

Regional Municipality of Halton

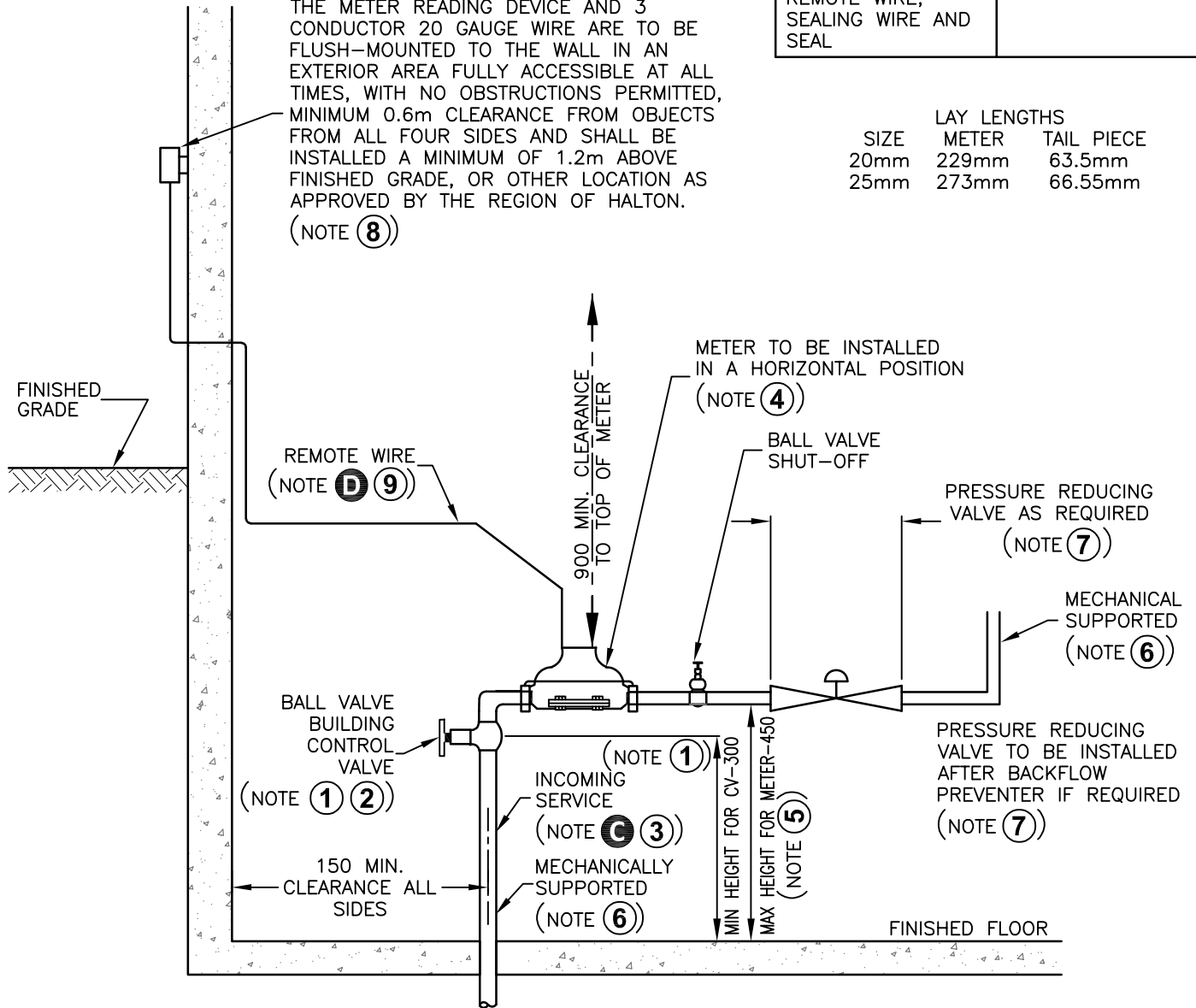


Water Meter Standard Drawings

**FOR 20–25mm
SINGLE FAMILY RESIDENTIAL
WATER METER INSTALLATION ONLY**

THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH-MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.

(NOTE 8)



MATERIALS

SUPPLIED BY REGION	SUPPLIED BY OTHERS
20–25mm WATER METER C/W TOUCH READ DISC AND BRACKET TAILPIECES	ALL PIPE FITTINGS REQUIRED FOR INSTALLATION INCLUDING VALVES
REMOTE WIRE, SEALING WIRE AND SEAL	

SIZE	LAY LENGTHS	
	METER	TAIL PIECE
20mm	229mm	63.5mm
25mm	273mm	66.55mm

- GENERAL REQUIREMENTS
- INSTALLATION INSTRUCTIONS

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RH 500.011

ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

**THE REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT**

Date: Nov. 2023 Rev. 2 NTS

**STANDARD 20–25mm
WATER METER INSTALLATION
(NEW SINGLE FAMILY RESIDENTIAL)**

REGION STANDARD RH 500.010

**STANDARD 20–25mm NEW SINGLE FAMILY RESIDENTIAL
METER INSTALLATION ONLY**

ALL NOTES AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH RH 500.010

● GENERAL REQUIREMENTS

- A. THE METER INSTALLATION, INCLUDING ANY PIPING THAT IS PART OF THE METER INSTALLATION AND THE VALVING ARRANGEMENT FOR THE METER INSTALLATION, SHALL BE IN ACCORDANCE TO HALTON REGION'S REQUIREMENTS AND THE ONTARIO BUILDING CODE.
- B. THE CURB STOP/BOX MUST BE OPERATIONAL PRIOR TO INSTALLATION OF THE METER.
- C. ENSURE THAT THE PRIVATE WATER SERVICE PIPE ENTERING THE DWELLING MINIMUM DIAMETER IS IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS.
- D. THE WIRE SHALL BE RUN NEATLY AND FASTENED EVERY 600MM TO THE SURROUNDING PIPEWORK AND STRUCTURE USING APPROVED MATERIALS FOR WIRING SYSTEMS I.E. ZIP TIES, WIRING STAPLES. THE REGION PROVIDED WIRE SHALL RUN FROM THE EXTERIOR WHERE READING DEVICE IS TO BE INSTALLED TO THE WATER METER, AND WRAPPED 5 TIMES AROUND THE REGISTER HEAD IN PREPARATION FOR REGION TECHNICIAN TO COMPLETE WIRING CONNECTIONS.
- E. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

○ INSTALLATION INSTRUCTIONS

- 1. THE BUILDING CONTROL VALVE IS TO BE THE SAME SIZE AS THE INCOMING WATER SERVICE PIPE. THE REGIONAL WATER METER SHALL BE CONNECTED TO THE WATER SERVICE PIPE DOWNSTREAM OF THE BUILDING CONTROL VALVE USING STRAIGHT METER TAILPIECES WITH MIP THREADED ENDS. THE BUILDING CONTROL VALVE MUST BE MINIMUM 300mm FROM FINISHED FLOOR.
- 2. THE BUILDING CONTROL VALVE IS TO BE A BALL VALVE INSTALLED IMMEDIATELY UPSTREAM OF THE METER TAILPIECE AND IS REQUIRED TO BE AN APPROVED MANUFACTURERS PRODUCT FOR WATER SYSTEMS BY HALTON REGION.
- 3. THE WATER SERVICE PIPE SHALL BE FLUSHED AFTER INSTALLATION OF BUILDING CONTROL VALVE AND PRIOR TO INSTALLATION OF METER IDLER (SPACER) OR WATER METER FOR A VOLUME OF AT LEAST 15 LITRES.
- 4. ALL WATER METERS ARE TO BE INSTALLED IN A HORIZONTAL POSITION AND SHALL CONFORM TO THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
- 5. BASE OF WATER METER MUST BE INSTALLED NO MORE THAN 450mm FROM FINISHED FLOOR.
- 6. WHERE NON-METALLIC PIPE IS USED FOR THE PRIVATE WATER SERVICE PIPE AND/OR PRIVATE WATER SERVICE PIPE DOWNSTREAM OF THE METER, RIGID SUPPORTS ARE REQUIRED FOR THE WATER SERVICE PIPE AND WATER METER. IF REQUIRED, TYPE "L" COPPER (CERTIFIED TO ASTM B88) AND RATED TO A MINIMUM WORKING PRESSURE OF 1100 KPA SHALL BE USED BETWEEN THE BUILDING CONTROL VALVE AND ISOLATION VALVE.
- 7. THE CONTRACTOR/DESIGNER DETERMINES WHETHER A PRESSURE REDUCING VALVE (PRV) IS REQUIRED TO LIMIT THE MAXIMUM STATIC PRESSURE TO 550 KPA (80 PSI), IT IS TO BE INSTALLED DOWNSTREAM OF THE BUILDING CONTROL VALVE, METER, AND ISOLATION VALVE. IF A BACKFLOW PREVENTER IS REQUIRED, THE PRV SHALL BE INSTALLED AFTER THE BACKFLOW PREVENTER.
- 8. THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.
- 9. IF THE BASEMENT OR EXTERIOR WALL IS COMPLETED PRIOR TO OCCUPANCY, THE CONTRACTOR MUST ARRANGE THE INSTALLATION OF 3 CONDUCTOR 20 GAUGE (MINIMUM) WIRE PRIOR TO CEILING AND WALLS BEING INSTALLED, OR PROVIDE A 12mm CONDUIT AND FISHING WIRE FROM THE METER TO OUTSIDE OF THE BUILDING.

**THE REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT**

Date: Nov. 2023

Rev. 2

NTS

**STANDARD 20–25mm
WATER METER INSTALLATION
(NEW SINGLE FAMILY RESIDENTIAL)**

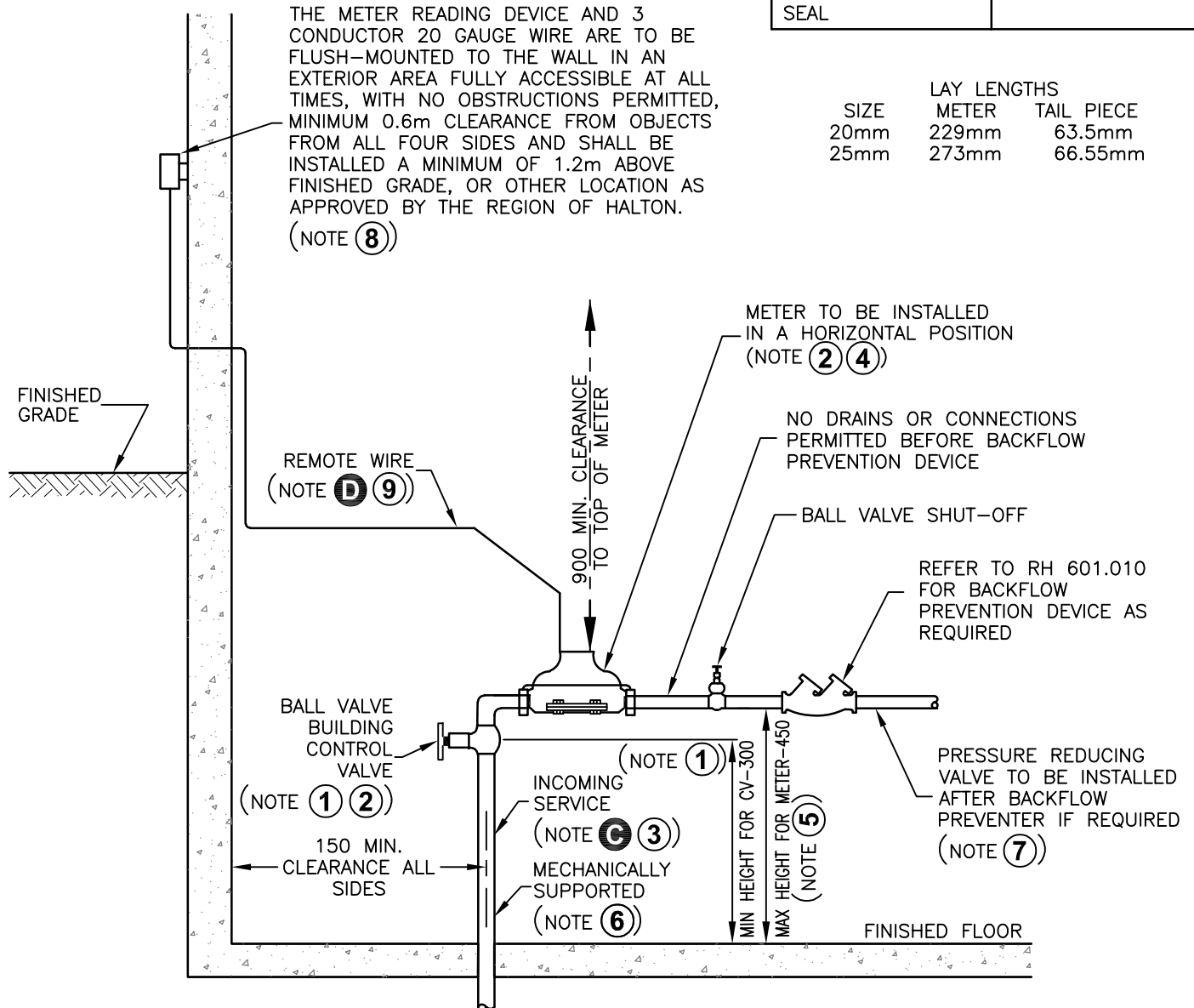
REGION STANDARD

RH 500.011

**FOR 20–25mm
NEW MULTI-RESIDENTIAL/COMMERCIAL/
INDUSTRIAL WATER METER INSTALLATION ONLY**

MATERIALS	
SUPPLIED BY REGION	SUPPLIED BY OTHERS
20–25mm WATER METER C/W TOUCH READ DISC AND BRACKET TAILPIECES	ALL PIPE FITTINGS REQUIRED FOR INSTALLATION INCLUDING VALVES
REMOTE WIRE, SEALING WIRE AND SEAL	

SIZE	LAY LENGTHS	
	METER	TAIL PIECE
20mm	229mm	63.5mm
25mm	273mm	66.55mm



- GENERAL REQUIREMENTS
- INSTALLATION INSTRUCTIONS

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RH 501.011

ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

THE REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT

Date: Nov. 2023 Rev. 2 NTS

**STANDARD 20–25mm
WATER METER INSTALLATION
(NEW MULTI-RESIDENTIAL/COMMERCIAL/INDUSTRIAL)**

REGION STANDARD RH 501.010

**STANDARD 20–25mm NEW MULTI–RESIDENTIAL/COMMERCIAL/INDUSTRIAL
METER INSTALLATION ONLY**

ALL NOTES AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH RH 501.010

● GENERAL REQUIREMENTS

- A. THE METER INSTALLATION, INCLUDING ANY PIPING THAT IS PART OF THE METER INSTALLATION AND THE VALVING ARRANGEMENT FOR THE METER INSTALLATION, SHALL BE IN ACCORDANCE TO HALTON REGION’S REQUIREMENTS AND THE ONTARIO BUILDING CODE.
- B. THE CURB STOP/BOX MUST BE OPERATIONAL PRIOR TO INSTALLATION OF THE METER.
- C. ENSURE THAT THE PRIVATE WATER SERVICE PIPE ENTERING THE PROPERTY MINIMUM DIAMETER IS IN ACCORDANCE WITH LOCAL MUNICIPAL REQUIREMENTS.
- D. THE WIRE SHALL BE RUN NEATLY AND FASTENED EVERY 600MM TO THE SURROUNDING PIPEWORK AND STRUCTURE USING APPROVED MATERIALS FOR WIRING SYSTEMS I.E. ZIP TIES, WIRING STAPLES. THE REGION PROVIDED WIRE SHALL RUN FROM THE EXTERIOR WHERE READING DEVICE IS TO BE INSTALLED TO THE WATER METER, AND WRAPPED 5 TIMES AROUND THE REGISTER HEAD IN PREPARATION FOR REGION TECHNICIAN TO COMPLETE WIRING CONNECTIONS.
- E. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.

○ INSTALLATION INSTRUCTIONS

- 1. THE BUILDING CONTROL VALVE IS TO BE THE SAME SIZE AS THE INCOMING WATER SERVICE PIPE. THE REGIONAL WATER METER SHALL BE CONNECTED TO THE WATER SERVICE PIPE DOWNSTREAM OF THE BUILDING CONTROL VALVE USING STRAIGHT METER TAILPIECES WITH MIP THREADED ENDS. THE BUILDING CONTROL VALVE MUST BE MINIMUM 300mm FROM FINISHED FLOOR.
- 2. THE BUILDING CONTROL VALVE IS TO BE A BALL VALVE INSTALLED IMMEDIATELY UPSTREAM OF THE METER TAILPIECE AND IS REQUIRED TO BE AN APPROVED MANUFACTURERS PRODUCT FOR WATER SYSTEMS BY HALTON REGION.
- 3. THE WATER SERVICE PIPE SHALL BE FLUSHED AFTER INSTALLATION OF BUILDING CONTROL VALVE AND PRIOR TO INSTALLATION OF METER IDLER (SPACER) OR WATER METER FOR A VOLUME OF AT LEAST 15 LITRES.
- 4. ALL WATER METERS ARE TO BE INSTALLED IN A HORIZONTAL POSITION AND SHALL CONFORM TO THE MANUFACTURER’S INSTALLATION REQUIREMENTS.
- 5. BASE OF WATER METER MUST BE INSTALLED NO MORE THAN 450mm FROM FINISHED FLOOR.
- 6. WHERE NON–METALLIC PIPE IS USED FOR THE PRIVATE WATER SERVICE PIPE AND/OR PRIVATE WATER SERVICE PIPE DOWNSTREAM OF THE METER, RIGID SUPPORTS ARE REQUIRED FOR THE WATER SERVICE PIPE AND WATER METER. IF REQUIRED, TYPE “L” COPPER (CERTIFIED TO ASTM B88) AND RATED TO A MINIMUM WORKING PRESSURE OF 1100 KPA SHALL BE USED BETWEEN THE BUILDING CONTROL VALVE AND ISOLATION VALVE.
- 7. THE CONTRACTOR/DESIGNER DETERMINES WHETHER A PRESSURE REDUCING VALVE (PRV) IS REQUIRED TO LIMIT THE MAXIMUM STATIC PRESSURE TO 550 KPA (80 PSI), IT IS TO BE INSTALLED DOWNSTREAM OF THE BUILDING CONTROL VALVE, METER, AND ISOLATION VALVE. IF A BACKFLOW PREVENTER IS REQUIRED, THE PRV SHALL BE INSTALLED AFTER THE BACKFLOW PREVENTER.
- 8. THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.
- 9. IF THE BASEMENT OR EXTERIOR WALL IS COMPLETED PRIOR TO OCCUPANCY, THE CONTRACTOR MUST ARRANGE THE INSTALLATION OF 3 CONDUCTOR 20 GAUGE (MINIMUM) WIRE PRIOR TO CEILING AND WALLS BEING INSTALLED, OR PROVIDE A 12mm CONDUIT AND FISHING WIRE FROM THE METER TO OUTSIDE OF THE BUILDING.

<p align="center">THE REGIONAL MUNICIPALITY OF HALTON PUBLIC WORKS DEPARTMENT</p>	<p>Date: Nov. 2023</p>	<p>Rev. 2</p>	<p>NTS</p>
<p align="center">STANDARD 20–25mm WATER METER INSTALLATION (NEW MULTI–RESIDENTIAL/COMMERCIAL/INDUSTRIAL)</p>	<p align="center">REGION STANDARD RH 501.011</p>		

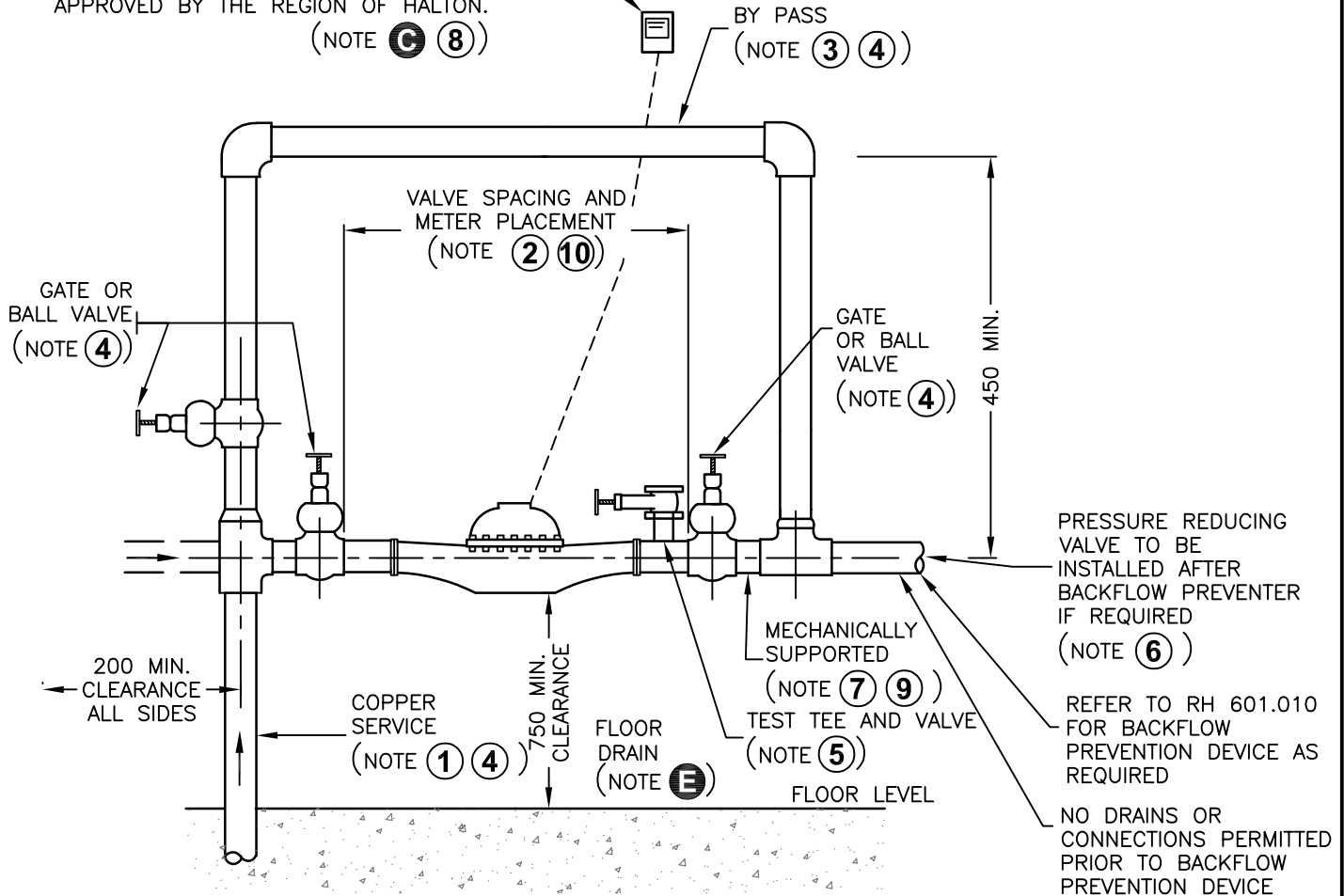
**FOR 38–50mm
NEW MULTI-RESIDENTIAL/COMMERCIAL/
INDUSTRIAL WATER METER INSTALLATION ONLY**

THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH-MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.

(NOTE **C** **8**)

MATERIALS	
SUPPLIED BY REGION	SUPPLIED BY OTHERS
38–50mm WATER METER C/W TOUCH READ DISC AND COMPANION FLANGES REMOTE WIRE 2–GASKETS, BOLTS AND NUTS	ALL PIPE FITTINGS REQUIRED FOR INSTALLATION INCLUDING VALVES

SIZE	LAY LENGTHS	
	METER	FLANGE
40mm	330mm	25.4mm
50mm	432mm	27.94mm



- GENERAL REQUIREMENTS
- INSTALLATION INSTRUCTIONS

**THIS DRAWING SHALL BE READ IN
CONJUNCTION WITH RH 502.011**

ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

**THE REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT**

Date: Nov. 2023 Rev. 2 NTS

**STANDARD 38–50mm
WATER METER INSTALLATION
(NEW MULTI-RESIDENTIAL/COMMERCIAL/INDUSTRIAL)**

REGION STANDARD RH 502.010

STANDARD 38–50mm MULTI–RESIDENTIAL/COMMERCIAL/INDUSTRIAL METER INSTALLATION ONLY

ALL NOTES AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH RH 502.010

● GENERAL REQUIREMENTS

- A. THE METER INSTALLATION, INCLUDING ANY PIPING THAT IS PART OF THE METER INSTALLATION AND THE VALVING ARRANGEMENT FOR THE METER INSTALLATION, SHALL BE IN ACCORDANCE TO HALTON REGION’S REQUIREMENTS AND THE ONTARIO BUILDING CODE.
- B. THE CURB STOP/BOX MUST BE OPERATIONAL PRIOR TO INSTALLATION OF THE METER.
- C. THE WIRE SHALL BE RUN NEATLY AND FASTENED EVERY 600MM TO THE SURROUNDING PIPEWORK AND STRUCTURE USING APPROVED MATERIALS FOR WIRING SYSTEMS I.E. ZIP TIES, WIRING STAPLES. THE REGION PROVIDED WIRE SHALL RUN FROM THE EXTERIOR WHERE READING DEVICE IS TO BE INSTALLED TO THE WATER METER, AND WRAPPED 5 TIMES AROUND THE REGISTER HEAD IN PREPARATION FOR REGION TECHNICIAN TO COMPLETE WIRING CONNECTIONS.
- D. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- E. PROVISIONS ARE TO BE MADE FOR DISPOSAL OF WATER USED FOR IN–SITU TESTING EITHER THROUGH THE FLOOR DRAIN OR 125 MM FERRULE THROUGH THE WALL.

○ INSTALLATION INSTRUCTIONS

1. THE WATER SERVICE PIPE SHALL BE FLUSHED AFTER INSTALLATION OF BUILDING CONTROL VALVE AND PRIOR TO INSTALLATION OF METER IDLER (SPACER) OR WATER METER.
2. ALL WATER METERS ARE TO BE INSTALLED IN THE HORIZONTAL POSITION AND ACCORDING TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS. ALL BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED DOWNSTREAM OF THE WATER METER WITH NO UPSTREAM CONNECTIONS OR TEES AND SHALL BE INSTALLED AS PER CSA AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
3. BY–PASS PIPING MAY BE INSTALLED IN THE HORIZONTAL OR VERTICAL POSITION AROUND THE WATER METER. ALL BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED DOWNSTREAM OF THE WATER METER AND BY–PASS, WITH NO CONNECTIONS OR TEES AND SHALL BE INSTALLED AS PER CSA AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
4. ALL PIPING, INCLUDING BY–PASS PIPE, TEES, BENDS AND VALVES SHALL BE THE SAME DIAMETER AS THE INCOMING WATER SERVICE PIPE. PIPE REDUCERS REQUIRED TO ACCOMMODATE A SMALLER WATER METER THAN THE WATER SERVICE PIPE SHALL BE INSTALLED BETWEEN THE INLET AND OUTLET VALVES AND SHALL BE OF THE CONCENTRIC TYPE (NO THREADED REDUCING BUSHINGS). BUILDING CONTROL VALVES SHALL BE GATE VALVE OR FULL PORT BALL VALVE, TWO PIECE, FULL PORT, QUARTER TURN AND LEVER HANDLE.
5. THE TEST TEE AND VALVE SHALL BE LOCATED DOWNSTREAM OF THE WATER METER AT LEAST 3 X PIPE DIAMETERS AFTER THE OUTLET OF THE WATER METER AND 2 X PIPE DIAMETERS BEFORE THE INLET VALVE AND WILL BE OF THE SAME SIZE AS THE WATER SERVICE PIPING. THE VALVE MAY BE EITHER A THREADED BALL OR GATE VALVE AND A BRASS PLUG WILL BE INSTALLED IN THE OUTLET OF THE VALVE.
6. THE CONTRACTOR/DESIGNER IS TO DETERMINE IF A PRESSURE REDUCING VALVE TO LIMIT THE STATIC MAXIMUM STATIC PRESSURE TO 550 KPA (80 PSI) IS REQUIRED, AND IF NEEDED, IS TO ENSURE IT IS INSTALLED AFTER THE BACKFLOW PREVENTER.
7. WHERE NON–METALLIC PIPE IS USED FOR THE PRIVATE WATER SERVICE PIPE AND/OR PRIVATE WATER SERVICE PIPE DOWNSTREAM OF THE METER, RIGID SUPPORTS ARE REQUIRED FOR THE WATER SERVICE PIPE AND WATER METER. IF REQUIRED, TYPE “L” COPPER (CERTIFIED TO ASTM B88) AND RATED TO A MINIMUM WORKING PRESSURE OF 1100 KPA SHALL BE USED BETWEEN THE BUILDING CONTROL VALVE AND BUILDING CONTROL VALVE. ALL VALVES AND FITTINGS SHALL BE RATING WITH A MINIMUM WORKING PRESSURE OF 1100 KPA.
8. THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.
9. MECHANICAL SUPPORTS WILL BE INSTALLED AS NECESSARY TO THE WATER SERVICE PIPE AROUND THE WATER METER. THE WATER METER ITSELF IS NOT TO BE SUPPORTED TO PREVENT DAMAGE TO THE METER MAINCASE.
10. THE METER SHALL BE LOCATED 5 X PIPE DIAMETERS FROM THE INLET VALVE AND 3 X PIPE DIAMETERS FROM THE TEST TEE AND VALVE. THE OUTLET VALVE SHALL BE LOCATED AT LEAST 2 X PIPE DIAMETERS FROM THE TEST TEE AND VALVE.

**THE REGIONAL MUNICIPALITY OF HALTON
PUBLIC WORKS DEPARTMENT**

Date: Nov. 2023

Rev. 2

NTS

**STANDARD 38–50mm
WATER METER INSTALLATION
(NEW MULTI–RESIDENTIAL/COMMERCIAL/INDUSTRIAL)**

REGION STANDARD

RH 502.011

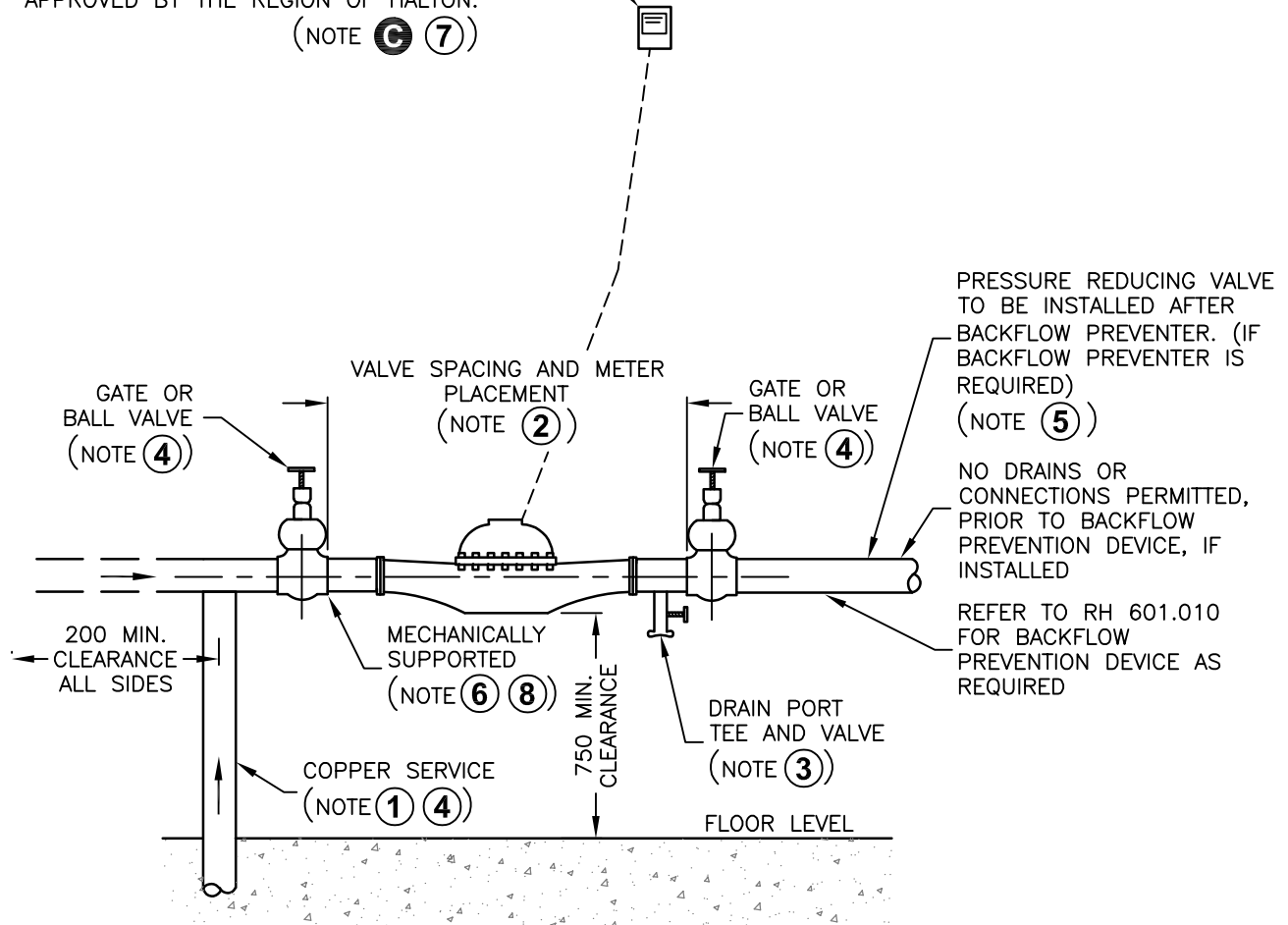
FOR 38–50mm NEW SINGLE FAMILY RESIDENTIAL WATER METER INSTALLATION ONLY

THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH-MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.

(NOTE **C** (7))

MATERIALS	
SUPPLIED BY REGION	SUPPLIED BY OTHERS
38–50mm WATER METER C/W TOUCH READ DISC AND COMPANION FLANGES	ALL PIPE FITTINGS REQUIRED FOR INSTALLATION INCLUDING VALVES
REMOTE WIRE	
2–GASKETS, BOLTS AND NUTS	

SIZE	LAY LENGTHS	
	METER	FLANGE
40mm	330mm	25.4mm
50mm	432mm	27.94mm



- GENERAL REQUIREMENTS
- INSTALLATION INSTRUCTIONS

**THIS DRAWING SHALL BE READ IN
CONJUNCTION WITH RH 503.011**

ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

<p>THE REGIONAL MUNICIPALITY OF HALTON PUBLIC WORKS DEPARTMENT</p>	Date: Nov. 2023	Rev. 2	NTS
<p>STANDARD 38–50mm WATER METER INSTALLATION (NEW SINGLE FAMILY RESIDENTIAL)</p>	<p>REGION STANDARD RH 503.010</p>		

**STANDARD 38–50mm NEW SINGLE FAMILY RESIDENTIAL
METER INSTALLATION ONLY**

ALL NOTES AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH RH 503.010

● GENERAL REQUIREMENTS

- A. THE METER INSTALLATION, INCLUDING ANY PIPING THAT IS PART OF THE METER INSTALLATION AND THE VALVING ARRANGEMENT FOR THE METER INSTALLATION, SHALL BE IN ACCORDANCE TO HALTON REGION'S REQUIREMENTS AND THE ONTARIO BUILDING CODE.
- B. THE CURB STOP/BOX MUST BE OPERATIONAL PRIOR TO INSTALLATION OF THE METER.
- C. THE WIRE SHALL BE RUN NEATLY AND FASTENED EVERY 600MM TO THE SURROUNDING PIPEWORK AND STRUCTURE USING APPROVED MATERIALS FOR WIRING SYSTEMS I.E. ZIP TIES, WIRING STAPLES. THE REGION PROVIDED WIRE SHALL RUN FROM THE EXTERIOR WHERE READING DEVICE IS TO BE INSTALLED TO THE WATER METER, AND WRAPPED 5 TIMES AROUND THE REGISTER HEAD IN PREPARATION FOR REGION TECHNICIAN TO COMPLETE WIRING CONNECTIONS.
- D. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- E. PROVISIONS ARE TO BE MADE FOR DISPOSAL OF WATER USED FOR IN-SITU TESTING EITHER THROUGH THE FLOOR DRAIN OR 125 MM FERRULE THROUGH THE WALL.

○ INSTALLATION INSTRUCTIONS

- 1. THE WATER SERVICE PIPE SHALL BE FLUSHED AFTER INSTALLATION OF BUILDING CONTROL VALVE AND PRIOR TO INSTALLATION OF METER IDLER (SPACER) OR WATER METER.
- 2. ALL WATER METERS ARE TO BE INSTALLED IN THE HORIZONTAL POSITION AND ACCORDING TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS. ALL BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED DOWNSTREAM OF THE WATER METER WITH NO UPSTREAM CONNECTIONS OR TEES AND SHALL BE INSTALLED AS PER CSA AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 3. THE DRAINAGE TEE AND BALL VALVE SHALL BE LOCATED DOWNSTREAM OF THE WATER METER. THE TEE OUTLET AND VALVE SHALL BE 19mm AND A BRASS PLUG WILL BE INSTALLED IN THE OUTLET OF THE VALVE.
- 4. ALL PIPING, INCLUDING TEES, BENDS AND VALVES SHALL BE THE SAME DIAMETER AS THE INCOMING WATER SERVICE PIPE. PIPE REDUCERS REQUIRED TO ACCOMMODATE A SMALLER WATER METER THAN THE WATER SERVICE PIPE SHALL BE INSTALLED BETWEEN THE INLET AND OUTLET VALVES AND SHALL BE OF THE CONCENTRIC TYPE (NO THREADED REDUCING BUSHINGS). BUILDING CONTROL VALVES SHALL BE GATE VALVE OR FULL PORT BALL VALVE, TWO PIECE, FULL PORT, QUARTER TURN AND LEVER HANDLE.
- 5. THE CONTRACTOR/DESIGNER IS TO DETERMINE IF A PRESSURE REDUCING VALVE TO LIMIT THE STATIC MAXIMUM STATIC PRESSURE TO 550 KPA (80 PSI) IS REQUIRED, AND IF NEEDED, IS TO ENSURE IT IS INSTALLED AFTER THE BACKFLOW PREVENTER.
- 6. WHERE NON-METALLIC PIPE IS USED FOR THE PRIVATE WATER SERVICE PIPE AND/OR PRIVATE WATER SERVICE PIPE DOWNSTREAM OF THE METER, RIGID SUPPORTS ARE REQUIRED FOR THE WATER SERVICE PIPE AND WATER METER. IF REQUIRED, TYPE "L" COPPER (CERTIFIED TO ASTM B88) AND RATED TO A MINIMUM WORKING PRESSURE OF 1100 KPA SHALL BE USED BETWEEN THE BUILDING CONTROL VALVE AND BUILDING CONTROL VALVE. ALL VALVES AND FITTINGS SHALL BE RATING WITH A MINIMUM WORKING PRESSURE OF 1100 KPA.
- 7. THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.
- 8. MECHANICAL SUPPORTS WILL BE INSTALLED AS NECESSARY TO THE WATER SERVICE PIPE AROUND THE WATER METER. THE WATER METER ITSELF IS NOT TO BE SUPPORTED TO PREVENT DAMAGE TO THE METER MAINCASE.
- 9. THE METER SHALL BE LOCATED 5 X PIPE DIAMETERS FROM THE INLET VALVE AND 3 X PIPE DIAMETERS FROM THE DRAIN PORT AND VALVE. THE OUTLET VALVE SHALL BE LOCATED AT LEAST 2 X PIPE DIAMETERS FROM THE DRAIN PORT AND VALVE.

<p align="center">THE REGIONAL MUNICIPALITY OF HALTON PUBLIC WORKS DEPARTMENT</p>	Date: Nov. 2023	Rev. 2	NTS
<p align="center">STANDARD 38–50mm WATER METER INSTALLATION (NEW SINGLE FAMILY RESIDENTIAL)</p>	<p align="center">REGION STANDARD RH 503.011</p>		

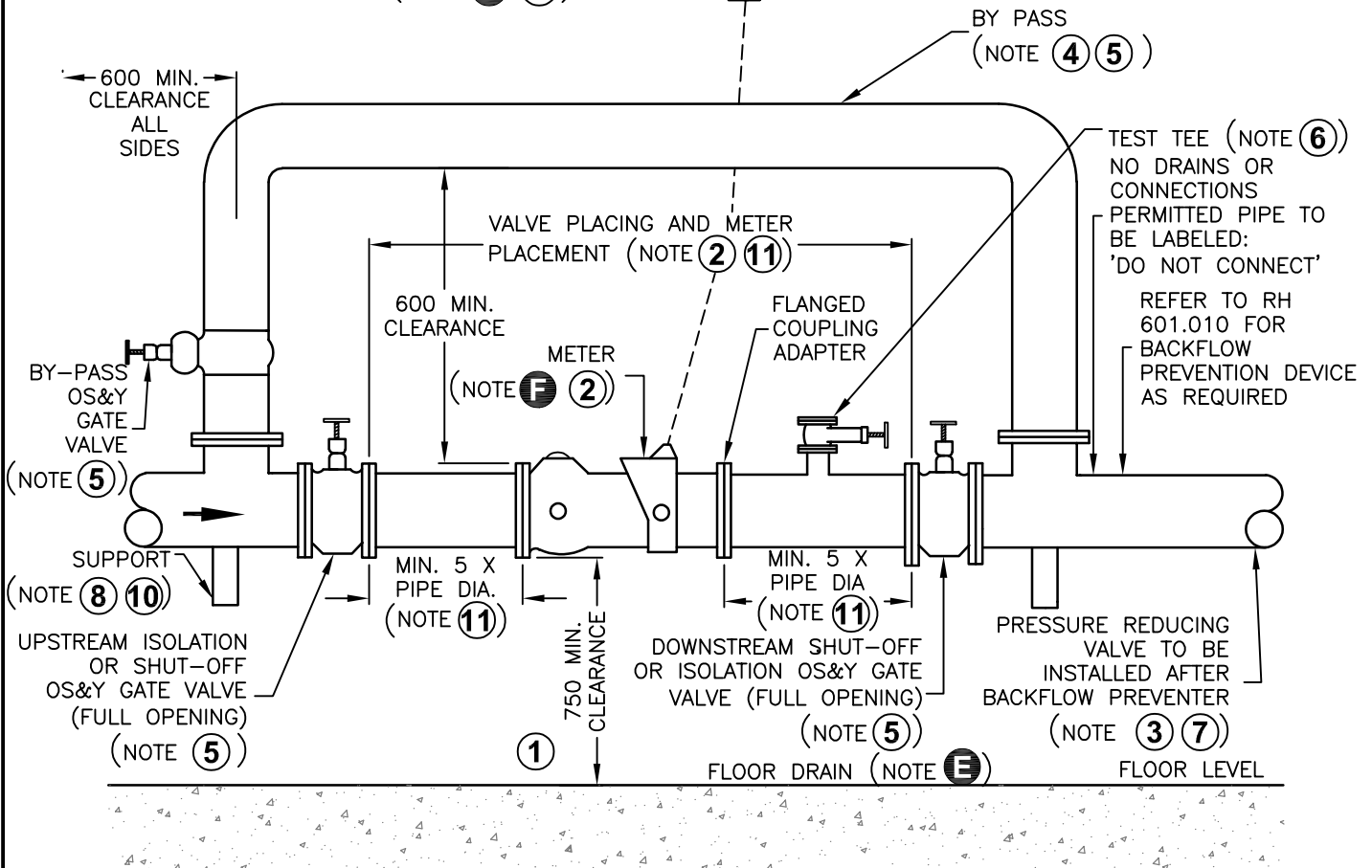
FOR 75–200mm NEW MULTI-RESIDENTIAL/ COMMERCIAL/ INDUSTRIAL WATER METER INSTALLATION ONLY

THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH-MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.

(NOTE **C** **9**)

MATERIALS	
SUPPLIED BY REGION	SUPPLIED & INSTALLED BY OTHERS
75–200mm WATER METER C/W TOUCH READ DISC COMPANION FLANGES (AS REQUIRED FOR METER) GASKETS AND FASTENERS REMOTE WIRE 75–200mm STRAINER	ALL PIPE FITTINGS REQUIRED FOR INSTALLATION INCLUDING VALVES

LAY LENGTHS
CONTACT REGION OF HALTON, PROGRAM COORDINATOR-WATER & WASTEWATER SYSTEM SERVICES IF DIMENSIONS ARE REQUIRED



- GENERAL REQUIREMENTS
- INSTALLATION INSTRUCTIONS

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH RH 504.011

ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE NOTED.

THE REGIONAL MUNICIPALITY OF HALTON PUBLIC WORKS DEPARTMENT	Date: Nov. 2023	Rev. 2	NTS
	STANDARD 75–200mm WATER METER INSTALLATION (NEW MULTI-RESIDENTIAL/COMMERCIAL/INDUSTRIAL)		
REGION STANDARD		RH 504.010	

**STANDARD 75–200mm NEW MULTI–RESIDENTIAL/COMMERCIAL/INDUSTRIAL
METER INSTALLATION ONLY**

ALL NOTES AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH RH 504.010

● GENERAL REQUIREMENTS

- A. THE METER INSTALLATION, INCLUDING ANY PIPING THAT IS PART OF THE METER INSTALLATION AND THE VALVING ARRANGEMENT FOR THE METER INSTALLATION, SHALL BE IN ACCORDANCE TO HALTON REGION'S REQUIREMENTS AND THE ONTARIO BUILDING CODE.
- B. THE CURB STOP/BOX MUST BE OPERATIONAL PRIOR TO INSTALLATION OF THE METER.
- C. THE WIRE SHALL BE RUN NEATLY AND FASTENED EVERY 600MM TO THE SURROUNDING PIPEWORK AND STRUCTURE USING APPROVED MATERIALS FOR WIRING SYSTEMS I.E. ZIP TIES, WIRING STAPLES. THE REGION PROVIDED WIRE SHALL RUN FROM THE EXTERIOR WHERE READING DEVICE IS TO BE INSTALLED TO THE WATER METER, AND WRAPPED 5 TIMES AROUND THE REGISTER HEAD IN PREPARATION FOR REGION TECHNICIAN TO COMPLETE WIRING CONNECTIONS.
- D. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE NOTED.
- E. PROVISIONS ARE TO BE MADE FOR DISPOSAL OF WATER USED FOR IN–SITU TESTING EITHER THROUGH THE FLOOR DRAIN OR 125 MM FERRULE THROUGH THE WALL.
- F. SENSUS MECHANICAL METERS (COMPOUND, TURBINE) ARE MANUFACTURED WITH BUILT–IN STRAINERS. OTHER MANUFACTURERS MAY NOT HAVE BUILT–IN STRAINERS. ALL MECHANICAL METERS ARE REQUIRED TO HAVE A STRAINER

○ INSTALLATION INSTRUCTIONS

- 1. THE WATER SERVICE PIPE SHALL BE FLUSHED AFTER INSTALLATION OF BUILDING CONTROL VALVE AND PRIOR TO INSTALLATION OF METER IDLER (SPACER) OR WATER METER.
- 2. ALL WATER METERS ARE TO BE INSTALLED IN THE HORIZONTAL POSITION AND ACCORDING TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS. THE TYPES OF METERS THAT WILL BE PROVIDED BY THE REGION CAN BE OF THE TURBINE, COMPOUND, ELECTROMAGNETIC OR ULTRASONIC TYPE.
- 3. ALL BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED DOWNSTREAM OF THE WATER METER AND BY–PASS, WITH NO CONNECTIONS OR TEES AND SHALL BE INSTALLED AS PER CSA AND MANUFACTURERS INSTALLATION INSTRUCTIONS.
- 4. BY–PASS PIPING MAY BE INSTALLED IN THE HORIZONTAL OR VERTICAL POSITION AND SHALL BE INSTALLED WITH A MINIMUM OF 600mm CLEARANCE FROM THE OUTSIDE OF THE BYPASS PIPE TO THE NEAREST WALL OR CEILING. THE WATER METER SHALL BE INSTALLED AT A MINIMUM DISTANCE OF 600mm FROM BEHIND THE METER MAINCASE TO THE NEAREST WALL.
- 5. ALL PIPING, INCLUDING BY–PASS PIPE, TEES, BENDS AND VALVES SHALL BE THE SAME DIAMETER AS THE INCOMING WATER SERVICE PIPE. PIPE REDUCERS REQUIRED TO ACCOMMODATE A SMALLER WATER METER THAN THE WATER SERVICE PIPE SHALL BE INSTALLED BETWEEN THE INLET AND OUTLET VALVES AND SHALL BE OF THE CONCENTRIC TYPE (NO THREADED REDUCING BUSHINGS). ALL VALVES 75MM AND GREATER SHALL BE OS&Y GATE VALVES CONFORMING TO AWWA C515–15.
- 6. THE TEST TEE/SERVICE SADDLE AND VALVE SHALL BE LOCATED DOWNSTREAM OF THE WATER METER AND AT LEAST 3 X PIPE DIAMETERS AFTER THE OUTLET OF THE WATER METER AND 2 X PIPE DIAMETER FROM THE OUTLET VALVE. THE VALVE MAY BE EITHER A THREADED BALL OR GATE VALVE AND A BRASS PLUG WILL BE INSTALLED IN THE OUTLET OF THE VALVE. A 50mm (2") VALVE WILL BE INSTALLED FOR 75 AND 100mm WATER METERS AND A 64mm (2 ½") VALVE WILL BE INSTALLED FOR 150 AND 200mm WATER METERS.
- 7. THE CONTRACTOR/DESIGNER IS TO DETERMINE IF A PRESSURE REDUCING VALVE TO LIMIT THE STATIC MAXIMUM STATIC PRESSURE TO 550 KPA (80 PSI) IS REQUIRED, AND IF NEEDED, IS TO ENSURE IT IS INSTALLED AFTER THE BACKFLOW PREVENTER.
- 8. WHERE NON–METALLIC PIPE IS USED FOR THE PRIVATE WATER SERVICE PIPE AND/OR PRIVATE WATER SERVICE PIPE DOWNSTREAM OF THE METER, RIGID SUPPORTS ARE REQUIRED FOR THE WATER SERVICE PIPE AND WATER METER. IF REQUIRED, TYPE "L" COPPER (CERTIFIED TO ASTM B88) AND RATED TO A MINIMUM WORKING PRESSURE OF 1100 KPA SHALL BE USED BETWEEN THE BUILDING CONTROL VALVE AND BUILDING CONTROL VALVE. ALL VALVES AND FITTINGS SHALL BE RATING WITH A MINIMUM WORKING PRESSURE OF 1100 KPA.
- 9. THE METER READING DEVICE AND 3 CONDUCTOR 20 GAUGE WIRE ARE TO BE FLUSH MOUNTED TO THE WALL IN AN EXTERIOR AREA FULLY ACCESSIBLE AT ALL TIMES, WITH NO OBSTRUCTIONS PERMITTED, MINIMUM 0.6m CLEARANCE FROM OBJECTS FROM ALL FOUR SIDES AND SHALL BE INSTALLED A MINIMUM OF 1.2m ABOVE FINISHED GRADE, OR OTHER LOCATION AS APPROVED BY THE REGION OF HALTON.
- 10. MECHANICAL SUPPORTS WILL BE INSTALLED AS NECESSARY TO THE WATER SERVICE PIPE AROUND THE WATER METER. THE WATER METER ITSELF IS NOT TO BE SUPPORTED TO PREVENT DAMAGE TO THE METER MAINCASE.
- 11. THE METER SHALL BE LOCATED 5 X PIPE DIAMETERS FROM THE INLET VALVE AND 3 X PIPE DIAMETERS FROM THE TEST TEE AND VALVE. THE OUTLET VALVE SHALL BE LOCATED AT LEAST 2 X PIPE DIAMETERS FROM THE TEST TEE AND VALVE.

THE REGIONAL MUNICIPALITY OF HALTON PUBLIC WORKS DEPARTMENT	Date: Nov. 2023	Rev. 2	NTS
	STANDARD 75–200mm WATER METER INSTALLATION (NEW MULTI–RESIDENTIAL/COMMERCIAL/INDUSTRIAL)		
	REGION STANDARD RH 504.011		