ZNE Construction at the Bodega Marine Laboratory

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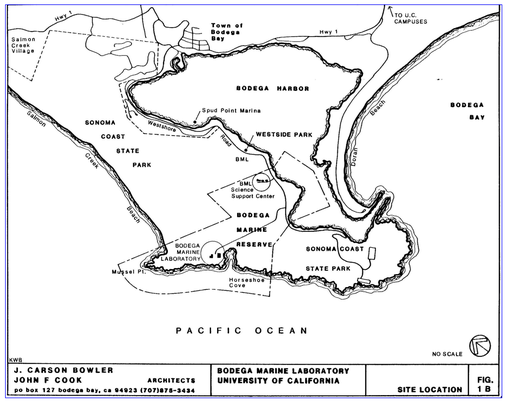
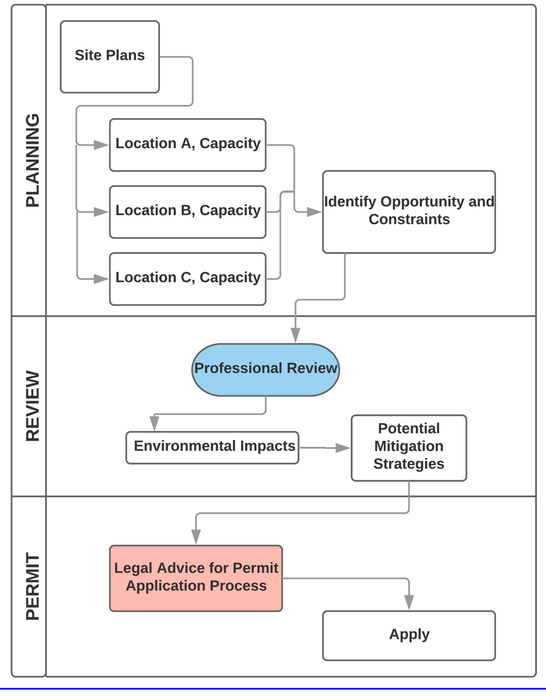


Introduction

The UC Davis Bodega Marine Laboratory is interested in replacing their current housing facilities with a new Zero Net Energy building in addition to a new conference space. Building along the coastline brings many logistical obstacles, particularly regulational barriers. We have worked this quarter to define these barriers for our clients and establish a plan for the next steps leading up to the approval of a permit for the construction of these buildings.

Project Approval Process



Regulation

CALIFORNIA COASTAL COMMISSION

The California Coastal Act was enacted by the State Legislature as a set of laws to govern the decisions made by the Coastal Commission. The following chapters have been identified to be especially relevant to development along the coastal zone:

Chapter 3: Coastal Resource and Management Policy

- **Section 30254** Public works facilities
- **Section 30212** New development projects

Chapter 7: Development Controls

CEQA
California Environmental Quality Act

The California Environmental Quality Act is a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts when possible. These findings must be submitted as an environmental impact report (EIR).

• Preparing the technical report:	2 - 6 months
• CEQA processing the EIR:	7 months
• **Total time:**	**9 - 13 months**
• Conducting site assessment:	$2,000 - $6,000
• Filing report:	$3,168

Case Studies

Santa Barbara

UC Santa Barbara began constructing affordable faculty housing in 2010 on its North Parcel. In order to get the project approved, they had to consider preserving coastal land, as well as take steps to provide public access and recreational activities--they declared their South Parcel to be open access, and in doing so moved their housing plans to North Parcel. All these factors are also important aspects of development at BML, with the additional similarity that the Santa Barbara was also on University of California property.

Project Details:

- Constructed in three phases
- Enhancement of bus lines
- Addition of bike paths
- Addressed environmental concerns
  - Sustainable construction
  - Energy-efficient appliances
  - Water conservation measures

San Diego

The Scripps Institute of Oceanography was awarded the permit to renovate and reconstruct research and storage facilities on the campus under special conditions from the Coastal Commission. Like UC Davis' BML, the Scripps Institute of Oceanography is a property of the University of California, which exempts them from regulation by the Local Coastal Program. Instead, the City's LCP was used as a guidance. They worked under a strict legal framework and development controls mandated by the Coastal Act, as well as preparing mitigation measure to comply with CEQA.

Project Details:

- Demolition of 2 existing buildings
- Construction of 3 buildings
- On existing research development
- No special conditions from the CCC
- Ensured mitigation of environmental impacts
- Monitoring sensitive species

Next Steps

According to the process map, BML's next step is to finalize a decision on the site's location. A technical study which includes a preliminary expert analysis and review of the proposed site should take place next.

To continue with the concept of a zero-net energy infrastructure, there will be extra steps to follow, such as performing an energy audit to ensure an adequate system design to withstand the capacity and needs of the facilities.

References

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2. California Coastal Commission. (2002). *California Coastal Commission Why It Exists and What It Does*.
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Acknowledgements

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