Benchmark: Chiseled "□" on top of N.W. Wingwall of S.N. 006-0071. Elev. 632.93

Existing Structure: SN 006-0071 to be removed.

Originally built in 1936 as S.A. 3 Section 13-X-B. Superstructure was widened and replaced in 1960. Three span prestressed concrete box beam with open abutments on piles and pile bent piers. 147'-8 1/2" Bk. to Bk. Abutments.

Construction to be completed using detour.

No Salvage.

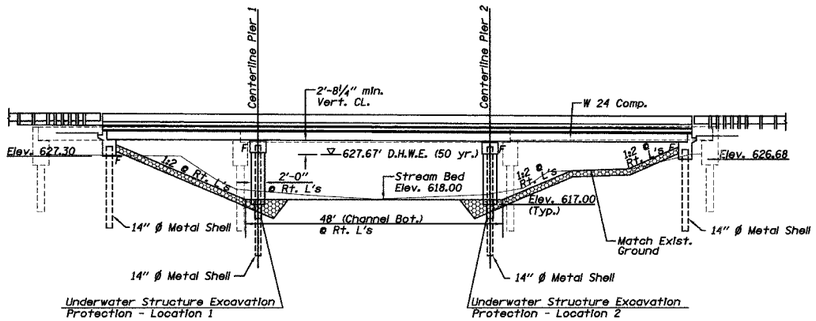
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

See Sheet 2 of 19 for Total Bill of Materials and General Notes.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAS 2247	13X-BR-1	BUREAU	51	13
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 1 OF 19 SHEETS

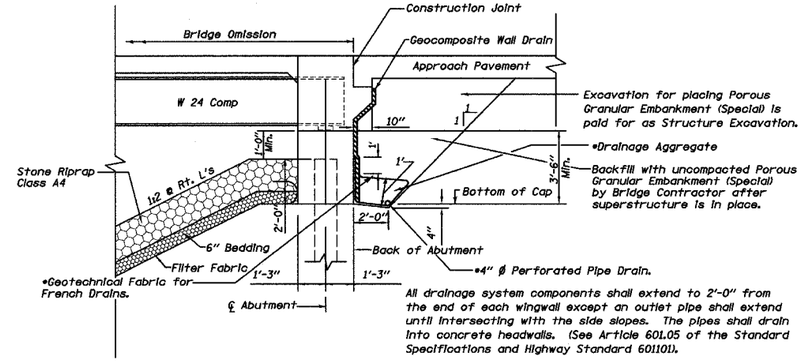
Contract #64938



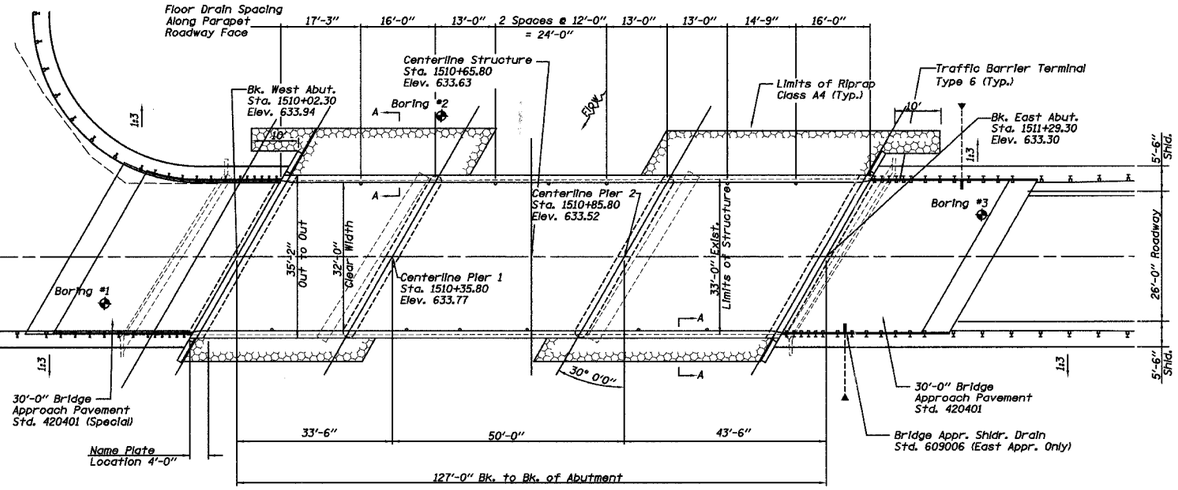
ELEVATION
(Looking North)

STATION 1510+65.80
BUILT 200_ BY
STATE OF ILLINOIS
F.A.S. RT. 2247 SEC. 13X-BR-1
LOADING HS20
STR. NO. 006-0169

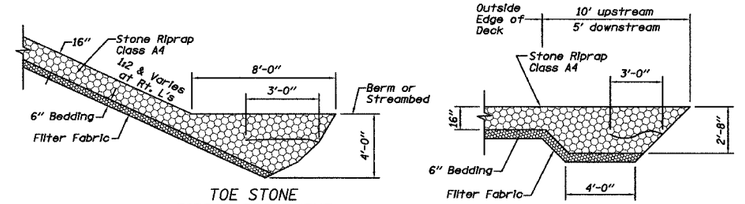
NAME PLATE DETAIL
See Std. 515001



SECTION THRU INTEGRAL ABUTMENT
DIMENSIONS AT RIGHT ANGLES
* Included in the cost of "Pipe Underdrains for Structures"

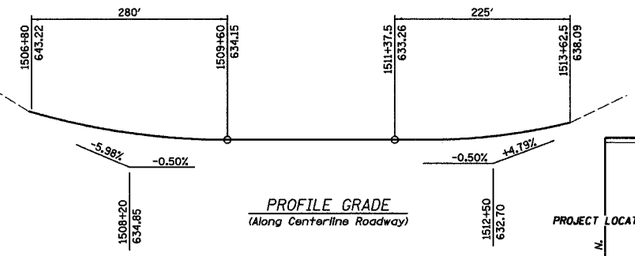


PLAN

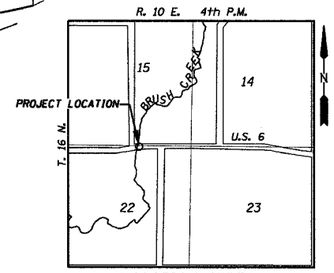


TOE STONE RIPRAP TREATMENT

SECTION A-A



PROFILE GRADE
(Along Centerline Roadway)



LOCATION SKETCH

DESIGN SCOUR ELEVATION	W. ABUT	PIER 1	PIER 2	E. ABUT
	627.00	610.00	610.00	626.60

WATERWAY INFORMATION

DRAINAGE AREA= 43.1 SQ. MI.

Exist. Low Grade Elev.= 632.70 @ Sta. 1510+60.8
Prop. Low Grade Elev.= 633.20 @ Sta. 1511+58.7

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	2665	500.75	576.88	626.86	0.12	0.04	626.98	626.90
DESIGN	50	3922	578.79	657.63	627.67	0.21	0.17	627.88	627.84
BASE	100	4436	607.23	685.04	627.92	0.26	0.21	628.18	628.13
OVERTOPPING	-	-	-	-	-	-	-	-	-
MAX. CALC.	500	5634	662.98	738.76	628.41	0.42	0.34	628.83	628.75

10 Year Velocity Through Existing Bridge= 5.17 fps
10 Year Velocity Through Prop. Bridge= 4.60 fps

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Ralph E. Anderson (JJD)
ENGINEER OF BRIDGES AND STRUCTURES

8/15/06
date
JAMES K. CLINARD
LICENSED STRUCTURAL ENGINEER NO. 081-004655
STATE OF ILLINOIS
expires 11-30-2006
signature
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-001717

CHAMLIN & ASSOCIATES
PERU ILLINOIS MORRIS

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

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
Field Units

f'c = 3,500 psi (Substructure)
f'c = 3,500 psi (Superstructure)
fy = 60,000 psi (reinforcement)
fy = 50,000 psi (M270 Grade 50W Structural Steel)

SEISMIC DATA
S.P.C.= A
A= 0.04
S= 1.0

GENERAL PLAN
FAS ROUTE 2247 (U.S. 6) OVER BRUSH CREEK
SECTION 13X-BR-1
BUREAU COUNTY
STA. 1510+65.80
SN 006-0169