

Site Analysis and Planning

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1. Introduction

- Site analysis is the systematic study of a location's conditions before design begins.
- **Goal:** Ensures a building responds to its physical, legal and social context.

2. Physical Factors

- **Topography:** Slope, contours and drainage affect layout, access and foundations.
- **Climate:** Sun path, wind and rainfall inform orientation and passive design.
- **Soil and geology:** Bearing capacity and water table determine structural choices.

3. Contextual Factors

- **Access and circulation:** Roads, pedestrian routes and parking shape entry points.
- **Surroundings:** Neighboring buildings, views and noise influence placement and massing.
- **Utilities:** Existing water, power and sewer connections affect feasibility.

4. Regulatory Factors

- **Zoning:** Defines permitted uses, density and building heights.
- **Setbacks and easements:** Restrict where structures may be placed.
- **Environmental controls:** Protect sensitive habitats and resources.

5. Synthesis and Planning

- Findings are recorded in site analysis diagrams and SWOT summaries.
- Planning translates constraints and opportunities into a coherent site strategy and concept.