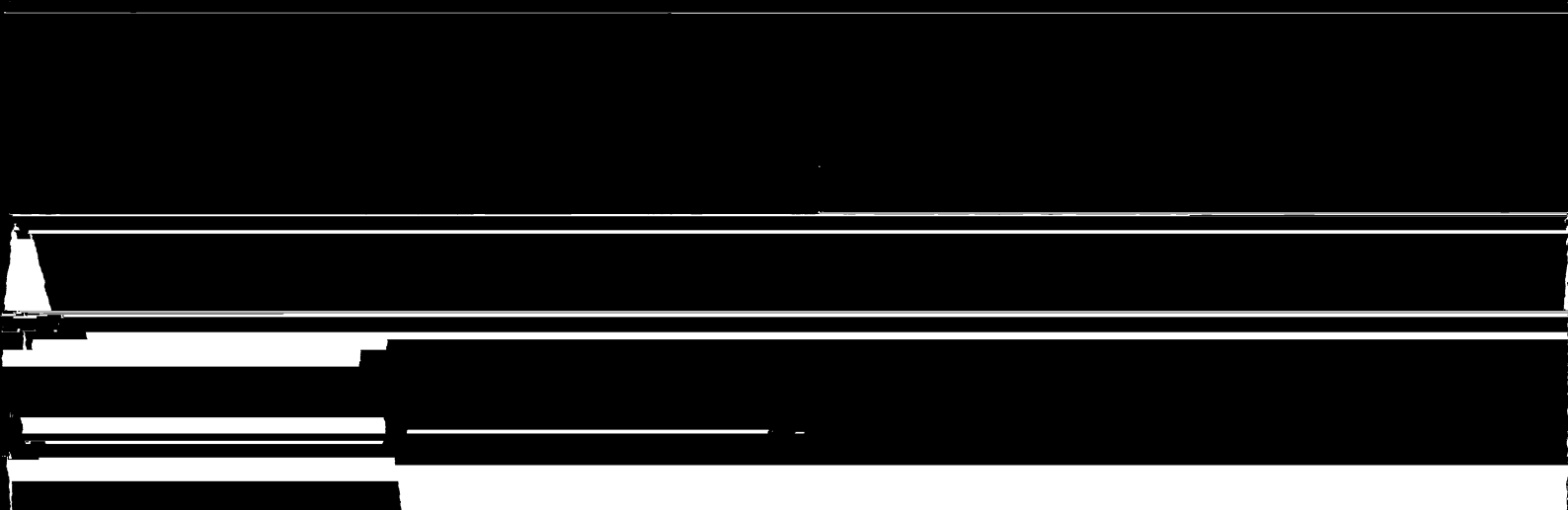
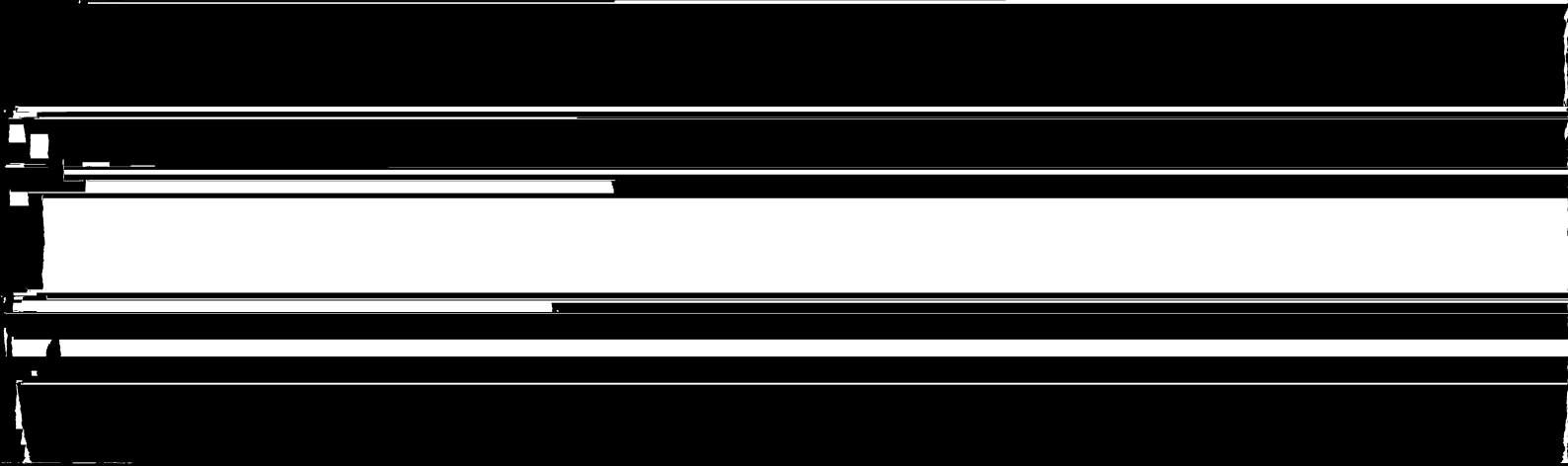
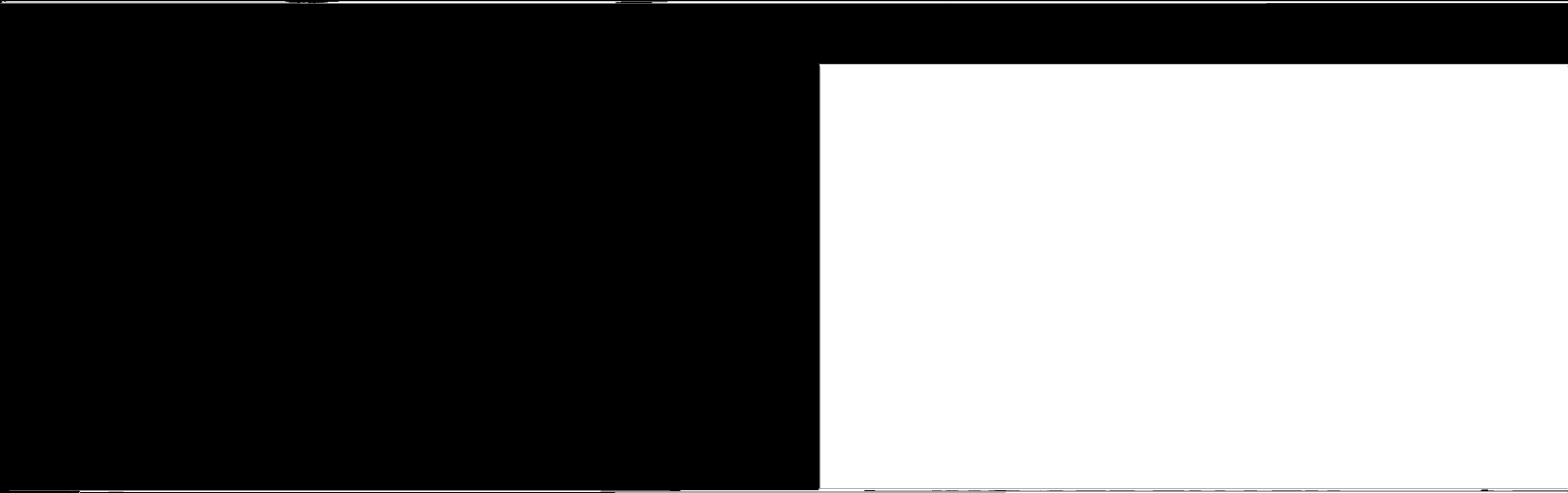
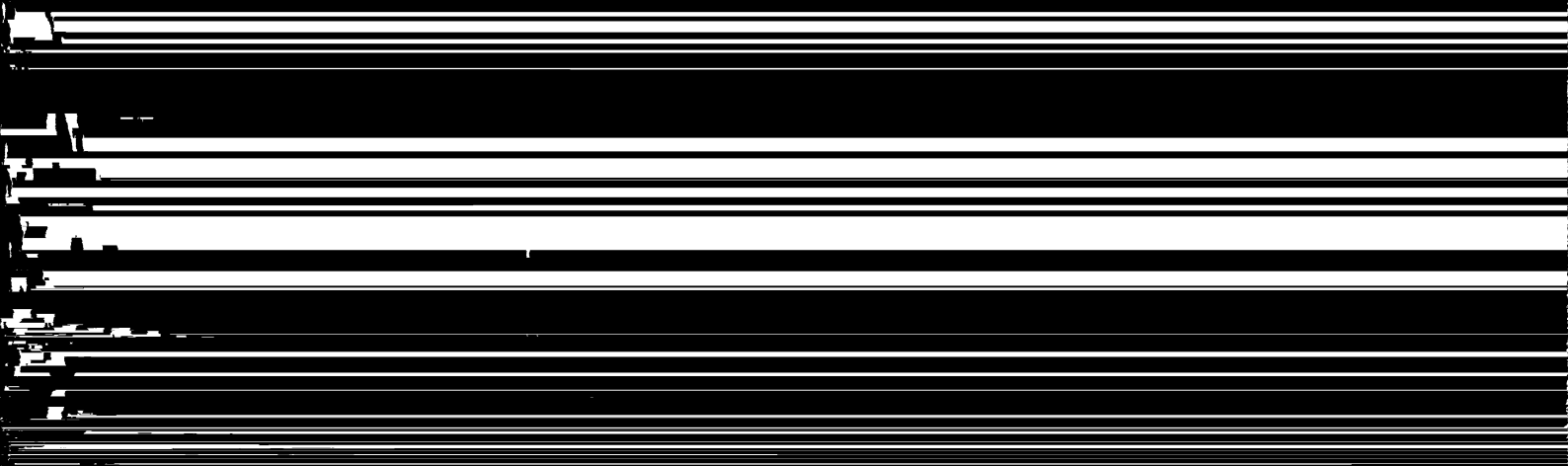




CYCLONE TESTING STATION



CYCLONE TESTING STATION

THE STRENGTH OF BATTEN-TO-RAFTER JOINTS

Part 2

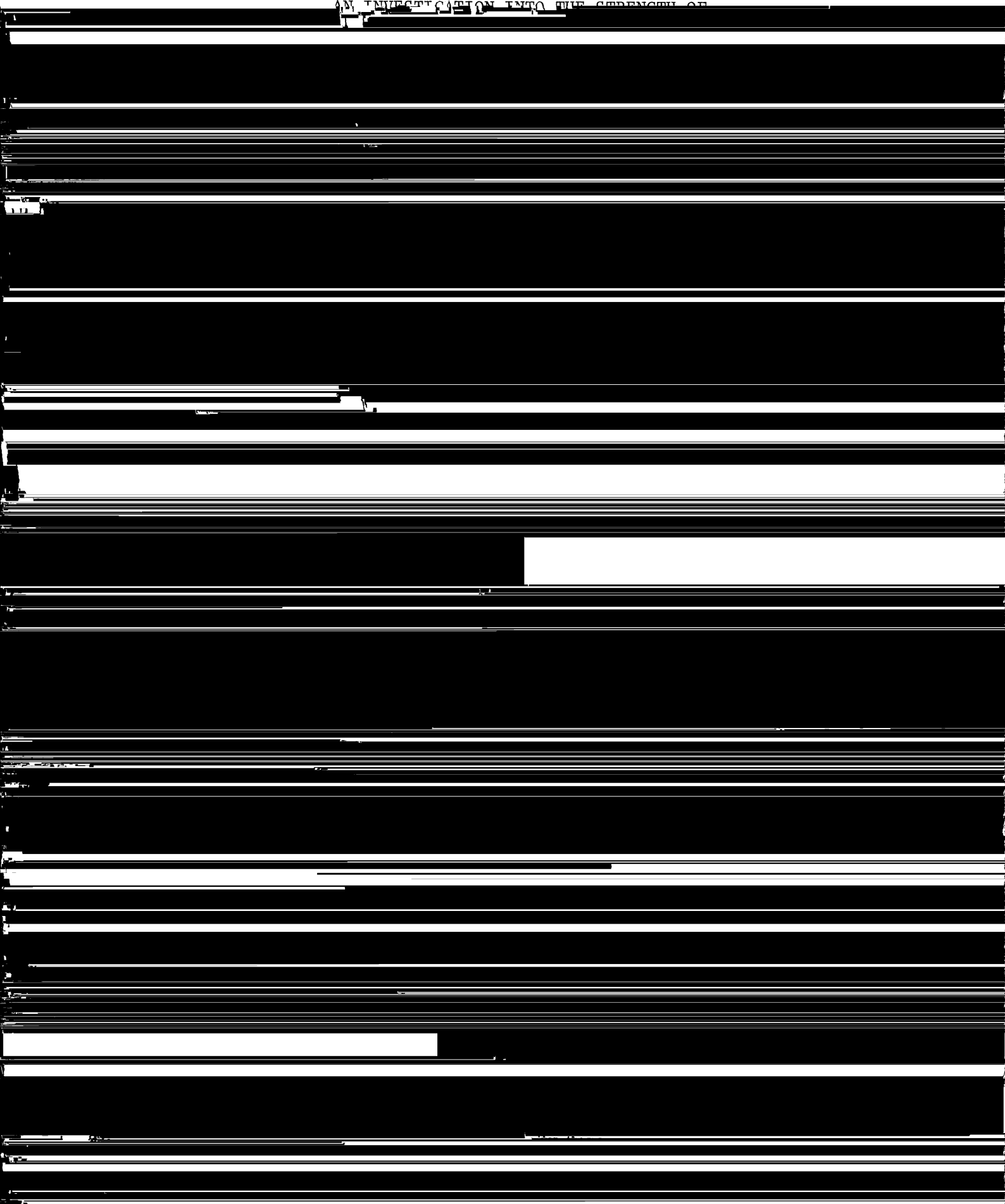
Recommendations for High Wind Areas

G. F. Reardon

TECHNICAL REPORT NO. 3

Department of Civil & Systems Engineering,
James Cook University, North Queensland

AN INVESTIGATION INTO THE STRENGTH OF



available on the likely performance of the fastener.

For convenience each type of fastener has been given a symbol which is used in the tables presented later in this document. It is stressed that recommendations are made for a fastener unit which usually consists

.3.

houses bordering onto large open parklands should be considered as nearly

sheltered, even though they may be in an otherwise suburban location.

The engineering calculations to establish the recommendations made in
Table 3 to 6 have been performed in accordance with the SAA Wind Load

COST OF MAKING JOINTS

REFERENCES.

1. REARDON, G.F. (1979) "The Strength of Batten-to-Rafter Joints
Part 1. Test Results and Derivation of Design Loads." Cyclone
Testing Station, Technical Report No. 2.

3. HOLMES, J.D. and MUNARIN, J.L. "Wind Loads on Logan Unit:
Belvedere", James Cook University Wind Engineering Report 1/79.

TABLE 1

Fastener symbol	Type of Fastener	Design Load (kN)
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TABLE 2(a)

Wind Intensity W33
(sheltered locations in suburbs - non-cyclone)

TABLE 2(b)

Fasteners needed to secure battens to rafters
within 1200 of edges of roof

Wind Intensity W33
(sheltered locations in suburbs - non-cyclone)

TABLE 3(a)

Fasteners needed to secure battens to rafters

area built of roof area

TABLE 3 (b)

Fasteners needed to secure battens to rafters
within 1200 of edges of roof

TABLE 4 (a)

Fasteners needed to secure battens to rafters
over bulk of roof area

Wind Intensity W60

within 1200 of edges of roof

Wind Intensity W60

(poorly sheltered locations in cyclone areas)

[illegible]

75x38x300 LONG