FINAL SUMMARY REPORT
PROJECT 340

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1. LIST OF REPORTS AND PUBLICATIONS

340.1 Yoshida, Noriaki
THE BEHAVIOR OF LARGE SHINGLE SPLICES THAT SIMULATE BRIDGE JOINTS

340.2 Yoshida, N. and Fisher, J. W.
LARGE SHINGLE SPLICES THAT SIMULATE BRIDGE JOINTS
Fisher, J. W. and Yoshida, N.

340.3 Yoshida, Noriaki
SUMMARY REPORT

340.4 Rivera, Ulise C.
PARTITION OF LOAD IN SHINGLE JOINTS

340.5 Desai, Suresh and Fisher, J. W.
ANALYSIS OF SHINGLE JOINTS

340.6 Rivera, U. and Fisher, J. W.
LOAD PARTITION AND ULTIMATE STRENGTH OF SHINGLE JOINTS

340.7 Power, Edward H.
THE BEHAVIOR AND STRENGTH OF BOLTED SHINGLE SPLICES

340.8 Power, E. H. and Fisher, J. W.
THE BEHAVIOR AND DESIGN OF BOLTED SHINGLE SPLICES
Fisher, J. W. and Power, E. H.
BEHAVIOR AND DESIGN OF SHINGLE JOINTS
(To be presented at ASCE Annual Meeting, October, 1971)

340.9 Power, E. H.
SUMMARY REPORT: Project 340
2. SUMMARY OF X-FILE BOOKS

2.1 PROJECT 340A - SIMULATED BRIDGE JOINTS

X340.1 Control Test Data
X340.2 Bolted Joint Test Data
X340.3 Riveted Joint Test Data
X340.4 Reduced Data
X340.5 Computer Program
X340.6 Details

2.2 PROJECT 340B - Phase II RETESTS ON LARGE SIMULATED BRIDGE JOINTS

X340.7 Modified Joint Tests and Theoretical Elastic Solution

2.3 PROJECT 340B - Phase III ULTIMATE STRENGTH OF SHINGLE JOINTS

X340.8 Results of Analytical Studies
X340.9 Details of Test Program and Specimens
X340.10 Material Properties
X340.11 Test Log
X340.12 Test Results
X340.13 Project Planning and Scheduling
X340.14 Comparison of Design Methods
X340.15 Analytical Studies I Computer Results
X340.16 Analytical Studies II Computer Results
X340.17 Analytical Studies III Computer Results
X340.18 Strain Recordings from Tests
X340.19 Load Distributions - Analysis of Strain Data
X340.20 Computer Analysis of Test Joints - Ultimate Strength
3. LIST OF PHOTOGRAPHS AND NEGATIVES

A list of all photographs for the Phase III tests is given in the book "Project 340B - Shingle Joints - Slides and Pictures." A separate list of the photographs and negative numbers used in Reports 340.7 and 340.8 is also given. The numbering for the photographs in this series was started at 340.101.

4. LIST OF SLIDES

A complete list of slides from the tests completed in Phase III is also given in the book "Project 340B - Shingle Joints - Slides and Pictures."
5. INVENTORY

5.1 Items Obtained from Bethlehem Steel Corp.

.1 Air Compressor

.2 Impact Wrenches
   (1) - CP 721017 Regular
   (1) - Torque Control

.3 Bits for Impact Wrench
   (2) - 7/8" Heavy
   (1) - 1-1/8" Heavy

.4 Spud Wrenches
   (2) - 7/8" Heavy

.5 Air Hose
   (2) - Sections 50' length

.6 Drift pins 11/16"

5.2 A325 Bolts (unmarked)

   150 - 7/8 x 6 A325 HT to low side of ult. tensile strength

5.3 Test Joints

   All test joints except sections of Joint 8 have been disposed of. Sawed sections of Joint 8 showing the fastener deformation have been mounted on the display board on the main floor. Four sawed sections containing 5 bolts each remain and are stored in the bolt cabinets on the main floor.

6. ADDRESS AND FUTURE EMPLOYMENT

Home Address:

1219 Stanhope Street
Pittsburgh, Pennsylvania 15204

Immediate Employment:

Richardson, Gordon and Associates
Consulting Engineers
3 Gateway Center
Pittsburgh, Pennsylvania 15222