

City of Blaine adopts IntraFlow® Inside Drop System for drop manhole connections.

Project: “The Lakes” Residential Development
Location/Owner: City of Blaine, Minnesota
Engineer: Pioneer Engineering - Coon Rapids, MN
Contractor: C.W. Houle, Inc. – Shoreview, MN and
Nodland Construction Co. – Alexandria, MN



The City of Blaine, a suburb of Minneapolis, is one of the fastest growing communities in Minnesota. In early 2003 construction began on a 1000+ acre, 3,300 home development known as “The Lakes”. Pioneer Engineering provided engineering and surveying services, while C.W. Houle, Inc. and Nodland Construction Co. installed utilities for sanitary sewer, water, storm sewer and streets. In total, the project consisted of 27 phases during the three-year construction period.

Royal Concrete Pipe, of Stacy, MN supplied the sanitary and storm pipe and manholes for all 27 phases. The project required 435 sanitary manholes for both residential connections and interceptor sewer lines.

Prior to the start of the project, Royal obtained approval from the City of Blaine to utilize the IntraFlow® Low-Profile Inside Drop for all drop manhole requirements -- new manholes as well as connections to existing structures. Royal supplied a total of 51 IntraFlow Inside Drops during all phases of the project.

The IntraFlow System allows construction crews to continue laying pipe, without stopping to install time consuming outside drop connections. As a result, productivity increases significantly for the full crew and equipment on site. The IntraFlow System is quickly and easily installed inside the manhole at a later time, with one or two workers and without the need for large construction equipment.

Todd Houle, Superintendent of C.W. Houle says, “The inside drop is a quick and easy installation. A 10-15 foot drop can easily be installed in an hour or less by one or two workers. Once installed, the IntraFlow is a solid and clean connection to the manhole wall. We prefer to use them on any project with a sanitary drop requirement.”

According to Tom Scott, Engineering Dept. Project Coordinator with the City of Blaine, “The IntraFlow provides a system that is easy to access and maintain. Because of the low-profile design, it protrudes a mere 7 inches from the manhole wall, allowing for safe access to the 48” structure.”

As rehabilitation and new development continues, acceptance of the IntraFlow Inside Drop continues to grow resulting in life-cycle cost savings for the sanitary market in Minnesota as well as the rest of the country.

