Bench Mark No. 1:
Set rail road spike in power pole sta. 263+32.544, 150,470 ft. right, El. 729.220.

Existing Structure:
The existing structure number 027-0030, built in 1928 as SBI Route 115, Section 108B, Ford County at station 265+74.96. The structure is a one span reinforced concrete slab bridge, With closed abutments supported on untreated timber piles. The existing bridge is 26'-0" long back to back of abutments & 36'-2" wide out to out of slab. The existing structure to be removed and replaced by 2-12' wide x 8' deep Pre-Cast Concrete Box Culverts. Traffic to be mainained utilizing detour.
No Salvage

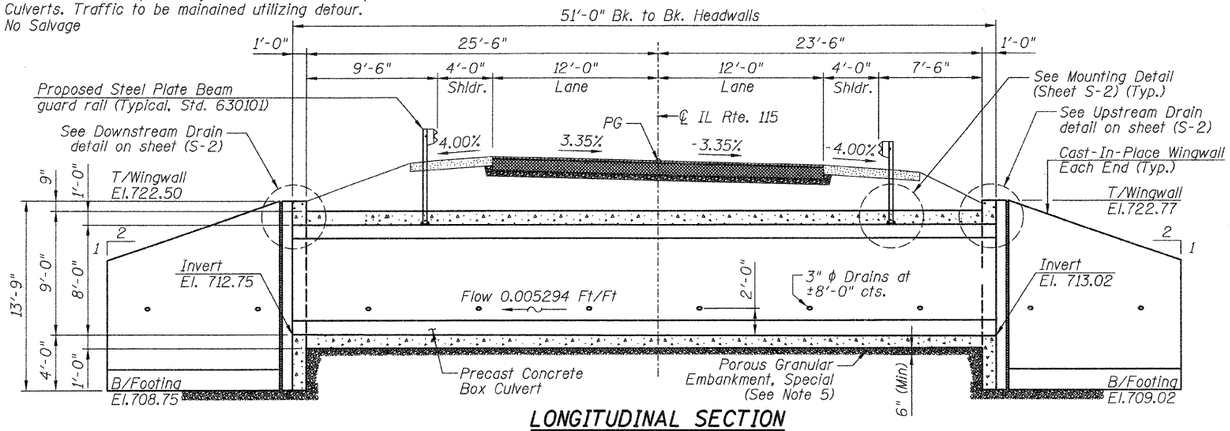
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS

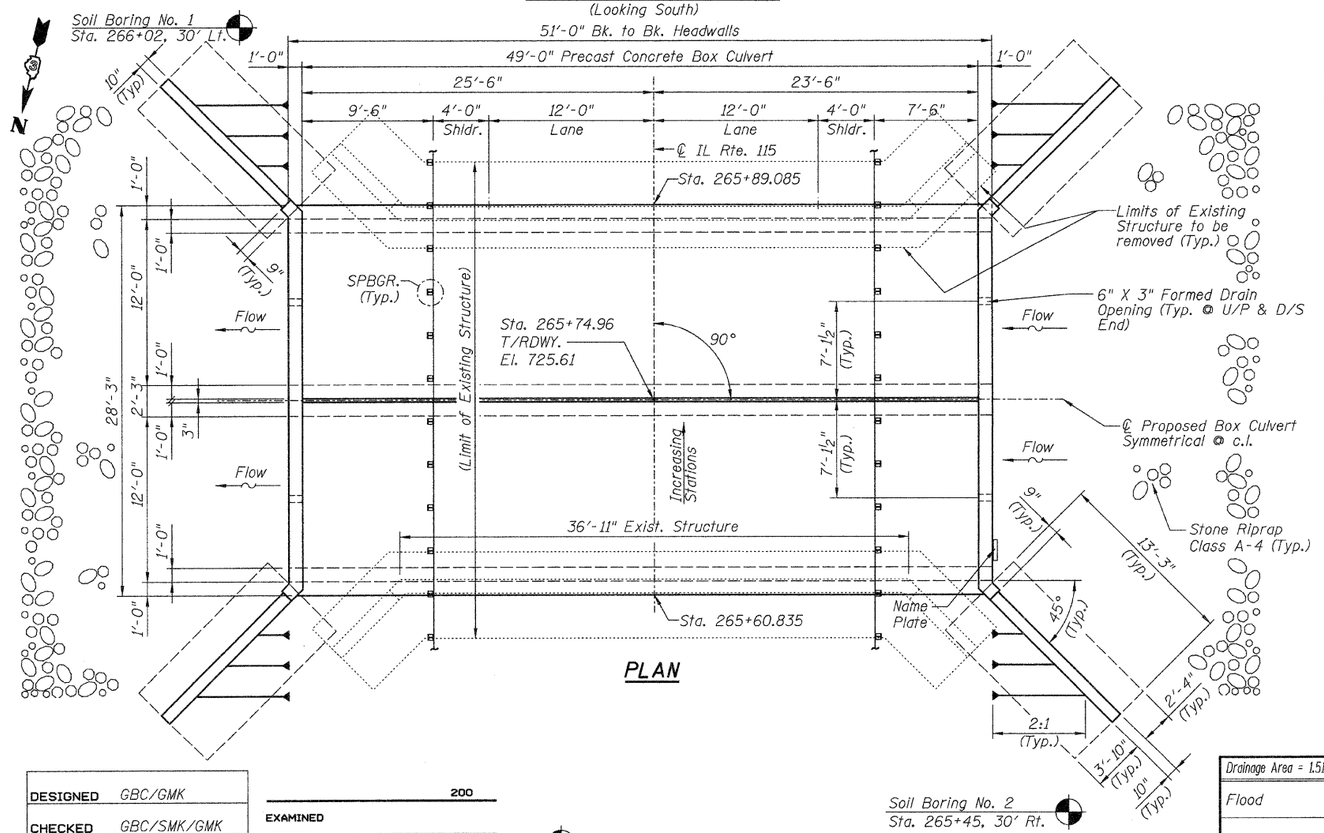
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.P. 798	*	FORD	92	44
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. S1
S4 SHEETS

*107-BR,108-BR,108-BR-1 Contract #66698



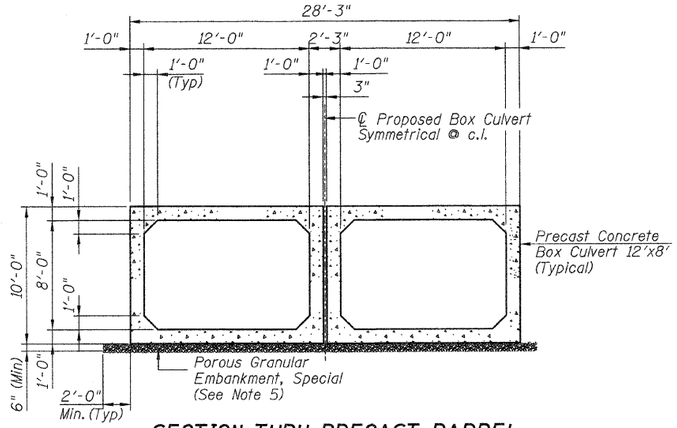
LONGITUDINAL SECTION
(Looking South)



PLAN

Soil Boring No. 2
Sta. 265+45, 30' Rt.

Indicates Boring Location



SECTION THRU PRECAST BARREL

3" nominal space shall be left between adjacent precast sections. After the precast cells are in place and backfill has been placed to mid height of the precast concrete box section on each side, the space between the cells shall be filled with class SI concrete. Cost included with pay item for "precast concrete box culvert 12'x8'.

HIGHWAY CLASSIFICATION

F.A.P. RTE. 798-IL.RTE 115
Functional Class: Minor Arterial
ADT: 800 (2005); ADT 1000 (2018)
ADTT: 15%
DHV: 91 (1998); 125 (2018)
Design Speed: 55 Mph
Posted Speed: 55 Mph

LOADING HS20-44

Allow 50 #/sq. ft. for Future Wearing Surface

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

Field Units
Cast-In-Place Reinforced Concrete
f'c = 3,500 psi (Concrete)
fy = 60,000 psi (Reinforcement)
Precast Concrete Box Culvert, Design as per AASHTO M 259 (ASTM C789):
f'c = 5,000 psi
fy = 65,000 psi (Welded Wire Fabric)

SEISMIC DATA

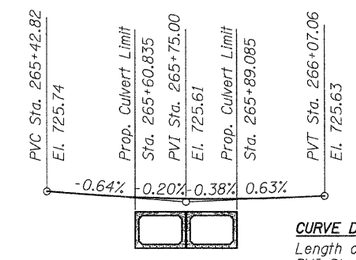
Seismic Performance Category (S.P.C.)=A
Bedrock Acceleration Coefficient (A) = 0.04g
Site Coefficient (S) = 1.0

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu. Yd.	590.0
Porous Granular Embankment, Special	Cu. Yd.	44.0
Removal of Existing Structures No. 1	Each	1
Structure Excavation	Cu. Yd.	867.0
Reinforcement Bars	Pound	5,050.0
Reinforcement Bars, (Epoxy Coated)	Pound	790.0
Name Plates	Each	1
Concrete Box Culverts	Cu. Yd.	51.0
Precast Concrete Box Culvert 12'x8'	Foot	98.0

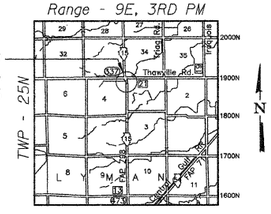
GENERAL NOTES

1. Reinforcement bars shall Conform to the requirements of ASTM A 706, Grade 60 (IL Modified). See Special Provisions.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. Layout of slope protection system may be varied in the field to suit ground conditions as directed by the Engineer.
4. Excavation behind existing abutment walls shall be done before removing the existing supestructure.
5. The material used to replace the unsuitable material removed below the bottom of the proposed precast concrete box culvert and cast-in-place concrete wingwalls shall be clean crushed material CA-7 for 6" layer and shall be paid for as "Porous Granular Embankment, Special".



PROFILE GRADE
(Along ℄ Il. Route 115)

CURVE DATA:
Length of Curve = 64.24 Ft.
PVI Sta 265+75.00
El. 725.61'



LOCATION SKETCH

STATION 265+74.96
BUILT 200 BY
STATE OF ILLINOIS
F.A.P. RT. 798 SEC. 108-B
LOADING HS20-44
STR. NO. 027-2015

NAME PLATE
See Std. 515001

WATERWAY INFORMATION

Drainage Area = 1.51 sq. mi. Exist. Low Grade Elev. = 725.64 @ Sta. 791+79.76 Prop. Low Grade Elev. = 725.64 @ Sta. 791+79.76

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	767	129	184	720.7	0.2	0.0	720.9	720.7
Design	50	1308	162	192	722.1	0.5	0.4	722.7	722.5
Base	100	1558	170	192	722.5	0.9	0.9	723.4	723.4
Overtopping	-	-	-	-	-	-	-	-	-
Max. Calc.	500	2182	181	192	723.2	2.1	2.3	725.2	725.5

DESIGNED	GBC/GMK
CHECKED	GBC/SMK/GMK
DRAWN	RR
CHECKED	SMK

200

EXAMINED
ENGINEER OF BRIDGE DESIGN

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

STATE OF ILLINOIS
SYED M KAZI
081-004047
REGISTERED STRUCTURAL ENGINEER

Syed M. Kazi
Licensed Structural Engineer
State of Illinois
Lic. No. 081-004047
Expires: 11-30-2008

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 115 OVER DRAINAGE DITCH
F.A.P. ROUTE 798 - SECTION 108-BR-1
FORD COUNTY
STATION 265+74.96
EXISTING STRUCTURE NO. 027-0030
PROPOSED STRUCTURE NO. 027-2015

Scale: None August 2008