NOTE:
- Vary "D" of warped wall uniformly from that at cutoff wall to that at headwall or endwall, for maximum "H" > 12'-0".

PART LONGITUDINAL SECTION
- Use additional protection to toe of embankment is required. If at
  upstream end, fillet is not shown.

ALTERNATIVE WARPED WINGWALL
- Use where abrasion is anticipated, increase apron thickness to
  1' minimum to provide 2" minimum reinforcement coverage.

SECTION A-A
- EXTEND WALL SPACERS 2'-0" INTO HEADWALL OR ENDWALL
  IF NECESSARY.
- DECREASE SPACING AND REMOVE CLEARANCE, AS SHOWN.

SECTION B-B
- PIPE WALL
- TYPICAL FOR MAXIMUM "H" > 10'

SECTION C-C
- PIPE WALL
- TYPICAL FOR MAXIMUM "H" < 10' WITHOUT STIFFENING BEAM

SECTION F-F
- STATE OF CALIFORNIA
- DEPARTMENT OF TRANSPORTATION
- PIPE CULVERT HEADWALLS, ENDWALLS AND WARPED WINGWALLS
- NO SCALE

D86B