

Benchmark: Chiseled square on top of Northeast wingwall, Sta. 1158+20.0592, 22.1043' Lt., El. = 640.488

Existing Structure: The existing Structure No. 098-2021, constructed in 1995, is a concrete 12'x8' triple box culvert. Out to out headwalls is 55'-6" along \bar{C} culvert. Section and route of existing structure are 16RS-3, F.A.P. 309 (US 30). Traffic to be maintained utilizing Stage Construction.

Proposed Structure: Existing structure to be extended at each end for an overall out to out headwall of 87'-4".

No Salvage

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price for the work.

Precast alternate is not allowed.

Exposed edges shall be beveled $\frac{3}{4}$ ", unless otherwise noted.

For backfilling and embankment see Standard Specifications.

At least 7' of the barrel shall be poured monolithically with wingwall.

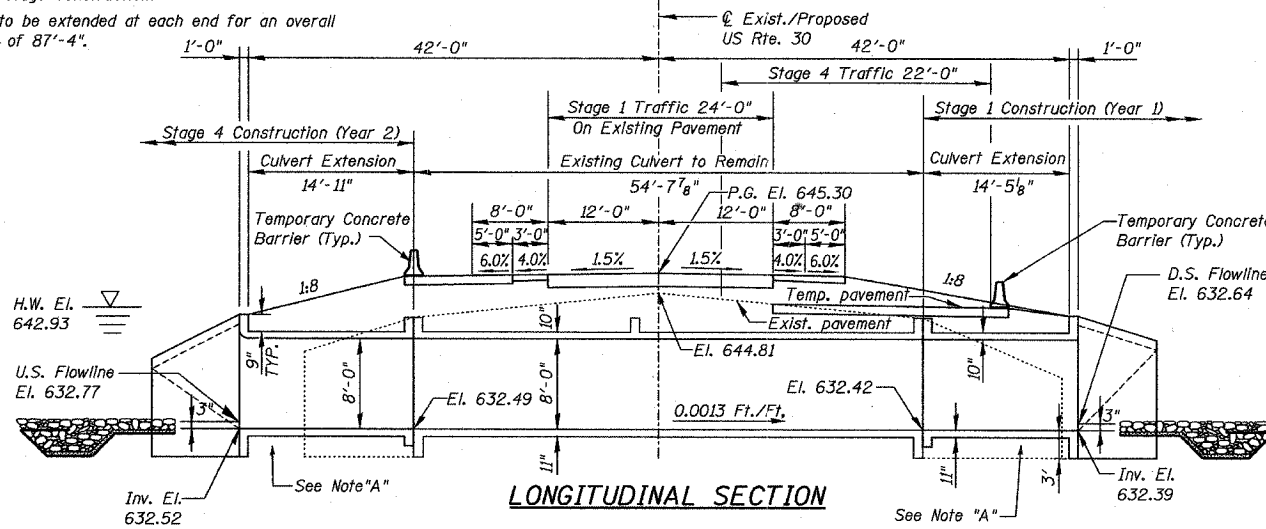
Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 7500 lbs. Hooked bolts shall extend a minimum of 9 inches into new concrete.

All Construction Joints shall be bonded.

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

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET NO. 1 OF
F.A.P.309	16R-2	WHITESIDE	541	6 SHEETS
FED. ROAD DIST. NO. 2	ALLIANCE	FED. AID PROJECT-		

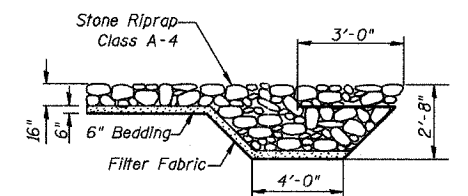
Contract No. 64969



(Horizontal Dimensions at Rt. Angles to \bar{C} Roadway)
Note "A" - Remove unsuitable soil to a depth of +/- 2'-9" below culvert and replace with Breaker Run Crushed Stone. See detail sheet 5 of 6

PROFILE GRADE US RTE 30

(along \bar{C} roadway)



STONE RIPRAP ANCHOR DETAIL
SECTION B-B

LOADING HS20-44

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

DESIGN SPECIFICATIONS

2002 AASHTO "Standard Specifications for Highway Bridges"

DESIGN STRESSES

FIELD UNITS

New Construction

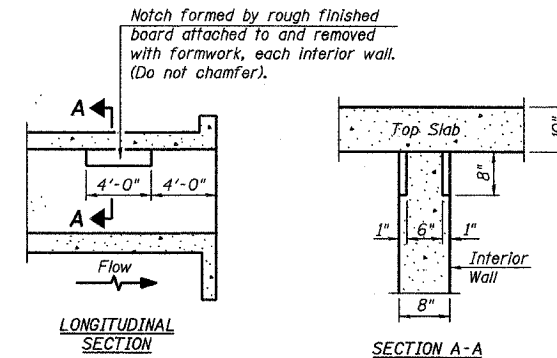
$f'_c = 3,500$ psi

$f_y = 60,000$ psi (reinforcement)

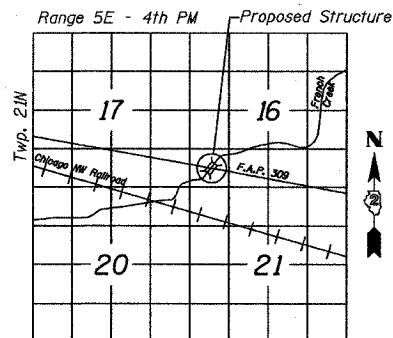
Existing Construction

$f'_c = 3,500$ psi

$f_y = 60,000$ psi (reinforcement)



PHOEBE NESTING SITE DETAILS
(Downstream End Only)



LOCATION SKETCH

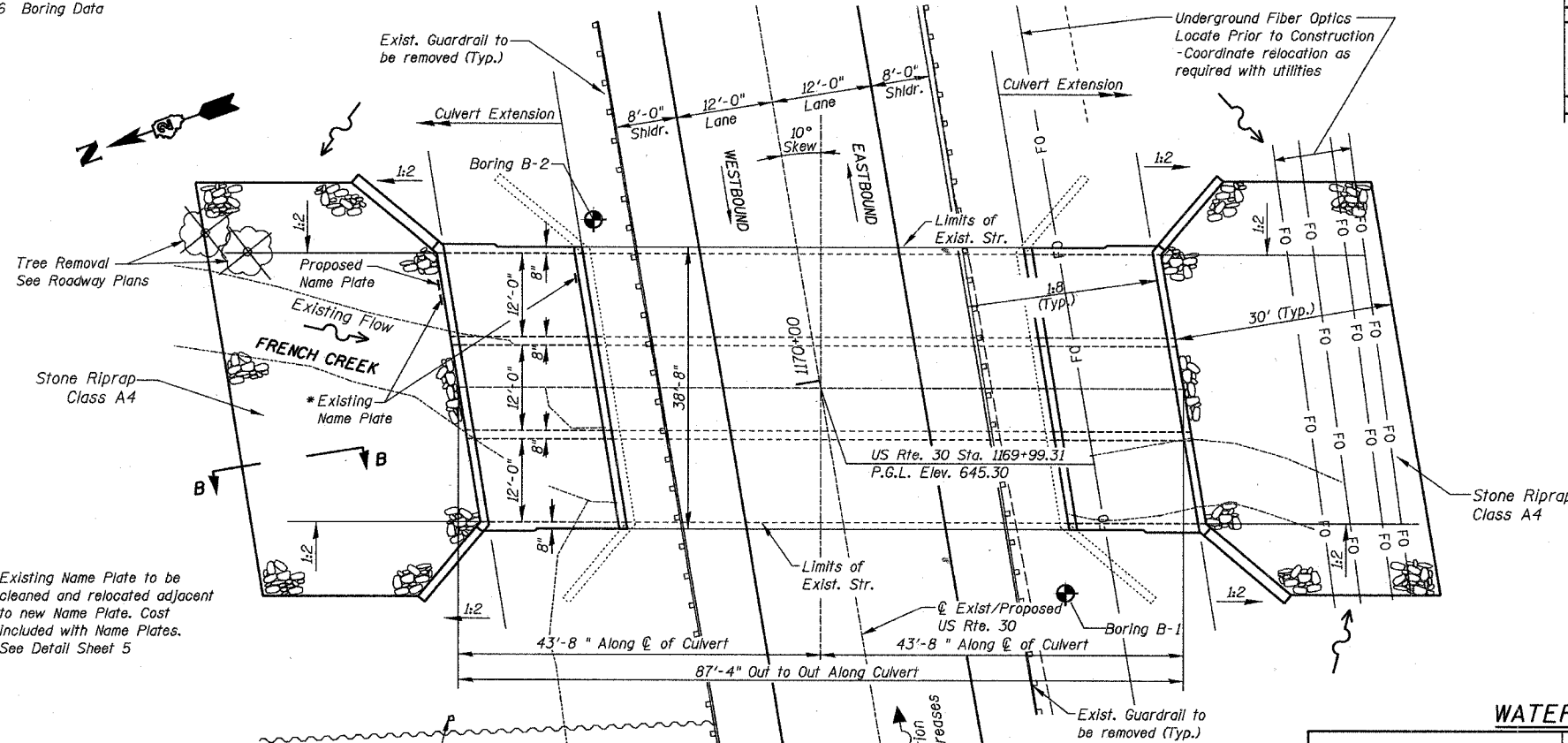
WATERWAY INFORMATION

Drainage Area = 6.77 sq. mi (French Creek only)		Exist. Low Grade Elev. 644.81 - @ Sta. 1169+99.31		Prop. Low Grade Elev. 645.30 - @ Sta. 1169+99.31		
Flood	Freq. Yr.	Prop. Q C.F.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.W.E. Exist. Prop.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Overtop (Exist.)	10	961	288.0 288.0	642.61 642.61	0.0 0.0	642.58 642.57
Design	50	887	288.0 288.0	642.93 642.93	0.37 0.37	643.30 643.30
Base	100	927	288.0 288.0	643.17 643.17	0.35 0.42	643.52 643.59
Max. Calc.	500	1067	288.0 288.0	643.76 643.76	0.28 0.74	644.04 644.50

10-Yr. velocity through existing French Creek Culvert = 3.69 fps
10-Yr. velocity through proposed French Creek Culvert = 4.06 fps

INDEX OF SHEETS

- 1 General Plan
- 2 North Culvert Extension Details
- 3 South Culvert Extension Details
- 4 Wingwall and Section
- 5 Boring Data and Details
- 6 Boring Data



* Existing Name Plate to be cleaned and relocated adjacent to new Name Plate. Cost included with Name Plates. See Detail Sheet 5

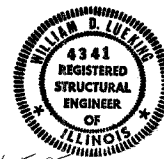
DESIGNED	-	DJC
CHECKED	-	WDL
DRAWN	-	JSD
CHECKED	-	WDL

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson
ENGINEER OF BRIDGES AND STRUCTURES

PLAN

William D. Lueking 11-5-05
William D. Lueking
Illinois Licensed Structural Engineer No. 4341
Lic. Expires 11/30/06



TOTAL BILL OF MATERIAL

Item	Unit	Total
Breaker Run Crushed Stone	Ton	348
Name Plates	Each	1
Remove and Dispose of Unsuitable Material	Cu. Yd.	170
Concrete Box Culverts	Cu. Yd.	142.8
Reinforcement Bars	Pound	29,670
Stone Riprap, Class A4	Sq. Yd.	368.5
Filter Fabric	Sq. Yd.	368.5
Expansion Bolts $\frac{3}{4}$ "	Each	124

GENERAL PLAN
U.S. RTE. 30 OVER FRENCH CREEK
F.A.P. ROUTE 309 SECT. 16 R-2
WHITESIDE COUNTY
STATION 1169+99.31
STRUCTURE NUMBER 098-2021



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