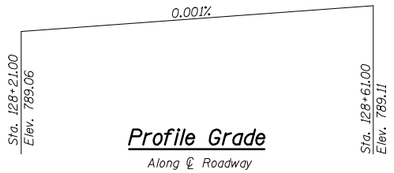
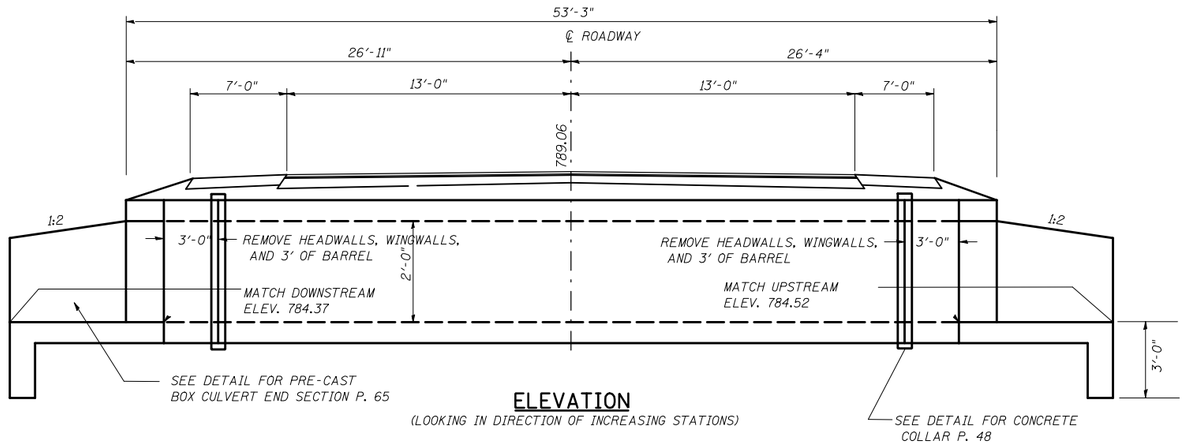
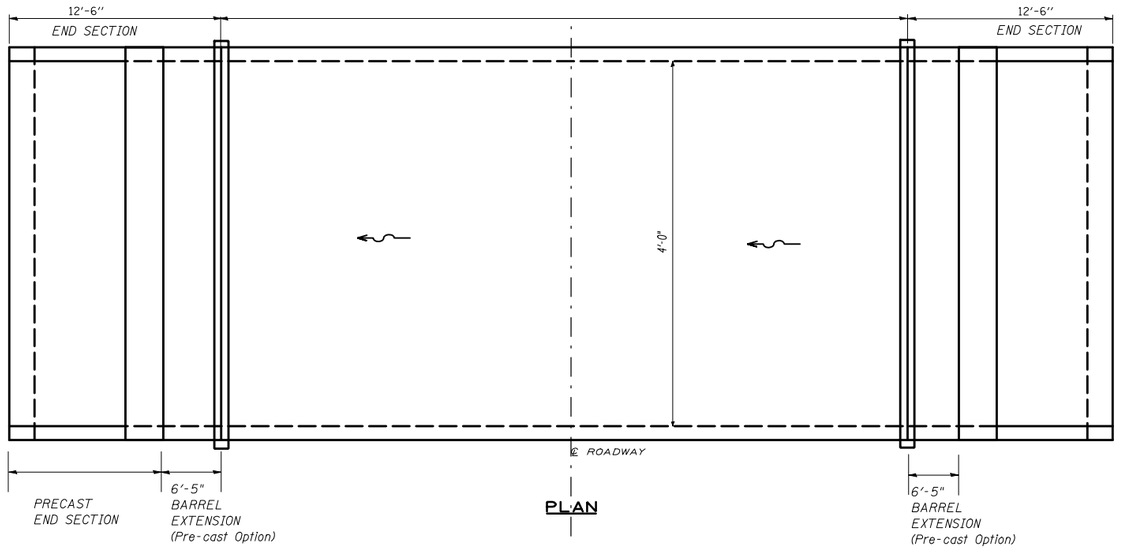
EXISTING STRUCTURE: THE EXISTING BOX CULVERT WAS BUILT IN THE 1930'S AT STA.128+41.00 AS A 4'x2' CAST-IN-PLACE BOX CULVERT ON A 0 DEGREE SKEW WITH CONCRETE HEAD WALLS. THE EXISTING HEADWALLS, WINGWALLS, AND 3' OF BARREL ARE TO BE REMOVED AND REPLACED WITH PRECAST BOX CULVERT END SECTIONS. STAGE CONSTRUCTION WILL BE UTILIZED.



Profile Grade
Along ℄ Roadway



ELEVATION
(LOOKING IN DIRECTION OF INCREASING STATIONS)



PLAN

General Notes

Build tops of headwalls parallel to the grade lines.

All construction joints shall be bonded according to Article 503.09 of the Standard Specifications.

Reinforcement bars shall conform to the requirements of ASTM A706 Gr. (IL Modified). See Special Provisions.

End Sections will be paid for at the contract unit price per each for BOX CULVERT END SECTIONS, CULVERT NO.2, as outlined in Section 540 of the Standard Specifications.

The design fill height for this box is less than 2 feet. The Precast Concrete Box Culvert Sections shall conform to the requirements of AASHTO M 273.

Any 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
Porous Granular Embankment	CuYd	9.7
Box Culvert End Sections, Culvert No. 2	Each	2
Concrete Collar	CuYd	0.62
Remove Box Culvert End Sections	Each	2

INDEX OF SHEETS

DESIGN SPECIFICATIONS

2002 AASHTO

LOADING HS20-44

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

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (reinforcement)
fy = 65,000 psi (welded wire fabric)

PRECAST UNITS
f'c = 5,000 psi
fy = 65,000 psi (welded wire fabric)

The Precast end section and pre-cast barrel extensions are paid for as BOX CULVERT END SECTION, CULVERT NO. 2 (EACH).

See detail on page 48 for the Concrete Collar. A concrete collar shall be used whether the connecting barrel is cast-in-place or precast. Concrete Collars are paid for as CONCRETE COLLAR (CU YD).

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.

GENERAL PLAN AND ELEVATION
4'x2' PRECAST BOX CULVERT END SECTIONS
F.A.P. ROUTE 315 - SECTION (101, 102X)R,RS-2
MCLEAN COUNTY, STATION 128+41
CULVERT NO. 5

FILE NAME = c:\pw_work\pwidot\buckleslj\d0170848\D570507-sht-details.dgn	USER NAME = buckleslj	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 12/9/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
END SECTION REMOVAL AND REPLACEMENT CULVERT #5

SCALE: | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
315	•	MCLEAN	115	55
•(101,102X,RS-2 & 55RS-PRK LN		CONTRACT NO. 70507		
ILLINOIS	FED. AID PROJECT			