

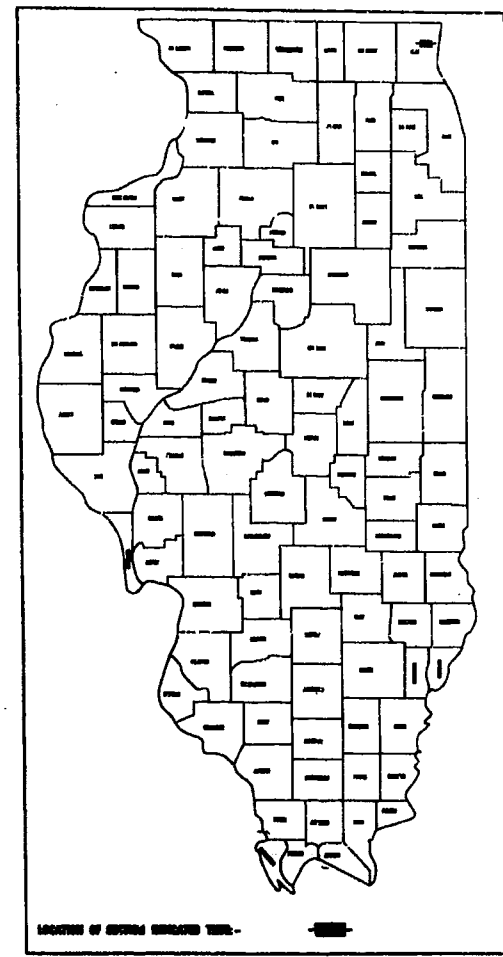
049-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

MAP NO.	SECTION	COUNTY	SCALE	DATE
541	X-6-B-R	LAKE	30	1
D-91-331-92				

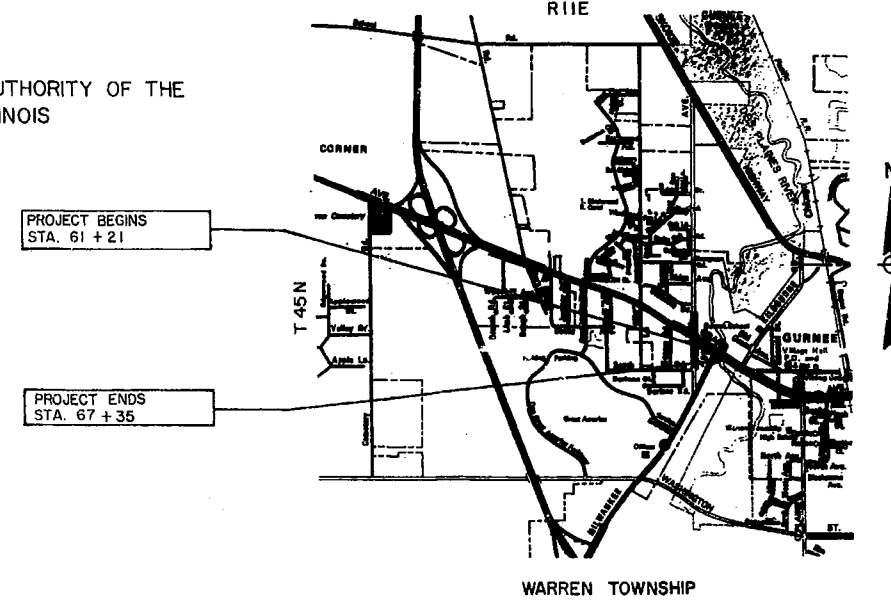
FOR INDEX OF SHEETS, SEE SHEET NO. 2

PLAN 1"=50'
 PROFILE HORIZ. 1"=50'
 PROFILE VERT. 1"=5'
 CROSS SECTION HORIZ. 1"=10'
 CROSS SECTION VERT. 1"=5'
F.A.P. RTE. 541 (IL RTE. 132 - GRAND AVE.)
SECTION: X-6-B-R
OVER THE DES PLAINES RIVER
BRIDGE SUPERSTRUCTURE REMOVAL
AND REPLACEMENT
PROJECT: ACBHF-541 (9) ³⁶ (PL)
LAKE COUNTY
C-91-087-93

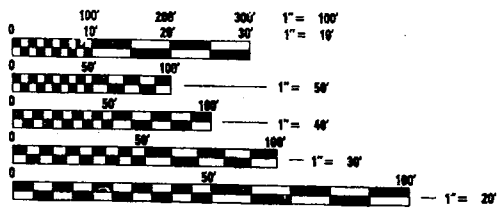


PROJECT LOCATED IN
VILLAGE OF GURNEE

PRINTED BY AUTHORITY OF THE
STATE OF ILLINOIS



IL RTE 132 OVER THE DES PLAINES RIVER
 STRUCTURE NO. 049-0062 (STA. 64+40.04)
 REMOVE EXISTING 3-SPAN PPC DECK BEAM
 SUPERSTRUCTURE AND CONSTRUCT 3- SIMPLE
 SPAN PPC DECK BEAM BRIDGE ON EXISTING
 CONCRETE ABUTMENTS AND PIERS.
 CONSTRUCTION OF BIKE TRAIL UNDER
 SUPERSTRUCTURE AT THE EAST
 ABUTMENT.



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.

MAP SCALE 0.5 MILE

GROSS LENGTH OF PROJECT = 614.00 LIN. FT. = 0.116 MILE
NET LENGTH OF PROJECT = 614.00 LIN. FT. = 0.116 MILE

TRAFFIC DATA
 1988 ADT = 25,300
 SPEED LIMIT = 40 MPH
 JUN 14 1995
 Teresa Mesia Rubino



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DESIGNED BY: June 15 1995
Duane P. Carlson

EXAMINED BY: _____

DATE: July 28 1995

APPROVED BY: July 28 1995

DESIGN DESIGNATION:
32000 (2010) OTHER PRINCIPAL ARTERIAL 4.04 (PCC-20)



RUBINOS & MESIA ENGINEERS, INC.
200 S. MICHIGAN AVE., SUITE 500 CHICAGO, IL 60604-2482 312/963-5879 FAX 312/963-1473



JUN 14 1995

Teresa Mesia Rubino

CONTRACT NO. 82317

J.U.L.I.E. (800) 892-0123

CONSULTANT PROJECT ENGINEER: ART ABBAS (708) 715-4237 SCHAMBERG, ILLINOIS

Structure: Sta. 7+80.60, ILL. Rte. 132, Sec. X-6B
 Des Plaines River Elev. 668.63

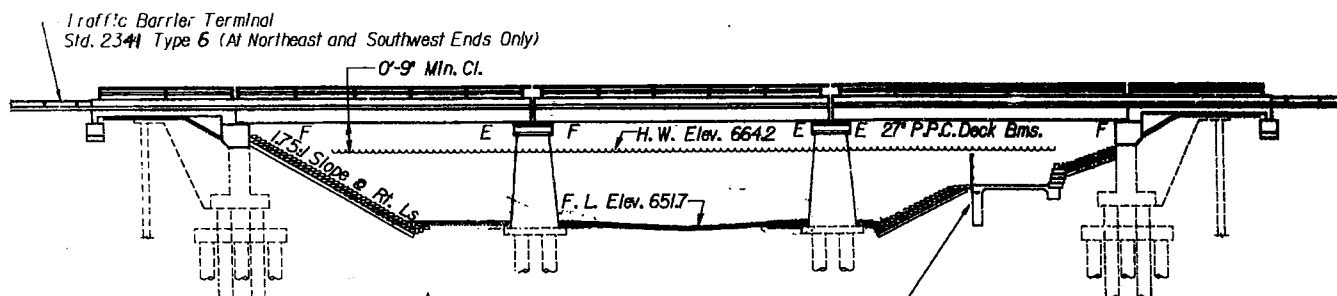
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DATE	NO.	BY	REV.	DATE
5/1	1

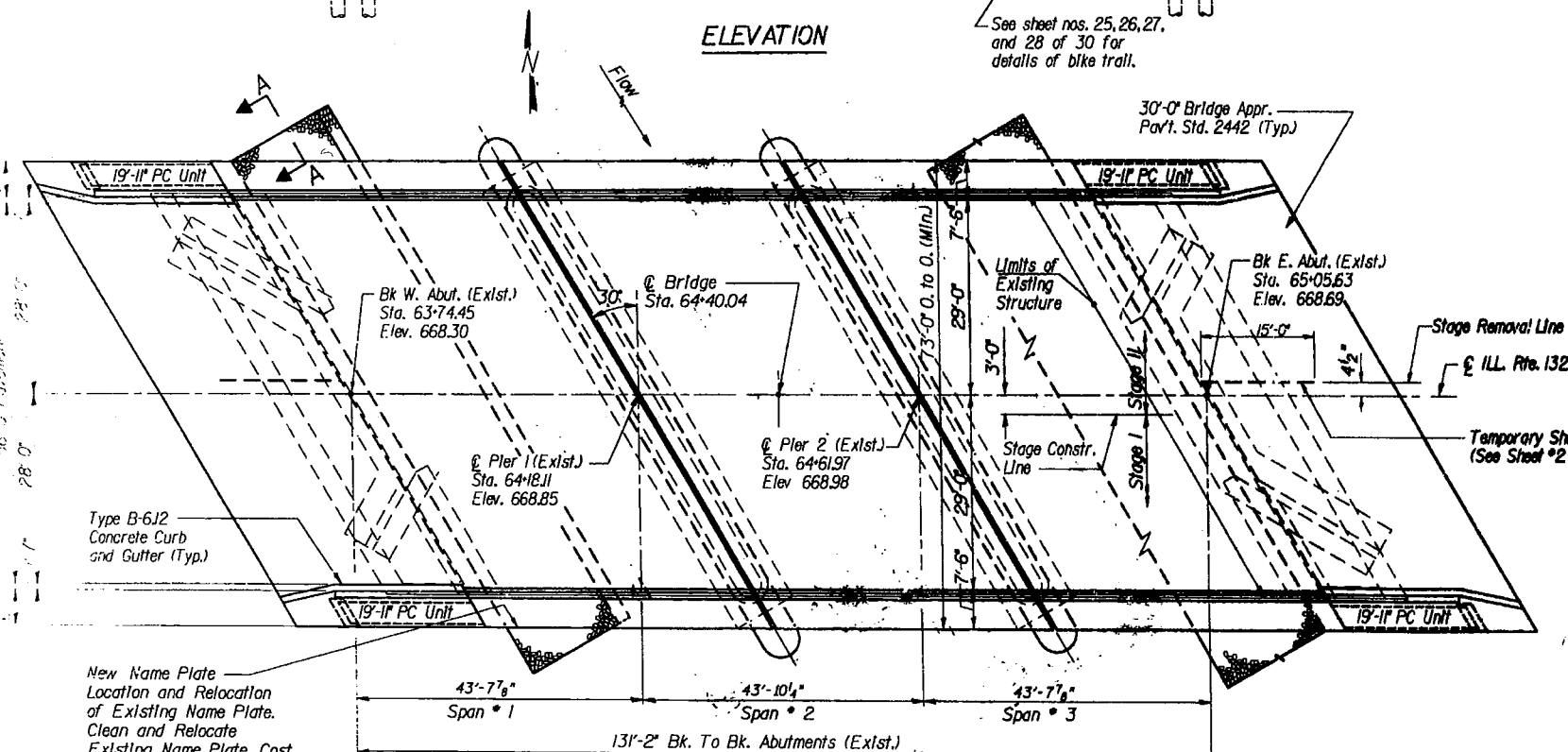
SHEET NO. 1
 OF 13 SHEETS

Existing Structure: Sta. 7+80.60, ILL. Rte. 132, Sec. X-6B
 Built in 1922, Rehabilitated in 1957. Structure Number 049-0062.
 Superstructure Simple Span PPC Deck Bms. Substructure R. C.
 Abutments, R. C. Piers. Existing Out to Out = 62'-0".
 Existing Back to Back Approach Bents = 159'-2 3/4".
 Superstructure to Be Removed and Structure Widened.
 Traffic to be Maintained Utilizing Stage Construction.

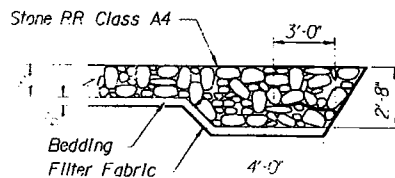
No Salvage



ELEVATION



PLAN



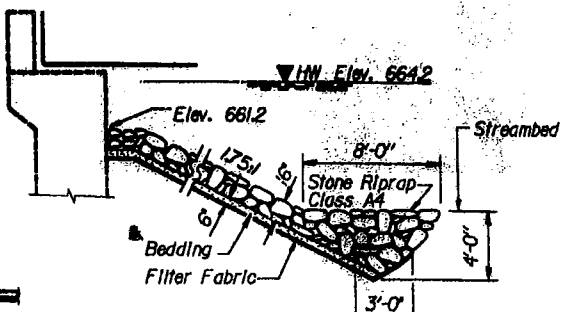
SECTION A-A

WATERWAY INFORMATION

(Elevations Shown on This Table are According to F.I.S. Datum. To Convert to Highway Datum Subtract 0.11 feet)

Flood	Freq. Yr.	Q C.F.S.	Opening Sq.Ft.		Nat. H.W.E.	Head (ft)		Headwater El.	
			Exlst.	Prop.		Exlst.	Prop.	Exlst.	Prop.
Design	50	3760	995	995	664.2	0.3	0.3	664.5	664.5
Base		4260	1057	1057	664.8	0.3	0.3	665.1	665.1
Overtopping		2580	851	851	662.8	0.1	0.1	662.9	662.9
Max. Calc.									

DESIGNED	VR
CHECKED	VF
DRAWN	VS
CHECKED	VR



STONE RIPRAP TREATMENT AT WEST ABUTMENT

STATION 64+40.04
 REBUILT BY
 STATE OF ILLINOIS
 F.A.P. RT. 541 SEC. X-6-B-R
 (A. PROJ. ABOVE 541B)
 LOADING HS20
 STR. NO. 049-0062

NAME PLATE
 See Std. 2113

SEISMIC DATA

S.P.C. = A
 A = 0.04
 S = 10

DESIGN SPECIFICATIONS

AASHTO 1992 & 1993 Interim

LOADING HS20-44

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
 fy = 60,000 psi (Reinf.)
 fy = 36,000 psi (Struct.) (M270, Gr.36)

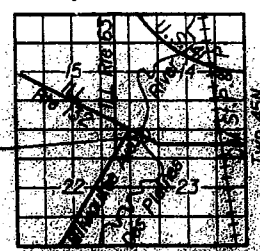
PRECAST PRESTRESSED UNITS

f'c = 5,000 psi
 f'cl = 4,000 psi
 f's = 270,000 psi (1/2" strands)
 f'sl = 189,000 psi (1/2" strands)

PROFILE GRADE

ILL RTE 132
 (Along @ Roadway)

Range IIE 3rd PM



LOCATION SKETCH

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53, Grade 60.

Expansion guards which are cast in the precast unit shall be fabricated and erected in accordance with Article 503.12(a) of the Standard Specifications and are included in quantity of structural steel.

All structural steel shall be shop primed with the zinc-silicate/acrylic/acrylic paint system. The color of the acrylic finish coats shall be Munsell No. 2.5 YR 3/4, reddish brown.

Layout of Stone Riprap may be varied in the field to suit ground conditions as directed by the Engineer.

The top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall not be roughened by brooming. The finishing of the top shall be free of depressions or high spots with sharp corners, and the top edge of the beam shall be rounded or chamfered to a minimum of 1/8".

A Calcium Chloride Corrosion Inhibitor, as covered in the Special Provisions, shall be used in the concrete for precast prestressed concrete deck beams.

Protective Coating shall not be applied to surfaces to which Waterproofing Membrane System is applied.

Limits of Waterproofing Membrane System shall be from end to end of deck and face to face of abutments.

Plan dimensions and details relative to existing structure have been taken from existing plans and drawings. It is the Contractor's responsibility to verify the accuracy of the same. Any necessary approved adjustments shall be the Contractor's responsibility and shall not be cause for a change order. The Contractor will be held responsible for the accuracy of the work.

Shoulder treatment shall be done with stone riprap. Cast in place.

ITEM	UNIT	QTY	PRICE	TOTAL
Structure		100	1.80	180
Concrete		100	1.15	115
Steel		145	1.15	166.75
Formwork		157.6	1.15	181.24
Temporary Bridge		193	1.15	221.95
Formwork		247	1.15	284.05
Temporary Sheet Piling		85	1.15	97.75
Formwork		85	1.15	97.75
Waterproofing		841	1.15	967.15
Filter Fabric		271	1.15	311.65
Concrete		1409	1.15	1620.35
Precast		299	1.15	343.85
Portland Cement		29	1.15	33.35
Pavement		29	1.15	33.35
Temporary Sheet Piling		720	1.15	828



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

Robert E. Adams
 Engineer of Bridges and Structures

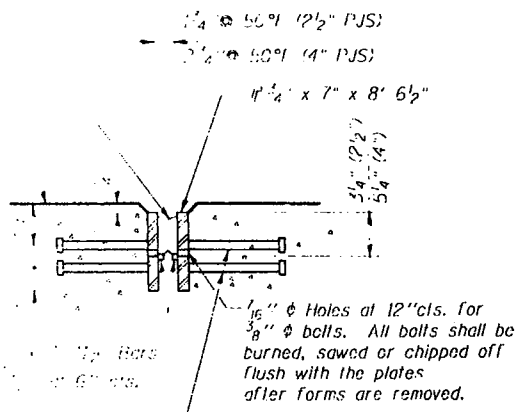
GENERAL PLAN & ELEVATION
 F.A.P. RTE. 541 SECTION X-6-B-R

LAKE COUNTY

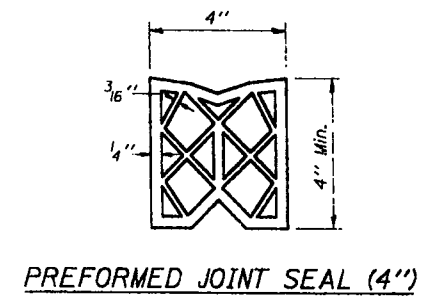
STA. 64+40.04
 S.N. 049-0062

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

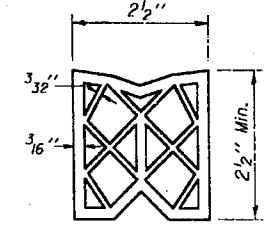
DATE	REV.	BY	DATE	REV.
5/1	1	W.B.	30	16
PROJECT NO. 541 049-62				SHEET NO. 5
				OF 13 SHEETS



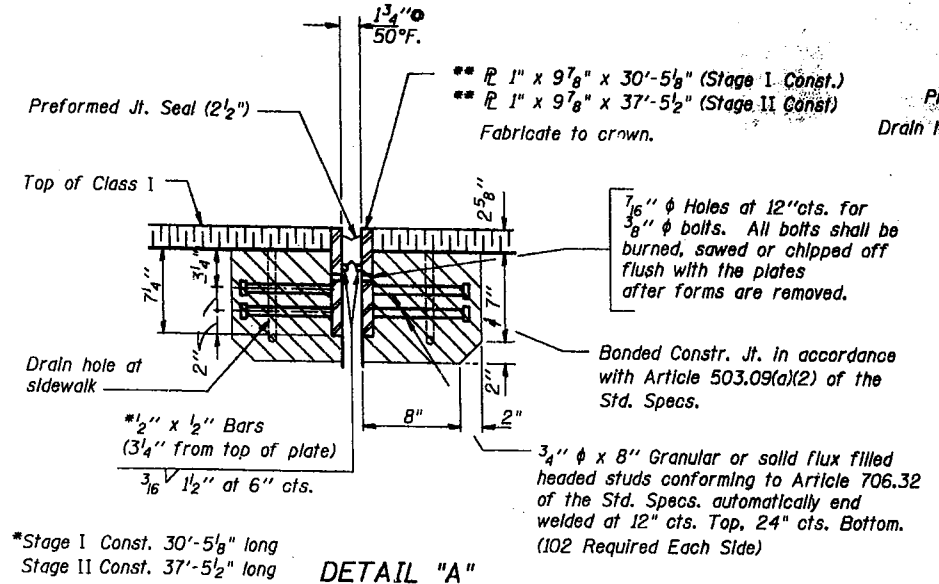
SECTION A-A



PREFORMED JOINT SEAL (4'')

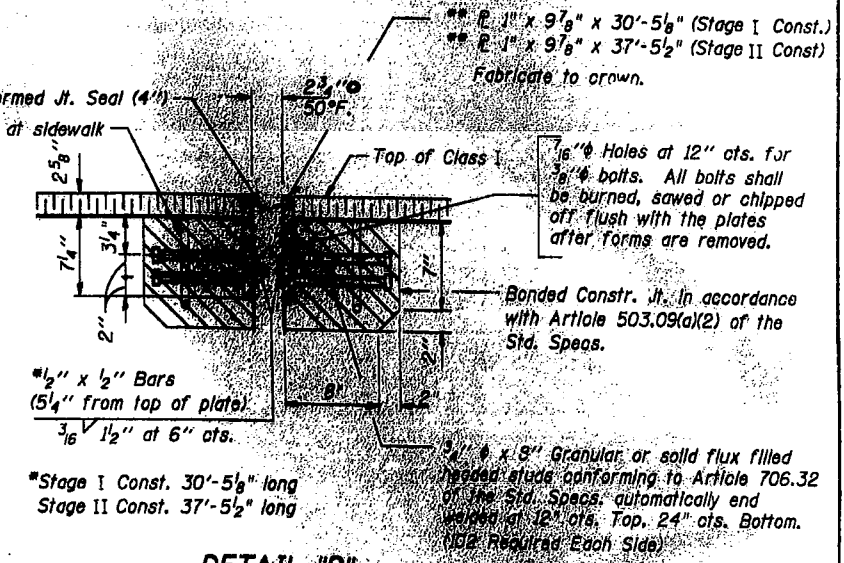


PREFORMED JOINT SEAL (2 1/2'')



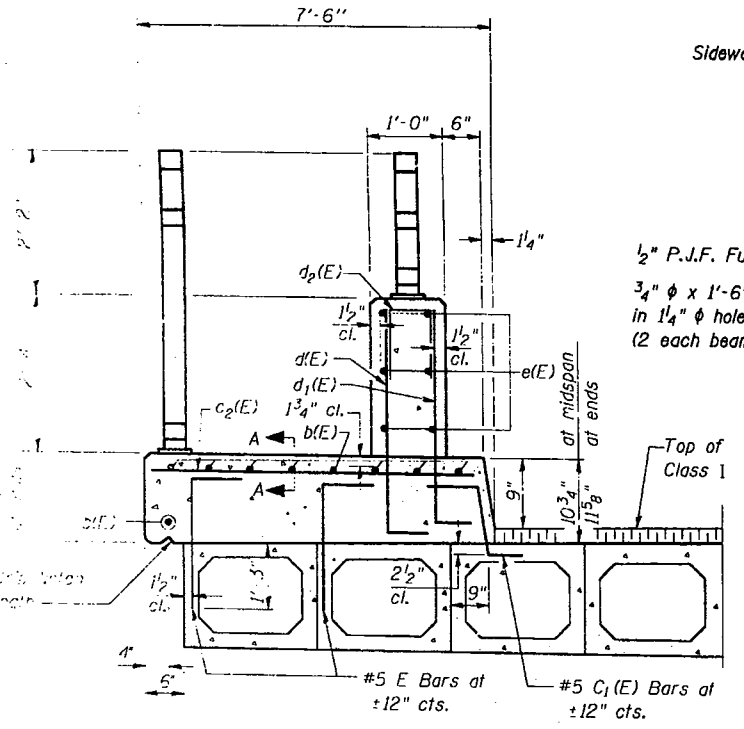
DETAIL "A"

** Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.

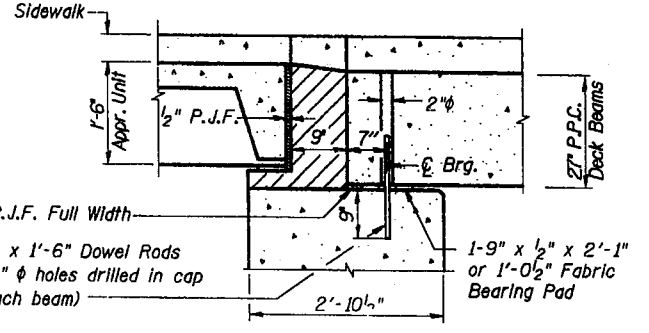


DETAIL "B"

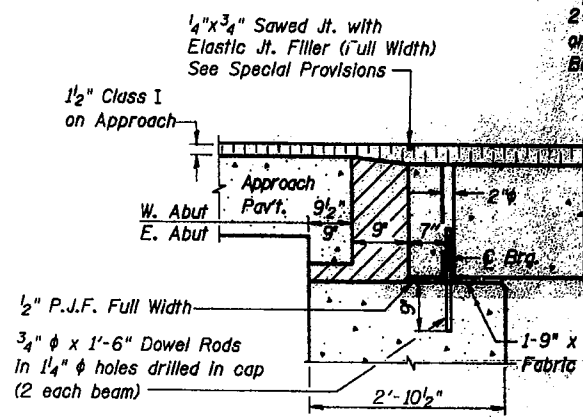
** Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.



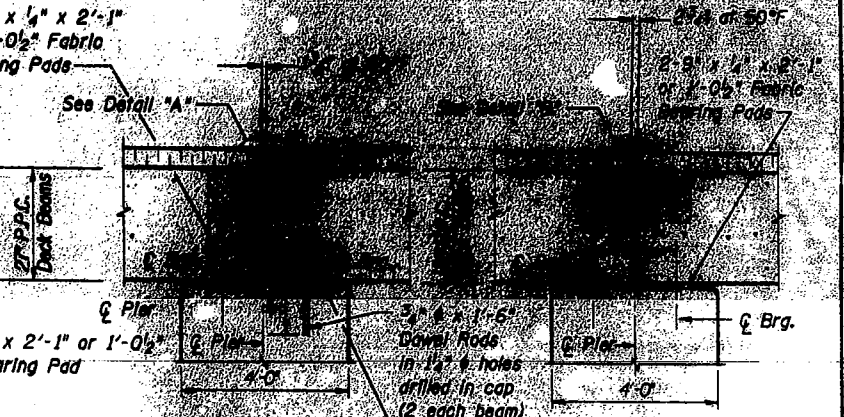
SECTION THRU PARAPET AND SIDEWALK



SEC. THRU ABUTMENTS AT APPROACH UNITS

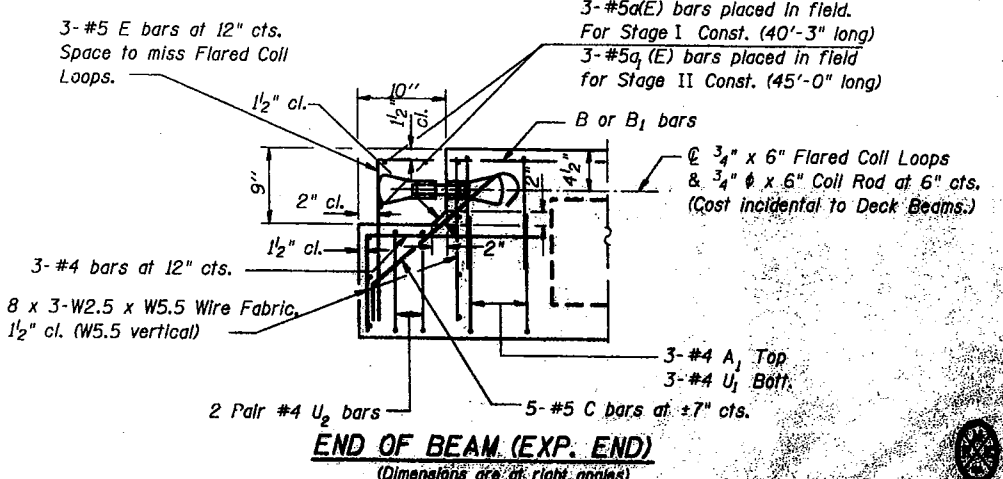


SEC. THRU ABUTMENTS AT ROADWAY



SEC. THRU PIER 1

SEC. THRU PIER 2



END OF BEAM (EXP. END)
(Dimensions are at right angles)

Note: All horizontal dimensions are at right angles to beam ends. Ends of beams shall be aligned at the expansion joints. Any fixed variation in the beam lengths shall be placed at the fixed joint. See End of Beam Detail for reinforcement. Dowel Rods to be grouted after beams are in place and allowed to cure (minimum 24 hours) prior to grouting the shear keys. Bent-up bars to be grouted after beams have been erected and joints grouted.

SUPERSTRUCTURE DETAILS
F.A.P. RT. 541 SECTION X-6-B-R
LAKE COUNTY
S.T.A. 64+40.04

DESIGNED	VR
CHECKED	VF
DRAWN	VW
CHECKED	VE

