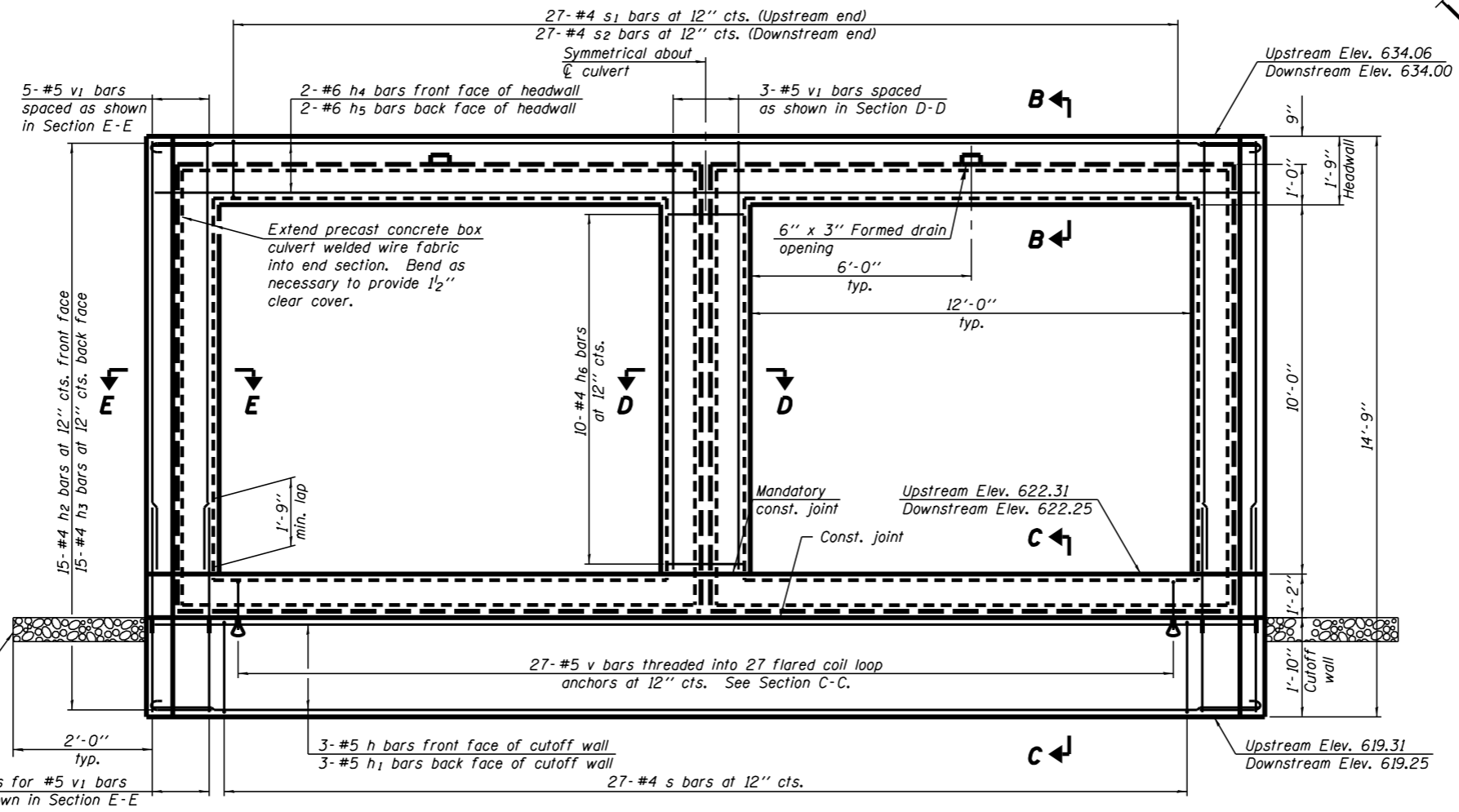


Notes:
See sheet 3 of 5 for typical wingwall elevation.

PLAN



END ELEVATION

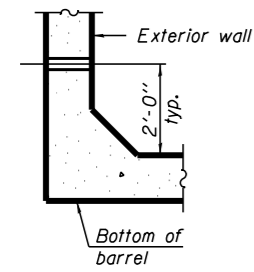
Wingwalls omitted in this view for clarity.
See sheet 3 of 5 for additional wingwall details.

GENERAL NOTES

Layout of slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
Excavation behind existing abutment walls shall be performed to balance front and back soil pressure before removing the existing superstructure.
The design fill height for this structure is maximum 2.55 feet and minimum 2.08 feet at edge of shoulder.
The precast concrete box culvert sections shall conform to the requirements of ASTM C1577.
The minimum effective section modulus of the permanent sheet pile wall shall be 29.8 in.³/ft.
The sheet pile cap shall be AASHTO M270 Grade 50W.
Fasteners shall be ASTM A325 Type 3. Bolts 1/2" φ, holes 5/8" φ.
The box culvert end section shall be built in the field and a precast option is not allowed except the cutoff wall may be precast. If the Contractor elects to use a precast cutoff wall, shop drawings and a proposed construction sequence shall be submitted to the Engineer for approval.
Areas of the precast box culvert in contact with cast-in-place concrete shall be sandblasted, cleaned, and wetted prior to placing concrete in the field according to Article 503.09(b).
The ends of the precast box sections adjacent to the end section shall be formed without the male and female shapes specified in Article 8.1 of ASTM C1577.
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.
Sheet piling shall not be driven until the concrete strength has attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.
Due to low fill, provide waterproof membrane system over the top of the culvert.
See sheet 1 of 5 for culvert construction sequence.
See sheet 3 of 5 for Section B-B, C-C D-D, and E-E.
See sheet 3 of 5 for additional wing wall details.

BILL OF MATERIAL

Item	Unit	Total
Culvert End Sections, Culvert No. 1	Each	2



DRAIN DETAIL

Provide 3" φ drain holes in exterior walls at ±8' cts. See Article 503.11 of the Standard Specifications.

FILE NAME =	USER NAME =	DESIGNED - CJB	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BOX CULVERT END SECTION DETAILS STRUCTURE NO. 038-2026	F.A.P. RTE. 840	SECTION 137-BR	COUNTY IROQUOIS	TOTAL SHEETS 24	SHEET NO. 15	
	PLOT SCALE =	DRAWN - CCF	REVISIONS			CONTRACT NO. 66B92					
	PLOT DATE =	CHECKED - CJB	REVISIONS			SHEET NO. 2 OF 5 SHEETS					
ILLINOIS FED. AID PROJECT											