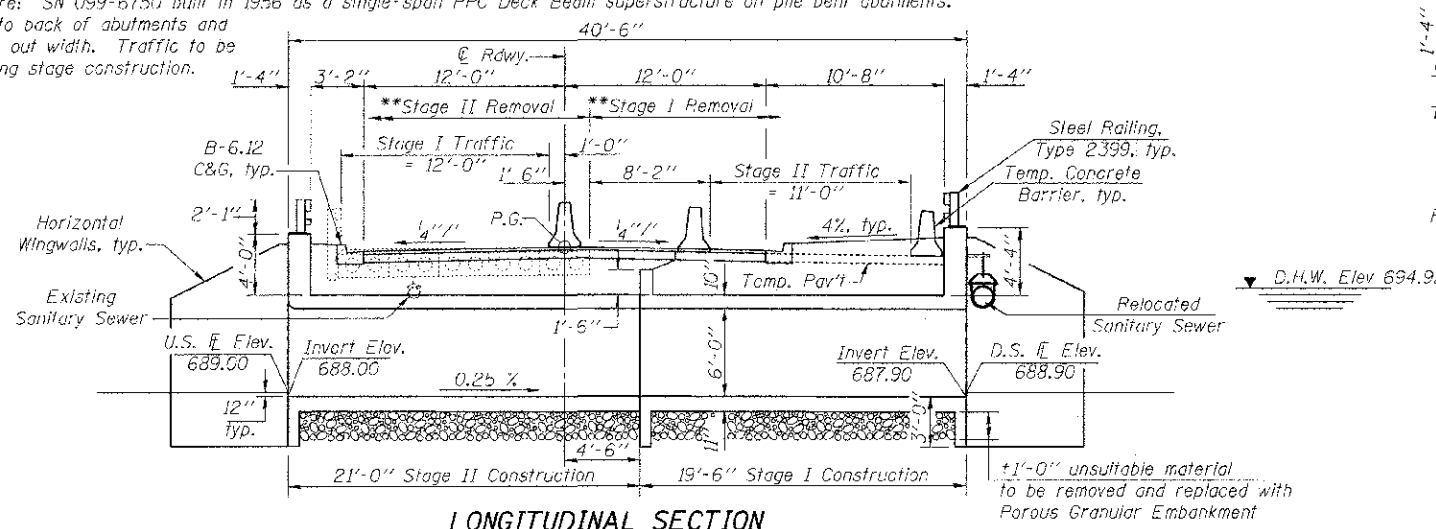


Benchmark: NW Dot on Hydrant, SE Corner of Thorn Creek Drive and Woodland Glon. Elev. 699.80

Existing Structure: SN 099-6750 built in 1956 as a single-span PPC Deck Beam superstructure on pile bent abutments. 40'-0" back to back of abutments and 27'-0" out to out width. Traffic to be maintained using stage construction.

No Salvage.

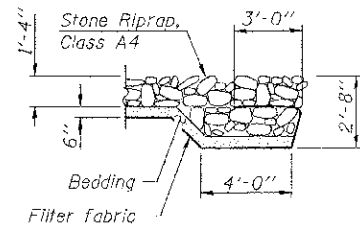


**LONGITUDINAL SECTION**  
(Looking North)

\*\* Offset of Stage Removal Line varies at pile caps.

**DESIGN SCOUR ELEVATION TABLE**

Design Scour Elevation, (ft.)	D.S. Invert	U.S. Invert
	684.90	685.00



**SECTION A-A**

THORN CREEK  
BUILT 2013 BY  
VILLAGE OF PARK FOREST  
SEC. 08-00093-00-BR  
STA. 28+97  
STR. NO. 099-6753  
LOADING HL-93

**NAME PLATE**

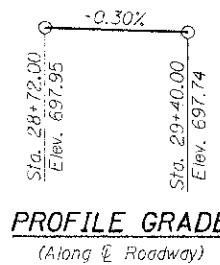
See Std. 515001

**INDEX OF SHEETS**

1. General Plan
2. Stage Construction Details
3. Culvert Details - I
4. Culvert Details - II
5. Bar Splicer Assembly and Mechanical Splicer Details
6. Steel Railing, Type 2399
7. Temporary Concrete Barrier for Stage Construction
8. Soil Borings
9. Soil Borings

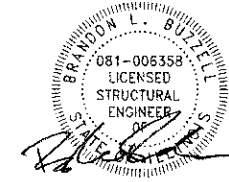
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq Yd	240
Filter Fabric	Sq Yd	240
Removal of Existing Structures	Each	1
Protective Coat	Sq Yd	28
Reinforcement Bars	Pound	36,170
Bar Splicers	Each	174
Steel Railing, Type 2399	Foot	76
Concrete Box Culverts	Cu Yd	177.0
Temporary Soil Retention System	Sq Ft	221
Name Plates	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu Yd	70



**PROFILE GRADE**

(Along E Roadway)



DATE: 10/10/2012  
LICENSE EXPIRES 11/30/14

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 the requirements of the current AASHTO LRPD Bridge Design Specifications.

**WATERWAY INFORMATION**

Drainage Area = 5.0 sq. mi. Low Grade Elev. 697.74 @ Sta. 28+96 (exist.)  
Low Grade Elev. 697.94 @ Sta. 29+50 (prop.)

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Head - Ft.		Headwater El.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	385	144	167	0.76	0.73	694.39	694.36
Design	20	487	164	180	0.81	0.77	694.96	694.92
Base	50	622	173	180	0.98	0.88	695.66	695.56
Base	100	790	173	180	1.21	1.05	696.41	696.25
Overlapping	N/A							
Max. Calc.	500	1110	173	180	1.68	1.39	697.70	697.41

**LOADING HS-20**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

2012 AASHTO LRPD Bridge Design Specifications, 6th Edition

**DESIGN STRESSES**

**FIELD UNITS**

f'c = 3,500 psi  
fy = 60,000 psi (Reinforcement)

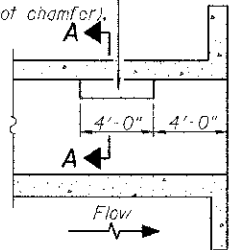
**GENERAL NOTES**

The Contractor is advised that the existing bridge is in deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the existing bridge when developing construction procedures for removal and replacement of the existing bridge.

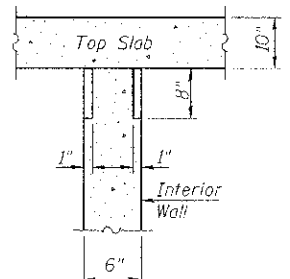
Precast alternate is not allowed.

See Earthwork Schedule for Porous Granular Embankment quantities.

Notch formed by rough finished board attached to and removed with form work, each interior wall. (Do not chamfer).

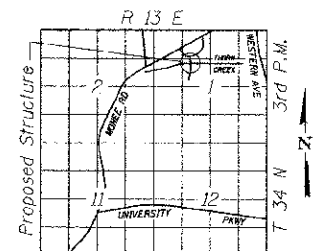


**LONGITUDINAL SECTION**



**SECTION A-A**

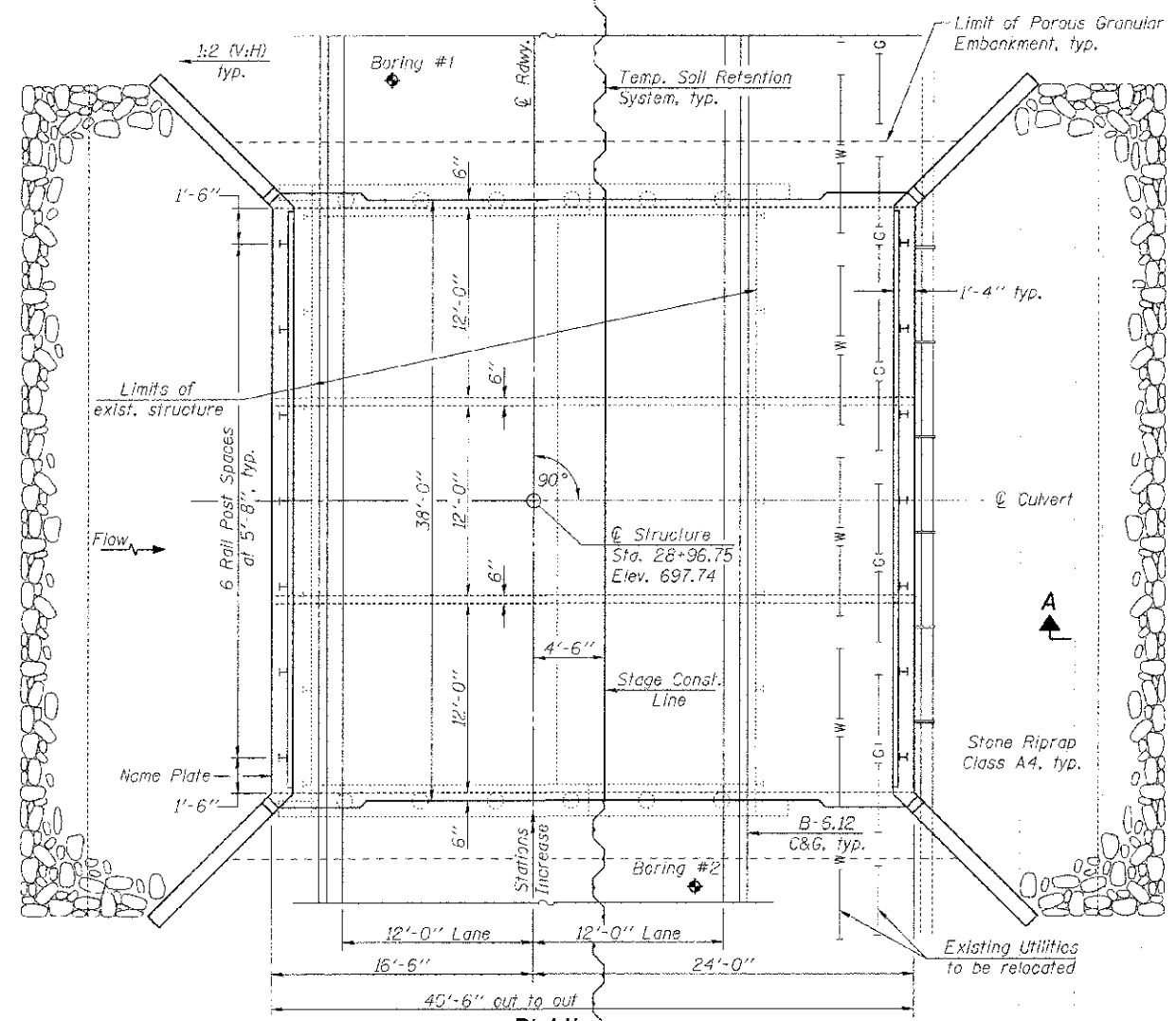
**PHOEBE NESTING SITE DETAILS**  
(Downstream End Only)



**LOCATION SKETCH**

**GENERAL PLAN**

**THORN CREEK DRIVE OVER THORN CREEK**  
**SECTION 08-00093-00-BR**  
**WILL COUNTY**  
**STATION 28+96.75**  
**STRUCTURE NO. 099-6753**



**PLAN**

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 STATE OF ILLINOIS - PROFESSIONAL ENGINEER  
 LICENSE NO. 081-006358  
 10/10/2012



USER NAME =	DESIGNED - BAB	REVISED
PLOT SCALE =	CHECKED - BLB	REVISED
PLOT DATE = 10-12-12	DRAWN - BLB	REVISED
	CHECKED - BAB	REVISED

**VILLAGE OF PARK FOREST, ILLINOIS**  
**THORN CREEK DRIVE BRIDGE OVER**  
**THORN CREEK**

**GENERAL PLAN**  
**STRUCTURE NO. 099-6753**  
SHEET NO. 1 OF 9 SHEETS

MUN ST	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1045	08-00093-00-BR	WILL	41	18

FED. ROAD DIST. NO. 1 | ILLINOIS | FED. AID PROJECT | BRM-90030303