarding the design of the toll booths and plaza.

Traffic, 1931-1939.
Scope and Contents
Articles, correspondence, and Golden Gate Bridge and Highway District’s traffic records. Partial contents: Memorandum on traffic and tolls; Special report on proposed toll rates, estimated fund requirements, expenditure budget, operating basis; Sacramento Valley traffic as a potential source of Golden Gate Bridge revenue; Increasing the vehicular capacity of Manhattan’s Bridges, by Edward A. Byrne; Traffic control booth for Golden Gate Bridge.

Lighting and color, 1934-1935.
Scope and Contents
Report by Morrow and Morrow, Architects, on color and lighting of the Golden Gate Bridge (April 1935), as well as correspondence and drawings.
<table>
<thead>
<tr>
<th>Box, Folder</th>
<th>Description</th>
</tr>
</thead>
</table>
| 5, 37 | **Rapid transit, 1934-1936.**  
Scope and Contents  
Reports by Lester S. Ready (on interurban passenger bus service via Golden Gate Bridge between San Francisco and Marin County) and Joseph B. Strauss (on rapid transit over the Golden Gate Bridge, December 1934). Also includes pamphlets and later reports. |
| 5, 38 | **Rapid transit, 1934-1935.**  
Scope and Contents  
Correspondence between the Consulting Engineers, Joseph B. Strauss, and the Golden Gate Bridge and Highway District regarding various rapid transit proposals for San Francisco and the Golden Gate Bridge. Includes news clippings and data. |
| 5, 39 | **Golden Gate Bridge and Highway District organization, 1930-1937.**  
Scope and Contents  
Organizational charts of the Golden Gate Bridge and Highway District and related correspondence. |
| 5, 40 | **Pacific Gas and Electric Company. Suggestions for lighting the proposed Golden Gate Bridge and adjacent highways at San Francisco, California, 1930 December 29.**  
Scope and Contents  
Report submitted to the Golden Gate Bridge and Highway District. |
| 5, 41 | **Costs, 1930-1935.**  
Scope and Contents  
Miscellaneous correspondence, reports, and data relating to costs of construction, income, issuing of bonds, and awarding of construction contracts. Partial contents: The proposed Golden Gate Bridge, by San Francisco Bureau of Governmental Research (1928); Golden Gate Bridge and Highway District, California, by Blyth & Co., Inc. (1935). |
| 5, 42 | **U.S. War Department, 1924-1935.**  
Scope and Contents  
Includes document dated October 27, 1930 signed by F.H. Payne, Asst. Secretary of War, concerning the extension of public roads across military installations. Also includes maps and drawings of proposed bridge. |
| 5, 43 | **Golden Gate Bridge and Highway District. The Golden Gate Bridge at San Francisco, California. San Francisco, 1930 August 27.**  
Physical Description: 2 v  
Scope and Contents  
Vol. I: Report to the Chief Engineer with architectural studies and results of the fact-finding investigation conducted by the Board of Directors (Presentation copy to the University of California, signed by Joseph B. Strauss) -- Vol. II: Traffic analysis and report of the Traffic Engineer to accompany report of the Chief Engineer. Includes photographs. |
| 6, 44 | **Strauss, Joseph B. The Golden Gate Bridge at San Francisco, California: synopsis of the report of the Chief Engineer, with summary sheets and addenda, 1930?** |
Box 6, folder 45

Taylor, Sydney W. The Golden Gate Bridge at San Francisco: report of the Traffic Engineer. San Francisco: Golden Gate Bridge and Highway District, 1935 September

Scope and Contents
Report on the conditions affecting traffic, which would or might use the bridge, commissioned by the Board in February 1935.

Box 6, folder 46

Golden Gate Bridge and Highway District annual reports, 1937-1952.

Physical Description: 12 v
Scope and Contents
First 11 reports covering years 1937/38 to 1947/48; also 15th annual report for 1951-1952.

Box 6, folder 47

Golden Gate Bridge tragedy, 1937.

Scope and Contents
News clippings, articles, reports, and correspondence on the failure of the scaffolding under the Golden Gate Bridge floor, February 17, 1937. Includes: Special report on accident to stripping platform (March 17, 1937). Newspaper clippings moved to Oversize Materials.

Photographs and Prints, 1929-1939

Box 6, folder 48-1

Construction of the piers, towers, anchorages, etc., 1935-1936.

Physical Description: 6 photographs
Scope and Contents
Photographs given to Derleth by George F. Douglas of the Golden Gate Bridge and Highway District.

Box 6, folder 48-2

Construction of pylons, cable anchorages, towers, the saddle, catwalks, etc., 1929-1939.

Physical Description: 48 photographs
Scope and Contents
Photographs by Fred Mae, S. C. Long, C. M. Kurtz, etc.

Box 6, folder 48-3

Cable, pneumatic caisson, Marin anchorage, piers, etc., 1929-1936.

Physical Description: 39 photographs
Scope and Contents
Photographs by Gabriel Moulin.

Box 6, folder 48-4

Photographs of the Golden Gate Bridge, 1934-1937.

Physical Description: 69 photographs
Scope and Contents
Photographs by Ted Huggins, Standard Oil Company.

Box 6, folder 48-5


Physical Description: 24 photographs + 3 sheets of negatives

Box 6, folder 48-6

Prints and postcards, 1931-1937.

Physical Description: 23 prints + 13 col. postcards
Scope and Contents
Prints by Associated Oil Company, Strauss Engineering Corporation, etc.
Ephemera, 1918-1941
Scope and Contents
Speeches, published articles, brochures, promotional literature, news clippings, etc.

Box 7, folder 49-1
Miscellaneous, 1930-1936.
Scope and Contents
Greeting cards, stationary of the Golden Gate Bridge and Highway District; menu from Golden Gate Bridge Celebration Banquet, February 25, 1933; political material in support of Proposition 37 and building the bridge, etc.

Box 7, folder 49-2
Speeches, 1930-1937.
Scope and Contents
Includes: Transcript of Derleth's remarks made October 16, 1930 before the Commonwealth Club of California; dedication speech by Joseph B. Strauss, delivered February 25, 1933 at the banquet commemorating the ground-breaking ceremonies; Greater San Francisco, by Charles Derleth, delivered September 21, 1933 before the Downtown Association of San Francisco; Golden Gate Bridge Dedication Address, by Francis V. Keesling, delivered May 28, 1937, Crissy Field, San Francisco.

Box 7, folder 49-3
Magazine articles, 1930-1937.
Scope and Contents
Published in non-technical magazines, about Joseph B. Strauss and the building the Golden Gate Bridge. Some items moved to Oversize Materials.

Box 7, folder 49-4
Newspaper articles, 1929-1937.
Scope and Contents
Full page articles, special features, etc., on the construction of Golden Gate Bridge. Most items moved to Oversize Materials.

Box 7, folder 49-5
Journal articles, 1930-1939.
Scope and Contents
Articles from technical and trade journals on Golden Gate Bridge construction. Includes selections from Engineering News-Record, Compressed Air Magazine, Western Construction News, and California Engineer.

Box 7, folder 49-6
Brochures and broadsides by commercial interests relating to the Golden Gate Bridge, 1929-1937.
Scope and Contents
Includes publications of Associated Oil Company, Peterson's Water Taxis, Bethlehem Steel Company, Standard Oil Company, Strauss Engineering Corporation, (Bridges by Strauss, 1929), and Redwood Empire Association.

Box 7, folder 49-7
Miscellaneous publications, 1921-1935.
Scope and Contents
Pamphlets, brochures, etc., with studies, descriptions, and history of the Golden Gate Bridge. Partial contents: Bridging "the Golden Gate," by Joseph B. Strauss and M.M. O'Shaughnessy (1921); The Proposed Golden Gate Bridge (The City, v. 7:2, January 25, 1928); The Golden Gate Bridge (Transactions of the Commonwealth Club of California, v. 25:9, December 2, 1930); The Golden Gate Bridge: History & Principal Characteristics, published by Golden Gate Bridge and Highway District (1st, 2nd, and 3rd editions, 1933-1934); The Golden Gate Bridge: A Technical Description in Ordinary Language, by E. Cromwell Mensch (1935). Also includes a typescript bibliography.
Box 8, folder 50  
**Golden Gate Bridge clippings files, 1918-1941**

Scope and Contents

Vols. I-VII culled from original vols. 1 to 38. Vol. VI, original vols. 29-37, is located in The Bancroft Library (BANC MSS C-B 717). Folders also contain some correspondence and data. Note: There is no folder marked 50-6.

Box 8, folder 50-1  
**Golden Gate Bridge, 1918 - 1930 June.**

Scope and Contents

Clippings and correspondence regarding Derleth's appointment as a consulting engineer; Derleth's comments on the contract of the Chief Engineer; the policy of the U.S. War Department regarding the Golden Gate crossing; geological reports by A. C. Lawson, and the Report of Chief Engineer, February 19, 1930 to March 12, 1930; reports on borings, traffic and construction progress.

Box 8, folder 50-2  
**Golden Gate Bridge, 1930 July - 3 November**

Scope and Contents

Clippings and correspondence regarding clearance and estimates of construction costs; Statement relative to clearances, by Joseph B. Strauss; synopsis of the report of the chief engineer with summary sheets and addenda.

Box 8, folder 50-3  
**Golden Gate Bridge, 1930 November 4 - 1931.**

Scope and Contents

Clippings and correspondence regarding the Golden Gate Bridge bond issue, the geologic studies and discussion of the foundations of the piers; progress reports made by Chief Engineer Strauss to the Board of Directors of the Golden Gate Bridge and Highway District; minutes from several meetings of the Engineering Board; approval of the Report of Triangulation by the U.S. Coast and Geodetic Survey; and recommendations by the Board of Engineers on the bids received for the construction operations.

Box 8, folder 50-4  
**Golden Gate Bridge, 1932-1933.**

Scope and Contents

Clippings and correspondence regarding the ground-breaking ceremonies, the beginning of construction and financing of bridge costs; construction of the fender of the south pier, etc.

Box 8, folder 50-5  
**Golden Gate Bridge, 1934-1935.**

Scope and Contents

Clippings documenting various stages of construction and financing of bridge costs; diagram of the additional excavation done for the south pier; report on the results of the official soundings taken around the outside of the fender; report on pressure tests of foundation rocks.

Box 8, folder 50-7  
**Golden Gate Bridge, 1938-1941.**

Scope and Contents

Clippings, correspondence, and miscellany regarding the dismissal of Russell G. Cone, Chief Engineer; the monument to Joseph B. Strauss; the studies conducted to test bridge action in high winds; photographs of Charles Derleth, Jr. on the bridge; detail of contracts for the construction of the bridge, etc.

Box 9, folder 51  
**Golden Gate Bridge Fiesta and Golden Gate International Exposition, 1936-1937.**

Physical Description: 4 folders

Scope and Contents

Clippings, announcements, correspondence, articles, reports, etc.
Carquinez Bridge, 1920-1937
Scope and Contents
See also Oversize Photographs (101).

Box 9, folder 52  
**War Department permits, 1920-1927.**
Physical Description: 5 folders
Scope and Contents
Correspondence and permits from the U. S. War Department for work on the Carquinez Strait Bridge, concerning fenders, rock fill, lights and signals, etc.

Box 10, folder 53  
**Carquinez Bridge right of way, 1924.**
Scope and Contents
Right of way agreement between American Toll Bridge Company and Southern Pacific Railroad Company, with accompanying blueprints.

Box 10, folder 54  
**San Francisco Transit Company, 1922-1923.**
Scope and Contents
San Francisco Transit Company's statements regarding the Rodeo-Vallejo Ferry Company's application to the U.S. Army Corps of Engineers to build a bridge over the Carquinez Strait, and the Rodeo-Vallejo Ferry Company's reply.

Box 10, folder 55  
**Geology, 1923.**
Scope and Contents
Includes Report on the geological considerations relating to the Carquinez Bridge project at Valona, California, by A. Werner Lawson, Geologist, and other data concerning the geology of the area.

Box 10, folder 56  
**Miscellaneous, 1922-1937.**
Scope and Contents
Includes bills for services of Charles Derleth; correspondence concerning the building of the bridge; log sheets kept by Derleth between 1922 and 1931; letterhead samples of American Toll Bridge Company and Rodeo-Vallejo Ferry Company.

Box 10, folder 57  
**Derleth, Charles. Carquinez Bridge, American Toll Bridge Company: history of construction period, September 1922 to February 1931, 1937 December 11.**
Scope and Contents
Report submitted to California Railroad Commission (Case no. 4259), San Francisco.

Box 10, folder 58  
**Cory, C. L. Report upon the proposed construction of the Carquinez Strait Bridge and the Antioch-Sherman Island Bridge by the American Toll Bridge Company, 1924 May.**
Scope and Contents
Includes balance sheets and correspondence of American Toll Bridge Company and J.G. Little & Company.

Box 10, folder 59  
**Carquinez Bridge records - War Department, early survey, 1922-1923.**
Scope and Contents
Includes records of public hearings on application of Rodeo-Vallejo Ferry Company to build a bridge across Carquinez Strait; biography of William H. Burr; ship clearance data; surveys of the Carquinez Strait; description of land required for franchise of Rodeo-Vallejo Ferry Company's Carquinez Strait Bridge at north bridge head.
| Box 10, folder 60 | **Derleth, Charles. Statement by C. Derleth, Jr., Chief Engineer, Carquinez Highway Bridge on site, highway connections and costs for bridging Carquinez Strait, 1924 December 27.**  
Scope and Contents  
Addressed to Aven J. Hanford, President, American Toll Bridge Company. |
| Box 10, folder 61 | **Lighthouse service, 1926-1929.**  
Scope and Contents  
Correspondence with H.W. Rhodes, Superintendent of Lighthouses, Dept. of Commerce, San Francisco, concerning fog signals, lights, etc. |
| Box 10, folder 62 | **Photographs and miscellaneous materials, 1923-1929.**  
Scope and Contents  
Photographs showing the Carquinez Bridge at various stages of construction; Christmas card from D.B. Steinman, Designing and Consulting Engineer; informational brochures about the bridge, including America's Greatest Highway Bridge, published by American Toll-Bridge Company (1923) and Carquinez Strait Bridge, published by Carquinez Bridge Company (1923?). See also Oversize Photographs (101). |
| Box 10, folder 63 | **Bibliography, 1923-1927.**  
Scope and Contents  
Bibliographical information about the Carquinez Bridge and others. |
| **San Francisco-Oakland Bay Bridge, 1916-1937** |  
Scope and Contents  
See also Oversize Photographs (102). |
| Box 11, folder 64 | **Port of Oakland- Transbay bridge, 1930-1931.**  
Scope and Contents  
Correspondence and data on proposed bridge and Derleth's position as consulting engineer, with special concern to protect shipping interests of the Port of Oakland. Includes summaries of Port activities by Ralph T. Fisher, President of the Board of Port Commissioners, log kept by Derleth, data concerning navigation clearance and borings for the foundations of the bridge. |
| Box 11, folder 65 | **Port of Oakland- San Francisco-Oakland Bay Bridge, 1930-1933.**  
Scope and Contents  
Miscellaneous correspondence and reports concerning the proposed bridge. Includes blueprints of several designs for the proposed bridge and bibliography of materials regarding deep foundation cylinders and cylinder piles. |
| Box 11, folder 66 | **Garrison, Walter E. Report on proposed San Francisco-Oakland Bay Bridge, 1932 August 22.**  
Scope and Contents  
Submitted to the California Toll Bridge Authority by Garrison, Director, State Department of Public Works. "Presents salient features of proposed Bridge, supporting its commercial necessity and engineering feasibility, and establishing its financial integrity." |
| Box 12, folder 67 | **San Francisco-Oakland Bay Bridge clippings files, 1916-1937.**  
Scope and Contents  
Clippings, correspondence and miscellaneous materials pertaining to bridge construction. |
San Francisco-Oakland Bay Bridge, 1916-1931.
Scope and Contents
Includes materials on the creation of the California Toll Bridge Authority and Hoover-Young San Francisco Bay Bridge Commission; test borings and preliminary surveys; Hoover-Young Commission hearings to determine most feasible transbay route; Congressional approval of a bill authorizing construction; span length and clearance increase to meet demands of the Commissioners of the Port of Oakland; the bridge route approved by War Department; President Hoover's signing of bridge bill; State Supreme Court upholding the constitutionality of bridge legislation; financing of bridge costs; letting of test boring contracts; studies to determine potential stresses on bridge, etc.

San Francisco-Oakland Bay Bridge, 1932-1933.
Scope and Contents
Includes materials on various structural design proposals, detailed plans and specifications for the entire project approved by the Board of Consulting Engineers; notes from several meetings of the New York members of Board of Consulting Engineers regarding foundation problems; loan secured from the Reconstruction Finance Corporation; bridge made part of State highway system; receipt of bids and letting of contracts for construction of East Bay superstructure; launching of caissons; International Exposition proposal; earthquake report by Derleth and H. J. Brunnier; and a report on the proposed changes in anchorage bars, cable strands and shoes, saddle fillers, etc., by Leon S. Mosseiff.

San Francisco-Oakland Bay Bridge, 1933-1934.
Scope and Contents
Includes materials on construction of caissons, piers, cable anchorages, and towers; saddle placement; dredging operations; tunnel excavation and boring of cable tunnels on Yerba Buena Island; location and design proposals for the approaches to the bridge; the proposed toll; walkout and strike by bridge workers; planning of International Exposition; design of interurban electric train service operating across the bridge and the elevated terminal structure; biography of Charles Henry Purcell, Chief Engineer; correspondence between Leon S. Moisseiff and Derleth, Consulting Engineers, and Charles Henry Purcell regarding Moisseiff's check on the computations for the design of the bridge and on the loading and stresses on stiffening trusses.

San Francisco-Oakland Bay Bridge, 1934-1935.
Scope and Contents
Includes materials on progress in the construction of various portions of the bridge; Reconstruction Finance Corporation loan for the construction of terminals; approaches, etc. for the interurban electric train service operating across the bridge; color bridge to be painted; high death and injury rate; composition, construction, and spinning of cables, catwalks, etc.

San Francisco-Oakland Bay Bridge, 1935-1936.
Scope and Contents
Includes materials on progress in construction of various portions of the bridge including the approaches, viaducts, underpasses, etc.; raising of deck steel; bridge cable anchored to Yerba Buena Island; fender fires Pier E-3; provisions of Reconstruction Finance Corporation's loan to California Toll Bridge Authority for construction and operation of bridge railway; bridge railway rights granted to the Southern Pacific Company and Key System Transit Line by the State Railroad Commission; formation of the Interurban Electric Railway Company by the Southern Pacific Company; a pamphlet by the Associated Oil Company, (Spinning the cables, 1935), etc.
Box 12, folder 67-6

San Francisco-Oakland Bay Bridge, 1936-1937.

Scope and Contents
Includes materials on installation of electric facilities; completion of the bridge; dedication ceremonies; highway between Oakland's outer harbor and the Bay Bridge proposed; construction of interurban railroad, etc.

Box 13, folder 68

Bay Bridge Consulting Board, 1931-1936.

Scope and Contents
Includes minutes of the 1st through 15th sessions of the Consulting Board (13th and 14th sessions lacking). Also includes a chronology of events related to the construction of the bridge.

Box 13, folder 68-1

First session, 1931 October 5-9.

Scope and Contents
Facilities required on the bridge, the San Francisco and East Bay approaches. Resolutions adopted regarding the design of the bridge structure, etc.

Box 13, folder 68-2


Scope and Contents
Outlining the requirements describing briefly different studies, and estimating costs for each section of the bridge structures.

Box 13, folder 68-3

Third session, 1932 April 18-23.

Scope and Contents
Statements and discussion regarding results of various tests, pile loading, earthquake forces, construction and payment schedules, East and West Bay substructures; statement by Leon S. Moisseiff, Consulting Engineer, regarding possible effects of an earthquake; report on the layout and design of the East Bay Crossing by Glenn B. Woodruff, Engineer of Design.

Box 13, folder 68-5

Fifth session, 1933 January 23-27

Scope and Contents
Board discussion of the design of the upper deck floor slab, grouting operations at the west end of the tunnel, and construction of the mole north of the Key Route Mole; the Reconstruction Finance Corporation negotiations; insurance contracts; the state of various of the construction contracts. Appendix II describes the design of the West Bay superstructure.

Box 13, folder 68-6

Sixth session, 1933 May 23-26.

Scope and Contents
Discussion of the design of the cofferdam and bracing for Pier 2 and for the pile piers and fire-proofing of the spans is reported on in some detail in the minutes. Appendix I contains correspondence with Transbay Construction Company regarding Contract No. 2, West Bay superstructure. Including a resume of the bids taken, contracts awarded, contract prices and the activities being carried out under the various contracts, etc.

Box 13, folder 68-7

Seventh session, 1933 August 7-9.

Scope and Contents
Discussion of possible caisson oscillation due to ground swell or harmonic wave; earthquake stresses on the span adjacent to Bent E-9; the panels to the tunnel on Yerba Buena Island; construction progress; design problems on various of the contracts; hydraulics of the West Bay piers; model analysis of Suspension Tower No. 2, etc.
Eighth session, 1933 November 6-8.
Scope and Contents
Progress on the construction of the bridge and design and construction problems.

Ninth session, 1934 February 19-20; tenth session, 1934 May 9-10.
Scope and Contents
Ninth Session: discussion of design problems on contracts for the San Francisco anchorage, the Yerba Buena crossing, and the superstructure of the East Bay crossing. Tenth Session: Progress of construction and tests on riveted tension on members and their connections.

Eleventh, twelfth, fifteenth and sixteenth sessions, 1934 August - 1936 November
Scope and Contents
Fifteenth Session: Report in brief the Board's discussion of the effect paving operations would have on unbalanced pull on the center anchorage, cable wrapping, and foundation settlement at bent 37.

California Toll Bridge Authority, 1932.
Scope and Contents
Copy of bond agreement, San Francisco-Oakland Bay Bridge with Reconstruction Finance Corporation.

Pacific American Steamship Association; Shipowners’ Association of the Pacific Coast; Waterfront Employers' Union, 1928.
Scope and Contents
A survey of proposed bridge legislation for San Francisco Bay, presented to the Seventieth Congress. Gives policy of the War Department in regard to crossing of San Francisco Bay, and plans by various groups for a San Francisco-East Bay bridge.

Richmond-San Rafael Bridge, 1925-1937

U.S. War Department permit applications, 1925-1930.
Scope and Contents
Applications by Oscar Klatt for a permit to construct the Richmond-San Rafael Bridge. Includes six revisions of application, with the sixth being approved in February 1930.

Richmond-San Rafael Bridge clippings files, 1926-1937.
Scope and Contents
Correspondence, clippings, data, etc., concerning the proposed bridge.

Richmond-San Rafael Bridge, 1926-1927.
Scope and Contents
Includes: Initial survey of shore lines and topography, soundings, and traffic studies; certificate of incorporation of Richmond-San Rafael Bridge, Inc., Roy O. Long, President, and Charles Derleth, Jr., Chief Engineer; preliminary designs for the bridge, cost estimates, and discussion of its location; contesting applicants to the Contra Costa County Board of Supervisors for a franchise to build the bridge, specifically, Richmond-San Rafael Ferry Company, Charles Van Damme, President; Board hearings.
<table>
<thead>
<tr>
<th>Box 14, folder 72-2</th>
<th>Richmond-San Rafael Bridge, 1928.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes: Application to U.S. War Department for permission to construct the bridge; franchise to construct the bridge awarded to Richmond-San Rafael Bridge, Inc., by Contra Costa County Board of Supervisors; merger of the interests of Richmond-San Rafael Bridge, Inc., to be represented by Oscar Klatt, President, American Toll Bridge Company; franchise granted to Oscar Klatt by the Contra Costa County Board of Supervisors.</td>
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</table>

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<thead>
<tr>
<th>Box 14, folder 72-3</th>
<th>Richmond-San Rafael Bridge, 1929-1930.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes: Permission to construct a bridge between Belvedere and Sausalito over Richardson Bay issued to T. A. Tomasiniby the U.S. War Department; the objections of local shipping interests to the proposed design for the Richardson Bridge and the Richmond-San Rafael Bridge; permit to construct the Richmond-San Rafael Bridge issued by the U.S. War Department to the American Toll Bridge Company after revision of bridge design; Oscar Klatt's unsuccessful attempts to finance the purchase of the Richmond-San Rafael Ferry Company; the death of Charles Van Damme; discussion of bridge design, building materials and earthquake requirements.</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>Box 14, folder 72-4</th>
<th>Richmond-San Rafael Bridge, 1931-1937.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes: The automatic transfer to the Richmond-San Rafael Ferry Company on January 15, 1931 of the franchise originally issued by the Contra Costa County Board of Supervisors to Oscar Klatt of the American Toll Bridge Company; the inability of the Richmond-San Rafael Ferry Company to obtain financing of bridge construction; the survey of the bridge site by Joseph B. Strauss, Chief Engineer of the Golden Gate Bridge, October 1937.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 14, folder 73</th>
<th>Nordlund, T. G. Proposed highway from Point Richmond to Point Orient to connect traffic between the East Bay and the proposed San Rafael Bridge, 1930 July 23.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes maps, drawings, photographs with commentary, and tables.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Box 14, folder 74</th>
<th>Taylor, Sydney W. Effect of the competition of proposed Bay bridges on the San Francisco Bay auto ferry services, 1931 December 30.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Traffic engineer Taylor's analysis that the proposed Golden Gate and San Francisco-Oakland Bay bridges would not have a serious financial impact on the San Francisco Bay auto ferry companies.</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>Masonry Structures, 1914-1938</th>
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<tr>
<th>Box 15, folder 75</th>
<th>Civil Engineering 112 - notes, 1914.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Notes compiled by Charles Gilman Hyde for his CE 112 class (University of California, Berkeley), relating to the design of high masonry dams of the gravity type.</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>Box 15, folder 76</th>
<th>Bonneville Dam, 1934-1938.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Articles, correspondences, photographs, plans and reports regarding various aspects of this dam on the Columbia River. Partial contents: Bonneville power, navigation project on the Columbia River, Oregon and Washington, under construction by the Corps of Engineers, U.S. Army; Fish protection at Bonneville Dam. Includes photographs.</td>
<td></td>
</tr>
<tr>
<td>Box 15, folder 77</td>
<td>Earth dams, 1928-1938.</td>
</tr>
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<tr>
<td>Scope and Contents</td>
<td></td>
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<tr>
<td>Articles and photographs regarding various earth dams. Includes photographs of Lafayette Dam failure of September 1928. Includes: Selection of materials for rolled-fill earth dams, by Charles H. Lee.</td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Box 15, folder 78</th>
<th>Rock fill dams, 1915-1932.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Articles and photographs regarding the construction methods, design and materials used in the construction of various rock fill dams. Includes photographs and drawings of Strawberry Dam (Sierra and San Francisco Power Company) and Bowman Dam (Nevada Irrigation District; photos from F. H. Tibbetts).</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>Box 15, folder 79</th>
<th>Exchequer Dam, Merced River, 1925-1926.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>32 photographs of the dam at various stages in construction and at completion. Photos given to Derleth by Bent Brothers, Inc., contractors, Exchequer Dam. Some photos taken by Gabriel Moulin.</td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Box 15, folder 80</th>
<th>Lake Hodges Dam, San Diego County, 1920-1922.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes Derleth's report to J. B. Lippincott concerning safety of cracks in the buttresses of Lake Hodges Dam, the stability of the dam and his recommendations, with accompanying data and photographs. Also contains data on Murray Dam.</td>
<td></td>
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</tbody>
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<thead>
<tr>
<th>Box 15, folder 81</th>
<th>Lake Hodges Dam, San Diego County, 1922-1923.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes Derleth's report to J. B. Lippincott (November 26, 1923) giving additional recommendations for maintenance and repair of Lake Hodges Dam. Correspondence, data, tables, and miscellany concerning Derleth's, study with reference to Murray Dam and the proposed Little Rock Dam, and a table comparing various aspects of existing multiple arch dams.</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>Box 15, folder 82</th>
<th>Lake Hodges Dam, San Diego County, 1923-1937.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Articles and data concerning Hodges Dam. Copies of the reports of Consulting Board on Lake Hodges Dam, by the California Division of Water Resources. Also contains a bibliography of articles on multiple arch dams, compiled by Derleth in 1923.</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th>Box 15, folder 83</th>
<th>Lake Eleanor Dam, 1917-1933.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope and Contents</td>
<td></td>
</tr>
<tr>
<td>Includes memorandum of examination of Eleanor Dam by M. M. O'Shaughnessy (1922), and correspondence between Derleth and O'Shaughnessy regarding cracks found on the dam. Also selected articles and data and article by R. P. McIntoshon Lake Eleanor Dam (1917-1919). See also Folder 94.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Arch Dam Investigation, 1914-1933</th>
</tr>
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<tbody>
<tr>
<td>Box 16, folder 84</td>
</tr>
<tr>
<td>Scope and Contents</td>
</tr>
<tr>
<td>Data correspondence, and reports of the committee formed to improve practice of design and construction of arch and multiple arch dams. Special attention paid to Stevenson Creek Test Dam (Southern California Edison Company). Also includes articles, newspaper clippings, and photographs. (Derleth was a member, and sometimes chairman, of the committee.)</td>
</tr>
</tbody>
</table>
Box 17, folder 85  
**Davis, Raymond E. Report to members of Committee on Arch Dam Investigation, Engineering Foundation, on progress on preliminary laboratory experiments on concrete, which has a bearing on the arch dam investigations, 1926 July 1.**  
**Scope and Contents**  
Report on tests conducted at the Civil Engineering Testing Laboratories, University of California, Berkeley, under Deleth’s direction.

Box 17, folder 86  
**Davis, Raymond E. Report of tests on concrete being made in connection with tests on Stevenson Creek Test Dam, 1927 January 5.**  
**Scope and Contents**  
Report on tests conducted at the Materials Testing Laboratory, University of California, Berkeley.

Box 17, folder 87  
**Slater, Willis A. Report of test of Stevenson Creek Dam, 1927 July.**  
**Scope and Contents**  
With accompanying drafts and photographs. (Slater was Chief, Masonry Construction Section, Bureau of Standards.) Partial contents: Arch dams, an experimental investigation, preliminary report, by Engineering Foundation, Committee on Arch Dam Investigation; Financing and constructing experimental dam, by H. W. Dennis; Progress report on concrete testing being conducted by the Dept. of Civil Engineering, University of California, Berkeley, by G. E. Troxel (1927).

Box 17, folder 88  
**Committee on Arch Dam Investigation prints, 1914-1925**  
**Scope and Contents**  
Drawings, maps, diagrams, and blueprints relating to Stevenson Creek Test Dam and such associated projects as the Hetch Hetchy Project, Big Creek power development, and Clear Creek Dam.

Box 17, folder 88a  
**Scope and Contents**  
Submitted to the Committee on Arch Dam Investigation and the Sub-Committee on Emigrant Creek Dam.

**Spring Valley Water Company, 1865-1930**

Box 17, folder 89  
**Calaveras Dam, 1865-1909.**  
**Scope and Contents**  
Table of average daily water consumption for the Spring Valley Water Company from the years 1865 to 1909; photographs of the Pilarcitos Dam and Crystal Springs Dam; report by A. R. Mackenzie on the failure of the Necaxa Hydraulic Fill Dam, near Mexico City (this dam constructed in similar fashion to proposed Calaveras Dam).

Box 17, folder 90  
**Calaveras Dam, 1913-1918.**  
**Scope and Contents**  
Various reports, data, and photographs regarding the design and construction of proposed dam. Partial contents: Report on the proposed Calaveras Dam, by William Mulholland; Report on design of reinforced concrete outlet tower for Calaveras Dam, by A. V. Saph; Report on Calaveras gate tower, by Charles Derleth, Jr.; Letter report by G. A. Elliott on material for the completion of the Calaveras Dam; Report on the Calaveras Dam, by Leonard Metcalf.
Box 18, folder 91  
**Calaveras Dam, 1918-1930.**  
Scope and Contents  
Photographs, data, and correspondence between Derleth and G. A. Elliott, Chief Engineer, Spring Valley Water Company, regarding the progress achieved in construction, clay core trench-work, and stability of embankments, etc.; graphic representation of results of a hydrographic survey and of borings and test piles. Partial contents: Hydraulic-fill dams, by Allen Hazen (1920); The Spring Valley water system under city management (The City, v. 10:1, February 27, 1930).

Box 18, folder 92  
**Calaveras Dam, 1918.**  
Scope and Contents  
Accounts of Derleth's service to the Spring Valley Water Company; a rough bibliography of materials treating the Calaveras Dam and subjects related to hydraulic-fill dams; data and correspondence relating to various aspects of design and construction of the Dam; Derleth's general notes providing a chronology of the events relating to construction of the dam, May-August 1918.

**Antioch-Sherman Island Bridge, 1922-1930**

Box 18, folder 93  
**Antioch-Sherman Island Bridge, 1922-1930.**  
Scope and Contents  
Records of soundings, photographs, maps and specifications for the bridge across the San Joaquin River, built by the American Toll Bridge Corporation and Delta Bridge Corporation.

Box 18, folder 93-1  
**Antioch-Sherman Island Bridge : specifications for constructing a steel and reinforced concrete bridge across the San Joaquin River about three miles east of Antioch, California for the American Toll Bridge Company and Delta Bridge Corporation. Sacramento : Frank H. Reynolds, 1924?.**  
Scope and Contents  
Submitted by Frank H. Reynolds, Civil Engineer, and J. G. Little & Co., Consulting Engineers.

Box 18, folder 93-2  
**Antioch-Sherman Island Bridge across San Joaquin River : Delta Bridge Corporation, owner, Frank H. Reynolds and J.G. Little Co. Sacramento : Frank H. Reynolds, 1924.**  
Scope and Contents  
Plans and profiles.

Box 18, folder 93-3  
**Records of soundings and riprap about Antioch Bridge piers on February 28, 1928. 1928 October 10.**  
Scope and Contents  
Sheets for piers 31 to 73 inclusive.

Box 18, folder 93-4  
**Antioch-Sherman Island Toll Bridge : simple method of protecting pier foundations from scour, 1926.**  
Scope and Contents  
In Western construction news (March 25, 1926).

Box 18, folder 93-5  
**Antioch Bridge photographs, 1925.**  
Scope and Contents  
File includes one color postcard.
| Box 18, folder 93-6 | Contra Costa Title Company. Industrial, agricultural and road map of Contra Costa County, California. Martinez: Contra Costa County Title Co., 193-.

   **Physical Description:** Scale ca. 1:100,000
   **Scope and Contents**
   **Note:** WRCA has another copy: mG448 E VF

| Box 18, folder 94 | Hetch Hetchy Project, 1909-1934.

   **Scope and Contents**
   Articles and pamphlets regarding the dispute over preservation of the Hetch Hetchy Valley in Yosemite National Park and proponents of the municipal water project and the 1920s water bond issue. Maps and profiles comparing the headworks and the conduit lines of the proposed Spring Valley Water Company's system with the proposed Tuolumne System; chronology of events related to the Hetch Hetchy Project; diagrams of the Lower Cherry River Power Station and pressure pipe intake and photographs of the Hetch Hetchy Reservoir, Dam and Railroad, early intake, Lower Cherry River power development, Lake Eleanor Dam, etc. See also Folder 83.

| Box 18, folder 95 | Foundations - cribs, 1910-1932.

   **Scope and Contents**
   Photographs, brochures, drawings, and articles concerning reinforced concrete for docks, breakwaters, bridge pier caissons, bulkheads, sea walls and other subaqueous structures, illustrating the J. H. Tromanhauser system of construction on patented floating pontoons. Includes correspondence between Derleth and Tromanhauser regarding the use of concrete cribs in Canada and their introduction into use in the U.S.

| Box 18, folder 96 | Water works - dry docks, 1903-1910.

   **Scope and Contents**
   Photographs, map, and plan showing location of old and new dry docks at Hunters Point, San Francisco (San Francisco Dry Dock Company).

| Box 18, folder 97 | Foundations - explorations, 1907-1928.

   **Scope and Contents**
   Articles, manufacturer's brochures, correspondence, photographs, and reference to materials regarding various techniques and equipment for water, oil and gas well drilling, prospecting and testing work, and blast hole drilling. Includes graphic representation of results of soil tests and borings; instructions for driving test piles; Derleth's notes on boring of artesian well at Western Pacific Mole, Oakland; photographs of boring equipment used for soil and boring tests for Boalt Hall, Sather Tower, and Life Sciences Building at University of California, Berkeley; An efficiency testing machine for testing drills, taps and dies, by T. Y. Olsen; instructions for driving test piles, etc.

| Box 19, folder 98 | Ford, Bacon and Davis, Inc. Report - American Toll Bridge Company, American Toll Bridge Company of California, Delta Bridge Corporation, the Rodeo Vallejo Ferry Company, 1924.

   **Scope and Contents**
   Engineering and financial report of the above companies and their building of the Carquinez and Antioch Bridges.

| Box 19, folder 99 | Markham Bridge, 1921.

   **Scope and Contents**
   Blueprint and stress sheet of the bridge over the Russian River, one mile south of Healdsburg, stress sheet, method, ellipse of elasticity.
Box 19, folder 100  **Lake Spaulding Dam construction photographs, 1912-1913.**

Scope and Contents
Photographs of the dam constructed by the Pacific Gas and Electric Company in Nevada County, California, near Emigrant Gap.

**Oversize Materials**

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### Photographs

**Scope and Contents**
Bound albums containing construction photographs of the Carquinez Bridge, the San Francisco-Oakland Bay Bridge, and others.

**Carquinez Strait Highway Bridge - progress views, 1924-1927.**

- **Physical Description:** 1,016 photographs, mounted on paper and bound into 4 albums (29 x 40 cm.)
- **Scope and Contents**
  Photographs of various phases of construction. Vols. 3 and 4 also contain photographs of the Antioch-Sherman Island Bridge, the Columbia Interstate Bridge, and the Hudson River Crossing at Highlands.

**San Francisco-Oakland Bay Bridge, 1934-1936.**

- **Physical Description:** 254 photographs, mounted on linen and bound into 2 albums (33 x 44 cm.)
- **Scope and Contents**
  Photographs of various phases of construction, arranged chronologically from back to front. Photographers: B.W. Hellings and Clyde H. Sunderland.

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### Miscellaneous

**Oversize newspaper clippings and other ephemera.**

- **Scope and Contents**
  Items removed from other parts of the collection; they retain their original folder numbering.