EABO

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Architects

Building Officials

A Joint Committee of:

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GUIDE TO

THE FLOW CONTROL ROOF DRAINAGE DECLARATION

Why is this form necessary?

The Flow Control Roof Drainage Declaration form provides the Chief Building Official with assurance that the mechanical and structural engineers have coordinated their designs. Because the use of flow control roof drains causes ponding of water on a building's roof the structural engineer must design the roof structure to handle additional loads. There are three possible roof drainage scenarios.

1) System uses no flow control roof drains. There is no additional loading of roof structure.
2) System uses flow control roof drains that meet the criteria specified in M2. The roof structure must include the load accumulated by a 24h rainfall but rain and snow loads do not need to be considered to act simultaneously.
3) System uses a flow control system that does not meet the minimum drainage criteria specified in M2. As a result, rainwater retention on the roof will add loads in excess of an accumulated 24h rainfall. Structural engineers must design the roof to accommodate the actual excess rainfall load and a simultaneous snow load as set out in subsection 4.1.7 of the Ontario Building Code.

Completing the flow control roof drainage declaration

This document must be completed by the professional engineers responsible for the design of the roof structure (Structural Engineer) and the roof drainage system (Mechanical Engineer). In each section the appropriate professional engineer shall check one statement. Select the one that describes the basis for the design submitted for permit.

Both engineers shall affix their seals to the appropriate section. Sign and date the seal in accordance with Section 53 of Regulation 941, Professional Engineers Act.

FLOW CONTROL ROOF DRAINAGE DECLARATION

THIS FORM TO BE COMPLETED BY THE MECHANICAL AND STRUCTURAL ENGINEERS RESPONSIBLE FOR DESIGN

Permit Application No.

Project Name:

Building Location: Municipality:

The roof drainage system has been designed in accordance with the following criteria: (please check one of the following).

M1. ❑ Conventionally drained roof (no flow control roof drains used).

M2. ❑ Flow control roof drains meeting the following conditions have been incorporated in this design:

(a) the maximum drain down time does not exceed 24h,
(b) one or more scuppers are installed so that the maximum depth of water on the roof cannot exceed 150mm,
(c) drains are located not more than 15m from the edge of roof and not more than 30m from adjacent drains, and
(d) there is at least one drain for each 900 sq.m.

M3. ❑ A flow control drainage system that does not meet the minimum drainage criteria described in M2 has been incorporated in this design.

PROFESSIONAL SEAL APPLIED BY:

Practitioner's Name:

Firm:

Phone #:

City: Province:

Mechanical Engineer's Seal

S1. ❑ The design parameters incorporated into the overall structural design are consistent with the information provided by the Mechanical Engineer in M2. Loads due to rain are not considered to act simultaneously with loads due to snow as per Sentence 4.1.7.3 (3) OBC.

S2. ❑ The structure has been designed incorporating the additional structural loading due to rain acting simultaneously with the snow load. The design parameters are consistent with the control flow drainage system designed by the mechanical engineer.

PROFESSIONAL SEAL APPLIED BY:

Practitioner's Name:

Firm:

Phone #:

City: Province:

Structural Engineer's Seal