A. Urban design suggestions

1. **Problem statement**
   Environmental issues like rapidly growing urbanization and conservation demands prompt South Africa to reframe its urban planning and development towards sustainability. The urbanization process is exacerbating the problems with a population expected to nearly double in the next 30 years.

2. **Urban scheme**
   The scheme aims to offer an innovative response to the issues facing urban areas in South Africa. The project seeks to create a sustainable living environment, addressing social, economic, and environmental challenges. This includes strategies for energy efficiency, water conservation, and waste management.

3. **Site context**
   The site is located in Johannesburg, South Africa, renowned for its rich cultural heritage and diverse population. The project is situated in a dense urban area, offering opportunities for integration with existing infrastructure.

4. **Status quo**
   The current urban setting in Johannesburg is characterized by high-density development, with challenges in terms of infrastructure, transportation, and environmental sustainability.

5. **A.Z. Eco campus principles**
   - **Eco-friendly buildings**: Incorporating renewable energy sources and energy-efficient design practices.
   - **Zero waste**: Minimizing waste generation and promoting recycling.
   - **Healthy environment**: Creating spaces that promote the well-being of the occupants and the community.
   - **Local materials**: Utilizing locally sourced materials to support the local economy and reduce transportation impacts.
   - **Resilient infrastructure**: Designing systems that can withstand environmental and economic shocks.

6. **B. Concept design and analysis**
   - **B.1. Master plan**
     - The master plan is designed to reflect the principles of environmental sustainability and urban planning.
   - **B.2. Zoning**
     - The zoning plan is integrated into the master plan, ensuring functional and efficient use of the site.
   - **B.3. Design analysis**
     - The design analysis focuses on optimizing solar gain, reducing energy consumption, and enhancing the visual appeal of the campus.
   - **B.4. Conceptual planning**
     - The conceptual planning stage involves refining the master plan to cater to the specific needs of the campus.
   - **B.5. Design process and conceptual ideas**
     - The design process involves iterative refinement, ensuring compliance with environmental standards and stakeholder feedback.

C. Building resolution and function

- **Site context**: The site is situated within an urban area, facing challenges related to urbanization and sustainability.
- **Building resolution**: The buildings are designed to maximize efficiency, using sustainable materials and energy-efficient design to minimize environmental impact.
- **Function**: The buildings are designed to support educational and community functions, promoting a sustainable lifestyle.

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