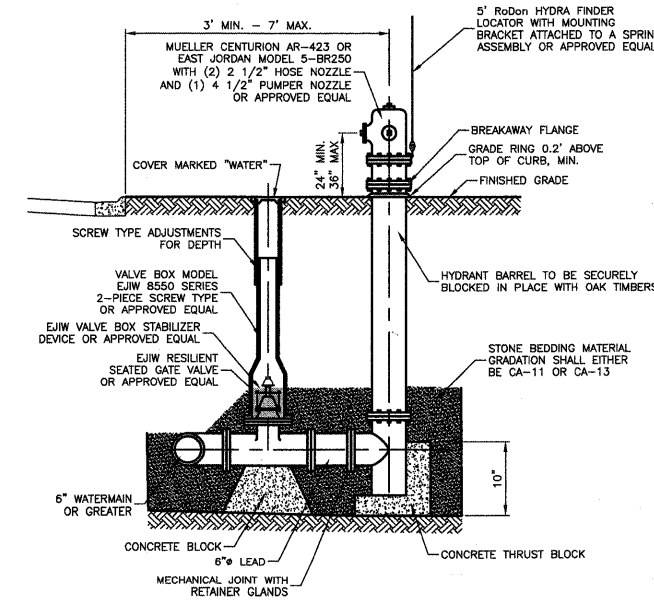
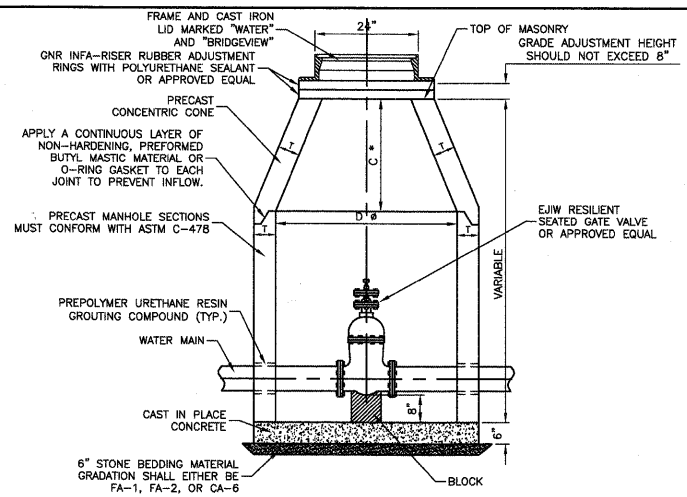


TYPICAL WATER SERVICE INSTALLATION

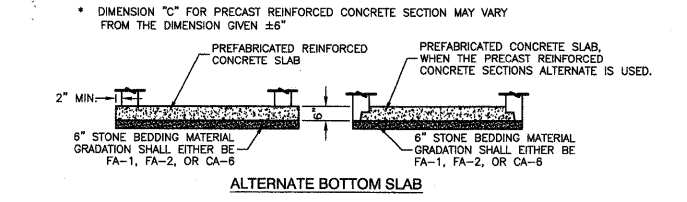


- NOTES:
- HYDRANTS SHALL BE INSTALLED FACING TOWARD THE CURB. NO HYDRANT SHALL BE INSTALLED WITHIN 48" OF ANY OBSTRUCTION NOR SHALL ANY OBSTRUCTION BE PLACED WITHIN 48" OF A HYDRANT. ALL HYDRANTS SHALL BE PAINTED SAFETY RED BY THE MANUFACTURER.
 - ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE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

FIRE HYDRANT INSTALLATION

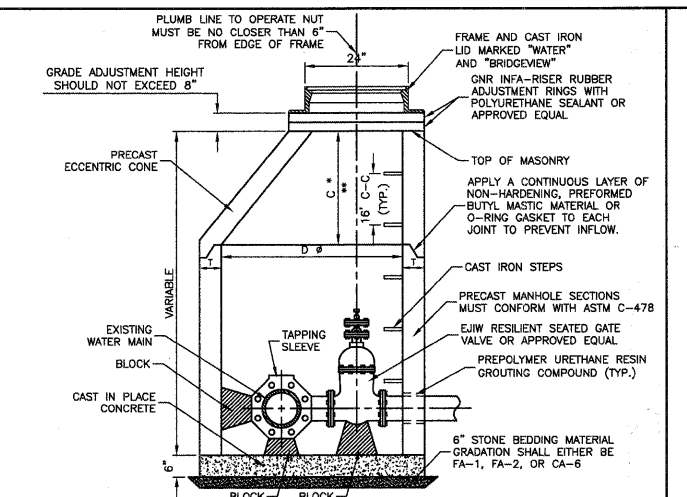


ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	4'-0"	2'-6"	4'
CAST-IN-PLACE CONCRETE	4'-0"	2'-6"	6'

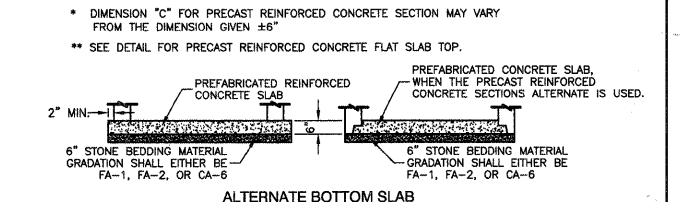


- NOTES:
- CONCENTRIC CONE REQUIRED (VALVE TO ALIGN W/ CENTER OF FRAME OPENING).
 - USE 4'-0" FOR WATER MAIN SIZES 8" AND UNDER. 5'-0" FOR SIZES 10" AND ABOVE.
 - VALVE VAULT TO CONFORM TO ASTM C-478.
 - ALL VALVES SHALL BE EAST JORDAN IRON WORKS RESILIENT SEATED GATE VALVES OR APPROVED EQUAL.
 - ALL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

VALVE IN VAULT DETAIL

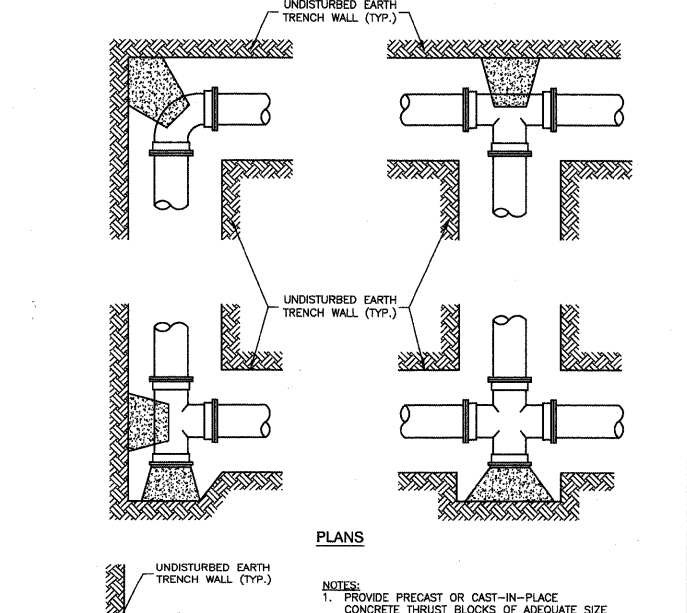


ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	5'-0"	3'-9"	5'
CAST-IN-PLACE CONCRETE	5'-0"	3'-9"	6'



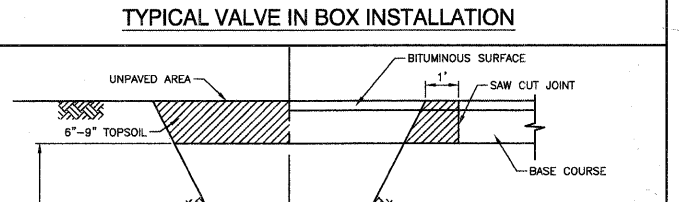
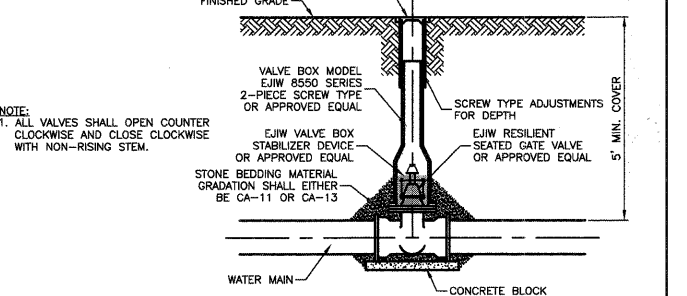
- NOTES:
- VALVE TO ALIGN W/ CENTER OF FRAME OPENING.
 - USE 5'-0" FOR WATER MAIN SIZES 8" AND UNDER. 6'-0" FOR SIZES 10" AND ABOVE.
 - VALVE VAULT TO CONFORM TO ASTM C-478.
 - ALL VALVES SHALL BE EAST JORDAN IRON WORKS RESILIENT SEATED GATE VALVES OR APPROVED EQUAL.
 - ALL VALVES SHALL OPEN COUNTER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

VALVE IN VAULT DETAIL FOR PRESSURE CONNECTION



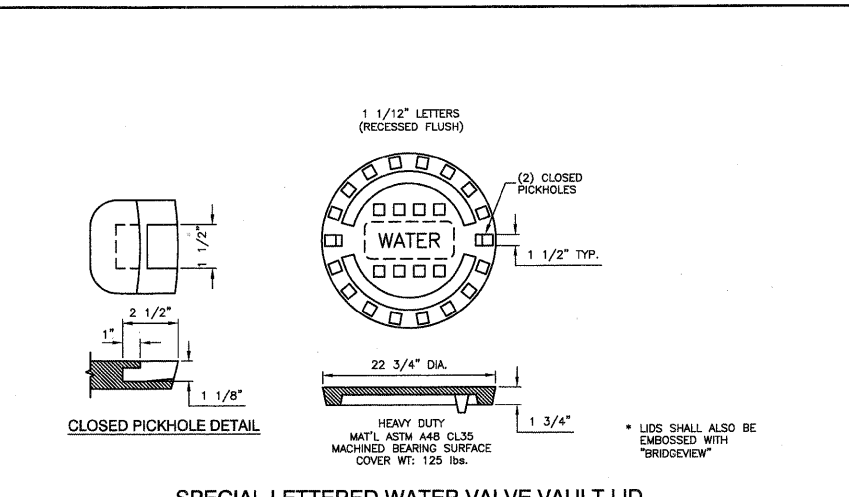
- NOTES:
- PROVIDE PRECAST OR CAST-IN-PLACE CONCRETE THRUST BLOCKS OF ADEQUATE SIZE AND THRUST BEARING SURFACE TO PREVENT MOVEMENT OF PIPELINE UNDER PRESSURE.
 - PLACE THE BASE AND THE THRUST BEARING SIDES OF THRUST BLOCK DIRECTLY AGAINST UNDISTURBED EARTH.
 - PLACE THRUST BLOCKING SO THE FITTING JOINTS WILL BE ACCESSIBLE FOR REPAIR.
 - THRUST BLOCKING SHALL NOT ELIMINATE THE REQUIREMENT FOR MEGALUGS OR EQUAL.

TYPICAL THRUST BLOCK INSTALLATIONS

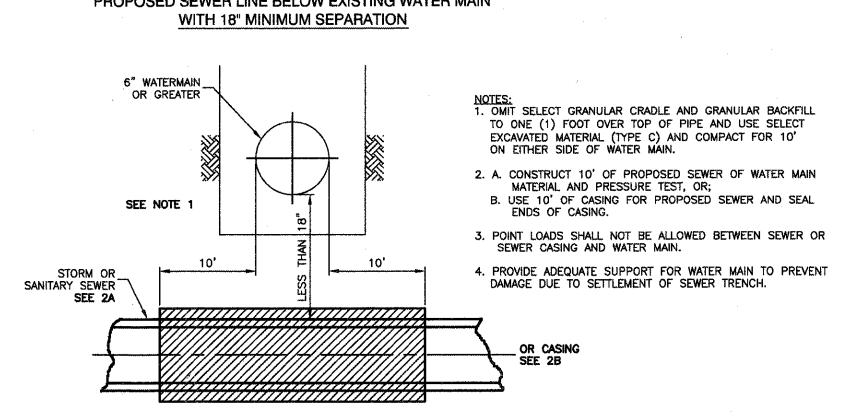
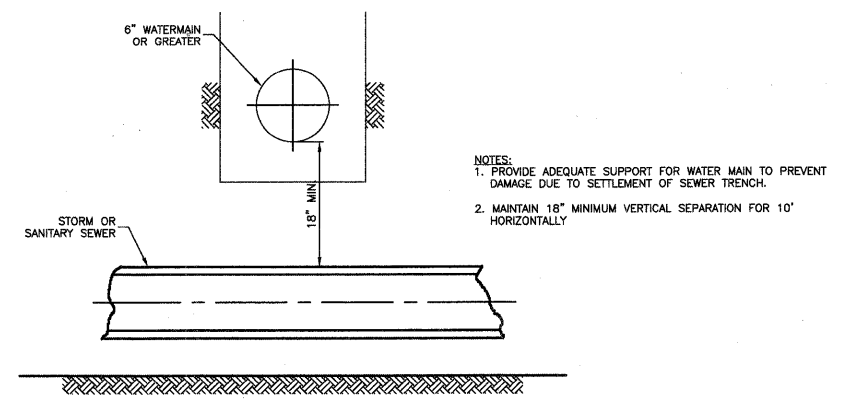


- NOTES:
- TRENCH SHALL BE IN ACCORDANCE WITH OSHA SAFETY STANDARDS.

TRENCH BACKFILL DETAIL FOR WATERMAIN



SPECIAL LETTERED WATER VALVE VAULT LID



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

WATER AND SEWER SEPARATION REQUIREMENTS

FILE NAME = 0853-07LS-01 - IDOT P02	USER NAME =	DESIGNED = PKB	REVISED =	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	71ST STREET	F.A.U. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
	PLOT SCALE =	CHECKED = PKB	REVISED =		CONSTRUCTION DETAILS	1537	06-00050-00-GS	COOK	209	70
	PLOT DATE = 12/23/10	DRAWN = PS	REVISED =		SCALE: SHEET NO. 70 OF 209 SHEETS STA. TO STA.					CONTRACT NO. 63556
		CHECKED = AG	REVISED =			FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	CRE-9003(709)	