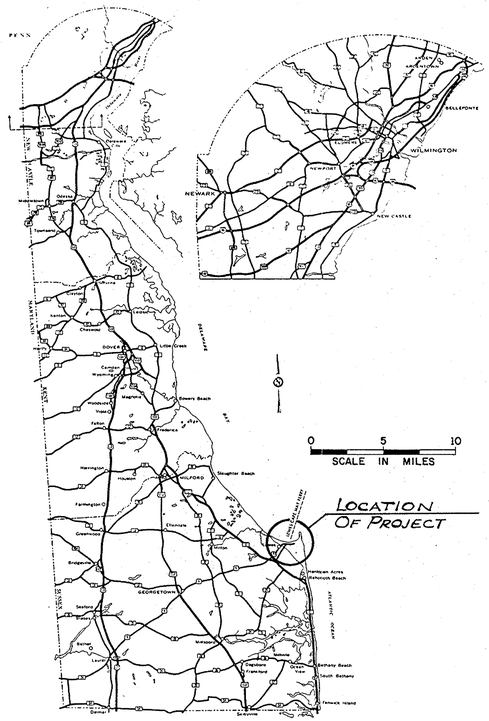
CONTRACT	COUNTY	STATE	F.H.W.A. REG. NO.	FEDERAL AID PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
80-023-03	SUSSEX	DEL.	3	RS-1047(3)	1	3

STATE OF DELAWARE



GENERAL LOCATION OF CONTRACT

THE STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SPECIFICATION AND CONSTRUCTION PLANS FOR:

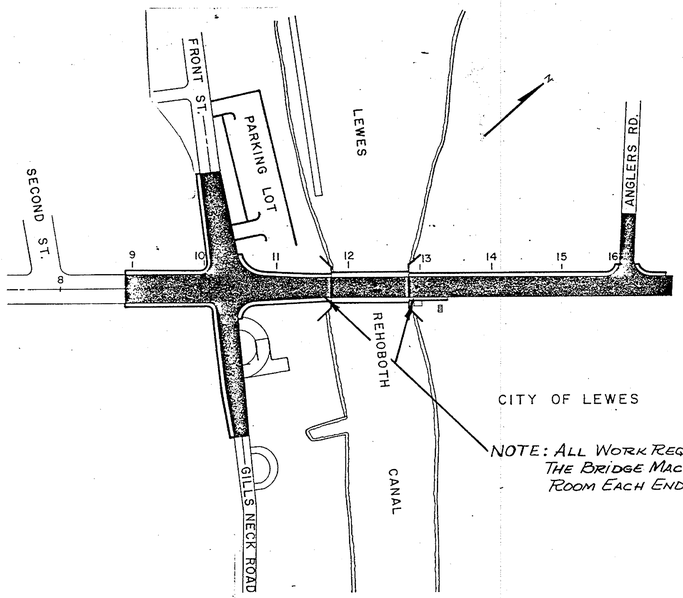
SAVANNAH ROAD BRIDGE
WALL ENCLOSURES AND RAILING

CONTRACT NUMBER 80-023-03
FEDERAL AID PROJECT NUMBER RS-1047(3)

~~ROADWAY LENGTH _____ FEET= _____ MILES~~

STRUCTURE LENGTH 85'-0" FEET=0.0161 MILES

TOTAL LENGTH 85'-0" FEET=0.0161 MILES



ROUTE 18 - SAVANNAH ROAD

SCALE: 1"=100'

DESIGN DESIGNATION

Bridge 154

FUNCTIONAL CLASS _____

TYPE OF CONSTRUCTION BASCULE BRIDGE

A.D.T. CURRENT 7360 (SUMMER 12,512)

A.D.T. PROJECTED 8979 (SUMMER 14,995)

D.H.V. PROJECTED 1350

DESIGN SPEED 30 M.P.H.

% TRUCKS 6

DIRECTION DISTRIBUTION % 70

SCALES

PLAN SHEET: 1/4"= 1.0 Feet

~~PROFILE SHEET:~~

~~Horizontal: 1"= Feet~~

~~Vertical: 1"= Feet~~

DETAIL SHEET: ~~1"= Feet~~ AS SHOWN

INDEX OF SHEETS

SHEET N°	TABLE OF CONTENTS
1	TITLE SHEET AND QUANTITIES
2	GENERAL ARRANGEMENT OF BRIDGE EQUIPTMENT
3	GALLERY WALL ENCLOSURES & HANDRAIL DETAILS

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	PROPOSAL
1 1/2"ø GALVANIZED STEEL HANDRAIL (4 LOCATIONS)	L.S.	L.S.
STRINGER ENCLOSURES (2 LOCATIONS)	L.S.	L.S.
OPERATING RACK ENCLOSURES (4 LOCATIONS)	L.S.	L.S.
PASSAGEWAY ENCLOSURES (4 LOCATIONS)	L.S.	L.S.
INITIAL EXPENSE	L.S.	L.S.

DIVISION OF HIGHWAYS

RECOMMENDED _____ PROJECT ENGINEER

RECOMMENDED _____ 19 ____ SEAL

RECOMMENDED William S. Scrogin DESIGN ENGINEER

RECOMMENDED 7/23 19 84 SEAL (WILLIAM S. SCROGGIN, REGISTERED NO. 2960, DELAWARE PROFESSIONAL ENGINEER)

RECOMMENDED Chao N. Hu ACTING BRIDGE ENGINEER

RECOMMENDED 7-23 19 84 SEAL (CHAO H. HU, REGISTERED NO. 4274, DELAWARE PROFESSIONAL ENGINEER)

RECOMMENDED Gary B. Homewood DEPUTY DIRECTOR OF HIGHWAYS

RECOMMENDED 7-23 19 84 SEAL (GARY B. HOMEWOOD, REGISTERED NO. 2662, DELAWARE PROFESSIONAL ENGINEER)

APPROVED John T. Davis DIRECTOR OF HIGHWAYS

APPROVED 7/23/ 19 84 SEAL (JOHN TYLER DAVIS, REGISTERED NO. 4376, DELAWARE PROFESSIONAL ENGINEER)

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ 19 ____

_____ DIVISION ADMINISTRATOR

43389

COUNTY	CONTRACT	F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
SUSSEX	80-023-03	3	DEL	RS-1047(3)	2	3

GALLERY WALL ENCLOSURES AND GALVANIZED STEEL HANDRAIL

NO.	REVISIONS	BY	DATE

NEW PASSAGEWAY ENCLOSURE SEE SHEET No. 3 FOR DETAILS

NEW GALV. 1½"ø STEEL HANDRAIL SEE SHEET No. 3 FOR DETAILS. LOCATE RAIL UNDER STRUT (TYP.) USE DETAIL "A"

PIPE RAILING

SUBMARINE CABLE TERMINAL CABINET

EAST SERVICE LIGHTING DISTRIBUTION PANEL BOARD

TO DOOR (7) SEE SHEET 1B

CEILING LIGHT

EL. 10.6

LIMIT SWITCH

MOTOR

REDUCER

MACHINERY BALCONY (ONLY TAIL LOCKS SHOWN)

TAIL LOCK ASSEMBLY

WALL RECEPTACLE

L.L. ANCHORAGE

TAIL LOCK BAR

℄ ROADWAY

℄ BRIDGE

SIDEWALK GRATING

RAILING

NAV. LIGHTS

SIDEWALK FRAMING

BASCULE GIRDER

LOCK BAR

ROADWAY STRINGER

SPAN LOCK LINKAGE SUPPORTS

LOCK LINKAGE

MACHINERY PLATFORM

CENTERING DEVICE

ROADWAY GRATING

STAY CURB

F80

F81

F82

NAV. LIGHT

OUTLINE OF SIDEWALK CANTILEVERED FROM PIER ABOVE

SUBMARINE CABLE TERMINAL CABINET

ELECTRIC WATER HEATER

BRIDGE CONTROL PANEL

EL. 11.6

ACCESS DOOR TO STORAGE ROOM

EL. 12.6

EL. 11.6

NEW GALV. 1½"ø STEEL HANDRAIL. SEE SHEET No. 3 FOR DETAILS LOCATE RAIL UNDER STRUT (TYP.) USE DETAIL "B"

NEW PASSAGEWAY ENCLOSURE SEE SHEET No. 3 FOR DETAILS

FUEL OIL STORAGE TANK FOR STANDBY ENGINE GENERATOR

EL. 10.6

OPERATING STRUT AND PINION GEAR OVERHEAD

CEILING LIGHT

℄ BASCULE GIRDER

LIVE LOAD ANCHORAGE

WALL RECEPTACLE

SPAN LOCK LIMIT SWITCH AND INTERLOCK INDICATOR OVERHEAD

THRUSTOR BRAKE UNDERNEATH

OVER FLOW TANK

MOTOR MOUNTED THRUSTOR BRAKE

LEAF DRIVING MOTOR

MANUAL DRIVE

BRAKE STAND

MACHINERY GALLERY (TAIL LOCKS NOT SHOWN)

DIFFERENTIAL

LIMIT SWITCH

COUNTERWEIGHT

REDUCER

LIMITS OF ENCLOSURES FOR OPERATING RACK AND STRINGER ENCLOSURES OVER MACHINERY GALLERY (TYPICAL FOR NORTH END OF BRIDGE)

UPPER WELL POCKETS

ENCLOSED STANDBY ENGINE-GENERATOR

MANUAL DRIVE

OPERATING STRUT DRIVE SHAFT

COUPLING

THRUSTOR BRAKE

SIDE-INLET SILENCER

REDUCTION GEARS

BATTERY CHARGER

℄ BASCULE GIRDER

PINION GIRDER

4"ø EXHAUST LINE

OPERATING STRUT

FULLY SEATED LIMIT SWITCH

PIPE RAILING

NEW GALV. 1½"ø STEEL HANDRAIL SEE SHEET No. 3 FOR DETAILS LOCATE RAIL UNDER STRUT (TYP.) USE DETAIL "A"

NEW PASSAGEWAY ENCLOSURE SEE SHEET No. 3 FOR DETAILS

NEW GALV. 1½"ø STEEL HANDRAIL SEE SHEET No. 3 FOR DETAILS LOCATE RAIL UNDER STRUT (TYP.) USE DETAIL "A"

NOTE:
NEW MEMBERS ARE SHOWN SCHEMATICALLY BY SOLID LINES.

Bridge 154

DELAWARE
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

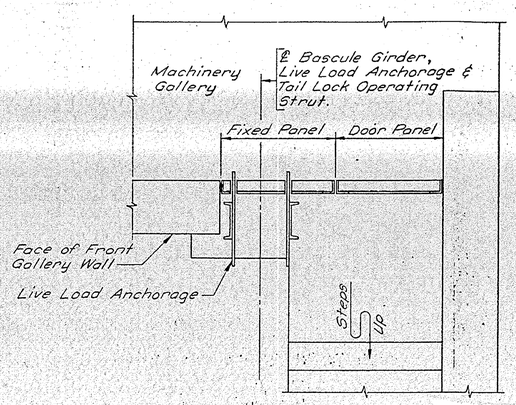
SAVANNAH ROAD BRIDGE OVER LEWES & REHOBOTH CANAL GENERAL ARRANGEMENT OF BRIDGE EQUIPMENT

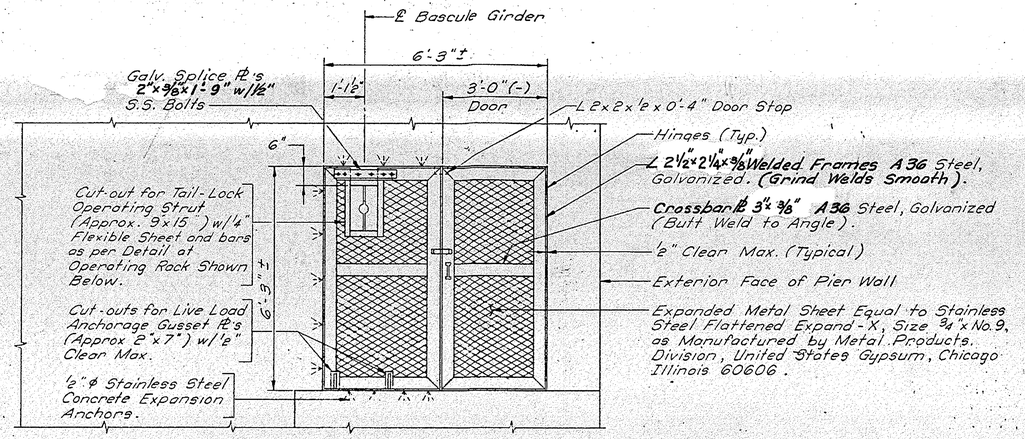
D. T.F.F.	SCALE	APPROVED BY:
T. T.F.F.	1/4"=1'-0"	
C. C.H.		BRIDGE ENGINEER

COUNTY	CONTRACT	F.H.W.A. REG. NO.	STATE	FED. AID PROJECT NO.	SHEET NO.	TOTAL SHEETS
SUSSEX	80-023-03	3	DEL.	RS-1047(3)	3	3

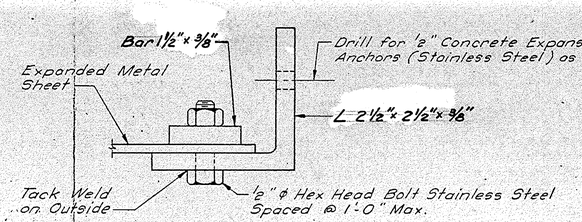
GALLERY WALL ENCLOSURES AND GALVANIZED STEEL HANDRAIL

Bridge 154



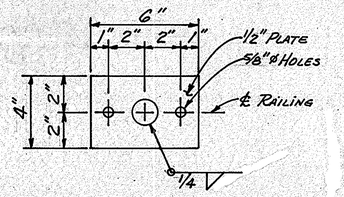


ELEVATION
Scale: ½"=1'-0"



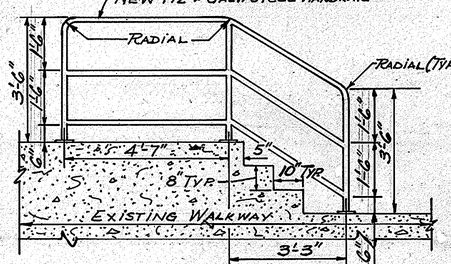
SECTION AT ANGLE FRAME
Scale: ½ Size

PLAN
Scale: ½"=1'-0"

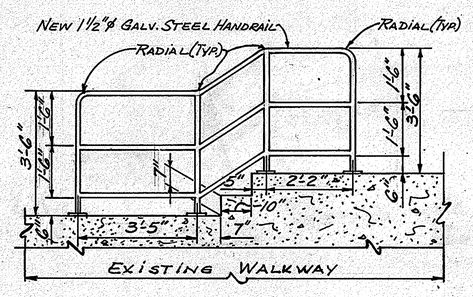


TYPICAL RAILING BASE PLATE
SCALE: 3"=1'-0"

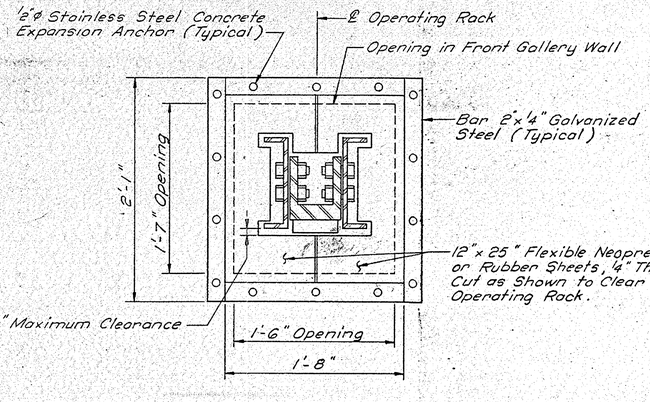
PASSAGEWAY ENCLOSURE
(4 Locations)



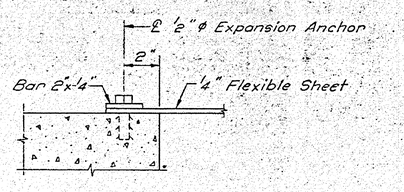
DETAIL "A" (3 LOCATIONS)
SCALE: ½"=1'-0"



DETAIL "B" (1 LOCATION)
SCALE: ½"=1'-0"

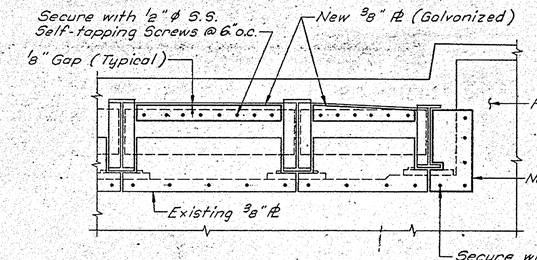


ELEVATION AT OPERATING RACK
Scale: ½"=1'-0"



TYPICAL SECTION
Scale: ¼ Size

OPERATING RACK ENCLOSURE
(4 Locations)



ELEVATION AT DECK OVER MACHINERY GALLERY
Scale: ½"=1'-0"

STRINGER ENCLOSURE
(2 Locations)

Note:
Paint all New Surfaces with Galvonized Primer and Finish Coat to Match Existing Steelwork.

Notes:

1. All Structural Steel Shall be A36, Galvanized as per A123. All bolts And Nuts Shall Be A320 Stainless Steel.
2. All Dimensions Shall be Verified by Field Measurement and Shop Drawings Approved Prior to Fabrication.
3. Expanded Metal Sheet to be Secured Along Full Length of Angle Frame and Crossbar Using 1½"x⅜" Holder Bar with ½"ø Bolts Spaced at 1'-0" Max. as Shown.
4. Hardware, Including Hinges, Handles, Hasps, etc. Shall be of Heavy-Duty Galvanized Steel Construction and Shall be Attached to the Door Frame with Bolts. Hinges Shall be Secured to the Concrete Wall Using Expansion Anchors. Provide Heavy-Duty Lock with Four (4) Sets of Keys.
5. All Pipe Railing Shall Be 1½"ø Schedule 40 Steel, A.S.T.M. A-53, Grade B.
6. All Steel Shall Be A.S.T.M. A-36.
7. All Railing Shall Be Galvanized After Fabrication, A.S.T.M. A-123.
8. Fasten Base Plates To Floor With 5" Long Stainless Steel Wedge Anchors.
9. When Installing The Railing Be Sure The Railing Does Not Interfere With The Openings Of The Bridge.

DELAWARE
DEPARTMENT OF HIGHWAYS & TRANSPORTATION
DIVISION OF HIGHWAYS

SAVANNAH ROAD BRIDGE
OVER LEWES & REHOBOTH CANAL

D. J.F.P. & P.F.	SCALE	APPROVED BY:
T. M.P. & P.F.	AS NOTED	
C. H.E.D. & C.H.		BRIDGE ENGINEER