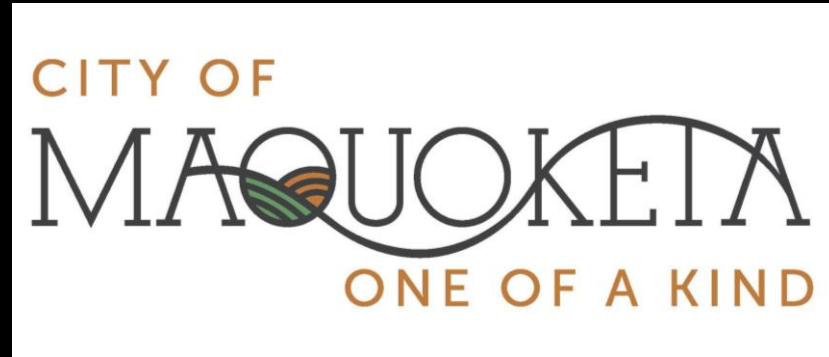


City of Maquoketa Quadplex Design

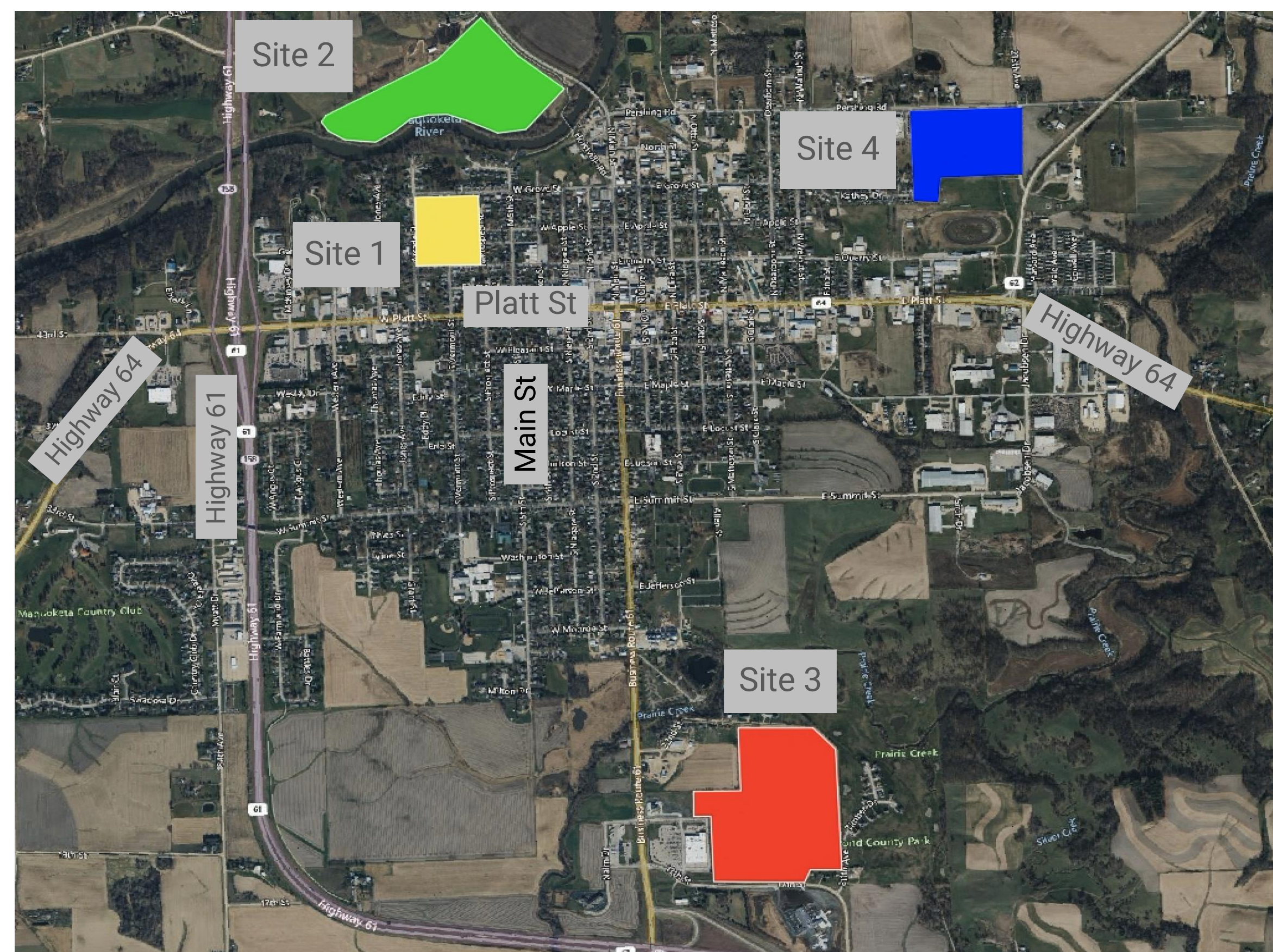


Rosie Byersdorfer, Nick Covello, Lucas Dahlborn, Grant Jensen

University of Iowa Civil and Environmental Engineering

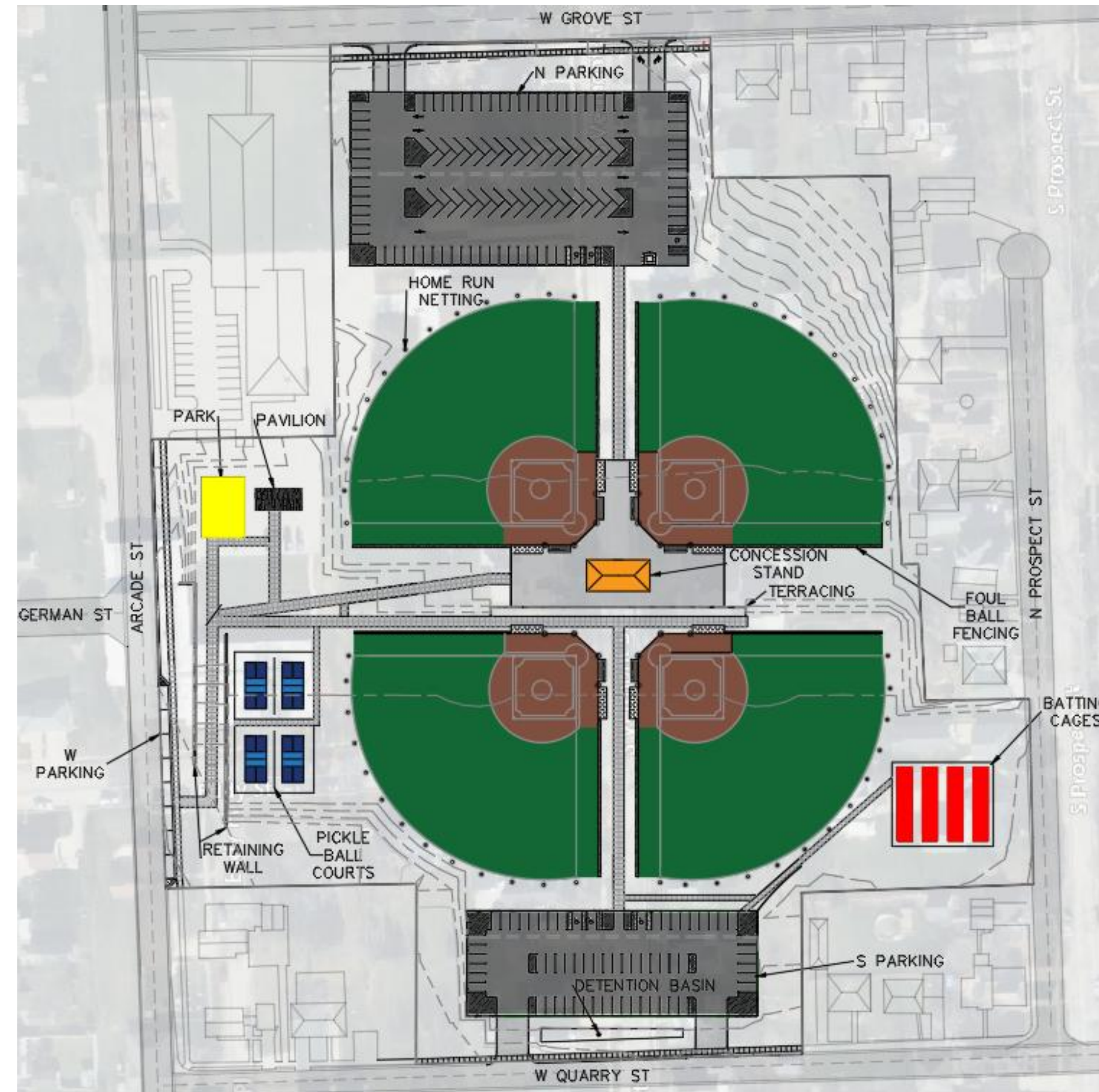
Project Location and Scope

The client for this project was Joshua Boldt, City Manager for the City of Maquoketa. The goal of this project is to bring people into Maquoketa and enhance youth athletics in the community by creating a facility capable of hosting local baseball and softball tournaments.



Site Selection

Four potential site locations were identified based on their ability to accommodate four 10U-sized fields and additional recreational facilities. Ultimately, Site 1 and Site 2 were selected for design. Site 1, located at the abandoned hospital at 700 W Grove St, was chosen due to its potential for acquisition through a grant or seizure, making it the most realistic option. This site could accommodate four 10U baseball fields, pickleball courts, and the additional facilities desired by the client. Site 2, located north of City Ball Park, was selected for its larger size and ability to expand upon project requirements. The design for this site includes 14U baseball fields and incorporates soccer fields alongside other recreational amenities.



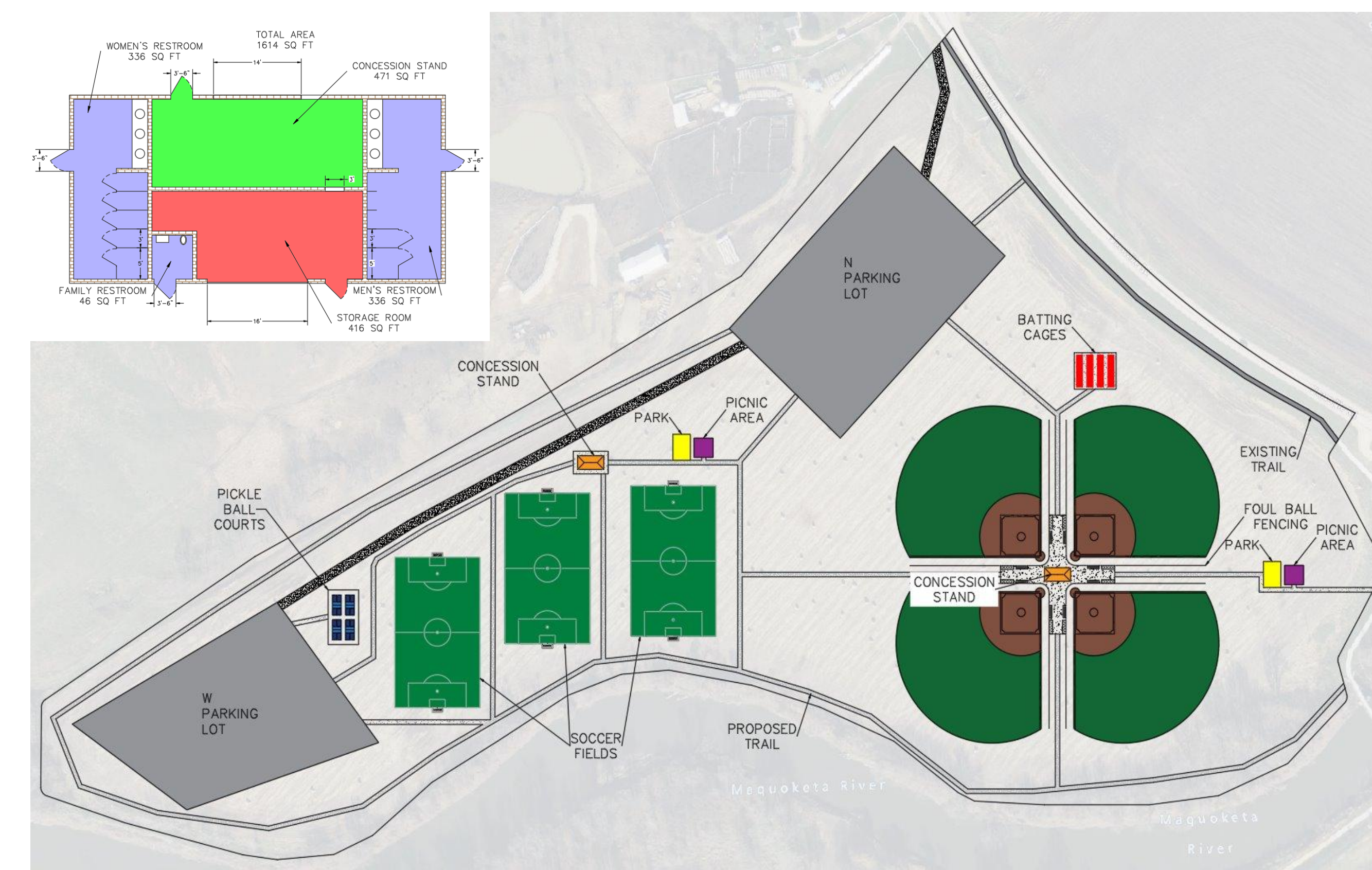
Site 1 Design

The existing hospital on this site must be demolished prior to implementation. The proposed design for this site includes four fields sized 210'-225'-210' to accommodate 10U baseball. Each field will utilize artificial turf infields and natural grass outfields. Due to the severe elevation change at this site, the fields will be constructed on two different levels connected by terraces. Parking lots will be provided to the north, south, and west. Additional recreational facilities include a playground, picnic area, batting cages, and pickleball courts.



Site 2 Design

This proposed design for this site includes four fields sized 300'-375'-300' to accommodate 14U baseball. Each field will utilize artificial turf infields and natural grass outfields. Three 110 yd x 65 yd soccer fields, suitable for high school matches, are proposed for the western side of the property. Due to the size of this site, two concession buildings, two playgrounds, and two picnic areas will be needed to serve park visitors. Parking lots are proposed for the north and the west, and a trail network will be placed around the perimeter to connect with the existing trail system. Pickleball courts and batting cages will also be included in the west and northeast areas of the property.



Cost Estimations and Recommendations

The estimated construction cost for the Site 1 Design is \$6,601,413. This includes the cost of new construction as well as demolition of the existing hospital. There are opportunities for the city to obtain grant funding to offset some of the cost for Site 1. The estimated cost for Site Design 2 is \$6,574,087. Construction on this site could be easily phased based on funding availability. Land acquisition costs are not included in these estimates, however.