



Canada Mortgage  
and Housing Corporation

Société canadienne  
d'hypothèques et de logement

National Office

Bureau National

#668

Memorandum

Mémoire

To: A Members of Management Review Committee  
and those listed below

Our file Notre référence

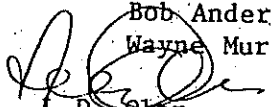
Your file Votre référence

Re: Sujet Preparation for the 2 September meeting of  
HUDAC - Discussion of Moisture Problems and  
Energy Conservation

Date 25 August 1981

A special meeting of MRC will be held on Thursday 27 August at 9:30 a.m. in the Executive Board Room. A number of the people who were involved in the writing of the above paper will be attendance.

c.c. Jim White  
Jack Wadsworth  
Brian Gray  
Gordon Walt  
John Dowell  
Bob Anderson  
Wayne Murchison

  
L.D. Oler,

Assistant Corporate Secretary,  
Office of the Corporate Secretary.

Canada



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Ottawa  
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Ottawa  
K1A 0P7

398 810825

August 25, 1981

MEMORANDUM TO: Members of Management Review Committee

FROM: C.D. Crenna

RE: Preparations for HUDAC Meeting --  
Discussion of Moisture Problems  
and Energy Conservation

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Preparations have now advanced to a substantial degree for a productive meeting with HUDAC on the above subjects.

Attached please find a copy of the outline forms of the presentations which will be made.

The following issues will need to be decided prior to the HUDAC meeting.

- (1) The issuance of prohibition on CMHC approvals of new construction and renovation projects using "15-lb. felt" rather than building paper which allows moisture to escape (copy of proposed Technical Memorandum attached).
- (2) Realignment of CMHC's requests for 1982 to the Panel on Energy Research and Development in order to drop the request for an energy centre in CMHC, and to seek funding for more rapid development of air-to-air heat exchangers and the conduct of training courses in vapour barrier installation.
- (3) Degree of firmness in timing of steps leading to the "target energy conserving house" ... one option is contained in the notes for a presentation attached.
- (4) The release to the public of a technical paper describing the findings to date about the moisture problem in housing, and what CMHC is doing about it.

...2

By their nature, the above points will need to be further clarified for MRC in the course of discussion on the subject.

Management should also be aware that the energy savings resulting from tight vapour barriers are not as clear cut, or conceivable as large as was stated prior to the meeting with Mr. Cohen.

A handwritten signature in black ink, consisting of a large, stylized initial 'A' followed by a series of connected loops and a long horizontal stroke ending in a small dot.

Assistant to the President  
(Corporate Planning),  
Office of the President

Att.

PRESENTATION TO HUDAC

(2 SEPTEMBER 1981)

- A) MOISTURE PROBLEMS ASSOCIATED WITH  
CURRENT BUILDING PRACTICES
- B) FUTURE BUILDING REQUIREMENTS FOR  
INCREASED ENERGY CONSERVATION
- C) POSSIBLE SCHEDULING OF INCREASED  
ENERGY CONSERVATION REQUIREMENTS
- D) CMHC ASSISTANCE WITH ENERGY CONSERVATION

A) MOISTURE PROBLEMS

- TYPE OF PROBLEM
  
- CAUSES
  
- SOLUTIONS
  
- DIFFICULTIES

TYPE OF PROBLEM.

- LOSS OF INSULATION  
QUALITIES
  
- SIDING DAMAGE
  
- STRUCTURAL DAMAGE

## CAUSES OF MOISTURE PROBLEMS

- EXFILTRATION RATHER THAN INFILTRATION
- RAIN PENETRATION
- WATER VAPOUR DIFFUSION

## SOLUTIONS TO MOISTURE PROBLEMS

- MOISTURE REDUCTION
  - APPROPRIATE VENTING TO ASSURE ONLY INFILTRATION
  - HIGH QUALITY INTEGRAL AIR/VAPOUR BARRIER
  - DEHUMIDIFICATION
  
- DAMAGE PREVENTION
  - DRAINAGE AND VENTILATION (AVOID SECONDARY AIR/VAPOUR BARRIERS)
  - INERT MATERIALS

## DIFFICULTIES ASSOCIATED WITH SOLUTIONS

- COST EFFECTIVENESS
  
- SUPPLY CONSIDERATIONS
  - MATERIALS
  - DESIGN
  - TECHNIQUES
  - EQUIPMENT
  - QUALITY CONTROL
  - PERFORMANCE CERTIFICATION
  
- DEMAND CONSIDERATIONS
  - CERTIFICATION OF CONSUMER PRODUCT
  - WARRANTIES AND GUARANTEES

CMHC ASSISTANCE WITH MOISTURE  
PROBLEMS

- COMPREHENSIVE APPROACH TO MOST  
COST EFFECTIVE SOLUTION
  - IMPACT
  - DIAGNOSIS
  - SOLUTION TESTING
  
- IMMEDIATE ALERTING TO HAZARDS
  
- TRAINING
  
- PILOT PROJECTS (CMHC PROJECTS)
  
- INSPECTION (CONTROL)
  
- CERTIFICATION

IMPLEMENTATION OF IMPROVED AIR/VAPOUR  
BARRIER MANDATORY, C.M.H.C. MID-1982?

B) FUTURE BUILDING REQUIREMENTS  
FOR INCREASED ENERGY  
CONSERVATION

- SITUATION
  
- PROPOSED SOLUTION
  
- DIFFICULTIES

IMPACT OF PROGRESSIVELY INCREASING  
ENERGY STANDARDS ON CONSTRUCTION SECTOR

- DISRUPTION DUE TO  
UNCERTAINTY
- NEED FOR PROTECTION AGAINST  
FUTURE UNANTICIPATED PROBLEMS
- NEED TO MAINTAIN COMPETITIVE  
EDGE (SCOPE NOT RESTRICTED) BY  
PRESCRIPTIVE STANDARDS

## PROPOSED SOLUTION

- TARGET ENERGY CONSERVING HOUSE
  
- COMPREHENSIVE APPROACH TO DESIGN
  
- PHASED APPROACH TO IMPLEMENTATION

## TARGET ENERGY CONSERVING HOUSE

- A NEW APPROACH  
(AVOID ENERGY CONSERVATION OBSOLESCENCE)
  - PRIORITY ACCORDING TO DIFFICULTY OF RETROFIT
  - CONSERVATION READY
  - PERFORMANCE
  - RANKING ACCORDING TO INTERNAL COST EFFECTIVENESS
  
- LIKELY TARGET
  - HIGH QUALITY INTEGRAL AIR/VAPOUR BARRIER
  - WALLS TO THERMAL LIMIT
  - OUTSIDE BASEMENT INSULATION
  - DUCT READY (ADEQUATE VENTILATION)
  - HIGH QUALITY INTENTIONAL OPENINGS

## COMPREHENSIVE APPROACH TO DESIGN

- COST EFFECTIVENESS
  
- PRACTICALITY
  
- FEASIBILITY
  - SOCIAL
  - INSTITUTIONAL
  - POLITICAL

DIFFICULTIES ASSOCIATED WITH  
THE TARGET ENERGY CONSERVING  
HOUSE

- EXISTENCE OF MODEL BUILDING  
CODE DEVELOPMENT PROCESS
  
- COST EFFECTIVENESS
  
- SUPPLY CONSIDERATIONS (AVAIL-  
ABILITY OF HEAT RECOVERY  
VENTILATION UNITS)
  
- DEMAND
  
- AIR QUALITY

C) POSSIBLE SCHEDULING OF  
INCREASED ENERGY CONSERVATION  
REQUIREMENTS

- HIGH QUALITY INTEGRAL AIR/VAPOUR  
BARRIER - MID 1982
- ADVISORY DOCUMENT ON  
TARGET HOUSING - END 1982
- SOCIAL HOUSING - MID 1983  
TARGET HOUSING
- MANDATORY N.H.A. WHEN
  - FEASIBLE (R & D)
  - PRACTICAL (TESTED)
  - AVAILABLE- MID 1984?

D) CMHC ASSISTANCE WITH ENERGY  
CONSERVATION

- DESIGN ASSISTANCE
- ACCELERATED DEVELOPMENT OF EQUIPMENT
  - HEAT RECOVERY VENTILATION UNITS
  - FURNACES
  - CONTROLS
- TRAINING
- PILOT PROJECTS
- INSPECTION/ADVICE
- CERTIFICATION/ADVICE
- WARRANTIES AND GUARANTEES/ADVICE
- FEEDBACK FROM CURRENT PRACTICE  
VIA INSPECTION REPORTS
- FEEDBACK FROM PHASED IMPLEMENTATION
  - ADVISORY
  - GUIDELINES
  - MANDATORY



CMF TECHNICAL SERVICES

**BULLETIN**

DES SERVICES TECHNIQUES SCHL

TECHNICAL MEMORANDUM NO:  
BULLETIN TECHNIQUE NO:

page 2

To/A District Managers and  
Chief Inspection Officers  
Directeur des districts et  
Agents en chef des inspections

Re/Sujet SHEATHING PAPERS

Date

Field Survey of Sheathing Papers

Local offices are requested to monitor the local availability of sheathing paper in their area and report on the following items through their District Offices who will compile a composite report by October 30, 1981 and submit it to the Manager, Materials Evaluation, CMHC Technical Services

Name of manufacturer  
Name of product  
Copy of information on paper and on packaging, if possible

Offices should also obtain 300 mm x 300 mm samples and retain them for future testing if required by National Office. Samples should be retained until December 31, 1981. If more than one product is being used in an area each should be reported on.

If breather type sheathing is not available locally, this should also be reported.

R. A. PLAYER



# CMHC TECHNICAL SERVICES

# BULLETIN

## DES SERVICES TECHNIQUES SCHL

TECHNICAL MEMORANDUM NO:  
BULLETIN TECHNIQUE NO:

To/A District Managers and  
Chief Inspection Officers  
Directeur des districts et  
Agents en chef des inspections

Re/Sujet SHEATHING PAPERS

Date

### Background

Recently the Corporation has become increasingly concerned about potential moisture problems in wood frame walls.

One factor that may be contributing to moist walls is the use of an improper non-breathing type of sheathing paper.

### Purpose

The purposes of this memorandum are:

1. To review the current requirements for sheathing papers.
2. To request the assistance of District and Local Offices in carrying out a field survey of sheathing papers.

### Requirements

The current requirements are found in the following sections :

National Building Code of Canada 1980  
Subsection 9.23.17 Wall Sheathing Paper  
Residential Standards 1980  
Section 24 Q Wall Sheathing Paper

All technical staff are requested to review these requirements and to monitor construction to ensure that they are being met.