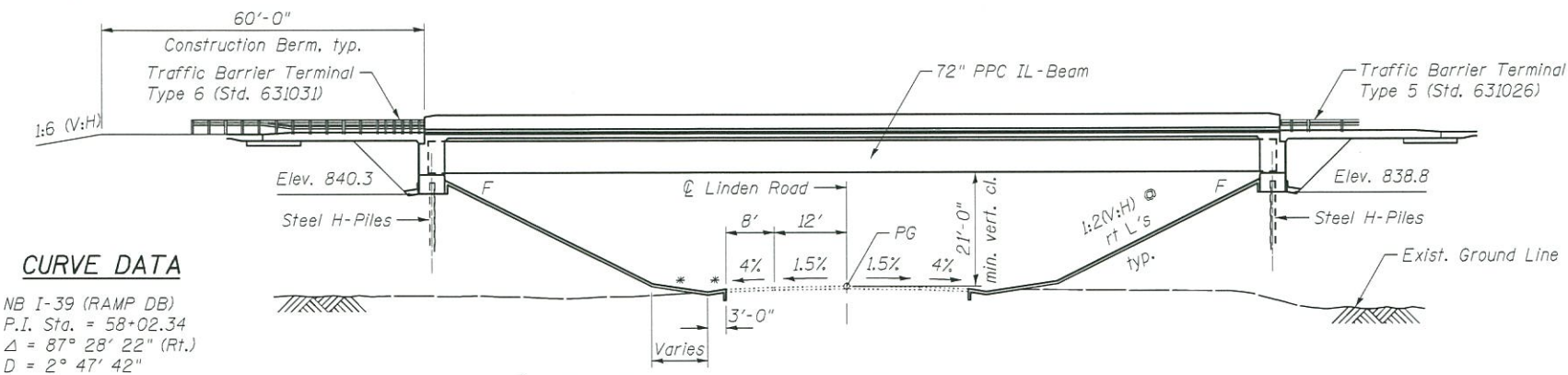


Benchmark: Cut "□" south side of eastern base of 30 mph ramp sign located east of the ramp connecting I-39 NB to US 20 West (Ramp DA) 0.1 mile north of the centerline of Linden Road. Elev. 851.37, 42°-13'-06.37" N, 89°-00'-39.64" W.

Existing Structure: None

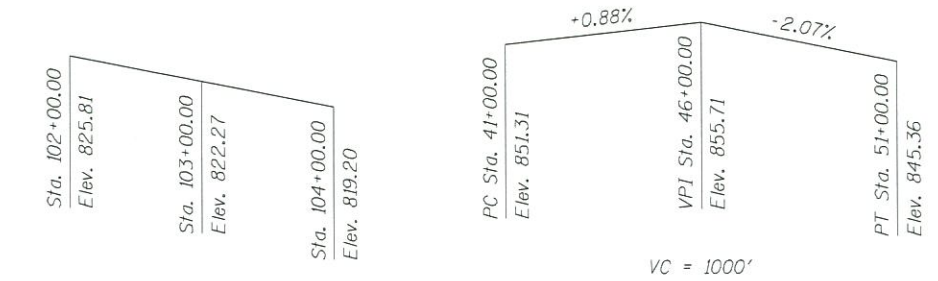


**CURVE DATA**

NB I-39 (RAMP DB)  
 P.I. Sta. = 58+02.34  
 $\Delta = 87^\circ 28' 22''$  (Rt.)  
 $D = 2^\circ 47' 42''$   
 $R = 2,050.00'$   
 $T = 1,961.51'$   
 $L = 3,129.71'$   
 $E = 787.26$   
 $SE = 6\%$   
 P.C. Sta. = 38+40.82  
 P.T. Sta. = 69+70.53

\* 1:6 (V:H) at rt L's, typ.

**ELEVATION**



**EXISTING PROFILE GRADE**  
 Along Linden Road

**PROFILE GRADE**  
 Along BL NB I-39 (Ramp DB)

Note: The profile grade shows the final elevations after grinding

**HIGHWAY CLASSIFICATION**

F.A.U. Rte. 5118 - Linden Road	F.A.I. Rte. 39 - NB I-39 Ramp DB
Functional Class: Minor Arterial	Functional Class: Interstate
ADT: 6650 (2013); 18,000 (2040)	ADT: 10,500 (2013); 30,200 (2040)
ADTT: 330 (2013); 900 (2040)	ADTT: 4400 (2013); 12,700 (2040)
DHV: 1805 (2040)	DHV: 3000 (2040)
Design Speed: 45 m.p.h.	Design Speed: 70 m.p.h.
Posted Speed: 45 m.p.h.	Posted Speed: 65 m.p.h.
Two-Way Traffic	One-Way Traffic
Directional Distribution: 50/50	

**LOADING HL-93**

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

**DESIGN SPECIFICATIONS**

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition with 2015 and 2016 Interims

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 3,500$  psi  
 $f'_c = 4,000$  psi (Superstructure Concrete)  
 $f_y = 60,000$  psi (Reinforcement)

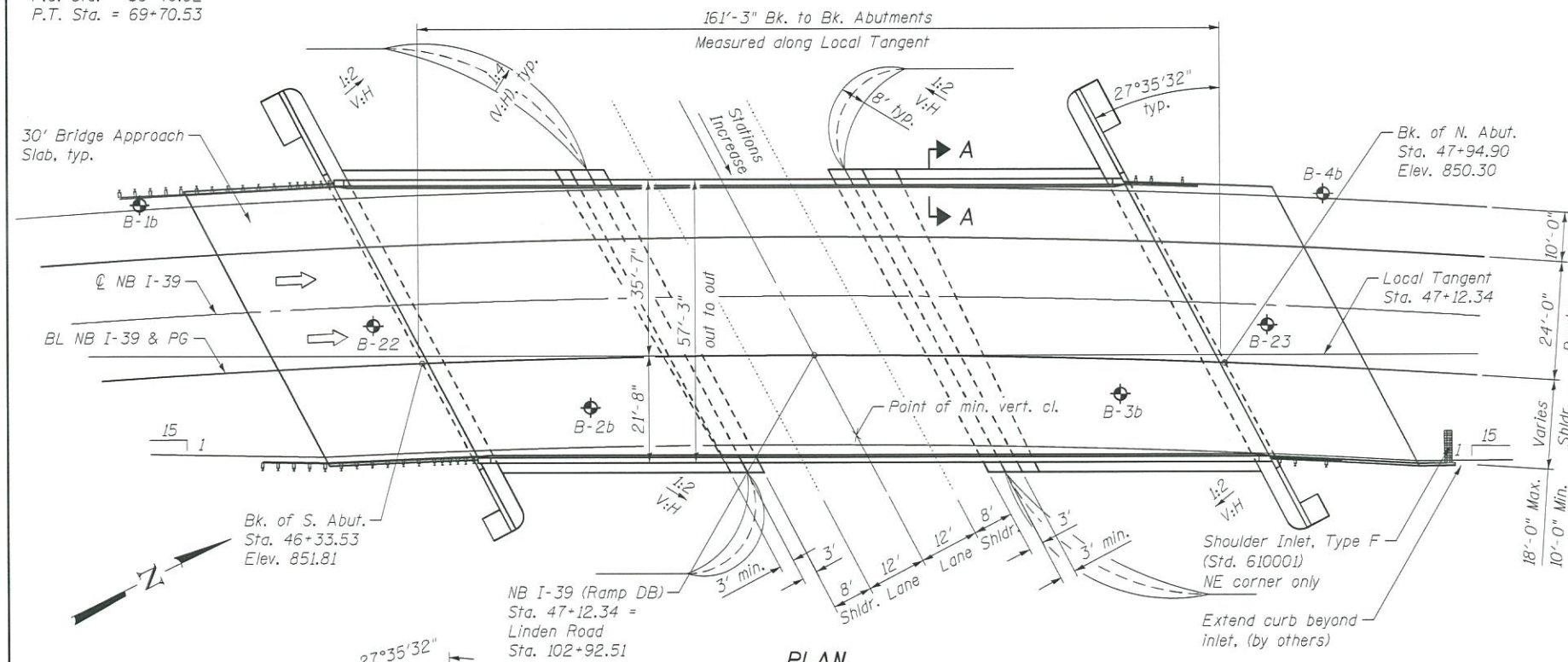
**PRECAST PRESTRESSED UNITS**

$f'_c = 8,500$  psi  
 $f'_c = 7,000$  psi  
 $f_{pu} = 270,000$  psi (0.6"  $\phi$  low lax. strands)  
 $f_{pb} = 202,300$  psi (0.6"  $\phi$  low lax. strands)

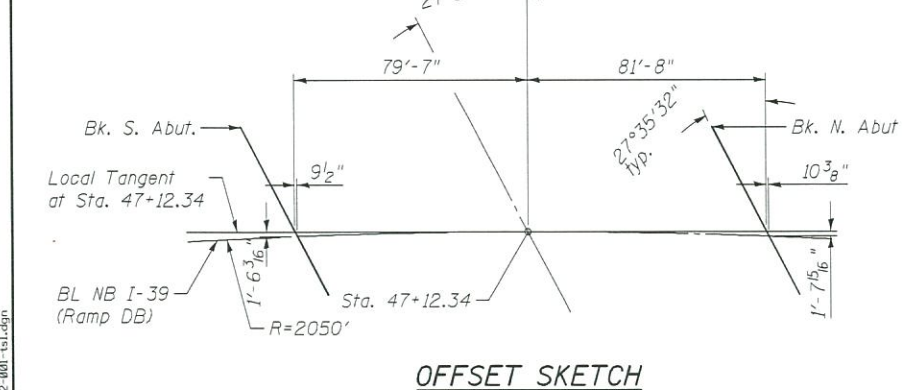
**SEISMIC DATA**

Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.056 g  
 Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.102 g  
 Soil Site Class = C

Note: Up to 1/4 inch may be ground off the bridge deck and the bridge approach slabs.



**PLAN**

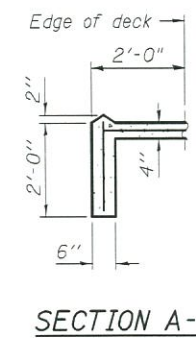


**OFFSET SKETCH**

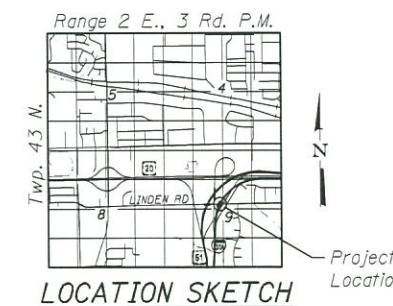
**APPROVED**

MAR 08 2017

AS A BASIS FOR  
 PREPARATION OF DETAILED PLANS



**SECTION A-A**



**LOCATION SKETCH**

**GENERAL PLAN**  
 NB I-39 (RAMP DB) OVER LINDEN ROAD  
 F.A.I. RTE. 39 SEC. (201-3)K & (4-1.5)K  
 WINNEBAGO COUNTY  
 STATION 47+12.34  
 STRUCTURE NO. 101-0212

**FEHR GRAHAM**  
 ENGINEERING & ENVIRONMENTAL  
 ILLINOIS DESIGN FIRM NO. 04-003525

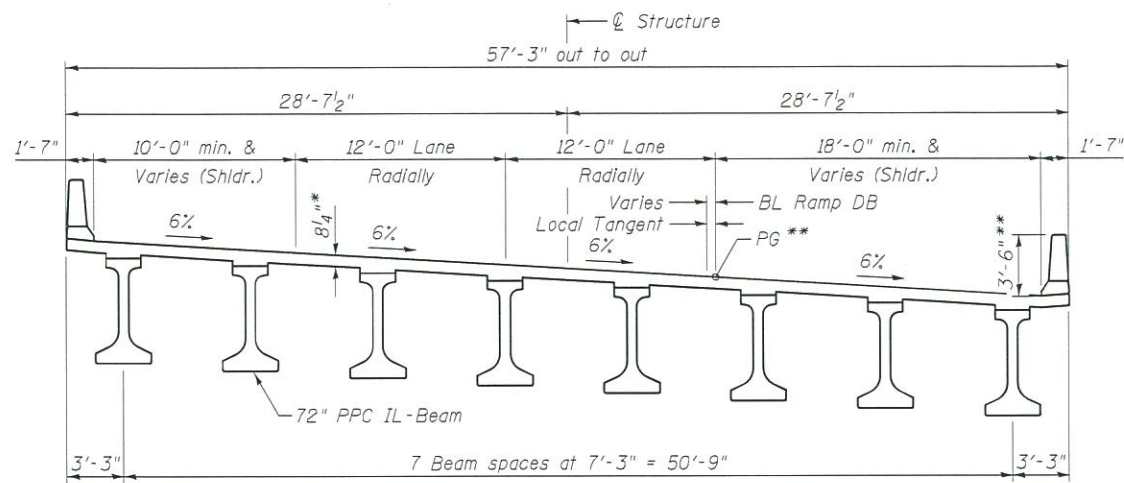
USER NAME = myoung	DESIGNED - CME	REVISED -
PLOT SCALE = 32:0.000000 '1' / '16"	CHECKED - MCB	REVISED -
PLOT DATE = 3/8/2017	DRAWN - CFC	REVISED -
	CHECKED - MCB	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 2 SHEETS

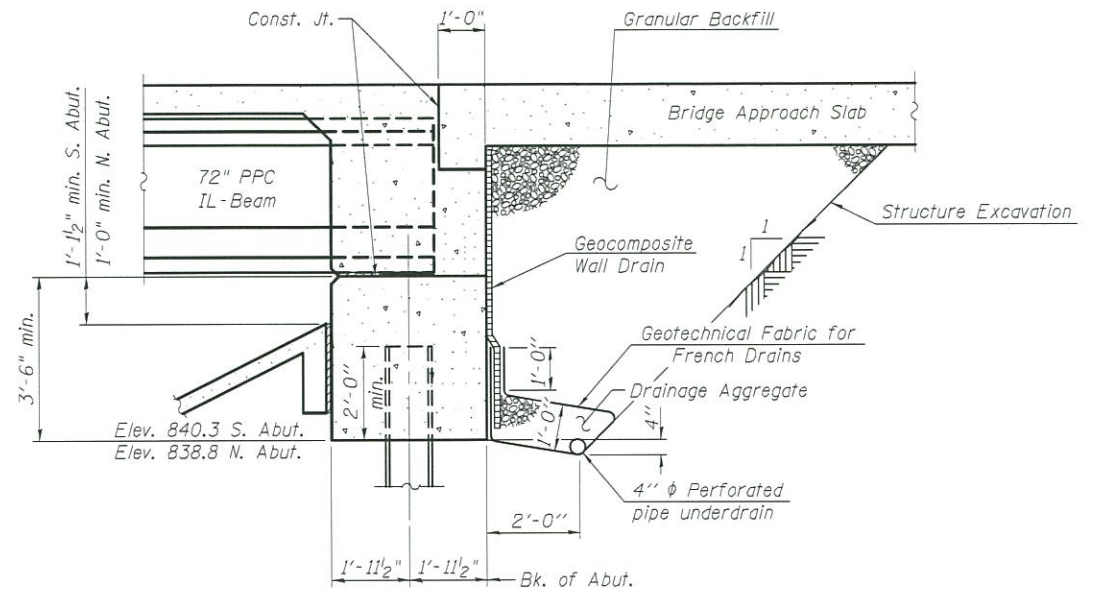
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K & (4-1.5)K	WINNEBAGO		
CONTRACT NO. 64C62				
ILLINOIS FED. AID PROJECT				

FILE NAME = ...win01-0212\1010212-001-1a.dgn  
 FEHR GRAHAM PROJECT NUMBER: 15-1002 CB PROJ. NO.: 06085



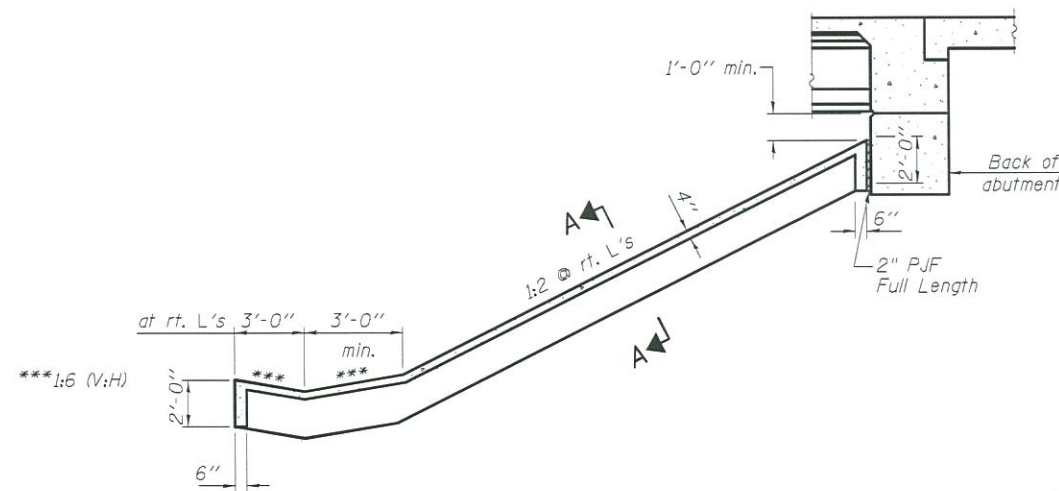
**CROSS SECTION**  
(Looking North)

\* Prior to Grinding  
\*\* After Grinding



**SECTION THRU INTEGRAL ABUTMENT**  
(Horiz. dim. @ Rt. L's)

Note:  
Pile embedment depth may need to be increased due to superelevation increasing cap depth.



**SECTION THRU CONCRETE SLOPEWALL**

Note: See Sheet 1 of 2 for Section A-A.

**APPROVED**

**MAR 08 2017**

**AS A BASIS FOR PREPARATION OF DETAILED PLANS**

**GENERAL PLAN**  
**NB I-39 (RAMP DB) OVER LINDEN ROAD**  
**F.A.I. RTE. 39 SEC. (201-3)K & (4-1,5)K**  
**WINNEBAGO COUNTY**  
**STATION 47+12.34**  
**STRUCTURE NO. 101-0212**

FILE NAME = ... \101-0212\1010212-402-est.dgn

**FEHR GRAHAM**  
ENGINEERING & ENVIRONMENTAL  
ILLINOIS DESIGN FIRM NO. 84-003525

USER NAME = myoung  
DESIGNED - CME  
CHECKED - MCB  
DRAWN - CFC  
CHECKED - MCB  
PLOT SCALE = 32:0.000000 '1' / 1"  
PLOT DATE = 3/8/2017

DESIGNED - CME  
CHECKED - MCB  
DRAWN - CFC  
CHECKED - MCB  
REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. 2 OF 2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
39	(201-3)K & (4-1,5)K	WINNEBAGO		
CONTRACT NO. 64C62				
ILLINOIS FED. AID PROJECT				