



## Water Tower No. 2

*Mahtomedi, MN*

The City of Mahtomedi was experiencing extreme low and high pressures in certain areas and also pressure surges due to the fact there was only one existing tower located in the northeastern quadrant of the City. To help alleviate this problem, WSB updated the existing WaterCAD model to analyze the existing system and to site a new tower. Due to the elevation difference within the City and based on information gathered from the model, it was decided to split the City into two different pressure zones with the new tower at a higher elevation than the existing tower.

WSB was then retained by the City to provide engineering services for the design and construction management of a new 500,000 gallon elevated water storage tank. During design different types of towers, including a water spheroid, fluted column, and composite were evaluated. The City selected the water spheroid as the preferred design to match their existing tower. The project also included the design and construction of two pressure reducing/pressure sustaining valves to complete the separation of the two pressure zones while allowing a supply of water in an emergency to each side.

*Client:* City of Mahtomedi

*Total project cost:* \$1.1 million

*Completion:* September 2007



*The water spheroid design was chosen as the preferred design.*