#### HISTORIC AMERICAN ENGINEERING RECORD

#### **INDEX TO PHOTOGRAPHS**

#### COMMODORE SCHUYLER F. HEIM BRIDGE

HAER No. CA-HEIM

Cerritos Channel Port of Long Beach Los Angeles County California

#### BLACK AND WHITE PHOTOGRAPHS OF HEIM BRIDGE

Photographer: Stephen Schäfer, September 2010		
CA-HEIM-1	OVERALL VIEW OF BRIDGE WITH LIFT SPAN AT LOWERED POSITION, VIEW FACING WEST-NORTHWEST	
CA-HEIM-2	OVERALL VIEW OF BRIDGE WITH LIFT SPAN AT FULLY RAISED POSITION WITH HENRY FORD BRIDGE LIFT SPAN AT LOWERED POSITION IN BACKGROUND, VIEW FACING WEST-NORTHWEST	
CA-HEIM-3	OVERALL VIEW OF BRIDGE WITH LIFT SPAN AT LOWERED POSITION WITH HENRY FORD BRIDGE SPAN LIFTED FOR SMALL BOAT TRAFFIC, VIEW FACING WEST-NORTHWEST	
CA-HEIM-4	CONTEXT VIEW OF BRIDGE FROM CLOSED PASHA TRUCKING TERMINAL (1001 NEW DOCK STREET) WITH HENRY FORD BRIDGE IN FOREGROUND, VIEW FACING EAST-NORTHEAST	
CA-HEIM-5	BIRD'S EYE CONTEXT VIEW OF BRIDGE AT DECK LEVEL FROM SSA TERMINAL CONTROL TOWER, 3 <sup>RD</sup> FLOOR EXTERNAL STAIR, VIEW FACING SOUTHWEST	
CA-HEIM-6	CONTEXT VIEW OF BRIDGE WITH HENRY FORD BRIDGE IN FOREGROUND FROM MARINA AT EAST SIDE OF CERRITOS CHANNEL, VIEW FACING EAST-SOUTHEAST	
CA-HEIM-7	CONTEXT VIEW OF BRIDGE, SHOWING PIERS, WITH HENRY FORD BRIDGE LIFT SPAN IN RAISED POSITION FROM MARINA AT WEST SIDE OF CERRITOS CHANNEL, VIEW FACING EAST-SOUTHEAST	

(page 2)

CA-HEIM-8	DISTANT CONTEXT VIEW SHOWING BRIDGE BENEATH SPAN OF GERALD DESMOND BRIDGE FROM SOUTH PICO AVENUE RAILROAD OVERPASS WITH SAN PEDRO AND WILMINGTON IN BACKGROUND, VIEW FACING NORTHWEST
СА-НЕІМ-9	OVERALL OBLIQUE VIEW OF EAST SIDE OF BRIDGE FROM NORTH SIDE OF CERRITOS CHANNEL (SSA TERMINAL), VIEW FACING SOUTHWEST
CA-HEIM-10	OVERALL OBLIQUE VIEW OF EAST SIDE OF BRIDGE FROM SOUTH SIDE OF CERRITOS CHANNEL, VIEW FACING NORTHWEST
CA-HEIM-11	DETAIL VIEW OF FULL SOUTH TOWER AND TOWER PIER 27 ON EAST SIDE OF BRIDGE SHOWING ALTERED CONTROL HOUSE CANTILEVERED OVER WATER FROM NORTH SIDE OF CERRITOS CHANNEL, VIEW FACING SOUTH-SOUTHWEST
CA-HEIM-12	DETAIL VIEW OF FULL SOUTH TOWER AND TOWER PIER 27 ON WEST SIDE OF BRIDGE FROM SOUTH SIDE OF CERRITOS CHANNEL (EXTREME OBLIQUE DUE TO PROXIMITY OF HENRY FORD BRIDGE), VIEW FACING NORTH-NORTHEAST
CA-HEIM-13	OVERALL VIEW OF NORTH APPROACH, SHOWING SOUTHBOUND THREE LANES AND NORTHBOUND THREE LANES, VIEW FACING SOUTH
CA-HEIM-14	OBLIQUE VIEW OF NORTH APPROACH ABUTMENT, VIEW FACING NORTH-NORTHWEST
CA-HEIM-15	OVERALL OBLIQUE VIEW OF APPROACH SPAN FROM NORTH ABUTMENT, VIEW FACING SOUTH-SOUTHWEST
CA-HEIM-16	DETAIL VIEW OF GIRDERS AND SUBSTRUCTURE OF NORTH APPROACH, VIEW FACING NORTH-NORTHWEST
CA-HEIM-17	DETAIL VIEW OF TRUSS PIER 29, APPROACH SPAN AT LEFT, VIEW FACING SOUTH-SOUTHEAST
CA-HEIM-18	OBLIQUE VIEW OF NORTH PORTAL FROM TRUSS PIER 29 SHOWING SOME RIVETS REPLACED WITH BOLTS AND GERALD DESMOND BRIDGE IN BACKGROUND, VIEW FACING SOUTH- SOUTHWEST

(page 3)

CA HEBA 10	(page 3
CA-HEIM-19	NORTH TOWER CONTROL HOUSE, NOW UNUSED/GUTTED, WHICH IS IDENTICAL TO CONTROL HOUSE IN SOUTH TOWER (NOW EXPANDED AND THE VIEW OF WHICH IS BLOCKED BY MODERN SECURITY MEASURES) FROM DECK LEVEL, VIEW FACING WEST
CA-HEIM-20	FULL WIDTH VIEW OF LIFT SPAN FROM EAST DECK-LEVEL MAINTENANCE WALKWAY, VIEW FACING NORTH-NORTHWEST
CA-HEIM-21	OBLIQUE VIEW OF LIFT SPAN IN LOWERED POSITION FOR AUTO TRAFFIC, SHOWING NORTHBOUND LANES OF LIFT SPAN, VIEW FACING NORTH-NORTHWEST
CA-HEIM-22	OBLIQUE VIEW OF LIFT SPAN IN RAISED POSITION FOR SHIP TRAFFIC, GIRDERS OF LIFT SPAN, VIEW FACING NORTHNORTHWEST
CA-HEIM-23	DIVISION BETWEEN TRUSS PIER SPAN AND LIFT SPAN WITH LIFT SPAN IN LOWERED POSITION, VIEW FACING WEST
CA-HEIM-24	DIVISION BETWEEN TRUSS PIER SPAN AND LIFT SPAN WITH LIFT SPAN IN RAISED POSITION, VIEW FACING WEST
CA-HEIM-25	VIEW OF SOUTH BRIDGE PORTAL FROM END OF ON-RAMP IN NORTHBOUND NUMBER THREE LANE, VIEW FACING NORTH
CA-HEIM-26	OVERALL VIEW OF TOWER PIER 27 (SOUTH TOWER PIER) AND CATWALK TO BARRICADE/BOLLARD SYSTEM FOR TRAFFIC CONTROL IN NORTHBOUND LANES, FROM EDGE OF CERRITOS CHANNEL, VIEW FACING NORTH
CA-HEIM-27	FAÇADE OF TRUSS PIER 26 (SOUTH TRUSS PIER), ACCESS DOOR TO STAIRS UP TO DECK LEVEL, 12' SCALE IN TENTHS BEING HELD BY MELANIE LYTLE OF URS, VIEW FACING NORTH
CA-HEIM-28	VIEW OF SOUTH APPROACH SPAN GIRDERS AND SUBSTRUCTURE, WITH OFF-RAMP AT RIGHT AND ON-RAMP AT LEFT, VIEW FACING SOUTH
CA-HEIM-29	CONTEXT VIEW OF SOUTH APPROACH FROM SR47 UNDERPASS, VIEW FACING NORTH
CA-HEIM-30	BELL ABOVE ROOF OF SOUTH CONTROL ROOM, ROPE NO LONGER CONNECTED, EMBOSSED "USN" (UNITED STATES NAVY) AND "PACIFIC BRASS FOUNDRY," WITH SCALE IN INCHES, VIEW FACING NORTH

(page 4)

CA-HEIM-31	DETAIL OF END OF COUNTERWEIGHT CABLE AND CONNECTIONS AT MEETING POINT WITH UPPER STRUCTURE OF THE BRIDGE DECK, FROM MAINTENENCE CATWALK 3 <sup>RD</sup> LEVEL OF SOUTH TOWER, VIEW FACING NORTHWEST
CA-HEIM-32	DETAIL VIEW OF WEST SIDE OF SOUTH TOWER FROM MAINTENANCE ROOM ON THIRD LEVEL, WITH 12' SCALE IN TENTHS, COUNTERWEIGHT CABLE ENDS AND CONNECTIONS IN CENTER, VIEW FACING NORTH-NORTHWEST
CA-HEIM-33	SUPERSTRUCTURE ABOVE TRAFFIC LANES ON LIFT SPAN PORTION OF BRIDGE FROM MAINTENANCE CATWALK 3 <sup>RD</sup> LEVEL OF SOUTH TOWER, VIEW FACING NORTH
CA-HEIM-34	OVERALL VIEW OF MACHINERY FLOOR AT TOP OF SOUTH TOWER (BOTH TOWERS HAVE IDENTICAL EQUIPMENT), VIEW FACING WEST
CA-HEIM-35	DETAIL VIEW IN CENTER OF MACHINERY FLOOR AT TOP OF SOUTH TOWER, DIFFERENTIAL AT CENTER OF ROOM, WITH PEDESTAL AND SHAFTS TO EAST AND WEST, VIEW FACING SOUTHEAST
CA-HEIM-36	DETAIL VIEW OF HOIST SHAFT AND GEAR MACHINERY IN NORTHEAST CORNER OF SOUTH TOWER MACHINERY FLOOR (IDENTICAL MACHINERY IN OPPOSITE [SOUTHWEST] CORNER OF ROOM), VIEW FACING EAST-NORTHEAST
CA-HEIM-37	DETAIL VIEW OF BOARD-FORM CONCRETE COUNTERWEIGHT BENEATH MACHINERY FLOOR IN TOWER HOOD, CATWALK (CENTER) LEADS TO ELEVATOR AT RIGHT, VIEW FACING NORTHEAST
CA-HEIM-38	DETAIL OBLIQUE VIEW SHOWING COUNTERWEIGHT IN PARTIALLY LOWERED POSITION AND LIFT SPAN IN PARTIALLY RAISED POSITION, VIEW FACING NORTH-NORTHWEST
CA-HEIM-39	DETAIL OBLIQUE VIEW SHOWING COUNTERWEIGHT RAISED INSIDE TOWER HOOD AND LIFT SPAN IN LOWERED POSITION, VIEW FACING NORTH-NORTHWEST
CA-HEIM-40	VIEW OF BUILDER'S PLATE BESIDE NORTH PORTAL AT DECK LEVEL OF WEST TRUSS PIER 29, VIEW FACING WEST

#### BLACK AND WHITE PHOTOGRAPHIC COPIES OF SELECT AS-BUILT DRAWINGS

Photographer: Stephen Schäfer, September 2010

Source: Caltrans. As-Built Plans. Bridge Across Cerritos Channel. Document No. 70007372.

January 20, 1949. Files provided in Portable Document Format [PDF], scanned from 11x17"originals. Digitizer and date of digitization unknown. Drawings and Documentation File for Bridge 53-2618. Bridge Inspection Records Information System.

CA-HEIM-DRW-1	SHEET 1 OF 162, GENERAL PLAN
CA-HEIM-DRW-2	SHEET 9 OF 162, TRUSS PIERS #26 & 29
CA-HEIM-DRW-3	SHEET 10 OF 162, TRUSS PIERS #26 & 29 - STRUT
CA-HEIM-DRW-4	SHEET 15 OF 162, TOWER PIERS #27 & 28
CA-HEIM-DRW-5	SHEET 22A OF 162, FOOTING DETAILS – BENTS 1-5, 7-17, 32-44
CA-HEIM-DRW-6	SHEET 26 OF 162, FOOTING DETAILS – BENTS 24 & 25, 30 & 31
CA-HEIM-DRW-7	SHEET 28 OF 162, TRUSS PIERS 26 & 29 – DECK FRAME
CA-HEIM-DRW-8	SHEET 32 OF 162, APPROACH SPAN – TRUSS LAYOUT
CA-HEIM-DRW-9	SHEET 35 OF 162, APPROACH SPAN – CROSS SECTION
CA-HEIM-DRW-10	SHEET 37 OF 162, LIFT SPAN – TRUSS LAYOUT
CA-HEIM-DRW-11	SHEET 39 OF 162, LIFT SPAN END DETAILS
CA-HEIM-DRW-12	SHEET 40 OF 162, LIFT SPAN – TYPICAL SECTION
CA-HEIM-DRW-13	SHEET 42 OF 162, TOWER – ROADWAY CROSS SECTION
CA-HEIM-DRW-14	SHEET 43 OF 162, TOWER – ROADWAY PLAN
CA-HEIM-DRW-15	SHEET 45 OF 162, TOWER – LAYOUT AND ELEVATIONS
CA-HEIM-DRW-16	SHEET 47 OF 162, TOWER – LEGS A, B, C, D FROM BASE TO TIER 3
CA-HEIM-DRW-17	SHEET 48 OF 162, TOWER – LEGS A, B, C, D, TIERS 3 TO 7

(page 6)

CA-HEIM-DRW- 18	SHEET 49 OF 162, TOWER – LEGS A, B, C, D, TIERS 7 TO 10
CA-HEIM-DRW-19	SHEET 50 OF 162, TOWER – LEGS A, B, C, D, TIERS 10 TO 24
CA-HEIM-DRW-20	SHEET 51 OF 162, TOWER – LEGS A, B, C, D, TIERS 24 TO 27
CA-HEIM-DRW-21	SHEET 52 OF 162, TOWER – LEGS A, B, C, D, TIER 27 TO ROOF
CA-HEIM-DRW-22	SHEET 53 OF 162, TOWER – SHEAVE GIRDERS
CA-HEIM-DRW-23	SHEET 59 OF 162, TOWER – BRACING, LOWER "X' JOINT
CA-HEIM-DRW-24	SHEET 60 OF 162, TOWER – BRACING, CENTER "X" JOINT
CA-HEIM-DRW-25	SHEET 61 OF 162, TOWER – BRACING, UPPER "X" JOINT
CA-HEIM-DRW-26	SHEET 62 OF 162, TOWER – TOP STRUT, FACE AB & CD
CA-HEIM-DRW-27	SHEET 67 OF 162, COUNTERWEIGHT DETAILS
CA-HEIM-DRW-28	SHEET 68 OF 162, MACHINERY FLOOR – LAYOUT
CA-HEIM-DRW-29	SHEET 76 OF 162, SWITCH ROOM, STORE ROOM & STAIRS
CA-HEIM-DRW-30	SHEET 77 OF 162, CONTROL ROOMS
CA-HEIM-DRW-31	SHEET 86 OF 162, COUNTERWEIGHT CABLE & CONNECTIONS
CA-HEIM-DRW-32	SHEET 87 OF 162, COUNTERWEIGHT SHEAVES & BEARINGS
CA-HEIM-DRW-33	SHEET 88 OF 162, BALANCE CHAIN & ELEVATOR
CA-HEIM-DRW-34	SHEET 91 OF 162, TOWER MACHINERY, GENERAL ARRANGEMENT
CA-HEIM-DRW-35	SHEET 92 OF 152, SHAFT & GEAR DETAILS
CA-HEIM-DRW-36	SHEET 93 OF 162, PEDESTAL & SHAFT DETAILS
CA-HEIM-DRW-37	SHEET 95 OF 162, DIFFERENTIAL GENERAL ASSEMBLY
CA-HEIM-DRW-38	SHEET 133A OF 162, TYPICAL BENT
CA-HEIM-DRW-39	SHEET 134 OF 162, TYPICAL SECTIONS

CA-HEIM-DRW-40 SHEET 162 OF 162, CONSTRUCTION PILING CHART