

B.M. #1 60d in Tree Lt. Sta. 15+50 Elev. 200.00  
 Existing Structure-3 span Precast Conc Slab Deck  
 w/ Steel Railing on timber pile bent piers and  
 abutments. 24' Roadway 70' Total Length  
 Salvage-None

ROUTE NUMBER	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 16	08-00647-00-BR	LASALLE	13	5
FED. ROAD DIST. NO.7		ILLINOIS	PROJECT BROS-099(35)	
CONTRACT NO. BT350				

**TOTAL BILL OF MATERIAL**

Item	Unit	Super	Sub.		Total
			Piers	Abuts.	
Removal of Existing Structures	Each				1
Incidental Hot Mix Asphalt	Ton	40			40
Waterproofing Membrane System	Sq. Yd.	234			234
Concrete Structures	Cu. Yd.			30.0	30.0
Precast Prestressed Conc. Deck Beams (33" Depth)	Sq. Ft.	2100			2100
Steel Bridge Rail, Type SM	Foot	140			140
Reinf. Bars (Epoxy Coated)	Pound			3020	3020
Furnish Metal Shell Piles 12"	Foot			440	440
Driving Piles	Foot			440	440
Test Pile Metal Shell	Each			2	2
Name Plates	Each	1			1
Stone Dumped Rip-Rap C1 A5 Spec	Ton			430	430
Filter Fabric	Sq. Yd.			470	470
Protective Coat	Sq. Yd.	48			48
Porous Granular Embankment	Ton			60	60
P.C. Mortar Fairing Course	Foot	630			630

**GENERAL NOTES**

The Standard Spec. for Road and Bridge Const. adopted Jan. 1 2007 shall apply to this project.

Class SI Concrete shall be used throughout except in the deck beams

The Contractor shall drive 2 test piles, as specified in a permanent location as directed by the Engineer, before ordering the remaining piles

The test piles shall be driven to 110% of the Nominal Required Bearing indicated in the pile data information

Metal Shell pile shall be according to ASTM A 252 Grade 3

The layout of the Rip-Rap may be varied to suit existing ground conditions as directed by the Engineer. Bedding will not be required.

Protective Coat shall be applied to the sides of the deck and on the exposed surfaces of the wingwalls in accordance with Article 503.19.

**PILE DATA (2-Abuts.)**

Type and Size 12" Metal Shell (0.25")  
 Nominal Required Bearing 270 kips  
 Allowable Resistance Avail. 90 kips  
 Estimated Length 44 Feet  
 Number Required 12  
 Includes 2 Test Piles

**DESIGN STRESSES**

Deck Beams f'c = 5000 psi  
 f'ci = 4000 psi  
 f's = 270000 psi  
 f'si = 201960 psi

Concrete Substructure f'c = 3500 psi  
 fy = 60000 psi

**DESIGN SPECIFICATIONS**

2002 AASHTO & Interims  
 HS20-44 Loading.  
 (Allows 50 P.S.F. Future Wearing Surface)

CEDAR CREEK  
 SEC. 08-00647-00-BR BUILT 2008  
 LA SALLE COUNTY  
 LOADING HS20-44  
 STR. NO. 050-3584

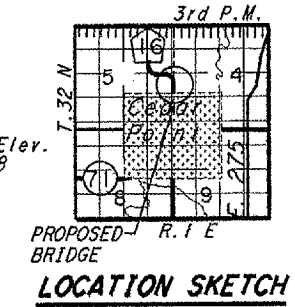
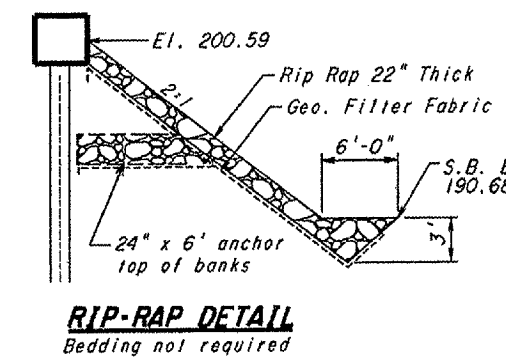
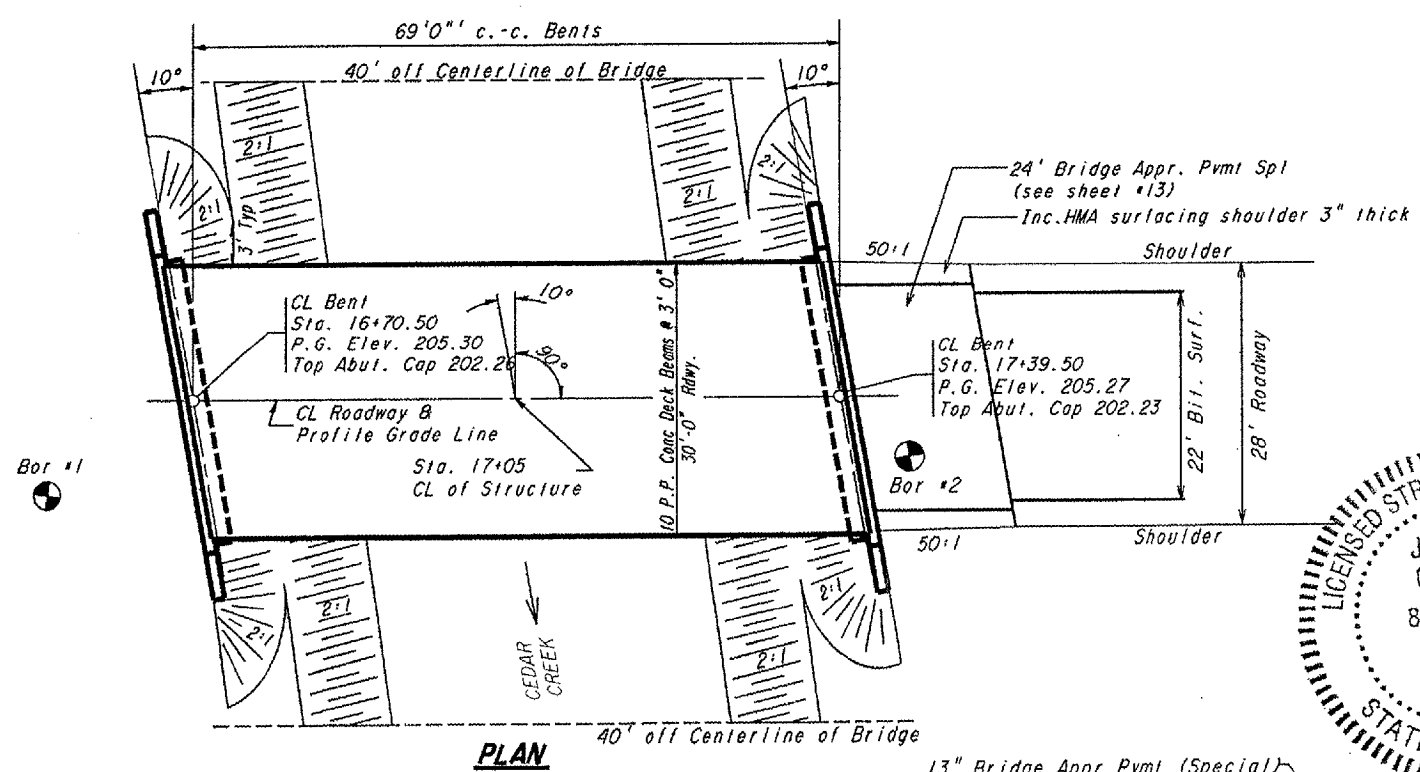
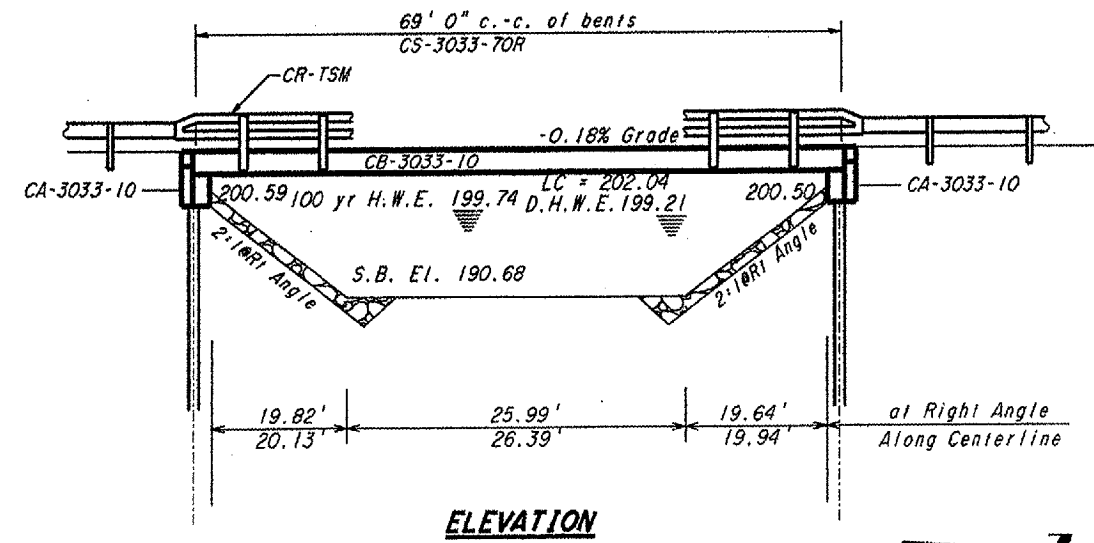
**LETTERING FOR NAME PLATE**

Locate Name Plate at Southwest Corner of Bridge

**INDEX OF SHEETS**

1. General Plan & Elevation
2. Abutment Details
3. Standard CS 3033-70R
4. Standard CB 3033-36
5. Standard CRTSM
6. Standard CN
6. Standard CXI

GENERAL PLAN & ELEVATION  
 LA SALLE COUNTY



LICENSED STRUCTURAL ENGINEER  
 JAMES K. CLINARD  
 81-004655  
 PERU ILLINOIS  
 STATE OF ILLINOIS

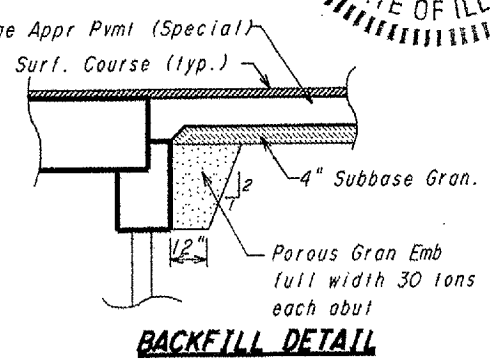
I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design load shown on the plans. The design is an economical one for the style of structure and complies with the current "AASHTO Standard Specifications for Highway Bridges".

*James K. Clinard*  
 Date 6/1/07

These plans were prepared by me or by a full time member of my staff working under my personal supervision.

*Lawrence J. Kinzer*  
 Date 7-5-07  
 Lawrence J. Kinzer  
 La Salle County Engineer  
 I.R.P.E. No. 62-40162  
 Exp. Date 11-30-07

LAWRENCE J. KINZER  
 REGISTERED PROFESSIONAL ENGINEER  
 OE  
 ILLINOIS



**WATERWAY INFORMATION**

Drainage Area = 20.00 Low Grade Elev. = 205.25 @ Sta. 16+50

Flood Yr.	Freq. Yr.	Q C.F.S.	Opening S.F. Exist.	Nat. Prop. H.W.E.	Head - Ft. Exist.	Headwater El. Exist.	Headwater El. Prop.
Design	20	2259	272	367.2	199.21	0.59	0.24
Base	100	3257	329	399.6	199.74	0.74	0.93
Overlapping Max. Calc.	500	4193				200.95	200.67