

Osler Multi-Purpose Storm Pond & Soccer Facility

Owner:

Town of Osler & Prairie Spirit School Division

Location:

Osler, SK

Poorly drained school yard prior to construction



Under construction



Storm water outfall structure to soccer field



Finished soccer field & wet/dry storm pond



Background

The Town of Osler, located approximately 20 km north of the City of Saskatoon, is located on a very flat valley plain. Historically, drainage throughout the town has been relatively poor given the relatively flat sloped topography. The local school is located central to the community and has a large land base that would become inundated with water during spring thaw and summer rainfall events.

The Solution

The town and Prairie Spirit School Board partnered to develop a storm water detention system, complete with conventional storm sewer network to improve drainage for both parties. The system included a wet/dry storm detention pond. When dry, the pond will be used as a soccer facility by the school and community.

The Design

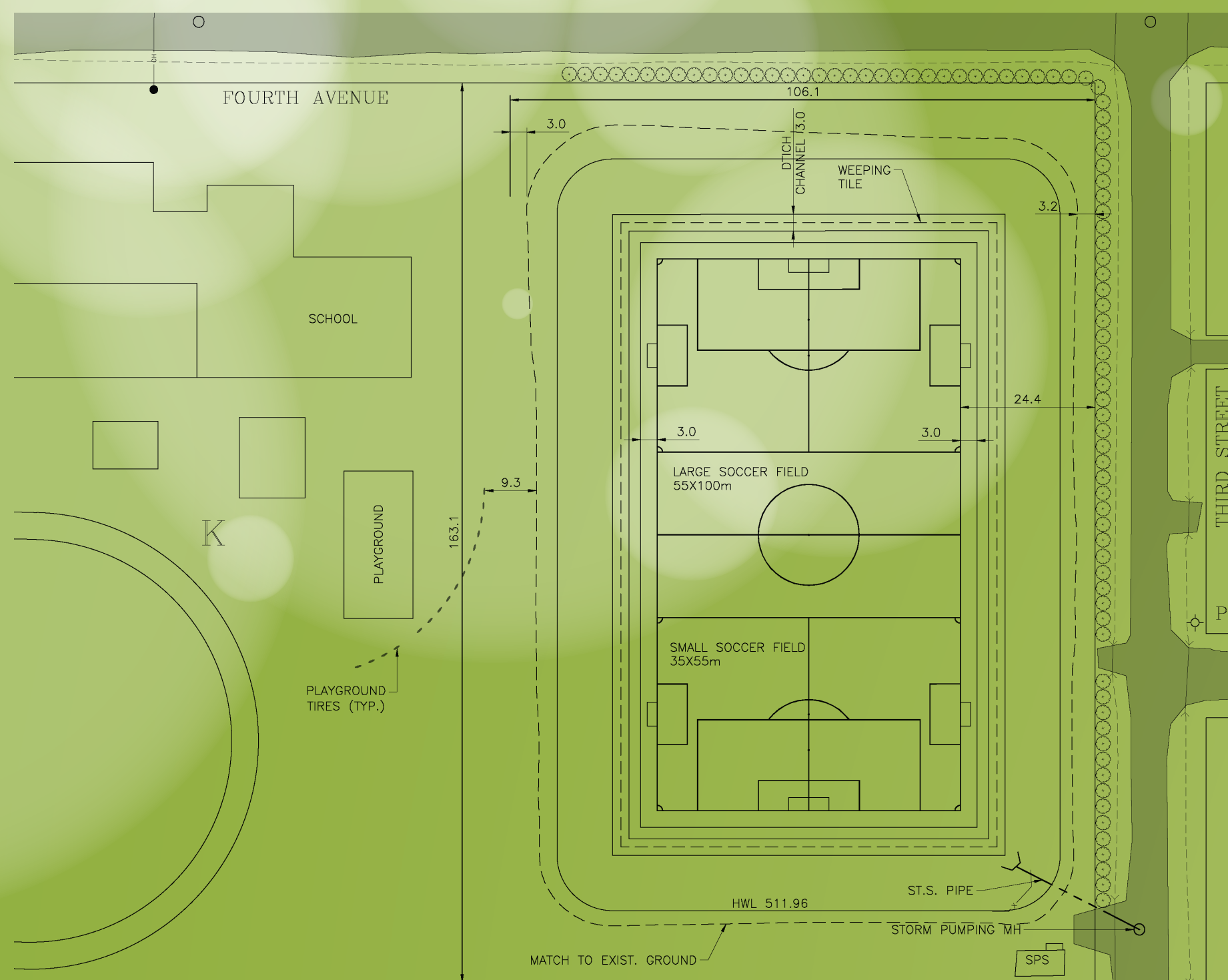
The pond was excavated to a depth of 3 metres below existing ground elevation. The inside perimeter has a below grade weeping tile system to ensure the pond will drain after a rainfall event. The raised centre portion of the field ensures the playing surfaces will not flood during more frequent storm events (1:2 year frequency). The pond is drained by a manhole style storm water pumping station, with all storm water pumped in the direction of natural flow toward the South Saskatchewan River.

The shape and size of the storm pond was set to accommodate one regulation soccer field or two smaller youth fields. The sunken nature of the pond allows for natural raised seating/spectator areas around the soccer fields. Coincidentally, a regulation size soccer pitch also accommodates a 1:100 year storm event in this area. The field can also be utilized for other school or town events throughout the summer and winter months.

Functionality

The primary function of this facility was to improve surface drainage within the school property and the central core of the town. By implementing computer software to model the various storm events and drainage system, the designed system can accommodate a storm event up to a 1:100 year frequency. The storm water pumping manhole was designed to drain the pond area within 24 hours. This was important to ensure not only the health of the sod, but also the usefulness of the soccer pitch(es). The subdrainage system around the soccer field will ensure the areas are able to completely drain after a storm event to ensure consistent playing conditions on the pitch after the pond has drained.

The secondary function of the facility was to accommodate the increasing popularity of soccer in the community of Osler. The main soccer pitch in Osler was located in the north end of the town. With the new facility, the soccer pitch is immediately adjacent to the school which will be more convenient for school programming. With the sunken nature of the field, spectators will have a unique viewpoint and perspective of the field.



Finished Soccer Facility & Storm Pond

