

B.M.: RR Spike in Telephone Pole
Sta. 18+79, 33' Rt.
Elev. 654.62

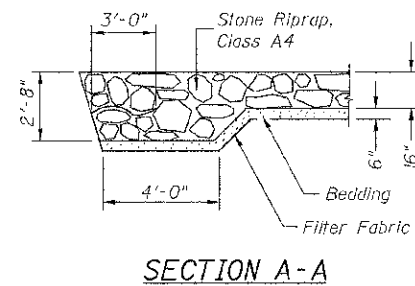
B.M.: Mag Nail in Top of 15" CMP
Sta. 21+27, 26' Lt.
Elev. 652.86

Existing Structure:
Single span PPC Deck Beam bridge on reinforced concrete abutments supported by timber piles. The structure is ±41' back to back of abutments, ±26' out to out of deck, and is not skewed.
Str. No. 050-3003

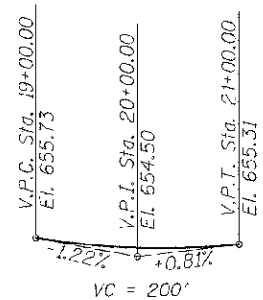
Salvage: None

Road to be closed to traffic during construction.

*Unsuitable Material Removal and Replacement with P.G.E. Limits are 2' outside the bottom slab and extends the length of the barrel.



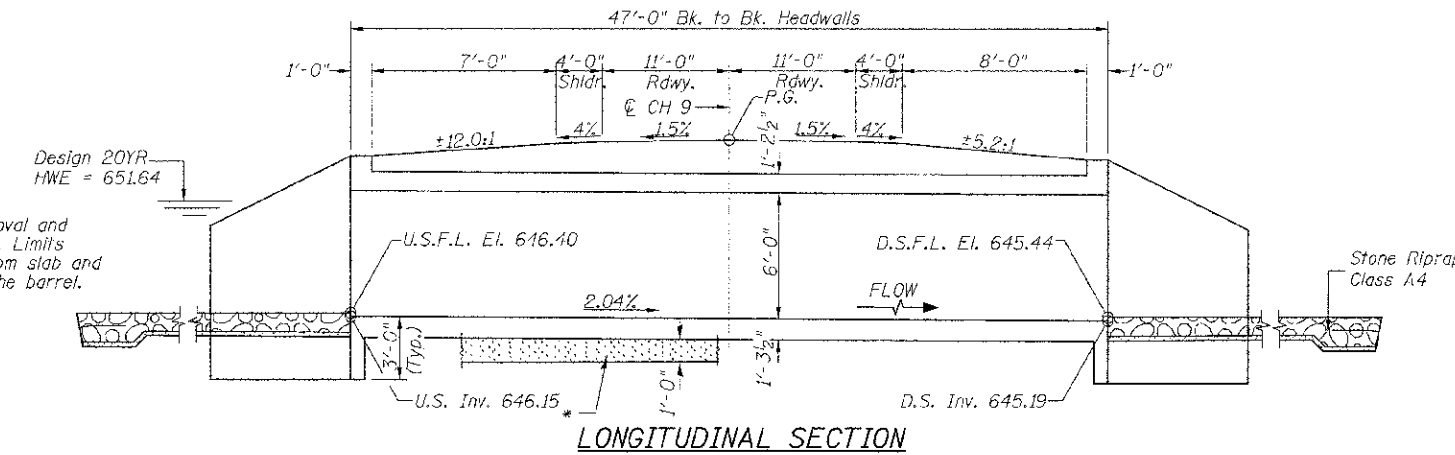
SECTION A-A



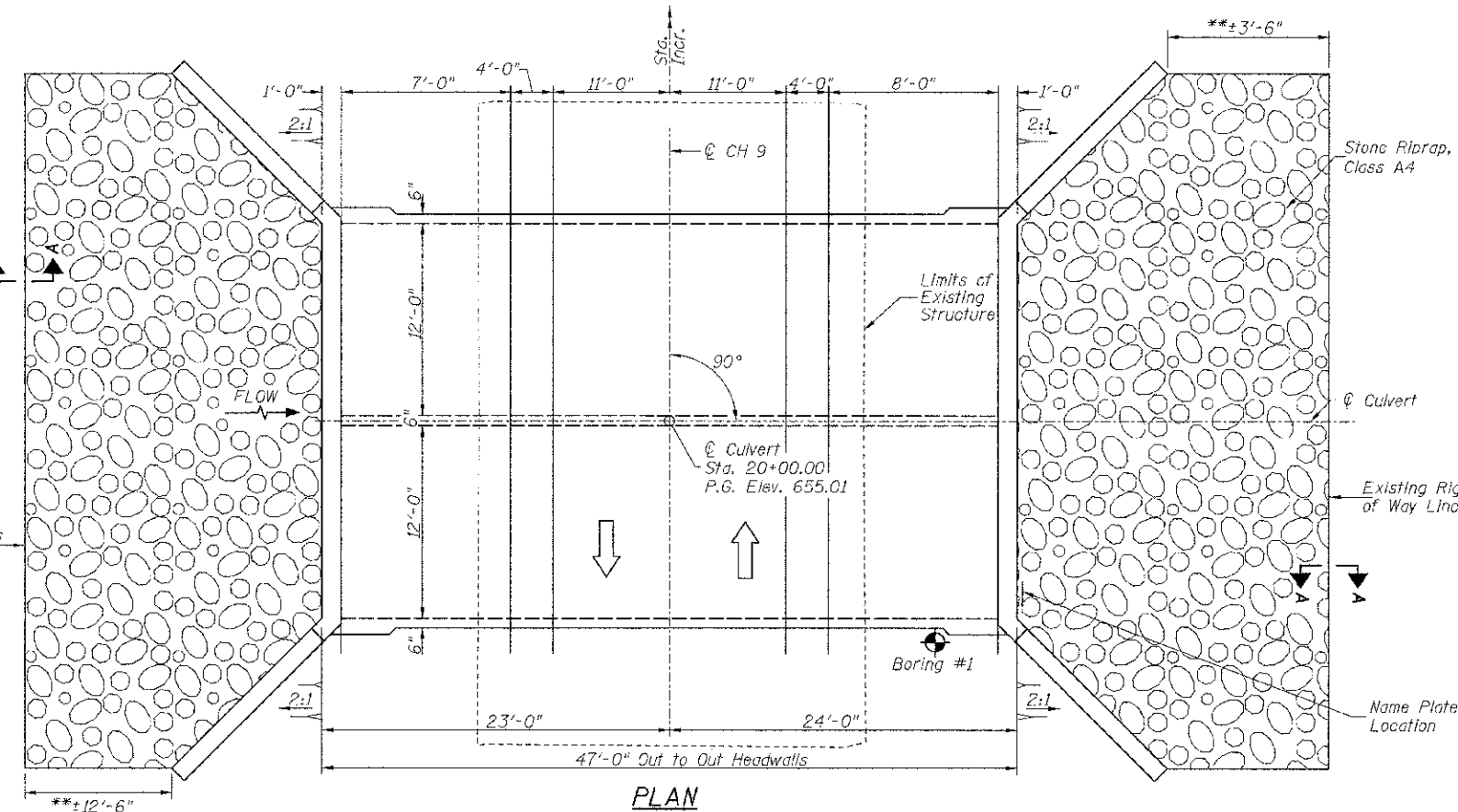
PROFILE GRADE

**Riprap dimensions are for estimating quantities only.

Proposed Limits of Construction



LONGITUDINAL SECTION



PLAN

GENERAL NOTES

Reinforcement Bars shall conform to the requirements of ASTM A 706 Grade 60.
All construction joints shall be bonded.
Exposed concrete edges shall have a 3/4" chamfer unless otherwise noted.
Precast culvert option will not be allowed.
Layout of stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.
A distance of half the length of the wingwall, but not less than 6 feet of the barrel shall be poured monolithically with the wingwall.
All excavation required for construction of the culvert in accordance with the Standard Specifications shall be included in the cost of Concrete Box Culverts.
Areas of excavation required for removal of the existing structure or construction of the new culvert shall be backfilled with Porous Granular Embankment up to the top of slab elevation. See Special Provisions for more detailed information.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Box Culverts	CU YD	143.3
Reinforcement Bars	POUND	20,510
① Removal of Existing Structures	EACH	1
Name Plates	EACH	1
Stone Riprap, Class A4	SQ YD	125
Filter Fabric	SQ YD	125
Removal & Disposal of Unsuitable Material	CU YD	50
② Porous Granular Embankment	CU YD	270

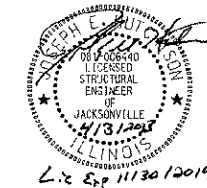
① See Special Provisions

DESIGN SCOUR TABLE

Location	Upstream	Downstream
Design Scour Elevation	646.15	645.19

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 requirements of the current AASHTO Standard Specification for Highway Bridges. This design complies with all requirements of the current AASHTO Guide Specifications for Seismic Design of highway bridges.

[Signature] 4/13/2013
Illinois Structural No. 6440
Expires 11/30/2014



BUCK CREEK
BUILT 201 BY
LASALLE COUNTY
SEC. 13-00726-00-BR
F.A.S. RTE. 174 STATION 20+00.00
F.A. PROJ. BRS-0174(119)
STR. NO. 050-3608 LOADING HL-93

NAME PLATE

Locate Name Plate at East Headwall
S.E. Corner of Culvert (See Std. 515001)

WATERWAY INFORMATION

Flood		Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - Ft.		Headwater El.	
Design	Base	20	100	Exist.	Prop.	651.64	Exist.	Prop.	Exist.	Prop.
		231	331	132	143	651.64	0.00	0.00	651.64	651.64
				144	144	652.00	0.00	0.00	652.00	652.00

Drainage Area = 1.09 Sq. Mi. Low Grade Elev. = 654.99 @ Sta. 20+20.47

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications

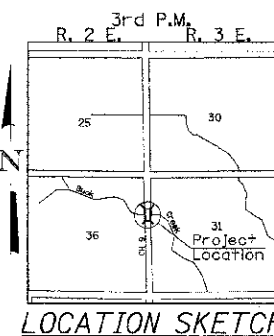
DESIGN STRESSES

FIELD UNITS

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

LOADING HL-93

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



LOCATION SKETCH

GENERAL PLAN & ELEVATION

SHEET NO. 1	F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
4 SHEETS	174	13-00726-00-BR	LASALLE	16	7
S.N. 050-3608			CONTRACT NO. 87557		
FED. ROAD DIST. NO. 7 ILLINOIS			FED. AID PROJECT BRS-0174(119)		