

10. NAME(S) OF STRUCTURE  
State Bridge Number 407

11. PHOTOS (W/ FILM ROLL & FRAME NO.) AND SKETCH MAP OF LOCATION  
30B:33-36A 31B:2-11



30B:35

Mack, Warren W. "A History of Motor Highways in Delaware", in Reed, Henry Clay, Delaware: A History of the First State, vol.2, pp.535-550 (NY: Lewis Historical Publishing Co., 1947).

Delaware State Program. Delaware State Highways; The Story of Roads in Delaware.... [Newark, Delaware: Press of Kells, 1919].

Federal Writers' Project. Delaware: A Guide to the First State. (New York: Viking Press, 1938).

Delaware State Archives. New Castle County Levy Court Records. Specifications, Proposals, Contract and Bond files.

Delaware State Archives. New Castle County Road Commissioners Records, 1750-1940.

Delaware DOT records: Annual Reports; contract files.

Plans on file at Delaware DOT: Contract # 672, BNC-35

12. SOURCES

13. INVENTORIED BY:

AFFILIATION

DATE

P.A.C. Spero & Company with Kidde Consultants for Delaware DOT

April-November 1988

# HABS/HAER INVENTORY

See "HABS/HAER Inventory Guidelines" before filling out this card.

## 1. NAME(S) OF STRUCTURE

State Highway Bridge 407

## 2. LOCATION

Road 442 over Silver Lake Spillway  
Middletown, New Castle County, Delaware

## 3. DATE(S) OF CONSTRUCTION

1931/35

## 4. USE (ORIGINAL/CURRENT)

Vehicular

## 5. RATING

SG

## 6. CONDITION

Good

State Highway Bridge 407 is a 19'-0" concrete encased steel girder span, carrying two lanes of traffic on a 20'-6" wide deck. The superstructure rests on concrete abutments; the wing walls are U-shaped, with straight extensions on the east and flared extensions on the west; there is a steel/timber sheeting at the west opening, controlling the flow from Silver Lake. Nine concrete encased girders support the deck. The concrete parapet is ornamental, comprising end blocks with diamond figures which are spanned by a balustrade with triangular-headed openings. The end blocks support planters on the west elevation.

Delaware Department of Transportation records state that Bridge 407 was built in 1931 and altered in 1935; a stamp on the north abutment confirms the 1931 construction date, and a plaque on the bridge indicates that it was reconstructed in 1935 by the Levy Court whose commissioners are listed. Additional repairs were carried out between April 15 and June 2, 1940, by E. F. Hammond of Delmar, Delaware under State Highway Department Contract 672A. The 1940 repairs involved the placement of fill and the excavation of the spillway channel.

State Bridge 407 is an example of a New Castle County structure which incorporates both a bridge and a water flow control structure. This type of combination structure was built in New Castle, Kent and Sussex counties; they serve as examples of creative engineering solutions to unusual site conditions. Although widely built throughout Delaware, only seven extant examples were surveyed. In addition to this, the bridge is an embellished example of a concrete encased girder bridge, a common type constructed during the early growth period and the period of rapid expansion of the state road network.

7. DESCRIPTION

8. HISTORICAL DATA

9. SIGNIFICANCE