

Location/Objective

This subdivision satisfies the immediate need for new lots while establishing the basic infrastructure necessary for long term growth along the Highway 20 corridor. The proximity of this development to the highway leads itself to be able to attract travelers coming from Dubuque or Waterloo.



Utilities

Three different utility systems were designed; water, sanitary sewer, and storm sewer. The water main was designed to have 8" PVC pipe that connects in a loop. The sanitary system has two separate systems, a North and South, which has 12" and 8" respectively. The storm sewer network consists of three sections draining to the ditch on Bailey Drive, Basin A, and Basin B. Pipes are reinforced precast concrete and the intakes are eccentric structures with grated intakes.

Lot Layout



Stormwater Management

All designs are sized to keep the 100-year post development storm flow rates at levels of the 5-year predevelopment storms. Two wet detention ponds and one bioswale are to be constructed. The wet detention ponds focus on containing the runoff and the bioswale works to clean pollutants such as nitrates from the water. The stormwater management considers offsite flow coming from the undeveloped land east of the site and works to get the flow through the development safely.

Road Design

The site has two different types of roads, an arterial which has a 60' ROW with 8" of PCC pavement and a local road 50' ROW 7" PCC Pavement. The site has two locations of a bike trail.

