Dynamic Modularity is a theoretical project focused on modular design and its potential for the construction industry. The project aims to develop a more efficient and cost-effective approach to housing construction by proposing the use of modular units that can be easily assembled on-site. This process not only reduces waste and improves efficiency but also allows for greater customization and adaptability to varying site conditions and building requirements.

The overall goal of this thesis project has been to develop modular units that have the potential to revolutionize the one-story single-family home. By using a modular system, the construction process can be streamlined, and the resulting buildings can be more energy-efficient and sustainable. The project focuses on the development of a modular system that can accommodate a wide range of housing types, from small cabins to larger homes, and can be easily adapted to different site conditions. This approach not only reduces the environmental impact of housing development but also allows for greater flexibility in site selection and design.

The project has been focused on two separate sites: Hugo, Minnesota, and Scandia, Minnesota. Both sites were chosen based on their unique characteristics, such as topography, climate, and surrounding environment. The goal was to demonstrate the adaptability of the modular system to different contextual conditions.

The site at Hugo, Minnesota, is located in a more rural setting near the lake with a sloping plot of land that borders the water. This site presents unique challenges and opportunities for the development of a modular home, as the sloping terrain requires careful planning to ensure stability and safety. The site at Scandia, Minnesota, is located on a larger pond with more variations in terrain, providing a more diverse range of design possibilities.

By studying these two sites, the project seeks to develop a modular design solution that can be applied to various types of sites. This approach not only demonstrates the potential for modular design in housing but also highlights the importance of considering the unique characteristics of each site when developing a design solution.

In conclusion, the project focuses on the development of a modular design system that can be used to construct single-family residences. The modular approach not only reduces the environmental impact of housing development but also allows for greater flexibility in site selection and design. The project seeks to demonstrate the potential of modular design in housing through the development of two separate projects in Hugo and Scandia, Minnesota, each with unique characteristics and requirements.