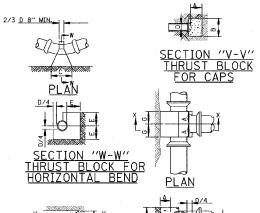


PLAN STEEL WEDGE EMBED #6 BARS - 22" AND PAINT EXPOSED BARS WITH TWO COATS OF APPROVED THRUST BLOCK FOR VERTICAL ELBOW BITHMINOUS PAINT SECTION Y-Y

**VERTICAL 1/16 & 1/8 BEND** 



SECTION "X-X"
THRUST BLOCK FOR TEES THRUST BLOCK DETAIL

<u>PLAN</u>

ILLINOIS DEPARTMENT OF TRANSPORTATION

TYPICAL WATER DETAILS

SCALE: VERT. HORIZ. DATE

DRAWN BY KOJ CHECKED BY BWO

<u>GENERAL NOTES:</u>

TILL ELI

/2" O.D.

4" BEDDING

D=6" TRENCH=3.58 D=8" TRENCH=3.78

NOTE: MAX PAY LIMITS DECREASE BY THE SHORING IS NOT USED

BEDDING
CA 15, CA 16, CM 15, OR CM 16 REQUIRED IN ALL LOCATIONS WHERE
THE EDGE OF THE WATERMAIN TRENCH IS LOCATED WITHIN TWO (2)
FEET OF A PERMANENT SURFACE. (INCLUDED IN THE COST OF PIPE.)

HAUCHING
CA 15, CA 16, CM 15, OR CM 16 REQUIRED IN ALL LOCATIONS WHERE
THE EDGE OF THE WATERMAIN TRENCH IS LOCATED WITHIN TWO (2)
FEET OF A PERMANENT SURFACE. CASE I BACKFILL FREE FROM
ORGANICS AT ALL OTHER LOCATIONS. (INCLUDED IN THE COST OF PIPE.)

INITIAL BACKFILL
CA 7 REQUIRED IN ALL LOCATIONS WHERE THE EDGE OF THE
WATERMAIN TRENCH IS LOCATED WITHIN TWO (2) FEET OF A
PERMANENT SURFACE. CASE I BACKFILL FREE FROM ORGANICS
AT ALL OTHER LOCATIONS. (INCLUDED IN THE COST OF PIPE.)

EINAL BACKFILL
CA 7 REQUIRED IN ALL LOCATIONS WHERE THE EDGE OF THE
WATERMAIN TRENCH IS LOCATED WITHIN TWO (2) FEET
OF A PERMANENT SURFACE EXCEPT TOP 12" TO BE CA-6.
CASE I BACKFILL FREE FROM ORGANICS AT ALL OTHER
LOCATIONS. (ELIGIBLE FOR PAYMENT)

EXISTING OR

WATER MAIN

. NOT ALLOWED. MUST MAINTAIN 18'

VERTICAL SEPARATION

PRPOSED SEWER LINE

TRENCHING DETAIL

PLACEMENT OF WATER MAIN BELOW EXISTING OR PROPOSED SEWER LINE WITH LESS THAN 18" MINIMUM VERTICAL

SEPARATION NOT ALLOWED.

1/2" O.D. HAUNCHING

 METHOD OF INSTALLATION, MATERIAL, CONSTRUCTION, AND OTHER ITEMS NECESSARY TO COMPLETE THE WORK AS SHOWN HERE IN SHALL CONFORM TO THE REQUIREMENTS OF THE "STANDARD SPECIFICATION FOR WATER AND SEWER MAIN CONSTRUCTION ION ILLINOIS" FIFTI-

2. TRENCH BOX SHALL NOT EXTEND BELOW TOP OF PIPE UNLESS OTHERWISE SPECIFIED

WATERMAIN & CASING PIPE SHALL BE AWAYA C900, DR18, PVC WITH GASKETED PUSH ON JOINTS PER ASTM D313: UNLESS NOTED OTHERWISE. CASING SPACERS TO BE USED IN ALL CASING AT THE SPACING RECOMMENDED BY

4. GRANULAR CRADLE SHALL BE PER ASTM D2321 CASE III WITH A MAXIMUM SIZE OF 0.50 INCH. ALL FITTINGS SHALL BE

5. WATERMAIN SHALL BE DISINFECTED PER STANDARD SPEC. 41-2.13 EXCEPT TABLET DISINFECTION WILL NOT BE ALLOWED

6. ALL VALVE BOXES SHALL BE 5", CAST IRON WITH CAST IRON COVERS INDICATING "WATER 7. GATE VALVES SHALL BE MUELLER RESILIENT SEAT MEETING THE REQUIREMENTS OF AWAYA C509 WITH MECHANICAL JOINTS.

8. FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION. NOZZLES SHALL HAVE CITY'S THREADS. FLUSHING HYDRANTS SHALL BE MUELLER 2. 0.125 INCH FLUSH HYDRANTS.

9. PIPE SHALL BE PRESSURE TESTED AT A HYDROSTATIC PRESSURE OF 100 PSI, THE DURATION OF THE PRESSURE TEST SHALL BE NOT LESS THAN FOUR(4) HOURS.

10. 12 GA. COPPER WIRE SHALL BE INSTALLED ALONG TOP OF WATERLINE

MAIN

1' MAX

DUCTILE IRON COUPLING

11. UTILITIES ARE SHOWN IN ACCORDANCE WITH THE BEST AVAILABLE INFORMATION AND THEIR TRUE LOCATION IS NOT GUARANTEED TO BE SHOWN ON PLANS OR AS SHOWN ON PLANS. CALL JULILE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING. EXISTING UTILITY SERVICES AS INCLUDED IN THE PAY ITEM TO BE CONSTRUCTED TO THE CONTRACT. THE CONTRACT T ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.

AWWA C-502 NOZZLE TO SIDEWALK OR GROUND SURFACE "WATER" ON **CUT SLIT IN** CAST IRO TRACER WIRE 5 1/4" VALVE ANCHORED TO PRECAST CONCRETE NO. 12 COPPER WIRI SHALL NOT BLOCK HY AWWA C-500 TRACER WIRE TRACER WIRE 1' ABOVE PIPE MECHANICAL AWWA M 17 JOINT GATE WHEN POSSIBLE ATTACH WIRES VALVE FILTER FABRIC

> **STANDARD** HYDRANT & VALVE BOX

VPRECAST CONCRETE THRUST BLOCKING AND MECHANICALLY NOTE: COMPACTION REQUIREMENTS REFER TO 20-2.20B OF THE STANDARD SPECIFICATIONS WATER LINE FOR CASING SEE— GUIDELINE #4

GUIDELINES

1. OMIT SELECT GRANULAR EMBEDMENT AND GRANULAR
BACKFILL TO ONE FOOT OVER TOP OF WATER MAIN AND USE SELECT
EXCAVATED MATERIAL (CLASS IV) AND COMPACT THE LENGTH OF "L".

2. IF SELECT GRANULAR BACKFILL EXISTS REMOVE WITHIN WIDTH OF

**STANDARD** 

VALVE & VALVE BOX

12. MINIMUM DEPTH OF WATERMAIN SHALL BE 3'-6" TO THE TOP OF PIPE UNLESS OTHERWISE NOTED.

13. ALL FITTINGS SHALL BE RESTRAINED WITH PRECAST CONCRETE THRUST BLOCK, UNLESS NOTED OTHERWISE. ALL VALVES SHALL BE RESTRAINED WITH MECHANICAL RESTRAINERS. NON BLOCKED

DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES, CONSERVATION SERVICES. 15. ALL EXCAVATION SHALL BE KEPT DEWATERED DURING CONSTRUCTION OPERATIONS UNTIL BACKFILL IS IN PLACE.

SURFACE

JOINT RESTRAINER

SEE GUIDELINES #27

14. EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, 1995 AS AMENDED. IT WAS PREPARED BY THE U.S.

CONSTRUCTION AREAS IS CONSIDERED TO BE AN ESSENTIAL AND INCLUDED IN THE COST OF CONSTRUCTED PAY ITEM

ADJUSTABLE

VALVE BOX

PROPOSED WATER MAIN

BELOW EXISTING SEWER LINE WITH 18" MINIMUM VERTICAL

CONC. FOUNDATION BLOCK

JOINT RESTRAINER

MINIMUM THICKNESS OF 3' FOR FULL WIDTH OF VALVE.

EXISTING SANITARY

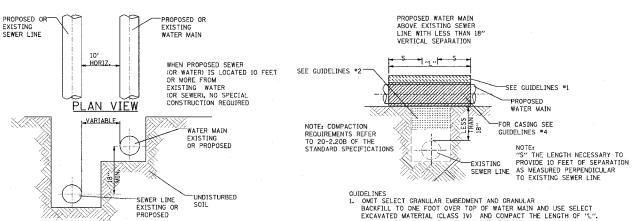
OR STORM SEWER

16. CONSTRUCTION OPERATIONS WILL BE REQUIRED ADJACENT TO PRIVATE PROPERTY. THE OWNER DOES

NOT AND WILL NOT ASSUME RESPONSIBILITY FOR ANY DAMAGE TO PRIVATE PROPERTY. CLEANUP OF

IF SELECT GRANNLAR BACKFILL EXISTS REMOVE WITHIN WIDTH OFEXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED
MATERIAL (CLASS IV) AND COMPACT.
PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT
DAMAGE DUE TO SETTLEMENT.
USE "(L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER
MAIN AND SEAL ENDS OF CASING

## VERTICAL SEPARATION



1" CLEAN AGG-

REGATE (CA 7 OR

WHEN PROPOSED SEWER OR WATER) IS LOCATED LESS THAN 10 FEET FROM EXISTING WATER (OR SEWER), DETAIL ABOVE SHALL APPLY

ALL APPLY SECTION HORIZONTAL SEPARATION

2. IF SELECT GRANLIAR BACKFILL EXISTS REMOVE WITHIN WIDTH OF
EXISTING SEWER LINE TRENCH AND REPLACE WITH SELECT EXCAVATED
MATERIAL (CLASS 1V) AND COMPACT.

3. PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE TO PREVENT
DAMAGE DUE TO SETTLEMENT.

4. USE "L" FEET OF WATER MAIN MATERIAL FOR CASING OF PROPOSED WATER
MAIN AND SEAL ENDS OF CASING

VERTICAL SEPARATION

TOP OF PAVEMENT.

OR GROUND

6" ALLOWANCE FOR TRENCH SHORING

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