

Bench Mark: Chiseled square on northwest wingwall at abutment, Elevation 649.48

Existing Structure: S.N. 021-8304 built in 1932 as double 8'x7' R.C. box culvert, 38'-9" face to face of curb with culvert length of 42'-2". Traffic to be maintained utilizing stage construction.

No salvage

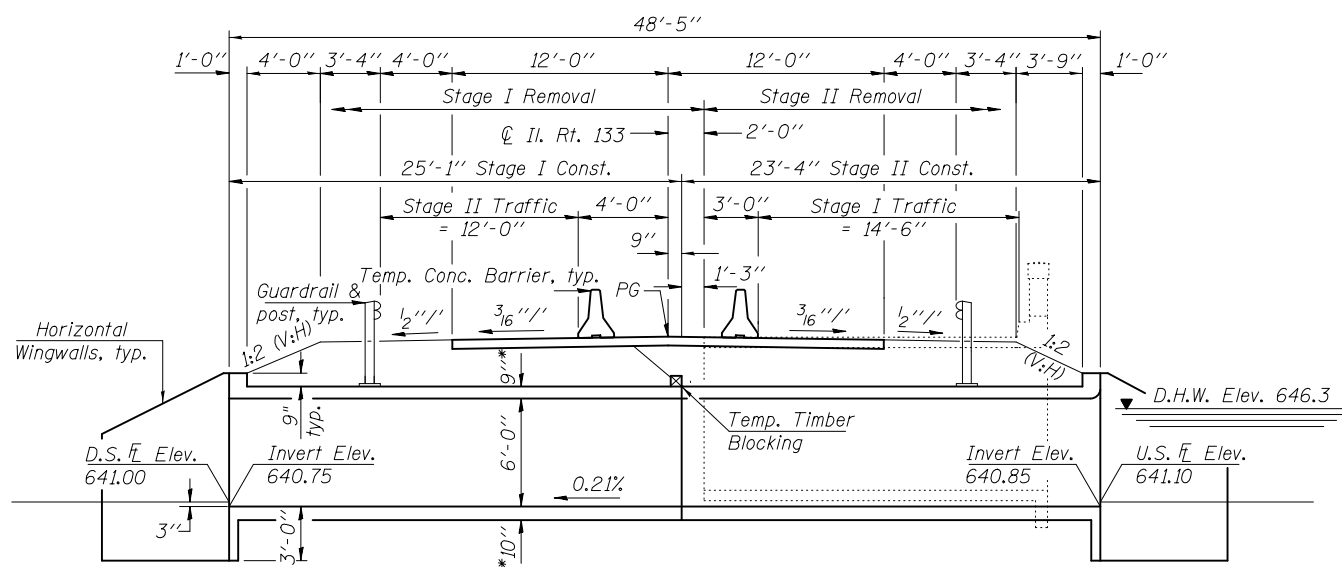
DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	637.75	637.85

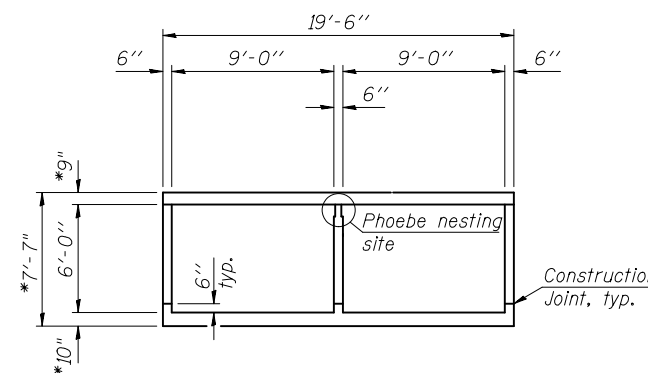
WATERWAY INFORMATION

Drainage Area = 1.14 sq. mi.		Low Grade Elev. 650.00 @ Sta. 507+00.00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		*Nat. H.W.E.	Head - Ft.		Headwater El.	
Design	50	594	Exist. 78	Prop. 94	646.3	Exist. 1.0	Prop. 0.6	Exist. 647.3	Prop. 646.9
Base	100	683	Exist. 80	Prop. 95	646.4	Exist. 1.2	Prop. 0.8	Exist. 647.6	Prop. 647.2
Overtopping									
Max. Calc.	500	896	Exist. 82	Prop. 99	646.6	Exist. 2.0	Prop. 1.3	Exist. 648.6	Prop. 647.9

* upstream face of culvert

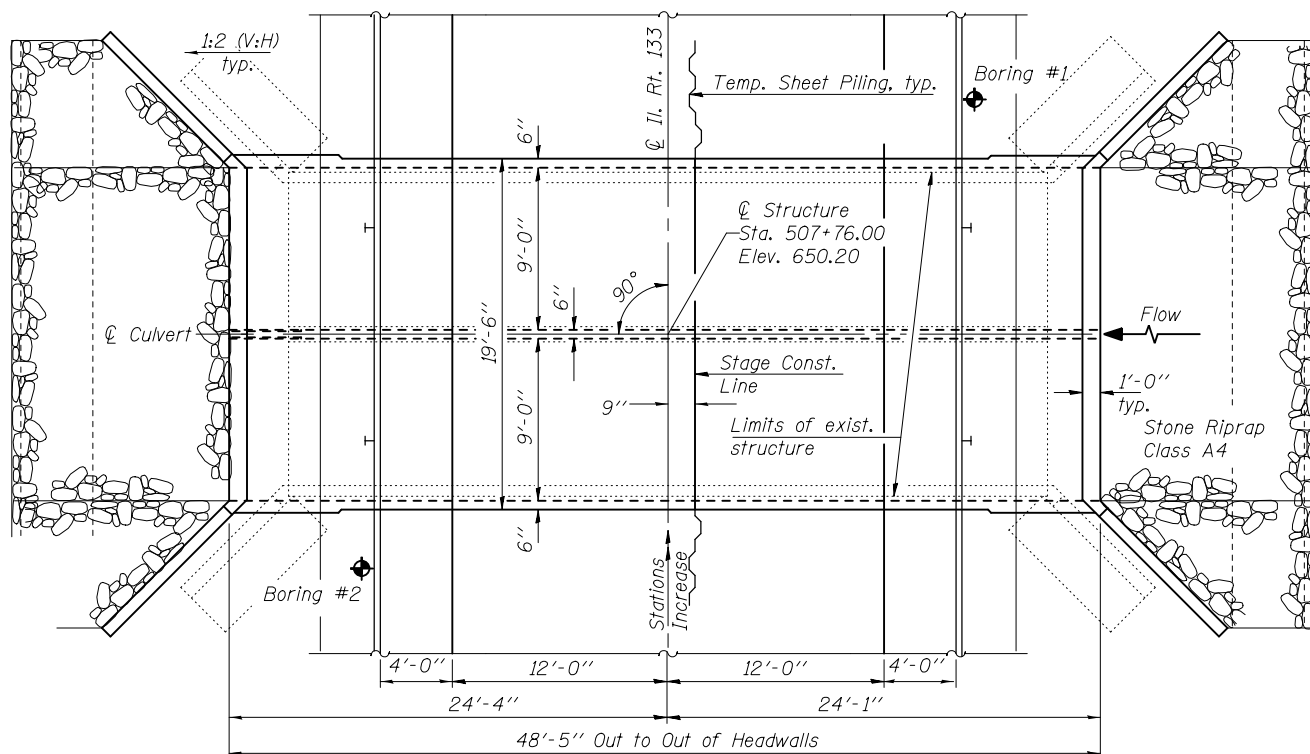


LONGITUDINAL SECTION

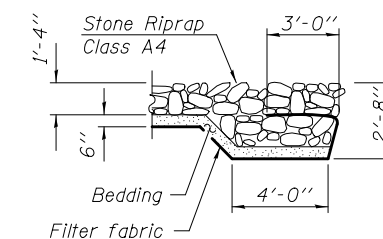


SECTION THRU BARREL

* Slab thickness may be refined in final design.



PLAN



SECTION A-A



PROFILE GRADE
(along centerline of roadway)

HIGHWAY CLASSIFICATION

F.A.P. Rte. 749 - Il. Rte. 133
ADT: 1450(1990); 1850(2010)
DHW: 200(2010)
Functional Class: Area Service
Design Speed: 55 mph

LOADING HS20-44

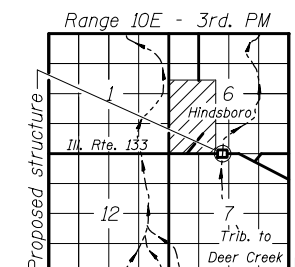
Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)



LOCATION SKETCH

GENERAL PLAN & ELEVATION
ILLINOIS ROUTE 133 OVER
TRIBUTARY TO DEER CREEK
F.A. RTE. 749 - SEC. 121-BR-6
DOUGLAS COUNTY
STATION 507+76.00
STRUCTURE NO. 021-XXXX

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 1 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
749	121-BR-6	DOUGLAS		
CONTRACT NO. 12345				

ILLINOIS FED. AID PROJECT