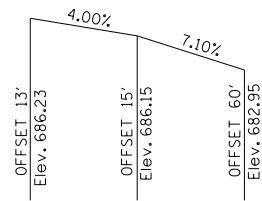
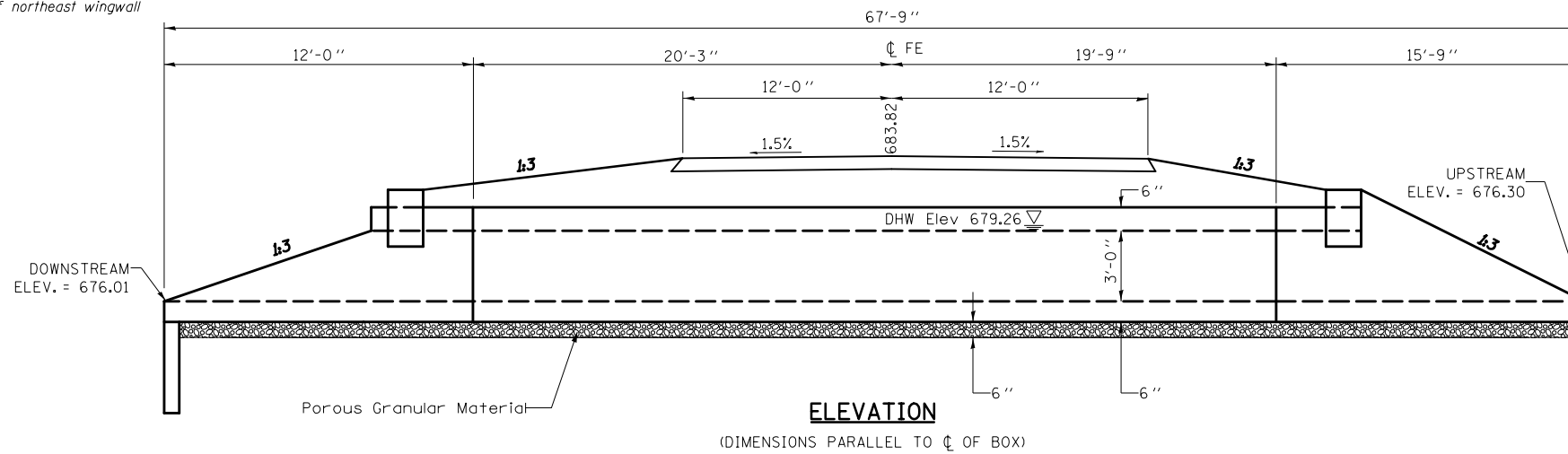


EXISTING STRUCTURE: 48" CMP

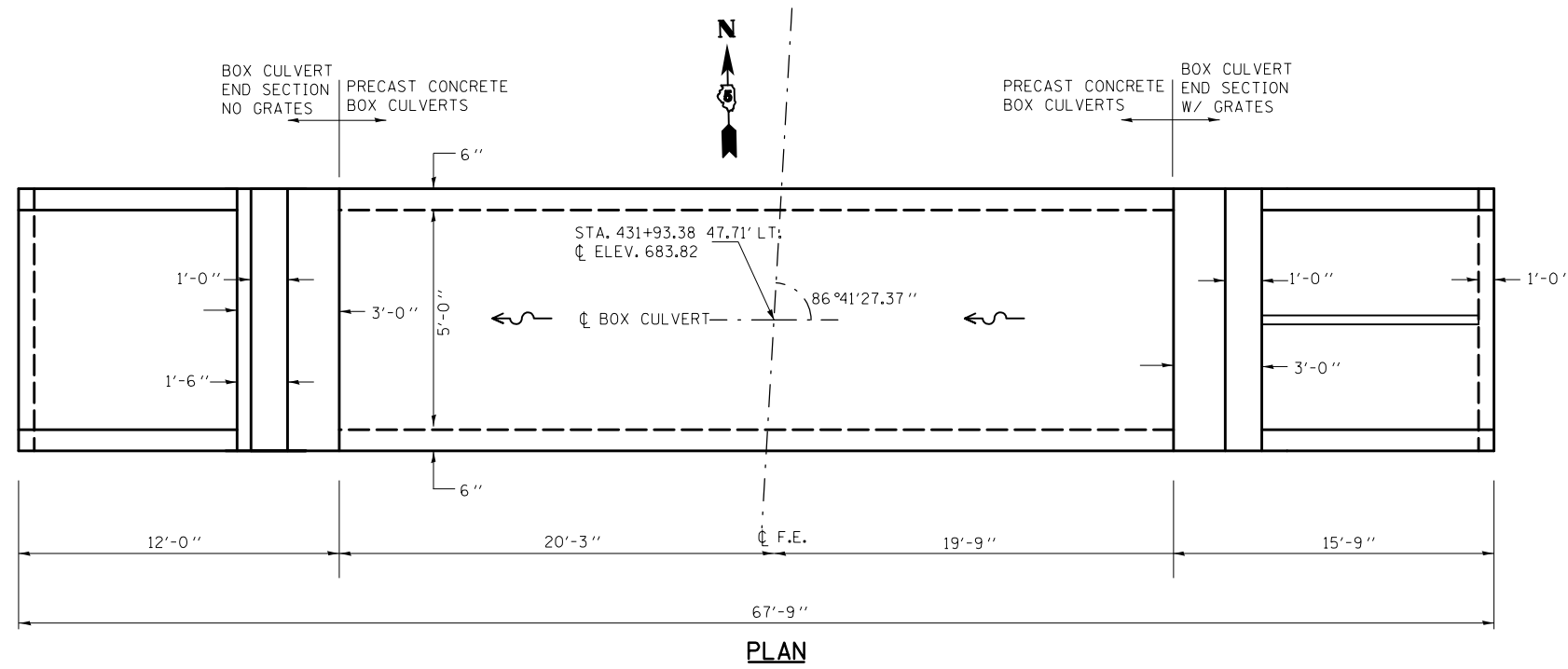
BENCHMARK ELEV. = 685.12 Chiseled square in top of northeast wingwall of S.N. 057-0093 at Sta. 429+62.04, 21.12' LT.



**Profile Grade**  
Along  $\phi$  FIELD ENTRANCE



**ELEVATION**  
(DIMENSIONS PARALLEL TO  $\phi$  OF BOX)



**PLAN**

**DESIGN SPECIFICATIONS**

2002 AASHTO

**LOADING HS20-44**

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

**DESIGN STRESSES**

**FIELD UNITS**

- f'c = 3,500 psi
- f<sub>y</sub> = 60,000 psi (reinforcement)
- f<sub>y</sub> = 65,000 psi (welded wire fabric)

**PRECAST UNITS**

- f'c = 5,000 psi
- f<sub>y</sub> = 65,000 psi (welded wire fabric)

**General Notes**

See 'Precast Box Culvert End Sections' for end section details. The design reinforcement for a 3 foot rise shall be used for A<sub>s1m</sub>.

The design reinforcement areas for the Precast Concrete Box Culverts shall conform to those found in Table 1 of the AASHTO M 259 Specification for a 5' x 3' box section with a design fill height of 3.7 feet.

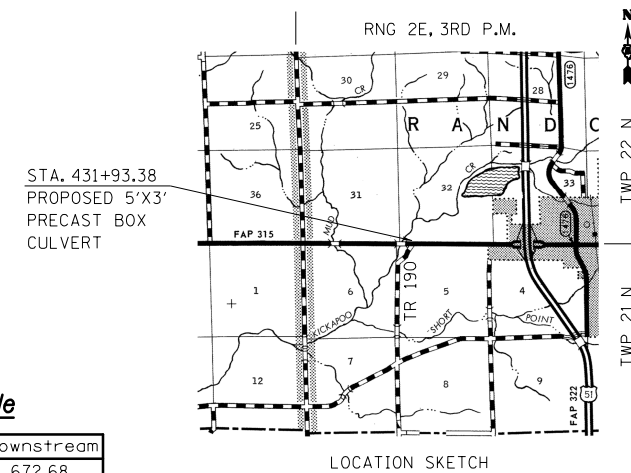
The joints between precast box sections shall be sealed, all voids filled with a mastic joint sealer. In addition, the joints shall be externally sealed on all four sides with a 13 inch wide external sealing band. The seal shall be centered over the joint, secured in place and protected during the backfilling process.

All dimensions are in FEET (') - INCHES (") unless otherwise noted.

Drawings not to scale.

**TOTAL BILL OF MATERIAL**

Item	Unit	Total
Precast Concrete Box Culverts 5'x3'	Foot	40
Box Culvert End Sections C*02	Each	1
Grated Box Culvert End Sections C*02	Each	1



**Design Scour Elevation Table**

Design Scour Elevation (ft.)	Upstream	Downstream
	672.97	672.68

**GENERAL PLAN AND ELEVATION  
5'x3' PRECAST BOX CULVERT  
F.A.P. ROUTE 315 - SECTION 121BR-2  
MCLEAN COUNTY  
STATION 431+93.38**

FILE NAME =	USER NAME = hoganbj	DESIGNED - BJH 5/26/2011	REVISED - _____
et:\pw\work\p\dot\hoganbj\d0142533\0570052-sht-culvert_CR_1300.CEL		DRAWN - BJH 5/26/2011	REVISED - _____
PLOT SCALE = 40.0000' / in.		CHECKED - _____	REVISED - _____
PLOT DATE = 8/22/2011		DATE - _____	REVISED - _____

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION  
FIELD ENTRANCE BOX CULVERT STA 431+93.38**

SCALE: \_\_\_\_\_ SHEET NO. 1 OF 1 SHEETS STA. \_\_\_\_\_ TO STA. \_\_\_\_\_

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	121BR-2	MCLEAN	144	87
CONTRACT NO. 70552				

ILLINOIS FED. AID PROJECT