

## Project Overview and Objectives

Our design team was tasked with both the architectural and structural design of the Public Works Facility. John Horton, the Public Works Director, and Isaac Pezley, the City Planner, of Bondurant, IA requested the design of a new facility to meet both the current and future needs of Bondurant's Public Works Department. There were three main constraints on our design: stay within the 7.91-acre site, match the aesthetic of the Emergency Services Building, and hide back-of-house operations from the road to the west.



Figure 1. Facility exterior rendering.

## Final Design

The final design is a 68,500 sq-ft facility made up of two parts: office space and a warehouse. The warehouse design was focused on providing ample storage space, designated parking spots for all vehicles, and easy navigation within the facility. The warehouse was constructed with a steel roof framing system, pre-casted concrete wall panels, and cast-in-place concrete foundation slab, pedestals, and footings.

The office space can be accessed through the front public or employee entrances, or via the warehouse. The office space seamlessly integrates with the warehouse through multiple access points. The office layout was designed to increase functionality and provide sufficient amenities for the department. The office is constructed with steel joists, steel stud walls, a cast-in-place concrete foundation slab, pedestals, and footings.

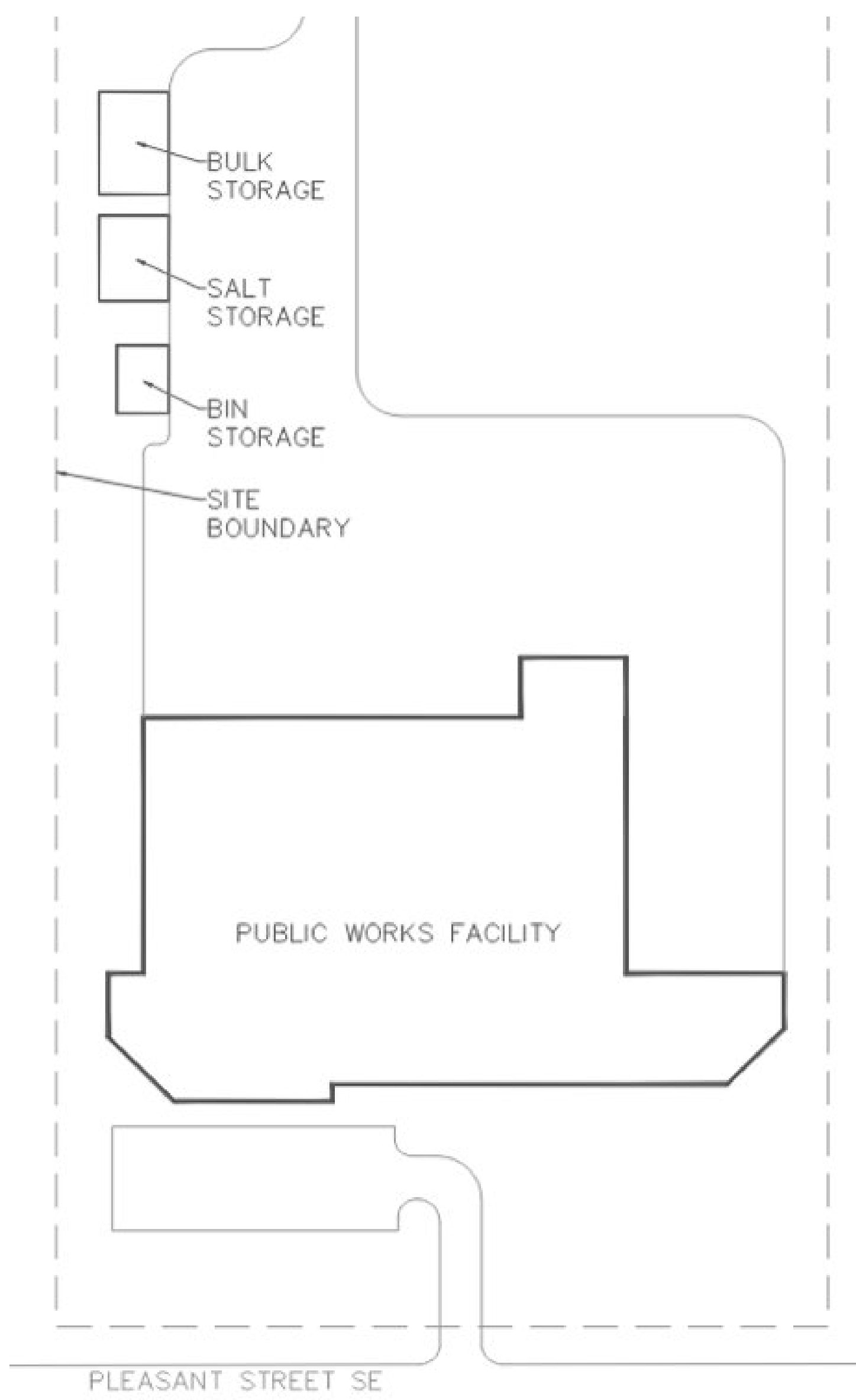


Figure 2. Site plan

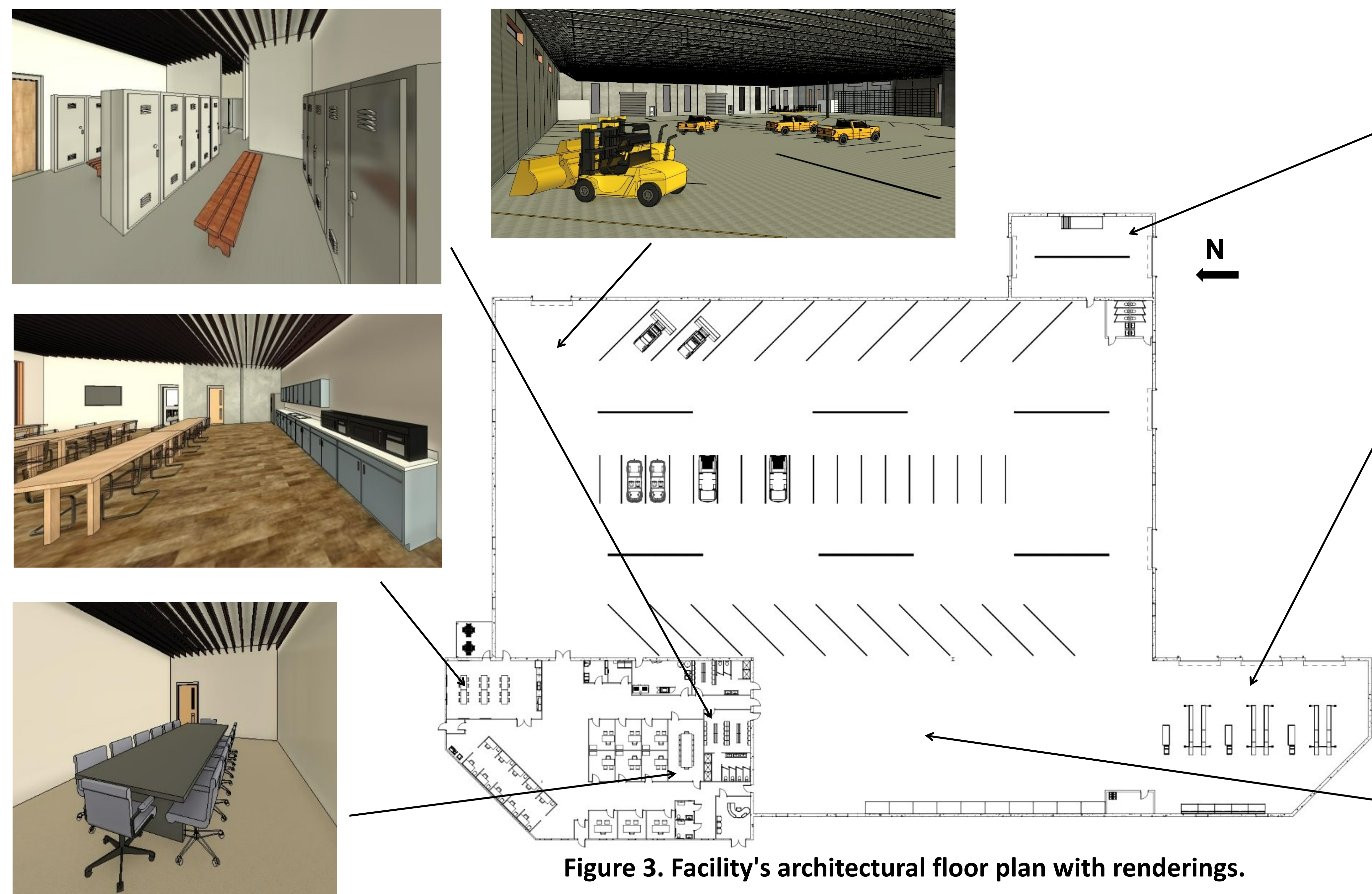


Figure 3. Facility's architectural floor plan with renderings.



## Construction Cost Estimate

The estimated construction cost for the Public Works Facility is \$20,416,000. The construction cost includes the costs of material, labor, overhead, profit, 10% contingency, and 20% administration cost. RS Means Heavy Construction Costs and RS Means Square foot Costs were used for the cost estimation.

## References

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