ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.				
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

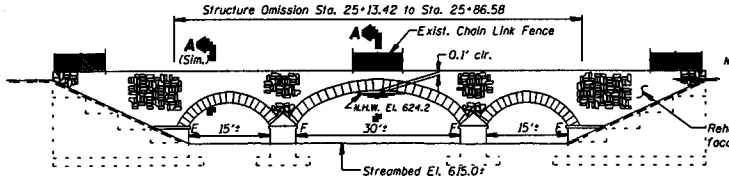
SHEET NO. 1 OF 1 SHEETS

Bench Mark: TBM 12 - Tagged bolt on first fire hydrant east of Skokie River, north side Winnetka Road, at STA. 26+97 U.S.G.S. Elev. = 625.898

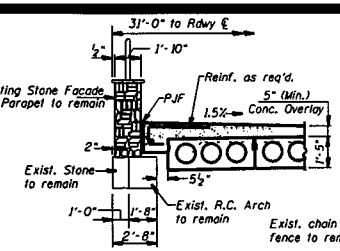
Existing Structure: S.N. 016-1162, built in 1935 is a three span reinforced concrete structure; the middle longer span (34'-9") is a concrete tee beam superstructure and the shorter end spans (18'-8½") are reinforced concrete slab. The substructure consists of R.C. piers on spread footings and closed abutments. Structure is located in the Forest Preserve District of Cook County between the Village of Winnetka and Northfield. Total length end to end of wingwalls is 119'-6". Total length back to back abutment is 73'-2". Clear width between curbs is 44'-0". Total width out to out of deck is 62'-0".

Superstructure is to be removed and replaced. Traffic is to be maintained utilizing stage construction. One lane for both directions will be provided by using temporary traffic signals.

Salvage: None.

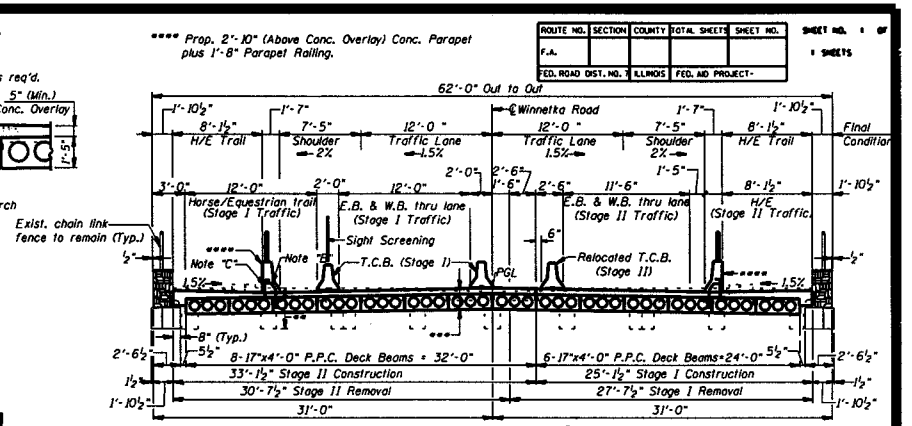


ELEVATION



SECTION A

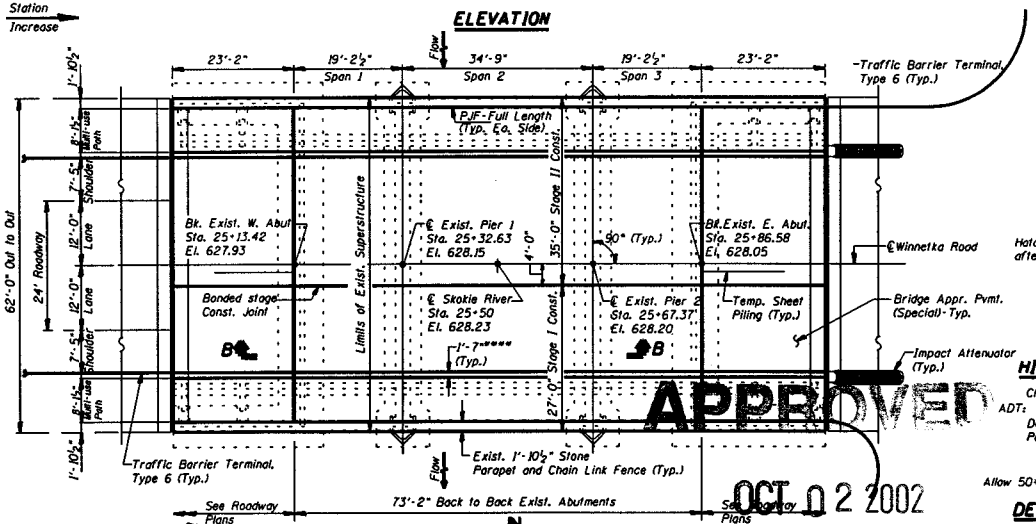
Note: For items not shown or noted, see Cross Section - ℄ Span 2



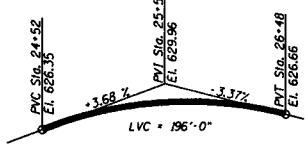
Note "B"- #5(E) @ 12" Cast with PPC Deck Beam
Note "C"- #4(E) @ 12" Cast with PPC Deck Beam

CROSS SECTION - ℄ SPAN 2

(Looking East) - Spans 1 & 3 similar

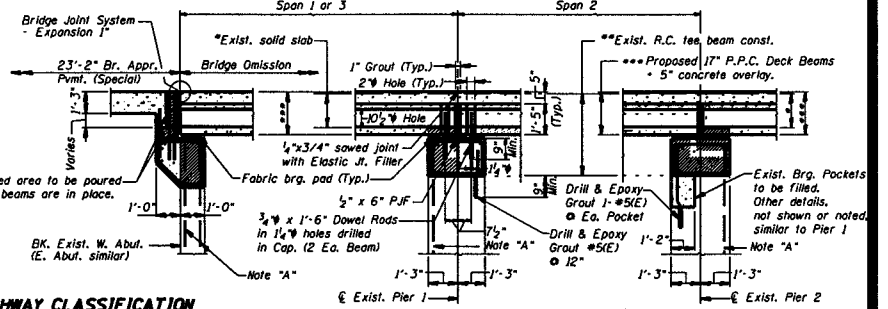


PLAN



PROFILE GRADE

(Along ℄ Winnetka Road)



SECTION B-B

Note "A"- Clean, straighten & reuse exist. vertical bars.

HIGHWAY CLASSIFICATION

Classification: Collector (Urban)
ADT: 8000 (2000) 9360 (2015)
Design Speed: 35 m.p.h.
Posted Speed: 35 m.p.h.

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

1996 AASHTO with 1997 thru 2000 & 2002 Interims

DESIGN STRESSES

EXISTING	PROPOSED
f'_c = 3,500 psi	f'_c = 3,500 psi
f_y = 40,000 psi (Reinf.)	f_y = 60,000 psi (Reinf.)
f_y = 30,000 psi (Struct.)	

PRECAST PRESTRESSED UNITS

f'_c = 5,000 psi
f'_{ci} = 4,000 psi
f'_{si} = 201,960 psi (½"ϕ low relax. strands)
f'_s = 270,000 psi

SEISMIC DATA

Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.8% g
Site Coefficient (S) = 1.0

LEGEND

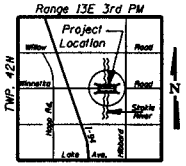
Indicates Concrete Removal
T.C.B. Denotes Temp. Concrete Barrier
P.P.C. Denotes Precast Prestressed Concrete
P.C.C. Denotes Portland Cement Concrete

PROPOSED SCOPE OF WORK

1. Remove and replace concrete superstructure except stone parapets and fences.
2. Modify abutment and pier caps as required for new superstructure.
3. Repair concrete piers, abutments and decorative stone facade.
4. Remove and replace bridge approach pavement.

WATERWAY INFORMATION

Drainage Area= 29.0 sq. miles			Low Grade Elev.= 623.5 feet at Sta. 22+50 (existing/proposed)				Max. Recorded H.W.E.= 624.0 ft. (july.1938)		
Flood	Frequency (Yr.)	Discharge cfs	Waterway Opening Existing	Waterway Opening Proposed	Natural H.W.E.	Created Head Existing	Created Head Proposed	Headwater Elev. Existing	Headwater Elev. Proposed
	10	604	395	395	622.8	0.0	0.0	622.8	622.8
Design	50	1233	407	407	624.2	0.0	0.0	624.3	624.3
Base	100	1653	407	407	625.3	0.0	0.0	625.5	625.5
Overtopping	30	900	401	401	623.5	-	-	623.5	623.5
Max. calc.	-	-	-	-	-	-	-	-	-



LOCATION SKETCH

GENERAL PLAN
WINNETKA ROAD OVER SKOKIE RIVER
F.A.U. ROUTE 1291
SECTION 2001 057-BR
COOK COUNTY
STA. 25+50
STRUCTURE NUMBER 016-1162

APPROVED
OCT 02 2002
AS A BASIS FOR PREPARATION OF DETAILED PLANS

DESIGNED	JM
CHECKED	EMM
DRAWN	RLH
CHECKED	EMM

8-17-02

/CADD/STRUCTURAL/R225298/DGNFILES/WINTS3L.DGN