

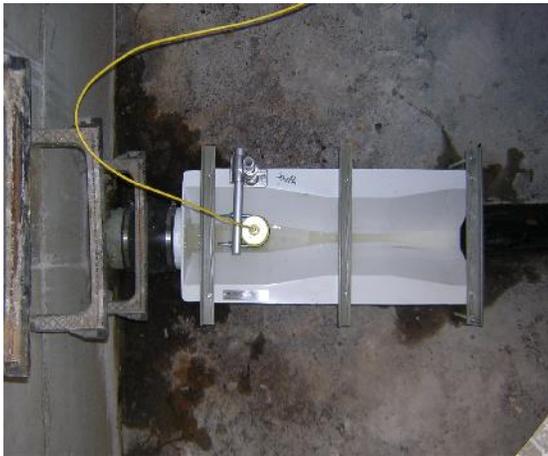
Project: Sewer Flow Monitoring
Client: Ultradent Corporation
Location: Salt Lake City, Utah
Year: 2006

Application Notes:

Ultradent was required by the local water agency to monitor and record flows from their plant that are being drained into the local system. There are two lines of water that connect to the local water system and both were instrumented to record these flows.



View is of Ultradent Plant and location of Manholes



Installation and System Design:

To monitor these flows we designed a system that uses 60-degree V-Notch flumes installed in pre-existing manholes. The flumes are attached to 6" and 4" PVC pipes that are stubbed into the manhole. Using an Ultrasonic Sensor mounted above the flumes we can record level data and convert it into gallons per minute flow data using the datalogger.

The instruments used include:

- Campbell Scientific CR800 Datalogger
- APG Ultrasonic Distance Sensors
- NL100 Network Link Interface





View of water pipe exiting manhole

Both manholes have conduit running under the back patio to the exterior wall of the cafeteria. We mounted a fiberglass enclosure to the exterior of the building and ran sensor cable to each manhole through the conduit.

Inside of the enclosure is the CR800 and Network link NL100. The station is powered through an AC plug, but it does have a 12 VDC battery back up for power outages.

Ultradent is able to connect to the station over their internal computer network. The computer is running LoggerNet 3.x and allows viewing of real time flow and collection of historical data.

The data logger is calculating flow and totalizing it for the reports that are sent to the local water authority. This allows Ultradent to show actual usage instead of being charged on an estimated amount.



For Information on this project or these products please contact:

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