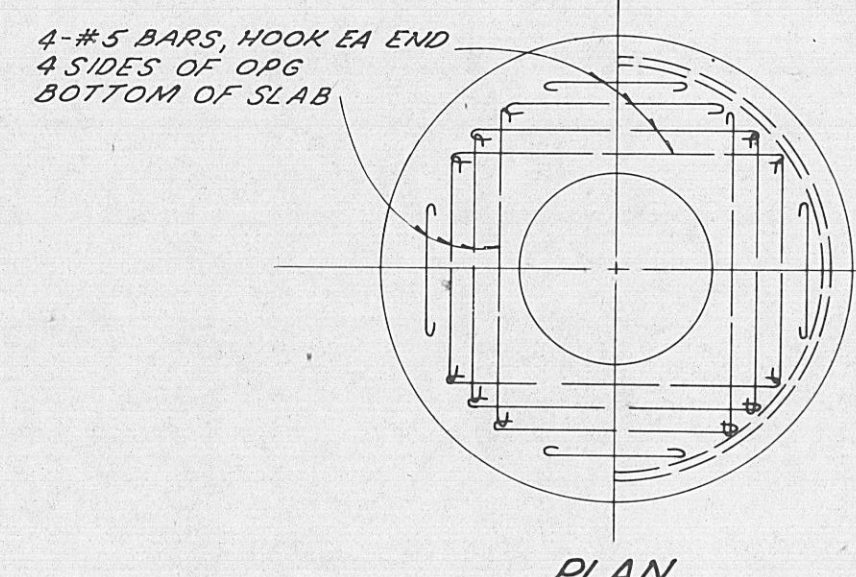
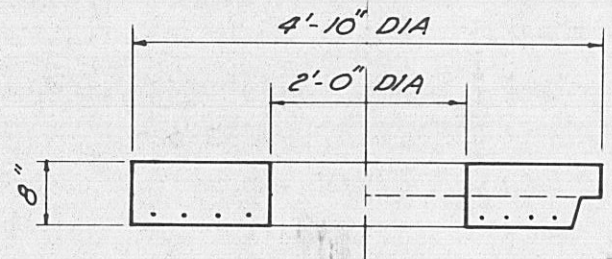


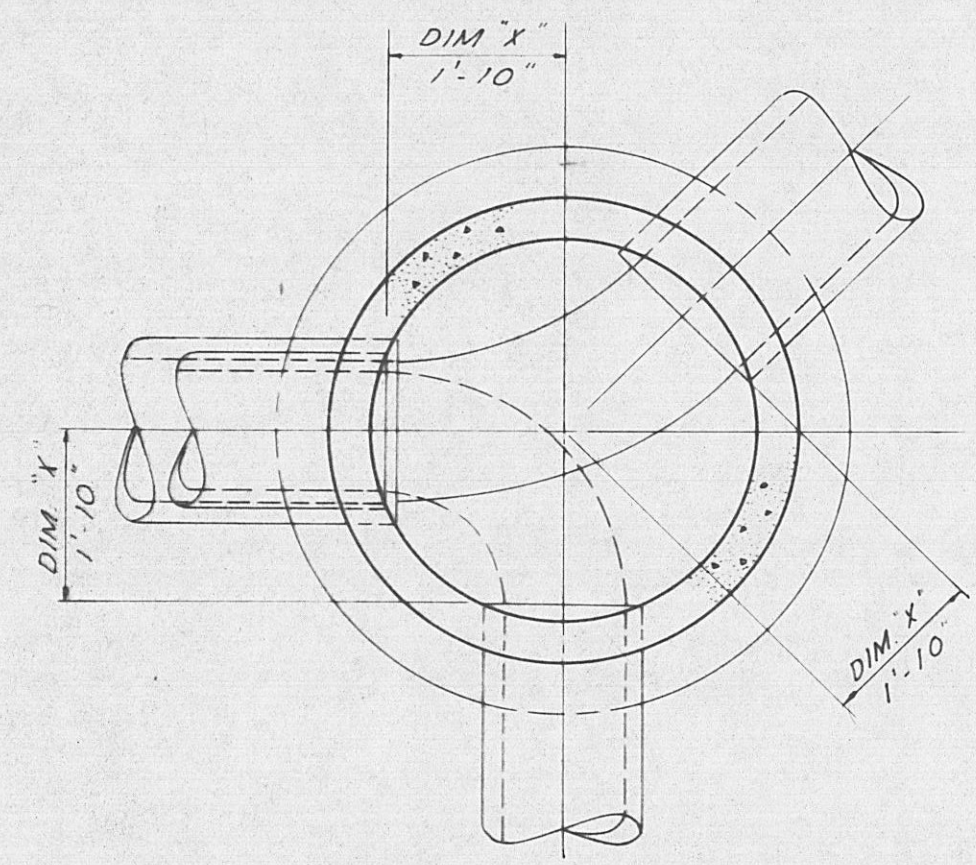
GOVERNING DIMENSIONS FOR CIRCULAR MANHOLES			
PIPE SIZE	DEFLECTION	M.H. DIA.	"X"
8" & 15"	0" - 30"	4' - 0"	1' - 10"



PLAN

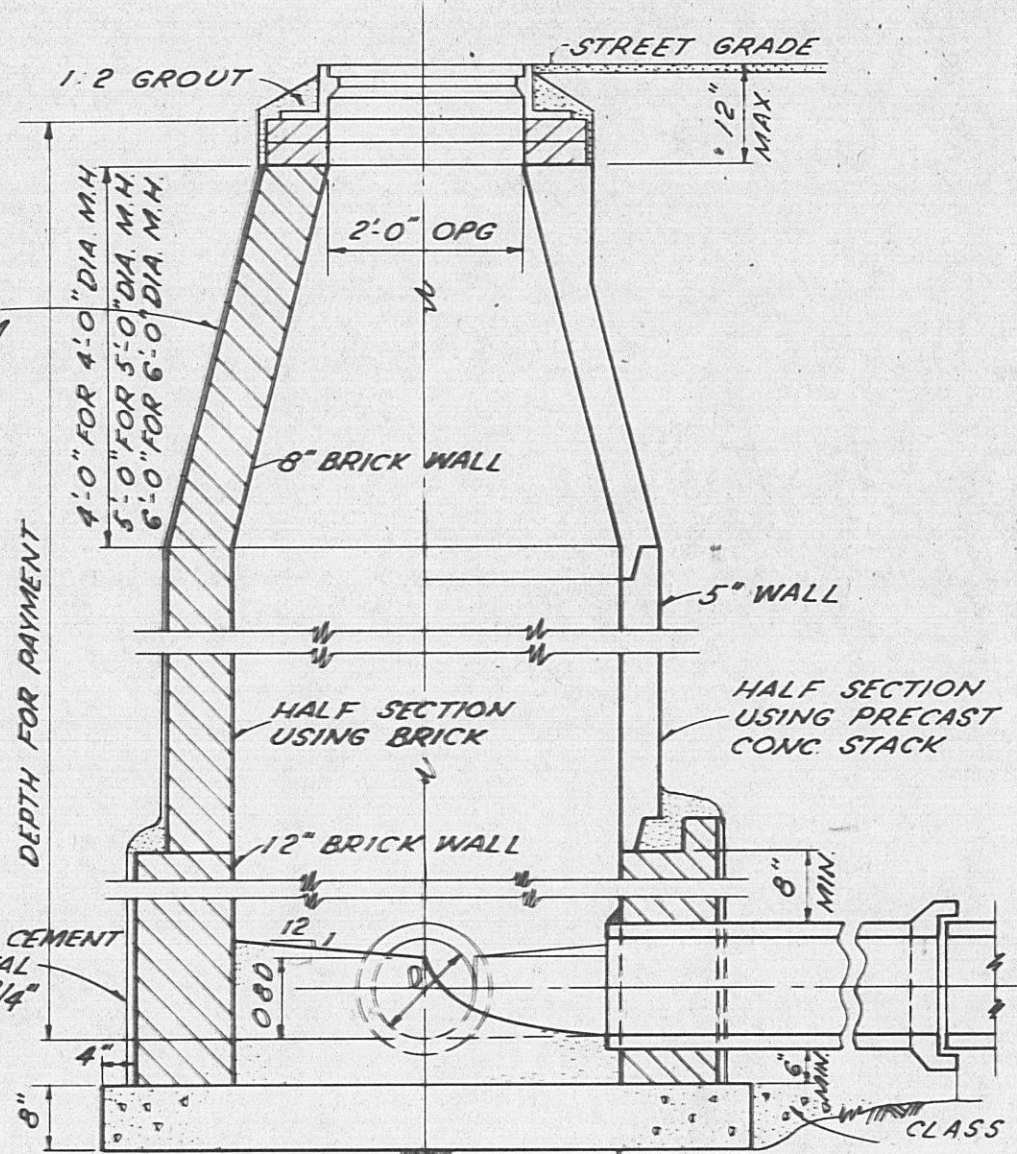


SECTION
4'-0" COVER SLAB
SCALE: 1/2" = 1'-0"

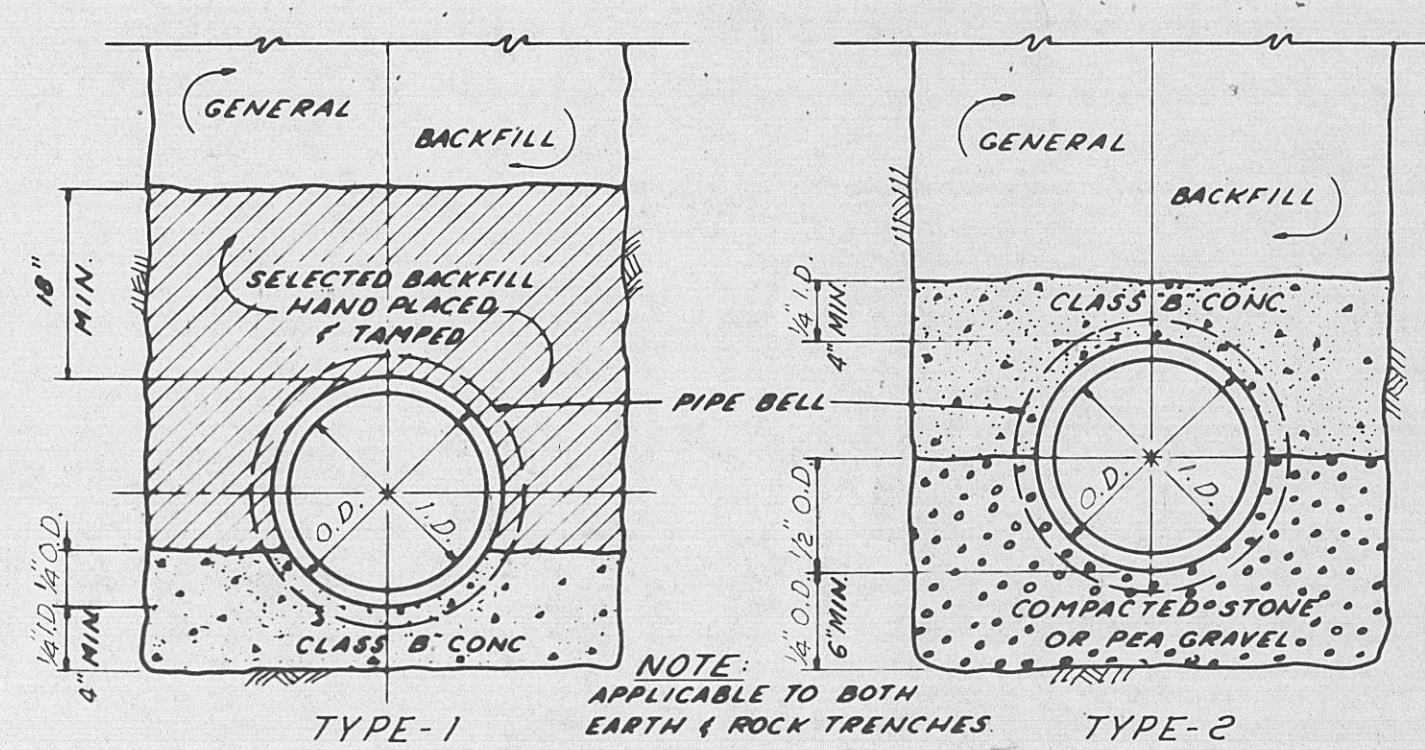


TYPICAL INVERT PLAN
(ALL SIZES)
SCALE: 1/2" = 1'-0"

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

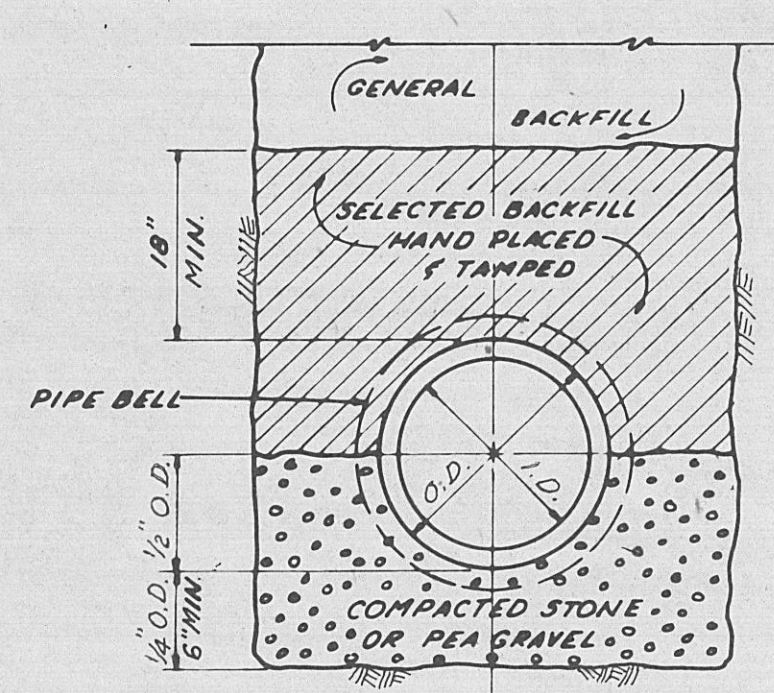


SECTION
4', 5' OR 6' DIA. MANHOLE
(ALTERNATE CONSTRUCTION)
SCALE: 1/2" = 1'-0"

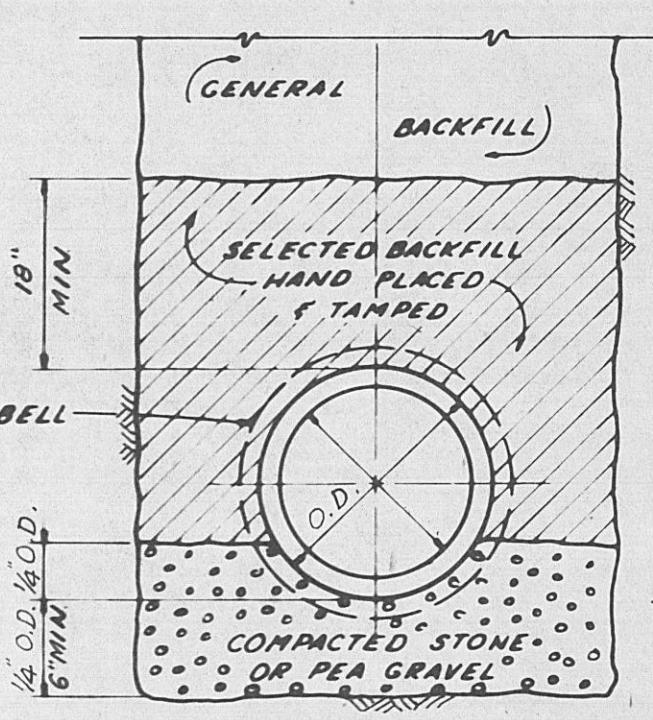


CLASS "A" BEDDING
USE EITHER TYPE

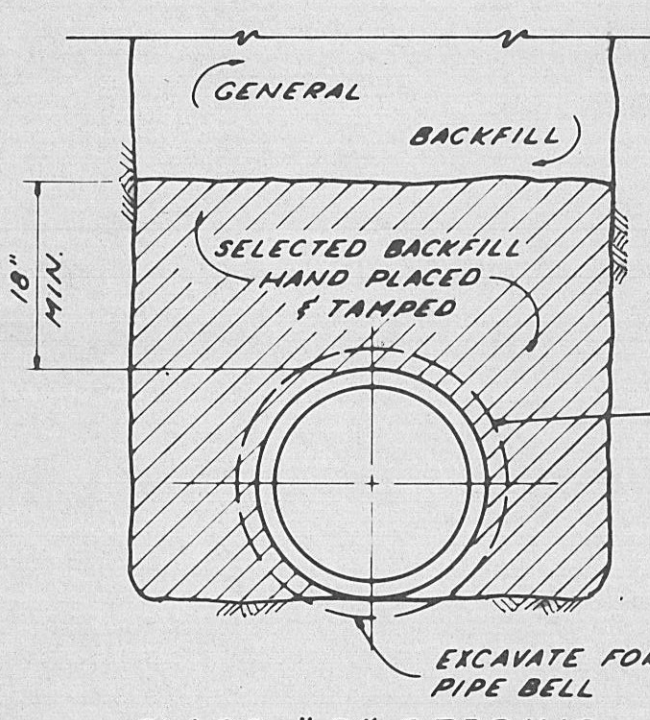
NOTE:
BC = BREADTH OF CONDUIT.



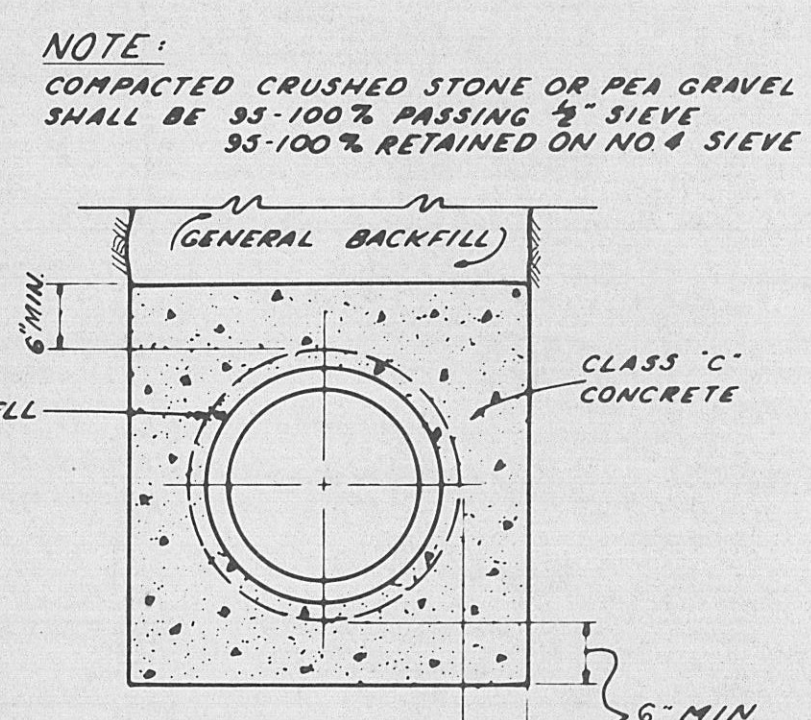
CLASS "B" BEDDING



CLASS "C" BEDDING

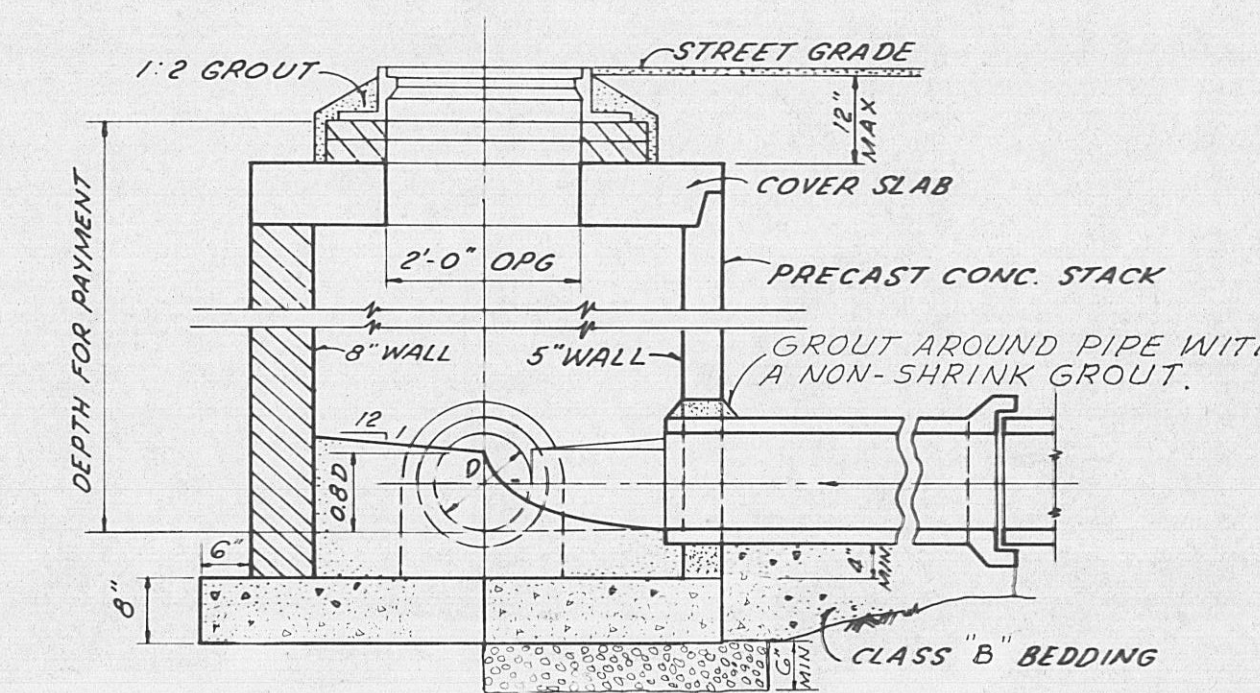


CLASS "D" BEDDING



CONCRETE ENCASUREMENT

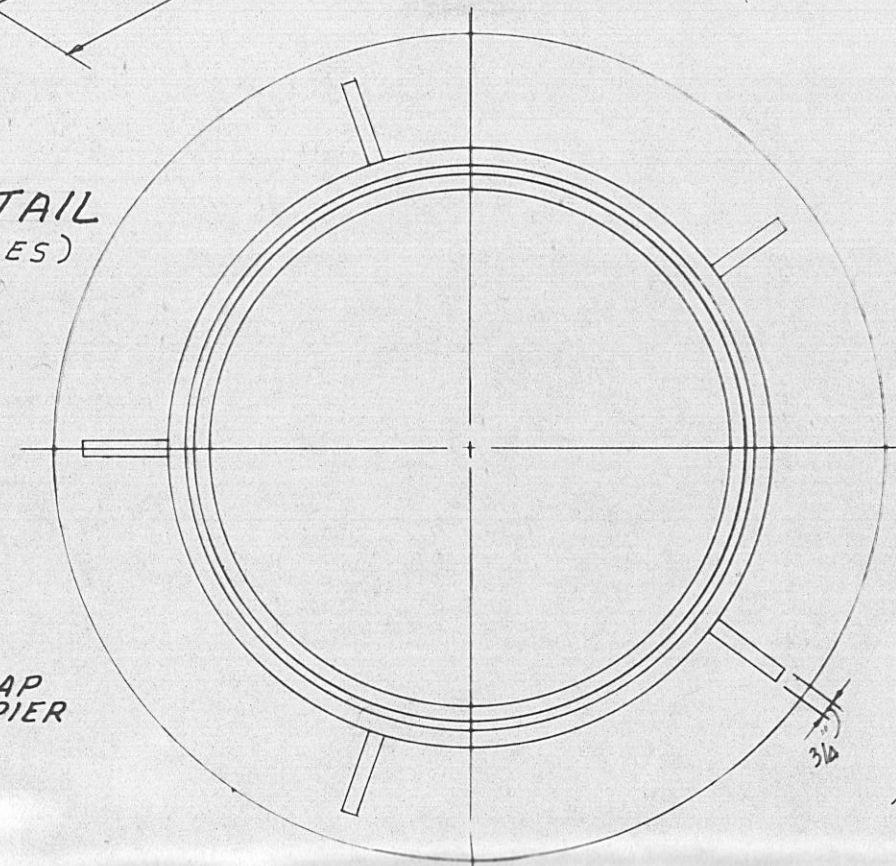
NOTE:
COMPACTED CRUSHED STONE OR PEA GRAVEL
SHALL BE 35-100% PASSING #8 SIEVE
35-100% RETAINED ON NO. 4 SIEVE



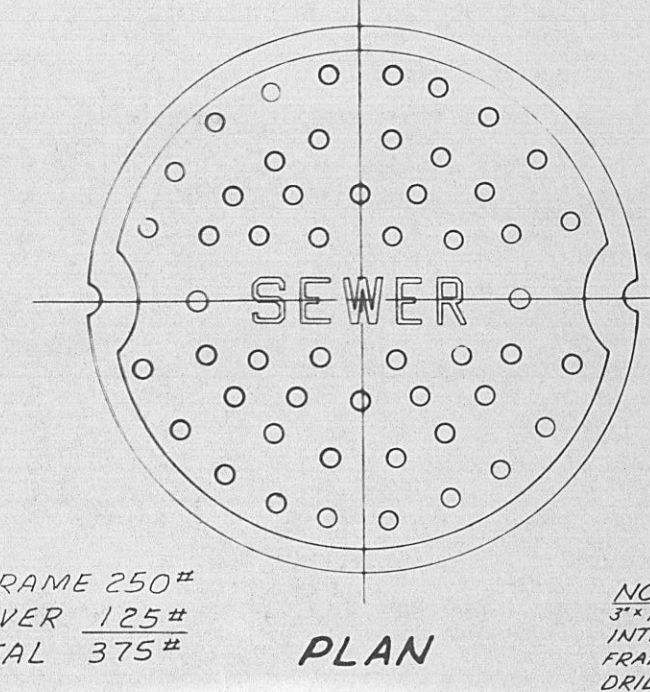
TYPICAL 4'-0" SHALLOW MANHOLE

MANHOLE STEP DETAIL
(FOR BRICK MANHOLES)

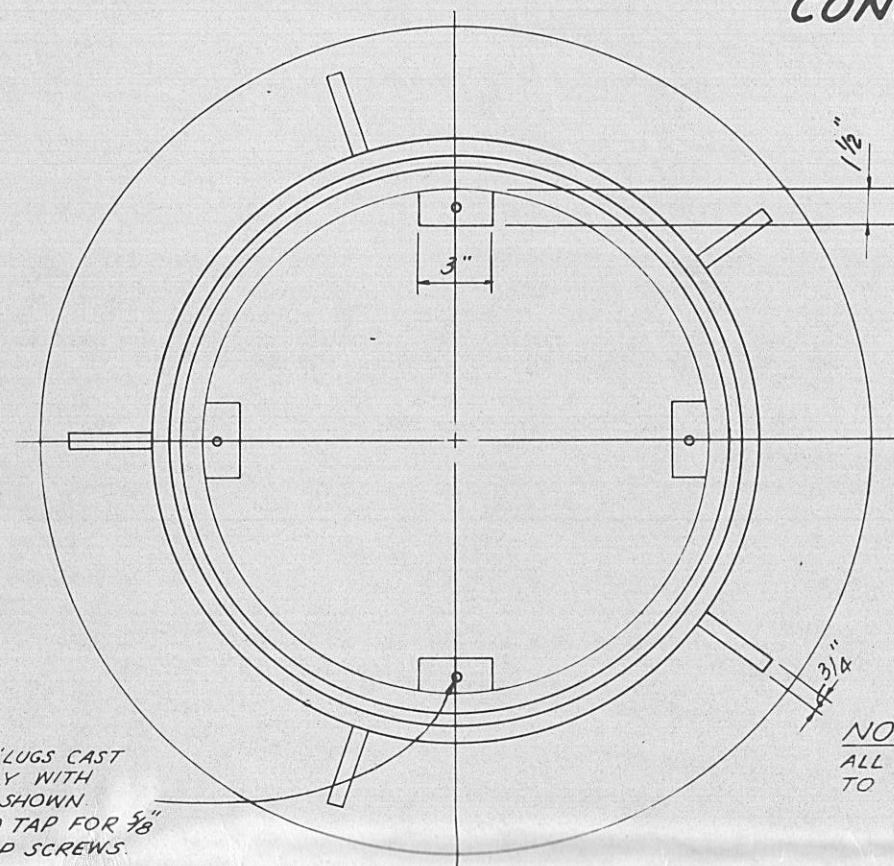
MANHOLE STEP DETAIL
(FOR PRECAST MANHOLES)



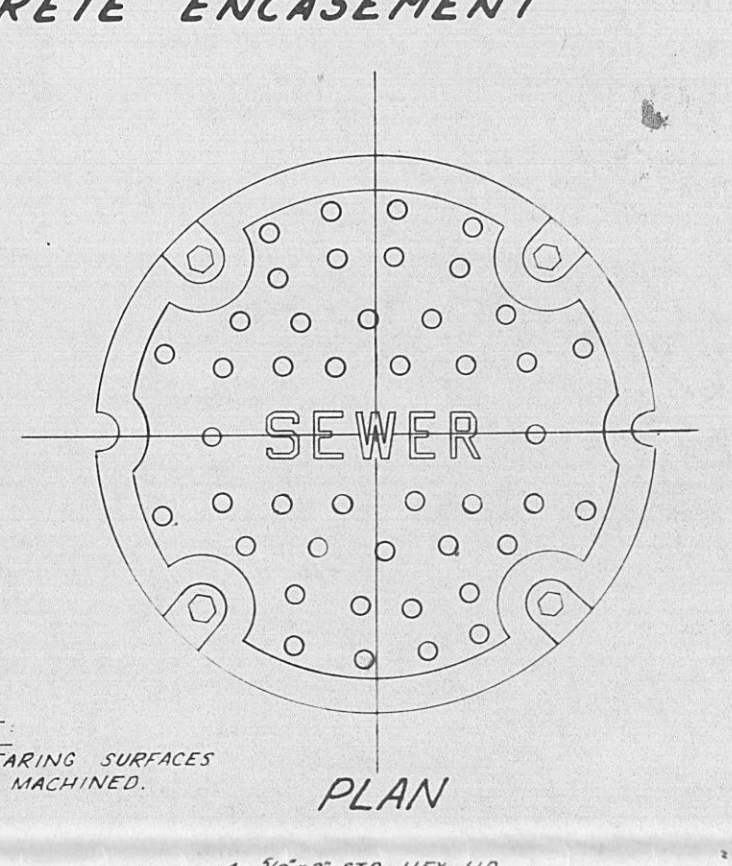
SECTION
STANDARD
C.I. MANHOLE FRAME
NOT TO SCALE



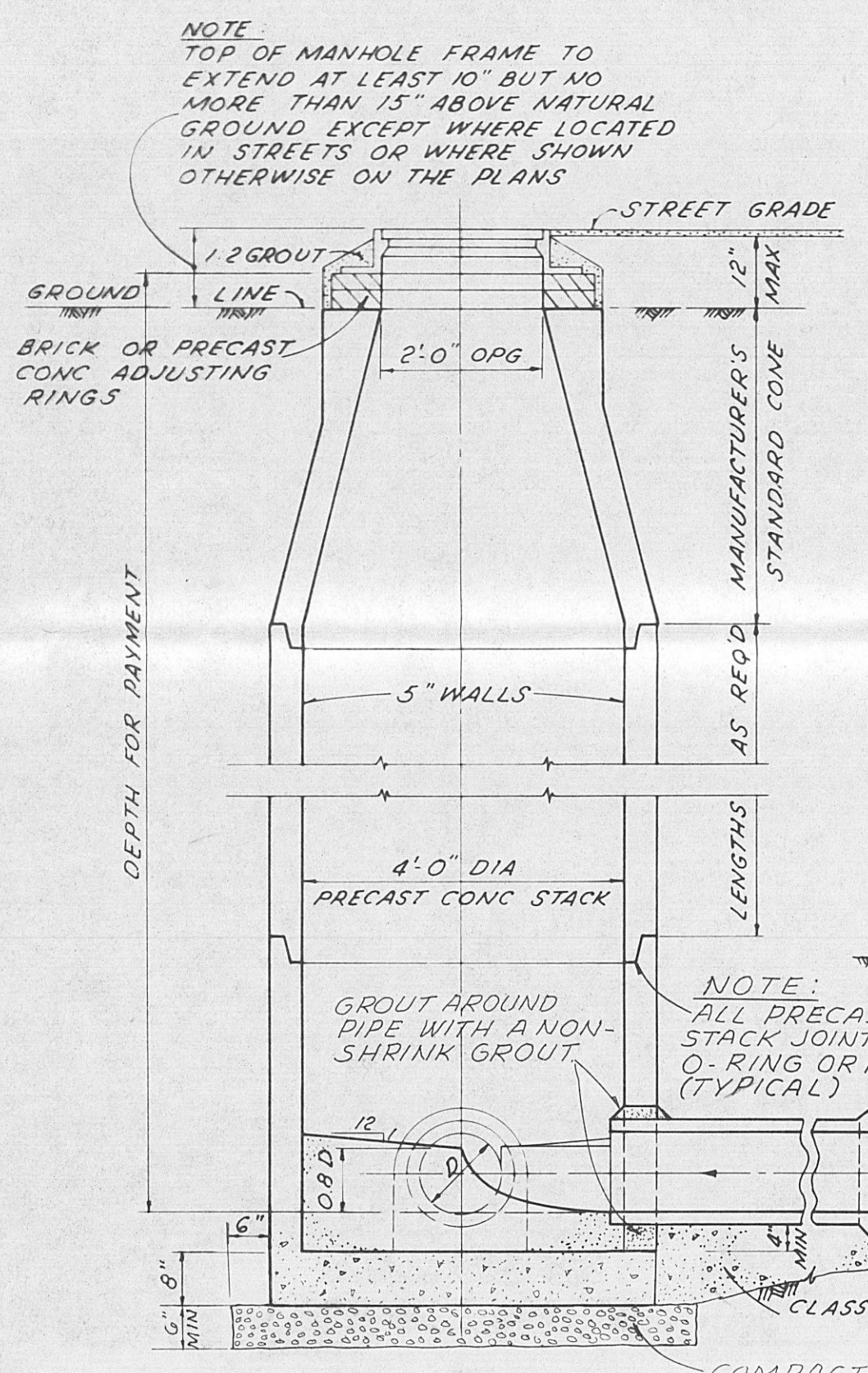
SECTION
WATERTIGHT
C.I. MANHOLE FRAME
NOT TO SCALE



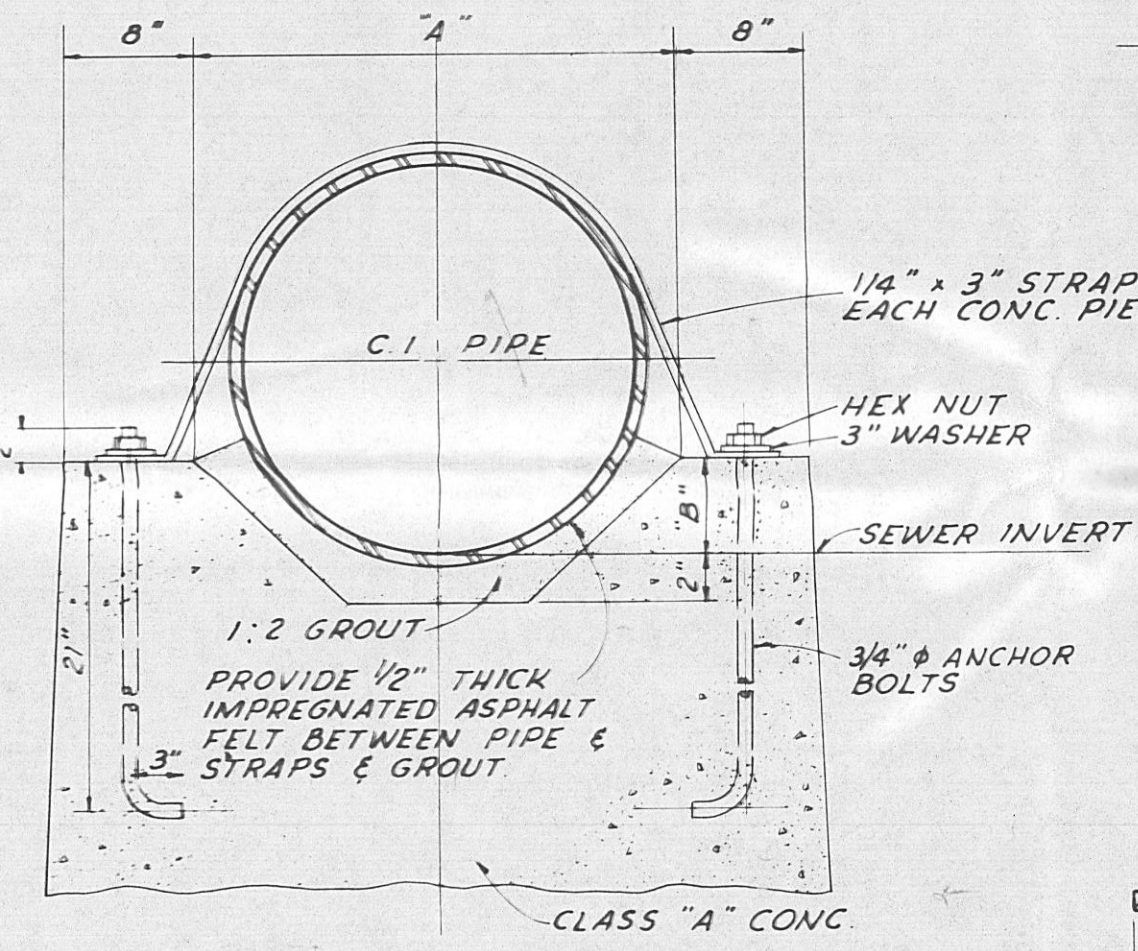
SECTION
WATERTIGHT
C.I. MANHOLE FRAME
NOT TO SCALE



SECTION
WATERTIGHT
C.I. MANHOLE COVER
NOT TO SCALE



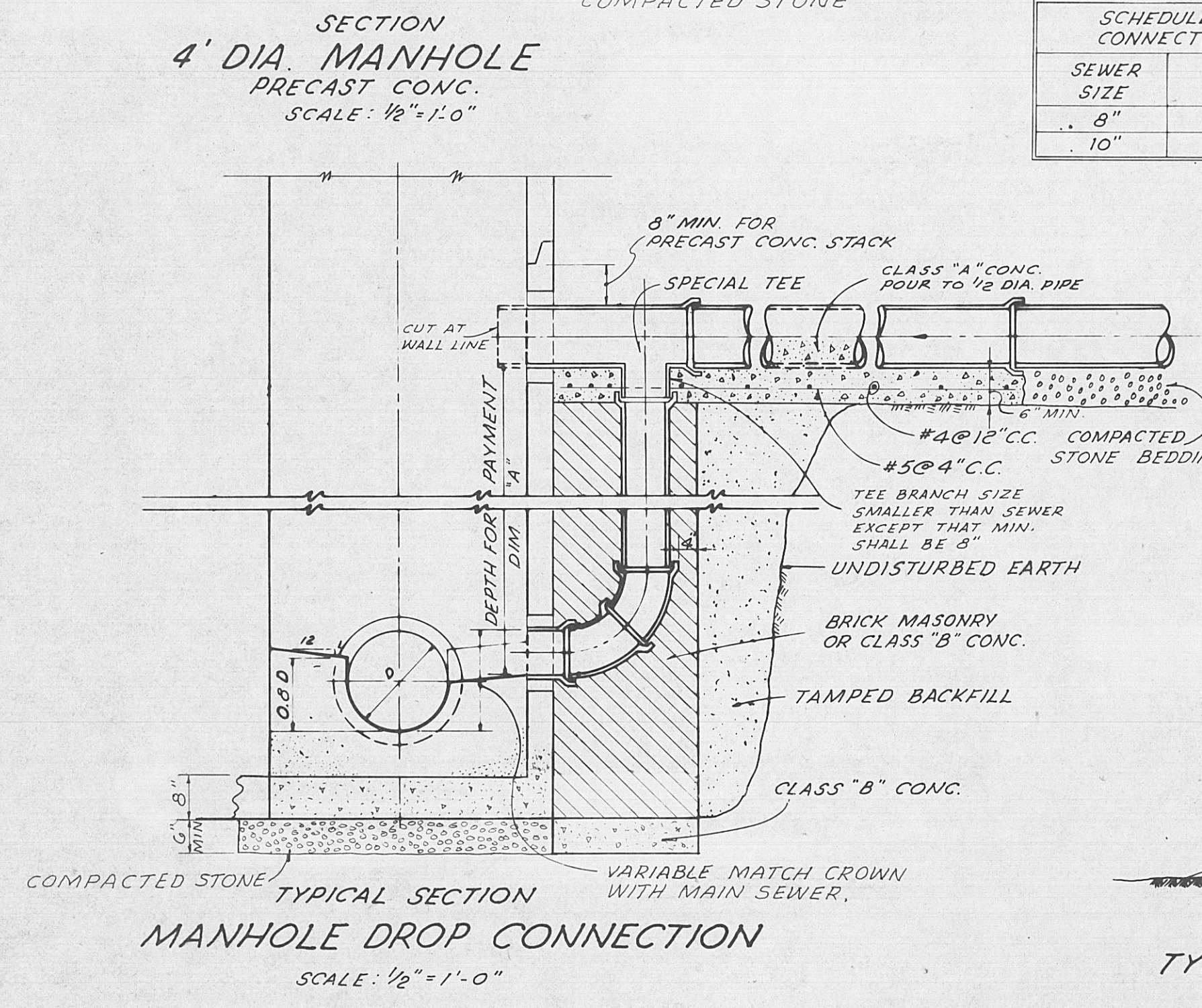
TYPICAL DETAIL OF C.I. PIPE ON PIERS
N.T.S.



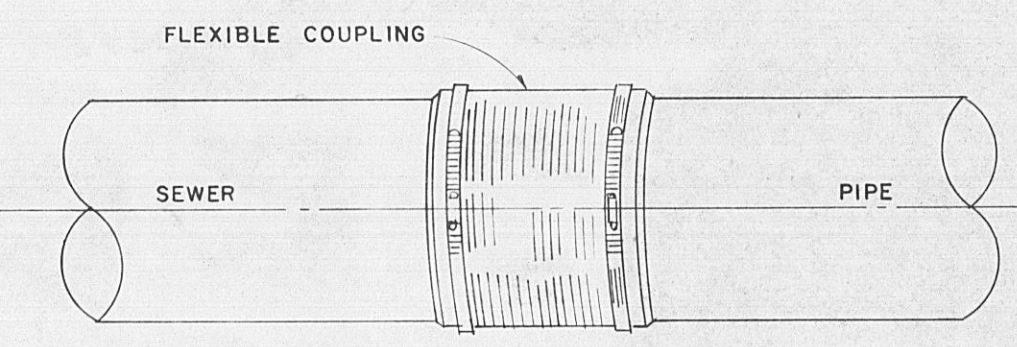
ENLARGED SECTION
SCALE: 1" = 1'-0"

SCHEDULE FOR DROP CONNECTIONS DIM "A"			
SEWER SIZE	DROP SIZE	MINIMUM INV. TO INV.	
8"	11 1/2"	2"	8"
9"	8"	24"	24"
10"	8"	24"	24"

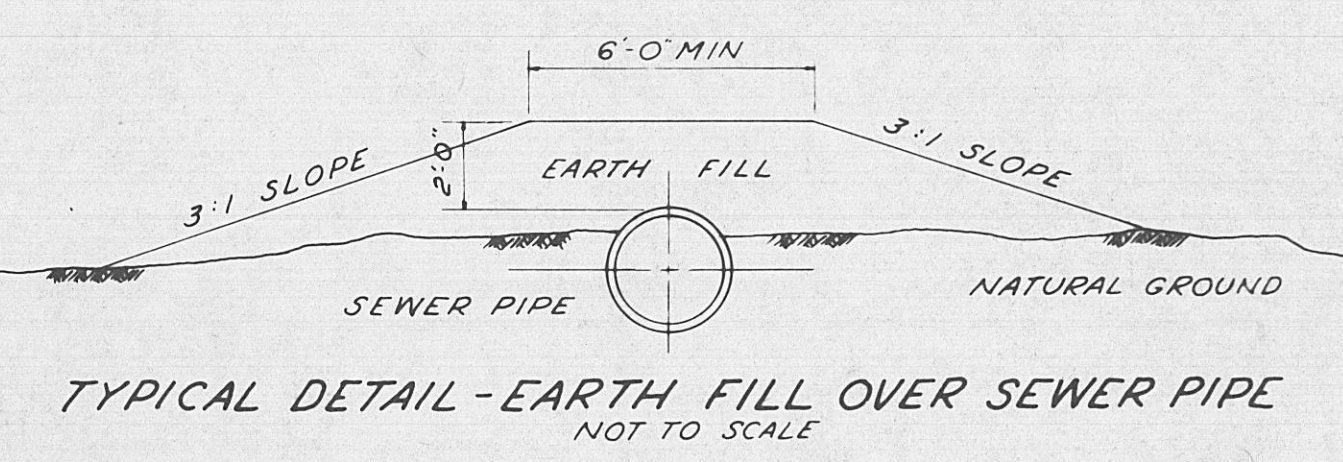
GOVERNING DIMENSIONS FOR CONCRETE PIERS			
I.D. PIPE	A	B	C
8"	11 1/2"	2"	8"
10"	13 1/2"	2 1/2"	10"
12"	15 1/2"	3"	10"
15"	19"	4"	11"



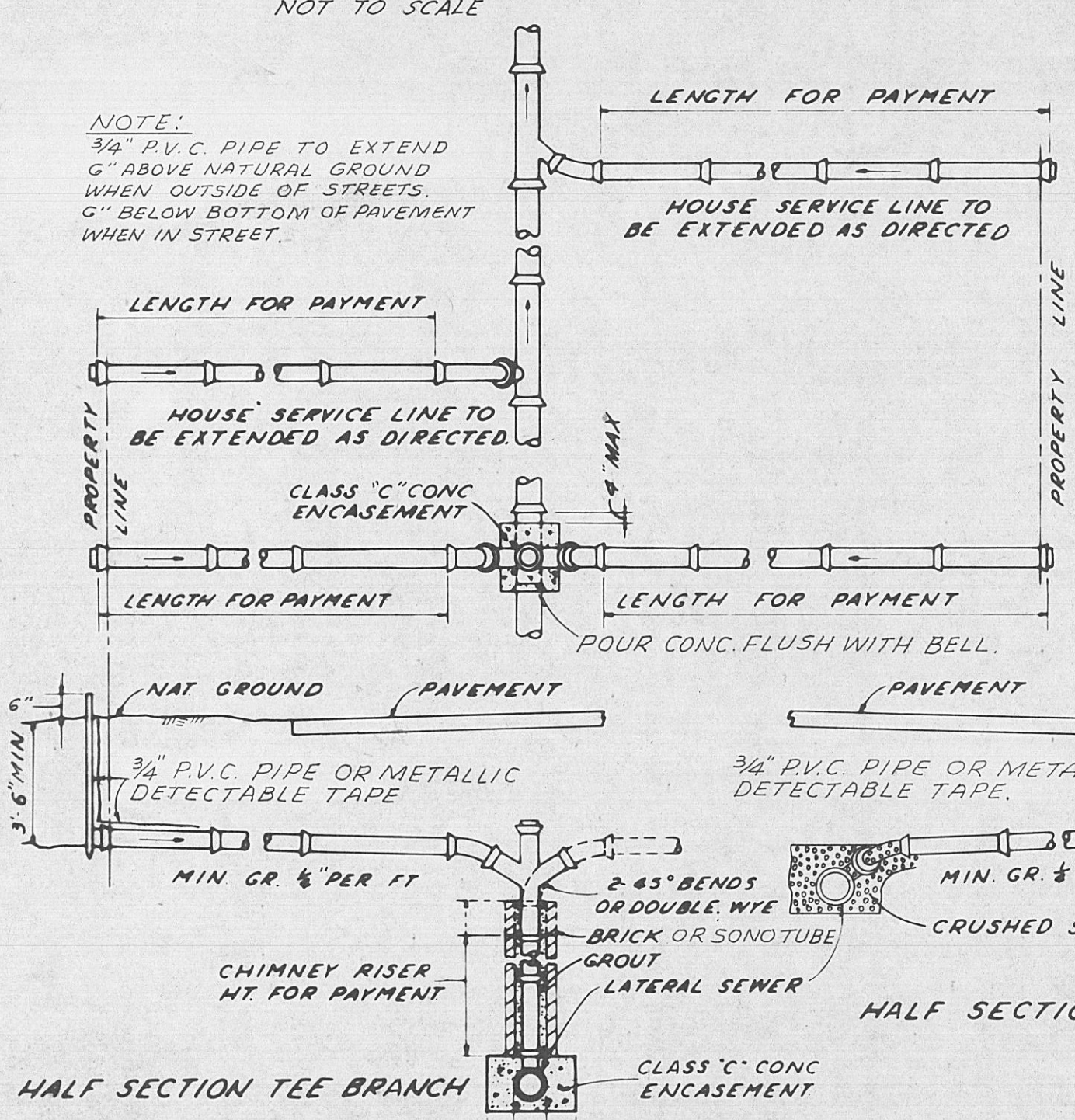
TYPICAL SECTION
MANHOLE DROP CONNECTION
SCALE: 1/2" = 1'-0"



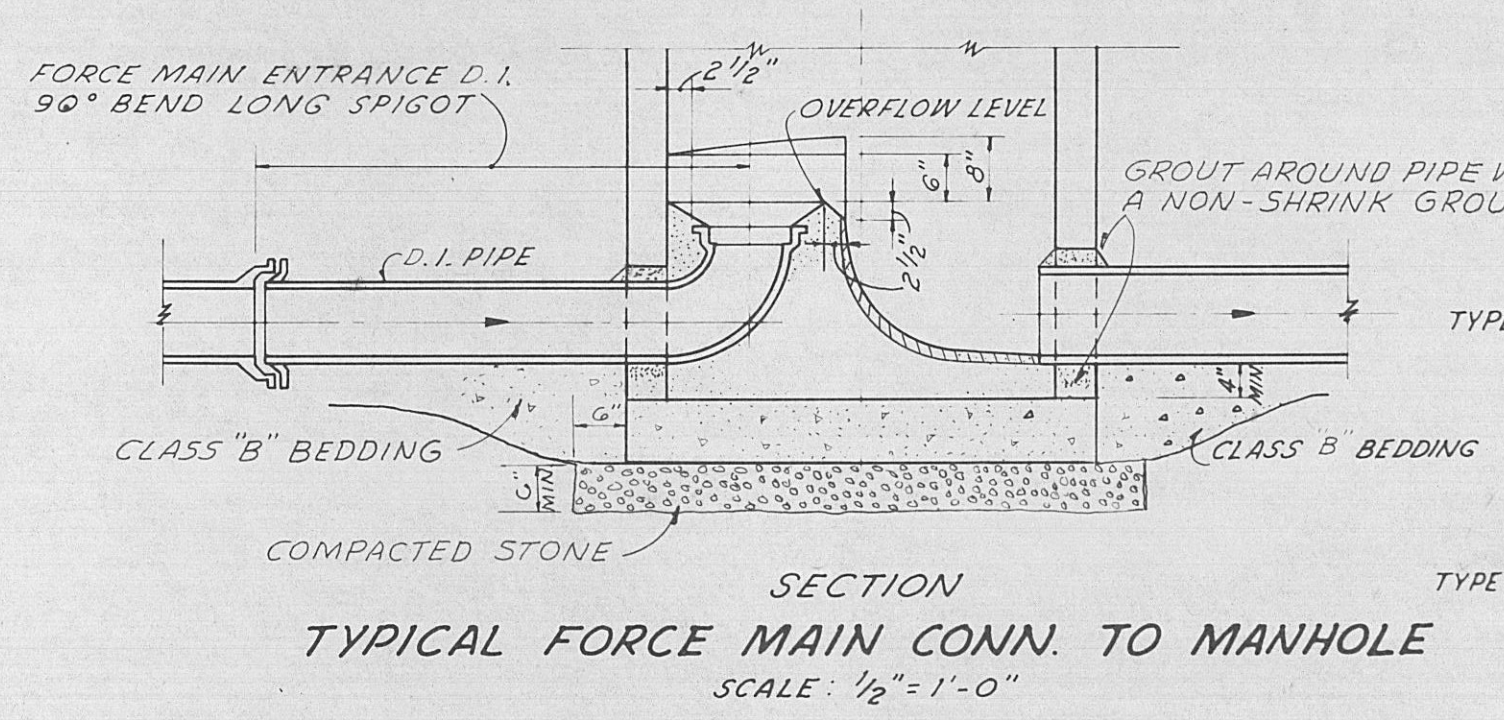
TYPICAL DETAIL-FLEXIBLE COUPLING FOR JOINTING SEWER PIPE



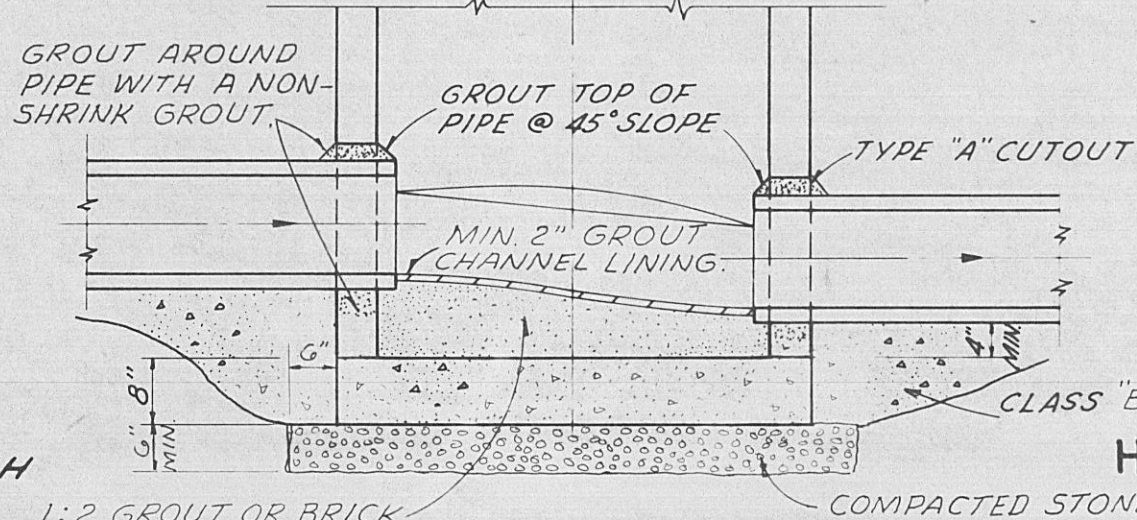
TYPICAL DETAIL-EARTH FILL OVER SEWER PIPE
NOT TO SCALE



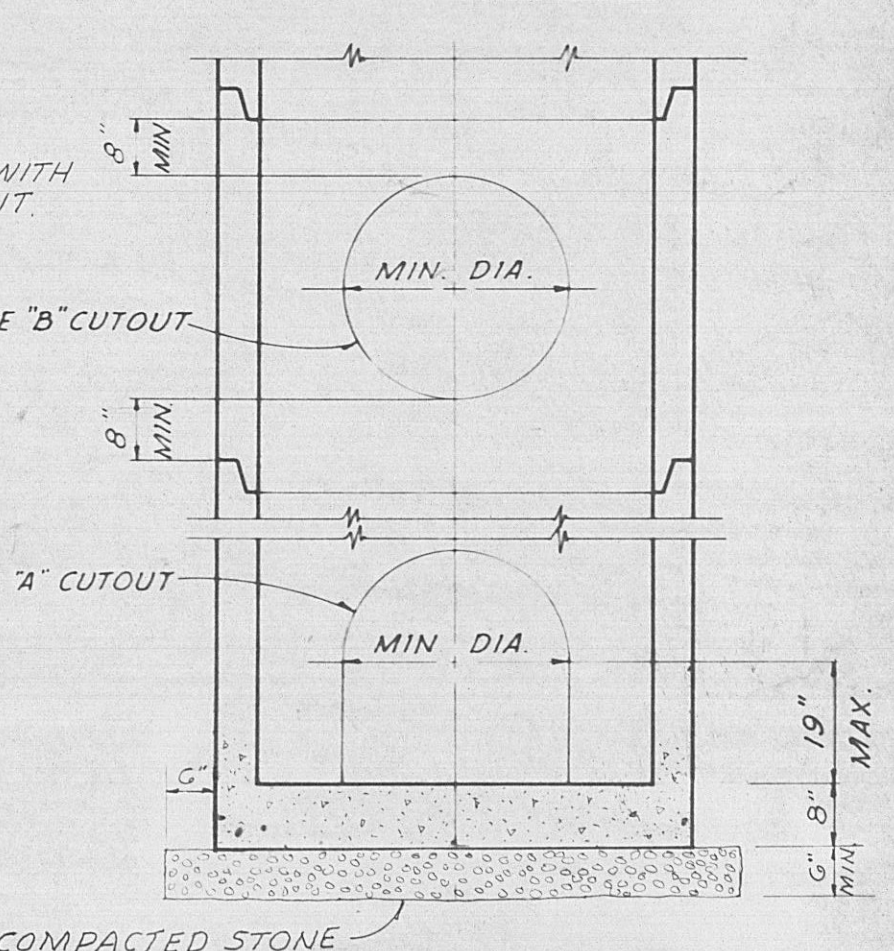
TYPICAL DETAILS OF SANITARY HOUSE SERVICE LINE
NOT TO SCALE



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"

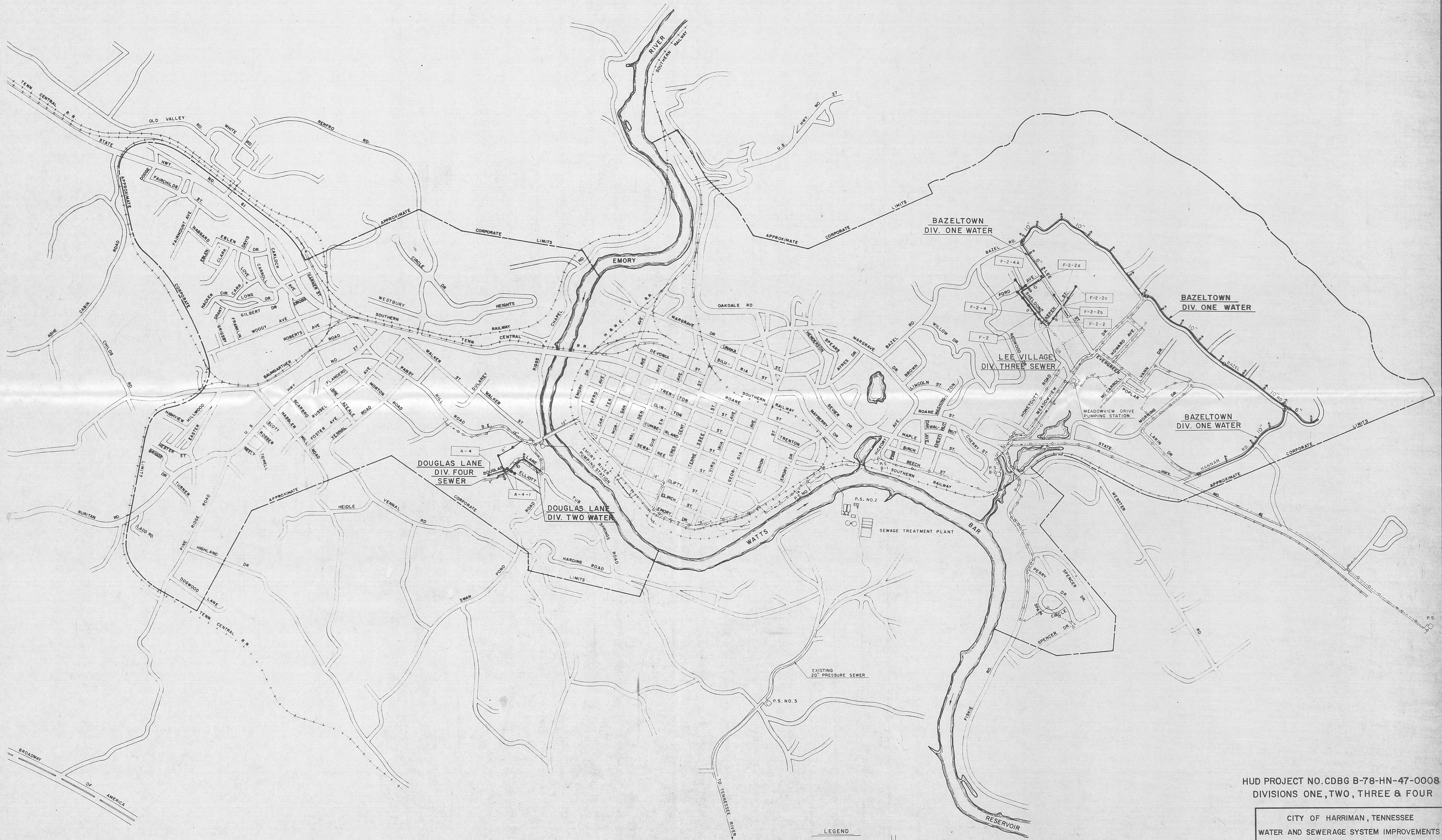
CUTOUT SCHEDULE	
PIPE SIZE	MIN. DIA.
8"	14"
10"	16"
12"	20"
15"	24"

HUD PROJECT NO. CDB6 B-78-HN-47-0008
DIVISIONS THREE & FOUR

CITY OF HARRIMAN, TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

MISCELLANEOUS DETAILS

SCALE AS SHOWN DATE NOV. 1978	WIEDEMAN AND SINGLETON ENGINEERS ATLANTA GEORGIA	SHEET 7 OF 7
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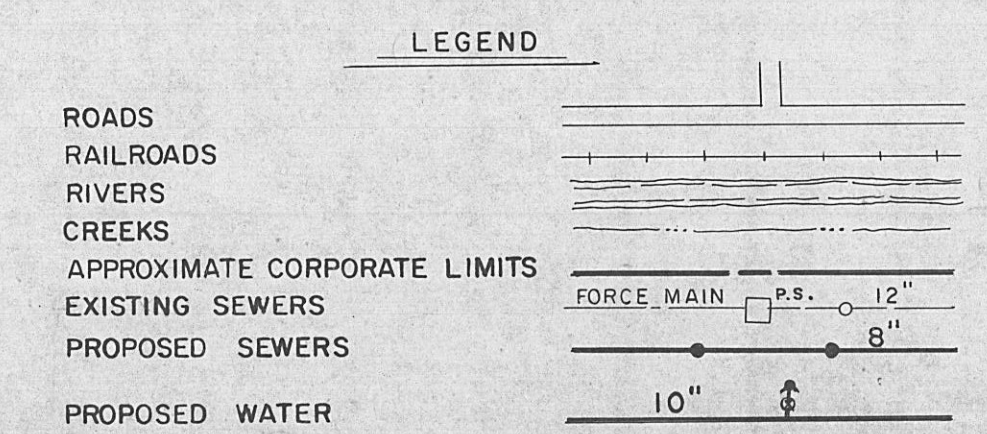


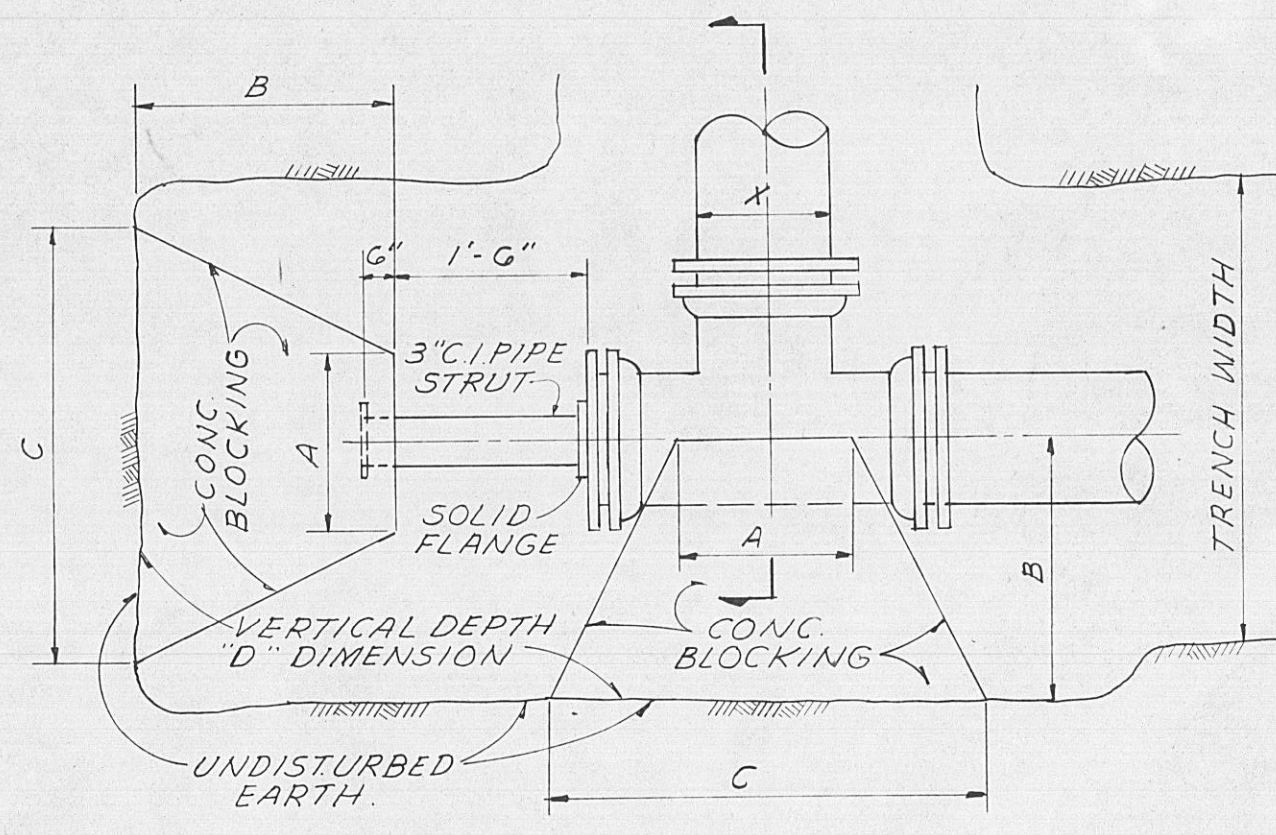
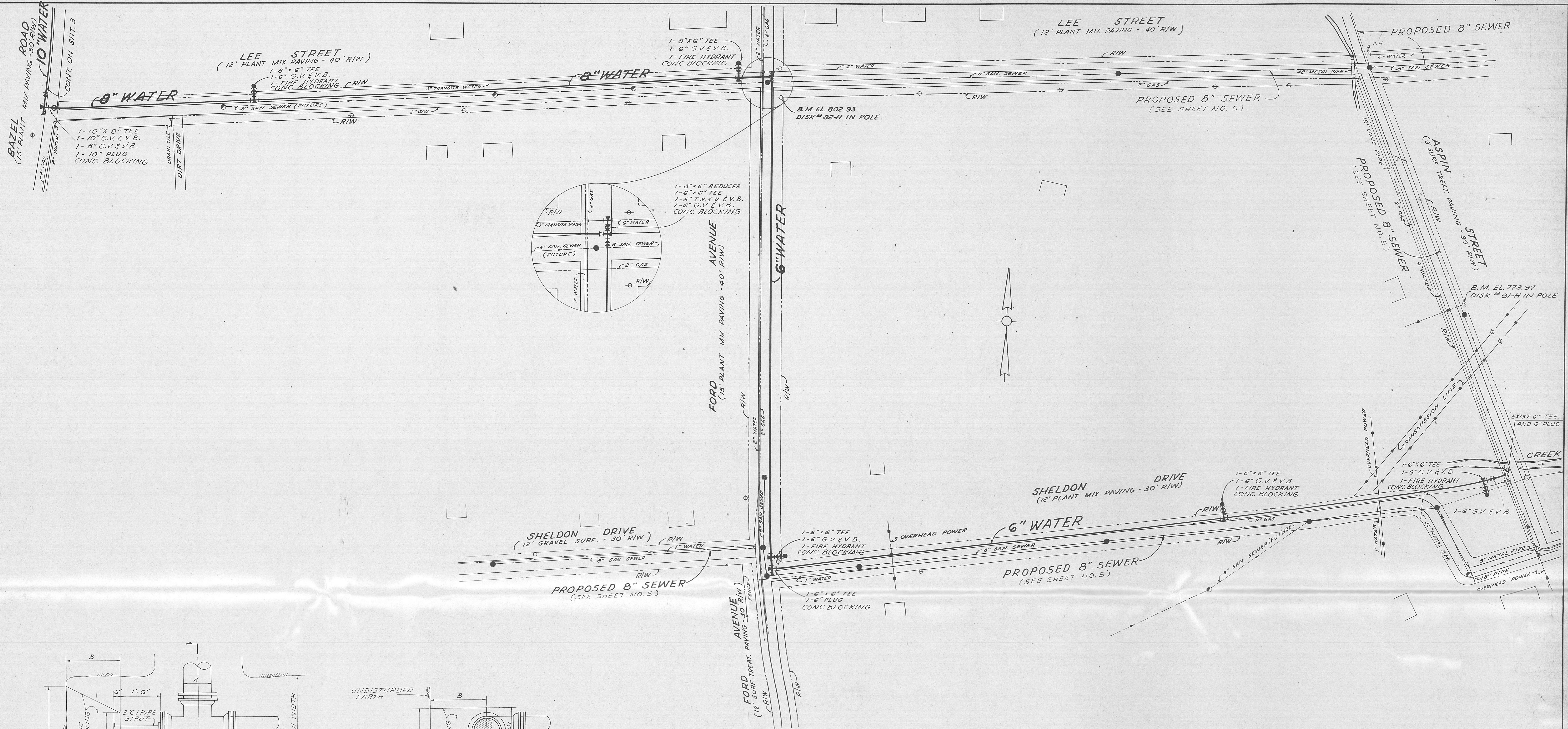
HUD PROJECT NO. CDBG B-78-HN-47-0008
DIVISIONS ONE, TWO, THREE & FOUR

CITY OF HARRIMAN, TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

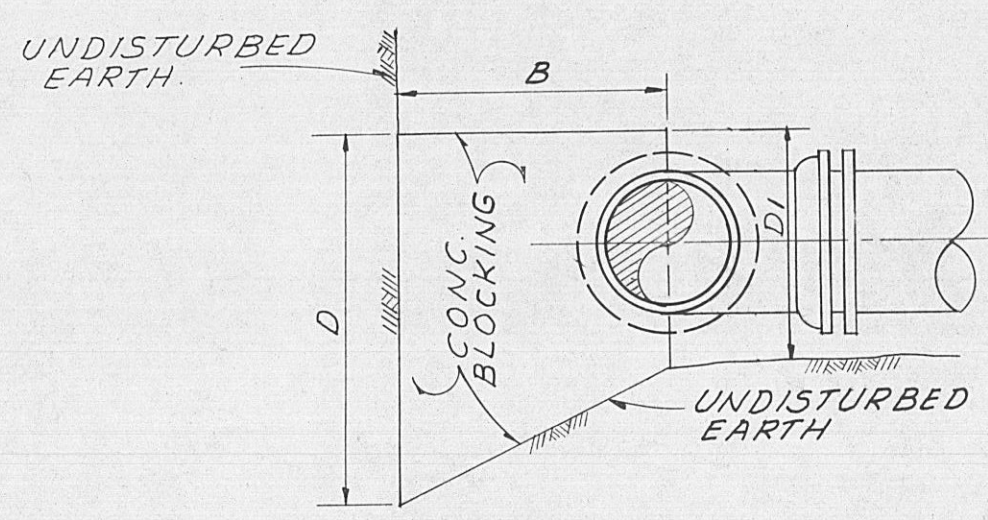
LOCATION MAP

SCALE 1" = 800' DATE NOV. 1978	WIEDEMAN AND SINGLETON ENGINEERS ATLANTA	SHEET 1 OF 7
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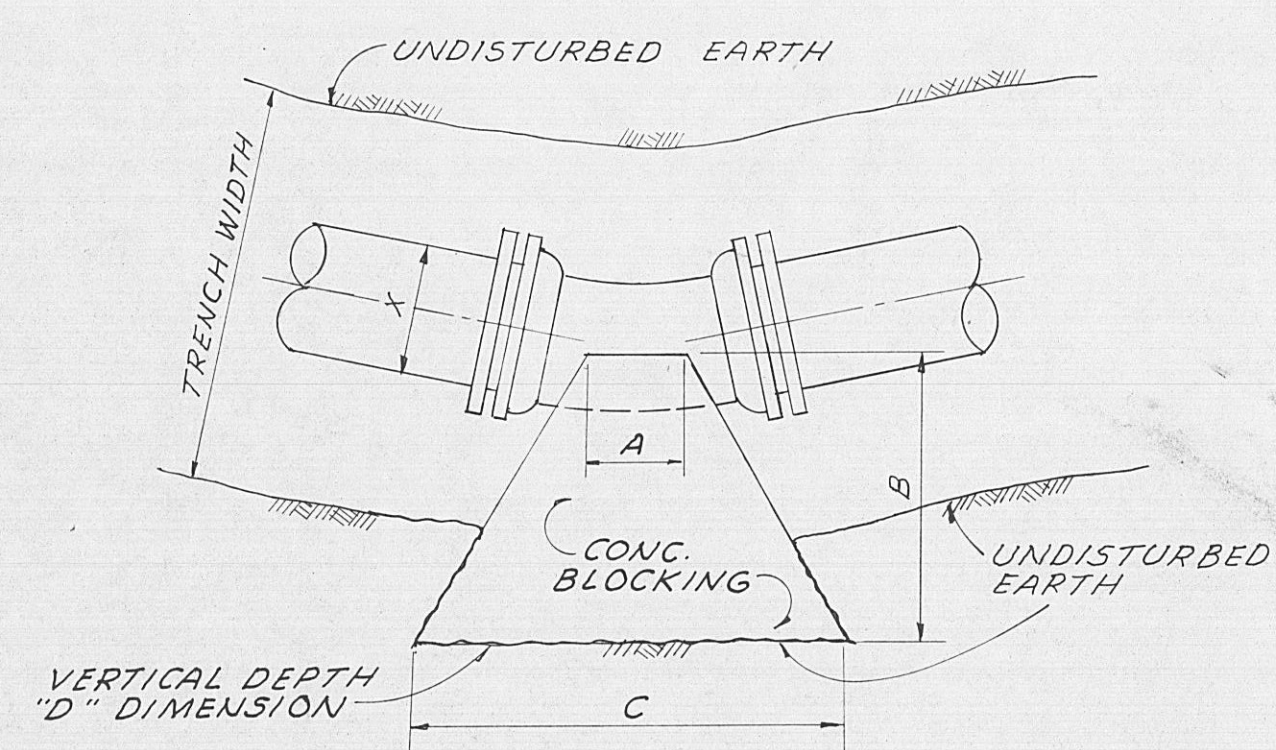




TEES



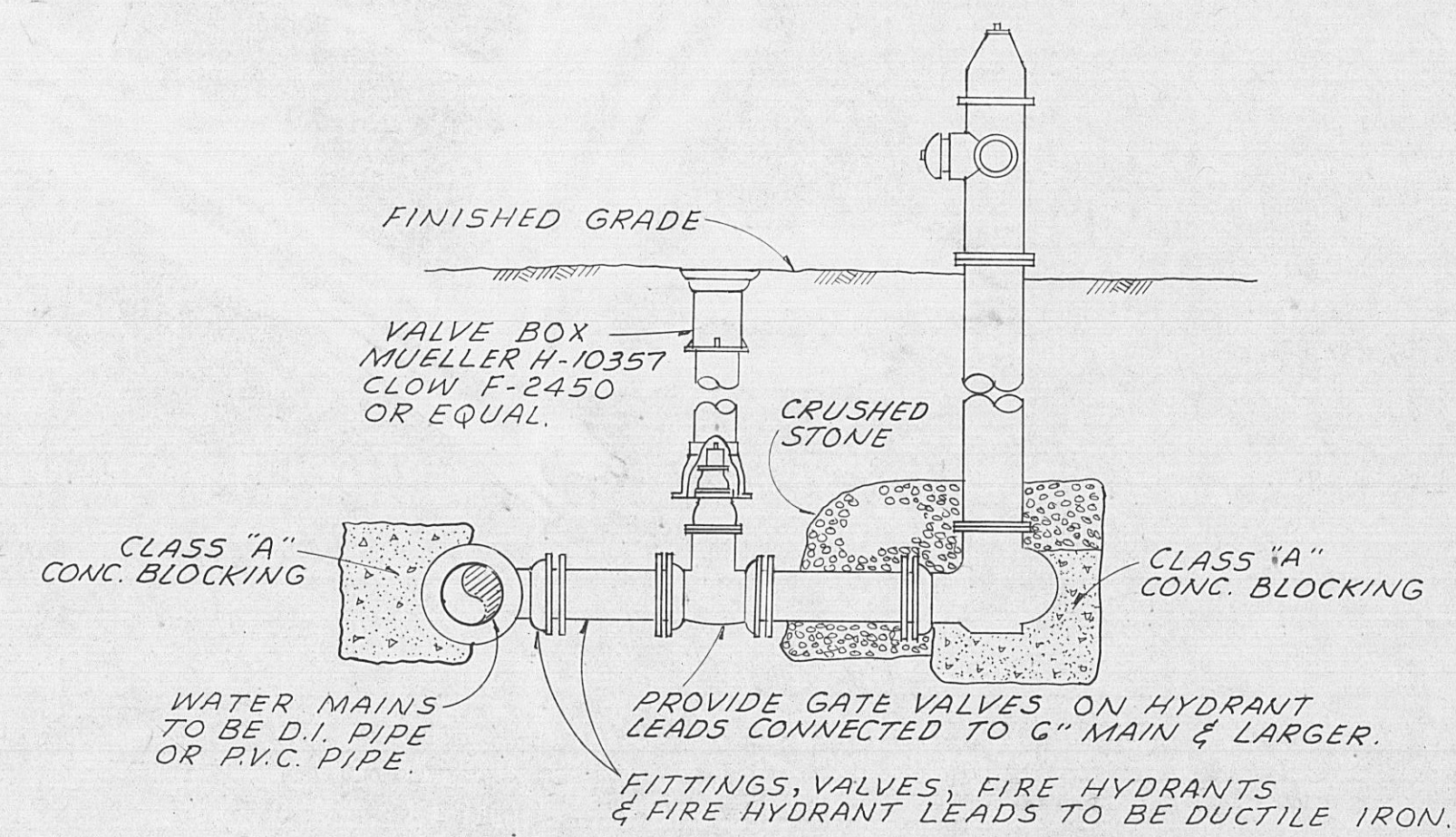
SECTION



BENDS

TYPICAL BLOCKING DETAILS
N.T.S.
(DIVISIONS ONE & TWO)

CONC. BLOCKING DIMENSIONS						
X	A	B	C	D	D ₁	
TEES-10" RUN						
10"	1'-2"	1'-10"	3'-0"	2'-4"	1'-10"	
8"	1'-0"	1'-6"	2'-4"	1'-10"	1'-10"	
6"	0'-10"	1'-6"	2'-2"	1'-2"	0'-10"	
4"	0'-8"	1'-6"	2'-0"	1'-0"	0'-10"	
TEES-8" RUN						
8"	1'-0"	1'-6"	2'-6"	1'-8"	1'-8"	
6"	0'-10"	1'-6"	2'-4"	1'-0"	1'-0"	
TEES-6" RUN						
6"	0'-10"	1'-6"	2'-4"	1'-0"	1'-0"	
90° BEND						
10"	1'-0"	2'-4"	3'-4"	2'-8"	1'-10"	
8"	0'-10"	2'-2"	3'-0"	2'-0"	1'-8"	
6"	0'-8"	1'-4"	2'-0"	1'-8"	1'-0"	
45° BEND						
10"	0'-6"	2'-2"	2'-8"	1'-10"	1'-10"	
8"	0'-6"	1'-6"	2'-0"	1'-8"	1'-8"	
6"	0'-6"	1'-6"	2'-0"	1'-0"	1'-0"	
22½° BEND						
10"	0'-6"	1'-4"	1'-6"	1'-10"	1'-10"	
8"	0'-6"	1'-4"	1'-4"	1'-8"	1'-8"	
6"	0'-6"	1'-0"	1'-0"	1'-0"	1'-0"	
11¼° BEND						
10"	0'-6"	1'-4"	1'-4"	1'-0"	1'-0"	
8"	0'-6"	1'-0"	1'-0"	1'-0"	1'-0"	
6"	0'-6"	1'-0"	1'-0"	1'-0"	1'-0"	
PLUG - SAME AS TEE EXCEPT THAT THE LARGER SIZE IN UNEQUAL RUNS SHALL BE USED						
NOTE: BLOCKING DESIGNED FOR 200 P.S.I. TEST PRESSURE AND 2500 P.S.F. SOIL PRESSURE.						



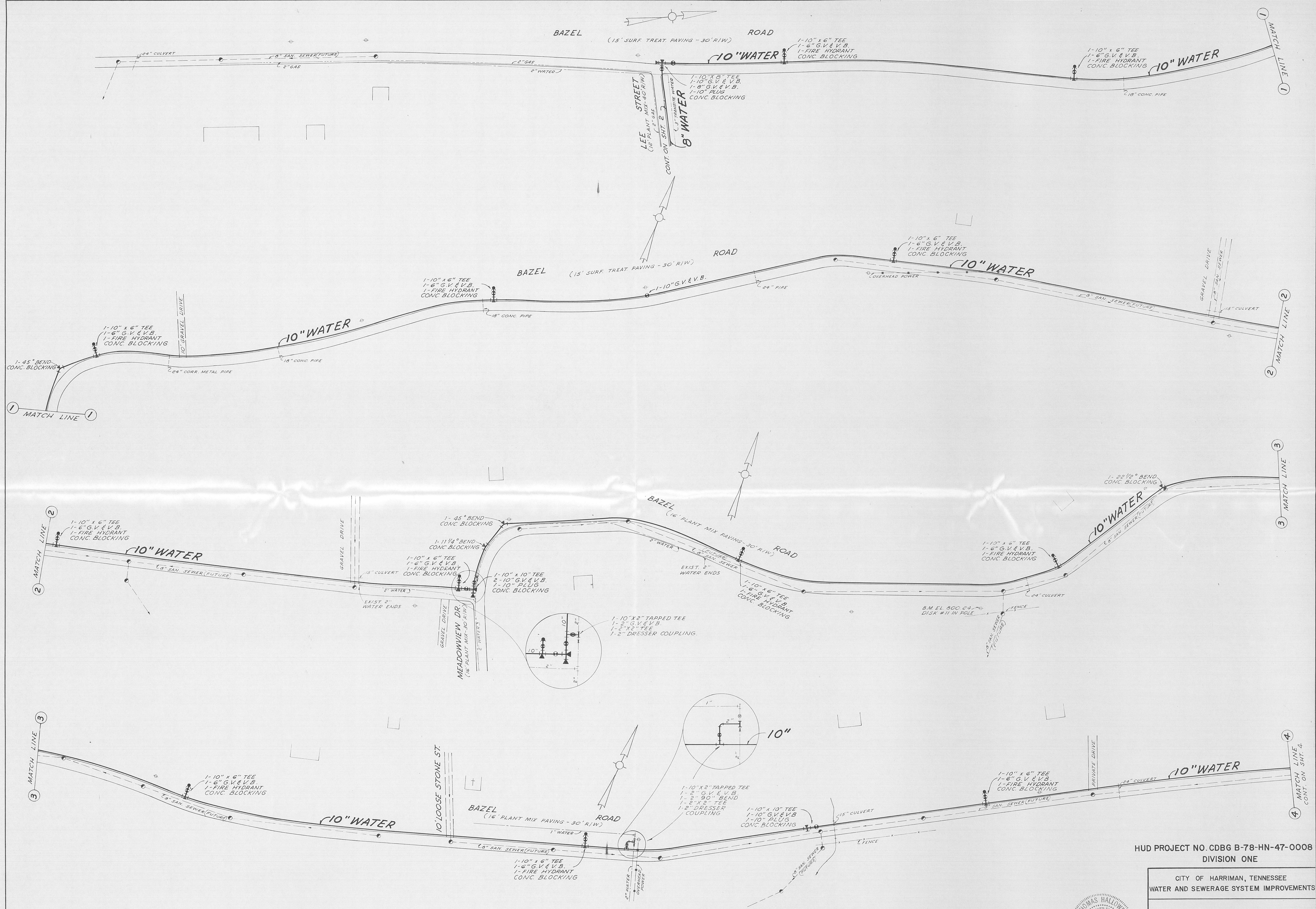
TYPICAL DETAIL OF HYDRANT INSTALLATIONS
N.T.S.
(DIVISIONS ONE & TWO)

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

CITY OF HARRIMAN, TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

BAZELTOWN WATER





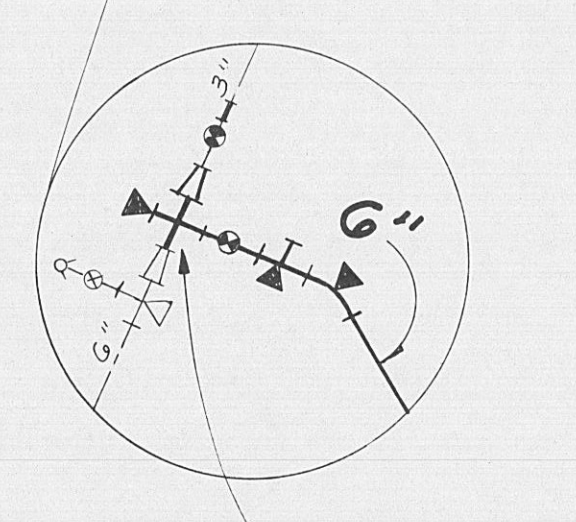
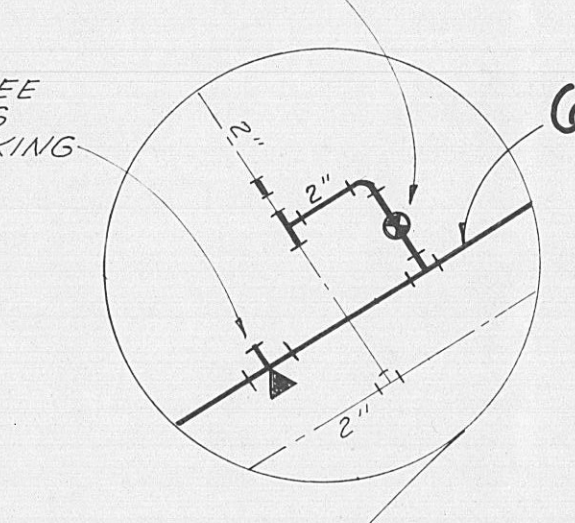
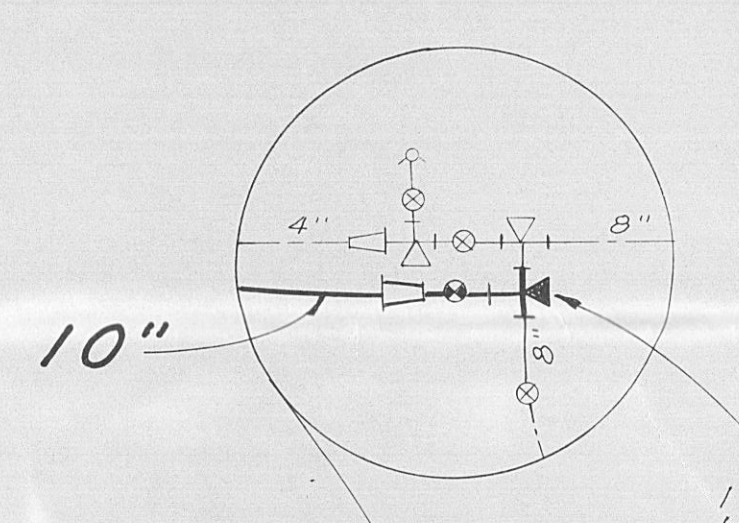
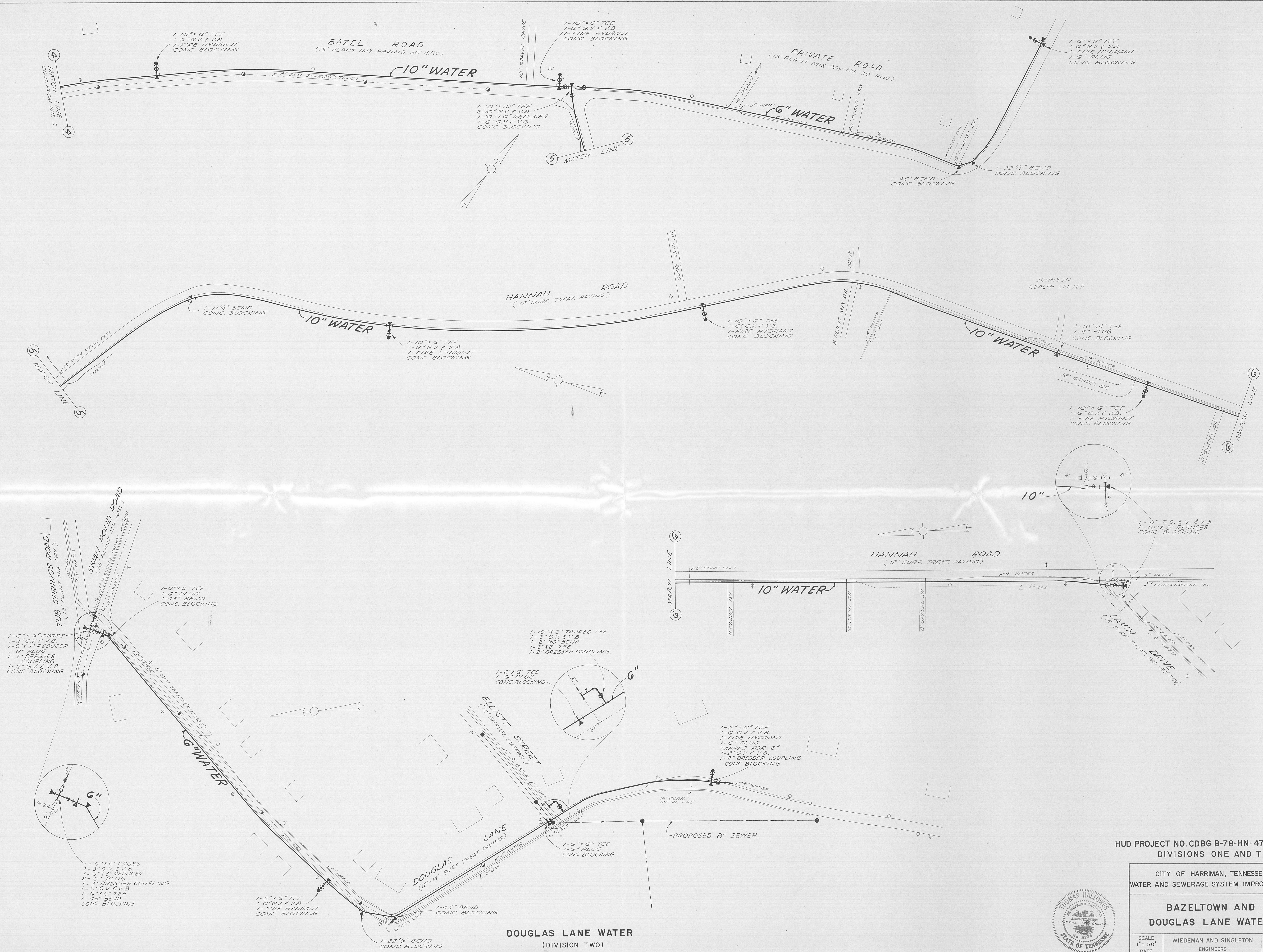
HUD PROJECT NO. CDBG B-78-HN-47-0008
DIVISION ONE

CITY OF HARRIMAN, TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

BAZELTOWN WATER

SCALE 1"=50'	WIEDEMAN AND SINGLETON ENGINEERS	SHEET 3
DATE NOV. 1978	ATLANTA GEORGIA	OF 7





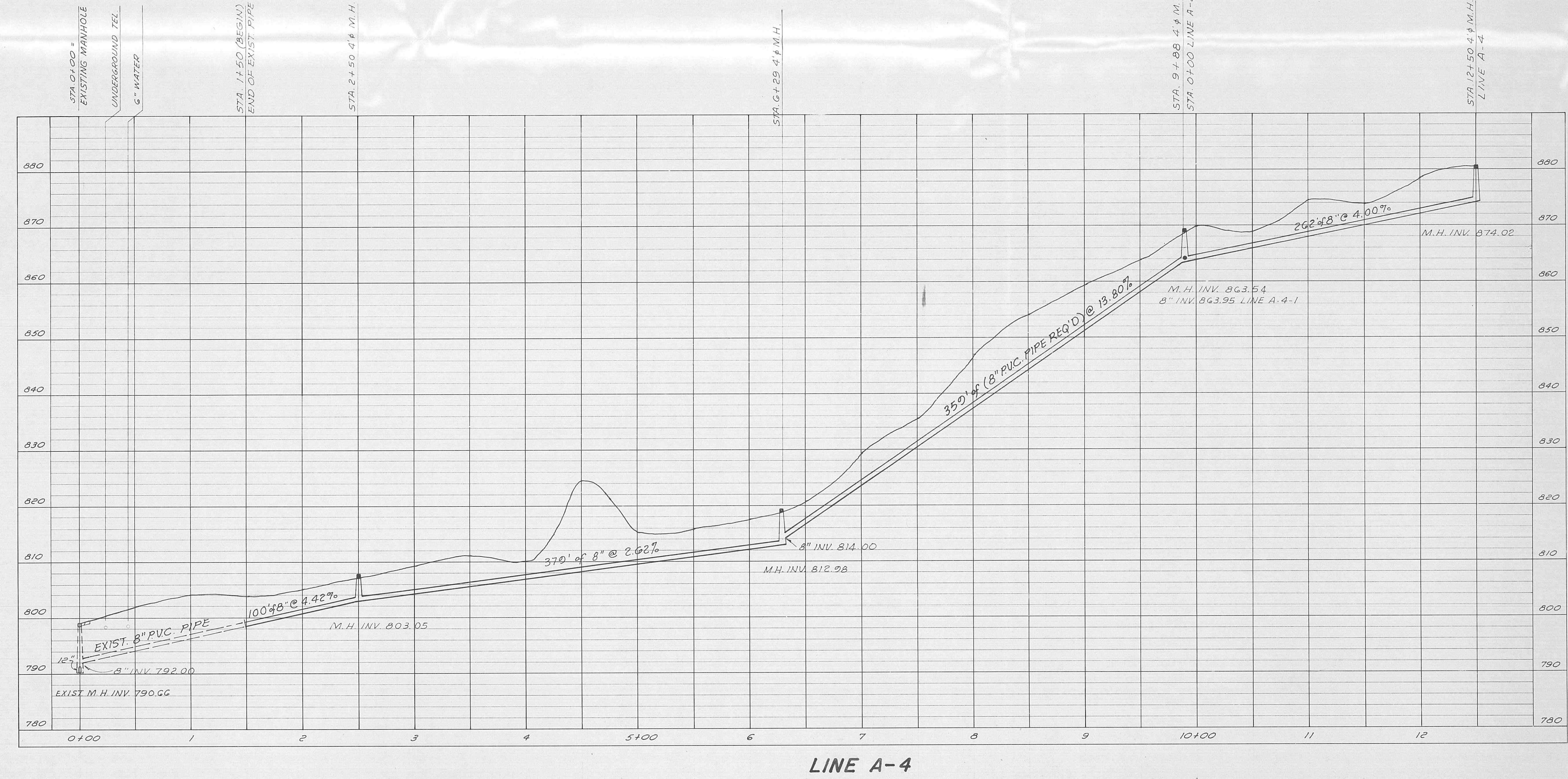
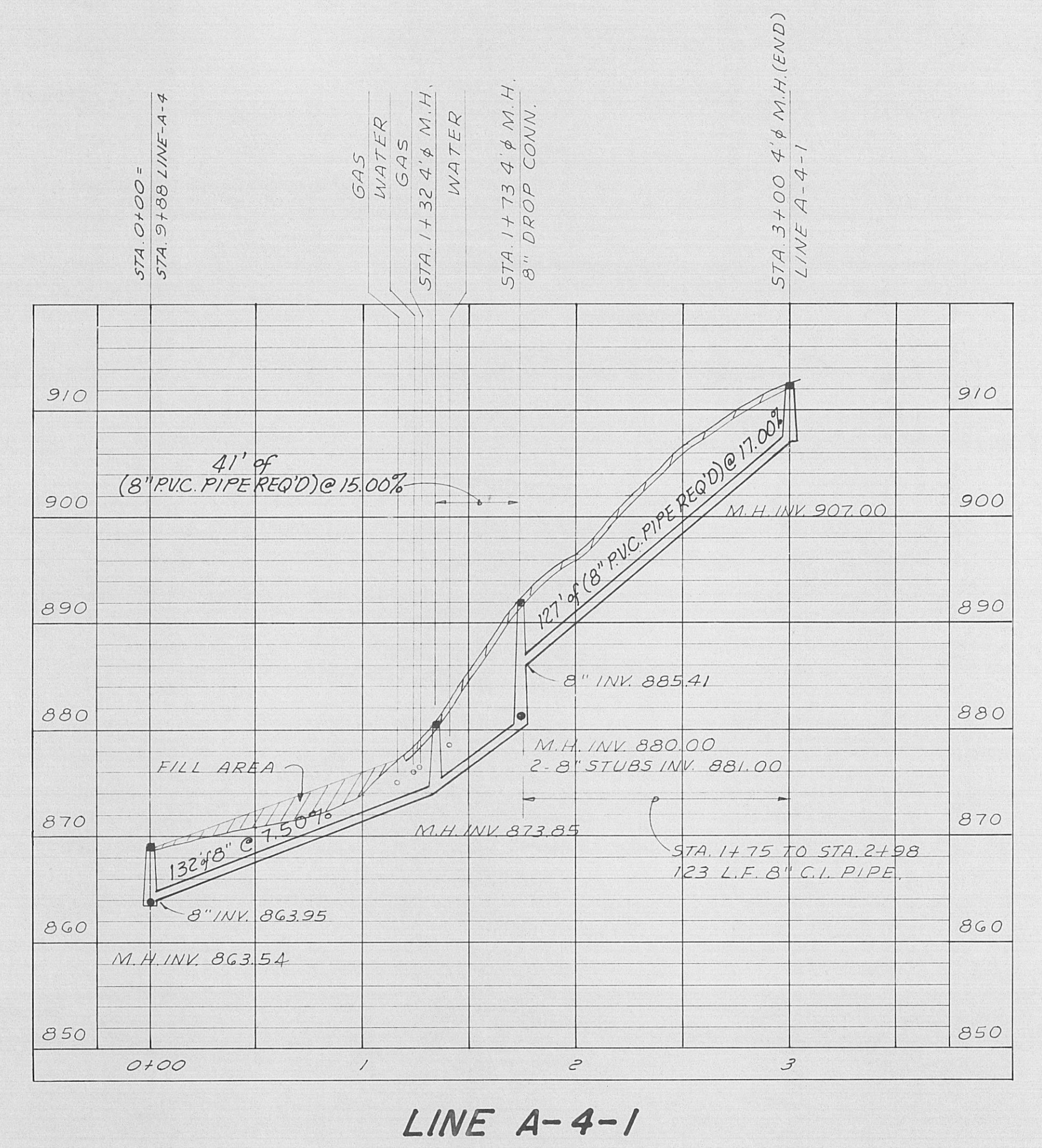
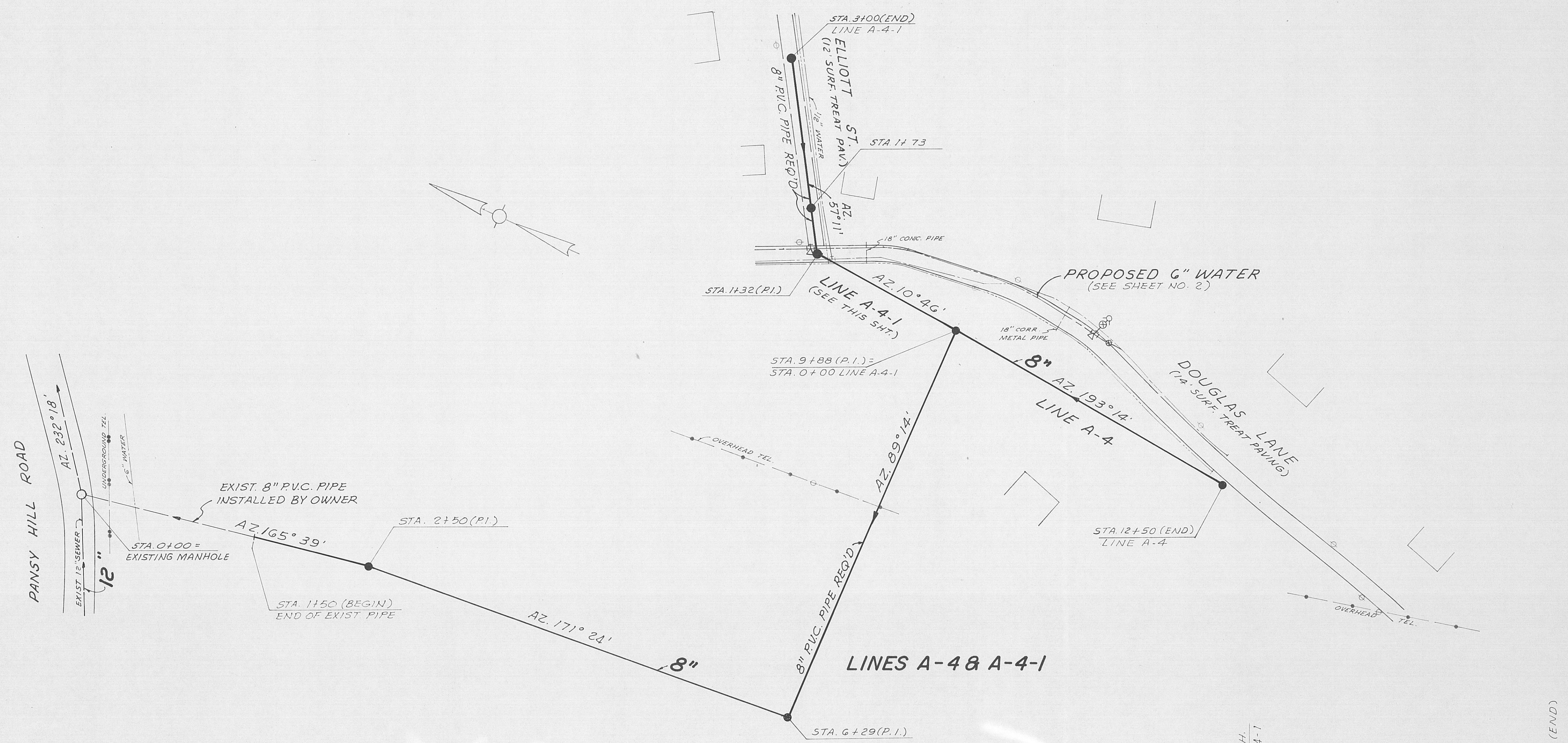
HUD PROJECT NO. CDBG B-78-HN-47-0008
DIVISIONS ONE AND TWO

CITY OF HARRIMAN, TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

**BAZELTOWN AND
DOUGLAS LANE WATER**



SCALE 1" = 50'	WIEDEMAN AND SINGLETON ENGINEERS	SHEET 4
DATE NOV. 1978	ATLANTA GEORGIA	OF 7



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

CITY OF HARRIMAN, TENNESSEE
WATER AND SEWERAGE SYSTEM IMPROVEMENTS

DOUGLAS LANE SEWERS

