Our 3 Designs

Basic Design



Sustainable Design



Monument Design





About Our Sponsor

Based in South Bend, Indiana, Charles Hayes provides regionally based solutions within the telecommunications infrastructure. With more than 20 years in the industry, he has built over forty sites located in Indiana, Michigan, Ohio, and Texas. He specializes in four types of towers: lattice, monopole, stealth, and guyed towers.

Services

- 1. Site selection and acquisition
- 2. Engineering, construction, operation and maintenance of tower

Charles S. Hayes Inc. 814 Marietta Street South Bend, IN 46601



IPRO 344

Working to create an aesthetic urban cell tower in Chicago

Team Leader: Timothy Lee Design Leader: Jacob Dohm Tech Leader: Amanda Chatman Faculty Advisor: Jim Braband

Members
Ronald Chan
Mike DiVito
Marc Ghafoori
Fotis Perizes
Dustin Reznicek
Jon Roberson

So what is an urban cell tower?



Cell Towers

Cell towers are structures that hold communications equipment such as antennas that provide service to phone users. Many cell towers are needed to provide a web-like coverage of the surrounding area. Cell towers have gained a bad reputation due to their lack of aesthetics.







Problem

- Urban environments require more cellular towers due to high population density
- Traditional tower designs do not meet space constraints and aesthetic standards that are present in an urban setting
- Our goal is to design an aesthetic alternative to the standard cell towers located on the IIT campus

Solution/Progress

- Research existing towers and cellular technology and possible sustainability such as solar panels or wind
- Gain design criteria through polls and questionnaires from our 4 shareholders (Carriers, Our Sponsor, Community, and IIT Administration)
- Integrate research into 3 varied designs