F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60B-I-4	MADISON	3	1
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID HIGHWAY

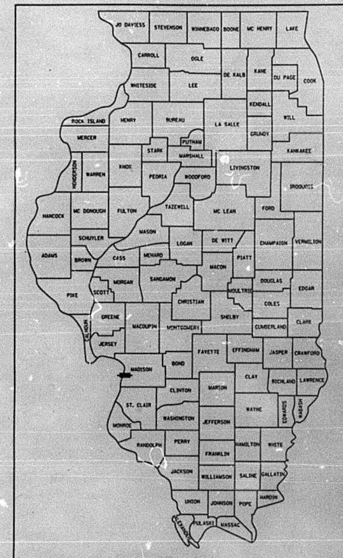
SCALES { PLAN / PROFILE HORIZ. / PROFILE VERT. / CROSS SECTIONS

FAI ROUTE 270

SECTION 60B-I-4
MADISON COUNTY

PINS & LINK PLATES FABRICATION OF MISSISSIPPI RIVER BRIDGE

C-98-135-95



JO DAVIESS
STEPHENSON
WINNEBAGO
BOONE
MC HENRY
LAKE
CARROLL
OGLE
DE KALB
KANE
DU PAGE
COOK
WHITESIDE
LEE
KENDALL
WILL
ROCK ISLAND
HENRY
BUREAU
LA SALLE
GRUNDY
MERCER
PUTNAM
STARK
MARSHALL
KANKAKEE
HENDERSON
WARREN
KNOX
PEORIA
WOODFORD
LIVINGSTON
IROQUOIS
HANCOCK
MC DONOUGH
FULTON
TAZEWELL
MC LEAN
FORD
SCHUYLER
MASON
LOGAN
DE WITT
CHAMPAIGN
VERMILION
ADAMS
BROWN
CASS
MENARD
PIATT
MACON
PIKE
SCOTT
MORGAN
SANGAMON
MOULTRIE
DOUGLAS
EDGAR
CHRISTIAN
COLES
GREENE
SHELBY
CALHOUN
MACOUPIN
MONTGOMERY
CUMBERLAND
CLARK
JERSEY
FAYETTE
EFFINGHAM
JASPER
CRAWFORD
MADISON
BOND
CLAY
RICHLAND
LAWRENCE
CLINTON
MARION
ST. CLAIR
WAYNE
EDWARDS
WABASH
WASHINGTON
JEFFERSON
MONROE
RANDOLPH
PERRY
FRANKLIN
HAMILTON
WHITE
JACKSON
WILLIAMSON
SALINE
GALLATIN
UNION
JOHNSON
POPE
HARDIN
ALEXANDER
PULASKI
MASSAC

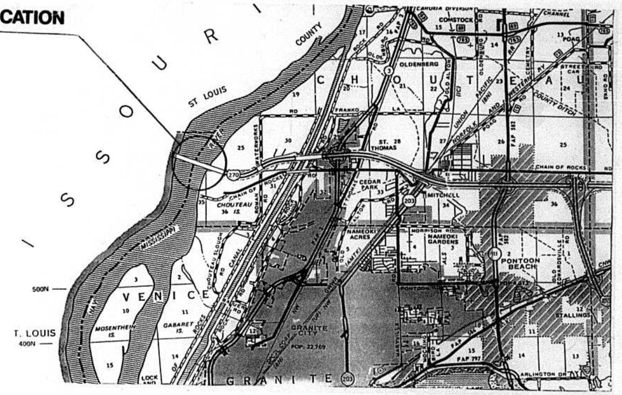
LOCATION OF SECTION INDICATED THUS:

D-98-096-95

N

MICROFILMED ______________
REEL NUMBER ______________
AWARDED ______________
RESIDENT ENGINEER ______________
AS BUILT CHANGES WERE MADE ON THE FOLLOWING SHEETS

PROJECT LOCATION



MISSOURI
ST LOUIS COUNTY
CHOUTEAU
OLDENBERG
COMSTOCK
ST. THOMAS
CEDAR PARK
MITCHELL
CHAIN OF ROCKS
CHOUTEAU IS.
NAMEOKI ACRES
NAMEOKI GARDENS
PONTOON BEACH
VENICE
MOSENTHEIN IS.
GABARET IS.
GRANITE CITY
STALLINGS
GRANITE
MISSISSIPPI
500N
T. LOUIS
400N

0	100'	200'	300'	1" = 100'
0	10'	20'	30'	1" = 10'
0	50'	100'		1" = 50'
0	50'	100'		1" = 40'
0	50'	100'		1" = 30'
0	50'	100'		1" = 20'

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES, IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123

CONTRACT NO. 96916

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED May 5, 19 95
Dale Klohr
DISTRICT ENGINEER

PASSED June 9 19 95
Gary Gould
ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED June 9 19 96
James C. Slifer
DIRECTOR, DIVISION OF HIGHWAYS

PROJECT ENGINEER: BILL ROJE (618) 346-3179
SQUAD LEADER: ANAND RAISINGHANI (618) 346-3185

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
I-270	60B-I-[illegible]	MONROE	3	2
STA.		TO STA.		
EXISTING CONDITIONS:				

ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
				100% STATE		
CODE NO	ITEM	UNIT		X071-2A		
X0321736	FURNISH PINS AND LINK PLATES	EACH	42	42		

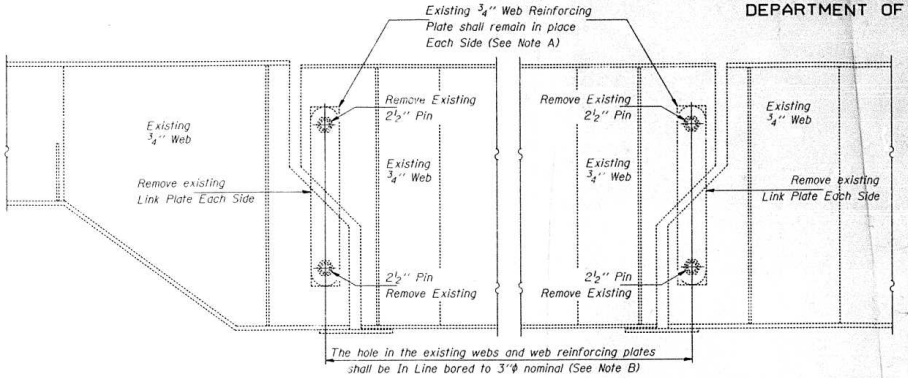
05/03/95
Wed May 3 13:25:05 1995
/usr/project/e0055594/d0055594pb.dgn LV-1-63

Rev.

PLOT DATE: Wed May 3 13:25:05 1995

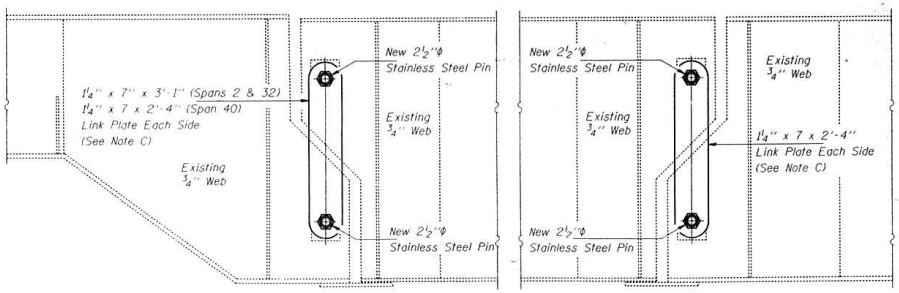
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 270	60B-1-4	MADISON		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		SHEET NO. 1 / SHEETS



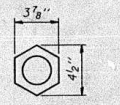
ELEVATION AT EXISTING PIN ASSEMBLY FOR SPANS 2, 32 & 40

ELEVATION AT EXISTING PIN ASSEMBLY FOR SPAN 35

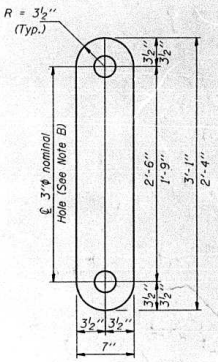


ELEVATION AT NEW PIN ASSEMBLY FOR SPANS 2, 32 & 40

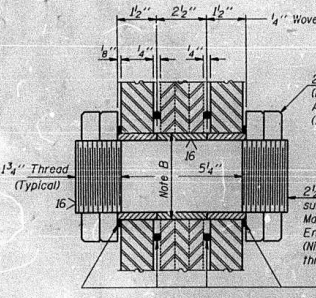
ELEVATION AT NEW PIN ASSEMBLY FOR SPAN 35



NUT DETAIL
(336 Required)



LINK PLATE DETAIL
(44 Required 3'-1")
(40 Required 2'-4")



SECTION THRU PIN
(84 Required)

NOTES

All details and notes relative to removal and erection are for information only, which work will be done by others.

All new structual steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

The inorganic zinc-silicate/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the acrylic finish coat shall be Light Grey, Munsell No. 10Y 7/1. See Special Provisions "Cleaning and Painting Metal Structures".

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Pins and Link Plates shall conform to the minimum Charpy V-Notch Toughness of 25 ft.-lbs. at 40° F.

The pins, link plates, bushings and nuts are the items included in "Furnish Pins and Link Plates".

Note A:
Existing welds shall be inspected for cracks using liquid dye penetrant or magnetic particle testing. Any cracks that are found shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Clean and paint before installing new link plates.

Note B:
Bore diameter for bushing in link plate, existing webs and web reinforcement plates shall correspond to bushing manufacturer's allowable tolerances for proper functioning. Hole diameter may be adjusted to allow use of stock bushings.

Note C:
Inside face of new link plates shall receive first field coat in shop. The primer shall pass the M.E.K. Rub Test before the first field coat is applied.

Note D:
Actual bushing thickness per manufacturer's specifications. 1/4" is approximate. Bushings shall be a self lubricating filament wound epoxy matrix backed Duralon Bearing, metal backed Fiber Glide Bearing or equivalent. No primer or grease shall be allowed on bushings. Bushings shall be suitable for dynamic loads of 20,000 psi.

Note E:
Tighten inside nuts to bring all bushings into firm contact, then back off 1/4 turn and tighten outer nuts.

Note F:
Apply 3/8" bead to face of the web reinforcing plates approximately 1/2" from bushing immediately before installing new link plates. Place sealant around nuts after installation. Sealant shall be suitable for prolonged exterior exposure without losing flexibility or adhesion to painted steel surfaces. Proposed products shall be subject to Department's acceptance based on documented testing or other evidence.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish Pins and Link Plates	Each	42

MAXIMUM REACTIONS AT PIN

RR	(K)	24.0
RL	(K)	37.8
Imp.	(K)	11.3
R (Total)	(K)	73.1

DESIGNED Christopher M. Medinger
CHECKED Anthony [illegible]
DRAWN Paul Summer
CHECKED CHM, MW

MAY 25, 1995
EXAMINED [signature] ENGINEER OF STRUCTURAL SERVICES
PASSED ENGINEER OF BRIDGES AND STRUCTURES

FURNISH PINS AND LINK PLATES
F.A.I. ROUTE 270 SEC. 60B-1-4
MADISON COUNTY
STA. 780+00.25
STR. No. 060-0035