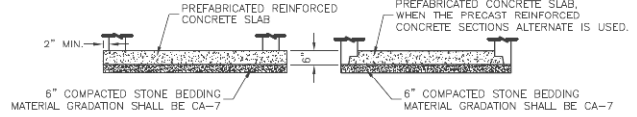


ALTERNATE MATERIALS FOR WALLS	D	C	T
PRECAST REINFORCED CONCRETE SECTION	4'-0"	2'-6"	4"
CAST-IN-PLACE CONCRETE	4'-0"	2'-6"	6"

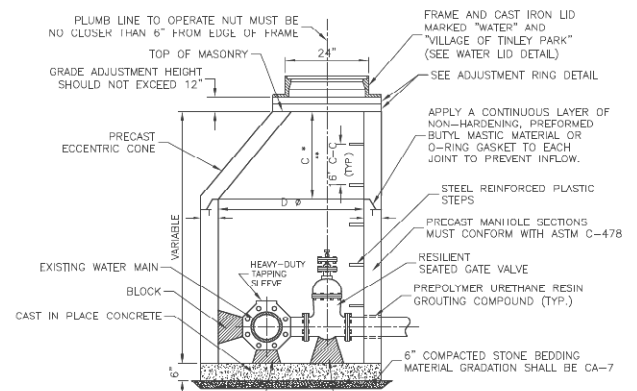
\* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN  $\pm 0$ "



ALTERNATE BOTTOM SLAB

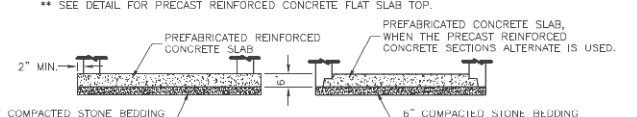
- NOTES:
1. CONCENTRIC CONE REQUIRED (VALVE TO ALIGN W/ CENTER OF FRAME OPENING).
  2. USE 4'-0" FOR WATER MAIN SIZES 10" AND UNDER, 5'-0" FOR SIZES 12" AND ABOVE.
  3. VALVE VAULT TO CONFORM TO ASTM C-478.
  4. ALL VALVES SHALL HAVE STAINLESS STEEL BOLTS AND NUTS.
  5. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
  6. PROVIDE CA-7 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"

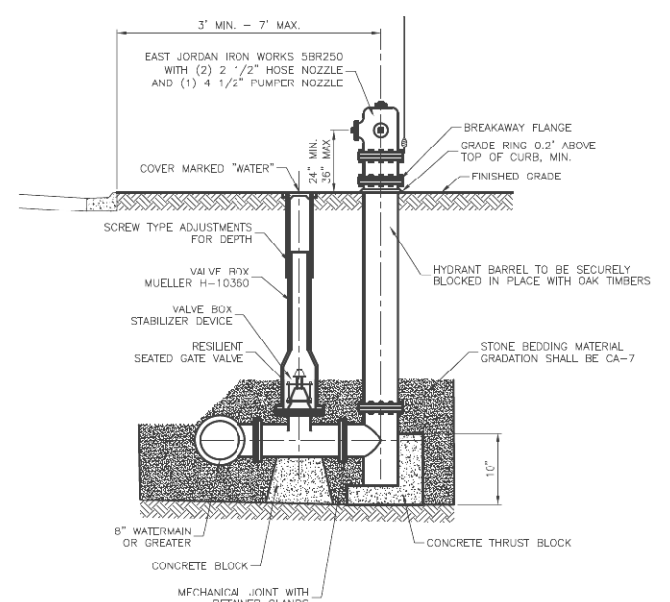
\* DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTION MAY VARY FROM THE DIMENSION GIVEN  $\pm 0$ "



ALTERNATE BOTTOM SLAB

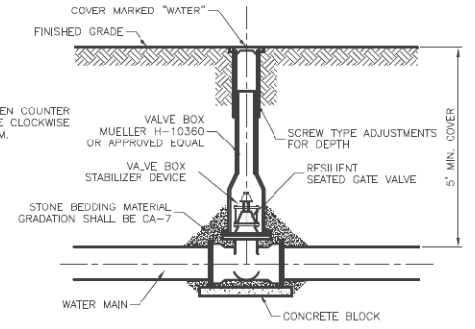
- NOTES:
1. VALVE TO ALIGN W/ CENTER OF FRAME OPENING.
  2. USE 4'-0" FOR WATER MAIN SIZES 10" AND UNDER, 5'-0" FOR SIZES 12" AND ABOVE.
  3. VALVE VAULT TO CONFORM TO ASTM C-478.
  4. ALL VALVES SHALL HAVE STAINLESS STEEL BOLTS AND NUTS.
  5. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.
  6. PROVIDE CA-7 AGGREGATE BACKFILL MATERIAL AROUND VAULT TO SUB-GRADE ELEVATION; IN PAVED AREAS.

VALVE IN VAULT DETAIL FOR PRESSURE CONNECTION



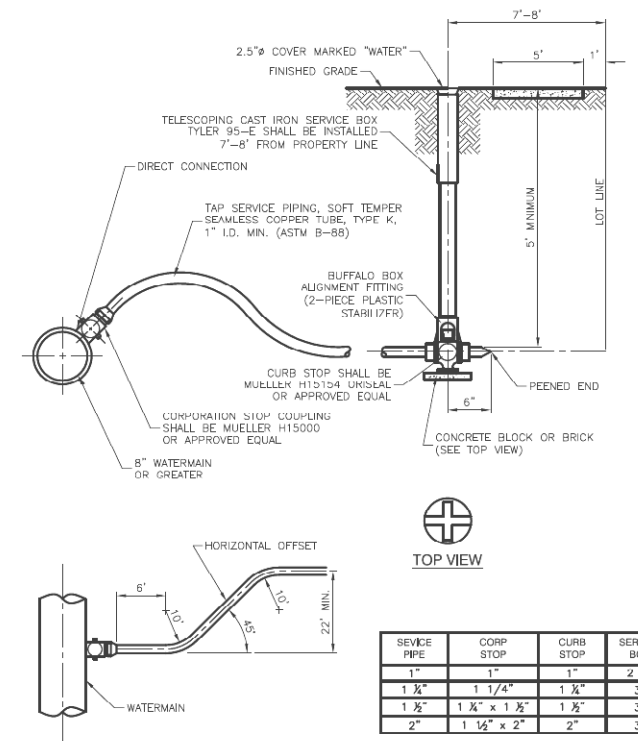
- NOTES:
1. HYDRANTS SHALL BE INSTALLED FACING TOWARD THE CURB. NO HYDRANT SHALL BE INSTALLED WITHIN 48" OF ANY OBSTRUCTION NOR SHALL ANY OBSTRUCTION BE PLACED WITHIN 48" OF A HYDRANT. ALL HYDRANTS SHALL BE PAINTED SAFETY YELLOW BY THE MANUFACTURER.
  2. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE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

FIRE HYDRANT INSTALLATION



- NOTE:
1. ALL VALVES SHALL OPEN COUNTER CLOCKWISE AND CLOSE CLOCKWISE WITH NON-RISING STEM.

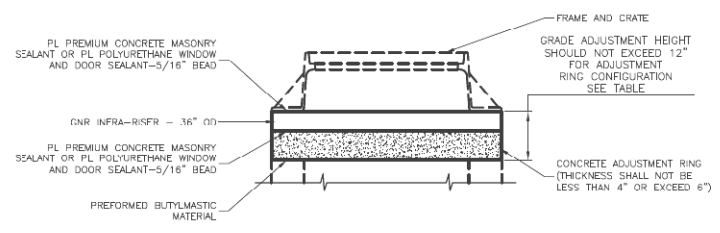
TYPICAL VALVE IN BOX INSTALLATION



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

- NOTE:
1. BUFFALO BOX ON WATER SERVICE LINES SHALL BE INSTALLED IN THE CENTER OF THE LOT, 7'-8" FROM PROPERTY LINE, AND NEVER IN SIDEWALK OR DRIVEWAY. VALVE SHALL BE MINNEAPOLIS STYLE.

TYPICAL WATER SERVICE INSTALLATION

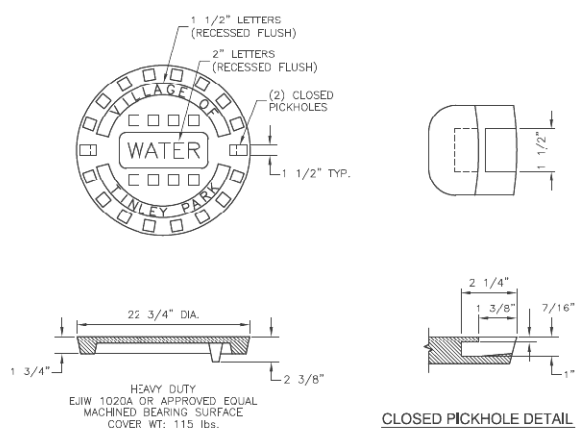


ADJUSTMENT RING TABLE

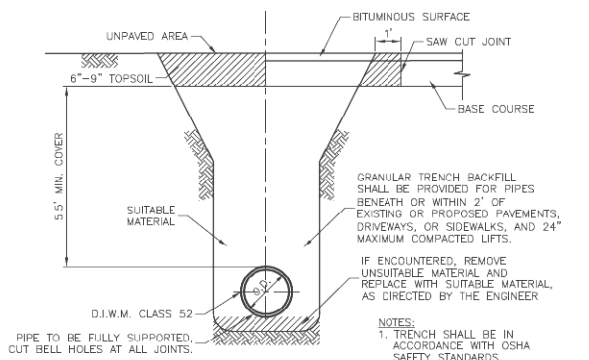
ADJUSTMENT HEIGHT	CONCRETE	RUBBER
0"	-	-
1"	-	1"
2"	-	2"
3"	-	3"
4"	4"	-
5"	4" 1"	-
6"	4" 2"	-
7"	4" 3"	-
8"	4" 4"	-
9"	6"	3"
10"	4" 4"	2"
11"	4" 4"	3"
12"	6" 4"	2"

NOTE: GRADE ADJUSTMENT HEIGHT SHOULD NOT EXCEED 12"

ADJUSTMENT RING DETAIL



SPECIAL LETTERED WATER VALVE VAULT LID



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

TRENCH BACKFILL DETAIL FOR WATERMAIN