

- Notes
1. Dimensions along ϕ Roadway.
 2. Hatched areas indicate "Removal of Existing Structures"
 3. Stage I Temporary Soil Retention System shall extend to the edge of the existing abutment footing on the stream side of the abutment.

TEMPORARY SOIL RETENTION SYSTEM

A cantilevered sheet piling system does not appear feasible and additional members or other retention systems may be necessary. The contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

Estimated Exposed Area to be Retained: 450 sq. ft. (Stage I), 433 sq. ft. (Stage II)

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures No. 2	Each	1
Concrete Box Culverts	Cu. Yd.	364.6
Reinforcement Bars	Pound	63240
Reinforcement Bars, Epoxy Coated	Pound	2020
Furnishing Steel Piles HP 12x53	Foot	504
Driving Piles	Foot	504
Test Pile, Steel HP 12x53	Each	2
Name Plates	Each	1
Temporary Soil Retention System	Sq. Ft.	883
Rockfill - Foundation	Ton	370
Bar Splicers	Each	109
Granular Culvert Backfill	Cu. Yd.	1560
Temporary Shoring	Each	1

WATERWAY INFORMATION

Drainage Area = 1.15 Sq. Mi. Ex. Low Grade Elev. = 570.56 Sta. 219+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.		Nat. H.W.E.	Head - ft.		Headwater El.	
			Exist.	Prop.		Exist.	Prop.	Exist.	Prop.
	10	507.1	69	94	561.98	0.57	0.00	562.55	561.98
Design	50	839.4	92	114	563.26	0.99	0.00	564.25	563.26
Base	100	987.6	100	122	563.75	1.18	0.18	564.93	563.93
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	1355	120	140	564.88	1.82	0.95	566.70	565.83

GENERAL NOTES

A Precast Box Culvert alternative will not be allowed at this site. Excavation behind existing abutment walls shall be done before removing the existing superstructure. The Contractor shall sawcut the existing abutments at the stage removal line before Stage I Removal. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr. 60. See Special Provisions. For backfilling and embankment, see Standard Specifications. Exposed edges shall have standard $\frac{3}{4}$ " chamfer unless otherwise noted. Removal and replacement of weak soils with Rockfill - Foundation may be required beneath the culvert. The Engineer will determine the required depth following excavation to plan grade. A ± 2.1 ft. void exists between the bottom of the existing bridge and the top of the existing culvert. At least seven ft. of barrel shall be poured monolithically with the N.W. and S.E. Wings. Removal of the slab on the existing bridge creates an unstable condition for the existing abutment walls. The primary vertical reinforcement is in the face of the wall closest to the stream. Bracing of the walls or excavation prior to Stage I Removal will be necessary to prevent collapse.

DESIGN SPECIFICATIONS

2002 A.A.S.H.T.O. Specifications

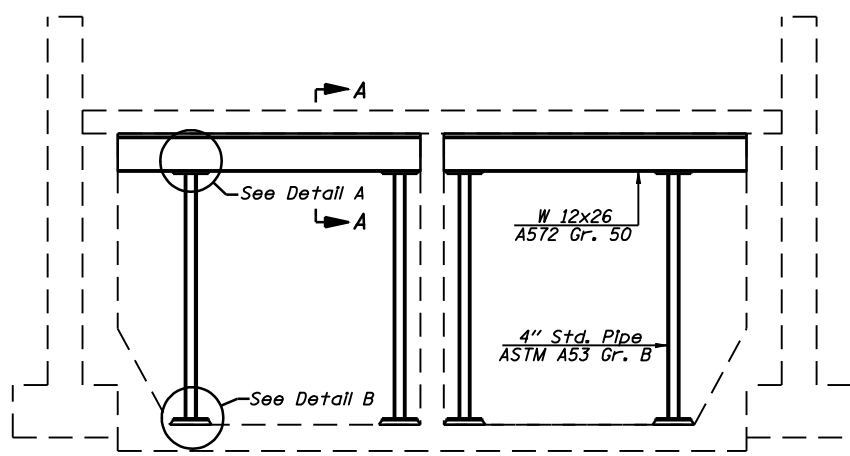
LOADING HS 20-44

Allow 50#/Sq. Ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS

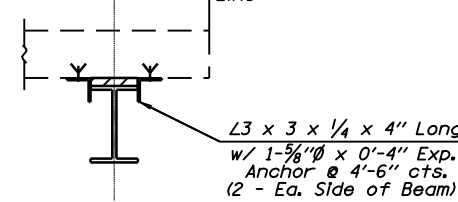
$f'_c = 3500$ psi
 $f_y = 60000$ psi (Reinf.)



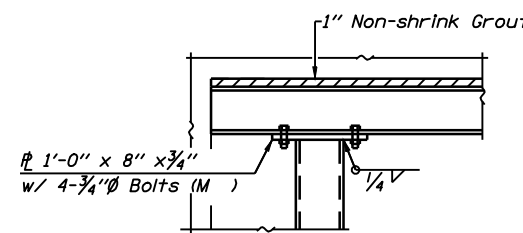
TEMPORARY SHORING DETAIL

Note: Place temporary shoring prior to Stage I Removal.

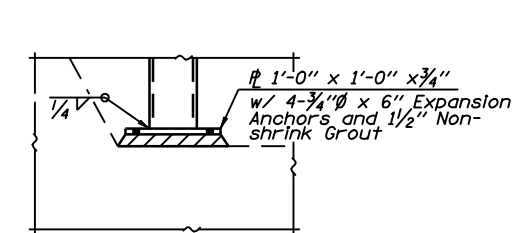
SECTION A-A



DETAIL A



DETAIL B



GENERAL PLAN
IL. ROUTE 125 OVER
TRIBUTARY TO LOST CREEK
F.A.P. ROUTE 67 - SECTION (6X-1)B-2
CASS COUNTY
STA. 217+67.54
S.N. 009-2507

<p>Allen Henderson & Associates, Inc. Civil and Structural Engineers Springfield, IL. 62703 Phone: (217)544-8033 IL. Design Firm No. 184-001907</p>	<p>SHEET NO. 2 OF 11 SHEETS</p>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		67	(6X-1)B-2	CASS	71	45
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					CONTRACT NO. 72875	