

## Water Meter Construction Specifications

The City of Regina is upgrading water metering technology in all homes and businesses. Beginning January 1, 2024, all new properties will be required to meet updated construction specifications based on the new technology. The new specifications are outlined below.

The primary change is that the new radio transmitters will be installed on the exterior of the building. A cable run between the location of the water meter(s) and the exterior radio transmitter(s) will be required for all residential or commercial properties to receive water service.

### At the Meter Location

The new water meters will have flexibility in the orientation of the meter to be installed in a vertical or horizontal orientation. Water meter spacers must be installed at the location of the meter and are supplied by the City.

### Residential Property Cable Run Requirements

All new residential properties must include a cable between the meter location and the exterior of the structure.

- Wire/Cable: 22-gauge wire, 3-wire cable, solid red/black/green wires.
- The cable cannot be bundled with any wire 120 volts or above.
- 60cm of coiled cable required to be left at the meter location.
- 60cm of coiled cable required to be left at the proposed radio location OR enough coiled cable to reach the radio location (minimum 1.2m) left at the location where the cable exits the structure.
- All coiled cable and exposed wire must be protected from damage by other trades.
- the wiring must be accessible for the meter and radio installation.
- Maximum of 90m between the meter location and the proposed radio location.
- The cable must exit the building no lower than 30cm above grade.

### Additional Multi-Residential (multiple meters) Property Requirements

In addition to the above residential requirements, the multi-residential properties require:

- One cable run per planned meter. ie: One radio per suite, and one cable per radio.
- Multiple radio installations must be planned with no less than 20cm horizontal separation (centre to centre) and no less than 45cm vertical separation (centre to centre).
- If there are multiple meters located in the same room, a conduit may be installed from the room with the meter to the exterior of the structure.
- The conduit size must be a minimum of 20mm id. (3/4") with a maximum of five cables. When installing more than five meters, contact the City of Regina Water Meter Shop to plan installation.
- Cable or conduit for every planned meter must be installed at the time of initial build.

## **Commercial Property Conduit Requirements**

A conduit between the meter locations and the proposed radio location(s) is required for all new commercial properties. Conduit is preferable to cable-runs for commercial properties because the number of meters changes much more frequently than multi-residential properties.

## **Exterior Radio Location Requirements**

The radio transmits water meter readings to the nearest City data collector and must be planned for a location that enables reliable communication with the data collector. The radio must be planned for an exterior location that is accessible. The recommended location is about 30cm above the gas meter, specifications include:

- Height:
  - Recommended height of the radio transmitter is 1.5m above the ground.
  - Maximum allowable height is 2m off the ground.
  - Minimum allowable height is 1m off the ground.
  - Minimum of 1m below any overhang.
- Metal Objects:
  - Minimum of 50cm horizontally from metal objects.
  - Minimum of 15cm vertically from metal objects.
- High Voltage:
  - Minimum of 15cm away from any high voltage object, such as the power meter.
  - The cable must not be bundled with any wire 120 volts or above.
- Mounting:
  - The preferred method is to mount the radio on a utility board.
  - Mounting on a board with other utilities is acceptable as long as all specifications are met.
  - If a utility board is not provided the radio will be mounted to the exterior finish.
  - A 20cm high x 20cm wide board is required for a single radio.
- Radios cannot be placed in a location where it will be affected by an exhaust.
- Post-Installation, objects or obstructions such as downspouts or other finishings, cannot be built near the radio location due to risk of signal interference.

Contact Kevin Lang, Coordinator Water Metering and Cross Connection Control at 306-527-1881 or [klang@regina.ca](mailto:klang@regina.ca) with further inquiries or to discuss a specific installation.

Visit [Regina.ca/watermeter](http://Regina.ca/watermeter) for more details about the Water Meter Upgrade Project.

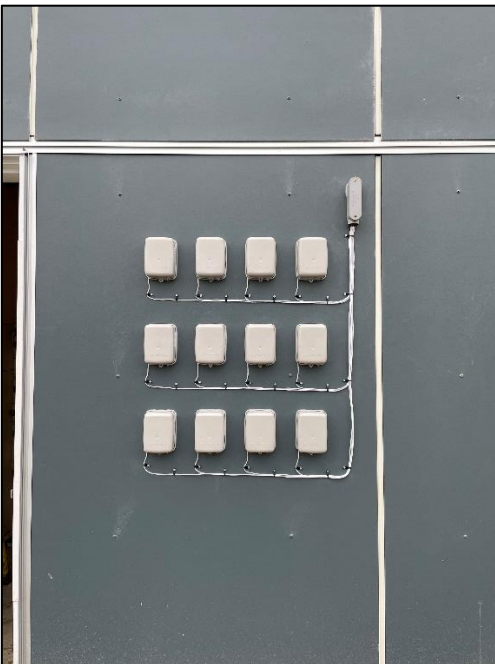
**Reference Photos**



*Cable coiled at Radio Location (2 Radios)*



*Cable Coiled at Meter Location*



*Multi-service Radio Installation*



*Single Radio Installation on a New Home*