

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	86-00075-00-AS	WOODFORD	74	35

Benchmarks: #27, set railroad spike in power pole @ Sta. 269+00 LT., Elevation = 741.14.  
 #28, set railroad spike in power pole @ Sta. 278+30 LT., Elevation = 737.06.

Existing Structure: 12'x4' single barrel concrete box culvert with headwalls and wingwalls. Length = ±27'-0"

No Salvage.

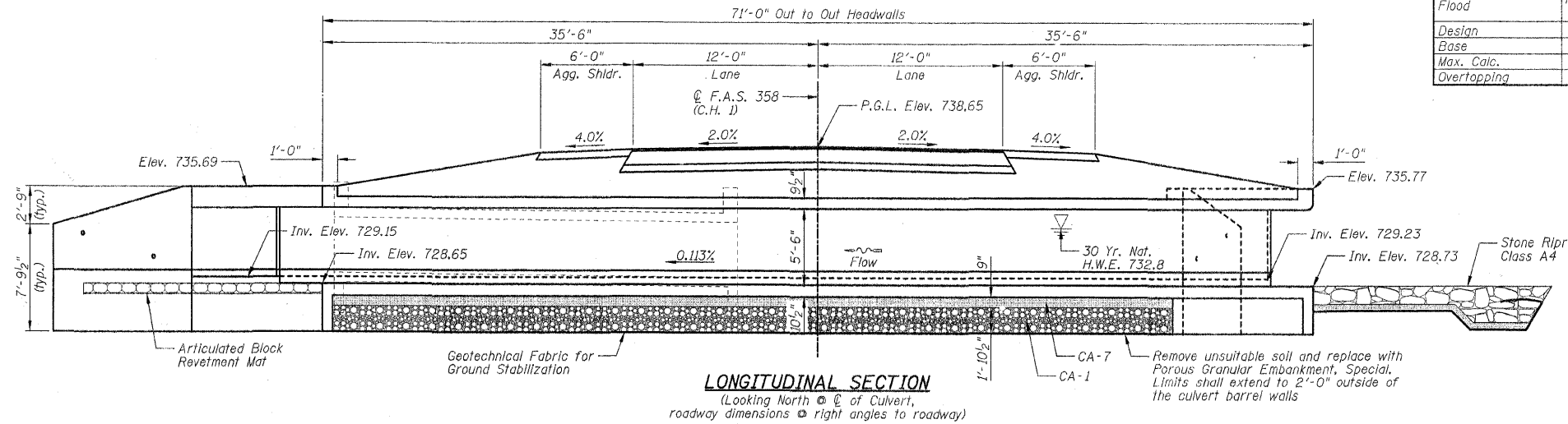
**WATERWAY INFORMATION**

Drainage Area = 3.5 Sq. Mi.		Low Grade Elev. 737.5 @ Sta. 276+00							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Not. Exist. Prop.	H.W.E.	*Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.		
Design	30	866	48	195	732.8	3.6	0.4	736.4	733.2
Base	100	1162	48	195	733.1	3.5	0.9	736.6	734.0
Max. Calc. Overtopping									

STA. TO STA. ILLINOIS FED. AID PROJECT

SHEET NO. C1

OF 9 SHEETS



**DESIGN SPECIFICATIONS**

AASHTO 2002

**LOADING HS20-44**

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

**DESIGN STRESSES**

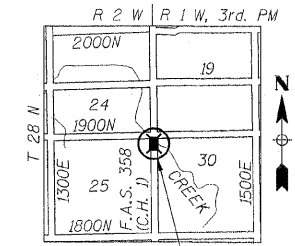
CAST IN PLACE CONCRETE (FIELD UNITS)

f'c = 4,000 psi @ 14 days

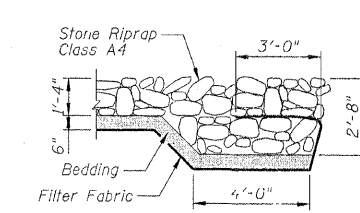
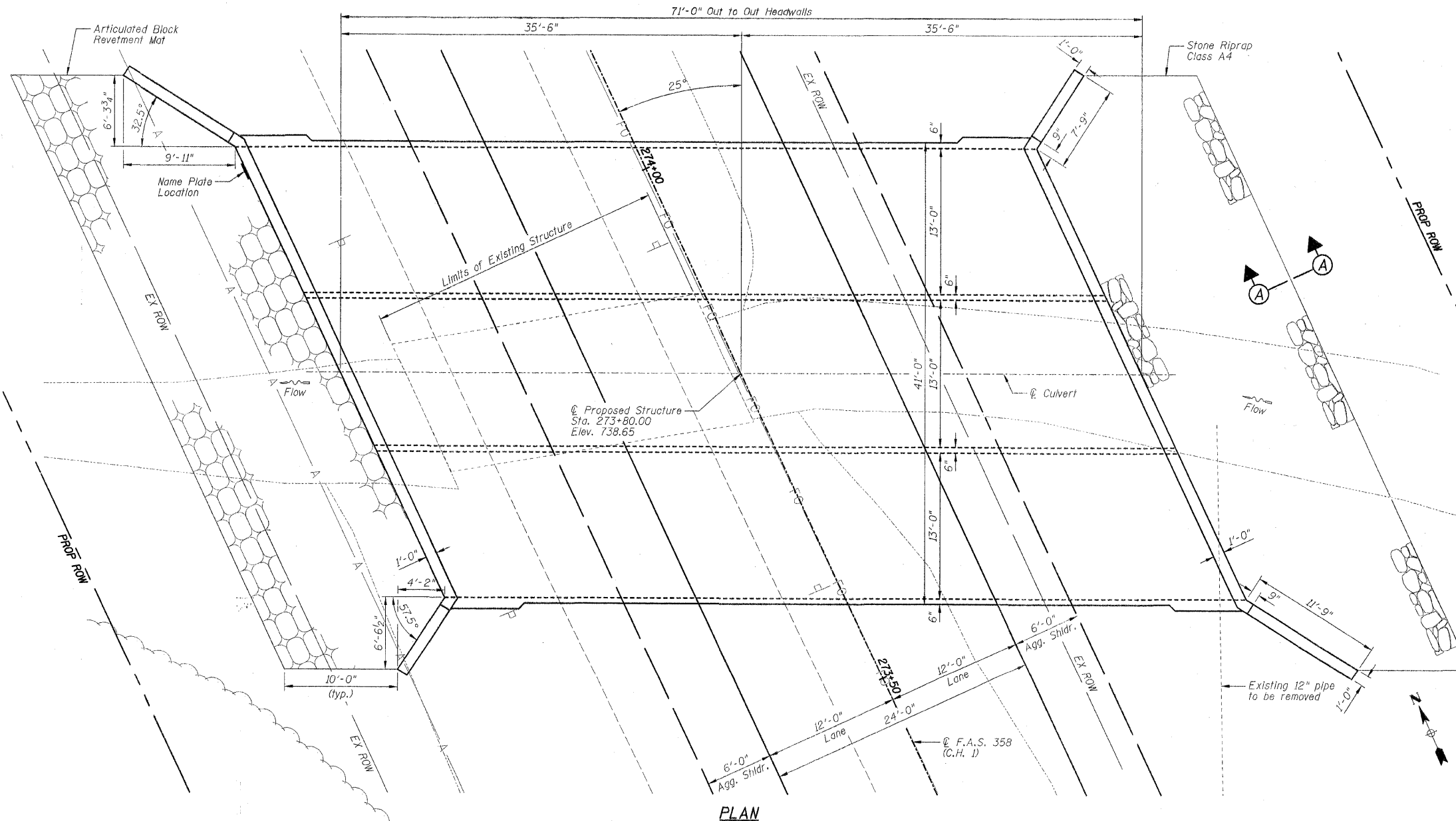
fy = 60,000 psi (Reinforcement)

**SEISMIC DATA**

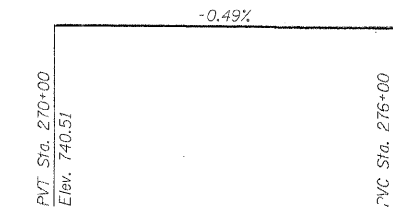
Seismic Performance Category (SPC) = A  
 Bedrock Acceleration Coefficient (A) = 0.042  
 Site Coefficient (S) = 1.0



**LOCATION SKETCH**



**SECTION A-A**



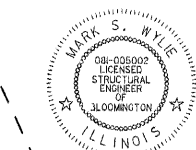
**PROFILE GRADE**

(Along Centerline of Roadway)

**INDEX TO SHEETS**

SHEET NO.	TITLE
C1	GENERAL PLAN AND ELEVATION
C2	BILL OF MATERIAL, GENERAL NOTES AND DETAILS
C3	BOTTOM SLAB REINFORCEMENT PLAN
C4	TOP SLAB REINFORCEMENT PLAN
C5	CULVERT WALL ELEVATIONS
C6	CROSS SECTION
C7	WINGWALL DETAILS
C8-C9	JUNCTION BOX DETAILS

I certify that to the best of my knowledge, information and belief, this box culvert 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 Specifications for Highway Bridges'.



Mark S. Wylie Date 4/8/09  
 MARK S. WYLIE  
 ILLINOIS STRUCTURAL ENGINEER  
 NO. 081-005002  
 Exp. Date 11/30/10

**NOTE:**

P.G.L. denotes Profile Grade Line.

REVISIONS	NAME	DATE

**GENERAL PLAN AND ELEVATION**  
 F.A.S. 358 (C.H. 1) OVER UNNAMED  
 TRIBUTARY TO RICHLAND CREEK  
 SECTION 86-00075-00-AS  
 WOODFORD COUNTY  
 STATION 273+80.00 STRUCTURE NO. 102-5034  
 DESIGNED BY: BJR DRAWN BY: DJM  
 DATE: 04/08/09 CHECKED BY: MSW/JML