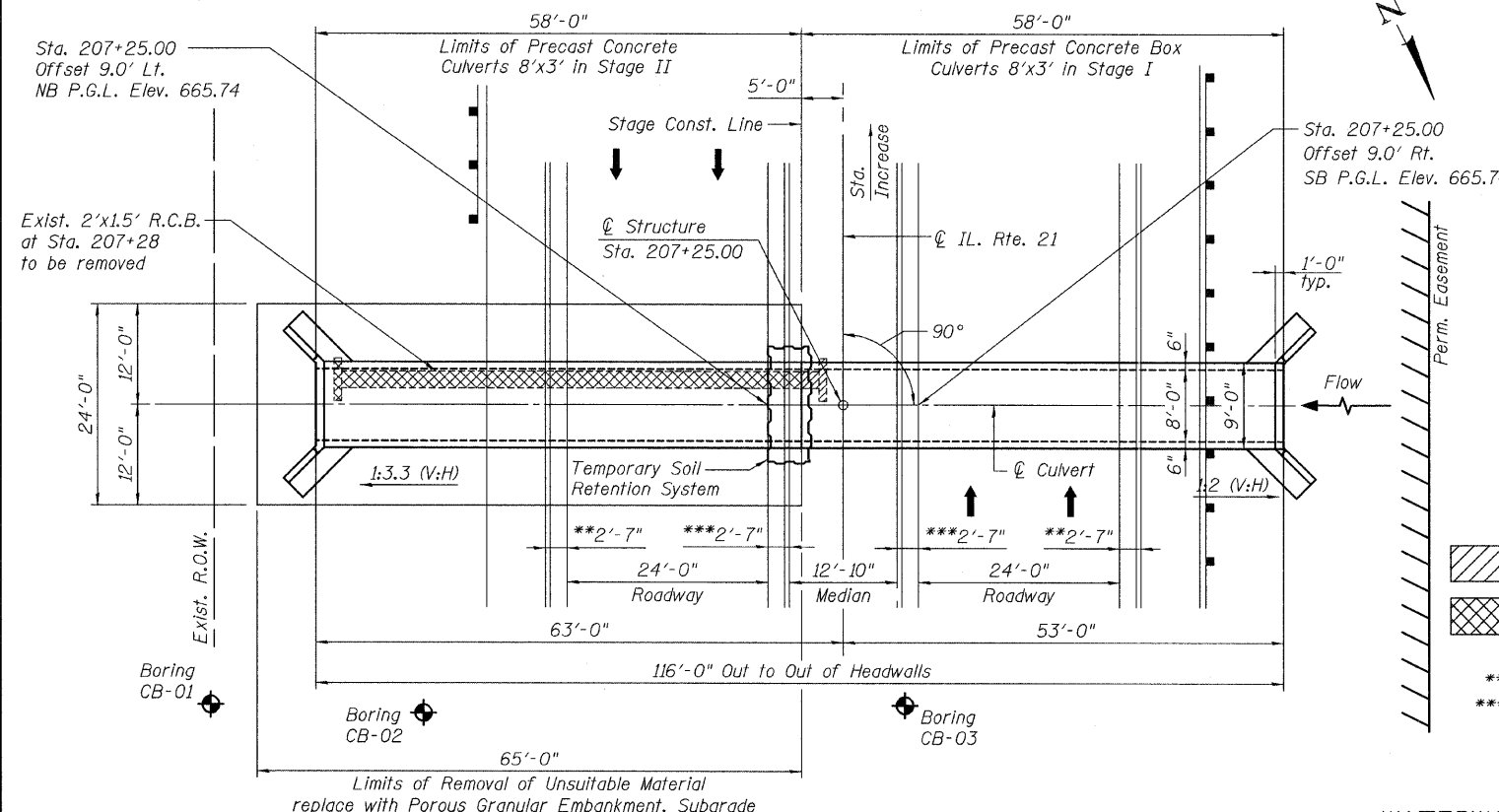
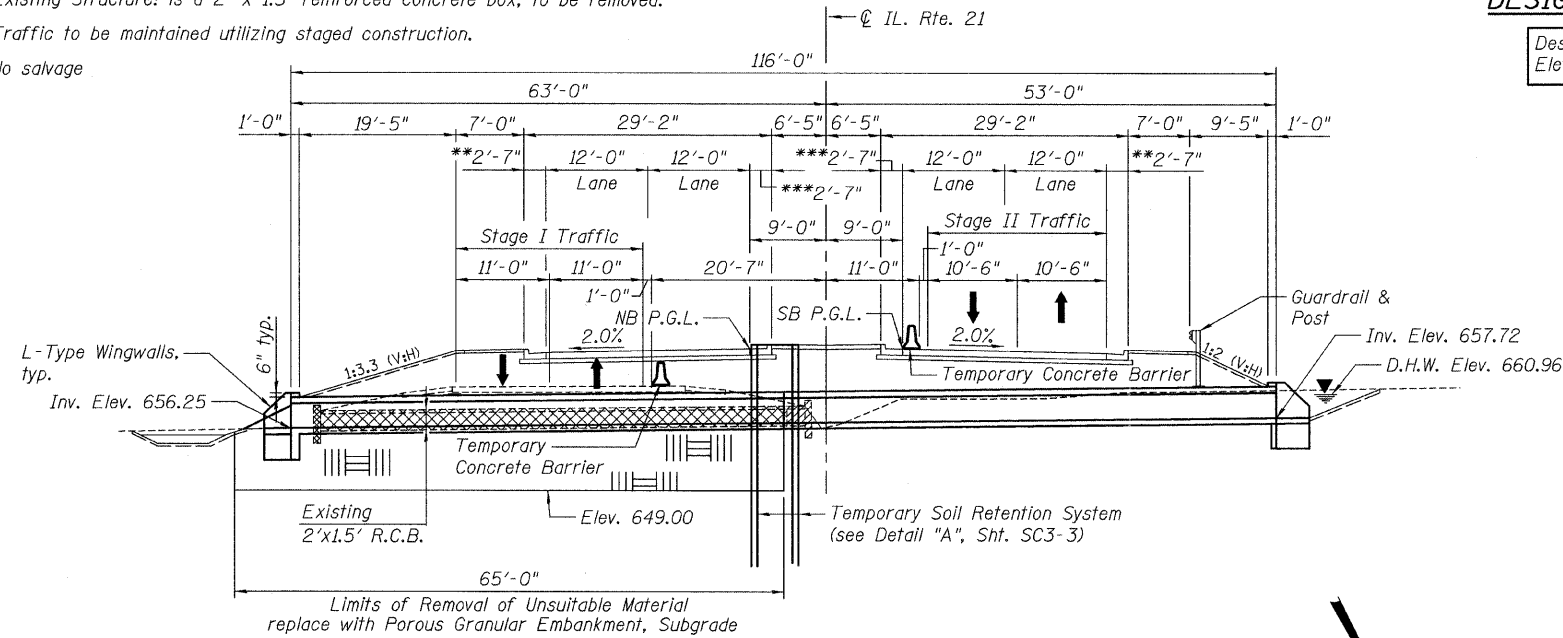


B.M.: Chiseled box on top of S.E. wingwall of bridge over Bull Creek. Elevation 669.64

Existing Structure: is a 2' x 1.5' reinforced concrete box, to be removed.

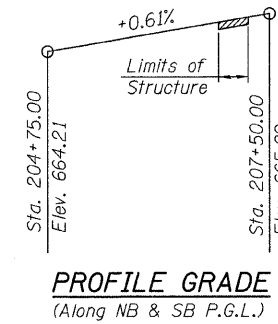
Traffic to be maintained utilizing staged construction.

No salvage



DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	Upstream	Downstream
	654.72	653.25



DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface.

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST UNITS

$f'_c = 5,000$ psi
 $f_y = 65,000$ psi (Welded wire fabric)

GENERAL NOTES:

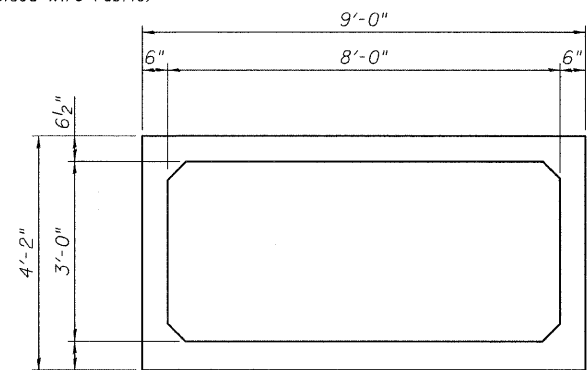
1. Reinforcement Bars shall conform to the requirements of ASTM A 706, Gr. 60. See Special Provisions.
2. All exposed concrete edges shall be chamfered $\frac{3}{4}$ " unless otherwise noted.
3. Reinforcement Bars designated (E) shall be Epoxy Coated.
4. The limits and quantities of removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
5. The Porous Granular Embankment, Subgrade shall be capped with 6 in. of CA7 and satisfy the Standard Specifications unless otherwise indicated in the Special Provisions. The cost of the capping material shall be included in the Pay Item for "Porous Granular Embankment, Subgrade".

INDEX OF SHEETS

- SC3-1 GENERAL PLAN & ELEVATION
- SC3-2 STAGE CONSTRUCTION DETAILS
- SC3-3 CAST-IN-PLACE END SECTION DETAILS
- SC3-4 SOIL BORING LOGS

TOTAL BILL OF MATERIAL

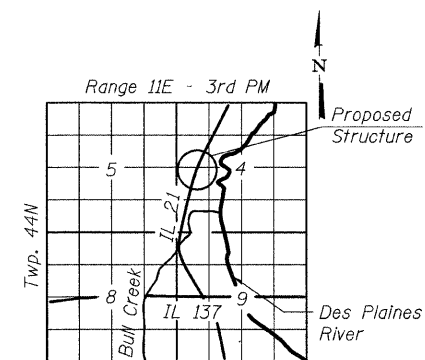
DESCRIPTION	UNIT	QUANTITY
Removal of Existing Structures No. 3	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu. Yd.	705
Reinforcement Bars	Pound	550
Reinforcement Bars, Epoxy Coated	Pound	70
Concrete Box Culverts	Cu. Yd.	7.7
Precast Concrete Box Culverts 8'x3'	Foot	115
Temporary Soil Retention System	Sq. Ft.	604
Porous Granular Embankment, Subgrade	Cu. Yd.	440



BHADRESH N. SHAH
LICENSED STRUCTURAL ENGINEER
STATE OF ILLINOIS LIC. NO. 081-004476
EXPIRES: 11-30-12

GENERAL PLAN & ELEVATION

ILLINOIS ROUTE 21
F.A.P. 330 SEC. 128R-3
LAKE COUNTY
STATION 207+25.00
STRUCTURE NO. 049-0240
OUTLET NO. 16



WATERWAY INFORMATION

Drainage Area = 0.109 Sq. Mi. Low Grade Elev. 663.93 @ Sta. 203+84.34

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
Design	50	79	45*	19.84	656.65	4.31	4.31	660.96	660.96
Base	100	92	59*	22.00	656.69	4.29	4.29	660.98	660.98
Overtopping									
Max. Calc.									

*Includes roadway overtopping