

BUILDING PERMIT APPLICATIONS WITHIN FLOOD ZONES

FLOOD PLAIN MANAGEMENT ORDINANCE NO. 630/696

(REVISED 8/5/98)

I. INTRODUCTION

The purposes of this handout is to provide information on general requirements and procedures involved in obtaining approval of building permit applications in flood zones. The handout provides general descriptions of flood requirements. Reference should be made to the Flood Plain Management Ordinance No. 630/696 for more detailed information.

The Department of Public Works, County of Kauai is mandated by the law to review building permits to minimize public and private losses due to flood condition. The Ordinance requires the Department to utilize the Federal Flood Insurance Rate Maps (FIRM) which identify flood areas. The Ordinance also requires the Department to review for flooding those building permits that are likely to be flooded when it is adjacent to a watercourse even if the FIRM flood map does not designated flood boundary or flood heights.

II. FLOOD ZONES AND REQUIREMENTS OF DEVELOPMENT

Flooding is caused by heavy rainstorm which swells the streams, and rivers of natural watercourse. Flooding could also arise from high wave action and tsunami.

General requirements for development in the various flood zones are described in the riverine and coastal flood hazard exhibits.

III. BUILDING PERMIT APPLICATION AND APPROVAL

A. County Review of Permits

The Division of Engineering, Department of Public Works will review building permits and require owners to construct structures as required by the Flood Plain Management Ordinance to minimized public and private loss and to protect life and property. The Division will review building permit and location of structures that are adjacent to a natural watercourse such as a river or dry stream or valley and in the coastal plain. The Division will perform the following services.

1. Property In Identified Flood Zone Shown In FEMA Federal Insurance Rate Map (FIRM)

Division will inform owner/applicant on the flood zone designation and flood elevation. Owner/applicant will also be informed on building requirements for construction in flood zone.

Owner/applicant is advised to retain private civil engineer or surveyor to determine ground elevation. Finished floor elevation and ground elevation is critical for completing building plans.

2. Property Next To Watercourse And Not Identified In FEMA Federal Insurance Rate Maps (FIRM) But There Is An Available Flood Study Made By Government Or A Private Engineering Flood Study Accepted By The County.

Division will inform owner/applicant on the flood zone designation and flood elevation. Owner/applicant will also be informed on building requirements for construction in flood zone.

Owner/applicant is advised to retain private civil engineer or surveyor to determine ground elevation. Finished floor elevation and ground elevation is critical for completing building plans.

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Property Next To Watercourse But Not Identified In FEMA Federal Insurance Rate Map (FIRM) And No Available Flood Studies

Division will advise owner/applicant that the structure is located next to a watercourse and no detailed flood studies are available. Owner/applicant will be required to retain registered professional engineer to make flood study and determine flood limits and elevation. Owner/applicant will be informed that the Division will not make flood study. Further, building permit cannot be reviewed or approved unless a flood study that meets the approval of Division is submitted.

Owner / applicant need to retain a private, registered civil engineer to perform flood study. Study should determine flood limits, flood elevation, ground elevations, and recommended measures to minimize flood damage for the proposed structures. Upon acceptance by the Division, owner/applicant will be informed on the building requirements for construction in the flood zone.

B. Building Requirements In Flood Zone

Owner/applicant can initiate the following measures to obtain building permit approval when the buildings are within flood zones.

1. Construction in flood zone A, AH, AE & VE
 - a. Revise building plans to indicate that the floor levels comply to the flood requirements of the appropriate flood zone.
 - b. Have the plans designed and stamped by a either a structural engineer or architect registered in the State of Hawaii. The engineer or architect must submit a structural certification that the structure have been designed to resist flood forces. This certification must be submitted along with the corrected plans.
2. Construction in flood zone developed by the applicants engineer or government study or previously approved flood study performed by private engineer.
 - a. Revise building plans to indicate that the floor levels comply to the flood requirements of the appropriate flood zone.

Have the plans designed and stamped by a either a structural engineer or architect registered in the State of Hawaii. The engineer or architect must submit a structural

certification that the structure have been designed to resist flood forces. This certification must be submitted along with the ,corrected plans.

b. Relocate building outside of the flood limits.

IV. CONSTRUCTION

The owner/applicant shall construct the structure in accordance to the approved building plans.

Owner/applicant shall retain private registered surveyor or civil engineer who need to set benchmark elevation to insure that building floor levels meet flood elevation requirement. Private registered surveyor or civil engineers shall submit "ELEVATION CERTIFICATE" before building will be allowed to be occupied. The "ELEVATION CERTIFICATE" on form furnished by the Division shall provide the measured finished floor elevation. Structures with finished floor elevation below flood elevation are in violation of the Flood Ordinance. Owner/applicant will not be allowed to occupy the structure and will be required to make corrective work to bring the structure in compliance with the law.

Owner/applicant is advised to take floor elevation measurements very early in the construction work to insure that floor levels will conform to elevation requirement. Improper floor elevation should be detected as early as possible to avoid costly remedial work. The Building Division will assist owner/applicants by requiring the "Elevation Certificate" to be submitted before framing inspection is

approved and more work can proceed. However, owner/applicant are urged to use their initiative and exercise all efforts to meet flood elevation and structural requirements to reduce remedial and corrective costs.