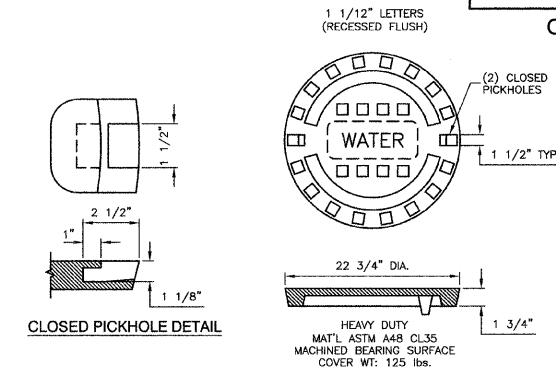
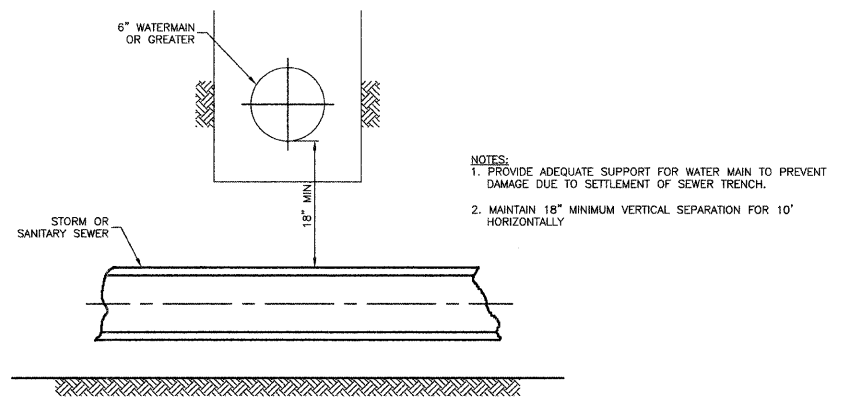


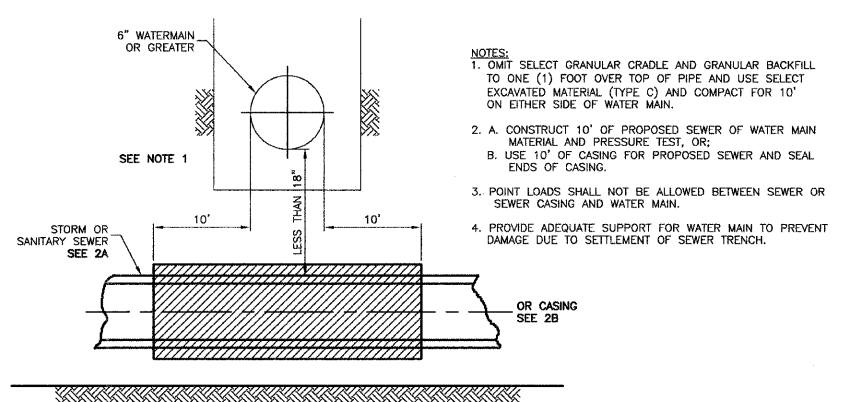
CONTRACT #63269



SPECIAL LETTERED WATER VALVE VAULT LID



PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH 18" MINIMUM SEPARATION



PROPOSED SEWER LINE BELOW EXISTING WATER MAIN WITH LESS THAN 18" MINIMUM SEPARATION

NOTE: TYPE C MATERIAL TO BE COMPACTED TO 90% OF MODIFIED PROCTOR MAXIMUM DENSITY

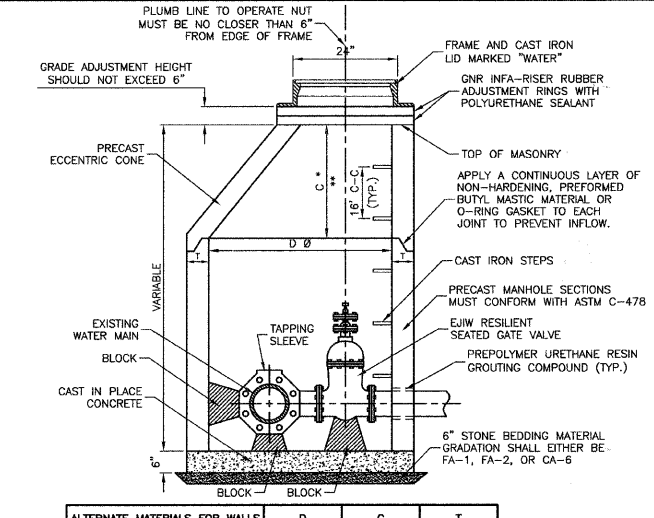
WATER AND SEWER SEPARATION REQUIREMENTS

ILLINOIS DEPARTMENT OF TRANSPORTATION

FAP 348 (HARLEM AVENUE) DRIVEWAY RECONFIGURATION CONSTRUCTION DETAILS

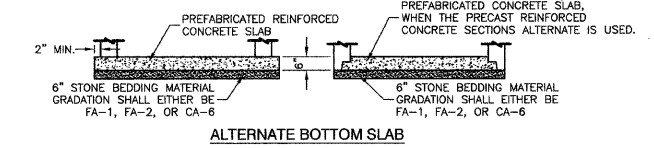
REVISIONS	
NAME	DATE

SCALE: VERT. NA  
 HORIZ. NA  
 DATE: 08-14-09  
 DRAWN BY: PS  
 CHECKED BY: RJW



ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	5'-0"	3'-9"	5'-8"
CAST-IN-PLACE CONCRETE	5'-0"	3'-9"	6'-0"

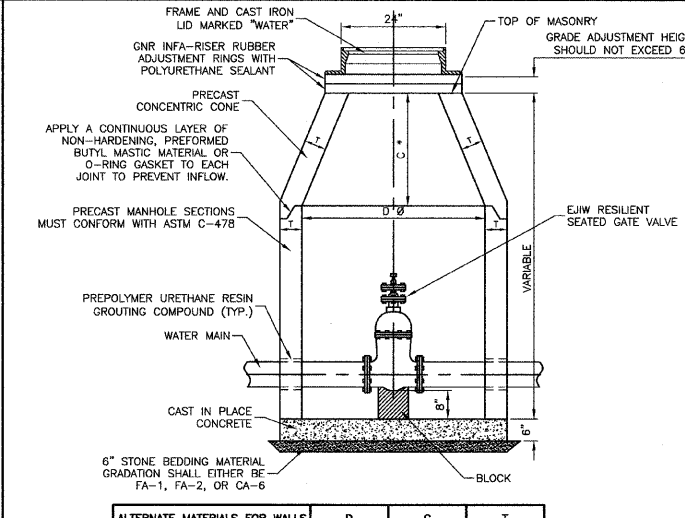
\* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN ±6"  
 \*\* SEE DETAIL FOR PRECAST REINFORCED CONCRETE FLAT SLAB TOP.



ALTERNATE BOTTOM SLAB

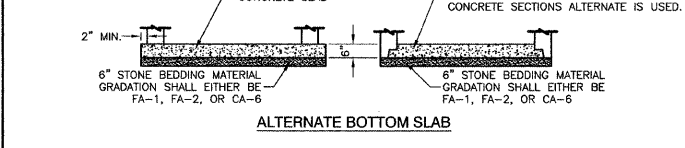
- NOTES:
1. VALVE TO ALIGN W/ CENTER OF FRAME OPENING.
  2. USE 5'-0" FOR WATER MAIN SIZES 8" AND UNDER. 6'-0" FOR SIZES 10" AND ABOVE.
  3. VALVE VAULT TO CONFORM TO ASTM C-478.
  4. ALL VALVES SHALL BE EAST JORDAN IRON WORKS RESILIENT SEATED GATE VALVES.
  5. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
  6. PROVIDE CA-6 AGGREGATE BACKFILL MATERIAL AROUND VAULT TO SUB-GRADE ELEVATION; IN PAVED AREAS.

VALVE IN VAULT DETAIL FOR PRESSURE CONNECTION



ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	4'-0"	2'-8"	4'-4"
CAST-IN-PLACE CONCRETE	4'-0"	2'-8"	5'-0"

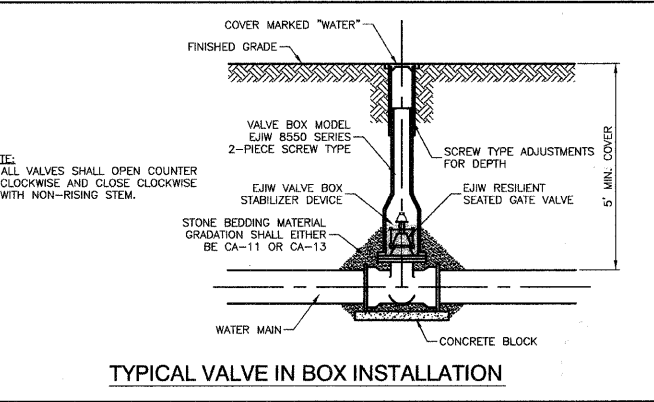
\* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN ±6"



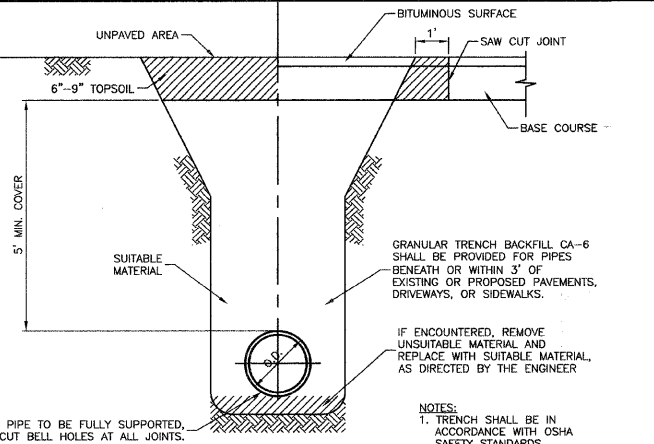
ALTERNATE BOTTOM SLAB

- NOTES:
1. CONCENTRIC CONE REQUIRED (VALVE TO ALIGN W/ CENTER OF FRAME OPENING).
  2. USE 4'-0" FOR WATER MAIN SIZES 8" AND UNDER. 5'-0" FOR SIZES 10" AND ABOVE.
  3. VALVE VAULT TO CONFORM TO ASTM C-478.
  4. ALL VALVES SHALL BE EAST JORDAN IRON WORKS RESILIENT SEATED GATE VALVES.
  5. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
  6. PROVIDE CA-6 AGGREGATE BACKFILL MATERIAL AROUND VAULT TO SUB-GRADE ELEVATION; IN PAVED AREAS.

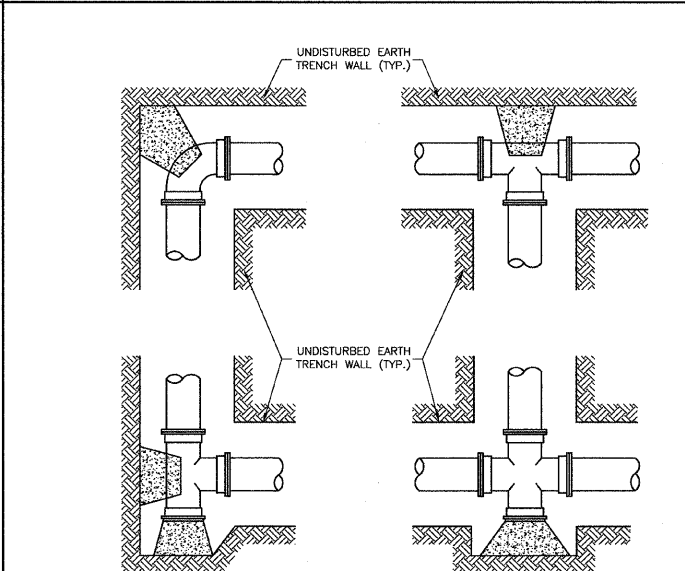
VALVE IN VAULT DETAIL



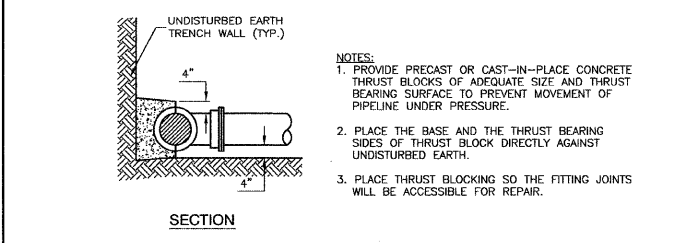
TYPICAL VALVE IN BOX INSTALLATION



TRENCH BACKFILL DETAIL FOR WATERMAIN



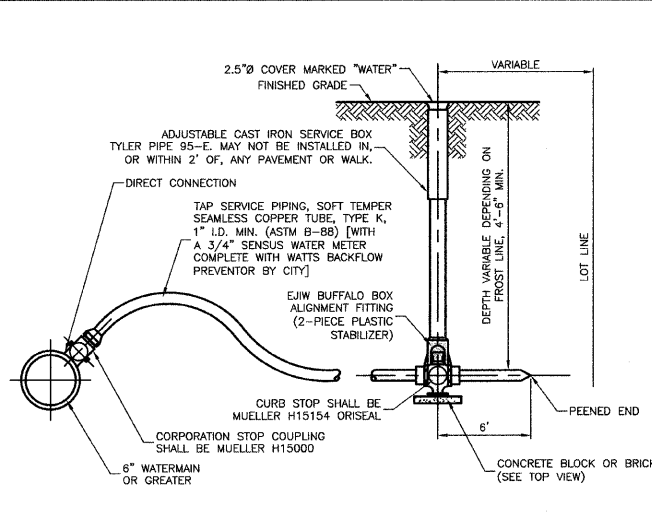
PLANS



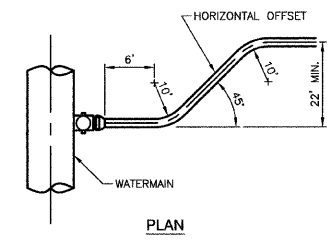
SECTION

TYPICAL THRUST BLOCK INSTALLATIONS

- NOTES:
1. PROVIDE PRECAST OR CAST-IN-PLACE CONCRETE THRUST BLOCKS OF ADEQUATE SIZE AND THRUST BEARING SURFACE TO PREVENT MOVEMENT OF PIPELINE UNDER PRESSURE.
  2. PLACE THE BASE AND THE THRUST BEARING SIDES OF THRUST BLOCK DIRECTLY AGAINST UNDISTURBED EARTH.
  3. PLACE THRUST BLOCKING SO THE FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.



TOP VIEW

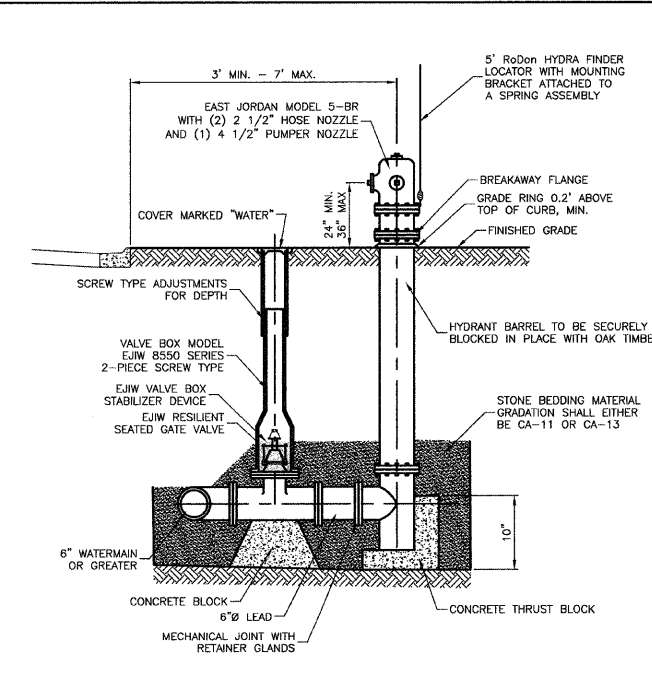


PLAN

SERVICE PIPE	CORP STOP	CURB STOP	SERVICE BOX
1"	1"	1"	2 1/2"
1 1/4"	1 1/4"	1 1/4"	3"
1 1/2"	1 1/4" x 1 1/2"	1 1/2"	3"
2"	1 1/2" x 2"	2"	3"

- NOTE:
1. BUFFALO BOX ON WATER SERVICE LINES SHALL BE INSTALLED IN THE CENTER OF THE LOT, IN THE PARKWAY, AND NEVER IN SIDEWALK OR DRIVEWAY.

TYPICAL WATER SERVICE INSTALLATION



FIRE HYDRANT INSTALLATION

- NOTES:
1. HYDRANTS SHALL BE INSTALLED FACING TOWARD THE CURB. NO HYDRANT SHALL BE INSTALLED WITHIN 48" OF ANY OBSTRUCTION NOR SHALL ANY OBSTRUCTION BE PLACED WITHIN 48" OF A HYDRANT. ALL HYDRANTS SHALL BE PAINTED SAFETY RED BY THE MANUFACTURER.
  2. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
  3. HYDRANT DRAIN HOLE SHALL BE FREE OF CONCRETE.