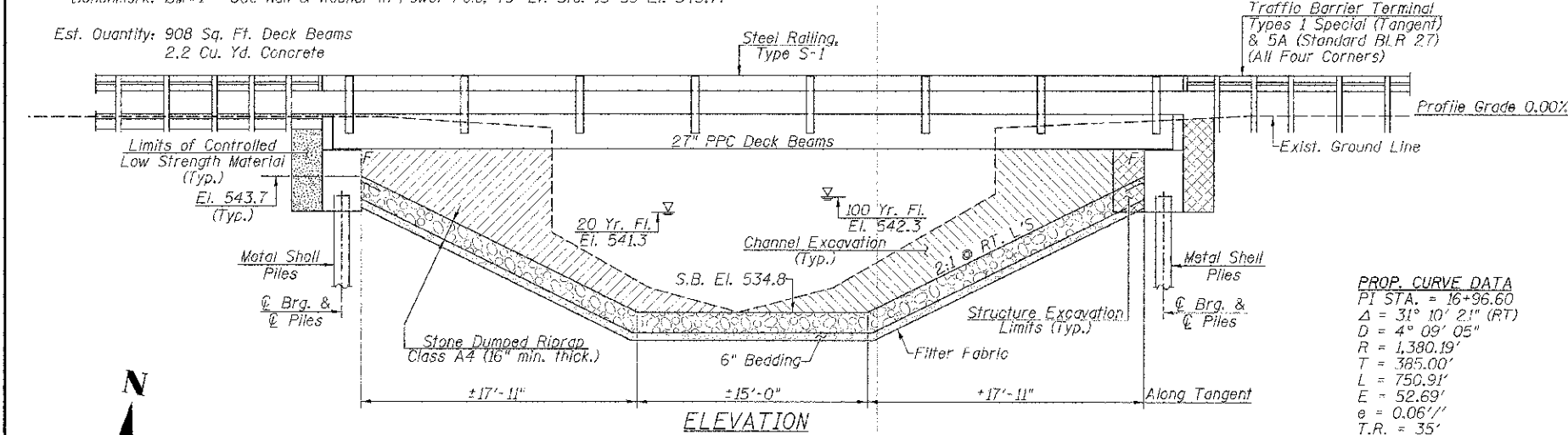


Existing Structure: Single span precast concrete deck beams supported by closed timber abutments with timber wingwalls. ±30'-0" Bk.-Bk. Abutments, ±30'-3" Out.-Out. Deck. Concrete curbs with steel railing, ±0° Skew. Existing Structure No. 065-3002  
 Benchmark: BM#1 - 60d Nail & Washer in Power Pole, 79' Lt. Sta. 15+39 El. 543.77

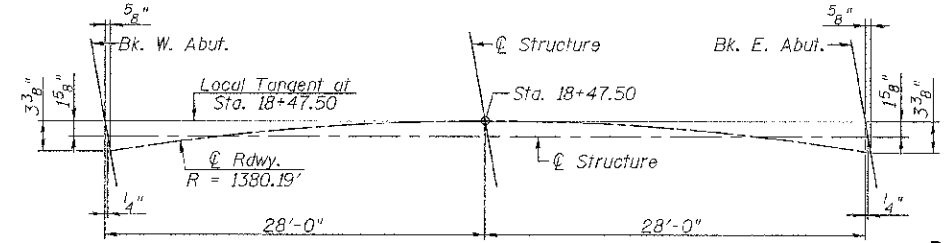
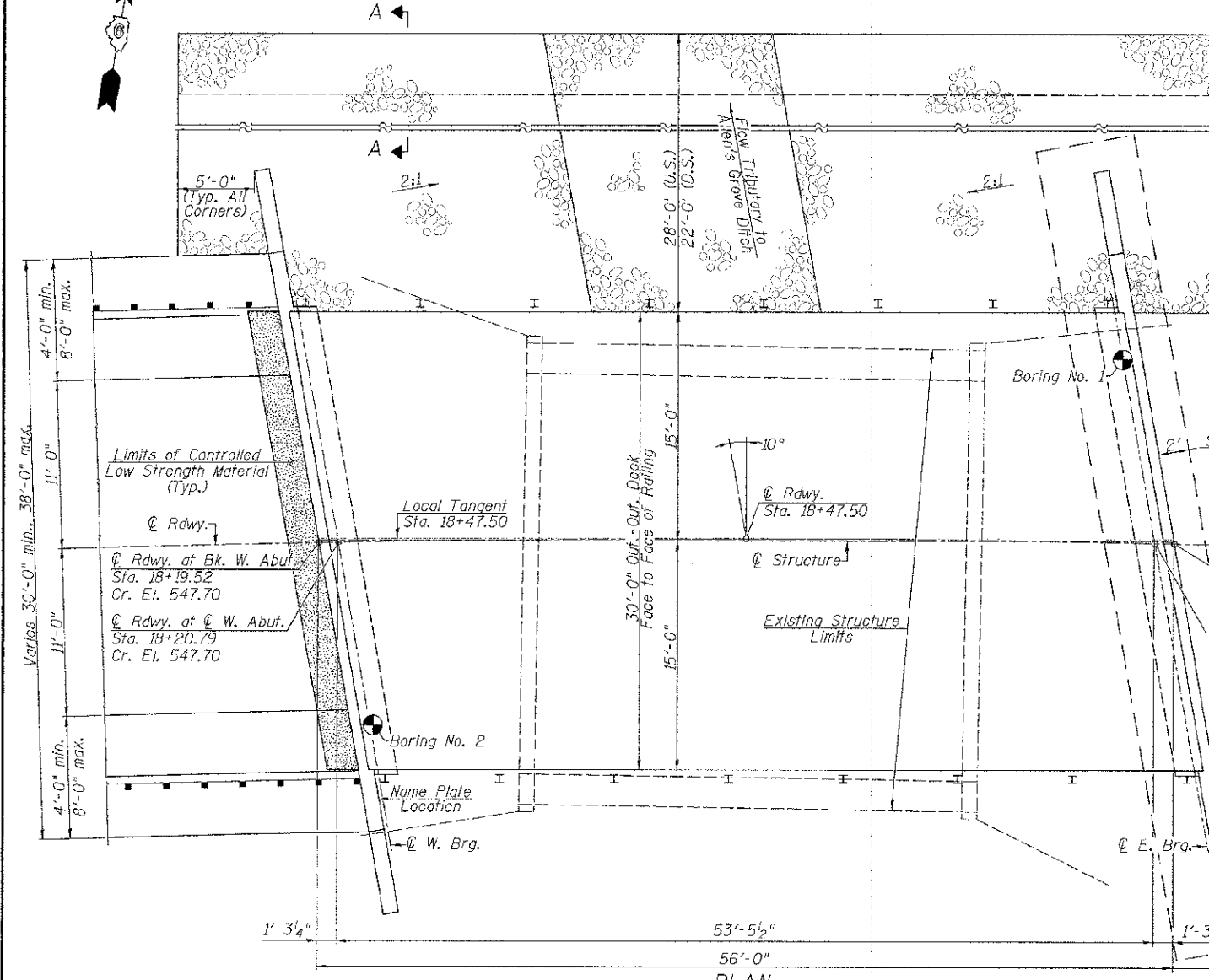
Est. Quantity: 908 Sq. Ft. Deck Beams  
 2.2 Cu. Yd. Concrete



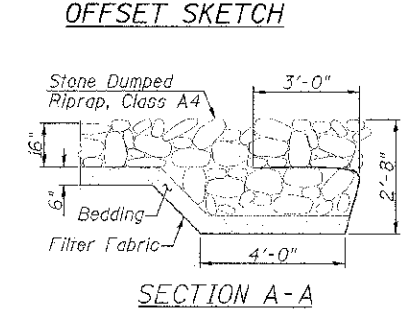
PROP. CURVE DATA  
 P.I. STA. = 16+96.60  
 $\Delta = 31^\circ 10' 21"$  (RT)  
 $D = 4^\circ 09' 05"$   
 $R = 1,380.19'$   
 $T = 385.00'$   
 $L = 750.91'$   
 $E = 52.69'$   
 $e = 0.06''$   
 $T.R. = 35'$   
 $S.E. RUN = 141'$   
 P.C.C. STA. = 13+11.60  
 P.T. STA. = 20+62.51

TOTAL BILL OF MATERIAL				
ITEM	UNIT	SUPER	SUR	TOTAL
Channel Excavation	Cu. Yd.			441
Stone Dumped Riprap, Class A4	Ton		447	447
Filter Fabric	Sq. Yd.		568	568
Removal of Existing Structures	Each			1
Structure Excavation	Cu. Yd.		156	156
Concrete Structures	Cu. Yd.		40.7	40.7
Precast Prestressed Concrete Deck Beams (27" Depth)	Sq. Ft.	1640		1640
Reinforcement Bars	Pound		4970	4970
Steel Railing, Type S-1	Foot	112		112
Furnishing Metal Shell Piles 12" x 0.250"	Foot		524	524
Driving Piles	Foot		524	524
Test Pile Metal Shells	Each		2	2
Name Plates	Each		1	1
Controlled Low Strength Material	Cu. Yd.		28.8	28.8

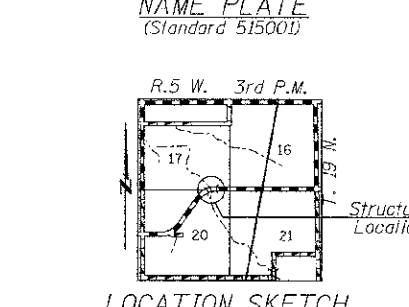
WATERWAY INFORMATION									
Drainage Area = 1.31 Sq. Mi.		Pr. Low Grade Elev. 543.7				Sta. 4+25			
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Natural H.W.E.	Head - ft. Exist.	Head - ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	20	511	109	181	541.3	0.2	0.0	541.5	541.3
Base	100	742	136	223	542.3	0.2	0.0	542.5	542.3
Exist. Overtop.	Greater than 500 Years								
Prop. Overtop.	Greater than 500 Years								
Max. Calc.	500	1040	148	241	542.7	0.8	0.0	543.5	542.7



DESIGN SCOUR ELEVATIONS			
Design Scour Elevation (Ft.)	W. Abut.	E. Abut.	
	540.4	540.4	



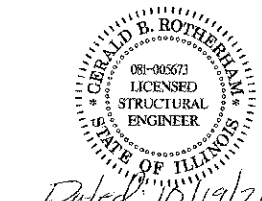
TRIBUTARY TO ALLEN'S GROVE DITCH  
 BUILT 20 BY  
 MENARD COUNTY  
 SECTION 11-00064-00-BR  
 F.A.S. 5/3 STA. 18+47.50  
 STR. NO. 065-3128 LOADING HL-93  
**NAME PLATE**  
 (Standard 515001)



**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c = 3500$  psi  
 $f_y = 60000$  psi (Reinforcement)  
**PRECAST PRESTRESSED UNITS**  
 $f'_c = 6000$  psi  
 $f'_ci = 5000$  psi  
 $f_{pu} = 270000$  psi (1/2" low lax strands)  
 $f_{pbt} = 201960$  psi (1/2" low lax strands)

**GENERAL NOTES**  
 See Proposal for Boring Data.  
 Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.

**DESIGN SPECIFICATIONS**  
 2010 AASHTO LRFD Bridge Design Specifications  
 5th Edition with 2010 Interims  
**LOADING HL-93**  
 Allow 50#/sq. Ft. for future wearing surface.



I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of structure and complies with requirements of the current "A.A.S.H.T.O. Standard Specifications For Highway Bridges".  
 Expiration Date 11/30/2012

FILE NAME	USER NAME	DESIGNED	REVISED	 <b>Allen Henderson &amp; Associates, Inc.</b> Civil and Structural Engineers Springfield, IL 62703 Phone: (217)544-8033 IL Design Firm No. 184-001907	<b>GENERAL PLAN &amp; ELEVATION</b> <b>STRUCTURE NO. 065-3128</b> SHEET NO. 1 OF 7 SHEETS	C.H. RTE. 1 SECTION 11-00064-00-BR COUNTY MENARD TOTAL SHEETS 5 CONTRACT NO. 93586
PLOT SCALE	CHECKED	REVISED				
PLOT DATE	DRAWN	REVISED				
	CHECKED	REVISED				