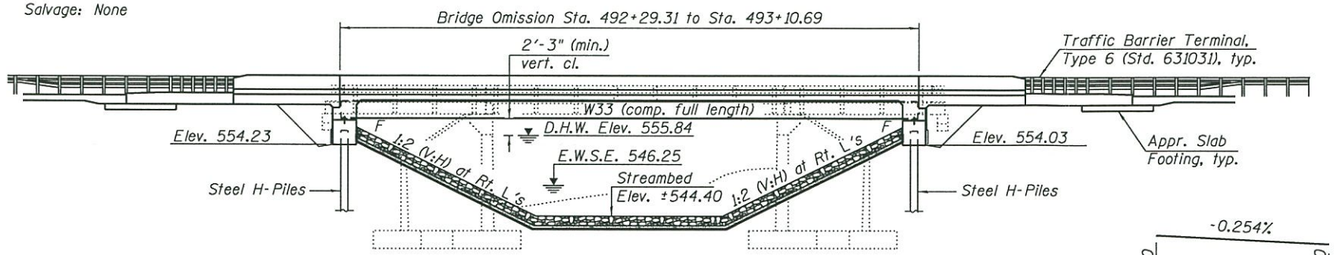
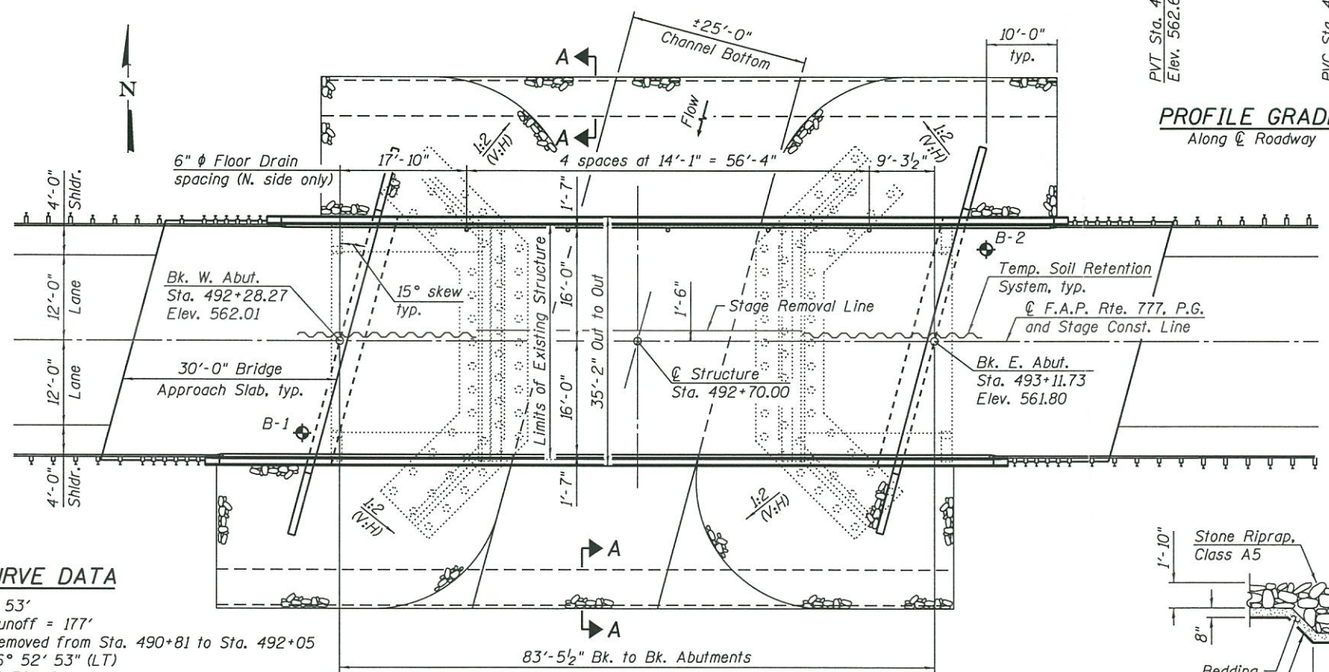
Bench Mark: Chiseled "□" in the wingwall on North East corner Bridge S.N. 068-0027.
Station 492+94.6; offset 16.6 ft Lt.; Elev. 558.7 (NAVD 88).

Existing Structure: The existing Structure No. 068-0027 is a single span precast prestressed concrete deck beam bridge originally built in 1930 and reconstructed in 1980 as Illinois Route 185 over Bayou Creek. The superstructure consists of Eleven PPC Deck Beams (3' wide by 21" deep). The beams are overlaid with a reinforced concrete wearing surface with 7½" average thickness. The superstructure is supported by closed reinforced concrete abutments on untreated timber piles. The structure length is 43' back to back of abutments and 33' out to out of deck. Structure to be removed and replaced utilizing stage construction.

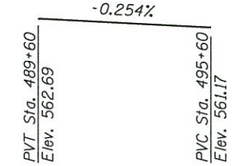
Salvage: None



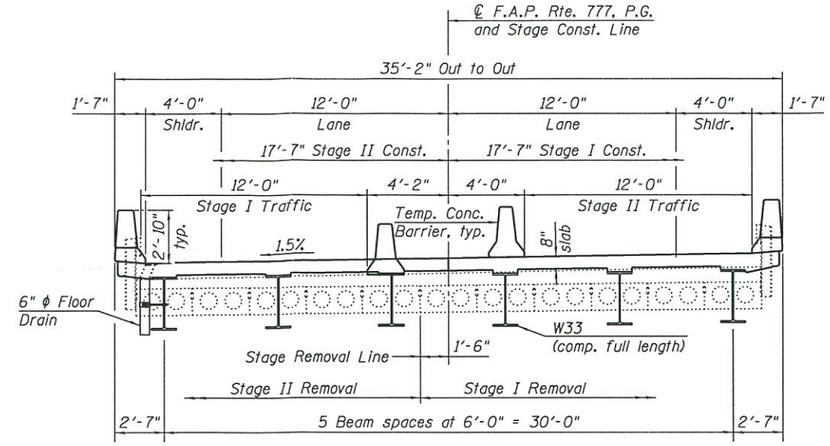
ELEVATION



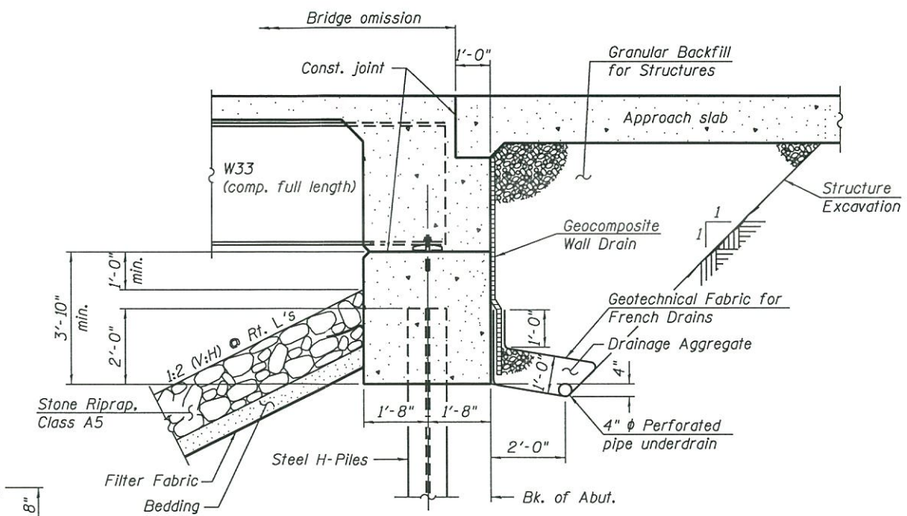
PLAN



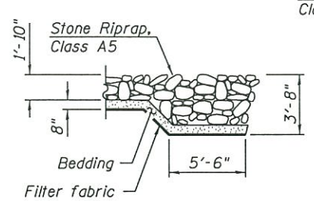
PROFILE GRADE
Along ℄ Roadway



CROSS SECTION
(Looking East)



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



SECTION A-A

CURVE DATA

T.R. = 53'
S.E. Runoff = 177'
S.E. Removed from Sta. 490+81 to Sta. 492+05
Δ = 56° 52' 53" (LT)
D = 4° 30' 18"
T = 688.83'
L = 1,262.61'
E = 174.56'
R = 1,271.81'
S.E. = 5.0%
P.C. = Sta. 479+33.22
P.T. = Sta. 491+95.83
P.I. = Sta. 486+22.05

DESIGN SCOUR ELEVATION TABLE

Design Scour Elevations (ft.)		Item
W. Abut.	E. Abut.	113
554.23	554.03	8

WATERWAY INFORMATION

Drainage Area = 5.5 sq. mi.
Exist. Overtopping Elev. = 560.75 @ Sta. 491+00
Prop. Low Grade Elev. = 561.80 @ Sta. 492+70

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	1560	350	440	554.6	0.4	0.3	555.0	554.9
Design	50	2560	395	530	555.8	0.8	0.5	556.6	556.3
Base	100	3020	410	560	556.3	1.0	0.6	557.3	556.9
Overtop Exist.	>500								
Overtop Prop.	>500								
Max. Calc.	500	4150	450	635	557.3	2.7	1.4	560.0	558.7

HIGHWAY CLASSIFICATION

F.A.P. Rte. 777 - IL Rte. 185
Minor Arterial, (Non-Urban)
ADT: 2800 (2011); 2987 (2035)
ADTT: 530 (2011); 565 (2035)
DHV: 299 (2035)
Design Speed: 55 m.p.h.
Posted Speed: 55 m.p.h.
Two-Way Traffic
Directional Distribution: 50/50

LOADING HL-93

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

DESIGN SPECIFICATIONS

2014 AASHTO LRFD Bridge Design Specifications, 7th Edition

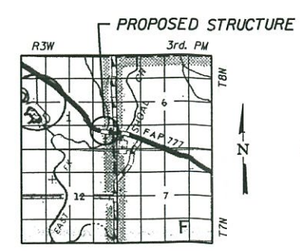
DESIGN STRESSES

FIELD UNITS

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

SEISMIC DATA

Seismic Performance Zone (SPZ) = 2
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.232g
Design Spectral Acceleration at 0.2 sec. (S_{DS}) = 0.482g
Soil Site Class = D



LOCATION SKETCH

APPROVED
JAN 27 2015
AS A BASIS FOR PREPARATION OF DETAILED PLANS

GENERAL PLAN
ILLINOIS ROUTE 185 OVER BAYOU CREEK
F.A.P. RTE. 777 - SEC. 10B-2
MONTGOMERY COUNTY
STATION 492+70.00
STRUCTURE NO. 068-0513

design firm no. 184001036 whks engineers + planners + land surveyors

USER NAME =	DESIGNED - SBC	REVISED
FILE NAME =	CHECKED - SDS	REVISED
PLOT DATE =	DRAWN - DLH	REVISED
PLOT DATE =	CHECKED - SBC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 1 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
777	10B-2	MONTGOMERY	1	1
		CONTRACT NO. 72D08		
		ILLINOIS FED. AID PROJECT		