Comprehensive Network Design Project: Part 1

Objective: This assignment aims to provide hands-on experience in planning, designing, and implementing network solutions for various real-world scenarios. By completing this project, you will develop a deep understanding of the unique challenges and requirements associated with different types of network environments.

Assignment Tasks:

1. **Create the Network Diagram:**
   - **Tool:** Use Ubiquity's Design Center to draw a detailed network diagram.
   - **Redundancy:** Ensure high availability by including redundancy for core routers and switches.
   - **Labeling:** Clearly label all devices and connections.
   - **Physical Layout:**
     - Create all walls and windows using appropriate materials (e.g., concrete, drywall, steel, glass).
     - Add all Wi-Fi devices to ensure the entire area is covered (green).
     - Place cameras in key locations for surveillance.
     - Implement door security systems.
     - Design and populate a rack with the required networking equipment.
     - Add VoIP Phones
2. **Notes:**
   - **Equipment Selection:** Do not use the best of the best equipment.
     - You are a contractor making a bid to secure the work.
     - Ensure all items are in stock.
     - Be mindful (cost) of your client when selecting network gear.

Submission:

- Submit your network diagram and your supporting documentation.
  - Justification for the network gear you chose.
- Ensure all elements of the assignment are completed and clearly presented.
  - Create a professional document you would give to a prospective customer.
- Submission Format: Microsoft Word (.docx) Only

- To ensure your work meets professional business standards, please submit your final report as a **Microsoft Word document**. Part of this assessment focuses on your ability to produce a "client-ready" file. Unlike a PDF, a Word document allows for a full review of the technical formatting, layout consistency, and document structure required in a corporate environment. Submissions in PDF or other formats will not be accepted.