

PROJECT SCOPE

This land use plan proposes a large-lot subdivision spanning 94 acres just southwest of Maquoketa city limits. The design includes a street and trail network, a water main network, and a stormwater management system. The goal of this plan is to provide efficient use of this land, reduce the amount of stormwater runoff caused by development, and allow the city to expand Southwest.

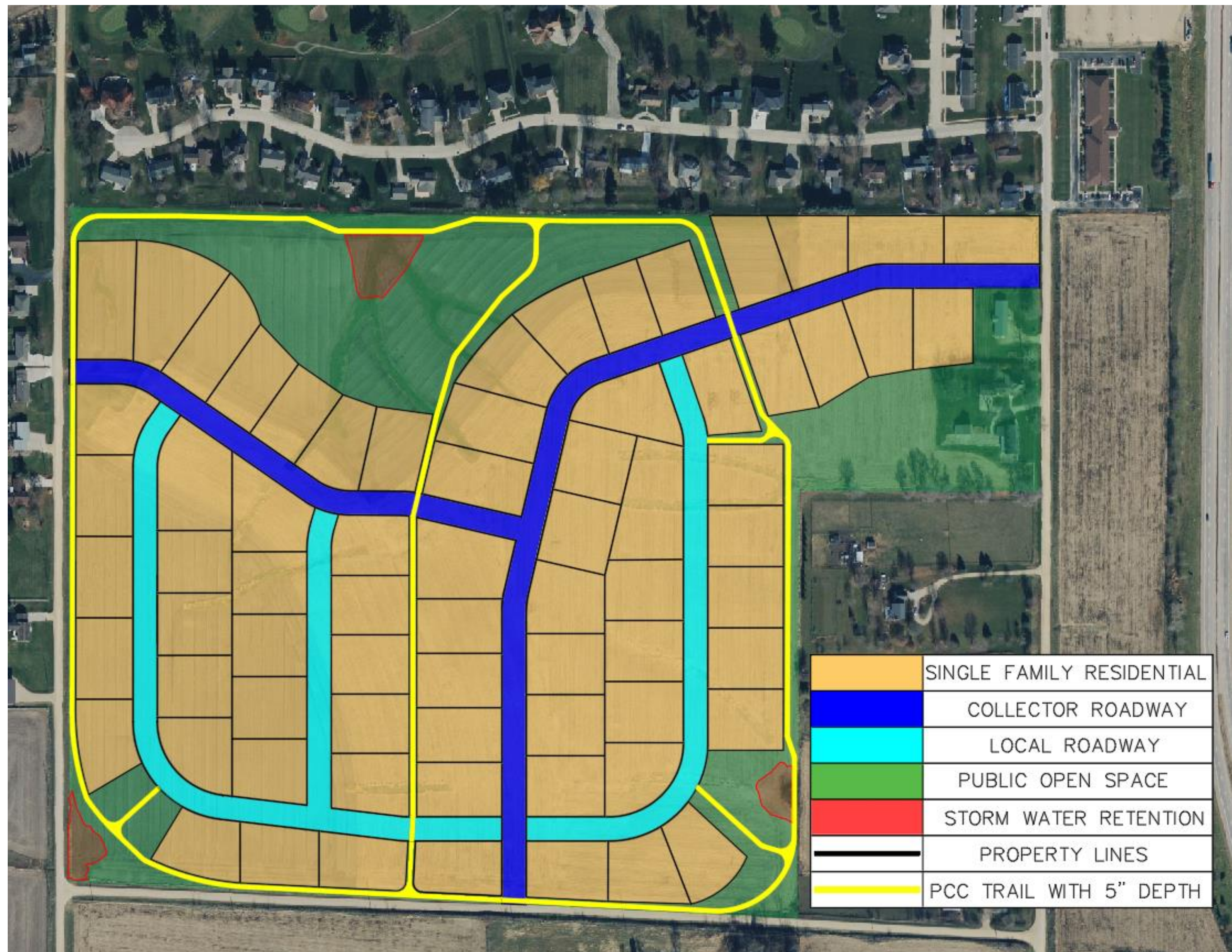


Figure 1. Proposed site layout

TYPICAL TRAIL CROSS-SECTION

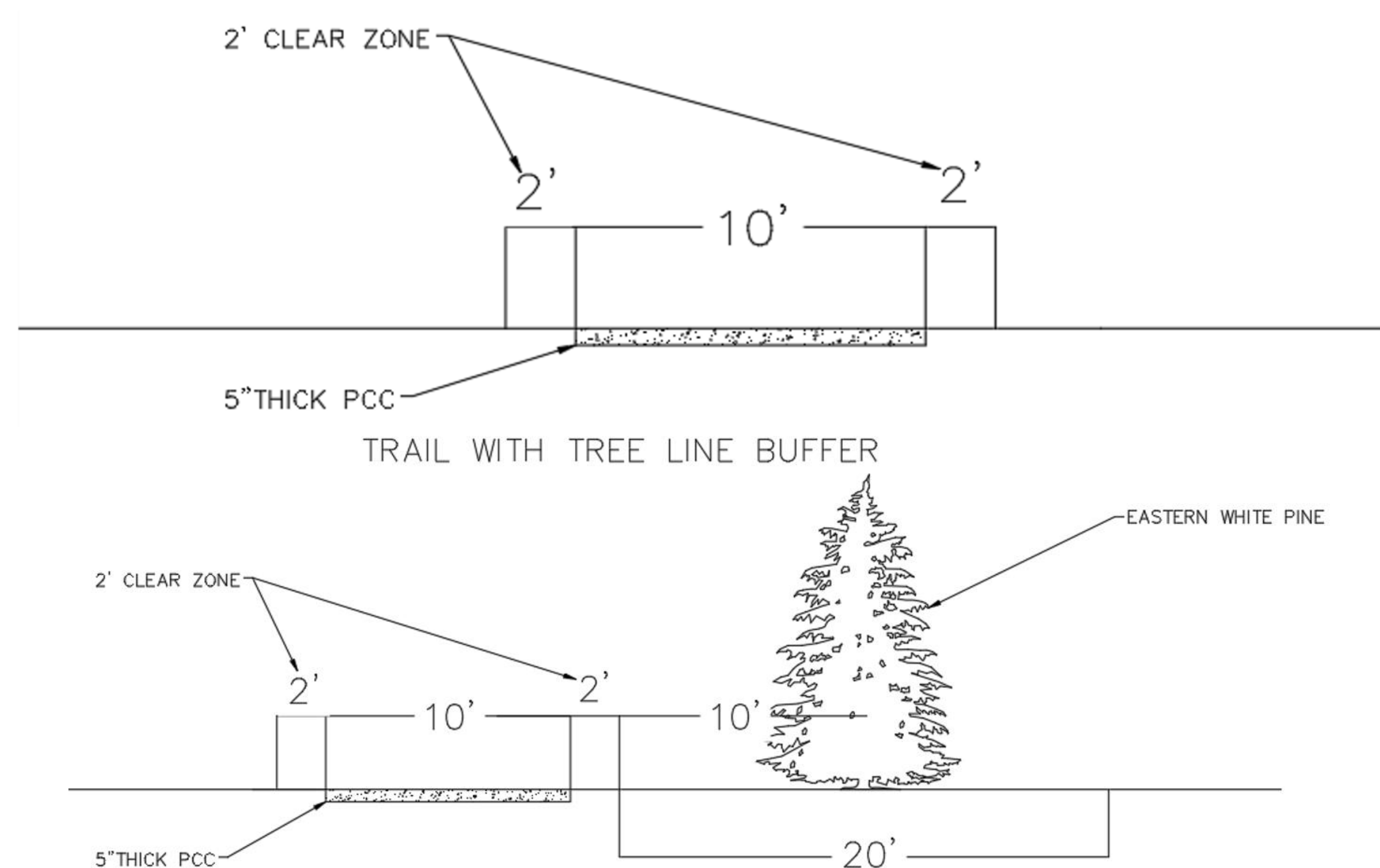


Figure 2. Trail Cross Sections

Water Main

The existing water main is located at the Northeast corner of the property along 184th Street and loops to the West end of Swagosa Drive. Water pressure issues arose with this design due to an 806' peak elevation in the center of the site, which is roughly 70 feet higher than the connection point. After considering several alternatives, it was determined that including individual water boosters for houses with low water pressure was the best solution.

Trail design

The private trail spans 1.75 miles of multi-use space which provides interconnectivity, a place of recreation, and access to the views of the neighborhood. The trail runs along the backside of half of the lots allowing easy access for residents.

Stormwater

Storm sewers and detention basins will be provided in key locations to mitigate the runoff impacts of this new development.

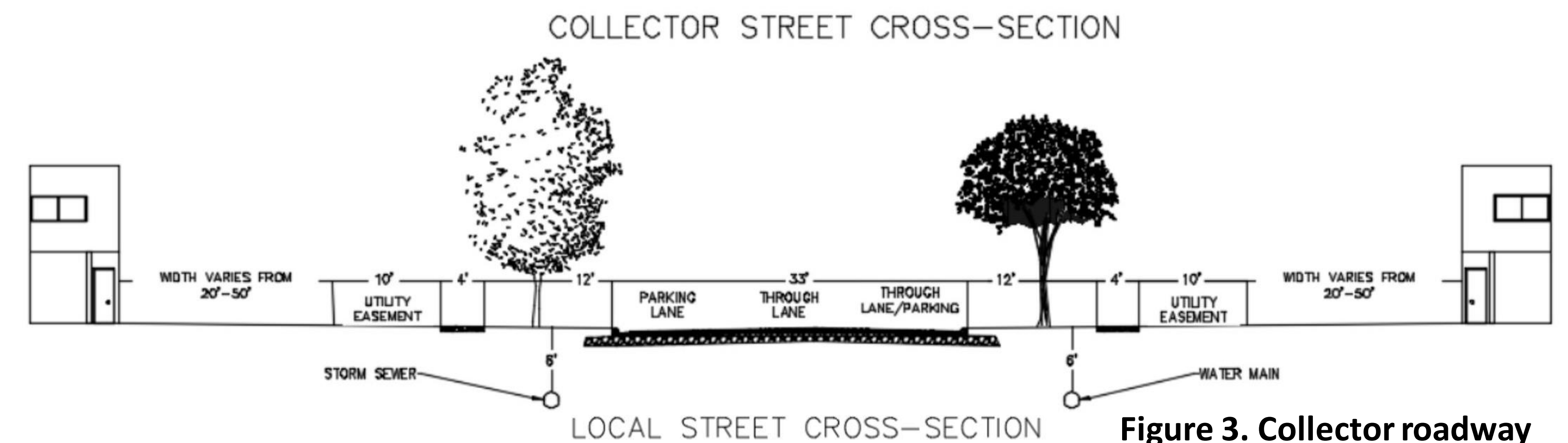


Figure 3. Collector roadway

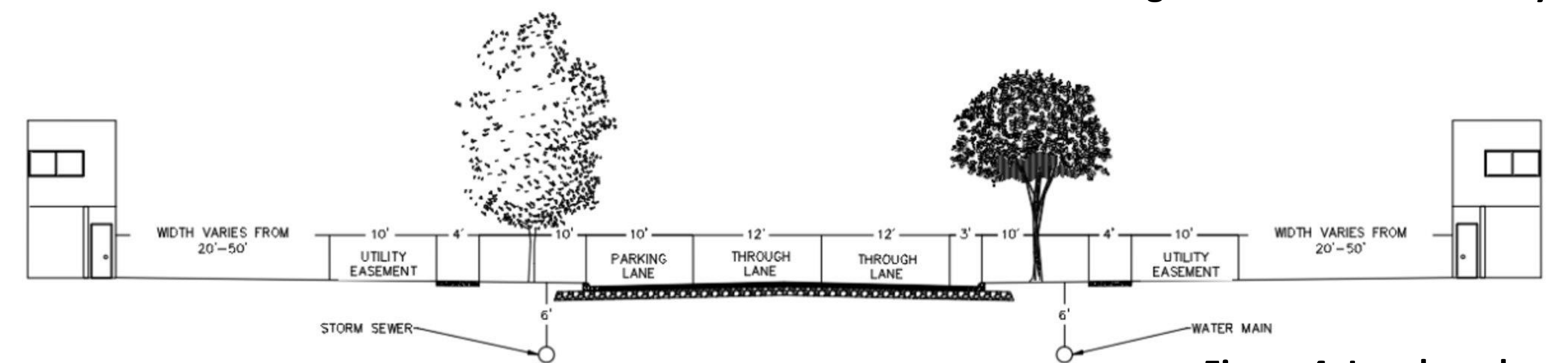


Figure 4. Local roadway

Conclusion

This land use plan focuses on developing 71 new residential lots of ¼-acres or more just Southwest of the City of Maquoketa. The included trail network will help utilize the natural green space within the neighborhood as well as encourage interconnectivity. This addition will provide the City of Maquoketa with an attractive area for development that will be appealing to existing and new residents. The proposed neighborhood aligns with the City of Maquoketa's long-term plans as they continue to expand their tax base and prosper as a community.

References

- Iowa Department of Transportation Design Manual
- Iowa Statewide Urban Design and Specifications (SUDAS)
- Maquoketa Iowa City Code