

11/11/7

Engineering
Theoretical and Applied Mechanics
Concrete Testing Research File, 1914-51

Box 1:

F. E. Richart: List of publications; Annual research reports, 1918-49
Report of USDA Office of Public Roads R. C. bridge test, 1914-15
(photographs included)
T. and A. Mechanics 105 (course materials), 1914-15
Concrete cylinder compression test data, 1915-17
"Deformations" data; correspondence (W. S. Tait), 1917-18
Tests of bond between concrete and steel (series 8 of tests for corporate ship section - Emergency Fleet Corporation, ca. 1918
Bracket frame tests, ca. 1918
Strain gage data, 1918
Effect of slenderness (computations, series, 13, E.F.C.), 1919
Original calculations and data, ca. 1918-20
"Engineering News-Record" - correspondence, 1919-20
Absorption and specific gravity, 1921
Natural sand - tabulation of data, ca. 1921
Sieve analysis, 1921
Tables of gravel, 1921
Briquette data for water ratio tests, ca. 1921
Le Chatelier Flask Method data, ca. 1921
"Test of a Flat-Slab Floor of the New Channon Building"
(with H. F. Gonnerman), 1921
Thesis - Brown's data, ca. 1921
Thesis - Nichols' data, ca. 1921
Effects of brackets on bending moments in r.c. (from Emergency Test Fleet Corporation Studies), 1922-28
"Effects of brackets" data, 1922
Concrete bulletin, 1923
Series 2G, 1923
Calculations for equivalent strength (series 2G), ca. 1923
Bulletin #137 (services 2G and 211), 1923-24
Bulletin #137 (data and tabulations), 1923-24
Plain Columns - load deformation curves (Photos: Brandtzaeg thesis; Mitchell, Haeffner and Brooks), 1926
Oil pressure test, 1926
Effect of Brackets in Reinforced Concrete, 1927
"Tests of the Effect of Brackets in Reinforced Concrete Rigid Frames", 1927
Effect of brackets; data, 1927
Effect of brackets - Series 13 (plans for tests, computed data and photographs), ca. 1927
Miscellaneous correspondence with W. A. Slater, 1927-28
Web stress in r.c. beams (1927-28)
A Study of the Failure of Concrete Under Combined Compressive Stresses", ca. 1927-28
Web stress bulletin, 1928
Web stress (photographs), 1928
"An Investigation of Web Stresses in Reinforced Concrete Beams"
(Bulletin #175), 1928
Web stress (tables and figures), 1927-28

Box 2:

Web stress - Bulletin #175 (copy 3), 1928
Web stress - Correspondence, 1927
Web stress - (copy 5), 1928

- Human hair humidity control apparatus (description and photographs), 1929
 "Construction and Design Features of Haydite Concrete"
 (with V. P. Jensen), 1929
 Taylor's Thesis - Strain gage sheets, Nos. 1 & 2, 1931-32
 "Shrinkage and Plastic Flow of Plain Haydite Concrete"
 (with J. Keranen), 1934
- State of Illinois Bureau of Materials, Highway dept., studies on load Transmission devices and expansion joints (1935-37)
 "Tests of Load Transmission Devices for Highway Expansion Joint", 1935
 "Comparison of Load Transfer in Ace Expansion Joints between Short Dowels with Wing-Anchored Sleeves and Standard Dowels", 1935
 "Load Transfer Tests of Dowel Bars" (Series 1), 1935
 "Tests of Load Transmission Devices" (Series 2), 1935
 "Discussion and Analysis of Data Obtained from Tests of Load Transmission Devices with Special Considerations of their Applications to joints in Pavements", 1935
 "Experimental Installation of the Wing Anchor Type of Load Transmission Device", 1935
 "Tests of Load Transmission Devices" (Series 3, 4, & 5), 1935
 "Tests on All-metal Air-chamber Expansion Joint Manufactured by the National Road Joint Manufacturing Company, Chicago, IL", 1935
 "Trial Installation of National Road Joints on Ashland Avenue, Chicago", 1936
 "Analytical Discussion of Expansion Joint", 1937
 National Road Joint Manufacturing Co. bulletin: "Water Tight All-metal Air Chamber Expansion Joint with Continuous Copper Seal and Completely Shop Assemble Load Transfer Pin Bearings", 1937
 "Tests of 'Crosslode' Expansion Joint, Presented by the Highway Steel Products Company, Chicago Heights, IL", 1937
 Expansion Joint Installation test (T. J. Dolan), 1937
 "Report on Laboratory Tests of Expansion Joints for Concrete Pavement" 1937
 "Report on Expansion Joints for Concrete Pavements in the State of Illinois", 1937
 "Supplementary Report on Laboratory Test of Expansion Joints for Concrete Pavements", 1938
 Highway Joints - Sheet metal dowel tests, 1938
 "A Study of the Economics of High Strength Concrete in Building Construction", 1936
- Plastic flow of r.c. frames (1931-38)
 Taylor's thesis, Sheets #3, 1932
 Taylor's thesis, Sheets #4, 1932-37
 Taylor's thesis - calculations for future tests, ca. 1931-38
 Frame tests - Summary data, ca. 1931-38
 Taylor (data), ca. 1931-38
 Taylor (data) - plastic flow in frames, 1931-38
 Taylor (data & graphs) - Plastic flow in frames, 1931-39
 Report on final test of frames from Taylor's thesis, 1937
 Frame tests - data sheets - tests to failure, 1937
 Concrete Column deformation graphs, ca. 1931-38
 Taylor thesis (frame photo negatives), ca. 1937
- Tests of r.c. knee frames (1935-38)
 Time loading - knee frames (concrete-spring & cylinder data), 1935
 Knee Frames - Concrete Batch data, 1935-37
 Knee frames data, 1935-37
 Knee frames test data, 1935
 Knee frames curves, ca. 1935-37

Box 3:

- Knee frames data sheets mos. 15-19, 1935-37
 Time loading - knee frames (test data 15A, 15B, 16A, 16B), 1935-37

- Knee frames report (test data) (series 111), 1937
- Rigid frame notes (T. A. Olson), 1935-36
- Computations for knee frames, ca. 1935-37
- "Rapid and Long-time test on Reinforced Concrete Knee-Frames", 1937
- "Tests of Reinforced Concrete Knee Frames and Bakelite Models", 1938
- Tests of 6-yr. old reinforced concrete columns (1930)
 - Column Investigation, 1930-32
 - Plastic flow of plain concrete columns loaded at age of 6 yrs., 1936
 - Summary of final 6 yr. tests - Reinforced concrete Column investigation, 1936
 - Series III - 6 yr. cylinder tests, 1936-37
 - "Tests of Reinforced Concrete Columns under Sustained Loading", 1936-37
 - Cylinder test data sheets (Heitman's thesis), 1938
 - Concrete batch sheets (Heitman's thesis), 1938
 - 7" columns (Heitman's thesis), 1938
 - 8" columns (Heitman's thesis), 1938
 - 9" columns (Heitman's thesis), 1938
 - Plain columns (Heitman's thesis), 1938
 - Concrete and steel data (Heitman's thesis), ca. 1938
 - Reinforced concrete column tests (published reprints), 1938
- Tests of chilled railway car wheels (1934-39)
 - Chilled car wheels bulletin - correspondence, 1934-35
 - Investigation of strength of chilled car wheels (correspondence), 1934-35
 - Tests of chilled car wheels - correspondence (includes "Theory & Practice of Mounting Railroad Wheels on Axles"), 1934-37
 - Correspondence with F. K. Vial, 1935-37
 - Correspondence, C. M. Stoner and F. K. Vial (Assn. of Mfgs. of chilled car wheels), 1937
 - Correspondence - chilled car wheels, 1937-38
 - Investigation of strength of chilled car wheels, photographs and negatives; "Wheel and Axle Manual", ca. 1934-37
 - Car Wheel, prints and negatives of tests; "The Car Wheel" bulletin, 1936
 - Rim strength on wheels - test data, 1934-35
 - Rim break test, 1935
 - Flange thrust curves, ca. 1935-37
 - Flange thrust strains tables, ca. 1935-37
 - Strength of wheels, test data, ca. 1935-37
 - Chilled car wheels, test data, 1935-37
 - Old test data, Bulletin #294, 1935-37
 - Bulletin #294, 1935-37
 - Bulletin #294 manuscript, "Tests of Strength Properties of chilled Car Wheels", 1937
 - Tables for Bulletin #294, 1937
 - Bearing tests, ca. 1935-37
 - Vertical Load strains tables, ca. 1938
 - Vertical load strains curves, ca. 1938
 - Mounting tests, ca. 1938
 - Wheel test data (3 folders), ca. 1938
 - Investigation of steel car wheels, 1938-39

Box 4:

- Richart's presidential address, Am. Concrete Institute, 1940
- 1938 Gap Grading test, correspondence, 1921-47
- Tests of Gap Grading, 1938
- Tests of gap grading, 1943
- "Transverse Joints in the Design of Heavy Duty Concrete Pavements"
(H. W. Griffen), 1944

"Structural Effectiveness of Protective Shells on Reinforced
Concrete Columns", 1946
"Progress with Concrete, 1923-48", 1948
Internal Stress in Reinforced Concrete Beam (Bureau of Reclamation), 1951
(no conclusive evidence that this is a University of Illinois report)