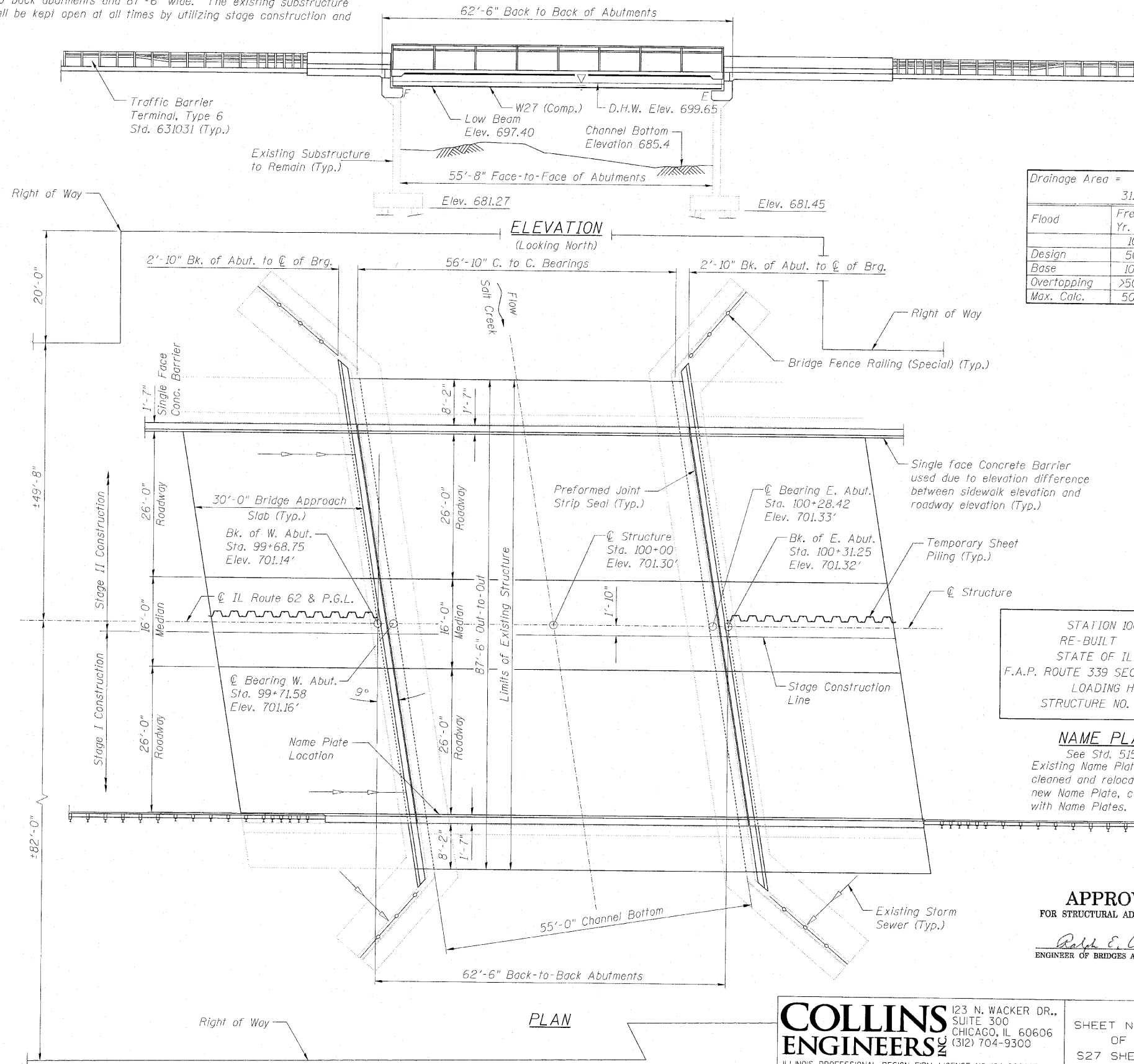
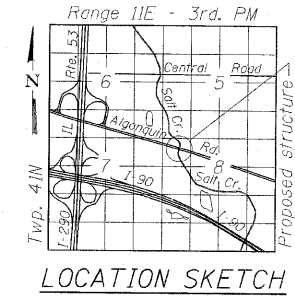


Bench Mark: "□" Cut on northwest wingwall of Illinois Route 62 (Algonquin Road) bridge over Salt Creek - elevation 700.27 feet.

Existing Structure: S.N. 016-0581 carrying Illinois Route 62 over Salt Creek was constructed in 1971 under F.A.S. Route 157, Section-116-Y-2-BR. It consists of a single span of precast, prestressed concrete (PPC) deck beams on reinforced concrete closed abutments with a length of 61'-4" back-to-back abutments and 87'-6" wide. The existing substructure will be retained. The road shall be kept open at all times by utilizing stage construction and a temporary signal system.

Salvage: None.

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

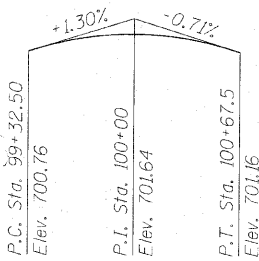


WATERWAY INFORMATION

Drainage Area =		Acres		Existing Low Grade Elev. = 699.5 ft. @ Sta. 742 (RT)		31.08 Sq. Mi.		Proposed Low Grade Elev. = 699.5 ft. @ Sta. 742 (RT)	
Flood	Freq. Yr.	Q	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater Elev.	
		C.F.S.	Exist.	Prop.	Exist.	Exist.	Prop.	Exist.	Prop.
Design	10	1080	543	578	698.16	0.12	0.08	698.28	698.24
Base	50	1742	543	578	699.65	0.40	0.30	700.05	699.95
Overtopping	100	2085	543	578	700.21	0.48	0.41	700.69	700.62
Max. Calc.	>500								
	500	2871	543	578	701.15	0.36	0.39	701.51	701.54

CURVE DATA

$\Delta = 4^{\circ}09'11''$  (RT)  
 $D = 0^{\circ}10'16''$   
 $T = 1,214.00'$   
 $L = 2,426.94'$   
 $E = 22.00'$   
 $R = 33,482.28'$   
 $P.C. = Sta. 94+53.59$   
 $P.T. = Sta. 118+80.52$   
 $P.I. = Sta. 106+67.59$



PROFILE GRADE

(along P.G. F.A.P. Rte. 339)  
 Length of curve = 135'

DESIGNED	MAH
CHECKED	JMH
DRAWN	DR
CHECKED	JMH

DESIGN SPECIFICATIONS

2007 AASHTO LRFD Bridge Design Specifications, 4th Edition, with 2008 and 2009 Interims.

LOADING HL-93

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

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (M270 Grade 50W)

EXISTING SUBSTRUCTURE

$f_c = 1,000$  psi  
 $f_s = 20,000$  psi (Reinforcement)

SEISMIC DATA

EXISTING SUBSTRUCTURE

Seismic Performance Zone (SPC) = A  
 Horizontal Bedrock Acceleration Coefficient (A) = 3.5  
 Site Coefficient (S) = 1.0

STATION 100+00  
 RE-BUILT BY  
 STATE OF ILLINOIS  
 F.A.P. ROUTE 339 SEC. 116-Y-2-BR-1  
 LOADING HL-93  
 STRUCTURE NO. 016-0581

NAME PLATE

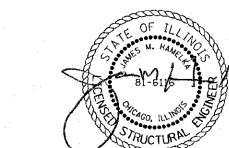
See Std. 515001  
 Existing Name Plate shall be cleaned and relocated next to new Name Plate, cost included with Name Plates.

APPROVED

FOR STRUCTURAL ADEQUACY ONLY

*Robert E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES

GENERAL PLAN AND ELEVATION  
 ILLINOIS ROUTE 62 (ALGONQUIN ROAD)  
 OVER SALT CREEK  
 F.A.P. ROUTE 339 SEC. 116-Y-2-BR-1  
 COOK COUNTY  
 STATION 100+00  
 STRUCTURE NO. 016-0581



COLLINS ENGINEERS, INC.  
 JAMES M. HAMELKA  
 NO. 81-6116  
 EXPIRES 11-30-2010

**COLLINS ENGINEERS**  
 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

SHEET NO. S1	F.A.P. RTE. 339	SECTION 116-Y-2-BR-1	COUNTY COOK	TOTAL SHEETS 74	SHEET NO. 23
OF S27 SHEETS	CONTRACT NO. 60J00				
ILLINOIS FED. AID PROJECT					