

Bench Mark: (UNADJ. ELEV. NAVD 88 - 568.948) (TPS-13) (PUB/ADJ ELEV NAVD 88 - 568.934)  
 Fd chis "a" on SE wingwall on S.N. 054-0019, bridge over Kickapoo Creek

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

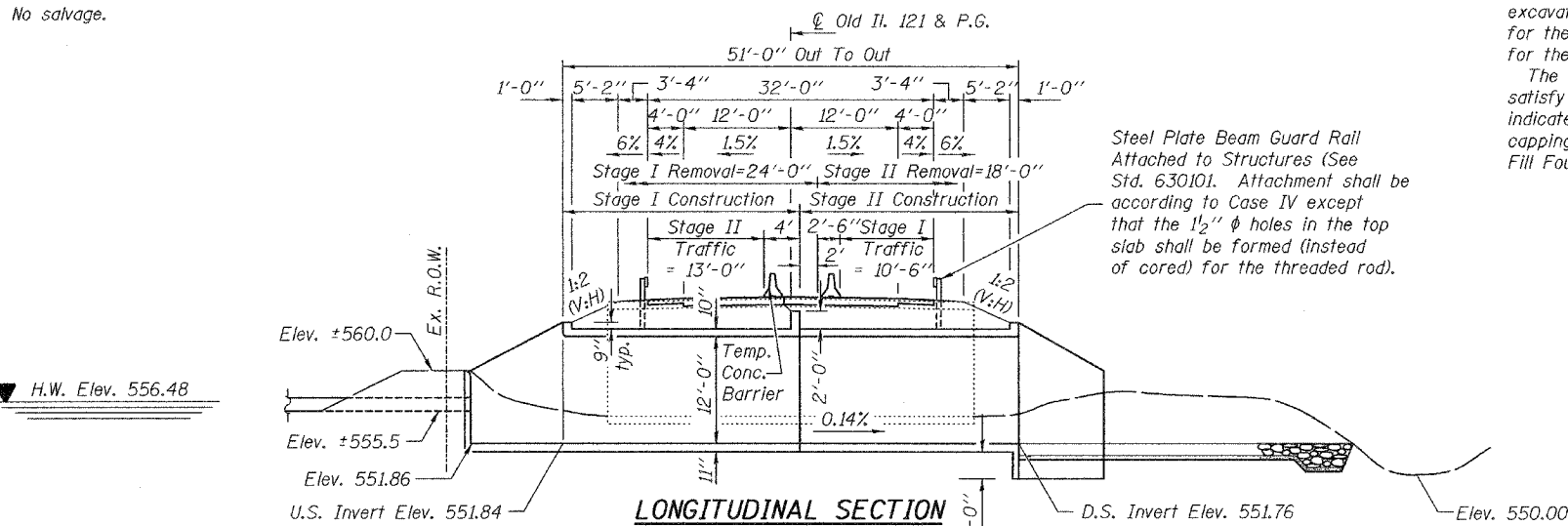
ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.S. 1774	113(B-5, B-6)	LOGAN	60	36
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

SHEET NO. 1  
9 SHEETS

Contract #72760

Existing Structure: S.N. 054-2013, originally built in 1933 as S.B.I. Route 121, Section 113-3B.  
 The existing structure is a 42' long double 10'x12' reinforced, cast-in-place concrete box culvert.  
 The existing structure is to be removed and replaced. Traffic to be maintained utilizing stage construction.

\*Note A: Removal and replacement of weak soils with Rock Fill Foundation may be required beneath the culvert. The Engineer will determine the required depth following excavation to plan grade. The Contractor will be paid for the quantity actually furnished at the unit price for the work. See Special Provision.  
 The Rock Fill shall be capped with 6" of CA-7 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 "Rock Fill Foundation".



STATION 1727+87.37  
 BUILT 20 BY  
 STATE OF ILLINOIS  
 F.A.S. RT. 1774 SEC. 113 (B-5,B-6)  
 LOADING HS20  
 STRUCTURE NO. 054-2506

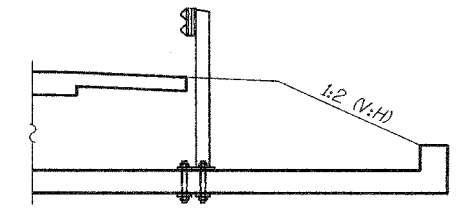
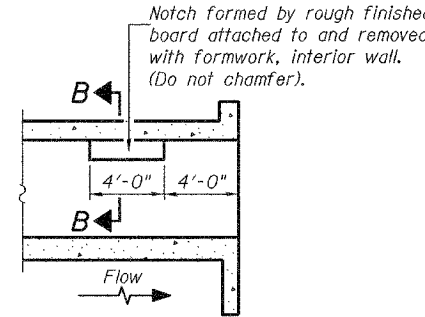
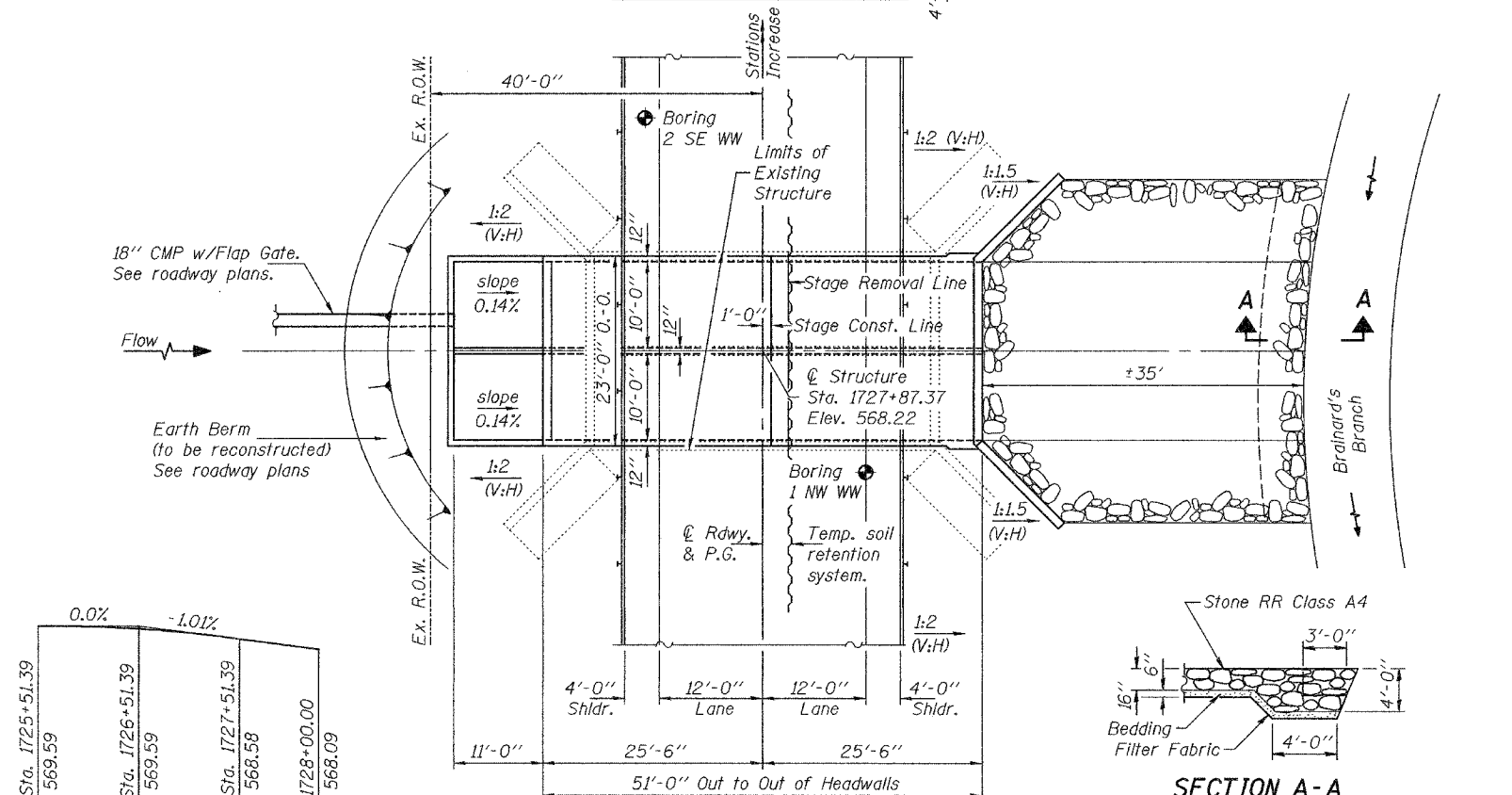
NAME PLATE  
 See Std. 515001

GENERAL NOTES

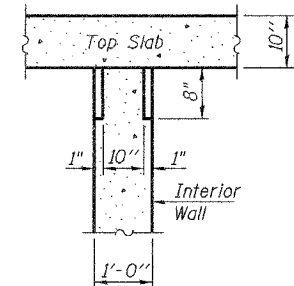
Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.  
 Precast culvert alternate is not allowed.  
 Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.  
 Granular Culvert Backfill shall be used to backfill the culvert. See Roadway Plans.  
 All construction joints shall be bonded.

INDEX OF SHEETS

- 1 General Plan
- 2 Stage Construction Details
- 3 Temporary Concrete Barrier
- 4-7 Culvert Details
- 8 Bar Splicer Assembly Details
- 9 Boring Logs



GUARDRAIL MOUNTING DETAIL  
 (Std. 630101, Case IV)

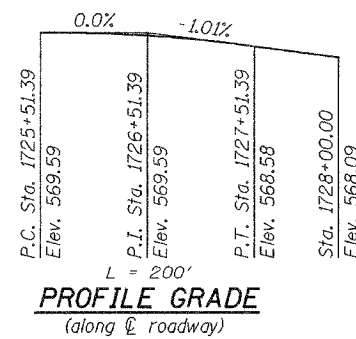


SECTION B-B  
 PHOEBE NESTING  
 SITE DETAILS  
 (Downstream End Only)

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	Sq. Yd.	146.8
Filter Fabric	Sq. Yd.	146.8
Removal of Existing Structures No. 2	Each	1
Reinforcement Bars	Pound	32150
Temporary Soil Retention System	Sq. Ft.	573
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	200.5
Bar Splicers	Each	156
Rock Fill Foundation	Ton	100
Steel Plate Beam Guard Rail, Attached to Structures	Foot	46

\* See Note A



DESIGNED *Fessha Teklehaimanot*  
 CHECKED *Stephen M. Ryan*  
 DRAWN *h.t. duong*  
 CHECKED *FT / SHR*

EXAMINED *Thomas J. Sullivan*  
 PASSED *Robert E. Johnson*



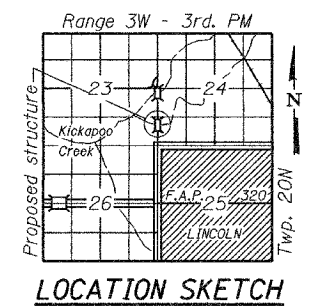
WATERWAY INFORMATION

Drainage Area = 0.06 mi.<sup>2</sup> Ex. Low Grade Elev. 568.17 @ Sta. 1727+75  
 Pr. Low Grade Elev. @ Sta.

Flood	Freq. Yr.	Q C.F.S.	Opening Exist. Prop.	Sq. Ft. Exist. Prop.	Nat. H.W.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Flood	10	50.2	20.8	20.8	556.40	0.00	0.00
Design	50	83.0	22.4	22.4	556.48	0.48	0.00
Base	100	97.4	23.0	23.0	556.51	0.59	0.00
Overtopping	-	-	-	-	-	-	-
Max. Calc.	500	132.8	24.2	24.2	556.57	0.86	0.00

LOADING HS20-44  
 Allow 50#/sq. ft. for future wearing surface.  
 DESIGN SPECIFICATIONS  
 2002 AASHTO

DESIGN STRESSES  
 FIELD UNITS  
 f'<sub>c</sub> = 3,500 psi  
 f<sub>y</sub> = 60,000 psi (reinforcement)



GENERAL PLAN  
 OLD IL. ROUTE 121 OVER  
 TRIBUTARY TO BRAINARDS BRANCH  
 F.A.S. RTE. 1774 - SEC. 113 (B-5,B-6)  
 LOGAN COUNTY  
 STATION 1727+87.37  
 STRUCTURE NO. 054-2506

EXPIRES 11-30-2006