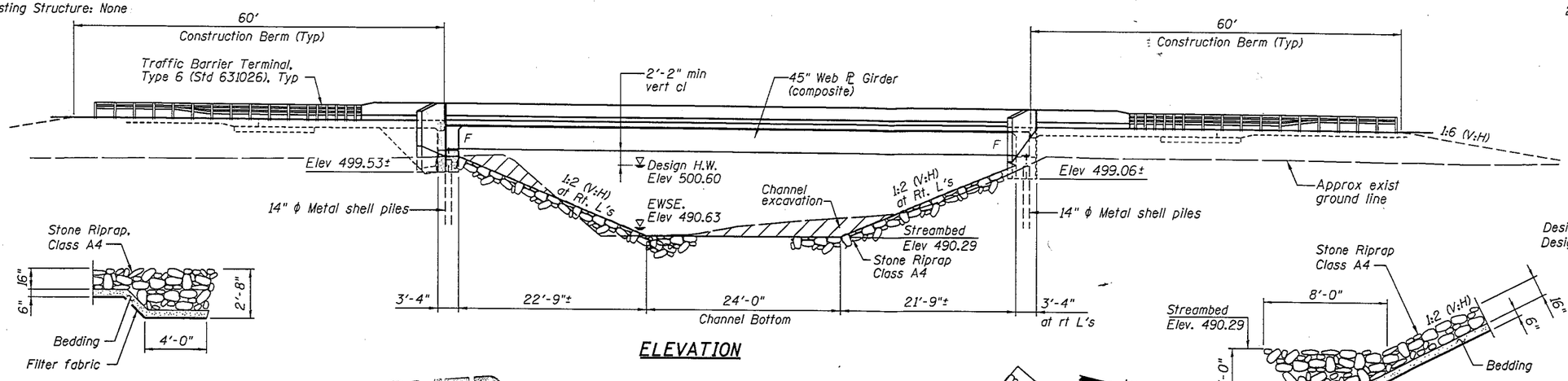
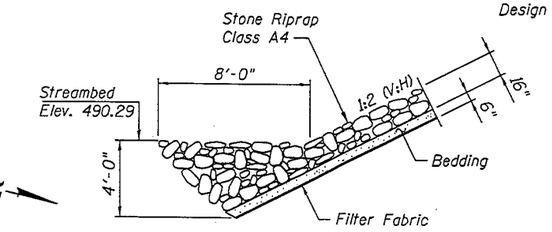
Bench Mark NE-2:
Chiseled " □ " on W side of N headwall on culvert over a drainage ditch on Boy Scout Road.
Elev 497.51

Existing Structure: None



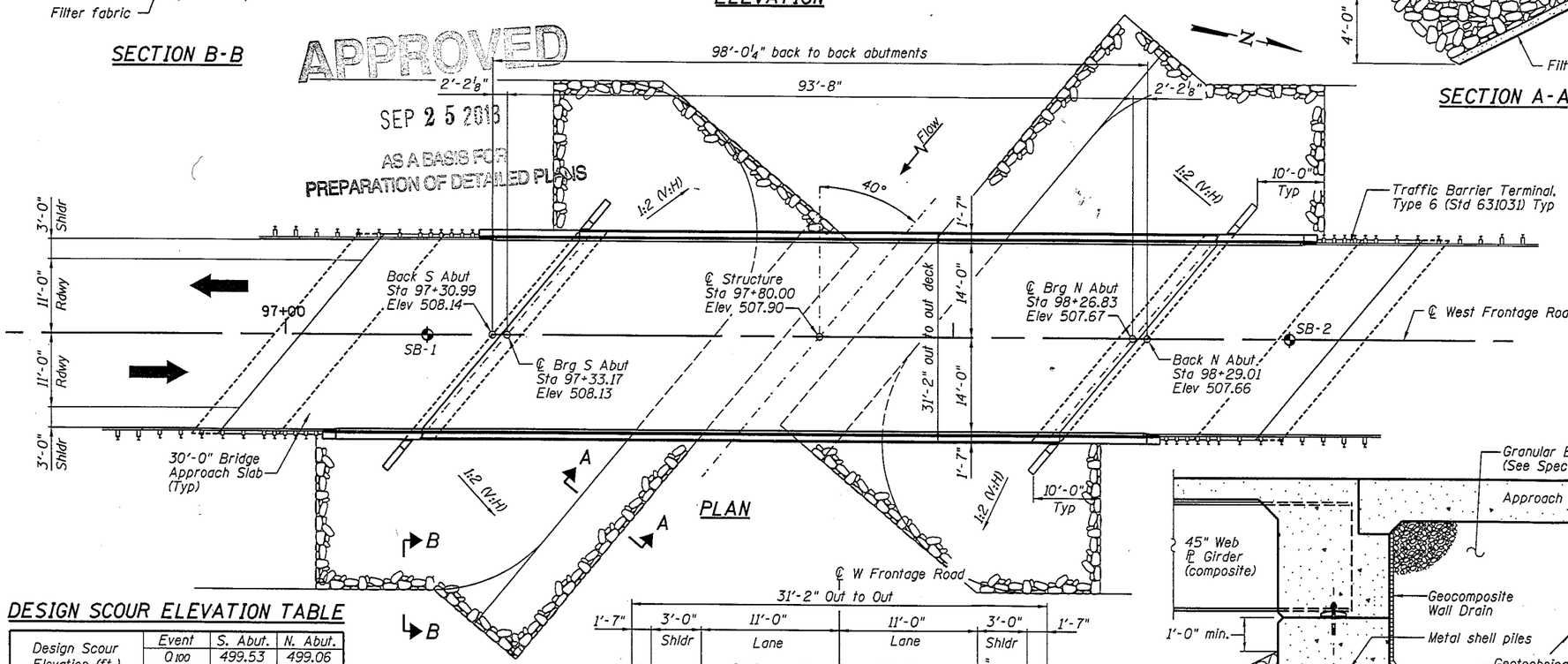
ELEVATION

SECTION B-B



SECTION A-A

APPROVED
SEP 25 2013
AS A BASIS FOR PREPARATION OF DETAILED PLANS



PLAN

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50W)

LOADING HL-93

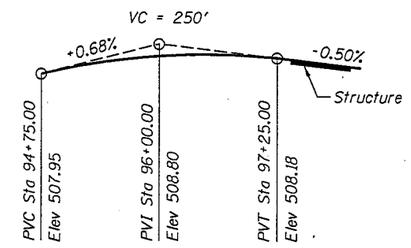
Allow 50#/sq. ft. for future wearing surface.

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.108 g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.169 g
Soil Site Class = D

HIGHWAY CLASSIFICATION

West Frontage Road
Functional Class: Frontage Road
ADT: 30 (2032)
ADTT: 3 (2032)
DHV: 4
Design Speed: 50 m.p.h.
Posted Speed: 45 m.p.h.
2-Way Traffic
Directional Distribution: 50:50



PROFILE GRADE - WEST FRONTAGE ROAD

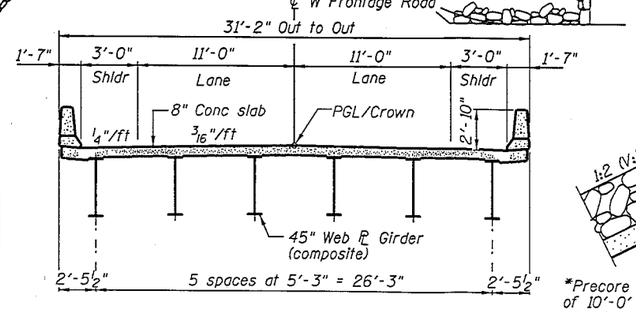
DESIGN SCOUR ELEVATION TABLE

	Event	S. Abut.	N. Abut.
Design Scour Elevation (ft.)	Q_{100}	499.53	499.06
	Q_{500}	499.53	499.06

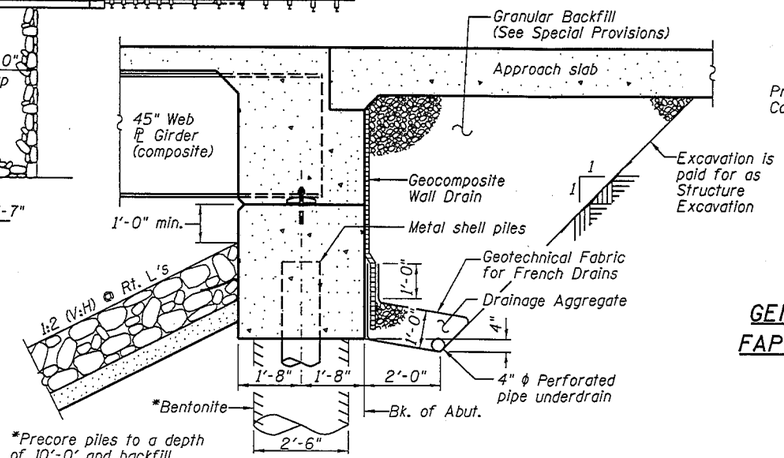
WATERWAY INFORMATION

Drainage Area = 4.14 sq mi Low Grade Elev. 507.91 @ Sta. 96+00

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. H.W.E.	Head - Ft. Exist.	Head - Ft. Prop.	Headwater El. Exist.	Headwater El. Prop.
	10	1704	--	308	498.3	--	0.1	--	498.4
Design	50	2890	--	475	500.6	--	0.1	--	500.7
Base	100	3456	--	553	501.5	--	0.2	--	501.6
Max. Calc.	500	4867	--	666	503.2	--	0.8	--	504.0

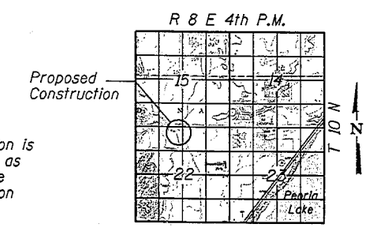


CROSS SECTION



*Precore piles to a depth of 10'-0" and backfill with Bentonite. (South Abutment Only)

SECTION THRU INTEGRAL ABUTMENT
(Horiz. dim. @ Rt. L's)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
FAP 318 - WEST FRONTAGE ROAD
OVER DICKISON RUN
SECTION 72-6-2
PEORIA COUNTY
STA 97+80.00
STRUCTURE NO. 072-0202

FILE NAME = H:\Pr_p_IDOT\95718-IL29_Extension\CADD_Structural\Frontage Road over Dickinson Run\ts&l.dgn

HOMER L. CHASTAIN & ASSOCIATES, LLP
CONSULTING ENGINEERS
184-001397

USER NAME = ebenz	DESIGNED - ACB	REVISED -	
PLOT TIME = 1:33:25 PM	CHECKED - JMB	REVISED -	
PLOT SCALE = 20.00 ' / in.	DRAWN - RLK	REVISED -	
PLOT DATE = 9/12/2013	CHECKED - JMB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
318	72-6-2	PEORIA		
318		CONTRACT NO. 68762		

ILLINOIS FED. AID PROJECT