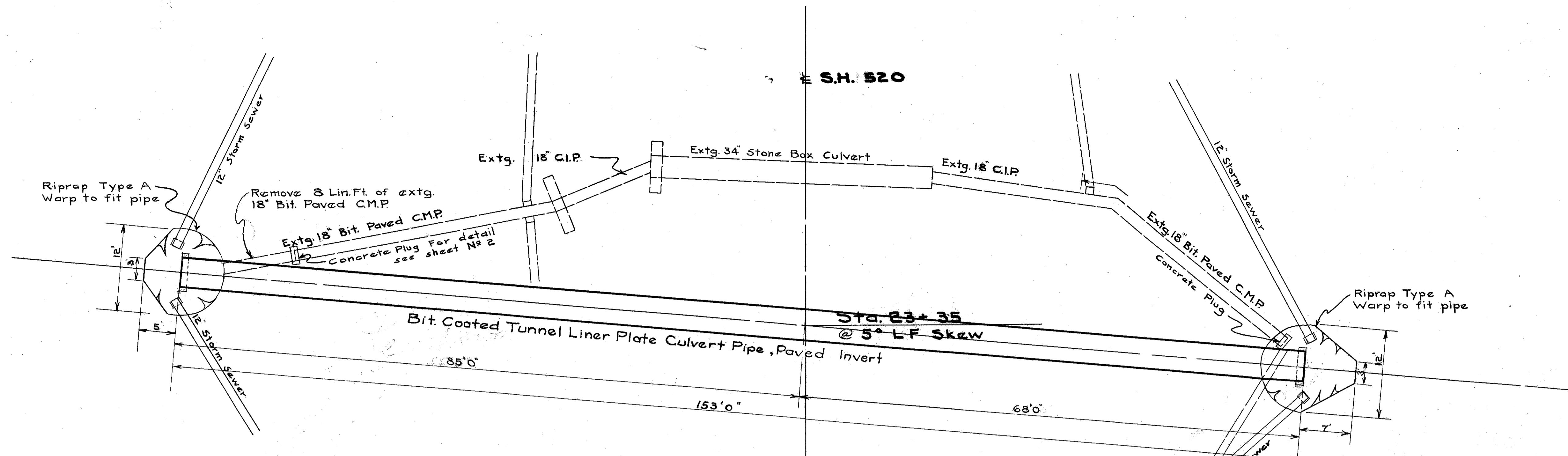


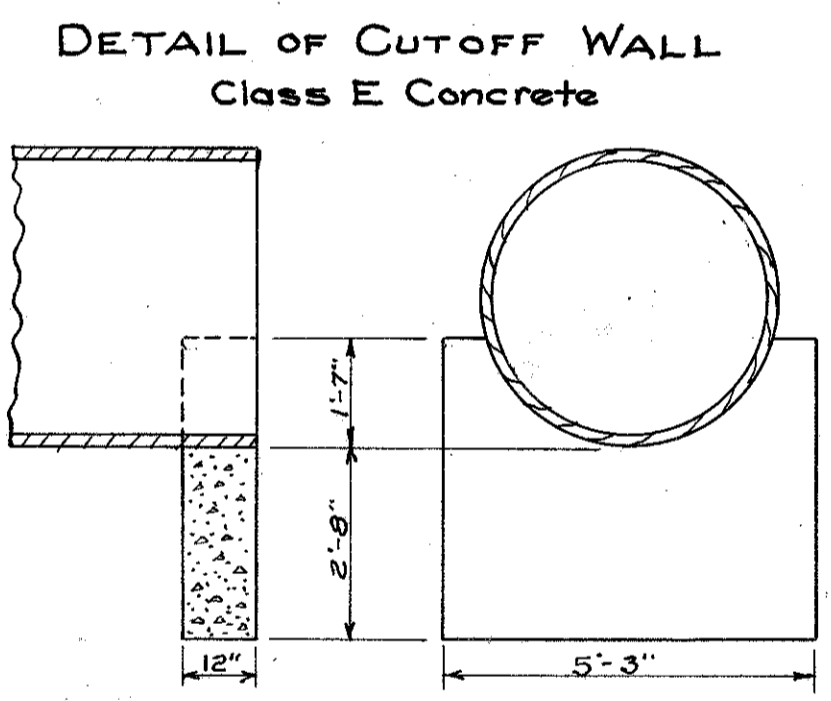
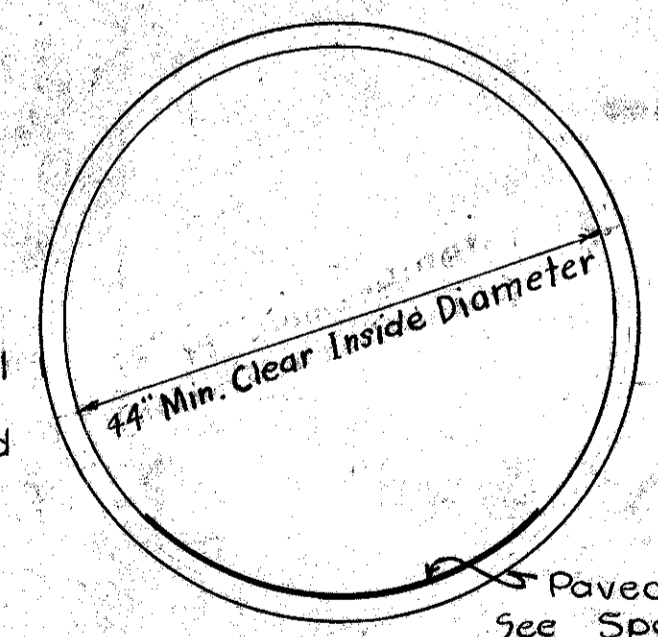
LAKE COUNTY  
S.H. 520 SEC. C (PT)  
S.H. 563 SEC. B (PT)



**Notes**  
In lieu of Section E-2.08 of the Material Specifications, structure excavation calculated for the 48" tunnel liner plate culvert pipe is the volume based on the outside diameter of the culvert.  
Back slope around the ends of the 48" pipe shall be backfilled to meet existing slope. Estimated 20 Cu.Yds. shall be obtained from acceptable excavated material from the structure excavation and shall be placed as directed by the Engineer. Backfill shall be placed in accordance with methods set forth in Sec. E-2.07 of the Specifications. Cost of backfilling to be included in unit price bid for "Excavation for Structures."

The Contractor shall carefully backfill the space around the assembled Tunnel Liner Plate Culvert Pipe by tamping earth embankment. Cost of backfill to be included in the unit price bid for E-2 Excavation for Structures.

Note- The outside diameter of the tunnel liner plate culvert pipe shall be based on a min. inside diameter of 44". Inside diameter considered as inside to inside crest of metal.



Estimated Quantities (2 ends)  
S-1 Concrete Class E 1.8 Cu.Yds.

F.L. El. 575.68

F.L. El. 593.00

**CULVERT DATA**

TYPE : Bituminous coated, paved invert tunnel liner plate culvert pipe  
 SIZE : 44" minimum inside diameter by 153'-0" @ 5° L.F. Skew  
 STD. DRWGS :  
 WORK REQD. : Remove 20 L.F. of existing 18" C.M.P.  
 Build new 48 pipe culvert to be placed by tunneling method. Riprap Lt.+Rt. ends as shown. Backfill around both ends using excavated material as directed by the Engineer.  
 Build cut off walls Lt. and Rt. as shown.

**ESTIMATED QUANTITIES**

Item E-2	Excavation for Structures (by tunneling method)	80	Cu. Yds.
Item SS. 186	Bituminous coated, paved invert tunnel liner Plate Culvert Pipe as per plan	153	Lin. Ft.
Item S-1	Concrete for structures Class E	1.8	Cu. Yds.
Item I-10	Riprap Type A 12" thick, grouted	25	Sq. Yds.
Item E-12	18" Pipe removed and disposed of	20	Lin. Ft.

**DRAINAGE STRUCTURE C-1**  
**STA. 23+36**  
 CULVERT No. LA-283-51  
 Drainage Area - Acres  
 Scale 1/8" = 1'

Survey by \_\_\_\_\_ Drawn by MBR Checked by \_\_\_\_\_ Reviewed by \_\_\_\_\_