

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes, Total Bill of Material, Temporary soil Retention system & Temporary support system
3. Stage Construction Details
4. Temporary Concrete Barrier
5. culvert Barrel
6. culvert Headwalls & parapet
7. culvert details
8. upstream drop box
9. downstream Apron & diversion walls
10. Soldier pile wing walls
11. Soldier pile wall details
12. Soldier pile wall data
13. Steel Railing, type 2399
14. Bar Spicer Assembly details
15. Boring Logs

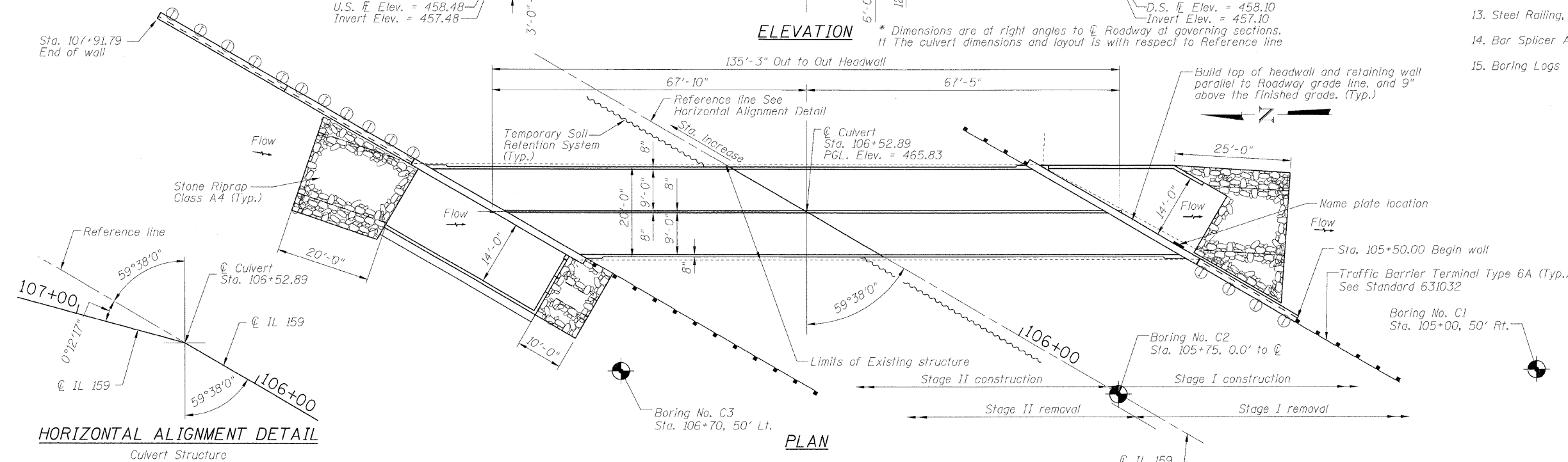
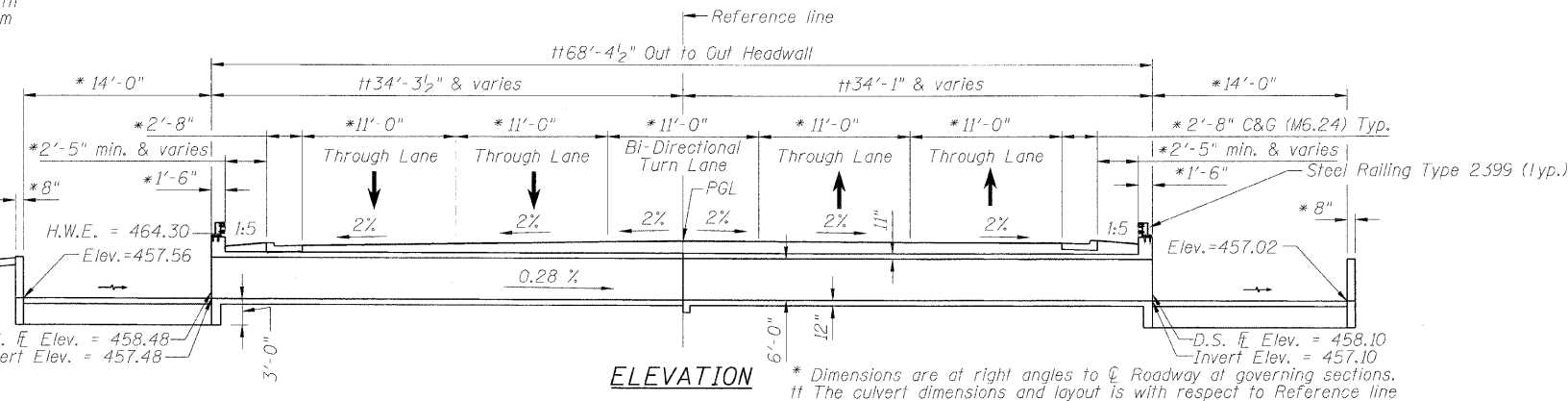
B.M. - # 114 Chiseled \square on center of N. Headwall for concrete box culvert, located on W. side of IL Rte. 159 in "Buff Truck ouffilters" parking lot across from historical landmark "Calsup Baffle" Elev. 475.811

Existing Structure- The structure (structure No. 082-2023) is a triple cell concrete box culvert built in 1934 and extended twice on the downstream (east end in 1985 and 2001. The original structure has three cells at 6.0 ft. by 2.5 ft and is 85.4 ft long. The first extension is 21.8 ft and the latest extension is 26.2 ft long. Both extensions consist of three cells with the two outer cells at 6.25 ft by 5.1 ft and the center cell at 6.5 ft by 5.1 ft. Two concrete headwalls with wing walls are located at both the upstream and downstream ends. The culvert is at a skew of 59.6 degrees with the roadway.

Existing culvert is to be removed and replaced.

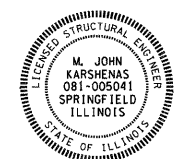
Stage construction: One lane of traffic shall be maintained in each direction utilizing stage construction.

No Salvage-



STATION 106+52.89
BUILT 2009 BY
STATE OF ILLINOIS
F.A.P. RT. 600 SEC. 60-(30,31,128)-1
LOADING HS20
STRUCTURE NO: 082-2044

NAME PLATE
See Std. 515001



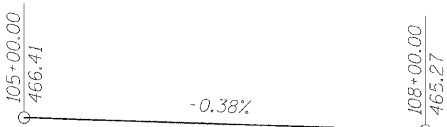
Expires: 11/30/2010

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson (SE)
ENGINEER OF BRIDGES AND STRUCTURES

m. j. Karshenas 7-28-2009

HORIZONTAL ALIGNMENT DETAIL
Culvert Structure



DESIGN SCOUR ELEV. TABLE

Design Scour Elevation (feet)	Upstream	Downstream
	454.48	454.10

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

DESIGN SPECIFICATIONS
2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

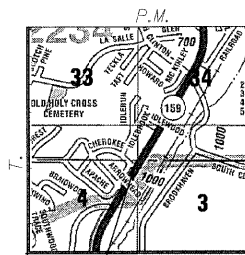
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (Soldier piles.)

WATERWAY INFORMATION

Drainage Area = 0.358sq. miles Low Grade Elev. 464.8 @ Sta. 109+50									
Flood	Freq. Yr.	Q C.F.S.	Opening Exist.	Opening Prop.	Nat. H.W.E.	Head Exist.	Head Prop.	Headwater El. Exist.	Headwater El. Prop.
Design	50	632	45	90	464.3	3.0	2.50	467.3	466.8
Base	100	831	45	90	464.7	3.4	2.70	468.1	467.4
Overtopping	<10	293	45	90	463.4	2.2	1.90	465.6	465.3

DESIGNED - KRG
CHECKED - MJK
DRAWN - GSJ
CHECKED - MJK

10 year Velocity through proposed culvert = 3.3'/sec. 10 year Velocity through existing culvert = 6.5'/sec.



MID-AMERICA ENGINEERING SERVICES

GENERAL PLAN & ELEVATION
IL RTE. 159 OVER BRANCH OF CANTEEN CREEK
FAP ROUTE 600 SEC. 60-(30,31,128)-1
ST. CLAIR COUNTY
STA. 106+52.89
STRUCTURE NO. 082-2044

SHEET NO. 1	F.A.P. RTE. 600	SECTION 60-(30,31,128)-1	COUNTY St. Clair	TOTAL SHEETS 399	SHEET NO. 242
15 SHEETS	STRUCTURE NO: 082-2044		CONTRACT NO. 76830		
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					