FINAL ENVIRONMENTAL IMPACT STATEMENT

INTERNATIONAL MARKET PLACE REVITALIZATION PROJECT

Appendix 7

IMP Redevelopment Project: Botanical Resources Assessment Study

CHAR & ASSOCIATES
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31 May 2004

Kusao & Kurahashi, Inc.
Manoa Market Place
2752 Woodlawn Drive, Suite 5-202
Honolulu, Hawaii 96822

Attention: Anne Kusao

SUBJECT International Market Place Redevelopment Project
Botanical Resources Assessment Study

Dear Mrs. Kusao:

A field survey to assess the botanical resources on the existing International Market Place and Waikiki Town Center project site was made on 21 May 2004. The project site is located at 2330 Kalakaua Avenue and 2301 Kuhio Avenue, Honolulu, Hawai'i (TMK:2-6-022: 38 and 43).

The primary objectives of the field survey were to:
1) provide a general description of the vegetation on the project site;
2) search for rare plants; and
3) identify areas of potential environmental problems or concerns and propose appropriate mitigation measures.

Description of the Vegetation

All of the project site is developed with the majority of the site covered by buildings and pavement. Large trees are found in the courtyard areas. A very large and old banyan (Ficus af. benghalensis) with a number of horizontal branches and supporting roots towers above the shops and walkway on the Kalakaua Avenue side of the market place. A large Chinese banyan (Ficus microcarpa) is found near the food court and stage, while a row of Chinese banyan trees, 25 to 35 ft. tall, line Duke's Lane. Other large trees found scattered throughout the project site include coconut (Cocos nucifera), date palm (Phoenix sp.), monkeypod (Samanea saman), and 'opiuma (Pithecellobium dulce).

Smaller trees and shrubs can usually be found in the courtyard areas, around water features, or alongside the hotel buildings which adjoin the project site.

These include various cultivars of Plumeria rubra and Hibiscus sinensis, Ficus lyrata, Singapore plumeria (Plumeria obtusa), croton (Codiaeum variegatum), bougainvillea (Bougainvillea glabra), octopus tree (Schefflera actinophylla), and green ti leaf (Cordyline fruticosa). A number of palms which prefer shaded and semi-shaded environments are also found here and include bamboo or lady palm (Raphis excelsa), fishtail palm (Caryota sp.), golden fruited palm (Chrysalidocarpus lutescens), Pinanga sp., Veitchia sp., and dwarf date palm (Phoenix roebelinii).

Ornamental specimens planted in clusters for a splash of floral color include hybrid Anthurium and orchids (Epidendrum, Dendrobium, Oncidium). Besides croton, other colorful and variegated foliage plants include Aglaonema "Silver Queen", taro vine (Epipremnum pinnatum), and red ti leaf cultivars.

Discussion

Landscape plantings make up the vegetation on the project site. The majority of the plants are introduced or alien species. Introduced species are all those plants which were brought to the Hawaiian Islands by humans, intentionally or accidentally, after Western contact, that is, Cook's arrival in the islands in 1778. The coconut and green ti are originally of Polynesian introduction and are widely used in landscaping today. One small bird's-nest fern (Asplenium nidus) is found by the water feature on the Waikiki Town Center parcel. The bird's-nest fern is indigenous, that is, it is native to the islands and elsewhere. However, it is also cultivated and used for landscaping.

None of the plants observed on the project site is a threatened and endangered species or a species of concern (U.S. Fish and Wildlife Service 1999a, 1999b; Wagner et al. 1999). This is not surprising given the nature of the project site. All of the plants found on the project site are widely cultivated throughout the islands, and in other tropical and subtropical lands.

The proposed redevelopment of the project site is not expected to have a significant negative impact on the botanical resources. There are no botanical reasons to impose any restrictions, conditions or impediments to the proposed redevelopment project.

Please do not hesitate to contact me should you have any questions regarding this report.

Sincerely,

Winona P. Char

Winona P. Char

References

U.S. Fish and Wildlife Service. 1999a. U.S. Fish and Wildlife Service species list, plants. March 23, 1999. Pacific Islands Office, Honolulu, HI.

U.S. Fish and Wildlife Service. 1999b. Endangered and threatened wildlife and plants. 50 CFR 17.11 and 17.12. December 31, 1999.

Wagner, W.L., M.M. Bruegmann, D.R. Herbst, and J. Q.C. Lau. 1999. Hawaiian vascular plants at risk: 1999. Bishop Museum Occasional Papers No. 60.