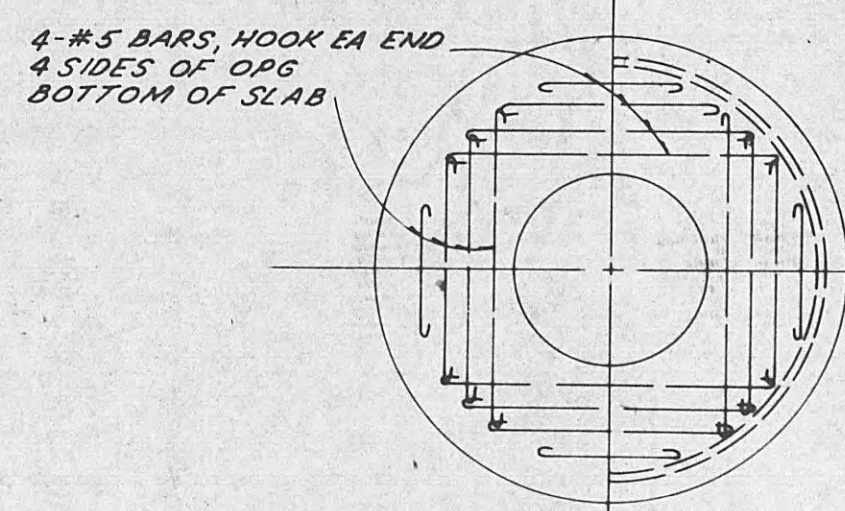
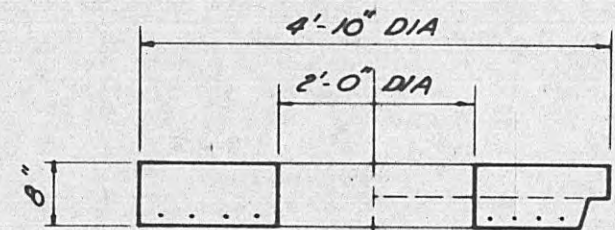


GOVERNING DIMENSIONS FOR CIRCULAR MANHOLES

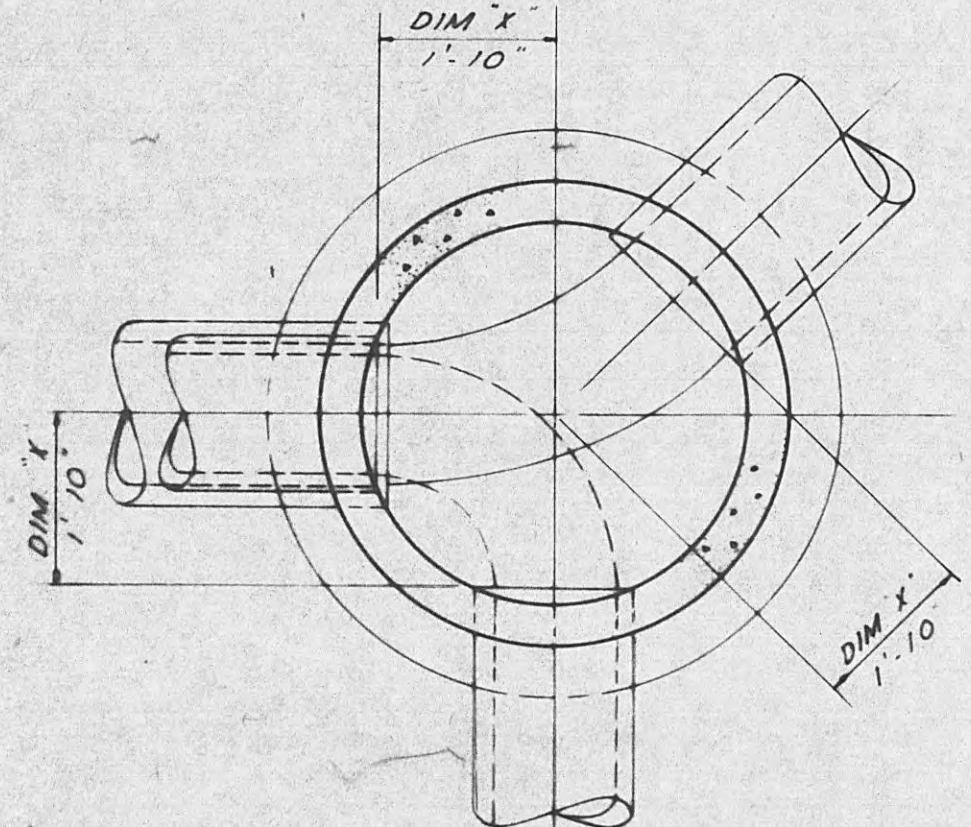
PIPE SIZE	DEFLECTION	M/H DIA	"X"
8" & 15"	0°-30°	4'-0"	1'-10"



PLAN

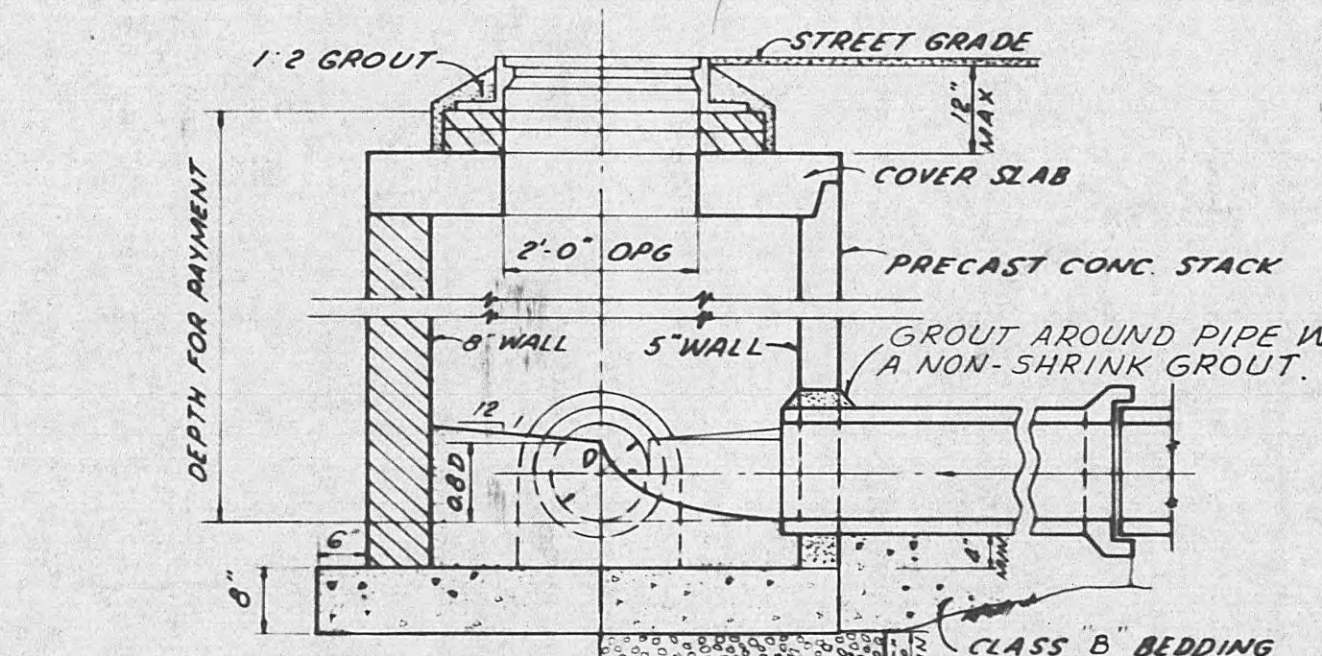
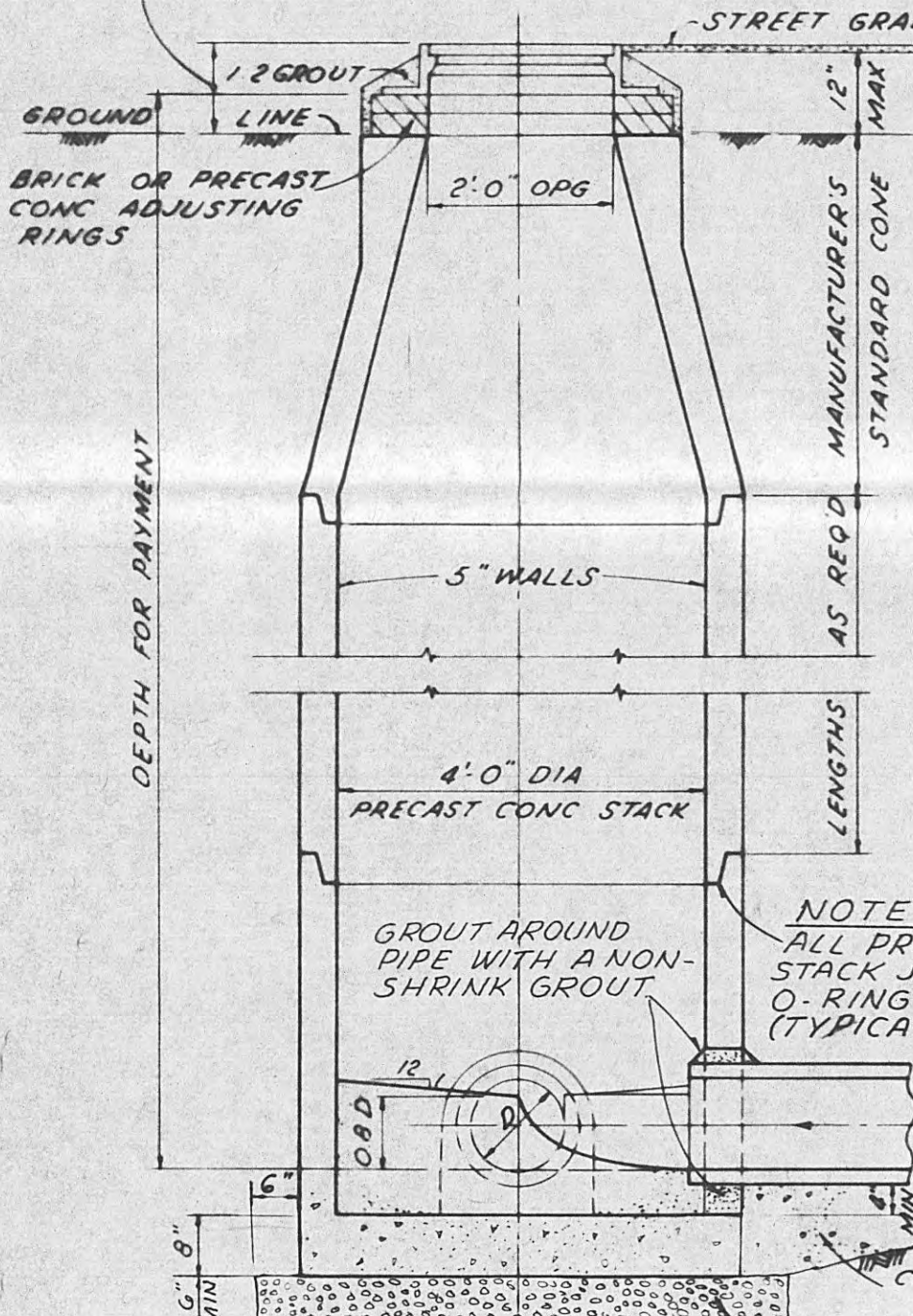


SECTION
4'-0" COVER SLAB
SCALE: 1/2"=1'-0"



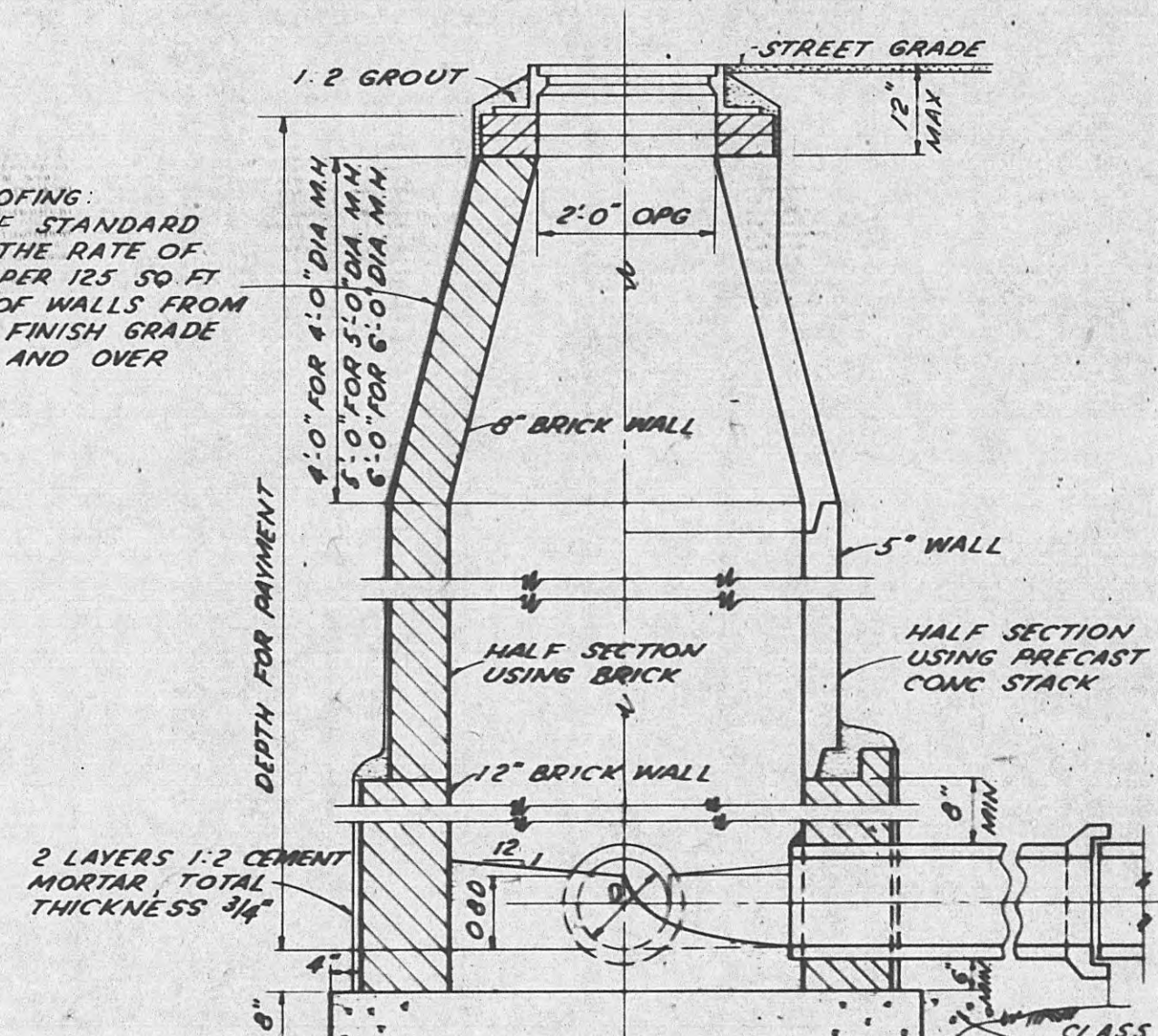
TYPICAL INVERT PLAN
(ALL SIZES)
SCALE: 1/2"=1'-0"

NOTE:
TOP OF MANHOLE FRAME TO
EXTEND AT LEAST 10" BUT NO
MORE THAN 15" ABOVE NATURAL
GROUND EXCEPT WHERE LOCATED
IN STREETS OR WHERE SHOWN
OTHERWISE ON THE PLANS

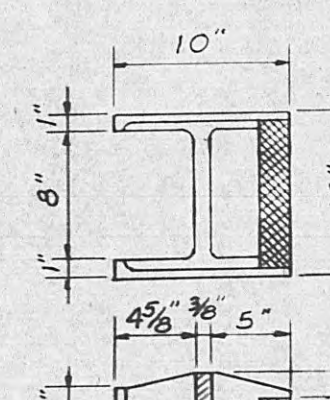


TYPICAL 4'-0" SHALLOW MANHOLE

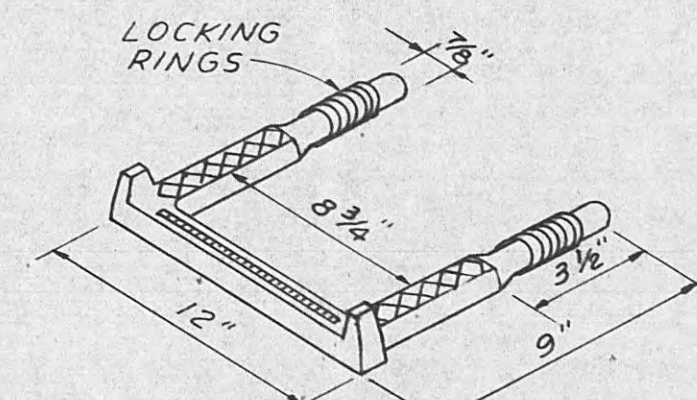
WATERPROOFING:
1 COAT OF STANDARD
THICK AT THE RATE OF
1 GALLON PER 125 SQ. FT.
WATERPROOF WALLS FROM
18" BELOW FINISH GRADE
DOWN TO AND OVER
FOOTINGS



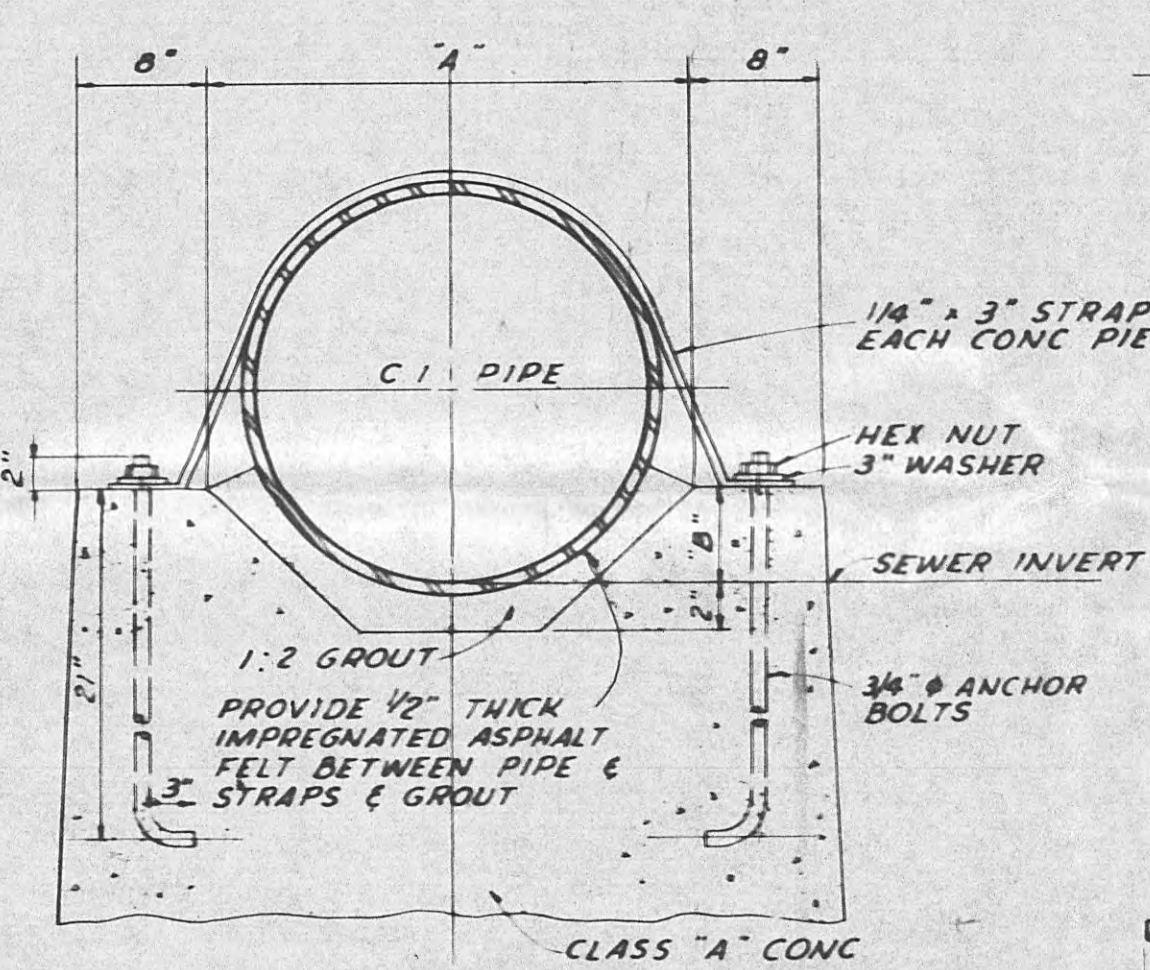
SECTION
4'-5" OR 6" DIA. MANHOLE
(ALTERNATE CONSTRUCTION)
SCALE: 1/2"=1'-0"



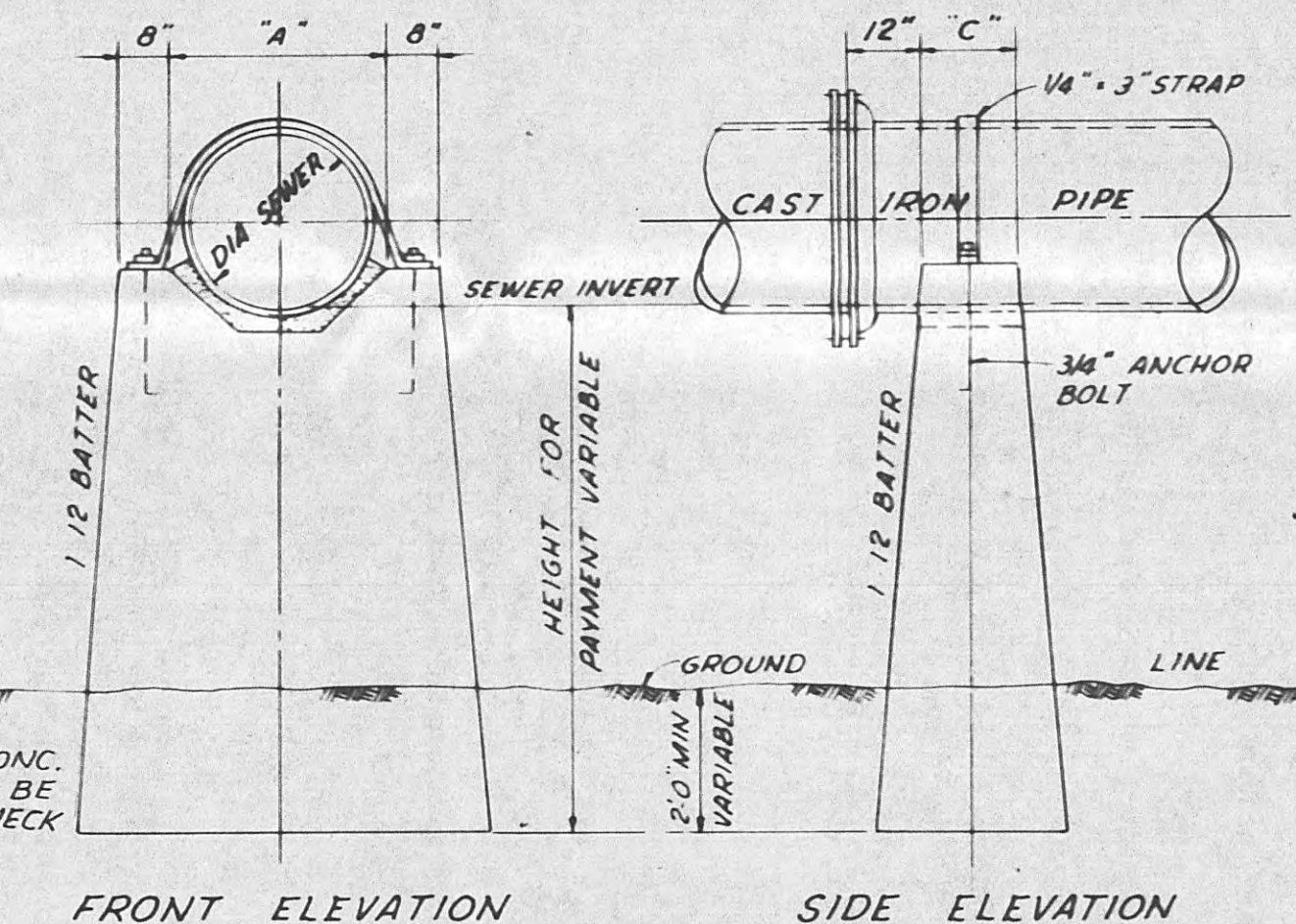
MANHOLE STEP DETAIL
(FOR BRICK MANHOLES)



MANHOLE STEP DETAIL
(FOR PRECAST MANHOLES)



ENLARGED SECTION
SCALE: 1"=1'-0"



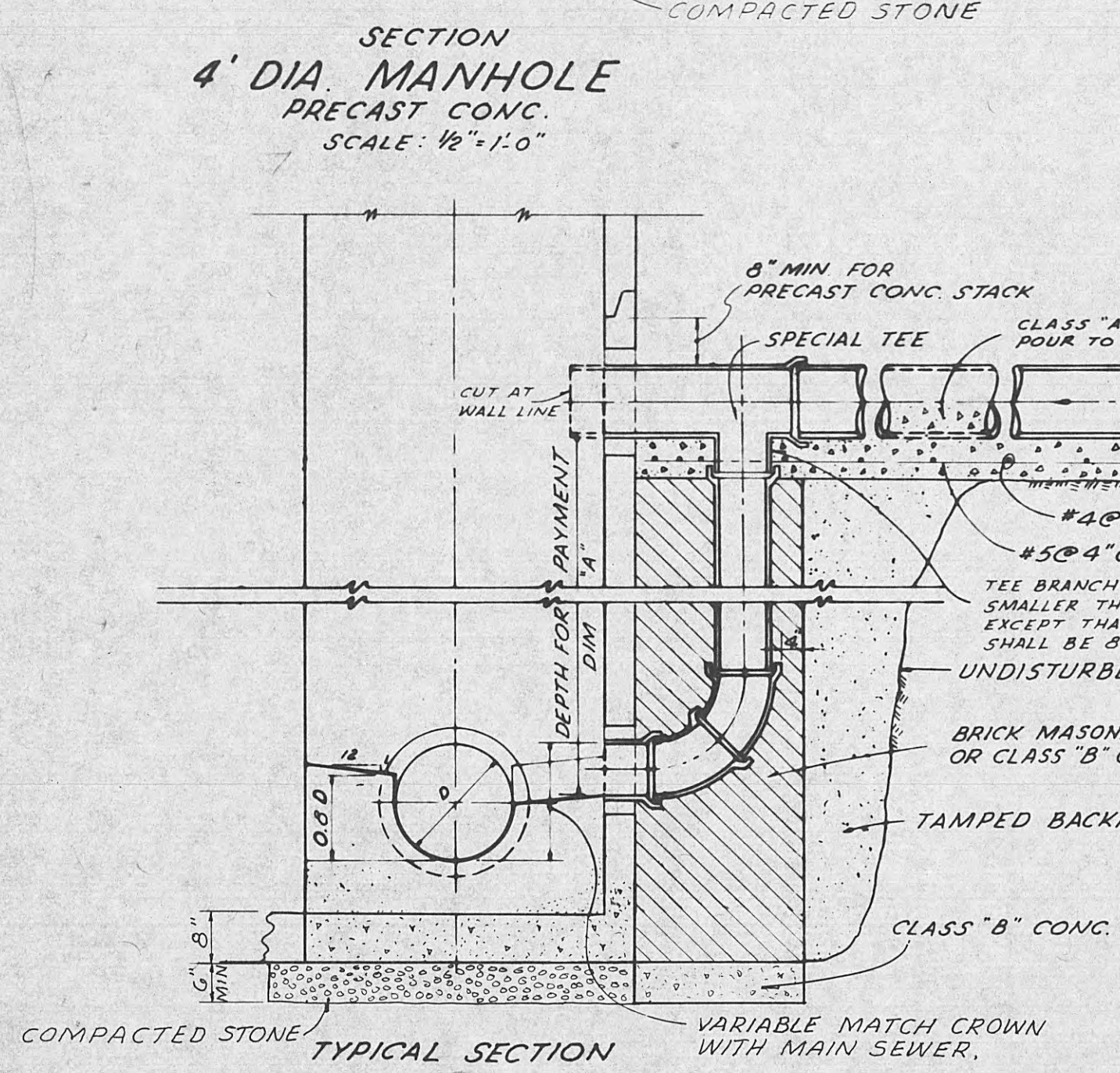
TYPICAL DETAIL OF C.I. PIPE ON PIERS
N.T.S.

SCHEDULE FOR DROP
CONNECTIONS DIM A

SEWER SIZE	DROP SIZE	MINIMUM INV TO INV
8"	8"	24"
10"	8"	24"

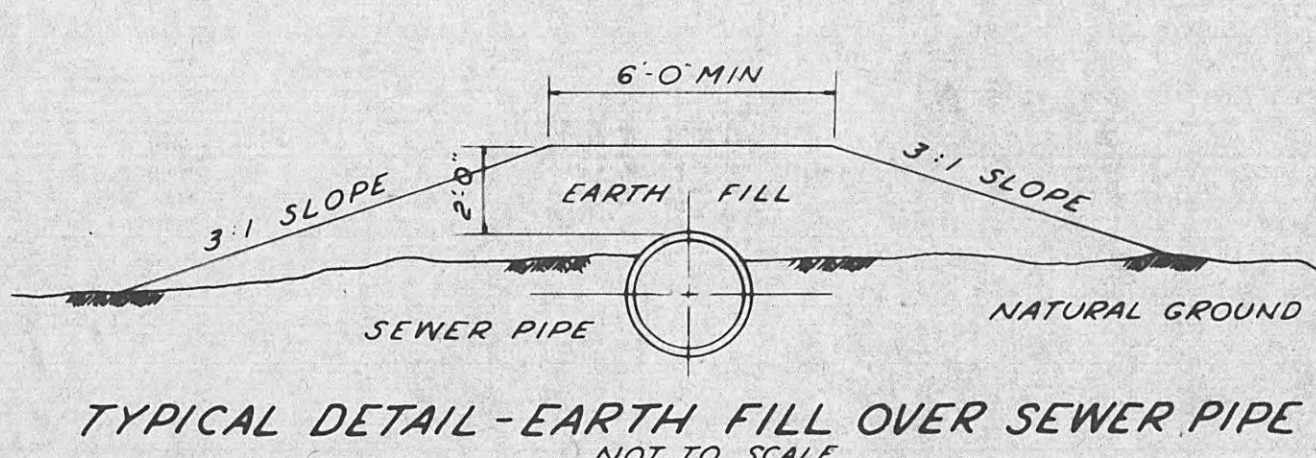
GOVERNING DIMENSIONS
FOR CONCRETE PIERS

I.D. PIPE	A	B	C
8"	11 1/2"	2"	8"
10"	13 1/2"	2 1/2"	10"
12"	15 1/2"	3"	10"
15"	19"	4"	11"

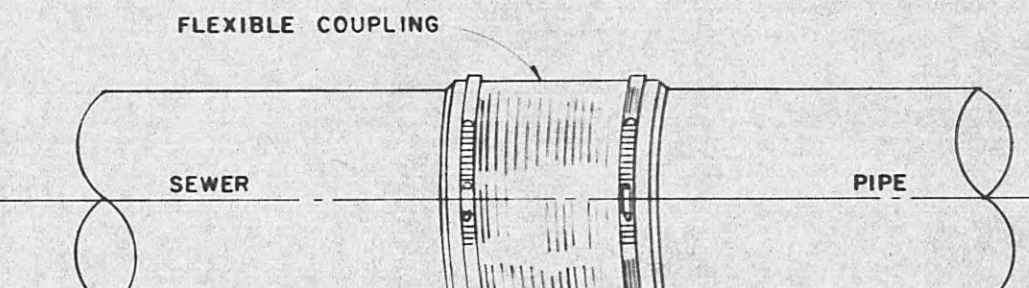


SECTION
4' DIA. MANHOLE
PRECAST CONC.
SCALE: 1/2"=1'-0"

TYPICAL SECTION
MANHOLE DROP CONNECTION
SCALE: 1/2"=1'-0"

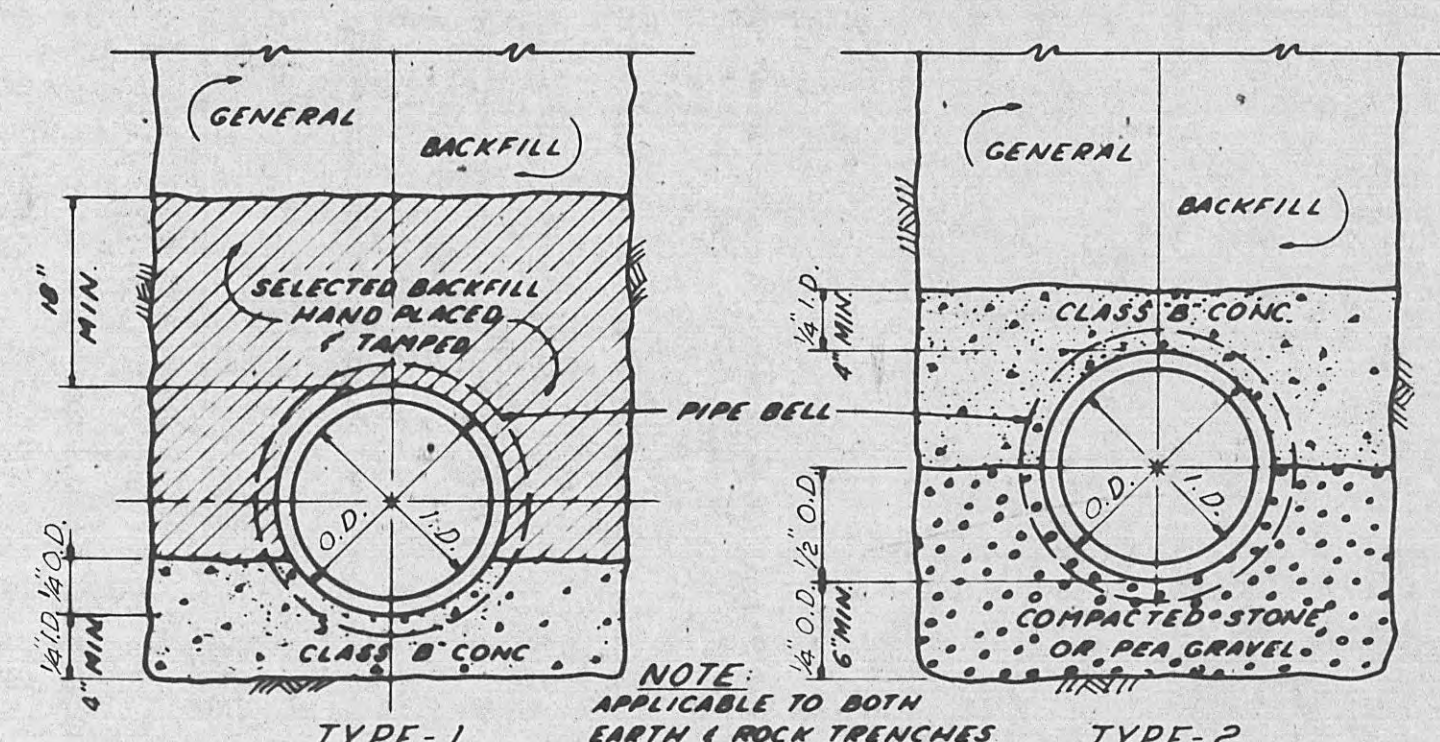


TYPICAL DETAIL - EARTH FILL OVER SEWER PIPE
NOT TO SCALE



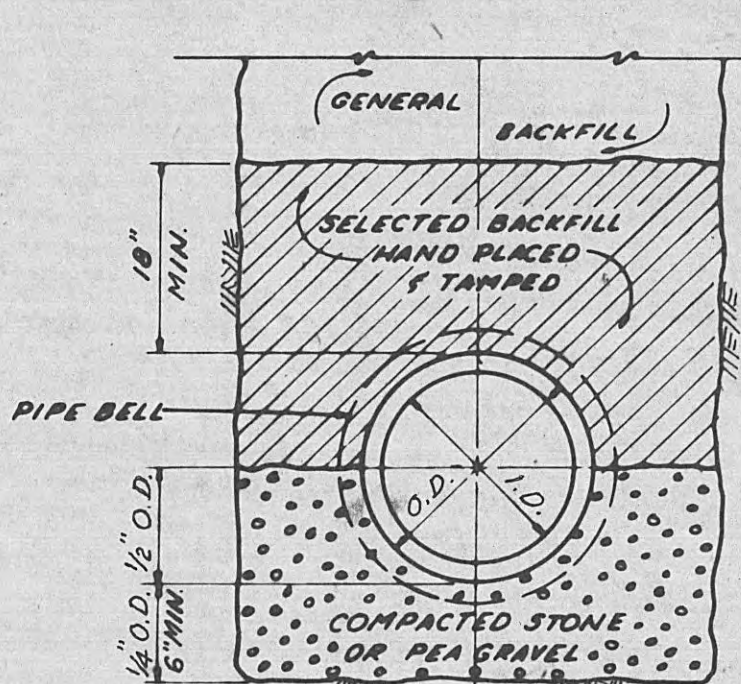
TYPICAL DETAIL - FLEXIBLE COUPLING
FOR JOINING SEWER PIPE

NOTE:
(1) CONTRACTOR TO USE COUPLING AS RECOMMENDED
BY MFG. IN JOINTING UNLESS TYPE OF PIPE
(2) FLEXIBLE COUPLING - PIPE SIZES 6" THRU 24"

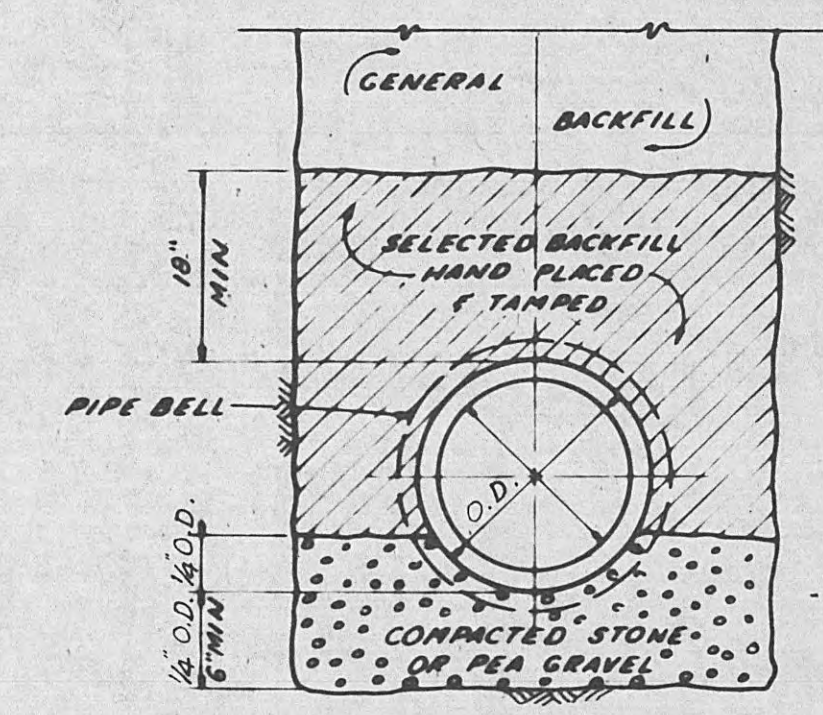


CLASS "A" BEDDING
USE EITHER TYPE

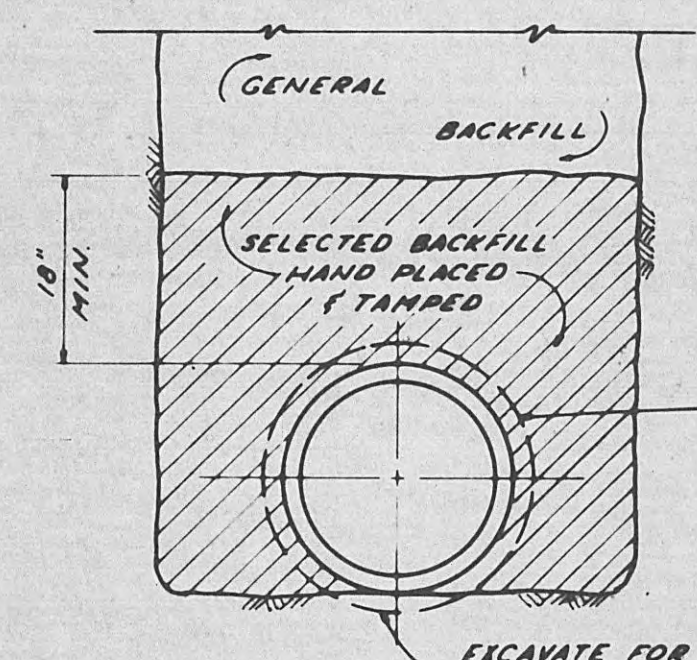
NOTE:
BC = BREADTH OF CONDUIT



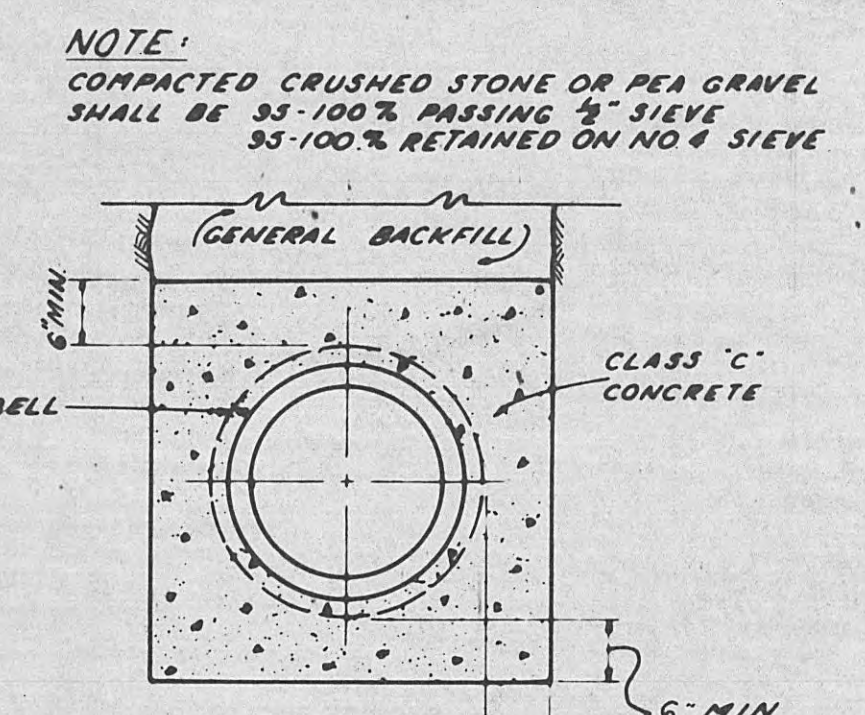
CLASS "B" BEDDING



CLASS "C" BEDDING

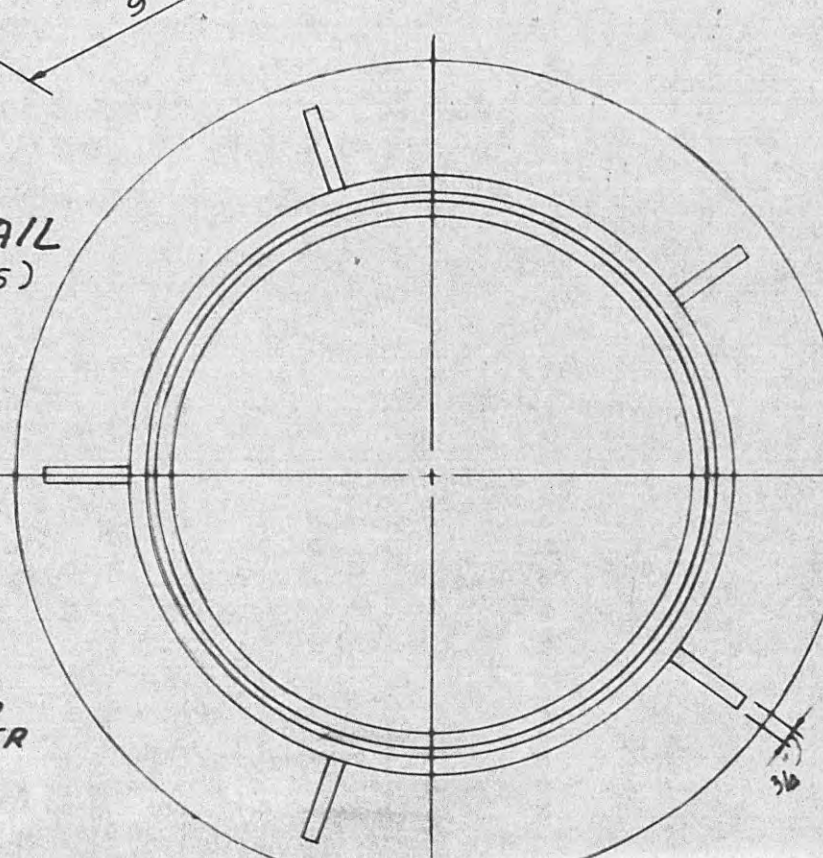


CLASS "D" BEDDING

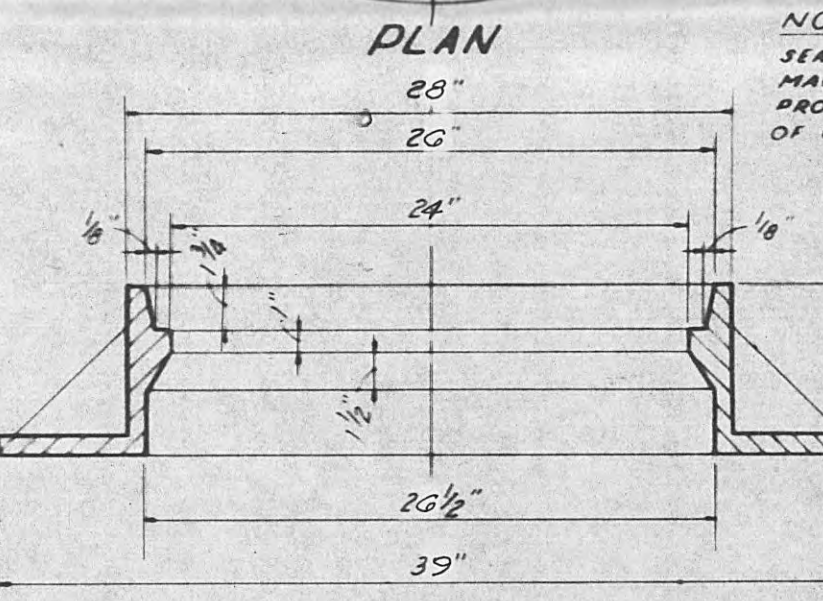


CONCRETE ENCASEMENT

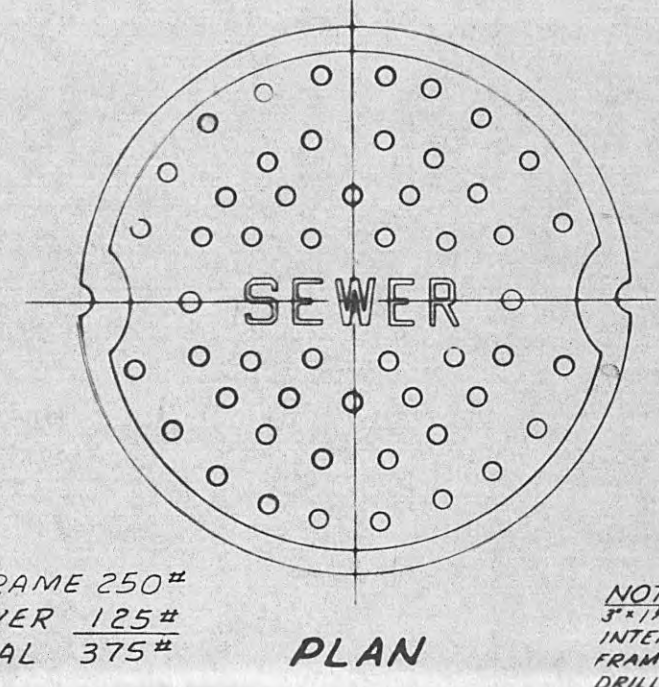
NOTE:
COMPACTED CRUSHED STONE OR PEA GRAVEL
SHALL BE 95-100% PASSING #1 SIEVE
55-100% RETAINED ON NO. 4 SIEVE



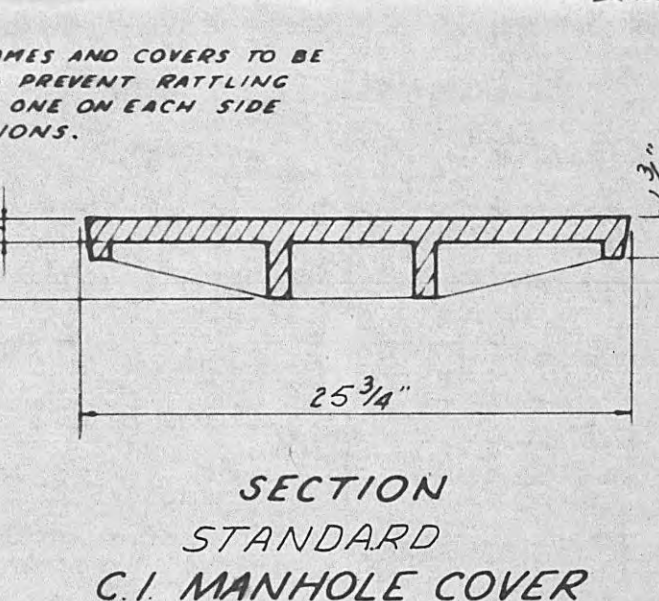
PLAN
STANDARD
C.I. MANHOLE FRAME
NOT TO SCALE



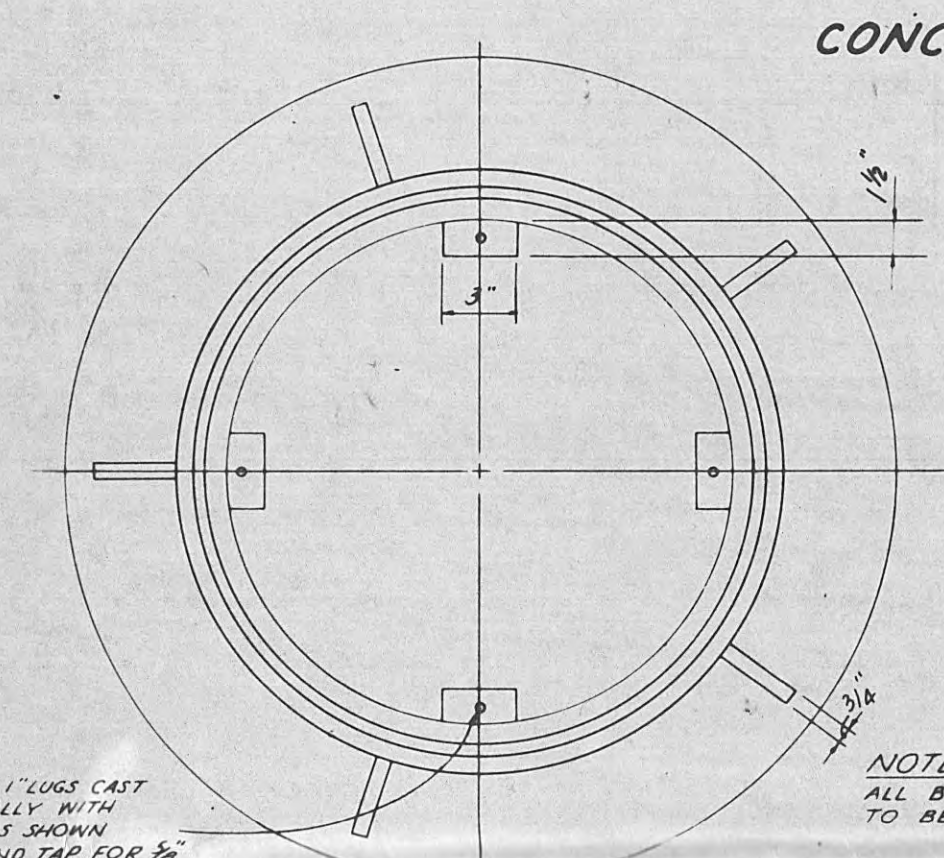
SECTION
STANDARD
C.I. MANHOLE COVER
NOT TO SCALE



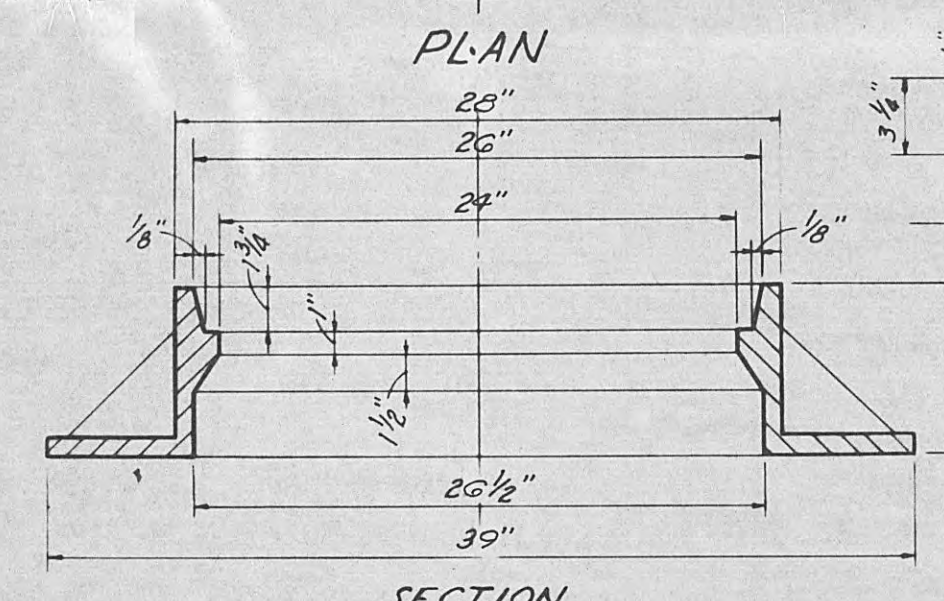
PLAN
WATERTIGHT
C.I. MANHOLE FRAME
NOT TO SCALE



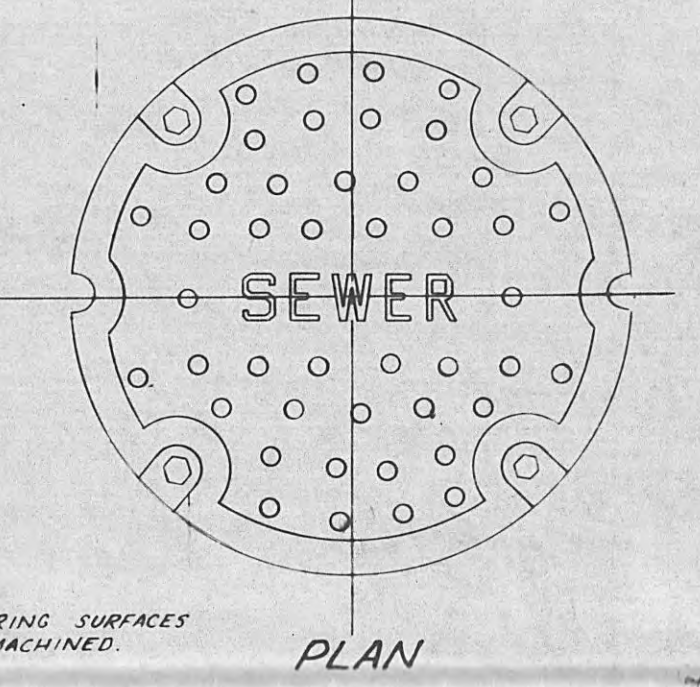
SECTION
WATERTIGHT
C.I. MANHOLE FRAME
NOT TO SCALE



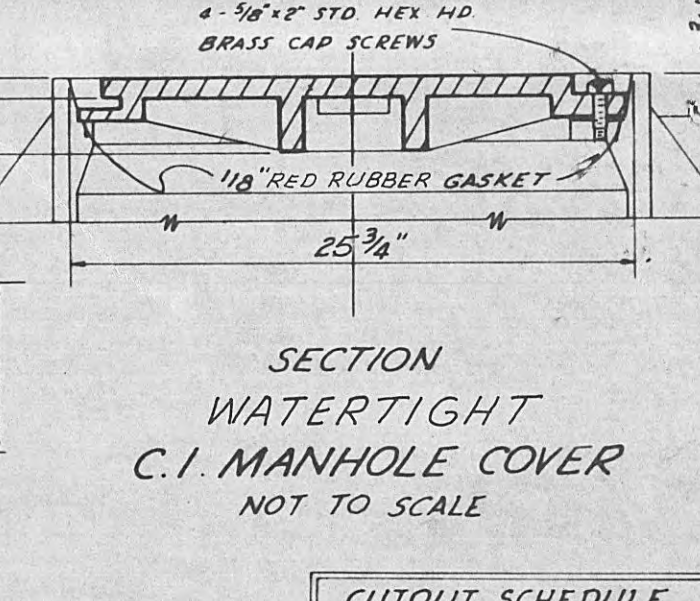
PLAN
WATERTIGHT
C.I. MANHOLE COVER
NOT TO SCALE



SECTION
WATERTIGHT
C.I. MANHOLE COVER
NOT TO SCALE



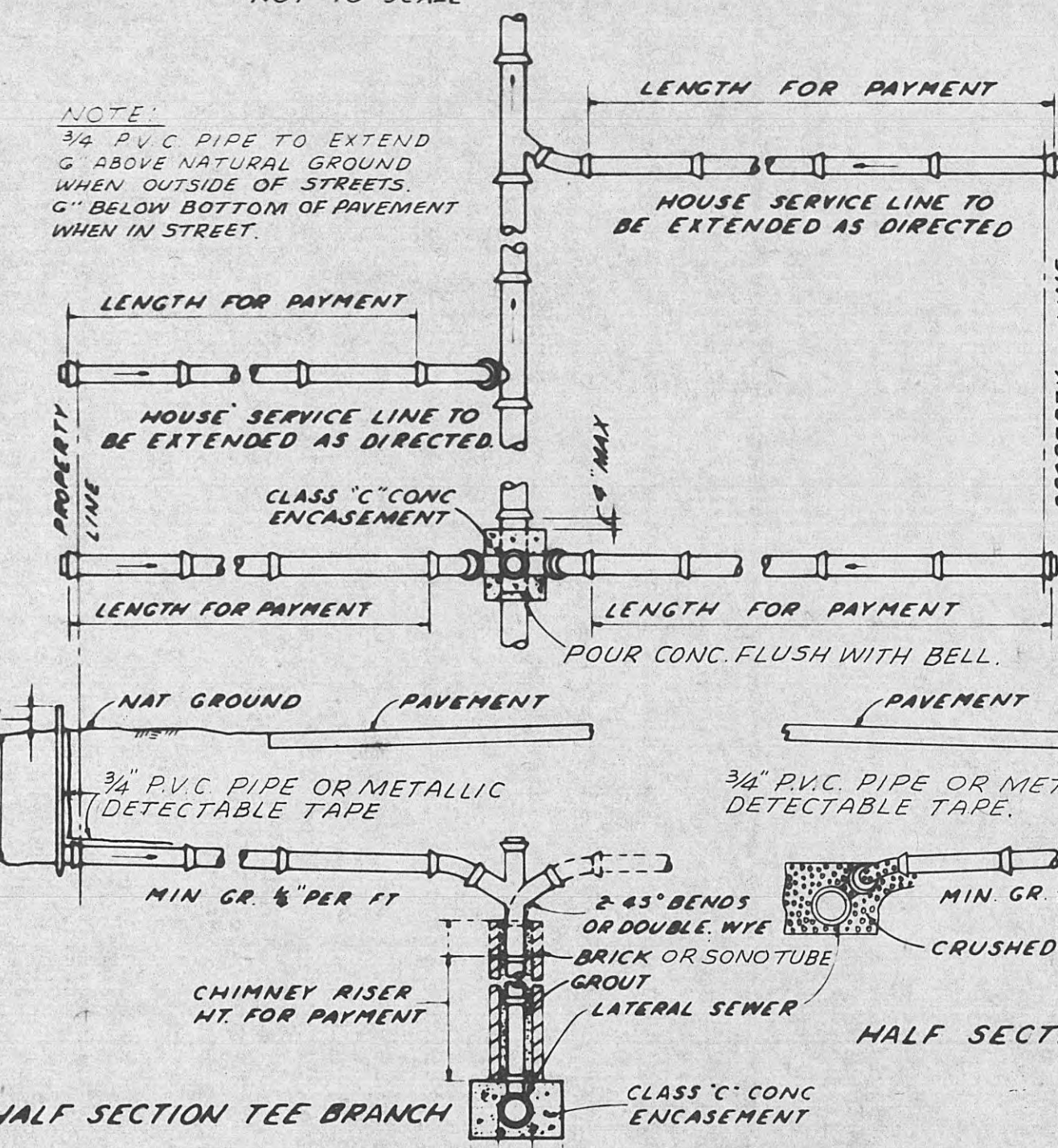
PLAN
SECTION
WATERTIGHT
C.I. MANHOLE COVER
NOT TO SCALE



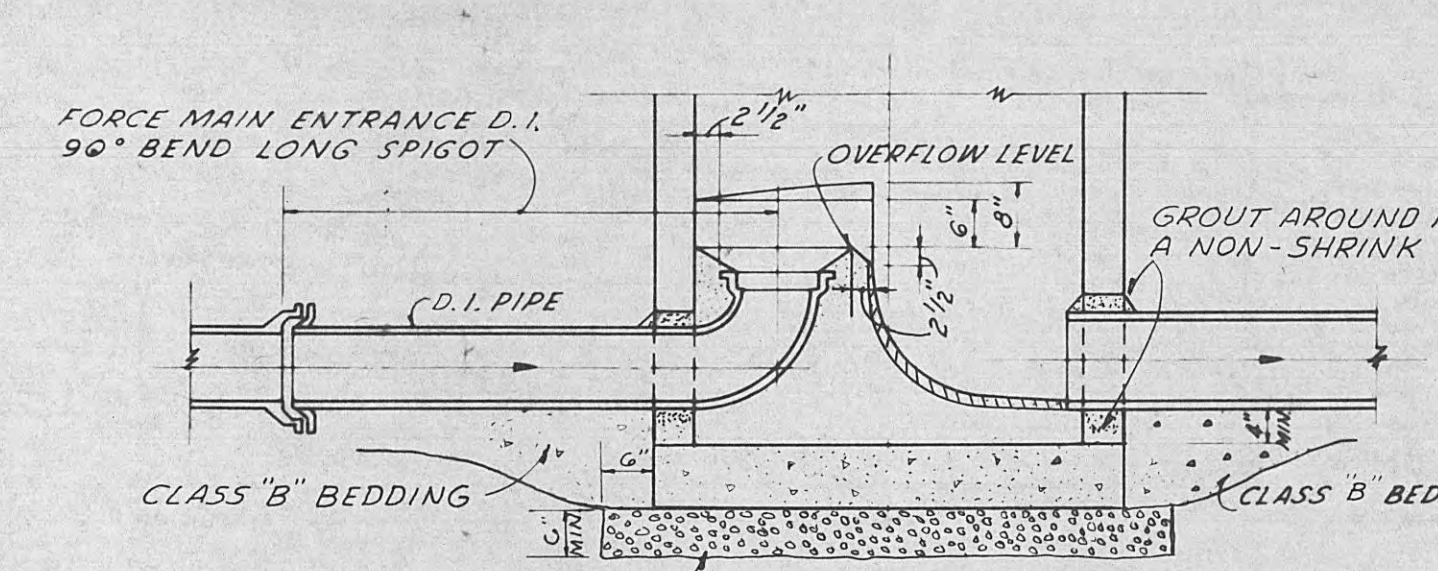
SECTION
WATERTIGHT
C.I. MANHOLE COVER
NOT TO SCALE

CUTOUT SCHEDULE

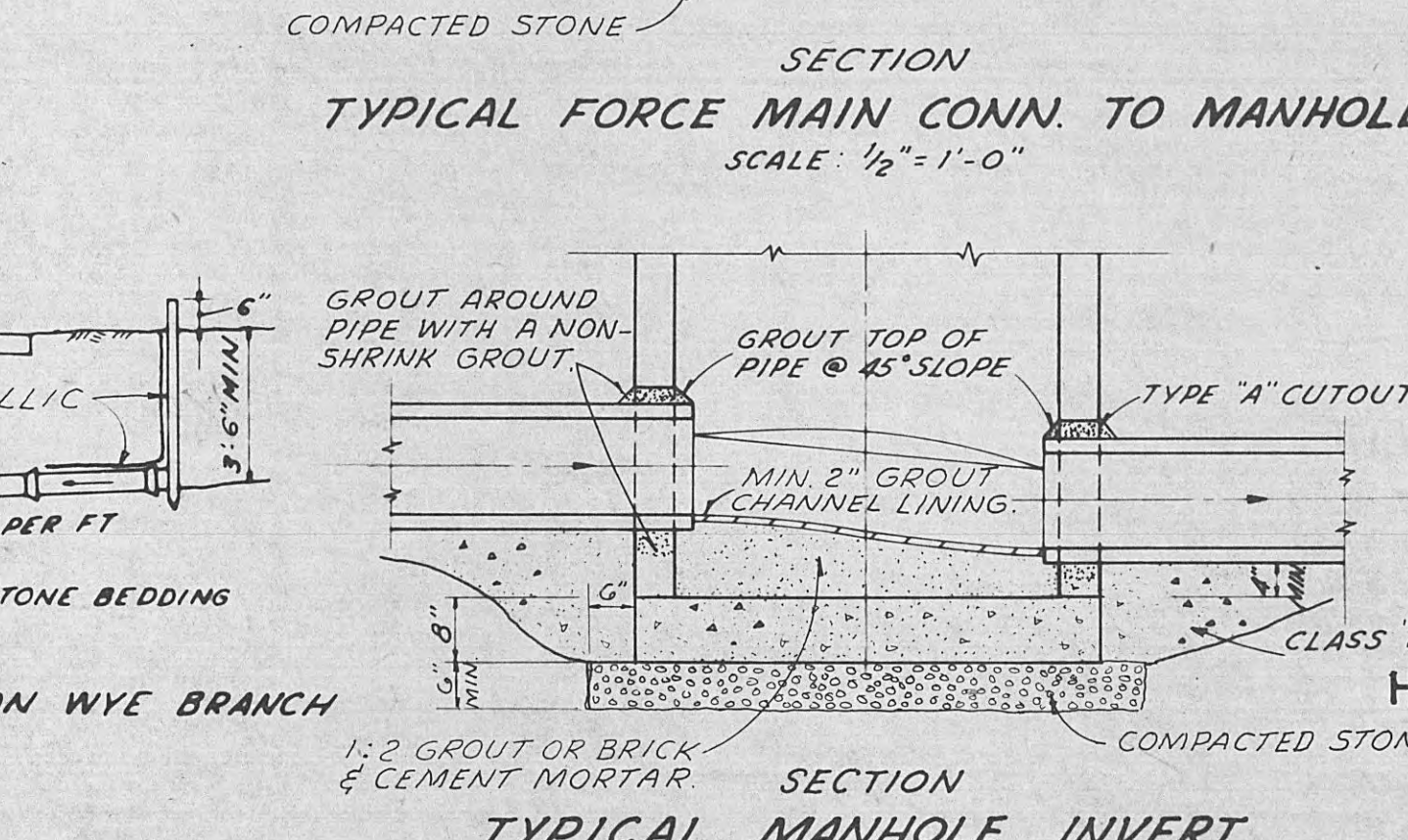
PIPE SIZE	MIN. DIA.
8"	14"
10"	16"
12"	20"
15"	24"



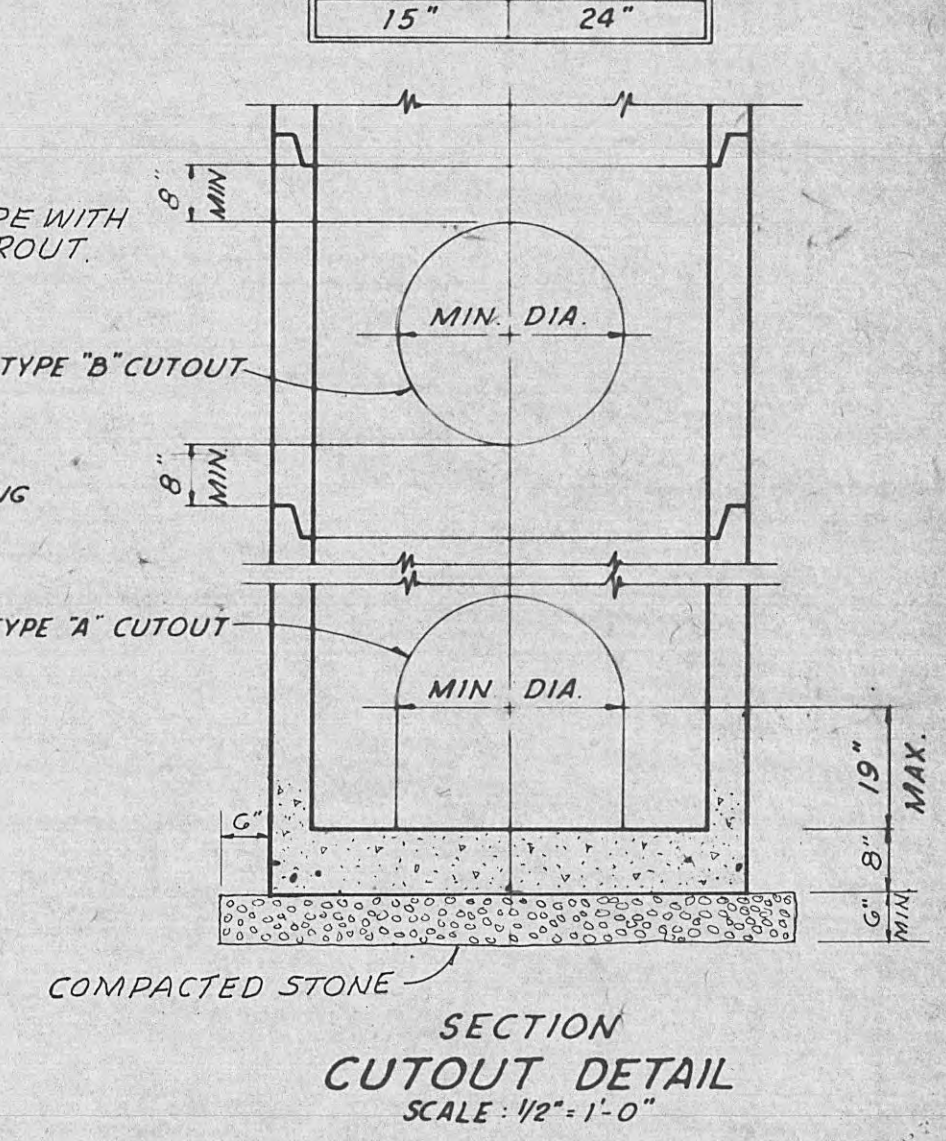
TYPICAL DETAILS OF SANITARY HOUSE SERVICE LINE
NOT TO SCALE



TYPICAL FORCE MAIN CONN. TO MANHOLE
SCALE: 1/2"=1'-0"



TYPICAL MANHOLE INVERT
(ALL SIZES)
SCALE: 1/2"=1'-0"



SECTION
CUTOUT DETAIL
SCALE: 1/2"=1'-0"

HUD PROJECT NO. CDBG B-78-HN-47-0008
DIVISION TWO

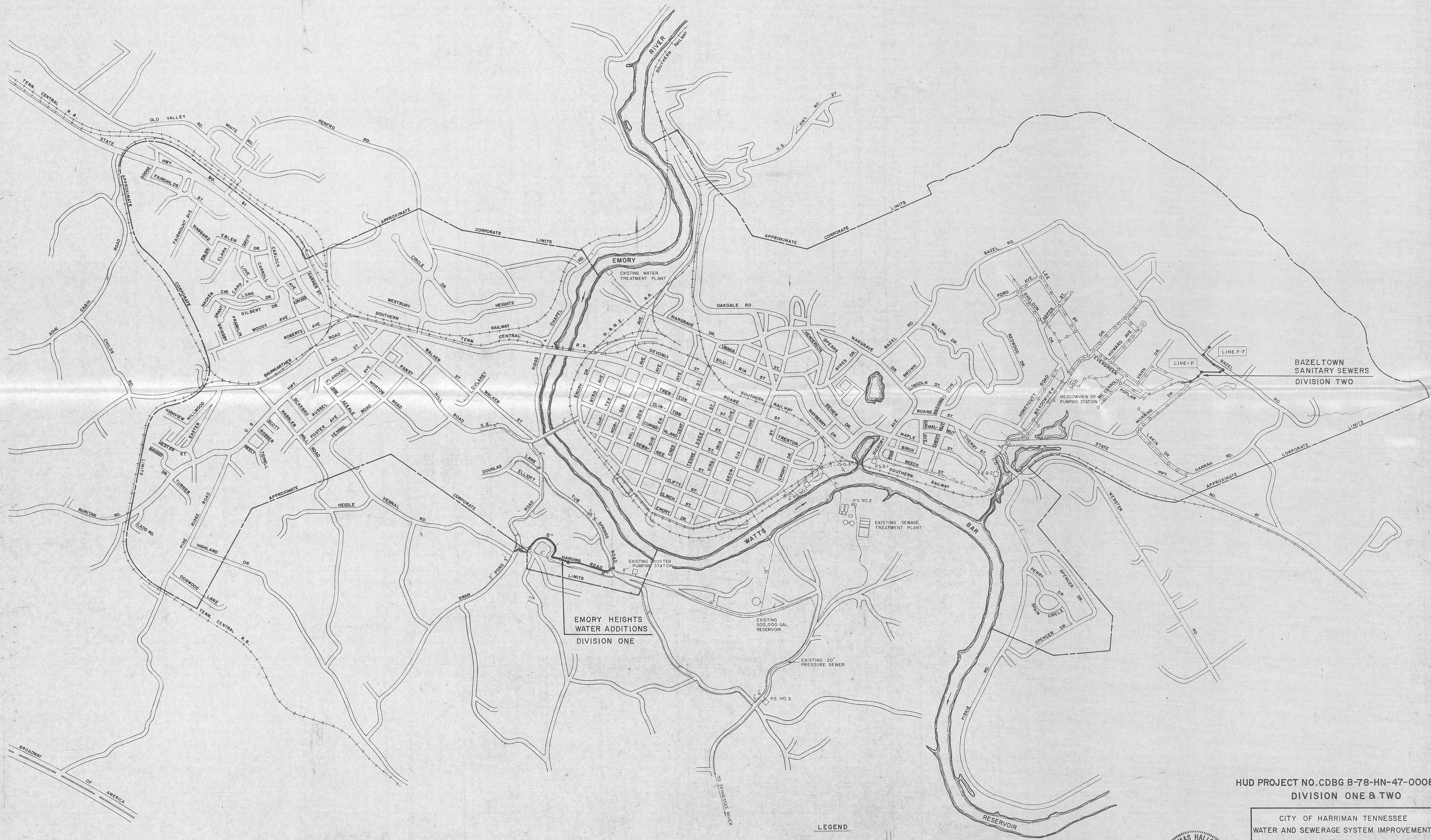
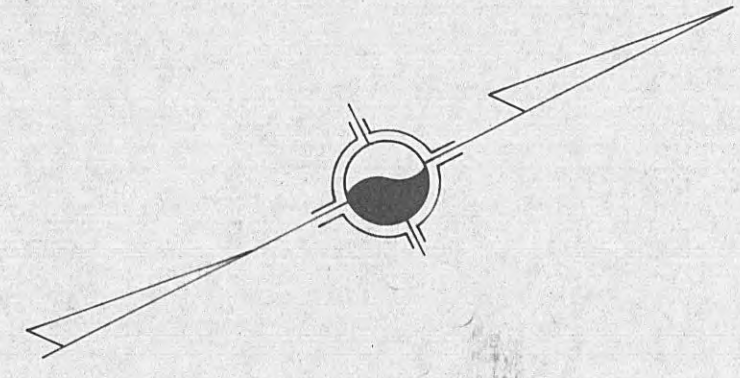
CITY OF HARRIMAN TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

MISCELLANEOUS DETAILS

SCALE AS SHOWN	WIEDEMAN AND SINGLETON ENGINEERS	SHEET 4
DATE MARCH 1980	ATLANTA GEORGIA	OF 4



RECORD DWG. NOV. 1980



LEGEND

- ROADS
- RAILROADS
- RIVERS
- CREEKS
- APPROXIMATE CORPORATE LIMITS
- EXISTING SEWERS
- PROPOSED SEWERS
- PROPOSED WATER



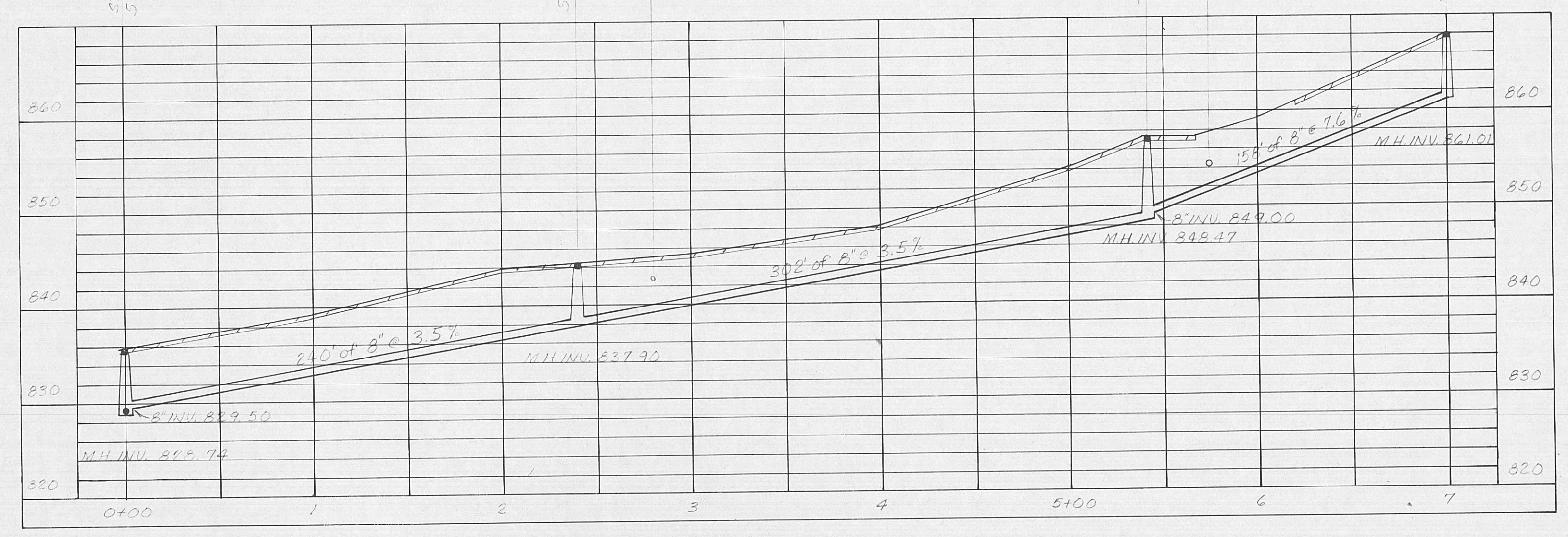
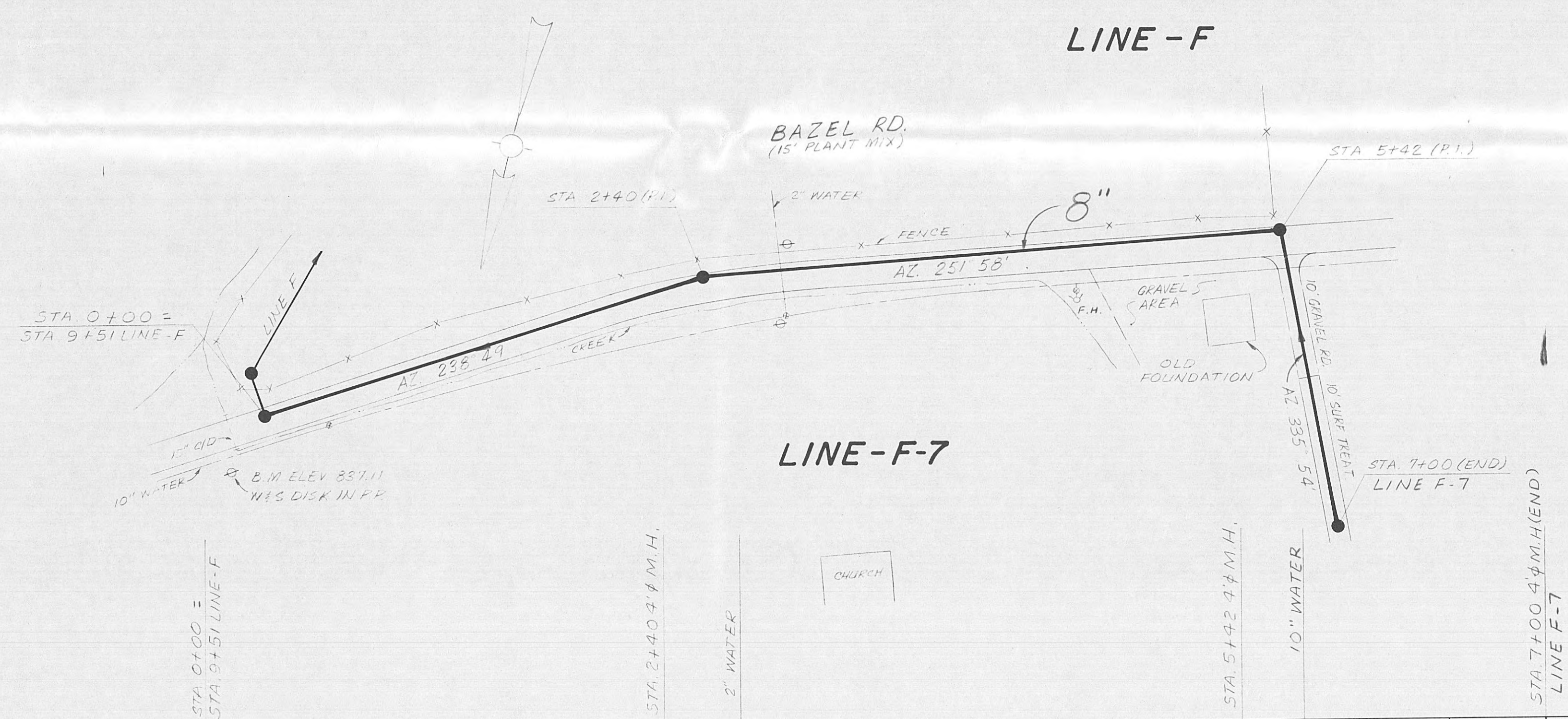
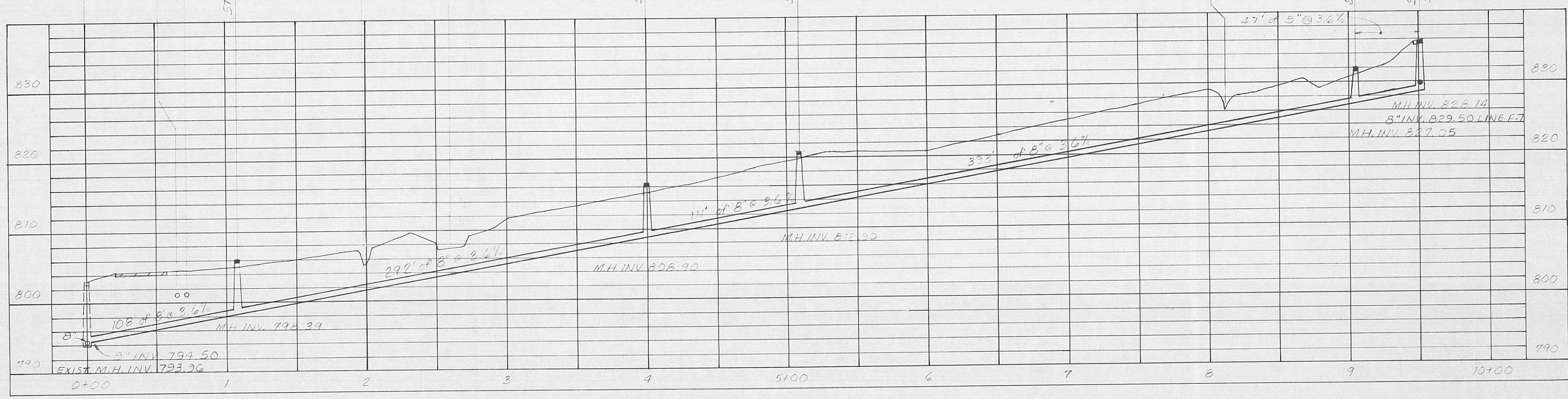
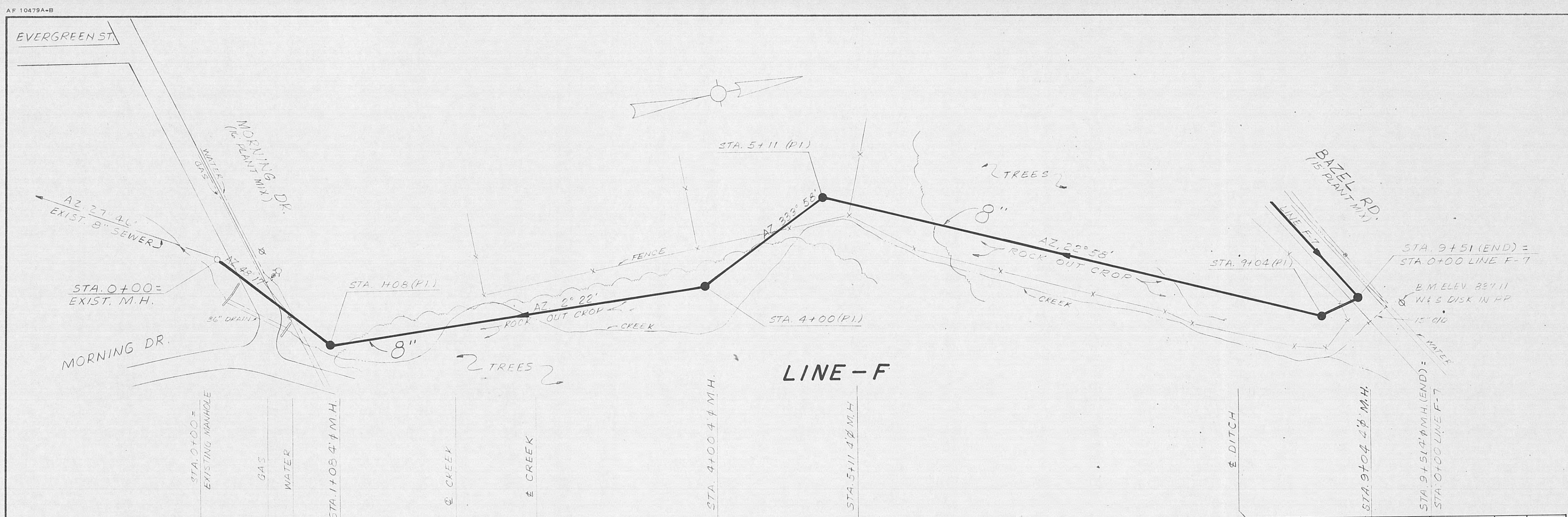
HUD PROJECT NO. CDBG B-78-HN-47-0008
DIVISION ONE & TWO

CITY OF HARRIMAN TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

LOCATION MAP

SCALE 1" = 800'	WIEDEMAN AND SINGLETON ENGINEERS	SHEET 1
DATE MARCH 1980	ATLANTA	GEORGIA
		OF 4

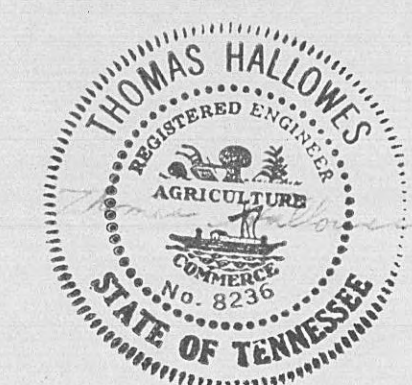
RECORD DWG. NOV. 1980



HUD PROJECT NO. CDBG B-78-HN-47-0008
DIVISION TWO

CITY OF HARRIMAN TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

BAZELTOWN SANITARY SEWERS
LINE-F STA. 0+00 TO STA. 9+51 (END)
LINE-F-7 STA. 0+00 TO STA. 7+00 (END)



SCALE 1" = 50' HORIZ. 1" = 10' VERT. DATE MARCH 1980	WIEDEMAN AND SINGLETON ENGINEERS ATLANTA GEORGIA	SHEET 2 OF 4
--	--	---------------------------

