

Bench Mark: Chiseled box on top of S.E. wingwall of the existing bridge over Bull Creek, El. 669.64.

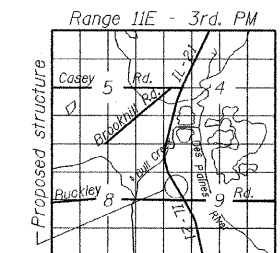
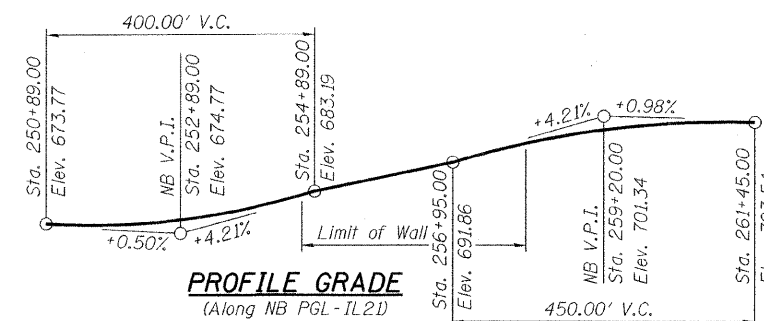
Existing Structure: None.

**Legend:**

- F.F. Front Face
- B.F. Back Face
- (C) Construction Joint
- (E) Expansion Joint
- (B) Boring Location
- (T) Tree, to Remain
- (G) Underground Gas Line
- (E) Underground Electric Line

**Notes:**

1. Wall dimensions are measured along F.F. of wall.
2. Stations and offsets for the wall are given from the  $\text{CL}$  IL-21 to the F.F. of wall.
3. See sheet S9-2 for pile location, top and tip elevations.



**LOCATION SKETCH**

**DESIGN SPECIFICATIONS**  
2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

**DESIGN STRESSES**

**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (M270 Gr. 36)

**CURVE DATA**

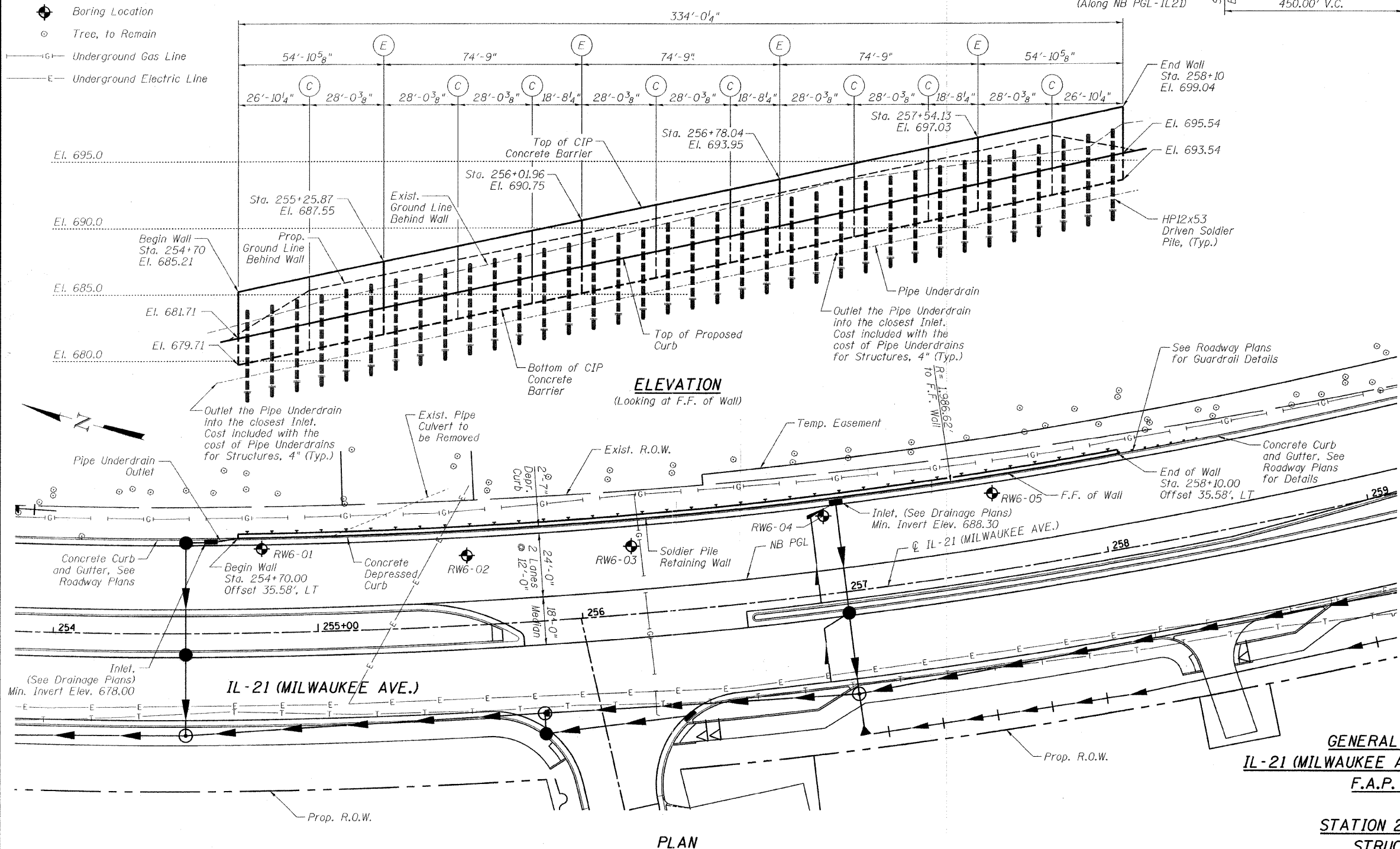
$\text{CL}$  IL-21 (Milwaukee Ave.)  
 $\Delta = 46^\circ-11'-38''$   
 $D = 2^\circ-50'-00''$   
 $T = 862.41'$   
 $L = 1,630.37'$   
 $E = 176.22'$   
 $R = 2,022.20'$   
 $S.E. = 2.90\%$   
P.C. Sta. = 243+66.70  
P.T. Sta. = 259+97.07  
P.I. Sta. = 252+29.11

**HIGHWAY CLASSIFICATION**

F.A.P. 330 - IL Rte. 21  
Functional Class: Other Principal Arterial  
ADT: 23,800 (2010); 51,000 (2030)  
ADTT: 952 (2010); 2,040 (2030)  
DHW: 2,445 (2030)  
Design Speed: 45 m.p.h.  
Posted Speed: 45 m.p.h.  
Two Way Traffic  
Directional Distribution: 50:50



COLLINS ENGINEERS, INC.  
JAMES M. HAMELKA  
NO. 81-6116  
EXPIRES 11-30-2012



**GENERAL PLAN AND ELEVATION**  
**IL-21 (MILWAUKEE AVENUE) - RETAINING WALL NO. 9**  
**F.A.P. 330 - SEC. 128R-3**  
**LAKE COUNTY**  
**STATION 254+70.00 TO 258+10.00**  
**STRUCTURE NO. 049-W041**

FILE NAME =	USER NAME =	DESIGNED - EM	REVISIONS -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL PLAN AND ELEVATION STRUCTURE NO. 049-W041</b>	F.A.P. RTE. 330	SECTION 128R-3	COUNTY LAKE	TOTAL SHEETS 518	SHEET NO. 340
PLOT SCALE =	CHECKED - JMH	REVISIONS -	CONTRACT NO. 60953							
PLOT DATE =	DRAWN - DR	REVISIONS -	ILLINOIS FED. AID PROJECT							
	CHECKED - JMH	REVISIONS -								