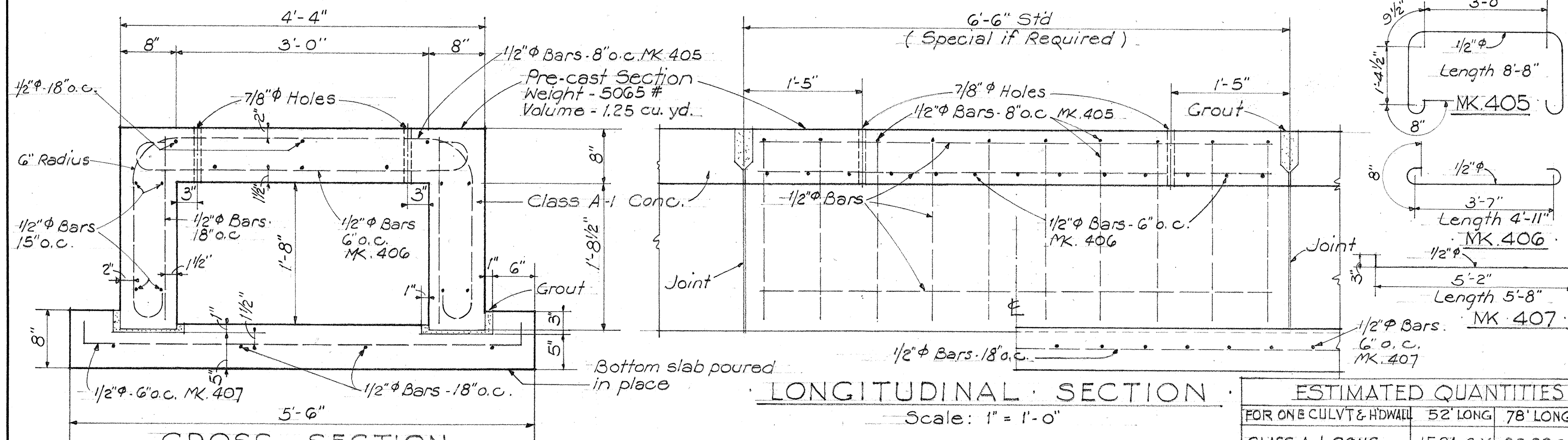


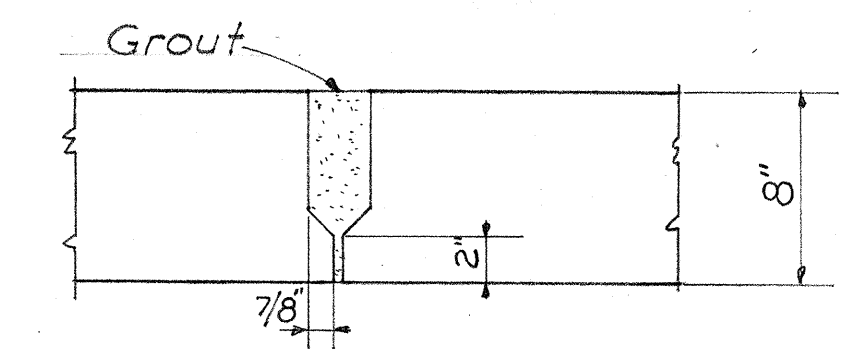
Revised: June 30, 1945

DATE
DESIGNED BY
CHECKED BY
NOTED BY
QUANTITIES BY
CHECKED BY



ESTIMATED QUANTITIES			
FOR ONE CULVERT & HEADWALL			
CLASS A-1 CONC.	15.21 C.Y.	22.82 C.Y.	
CLASS C-1 CONC.	2.68 C.Y.	2.68 C.Y.	
REINF. STEEL	2017 LBS	2945 LBS	
STRUCTURAL EXC.	40.0 C.Y.	65.0 C.Y.	

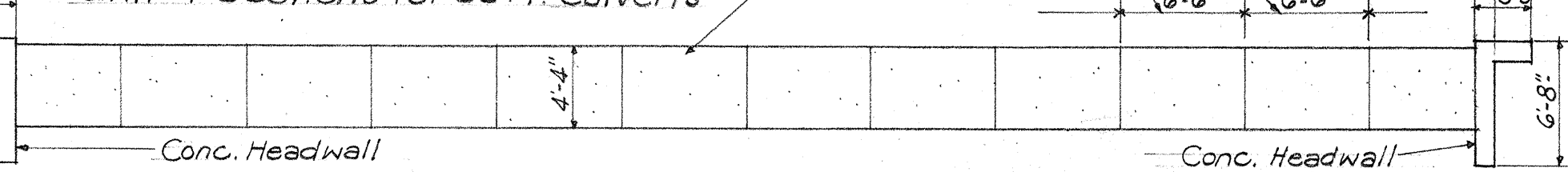
CROSS SECTION
Scale: 1" = 1'-0"



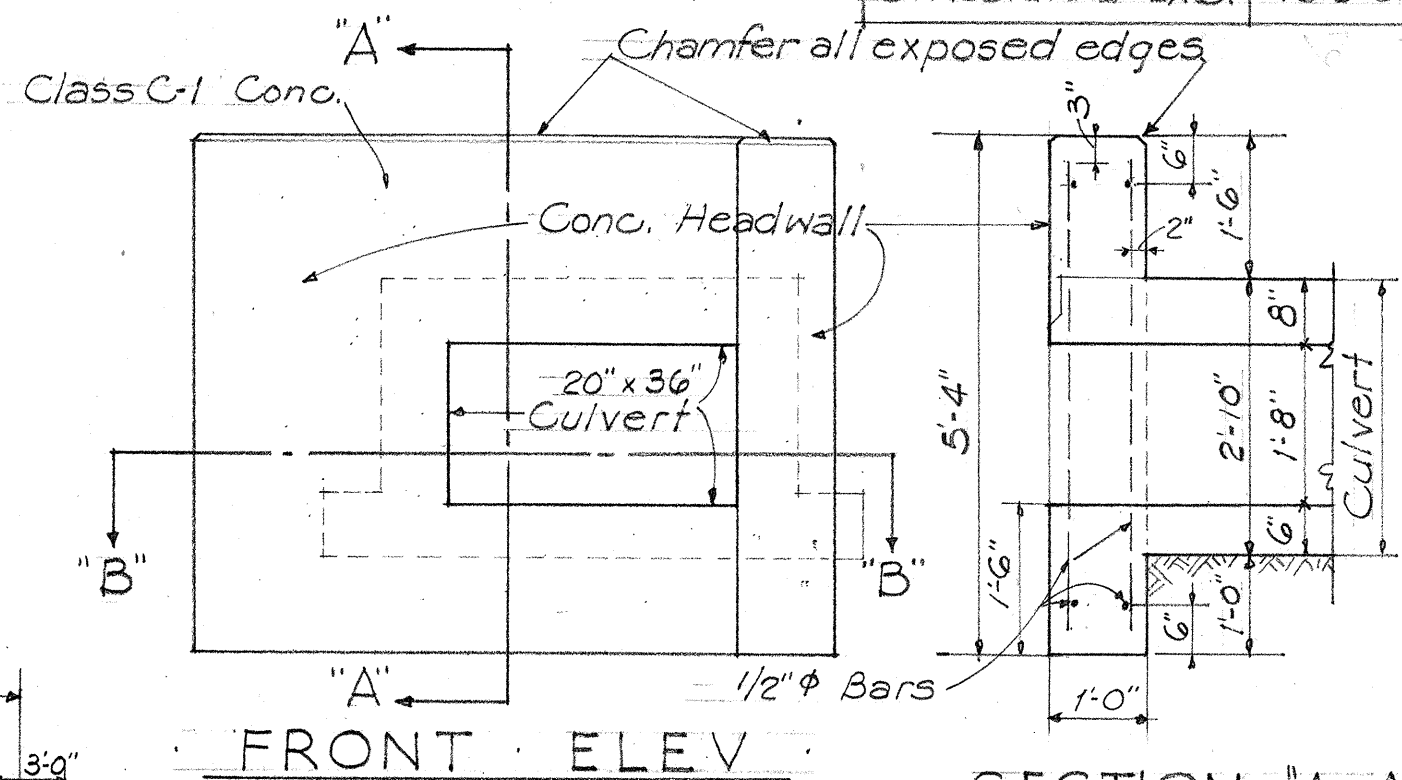
JOINT DETAILS
Scale: 1 1/2" = 1'-0"

NOTE:
May be cast in place at
option of Contractor.

NOTE:
Omit 4 Sections for 52 Ft. Culverts

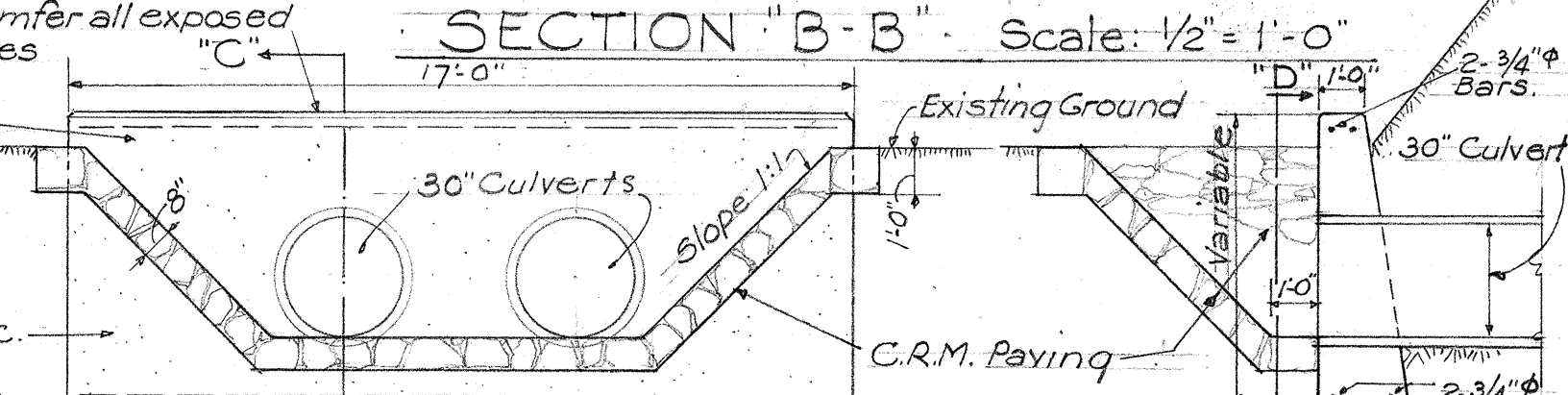
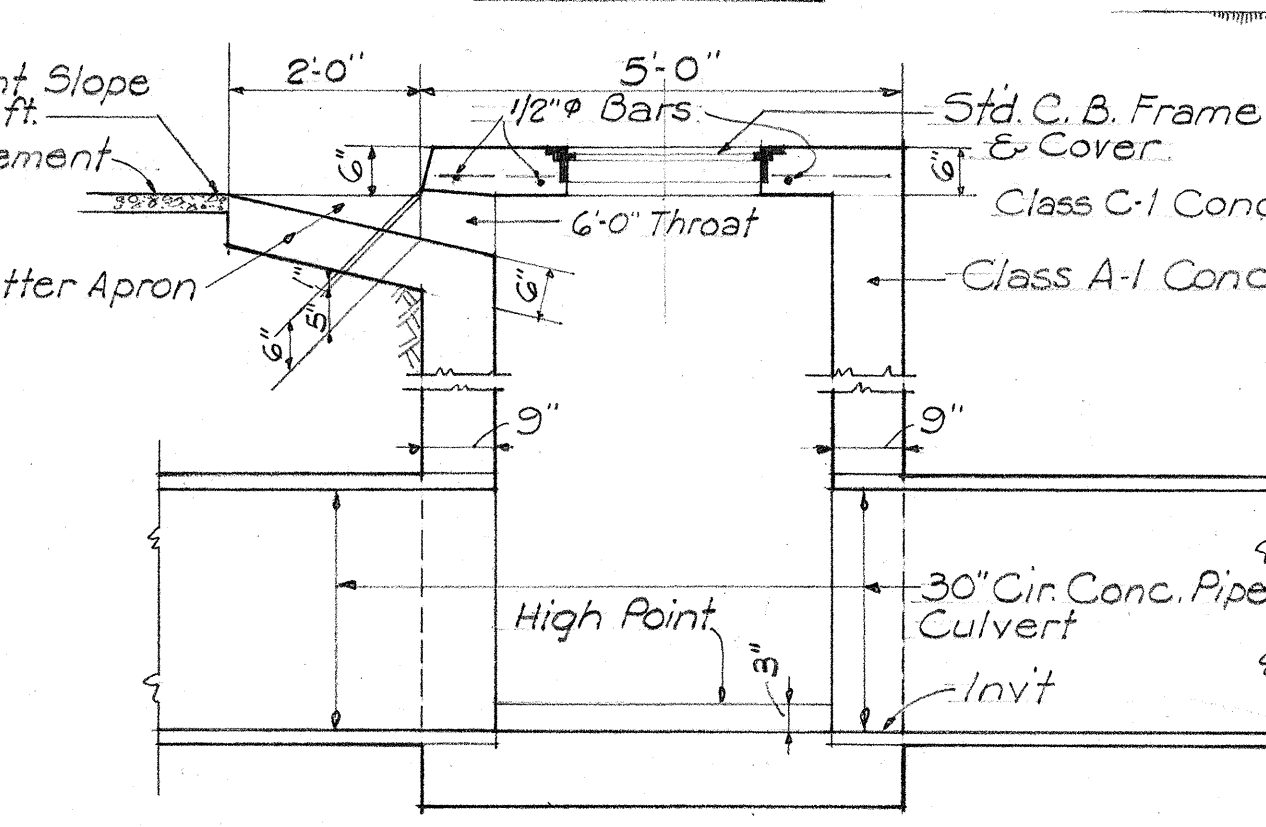
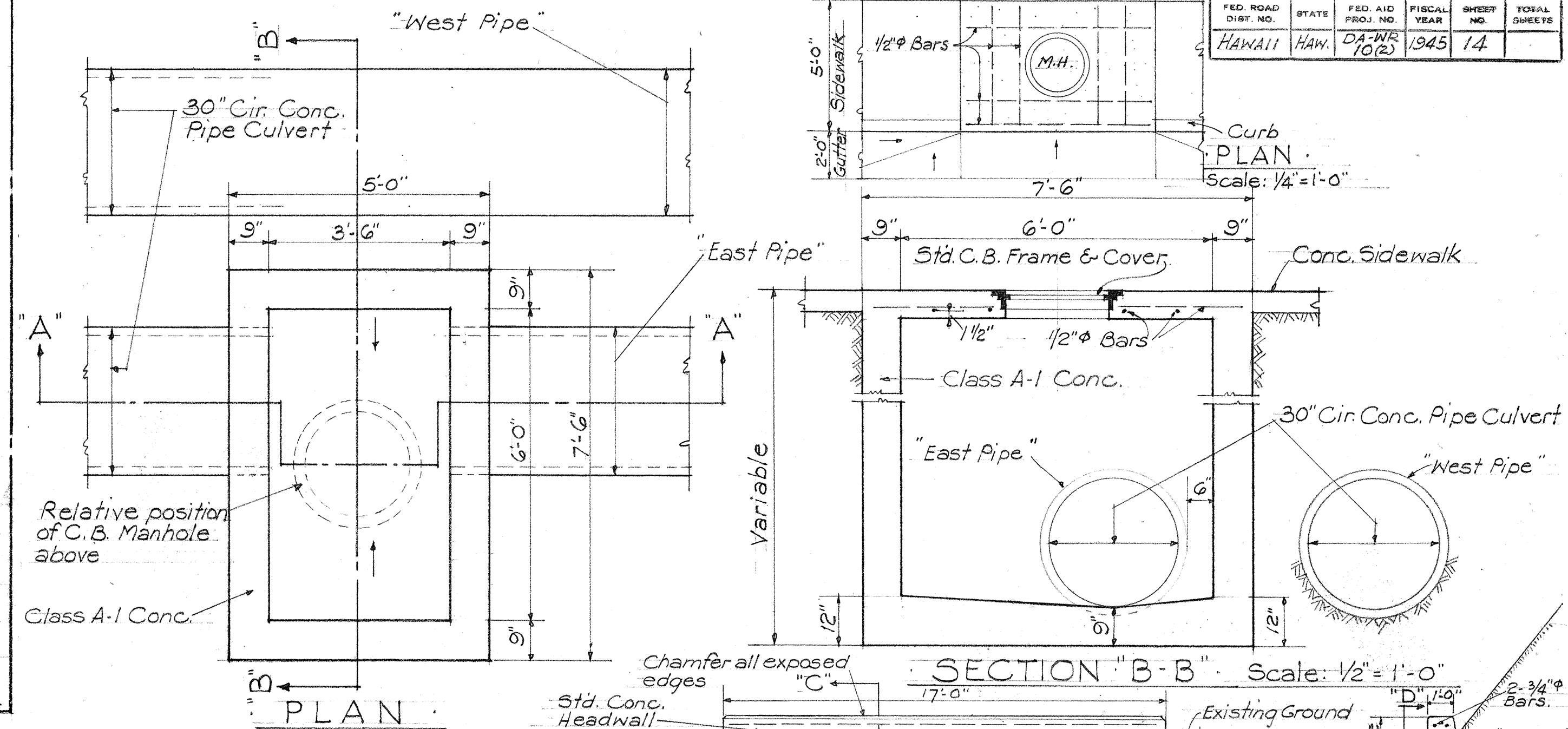
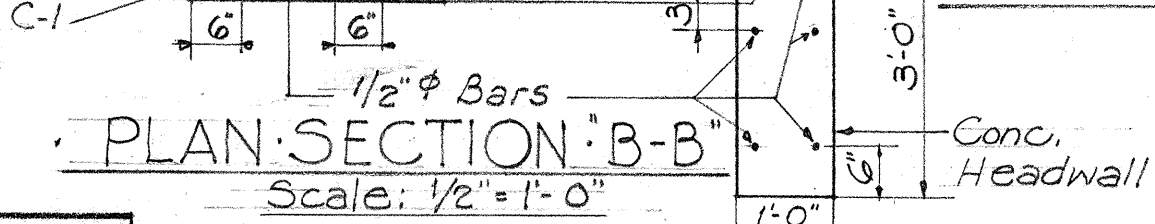


20" x 36" PRECAST CULVERT AND
CONCRETE HEADWALL



SECTION "A-A"

CONCRETE HEADWALL

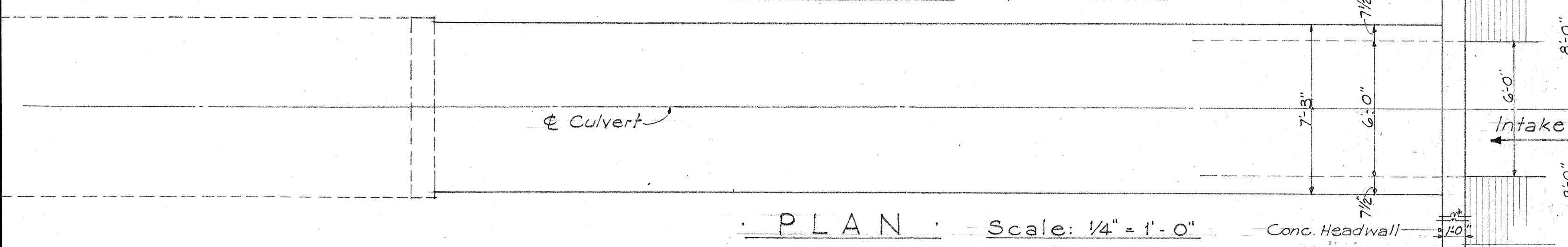
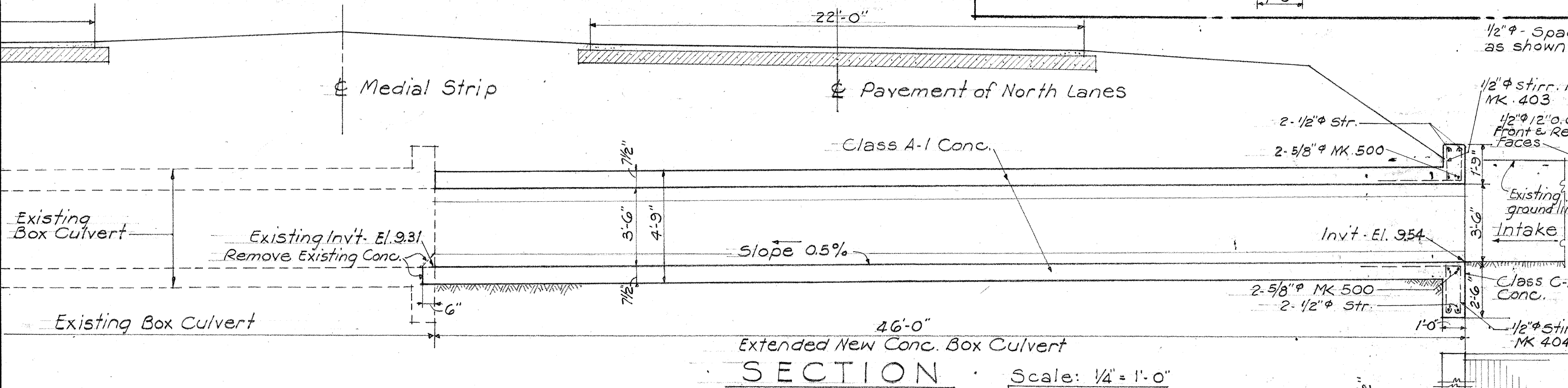


CATCH BASIN DETAIL TO
CONNECT TO EXISTING 30"
CULVERT EXTENDED (TWO REQUIRED)

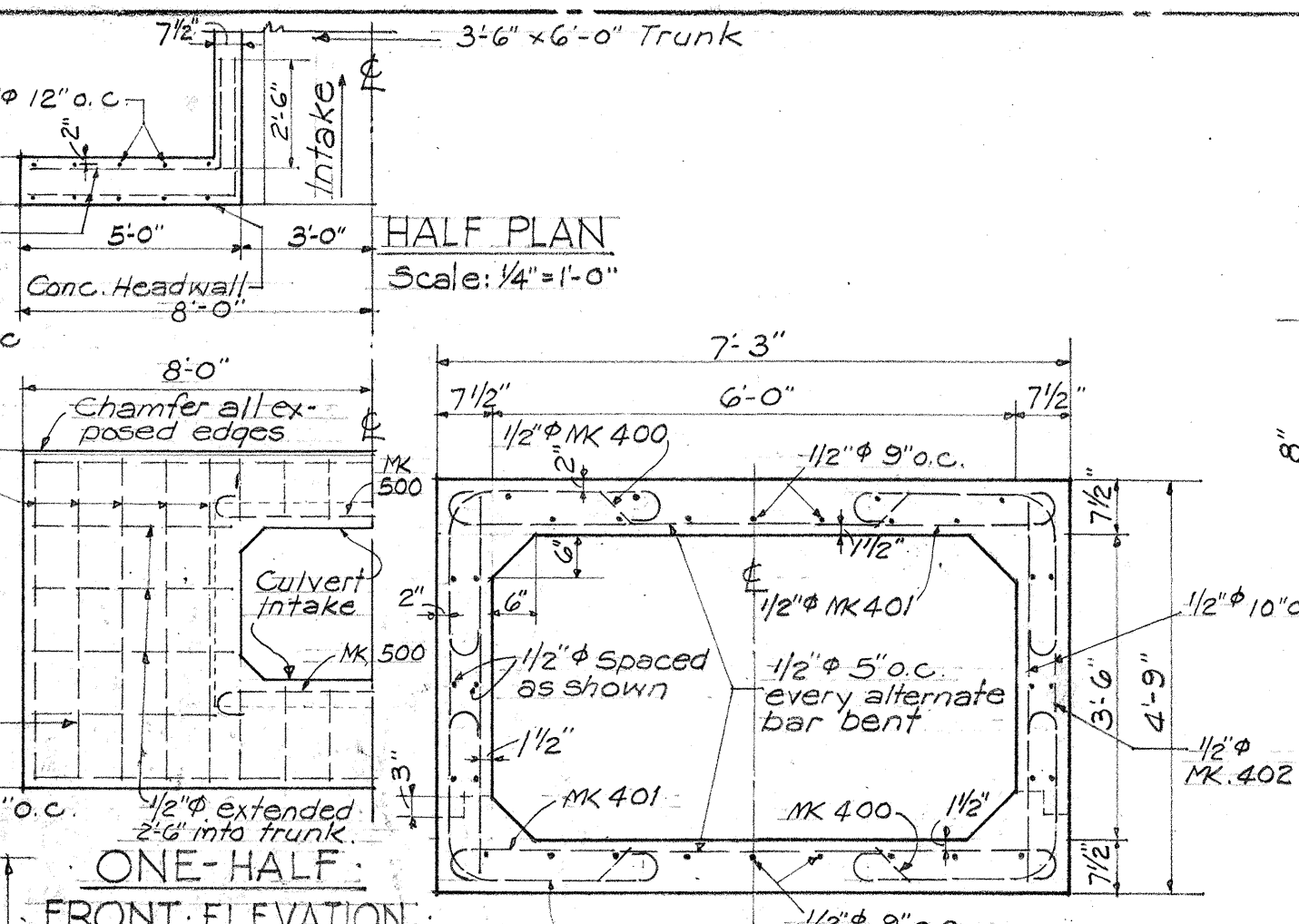
KAMEHAMEHA HIGHWAY STA. 447+85±

ESTIMATED QUANTITIES			
CLASS A-1 CONC.	14.49 C.Y.	2 FOR C.B.	
CLASS C-1 CONC.	12.08 C.Y.	2 FOR HEADWALLS	
REINF. STEEL	254 LBS	TOTAL	
STRUCTURAL EXC.	171.00 C.Y.	"	
C.R.M. PAVING	3.68 C.Y.	ONE THROAT	

VOID



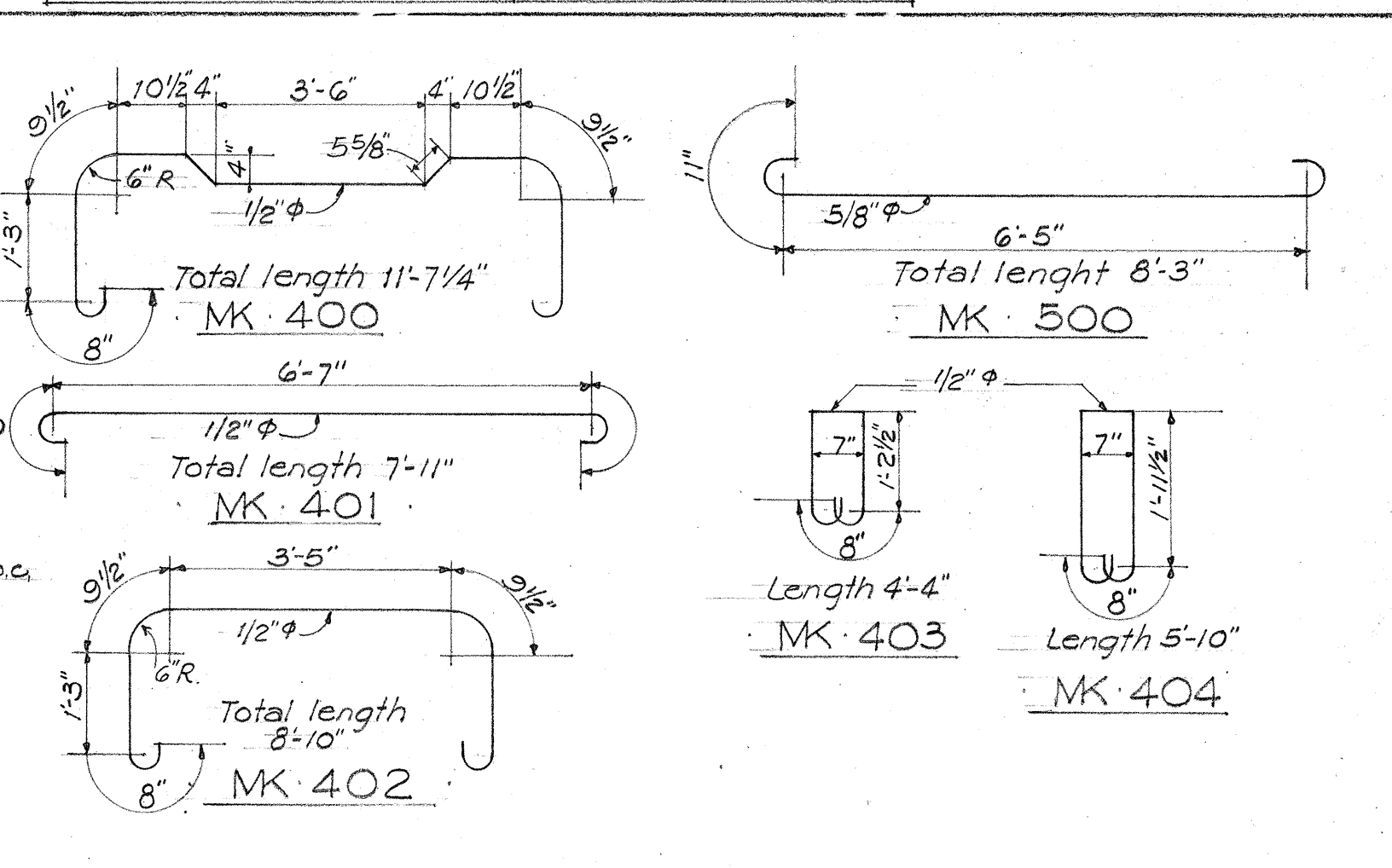
3'-6" x 6'-0" CONC. CULVERT EXTENDED
DETAIL STA. 398+55±



ONE-HALF FRONT ELEVATION
CONC. HEADWALL
Scale: 1/4" = 1'-0"

SECTION THRU TRUNK
Scale: 1/2" = 1'-0"

ESTIMATED QUANTITIES	
CLASS A-1 CONC.	23.5 C.Y.
CLASS C-1 CONC.	3.8 C.Y.
REINF. STEEL	3636 LBS
STRUCTURAL EXC.	95.19 C.Y.



SECTION THRU TRUNK
Scale: 1/2" = 1'-0"

ESTIMATED QUANTITIES	
CLASS A-1 CONC.	23.5 C.Y.
CLASS C-1 CONC.	3.8 C.Y.
REINF. STEEL	3636 LBS
STRUCTURAL EXC.	95.19 C.Y.

TERRITORIAL HIGHWAY DEPARTMENT
TERRITORY OF HAWAII
CULVERT DETAIL
HAW. PROJ. NO. DA-WR 10(2)
Scales as noted
JULY, 1945
SHEET NO. 14 OF SHEETS