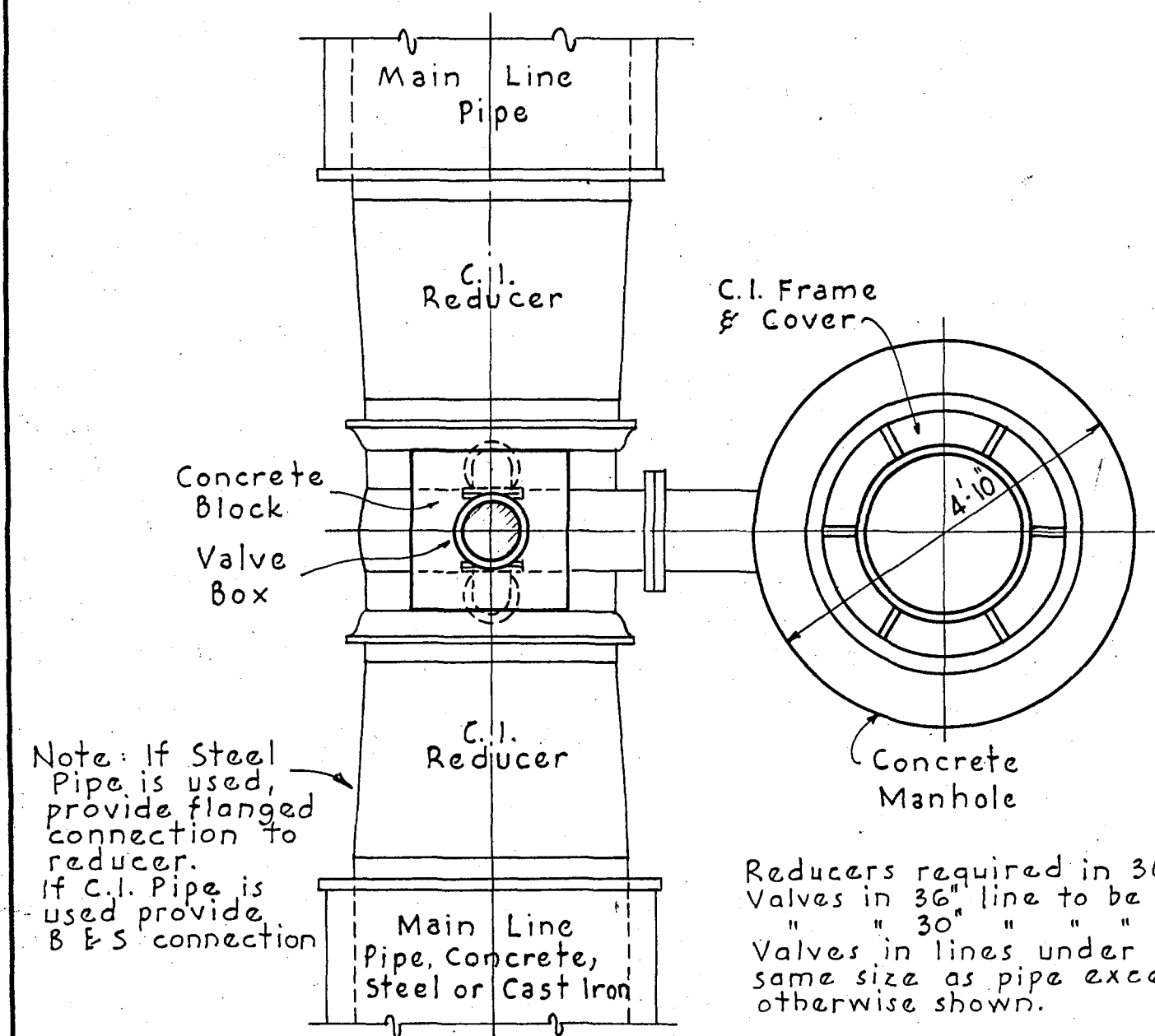


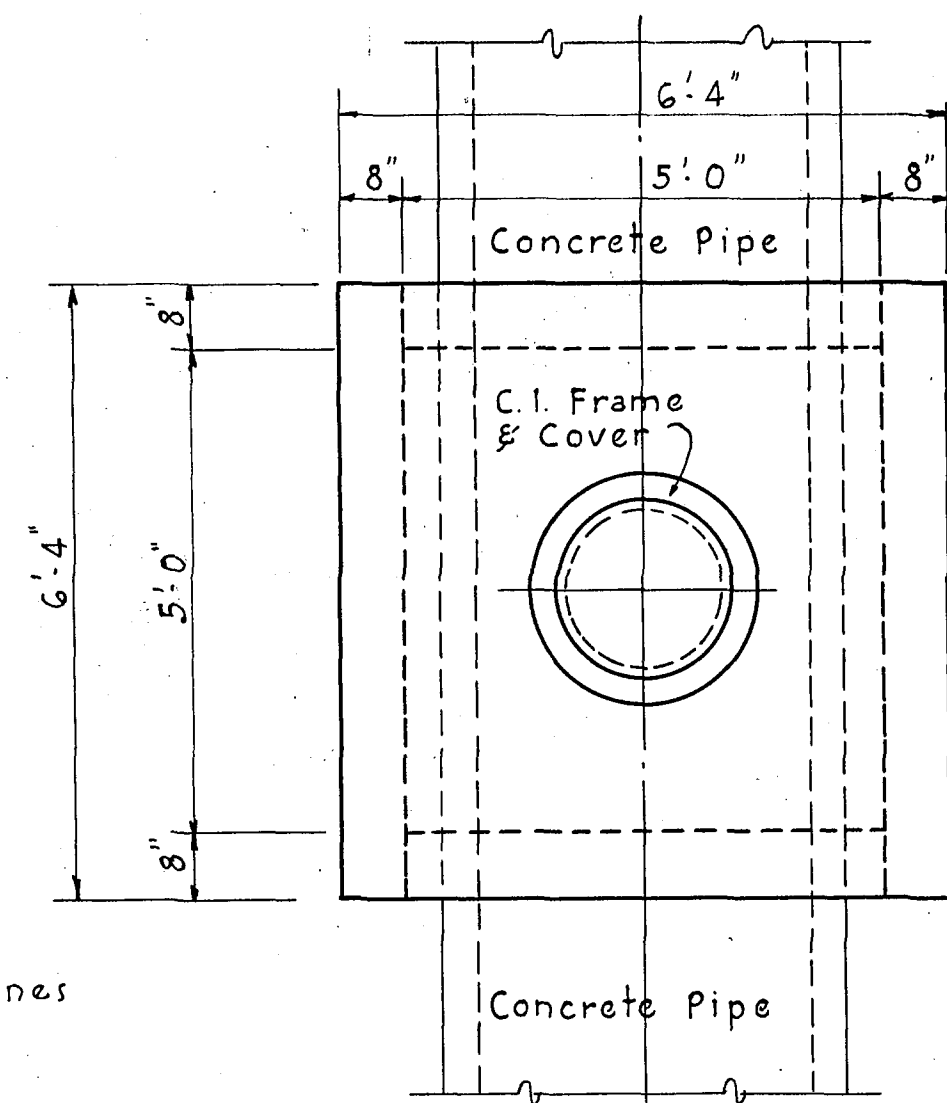


Note: If Steel Pipe is used, provide flanged connection to reducer. If C.I. Pipe is used provide B & S connection.

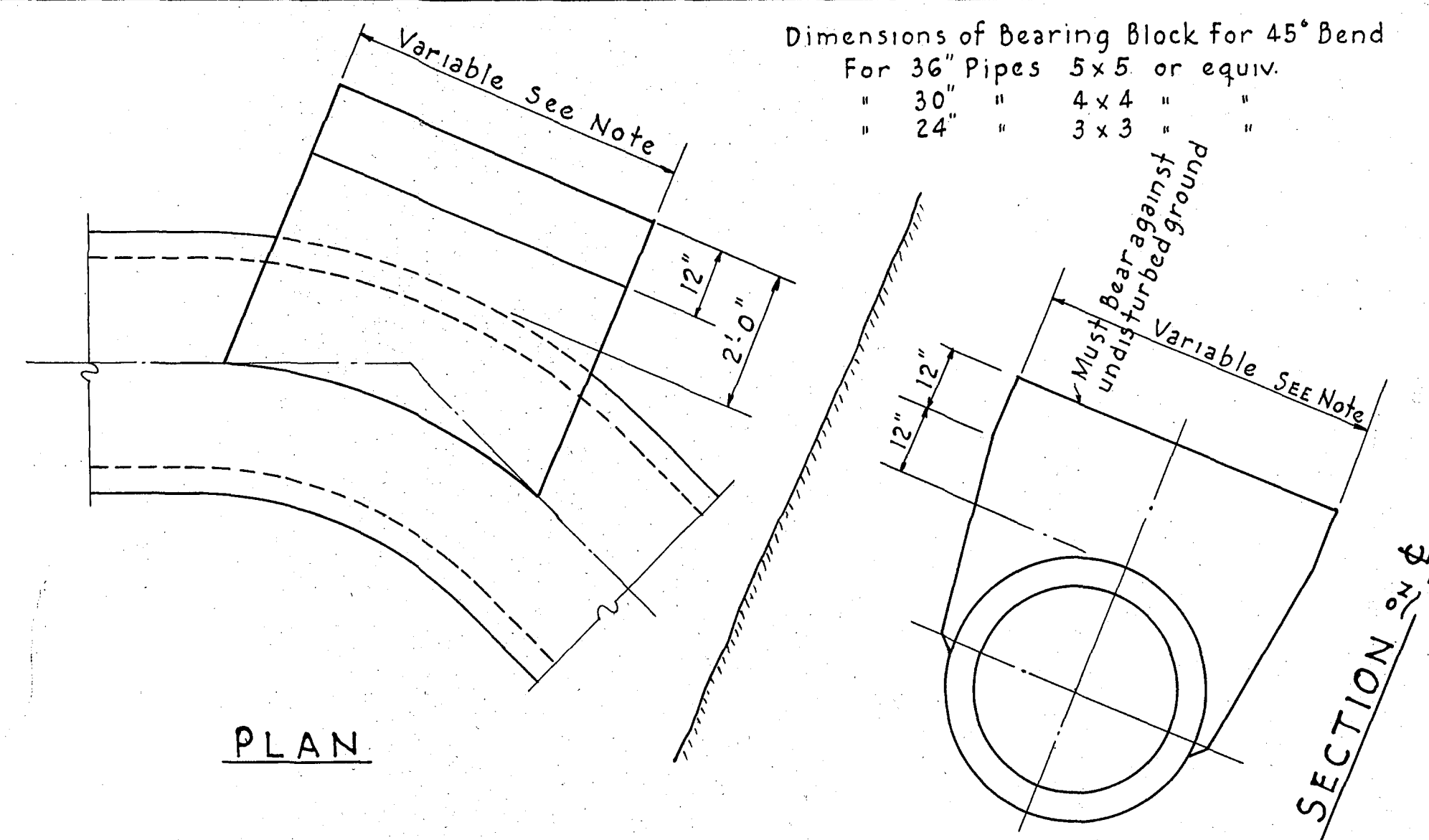
Reducers required in 36" and 30" lines. Valves in 36" line to be 30" Valves in lines under 30" to be same size as pipe except as otherwise shown.

Note: Whenever Bypass Valves occur in Paving, provide manhole in place of box. (See Detail)

PLAN



PLAN

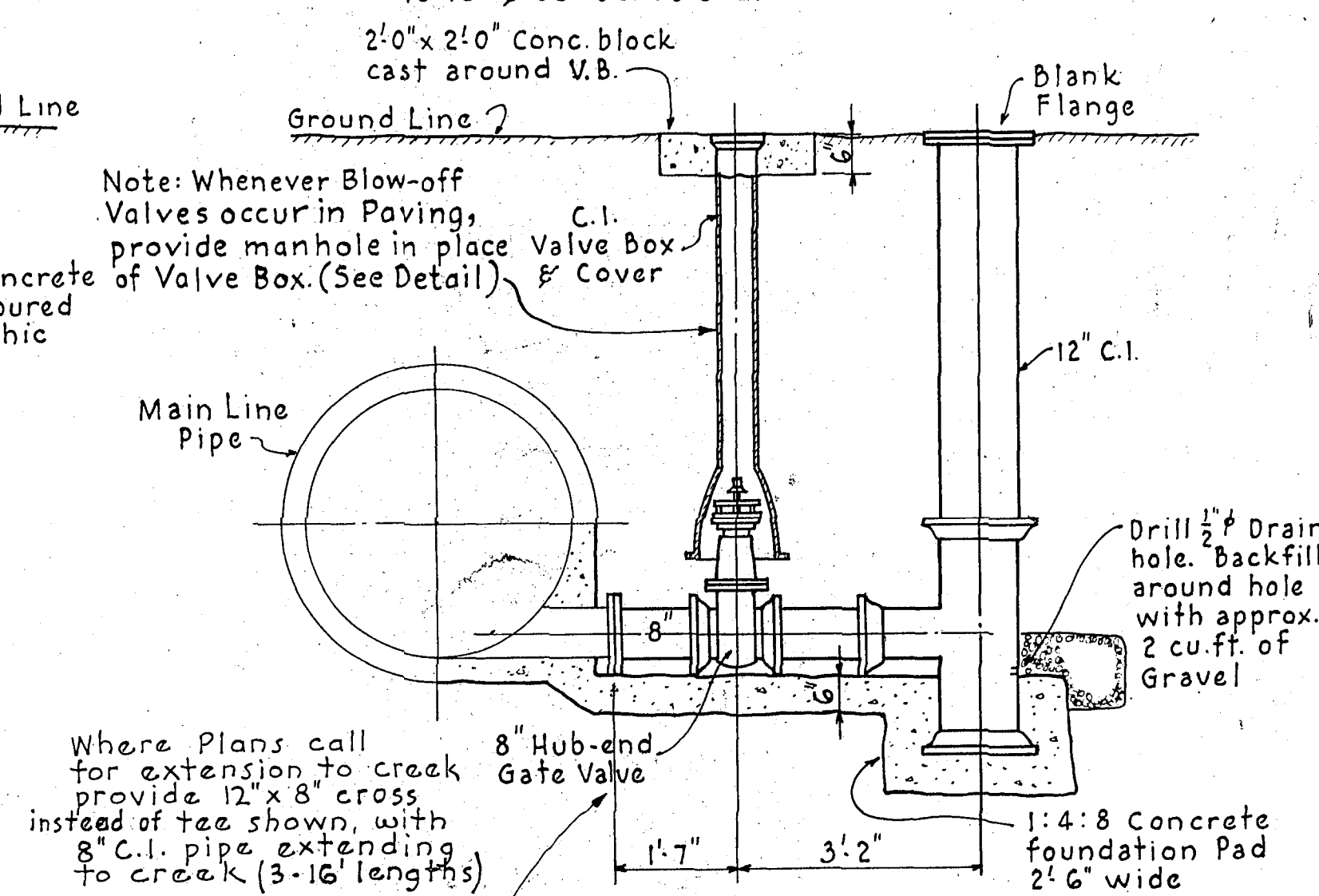


PLAN

BUTTRESS FOR 45° BEND

Scale: $\frac{1}{2}'' = 1'-0''$

Note: Buttresses to be provided for all bends of variable degrees in proportion to 45° & 90° bends shown.

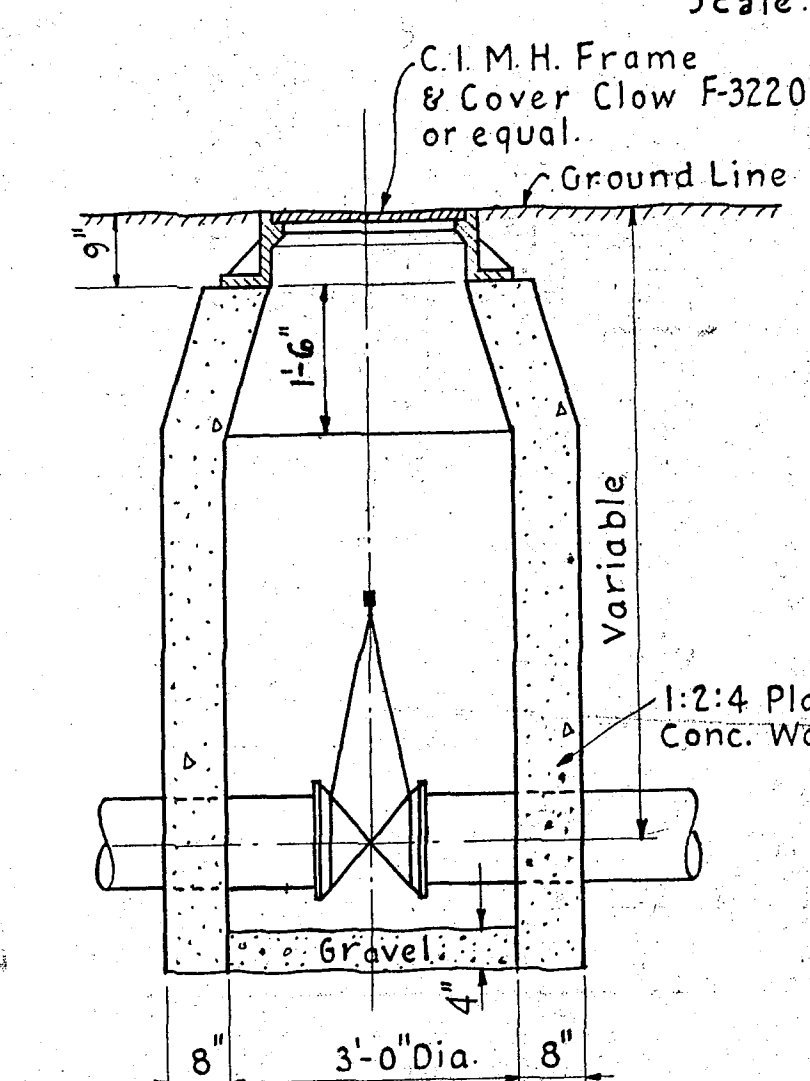


Where Plans call for extension to creek provide 12" x 8" cross instead of tee shown, with 8" C.I. pipe extending to creek (3-16' lengths)

Use 12" pipe & valve in locations where so indicated.

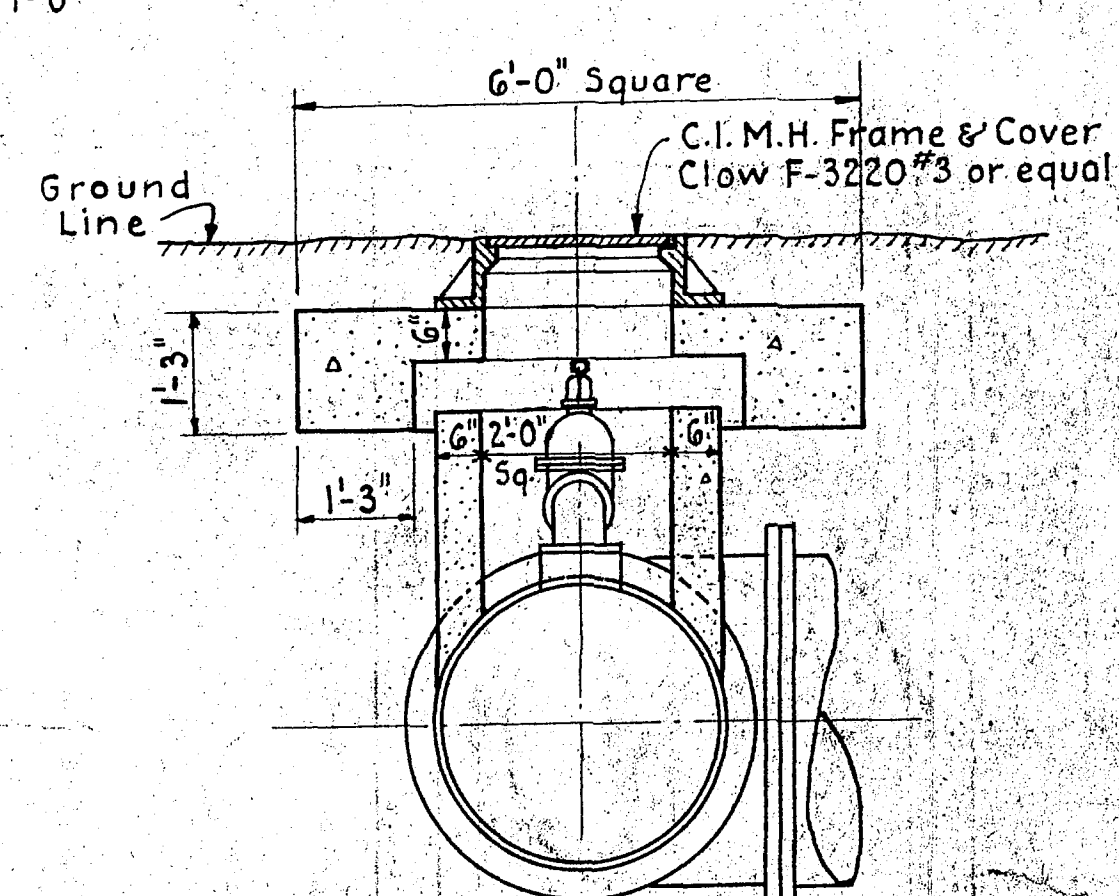
BLOW-OFF DETAIL

Scale: $\frac{1}{2}'' = 1'-0''$



DETAIL OF VALVE MANHOLE FOR ALL VALVES 12" & UNDER IN PAVING.

Scale: $\frac{1}{2}'' = 1'-0''$



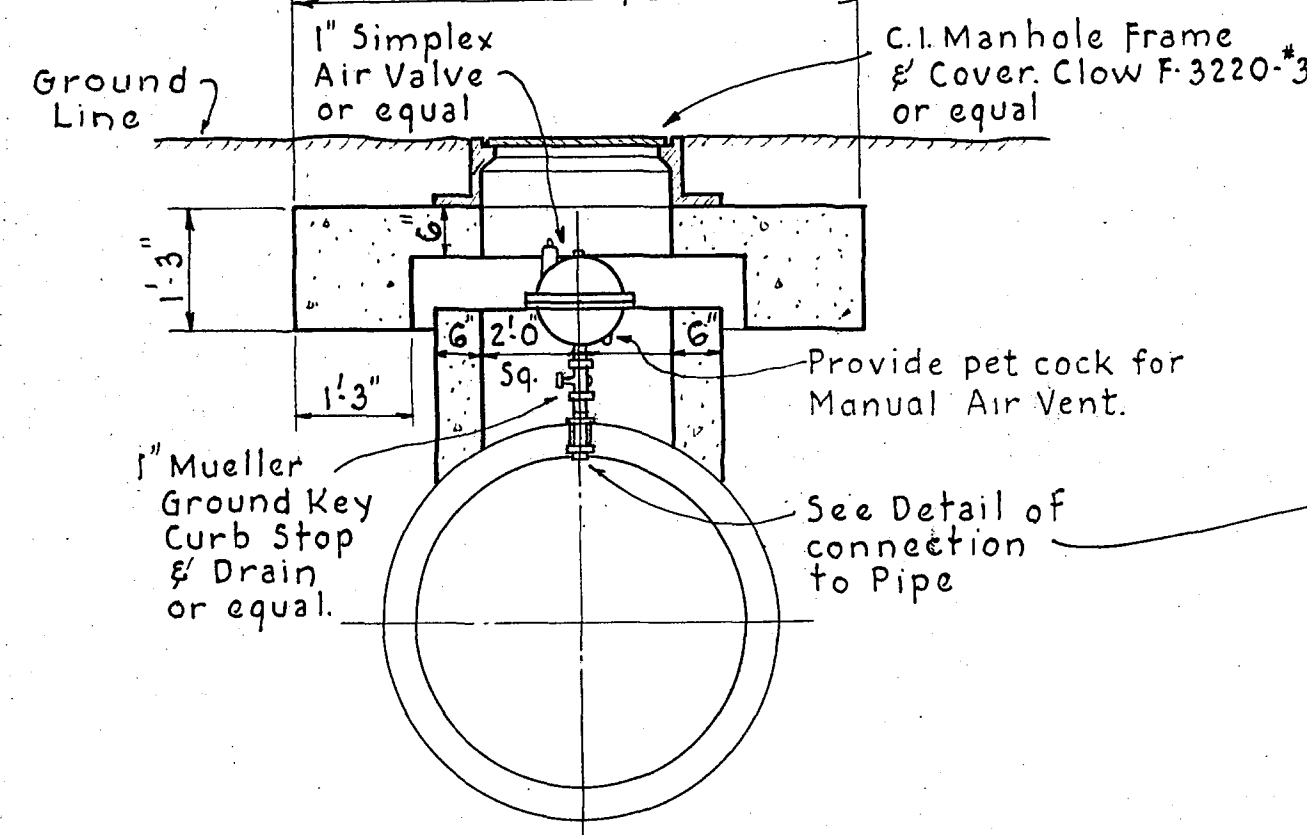
DETAIL OF BYPASS VALVE M.H. IN PAVING

Scale: $\frac{1}{2}'' = 1'-0''$

DETAIL OF TYPICAL VALVE MANHOLE

Scale: $\frac{1}{2}'' = 1'-0''$

Note: The above M.H. detail applies to 16" Valves and larger. 12" and smaller have no bypass or gating and shall be set vertical and equipped with C.I. Valve Box & Cover set in 2'-0" x 2'-0" Conc. block. Where 12" & smaller valves occur in Paving, provide Manhole in place of Valve Box. (See Detail)



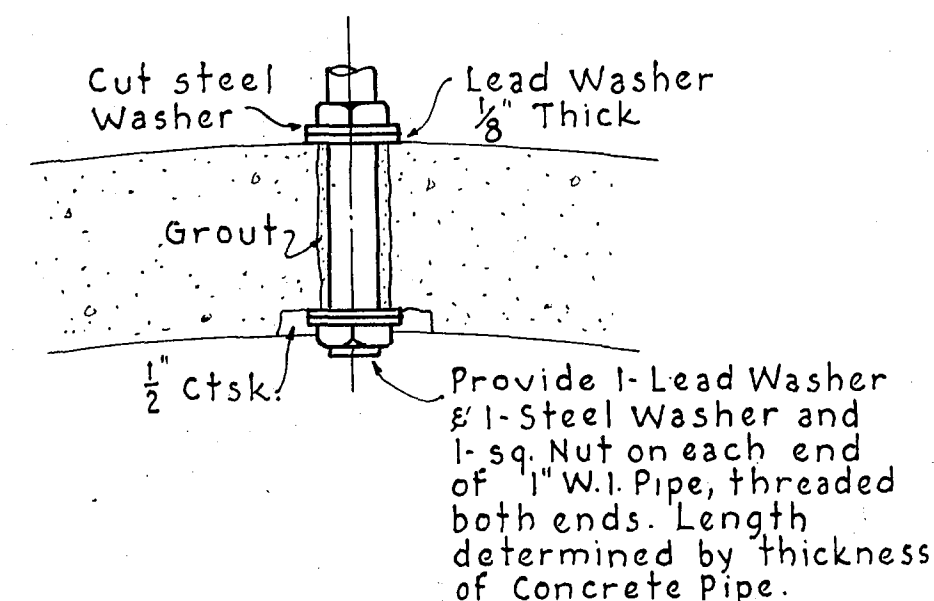
DETAIL OF AIR VALVE MANHOLE

Scale: $\frac{1}{2}'' = 1'-0''$

DETAIL OF TYPICAL ACCESS MANHOLE

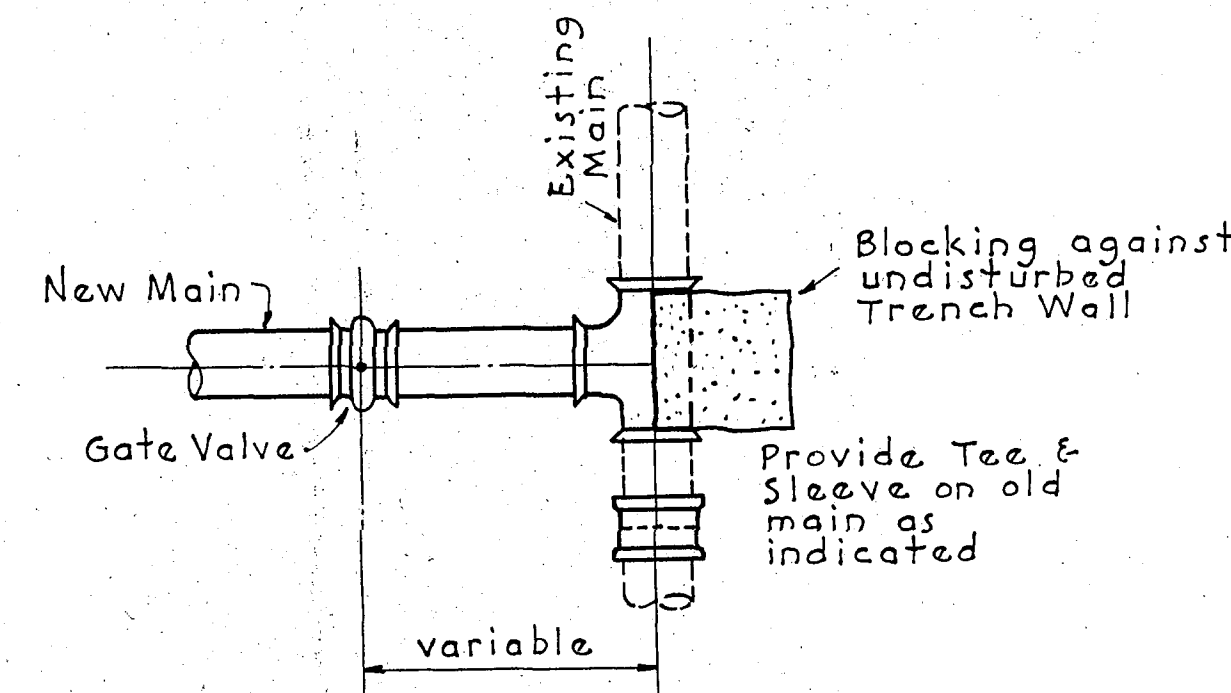
Scale: $\frac{1}{2}'' = 1'-0''$

Note: For Concrete Pipe only

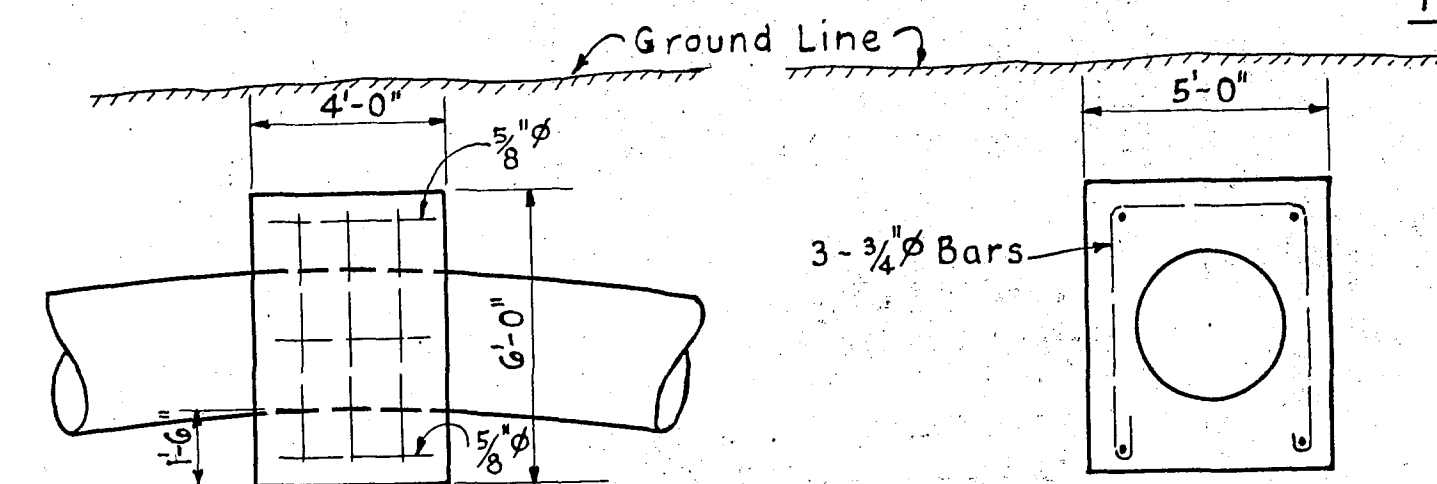


DETAIL OF AIR VALVE CONNECTION TO CONCRETE PIPE

Scale: $\frac{3}{4}'' = 1'-0''$



TYPICAL DETAIL OF CONNECTION WITH EXISTING MAIN AT 90° ANGLE



5/8" BEND

Scale: $\frac{1}{4}'' = 1'-0''$

DETAILS OF BEND ANCHORAGE & SUMMITS IN PIPE LINE

CARVIN'S COVE WATER SUPPLY
PIPE LINE
DETAILS
ROANOKE WATER DEPT.
ROANOKE, VIRGINIA
ALVORD, BURDICK & HOWSON
ENGINEERS CHICAGO
1944