

**BENCH MARK**

Chiseled "□" Top of wingwall, NW corner of bridge  
Sta. 408+52, 18' Lt.  
Elev. = 627.84

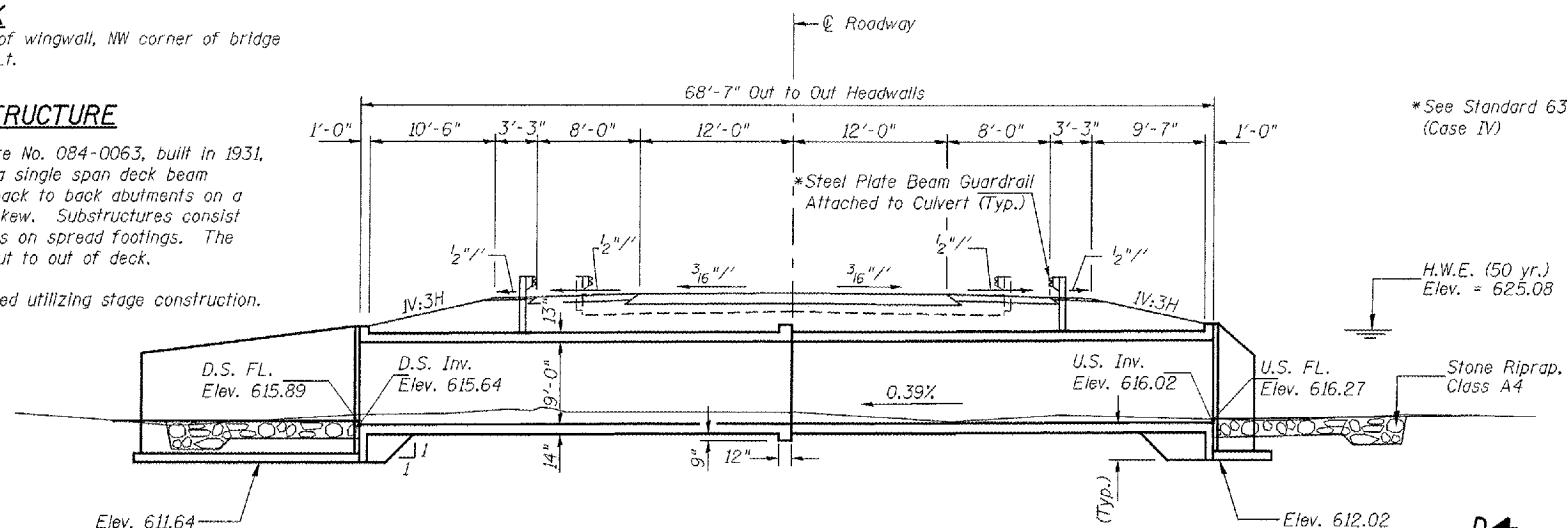
**EXISTING STRUCTURE**

The exist. Structure No. 084-0063, built in 1931, rebuilt in 1971, is a single span deck beam structure 52'-4" back to back abutments on a 45° left forward skew. Substructures consist of closed abutments on spread footings. The bridge is 33'-0" out to out of deck.

Traffic to maintained utilizing stage construction.

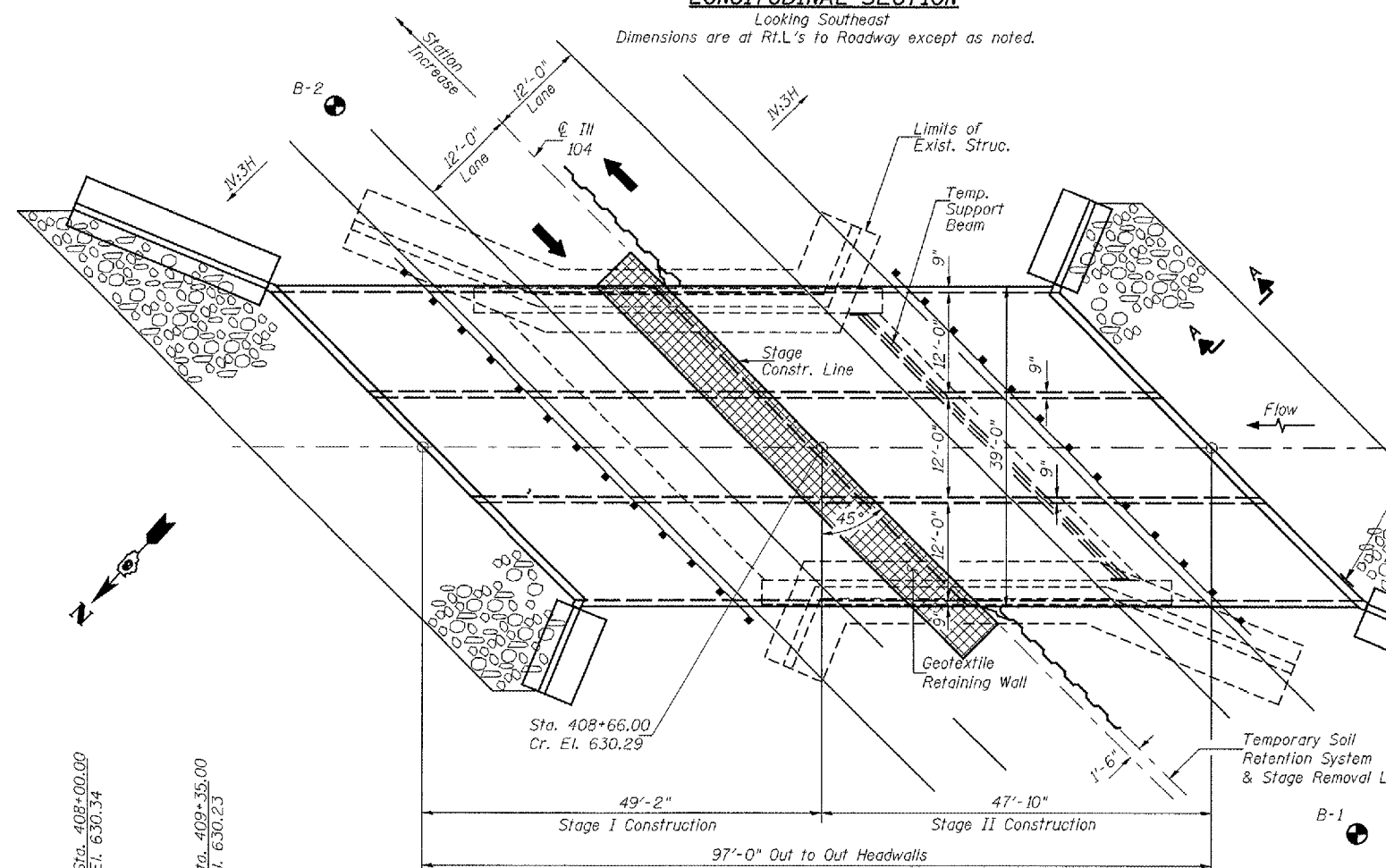
No salvage.

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 753	139	SANGAMON	27	10
FED. ROAD DIST. NO. 1	ILLINOIS	PROJECT		
		139 (B-1)	CONTRACT NO. 72982	



**LONGITUDINAL SECTION**

Looking Southeast  
Dimensions are at R.L.'s to Roadway except as noted.



**PLAN**

\*See Standard 630101 (Case IV)

**GENERAL NOTES**

Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60 (IL Modified). See Special Provisions.

The existing abutment footings shall be removed completely within 2' of the limits of the proposed structure. Porous granular embankment shall be used to backfill the area. Cost included with Removal of Existing Structures.

For backfilling and embankment see Standard Specifications.

Precast culvert alternate is not allowed.

Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.

Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure. The Contractor shall sawcut the upper portion of the existing abutment at the stage removal line before Stage I removal to ensure the remaining portion will not be prematurely damaged.

Reinforcement bars designated (E) shall be epoxy coated.

STATION 408+66.00  
BUILT 200 BY  
STATE OF ILLINOIS  
F.A.P. RT. 753 SEC. 139(B-1)  
LOADING HS20  
STRUCTURE NO. 084-2508

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Removal of Existing Structures	EACH	1
Concrete Box Culverts	CU YD	492.6
Reinforcement Bars	POUND	103,400
Reinforcement Bars, Epoxy Coated	POUND	1,260
Name Plates	EACH	1
Stone Dumped Riprap, Class A4 (Special)	TON	618
Temporary Soil Retention System	SQ FT	605
Bar Splacers	EACH	195
Temporary Support System	EACH	1
Geotextile Retaining Wall	SQ FT	212
Steel Plate Beam Guardrail, Attached to Structures	FOOT	111

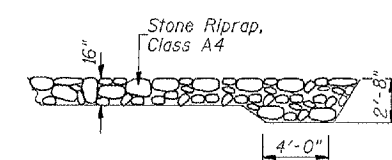
**LONGITUDINAL SECTION**

(Downstream End)  
Note: Notch by rough-finished board attached to and removed with formwork, each interior wall. (Do not chamfer)

**SECTION D-D**

Interior Wall

**PHOEBE NESTING SITE DETAIL**



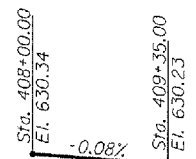
**SECTION A-A**

Design Scour Elevation (Ft.)	Upstream	Downstream
	612.02	611.64

**INDEX TO SHEETS**

1. General Plan
2. Stage Construction Details
3. Temporary Geotextile Retaining Wall Details
4. Temporary Support System Details
5. Temporary Concrete Barrier for Stage Construction
- 6-7. Culvert Details
8. Bar Splicer Assembly Details
- 9-10. Soil Boring Logs

**PROFILE GRADE**



**WATERWAY INFORMATION**

Drainage Area = 7.05 Sq. Mi. Existing Low Grade Elev. = 629.95 @ Sta. 409+79  
Proposed Low Grade Elev. = 630.14 @ Sta. 409+79

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. ft.		Nat. H.W.E. ft.	Head - ft.		Headwater Elev. - ft.	
			Exlst.	Prop.		Exlst.	Prop.	Exlst.	Prop.
Design	10	949	222	284	624.38	0.48	0.41	624.86	624.79
Base	50	1495	246	309	625.08	0.76	0.69	625.84	625.77
Max. Calc.	100	1730	255	318	625.34	0.88	0.83	626.22	626.17
	500	2302	273	324	625.88	1.18	1.23	627.06	627.11

**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY

*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

*James D. Hamilton*  
8/15/2007  
Expires 11/30/2008

**LOADING HS20-44**

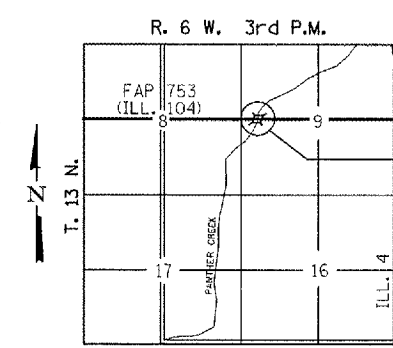
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

2002 AASHTO & Interims

**DESIGN STRESSES**

FIELD UNITS  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (reinforcement)



**LOCATION SKETCH**

**GENERAL PLAN**  
F.A.P. 753 (IL. 104)  
**OVER PANTHER CREEK**  
SECTION 139(B-1)  
SANGAMON COUNTY  
STA. 408+66.00  
STR. NO. 084-2508

HUTCHISON ENGINEERING, INC.  
JACKSONVILLE, ILLINOIS

Rev: \_\_\_\_\_ Date: \_\_\_\_\_