

**ROOF INSPECTION REPORT
ENVIRONMENT CANADA BUILDING
STONY PLAIN UPPER AIR STATION**

**ENVIRONMENT CANADA
BOX 3190
SPRUCE GROVE, AB
T7X 3A5**

ATTENTION: KELLY CRISTO

May 21, 2015

Environment Canada
Box 3190
Spruce Grove, AB
T7X 3A5

Attention: Kelly Cristo

Dear: Kelly

Re: Stony Plain Upper Air Station
Roof Inspection Report

As per your request we have completed analysis of the above described roof and submit the enclosed information.

The information is outlined as follows:

| | | |
|-----------|------------------------------|--|
| Page 1 | Introductory letter. | |
| Page 2 | Roof Plan Highlighting | - Cut test location and status of present roof components. - Photo locations. |
| Pages 3-6 | Comments and Recommendations | - Estimated cost of roof renewal included. |
| Page 7 | Comments on Photos | - Photos included. |

Sincerely

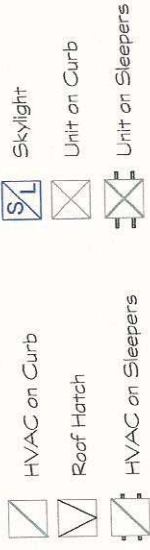




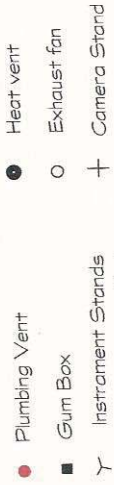
Legend

Control Joint Expansion Joint

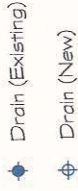
Roof Top Units



Projections



Drainage



Miscellaneous



Problem Indicators



* Note: -U indicates an unused item

Allen Desjarlais Independent Inspections Ltd.
16225 100 a Ave, Edm. AB.
tel: (780) 952-9754

Project

Stony Plain Upper Air Station

Customer

Alberta Government

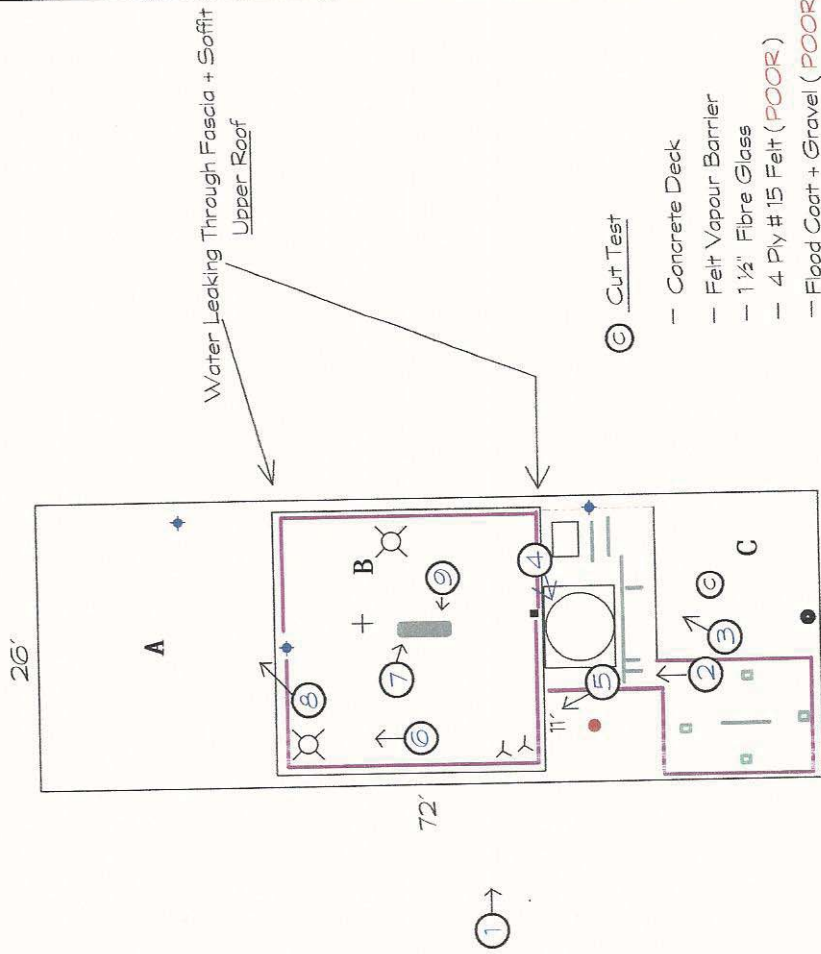
DWG. By ASD

Date March 13 2015

Scale

N.T.S

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Water Leaking Through Fascia + Soffit
Upper Roof

© Cut Test

- Concrete Deck
- Felt Vapour Barrier
- 1 1/2' Fibre Glass
- 4 Ply # 15 Felt (POOR)
- Flood Coat + Gravel (POOR)

Stony Plain Upper Air Station

Type of Inspection: Evaluate existing roof system.

Building Authority: Kelly Cristo, Station Program Manager

Location: Stony Plain, AB

Roof Section Areas: A, B and C

| Type of Roof: | | <u>Condition</u> |
|----------------------|----------------------------------|-------------------------|
| | Area A – 4 ply B.U.R. and Gravel | Poor |
| | Area B – 4 ply B.U.R. and Gravel | Poor |
| | Area C - 4 ply B.U.R. and Gravel | Poor |

Area of Roof Sections: Area A – 576 sq. ft.
Area B – 624 sq. ft.
Area C – 546 sq. ft.

Summary: Sections A, B and C are a **High Priority for Reroofing.**

Stony Plain Upper Air Station

The roofing system on roof sections A, B and C was found to be in poor condition and is a High Priority for Reroofing.

The cost to reroof sections A, B and C as outlined in the Conclusions and Recommendations is estimated at

Roof Sections A, B and C
Conditions

The protective surfacing is in poor condition – it appears to be single pour application. The asphalt pour coat was found too thin at various locations. With water ponding on these flat roofs, membranes may become contaminated with moisture and cause the roofing system to fail.

Roof Drainage:

With these roof sections being flat, widespread ponding of water occurs.

Leaks are reported at this time.

Stony Plain Upper Air Station

Conclusions and Recommendations

Following are our reroofing recommendations:

- Remove existing wood fencing and wood deck.
- Remove and dispose of existing metal flashing.
- Remove and replace weather instruments to original positions.
- Remove existing roof system to concrete deck.
- Installation of a new 2 ply 15# felt vapour barrier in asphalt.
- Installation of new sloped E.P.S. Type 1 insulation.
- Installation of a 25mm layer of shiplapped asphalt coated wood fibreboard over the primary insulation.
- Installation of a 2 ply S.B.S. Modified Bitumen Membrane. The membrane base sheet should be a minimum of 2.2mm in thickness and 90g/m² of glas mat reinforcement. The membrane cap sheet should be a minimum of 4mm in thickness and 180g/m² of polyester reinforcement. In addition, the cap sheet should be self protected with coloured granules. The S.B.S. Modified Bitumen Membrane sheets should be installed in strict accordance to the manufacturer's recommendations.
- Installation of new 26 gauge prefinished galvanized steel flashings to roof perimeters. Fascias should be fully cladded with metal.
- Installation of new 26 gauge galvanized metal to interior walls and counter flashings.
- Increase all roof perimeters with new wood blocking to accommodate the new insulation thickness.
- Installation of new flashings to plumbing vent stacks.
- Installation of new gumboxes to replace existing.
- Installation of new fencing, decking and walkways.
- Remove and dispose of all non-functional roof penetrations, replace appropriate deck, vapour barrier, roof insulation and roofing membrane.

The cost to carry out the above noted roofing recommendations is estimated at

Stony Plain Upper Air Station

Existing Roofing Description

Cut Test

Concrete deck

Felt vapour barrier

1½" Fibreglas

4 ply 15# felt – poor

Floodcoat and gravel – poor

Stony Plain Upper Air Station

Photo Comments

- Photo #1 Outside of building and fencing.
- Photo #2 Roof access, wood railing and wood walkway.
- Photo #3 Metal stair supports require gumboxes.
- Photo #4 Electrical lines, wood decking over upper roof.
- Photo #5 Electrical panel, wood decking over existing roof.
- Photo #6 Weather instruments, wood fencing.
- Photo #7 Electrical panel and other weather instruments.
- Photo #8 Discolouring indicates water ponding – Area C
- Photo #9 Plumbing vent and vinyl siding.

