

Benchmark: T-Post #13 set ±175' South of Bridge along C.R. road,
Elevation = 523.71/Sta. 7+99/11' LT.
T-Post #16 set ±290' North of Bridge along C.R. road,
Elevation = 509.53/Sta. 13+07/20' LT.

Existing Structure: SN 025-3150 was originally constructed in 1909 by the Township.
The structure consists of a single span steel thru girder and floor
beam superstructure with closed concrete abutments supported by
spread footings. The back to back abutment dimension measures
±56'-0" and the width measures ±19'-0". The structure is to be
replaced during road closure.

No Salvage.

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi (Cast-In-Place Concrete)
fy = 60,000 psi (Reinforcement)

PRECAST PRESTRESSED UNITS
f'c = 6,000 psi
f'ci = 5,000 psi
f's = 270,000 psi (1/2" φ Low Relaxation Strands)
f'si = 201,960 psi (1/2" φ Low Relaxation Strands)

DESIGN SPECIFICATIONS

AASHTO 2002

LOADING HS20-44

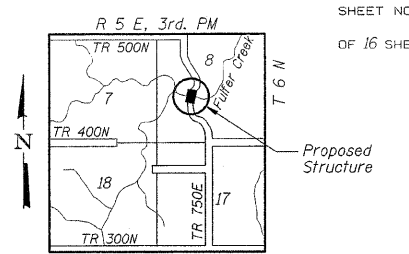
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

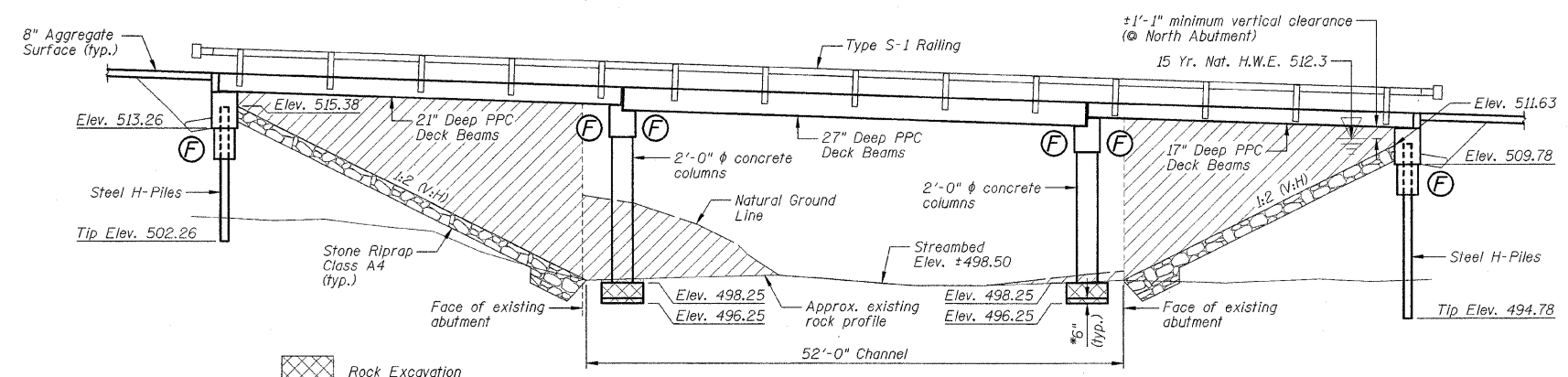
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 0.075
Site Coefficient (S) = 1.0

WATERWAY INFORMATION

Drainage Area = 42.0 Sq. Mi.		Low Grade Elev. 509.7 ft. @ Sta. 13+50						
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El.
Design	15	5654	1611	1929	512.3	0.2	0.0	512.5
Base	100	9441	2297	2648	513.6	0.2	0.0	513.8
Overtopping								
Max. Calc.								

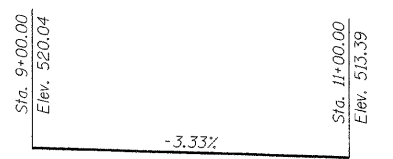


LOCATION SKETCH



ELEVATION

*Approximate thickness of Seal Coat Concrete.



PROFILE GRADE

(Along C.R. Roadway)

FULFER CREEK
BUILT BY
MASON ROAD DISTRICT
EFFINGHAM COUNTY
SEC. 05-07106-00-BR
STATION 9+96.25
STR. NO. 025-3318 LOADING HS20

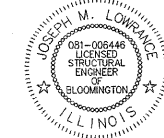
NAME PLATE

See Standard 515001

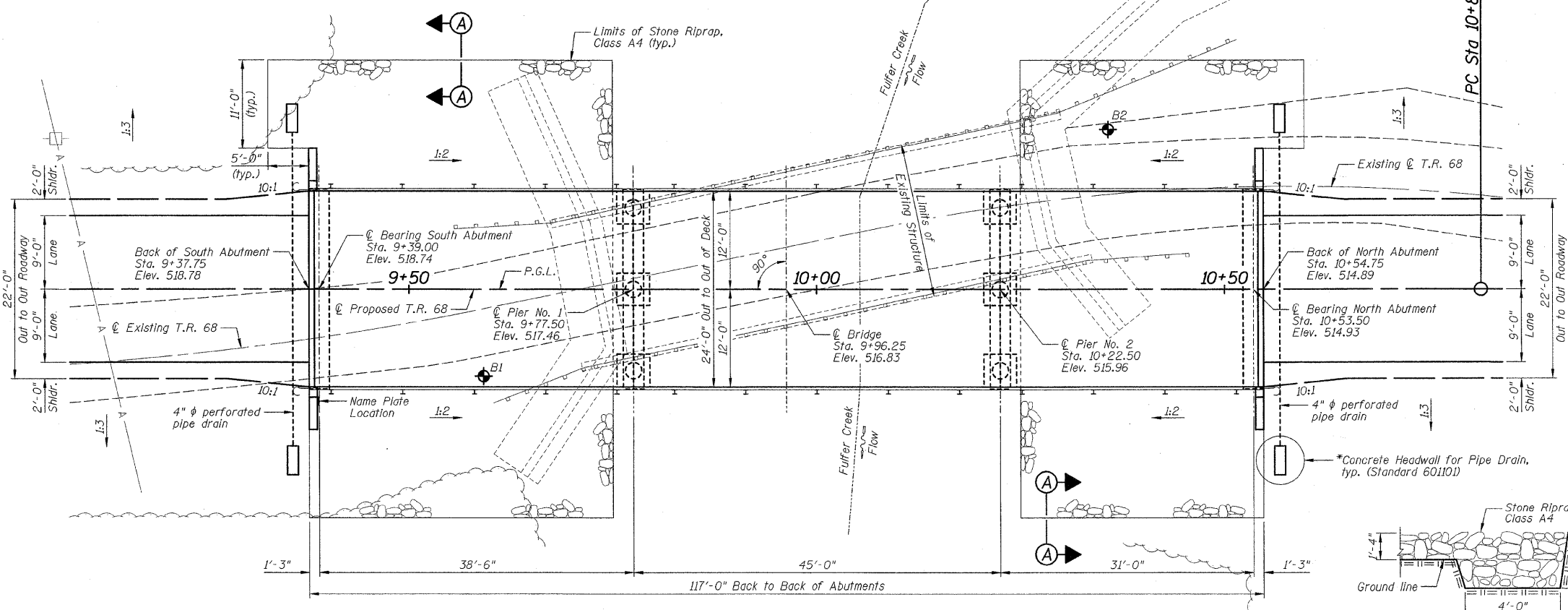
INDEX TO SHEETS

SHEET NO.	TITLE
B1	GENERAL PLAN AND ELEVATION
B2	BILL OF MATERIAL, GENERAL NOTES AND MISCELLANEOUS DETAILS
B3	SUPERSTRUCTURE CROSS SECTIONS
B4	21"x48" PPC DECK BEAM
B5	21"x48" PPC DECK BEAM DETAILS
B6	27"x48" PPC DECK BEAM
B7	27"x48" PPC DECK BEAM DETAILS
B8	17"x48" PPC DECK BEAM
B9	17"x48" PPC DECK BEAM DETAILS
B10	STEEL RAILING, TYPE S-1
B11	SOUTH ABUTMENT
B12	NORTH ABUTMENT
B13	PIER NO. 1
B14	PIER NO. 2
B15	HP PILE DETAILS
B16	SOIL BORING LOGS

I certify that to the best of my knowledge, 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 Specifications for Highway Bridges'.



Joseph M. Lowrance Date 06-22-09
JOSEPH M. LOWRANCE
ILLINOIS STRUCTURAL ENGINEER
NO. 081-006446
Exp. Date 11/30/10



PLAN

For Existing and Proposed ROW, see Plan & Profile Sheet.

SECTION A-A

*Included in cost of Pipe Underdrains for Structures.

P.G.L. denotes Profile Grade Line.

DESIGNED - JML	REVISED -
DRAWN - DJM	REVISED -
CHECKED - MSW	REVISED -
DATE - 06/22/09	REVISED -

EFFINGHAM COUNTY DEPARTMENT OF HIGHWAYS

GENERAL PLAN AND ELEVATION

**T.R. 68 OVER FULFER CREEK
SECTION 05-07106-00-BR
EFFINGHAM COUNTY
STATION 9+96.25 STRUCTURE NO. 025-3318**

T.R.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
68	05-07106-00-BR	EFFINGHAM	25	7
CONTRACT NO. 95393				
FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT				

FARNSWORTH GROUP, INC.

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