



# Clinton Parking Lot Redesign

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## Parking Lot Redesign Located in Clinton, Iowa

The purpose of the Clinton Parking Lot Redesign project was to redesign 5 parking lots in Clinton, Iowa. There were 3 options designed for each of the 5 parking lots. The 3 options included a traditional design (repaving existing lots), permeable pavers design, and a bio-cell design. There are various changes being made to each of the 5 lots. Some lots have been modified with a slight change of the lot layout, whereas others had their size reduced. Also, a rest area building is being added to the MTA lot for transit workers.



Figure 1. Site map of all 5 parking lots in Clinton, IA

## MTA Building Design

The rest area building will be located at the southwest corner of the Goldfinch Lot and will serve multiple purposes to the community. It provides both a rest area for transit workers and a sheltered bus stop for the public. The building is 662 square feet with 508 square feet dedicated to the space for transit workers and 154 square feet for the bus stop. There will be a restroom and lounge area strictly for transit worker use included within the building.



Figure 2. Rendering of the new MTA Building

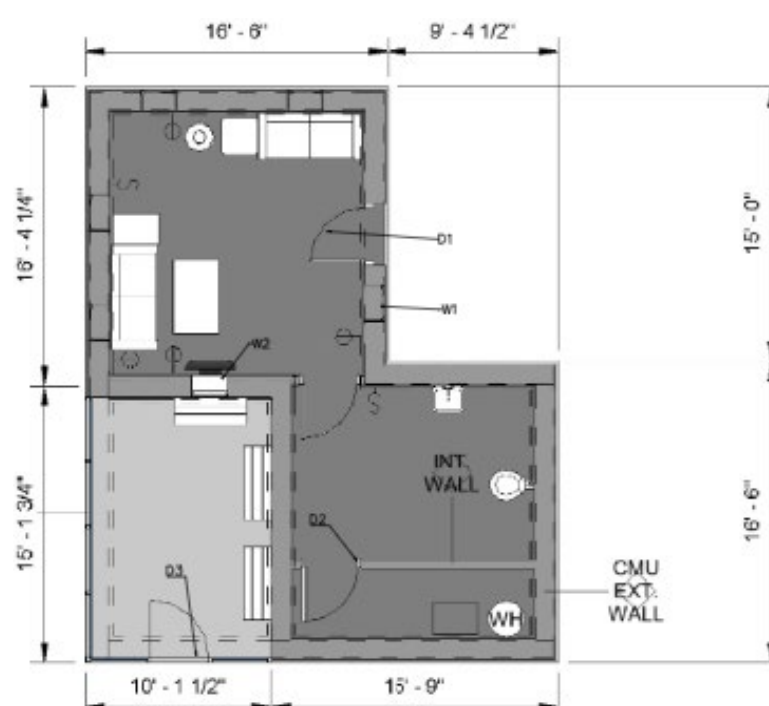


Figure 3. Floor Plan of the new MTA Building

## Final Design

The recommended alternative for the final design for the parking lots redesign consists of lot layouts with permeable pavers and bio-cell features. Examples of the layout of each recommended design is shown below.

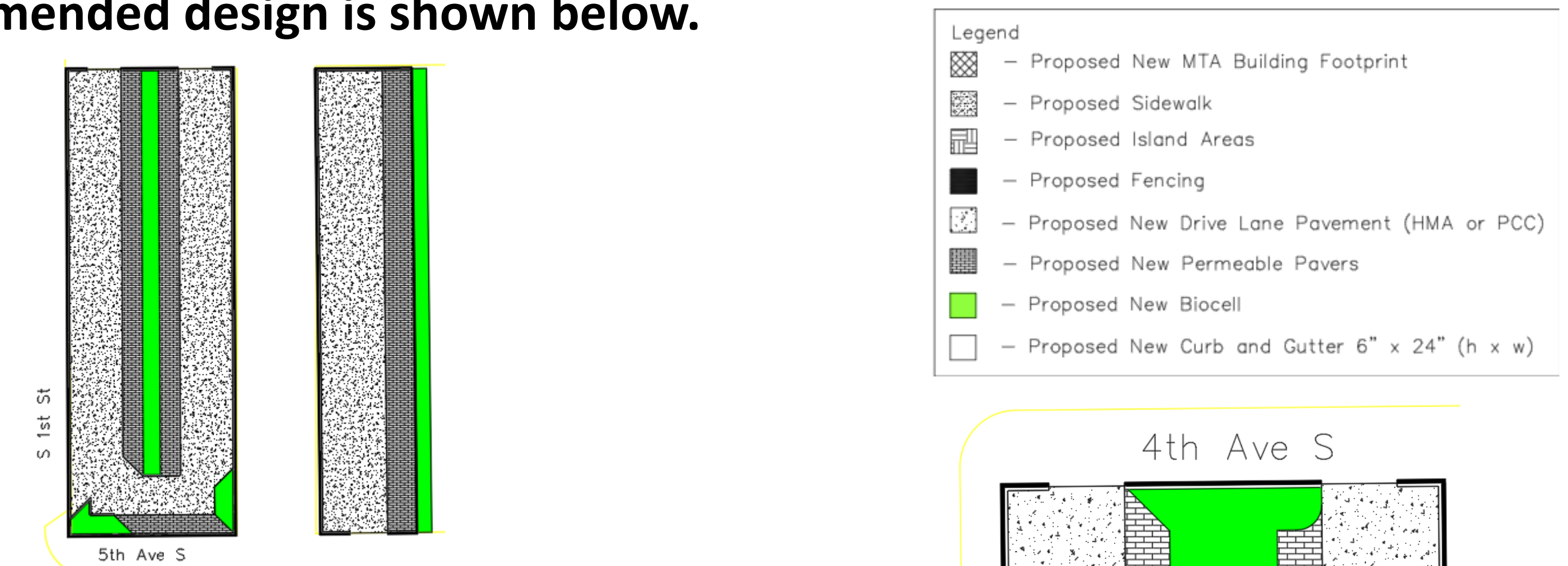


Figure 4. Oriole Lot recommended design

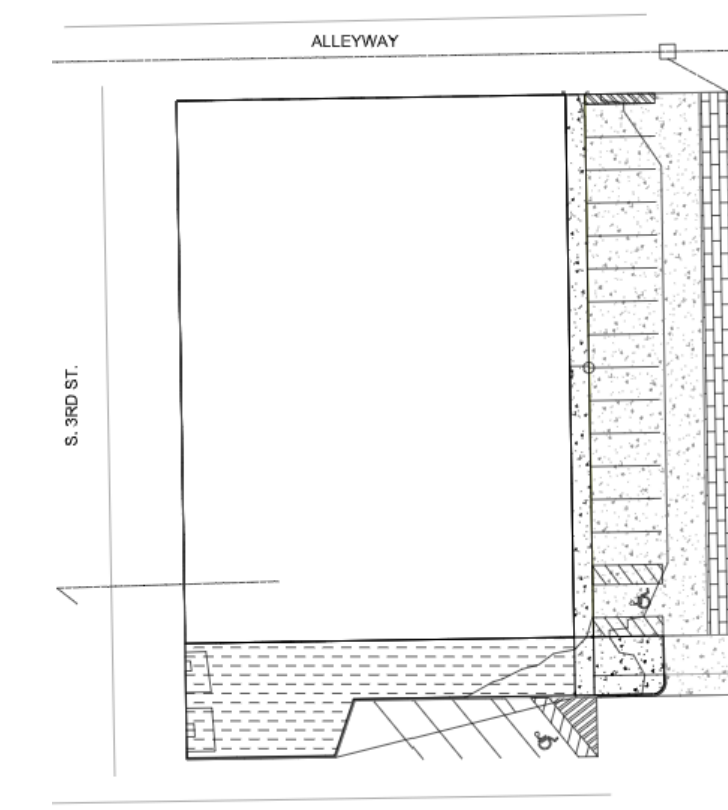


Figure 6. Grackle Lot recommended design

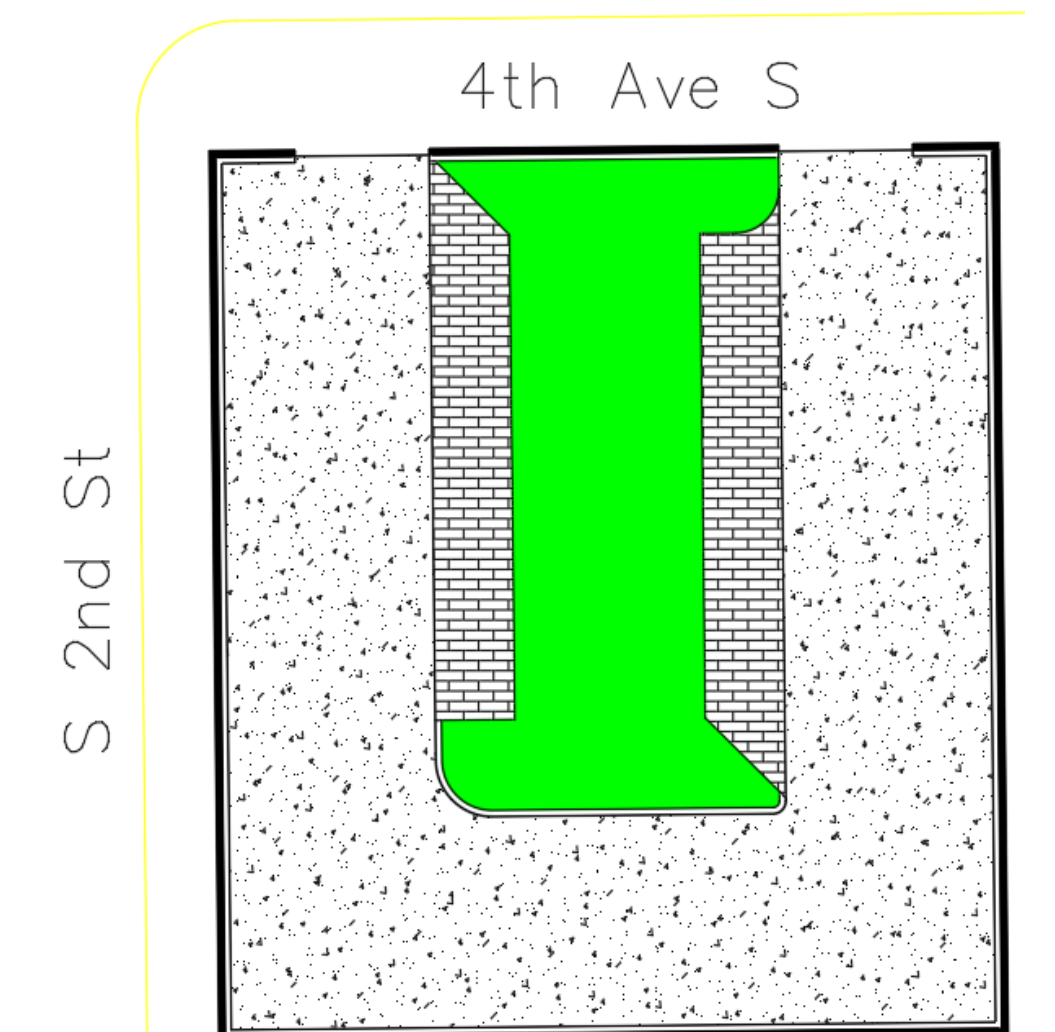


Figure 5. Chickadee Lot recommended design

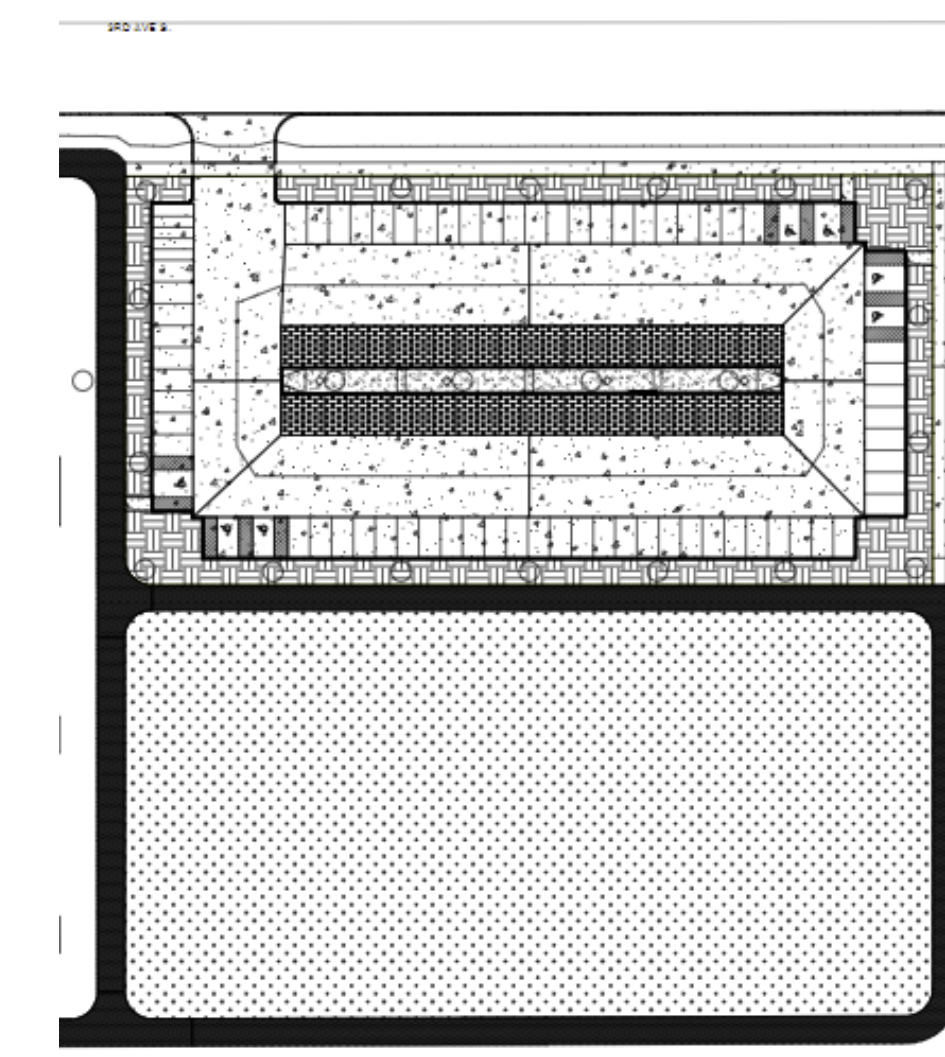


Figure 8. Blue Jay Lot recommended design

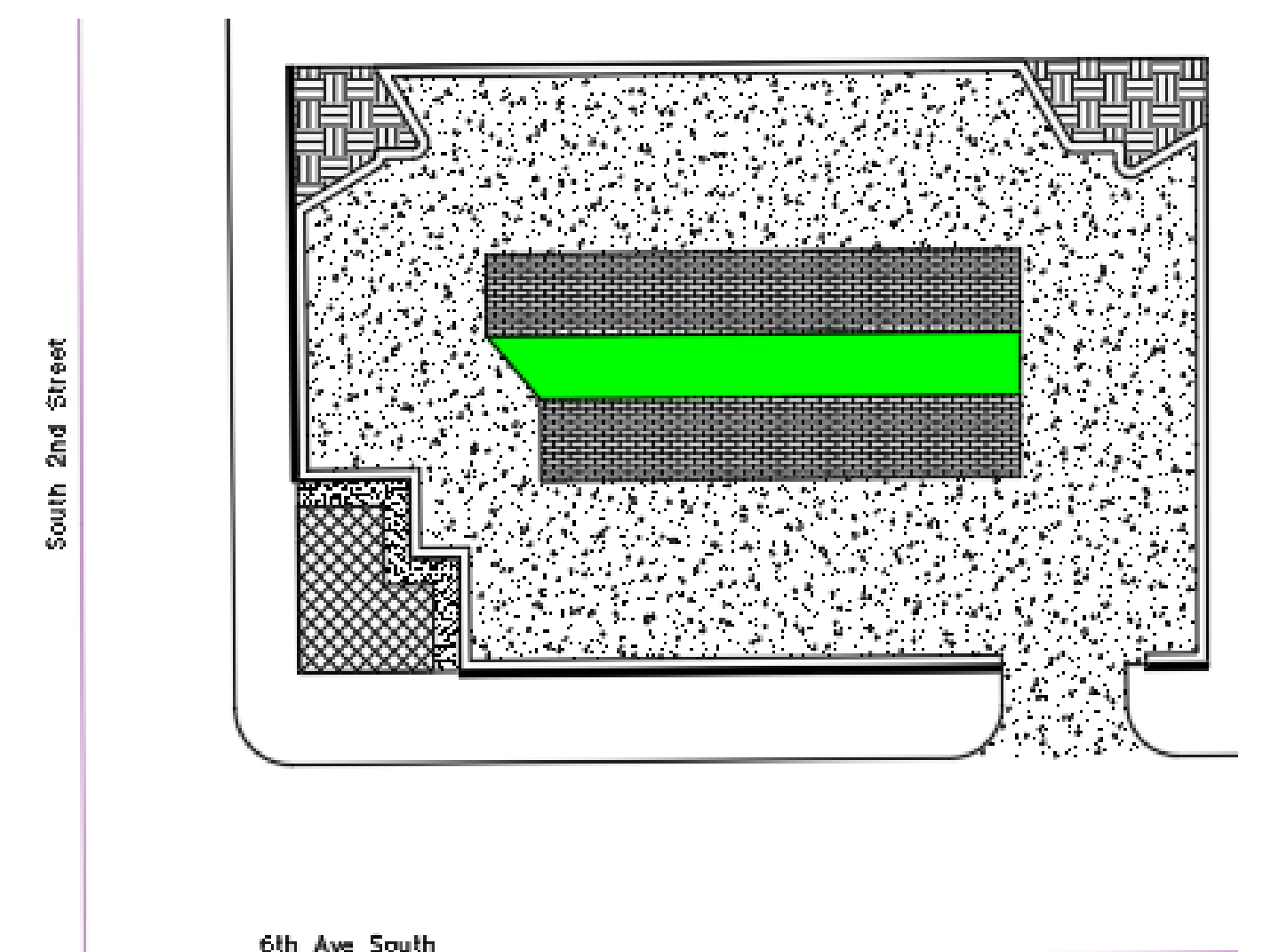


Figure 7. Goldfinch Lot recommended design

## Conclusion

Overall Costs for the recommended design of each lot:

Recommended Oriole Lot:	\$820,500.00
Recommended Chickadee Lot:	\$261,000.00
Recommended Grackle Lot:	\$73,000.00
Recommended Goldfinch Lot:	\$256,000.00
Recommended Blue Jay Lot:	\$620,000.00
MTA Building Overall Cost:	\$134,000.00

## References

- SUDAS Chapters 8 and 12
- Bhatti, Asghar. *Design of Concrete Structures - Fundamentals and Practices*. University of Iowa, 2021.
- Coduto, Donald P., et al. *Foundation Design: Principles and Practices*. Pearson, 2016.
- Encyclopedia of Trusses: A Guide to Using Trusses*, Alpine Engineered Products, 2019, pp. 1–28.