F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3783	00-00080-00-FP	COOK	49	24

STA.		TO STA.	

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT

CONTRACT NO. 83788

STEEL CASINGS

CASING PIPE
CASING SPACER
CONCRETE BRICK AND MORTAR BOTH ENDS
CARRIER PIPE

14"
9'-0" MAX.
3 MIN. PER CASING PIPE
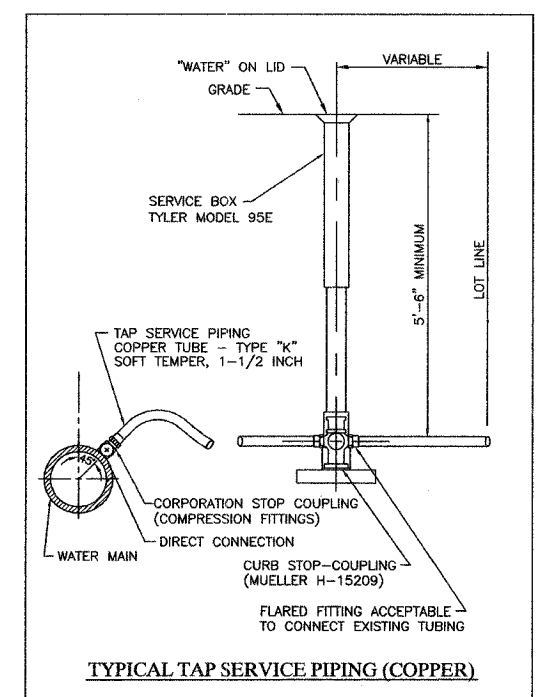CARRIER PIPE

CASING PIPE
CASING SPACER
CARRIER PIPE
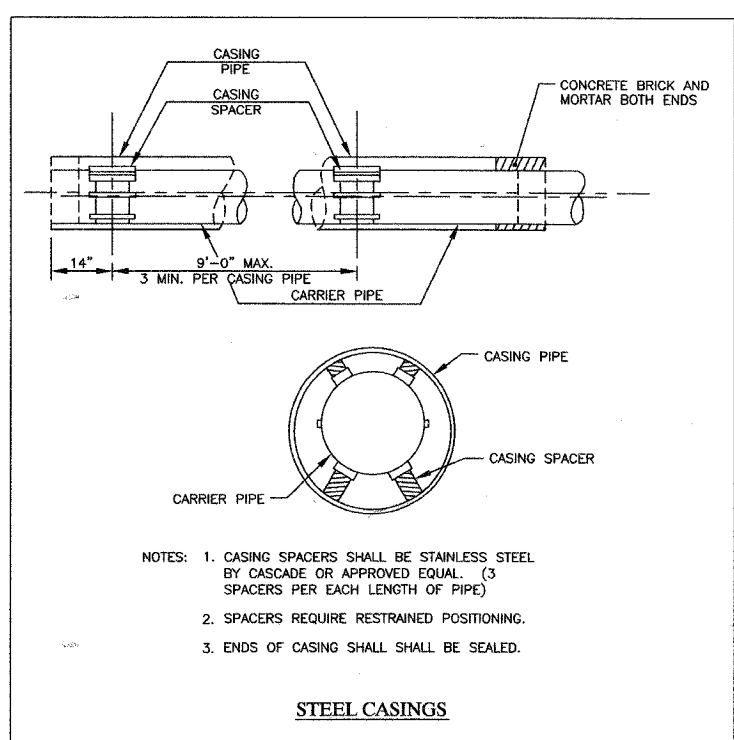
NOTES: 1. CASING SPACERS SHALL BE STAINLESS STEEL BY CASCADE OR APPROVED EQUAL. (3 SPACERS PER EACH LENGTH OF PIPE)

2. SPACERS REQUIRE RESTRAINED POSITIONING.

3. ENDS OF CASING SHALL SHALL BE SEALED.

WATER MAIN CROSSING DETAIL

EXISTING OR PROPOSED GRADE

GRAVITY SEWER TO BE WATER MAIN QUALITY PRESSURE PIPE FOR A DISTANCE OF 10' ON EITHER SIDE OF THE OUTSIDE WALL OF THE WATER MAIN. (SEE NOTES 2 AND 3)

3'
10' MIN.
10' MIN.
45'
18" MIN.
5'-6" MIN.
4" MIN.

PROPOSED D.I.W.M.

COMPACTED SELECT EXCAVATED CLASS IV MATERIAL (SEE NOTE 4)
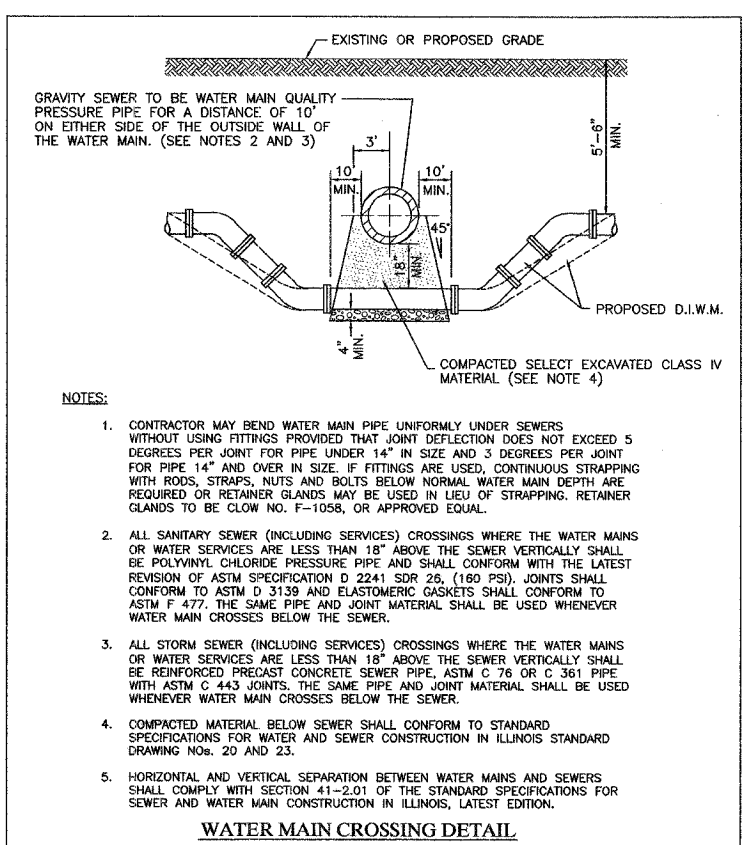
NOTES:

1. CONTRACTOR MAY BEND WATER MAIN PIPE UNIFORMLY UNDER SEWERS WITHOUT USING FITTINGS PROVIDED THAT JOINT DEFLECTION DOES NOT EXCEED 5 DEGREES PER JOINT FOR PIPE UNDER 14" IN SIZE AND 3 DEGREES PER JOINT FOR PIPE 14" AND OVER IN SIZE. IF FITTINGS ARE USED, CONTINUOUS STRAPPING WITH RODS, STRAPS, NUTS AND BOLTS BELOW NORMAL WATER MAIN DEPTH ARE REQUIRED OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW NO. F-1058, OR APPROVED EQUAL.

2. ALL SANITARY SEWER (INCLUDING SERVICES) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" ABOVE THE SEWER VERTICALLY SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM SPECIFICATION D 2241 SDR 26, (160 PSI). JOINTS SHALL CONFORM TO ASTM D 3139 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F 477. THE SAME PIPE AND JOINT MATERIAL SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.

3. ALL STORM SEWER (INCLUDING SERVICES) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" ABOVE THE SEWER VERTICALLY SHALL BE REINFORCED PRECAST CONCRETE SEWER PIPE, ASTM C 76 OR C 361 PIPE WITH ASTM C 443 JOINTS. THE SAME PIPE AND JOINT MATERIAL SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.

4. COMPACTED MATERIAL BELOW SEWER SHALL CONFORM TO STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS STANDARD DRAWING NOs. 20 AND 23.

5. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATER MAINS AND SEWERS SHALL COMPLY WITH SECTION 41-2.01 OF THE STANDARD SPECIFICATIONS FOR SEWER AND WATER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.

THRUST BLOCK DETAIL

A
A
A

UNDISTURBED TRENCH WALL
PRECAST CONCRETE THRUST BLOCK

6"
6"

SECTION A
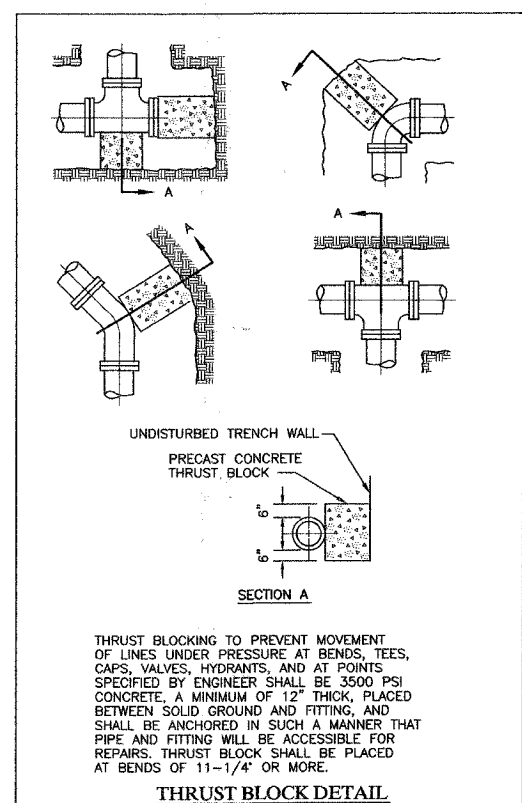
THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY ENGINEER SHALL BE 3500 PSI CONCRETE, A MINIMUM OF 12" THICK, PLACED BETWEEN SOLID GROUND AND FITTING, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTING WILL BE ACCESSIBLE FOR REPAIRS. THRUST BLOCK SHALL BE PLACED AT BENDS OF 11-1/4' OR MORE.

TYPICAL TAP SERVICE PIPING (COPPER)

"WATER" ON LID
GRADE
VARIABLE

SERVICE BOX TYLER MODEL 95E

TAP SERVICE PIPING COPPER TUBE - TYPE "K" SOFT TEMPER, 1-1/2 INCH

5'-6" MINIMUM
LOT LINE

CORPORATION STOP COUPLING (COMPRESSION FITTINGS)
DIRECT CONNECTION

CURB STOP-COUPLING (MUELLER H-15209)

FLARED FITTING ACCEPTABLE TO CONNECT EXISTING TUBING

WATER MAIN