

**BENCH MARK:**

TBM E: Elev. 645.60 Chiseled "□" Concrete Headwall of SE Corner of Willow Rd. Bridge over the Des Plaines River

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONTRACT 62829

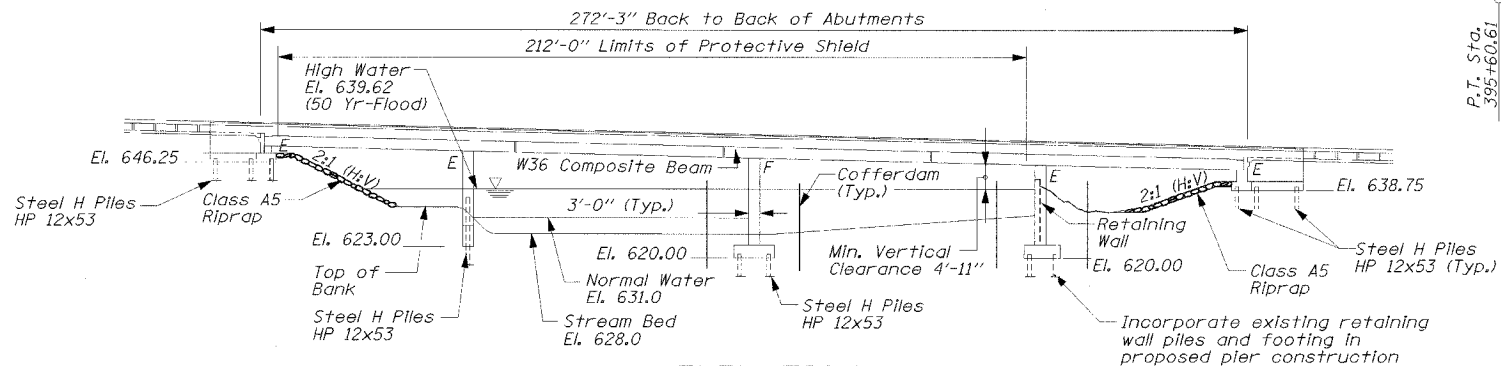
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	2004-088B	COOK	145
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT

SHEET NO. SB-1  
OF SHEETS SB-44

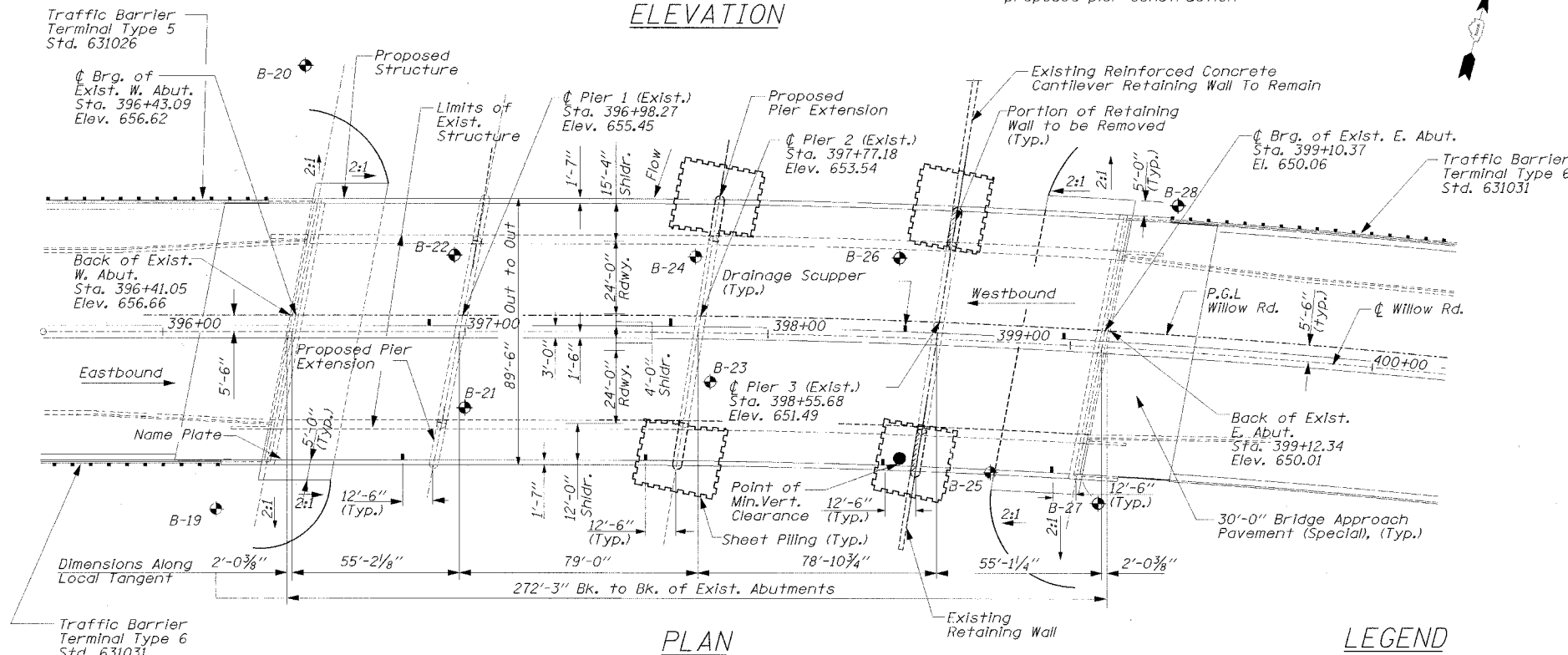
**EXISTING STRUCTURE:**

S.N. 016-0530, a four span continuous bridge built in 1965 is 272'-3" bk. to bk. abutments, 64'-0" out to out of concrete deck and rolled beams on open abutments. One lane per each direction will be added to the existing bridge. The new out to out will be 86'-2". Traffic will be maintained using staged construction.

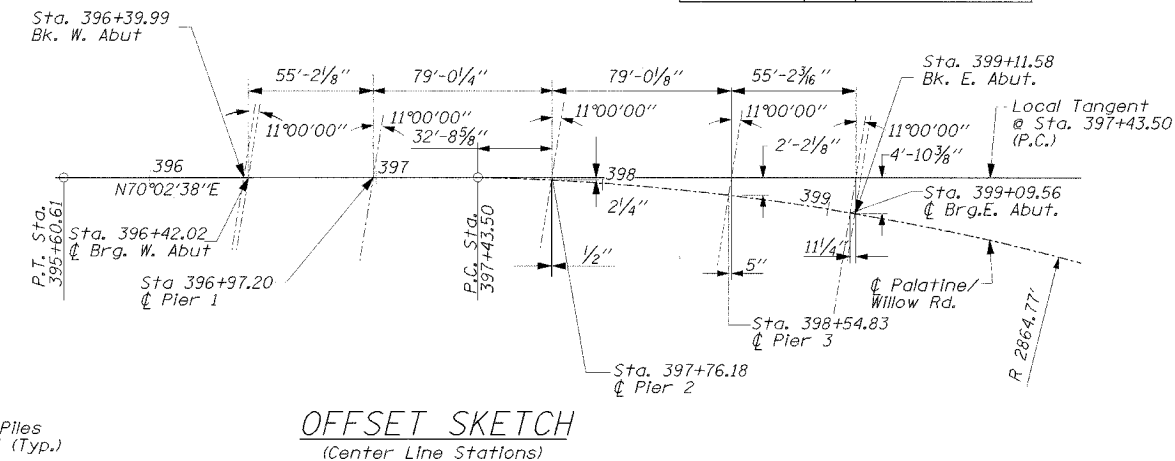
No Salvage



**ELEVATION**



**PLAN**



**OFFSET SKETCH**  
(Center Line Stations)

**DESIGN STRESSES**

**EXISTING CONSTRUCTION**

f'c = 3,500 psi  
fy = 40,000 Psi (Reinf.)  
fy = 36,000 psi (Struct. steel Gr. 36)

**NEW CONSTRUCTION**

f'c = 3,500 psi  
fy = 60,000 Psi (Reinf.)  
fy = 36,000 psi AASHTO M-270 (Struct. Steel, Grade 36)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04  
Site Coefficient (S) = 1.0

**WILLOW ROAD CURVE DATA**

P.I. Sta. 402+66.96  
Δ = 20°42'37"  
D = 2'00'00"  
T = 523.46'  
L = 1035.50'  
E = 47.43'  
e = 4%  
R = 2864.77'  
P.C. Sta. 397+43.50  
P.T. Sta. 407+79.00

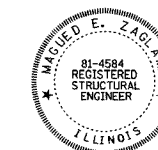
**DESIGN SPECIFICATIONS**

1996 AASHTO with 1997 thru 2000 Interims

**LOADING HS 20-44**

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

STATION 397+76.18  
REBUILT 200. BY  
STATE OF ILLINOIS  
FAP RT. 305 SEC. 2004-088B  
LOADING HS20  
STR. NO. 016-0530



SIGNED: *Eugene Zaglav*  
DATE: 12/22/04  
EXPIRES: 11/30/06  
FOR DRAWINGS SB-1 TO SB-44

**NAME PLATE**  
See Std. 515001

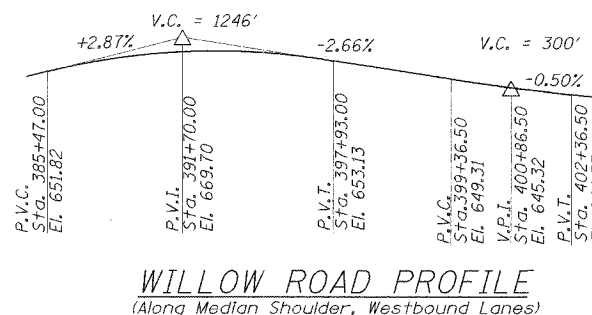
**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anteman*  
ENGINEER OF BRIDGES AND STRUCTURES

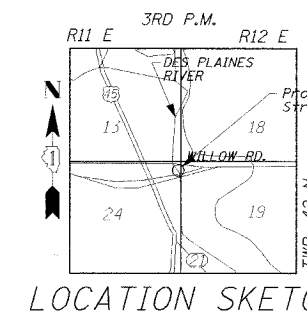
**DES PLAINES RIVER WATERWAY INFORMATION TABLE**

Drainage Area = 351 sq. mi.		Low Grade Elev. = 640.00 ft.		Max. Recorded H.W.E. 638.4 ft.				
Flood	Frequency (yrs)	Opening (sq. ft.) Existing	Opening (sq. ft.) Proposed	Natural H.W.E. (ft.)	Head (ft.) Existing	Head (ft.) Proposed	Headwater Elev. (ft.) Existing	Headwater Elev. (ft.) Proposed
	10	4,226	1,874	638.13	0.00	0.00	638.13	638.13
Design	50	5,577	2,010	639.61	0.01	0.01	639.62	639.62
Base	100	6,161	2,108	640.17	0.01	0.01	640.18	640.18
Overtopping								
Max. Calc.	500	7,395	2,345	641.55	0.19	0.19	641.74	641.74

DESIGNED	EL
CHECKED	JAS
DRAWN	ABW
CHECKED	EL



**WILLOW ROAD PROFILE**  
(Along Median Shoulder, Westbound Lanes)



**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
WILLOW ROAD OVER  
DES PLAINES RIVER  
F.A.P. RTE. 305  
SECTION 2004-088B  
COOK COUNTY  
STA. 397+76.18  
STR. NO. 016-0530

EDWARDS AND KELCEY