



October 25, 2017

CITY OF SASKATOON

Asbestos-Containing Building Materials Assessment Report - Nutana Lawn Bowling Storage Garage



Submitted to:

The City of Saskatoon
1101 Avenue P North
Saskatoon, SK S7L 7K6

Report Number: 1667963

Distribution:

One Copy: City of Saskatoon
One Copy: Golder Associates Ltd.

REPORT





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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by the City of Saskatoon (the Client) to conduct an asbestos-containing building materials assessment of the Nutana Lawn Bowling Storage Garage (the Site) located at 310 7th Street East in Saskatoon, Saskatchewan. This assessment report details our findings, conclusions and recommendations for the Site. A walkthrough of the Site was conducted on September 13, 2017 and the assessment was conducted on October 16, 2017 by Kody Henderson, OHS Project Manager. Asbestos-containing building materials were not identified within the Nutana Lawn Bowling Storage Garage during the assessment. Further information is provided in Section 3.0.

2.0 SCOPE OF WORK

In accordance with Tender 16-0844, Golder's scope of work included conducting an asbestos-containing building materials assessment of the Site to evaluate the quantities, locations, and conditions of asbestos-containing building materials.

Following the field work, Golder prepared this assessment report that includes laboratory analysis results, findings of the assessment, conclusions, and recommendations.

2.1 Asbestos-Containing Materials

The assessment involved a non-destructive inspection of the Site to assess the type and extent of suspect ACMs in the facility. The systems that were reviewed as part of the inspections included, but were not limited to:

- *Structural* - systems including: insulation between solid webbed joists, fireproofing, building envelope, and interior/exterior caulking around windows and doors;
- *Mechanical* - systems insulation including: hot water and steam system, condensate system, chilled water system, glycol system, domestic hot and cold water, emergency generator exhaust, boiler units, heat exchangers, and asbestos cement piping; and
- *Architectural* - systems including: texture coats, sheet flooring, vinyl floor tile, acoustical spray-applied materials, condensation control applications, ceiling tile, wall board, drywall joint compound, and asbestos sheet products.

Systematic sampling of suspect ACMs was conducted as part of the assessment. Samples were submitted under chain of custody to International Asbestos Testing Laboratory Inc. (IATL) and analyzed for asbestos type and percentage content using Polarized Light Microscopy (PLM) in accordance with EPA methodologies (EPA 600/R-93/116).

Further information related to the assessment and sample collection methods can be found in the Golder document *Golder Asbestos Assessment General Survey Plan and Protocol* provided to the Client.



3.0 RESULTS AND DISCUSSION

The Nutana Lawn Bowling Storage Garage consists of an open storage area with an unknown construction date. During the assessment, the entire garage was treated as one functional space.

- A room by room spreadsheet outlining the locations, quantities, friability, and condition of identified asbestos-containing materials as well as additional information is provided in Appendix A.
- A floor plan is provided in Appendix B.
- Please refer to Sections 4.0 and 6.0 of this report for a summary of the limitations encountered.

3.1 Asbestos-Containing Materials

During the assessment, no suspect asbestos-containing materials were observed. The Garage was observed to be constructed of a wooden interior with a concrete floor and a combination wood/metal exterior.

4.0 EXCLUDED AREAS AND MATERIALS

The following is a list of the areas and/or materials excluded during the assessment.

- The roof and associated components were not assessed by Golder during the assessment as per Tender 16-0844. If the roof and associated components are to be removed or impacted by future renovation or demolition activities, additional investigation and sampling of suspect materials may be required.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the visual assessment, the following project specific conclusions and recommendations are provided.

5.1 Asbestos-Containing Materials

No suspect asbestos-containing materials were observed within the Garage.

If suspect asbestos-containing building materials are encountered during renovation or demolition activities, sampling should be undertaken to evaluate asbestos content.

6.0 SURVEY LIMITATIONS

This report is based on data and information collected by Golder during the assessment conducted on October 16, 2017 and is based solely on site conditions encountered at the time of the assessment. Any use of this document or the findings, conclusions or recommendations provided in this report by any person other than the City of Saskatoon is at the sole risk of such user.

The conclusions and recommendations contained in this survey report are based upon professional opinions with regard to the subject matter. These opinions are in accordance with currently accepted environmental assessment standards and practices applicable to these locations and are subject to the following inherent limitations:

The data and findings presented in this report are valid as of the dates of the investigations. The passage of time, manifestation of latent conditions or occurrence of future events may warrant further exploration at the properties, analysis of the data, and re-evaluation of the findings, observations, and conclusions expressed in this report. No assurance is made regarding changes in conditions or practices subsequent to the time of the investigation. It was beyond the scope of this assessment to conduct a risk assessment and the potential health risks that may be associated with asbestos exposure for building occupants.



ASBESTOS-CONTAINING BUILDING MATERIALS ASSESSMENT REPORT - NUTANA LAWN BOWLING STORAGE GARAGE

The data reported and the findings, observations and conclusions expressed in this report are limited by the Scope of Work. The Scope of Work was defined by Tender 16-0844 and the initial site walkthrough with the Client, the time and budgetary constraints imposed by the Client, and availability of access to the property.

Because of the limitations stated above, the findings, observations and conclusions expressed by Golder in this report are not, and must not be, considered an opinion concerning compliance of any past or present owner or operator of the site with any federal, provincial or local laws or regulations.

No warranty or guarantee, whether expressed or implied, is made with respect to the data or the reported findings, observations, and conclusions, which are based solely upon site conditions in existence at the time of investigation.

Golder's assessment reports present professional opinions and findings of a scientific and technical nature. While attempts were made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations or policies of federal, provincial, or local governmental agencies. Any use of the survey report constitutes acceptance of the limits of Golder's liability.

Golder's liability extends only to its client and not to other parties who may obtain this survey report. Issues raised by the report must be reviewed by appropriate legal counsel.

7.0 CLOSURE

We trust the information presented in this report meets your requirements. If you have any questions please contact Kody Henderson at (780) 483-3499 or email at kody_henderson@golder.com. Thank you for the opportunity to be of service. We look forward to working with you again in the future.



ASBESTOS-CONTAINING BUILDING MATERIALS ASSESSMENT REPORT - NUTANA LAWN BOWLING STORAGE GARAGE

Report Signature Page

GOLDER ASSOCIATES LTD.

Prepared by:

Kody Henderson, Dipl. Env. Sci., CRSP
OHS Project Manager

Reviewed by:

Andrew Grant, B.Sc., P.Eng., EP, CRSP
Associate, OHS Project Director

KH/AG/ba

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APPENDIX A

Nutana Lawn Bowling Storage Shed – ACM Inventory

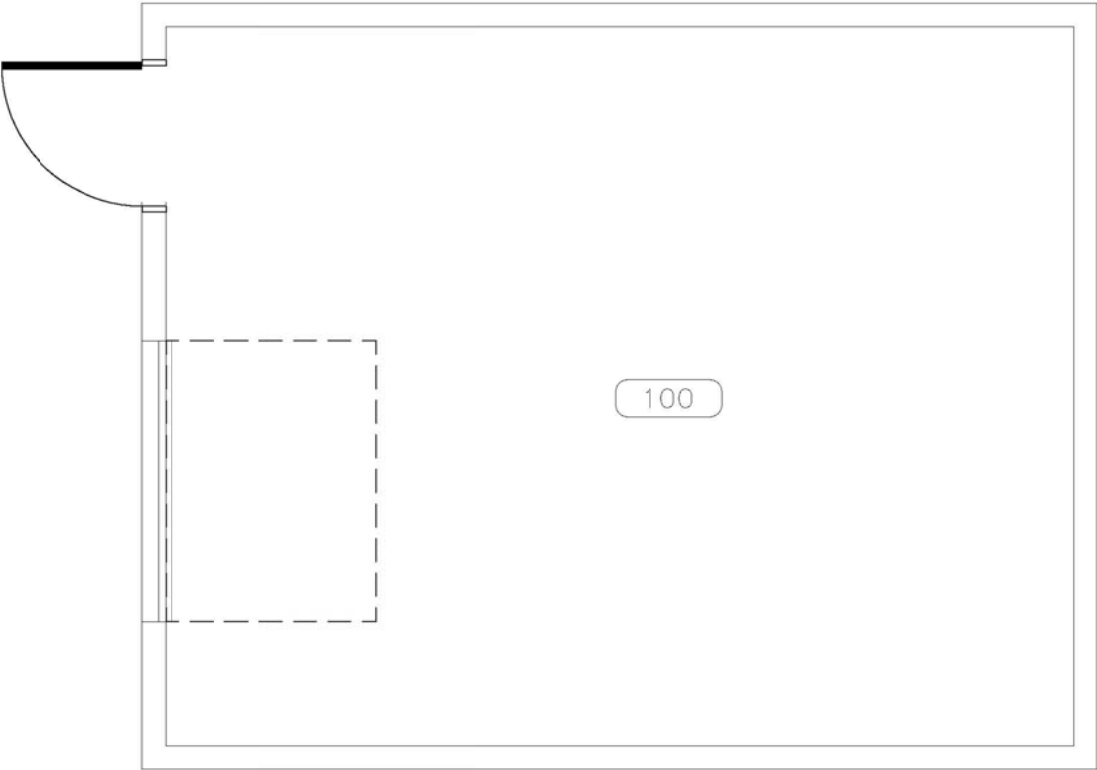
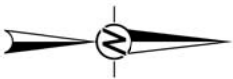
Appendix A
Nutana Lawn Bowling Storage Garage
ACM Inventory

Included/ Excluded	Floor	Room #	Area Description	Elements	Subelements	Material Description	Accessibility	Suspect?	Sampled?	Asbestos Containing Material?	Condition	Field Notes	Sample Type	Sample ID	Sample Date	Asbestos Type	ACM Product	% of asbestos	Friable	Sprayed-on	Maintenance	Inspection	Priority	Potential for Disturbance	Recommended Action	Quantity	Photograph ID	Labelling Type
Included	M	100	Storage Area	Walls	Walls	Wood	High	No	No	No	Good																	
Included	M	100	Storage Area	Floor	Floor	Concrete	High	No	No	No	Good																	
Included	M	100	Storage Area	Ceiling	Ceiling	Wood	High	No	No	No	Good																	
Included	M	100	Storage Area	Doors	Regular Door	Wood	High	No	No	No	Good	Non-suspect door.																
Included	M	100	Storage Area	Piping	Piping	Bare piping	High	No	No	No	Good																	
Included	M	Exterior	Exterior	Walls	Walls	Metal	High	No	No	No	Good																	
Included	M	Exterior	Exterior	Walls	Walls	Wood	High	No	No	No	Good																	
Excluded	1	Exterior	Roof	Exterior Roof	Exterior Roof							Not assessed due to scope of work.																



APPENDIX B

Floor Plan



SCHEMATIC ONLY, NOT TO SCALE

NOTE(S)
1. ASBESTOS IS A CARCINOGEN. DO NOT BREATHE ASBESTOS DUST.
2. ASBESTOS-CONTAINING MATERIALS WERE NOT OBSERVED WITHIN THE GARAGE AT THE TIME OF THE ASSESSMENT.

REFERENCE(S)
PLAN OBTAINED FROM INFRASTRUCTURE SERVICES DEPARTMENT CITY OF SASKATOON. DATED: 16/11/2016.

CLIENT
CITY OF SASKATOON

CONSULTANT



YYYY-MM-DD	2017-10-24
DESIGNED	KH
PREPARED	AM
REVIEWED	KH
APPROVED	AG

PROJECT
ASBESTOS ASSESSMENT
NUTANA LAWN BOWLING STORAGE GARAGE
310 - 7TH STREET EAST

TITLE
STORAGE GARAGE

PROJECT NO.	CONTROL	REV.	FIGURE
1667963	1000-HM-0002	0	1

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

For more information, visit golder.com

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October 25, 2017

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1.0 INTRODUCTION

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3.0 RESULTS AND DISCUSSION

The Nutana Lawn Bowling Storage Shed consists of an open storage area with an unknown construction date. During the assessment, the entire shed was treated as one functional space.

- A room by room spreadsheet outlining the locations, quantities, friability, and condition of identified asbestos-containing materials as well as additional information is provided in Appendix A.
- A floor plan is provided in Appendix B.
- Please refer to Sections 4.0 and 6.0 of this report for a summary of the limitations encountered.

3.1 Asbestos-Containing Materials

During the assessment, no suspect asbestos-containing materials were observed. The Shed was observed to be constructed of a wooden interior and exterior.

4.0 EXCLUDED AREAS AND MATERIALS

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- The roof and associated components were not assessed by Golder during the assessment as per Tender 16-0844. If the roof and associated components are to be removed or impacted by future renovation or demolition activities, additional investigation and sampling of suspect materials may be required.

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Based on the visual assessment, the following project specific conclusions and recommendations are provided.

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ASBESTOS-CONTAINING BUILDING MATERIALS ASSESSMENT REPORT - NUTANA LAWN BOWLING STORAGE SHED

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ASBESTOS-CONTAINING BUILDING MATERIALS ASSESSMENT REPORT - NUTANA LAWN BOWLING STORAGE SHED

Report Signature Page

GOLDER ASSOCIATES LTD.

Prepared by:

Kody Henderson, Dipl. Env. Sci., CRSP
OHS Project Manager

Reviewed by:

Andrew Grant, B.Sc., P.Eng., EP, CRSP
Associate, OHS Project Director

KH/AG/ba

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APPENDIX A

Nutana Lawn Bowling Storage Shed – ACM Inventory

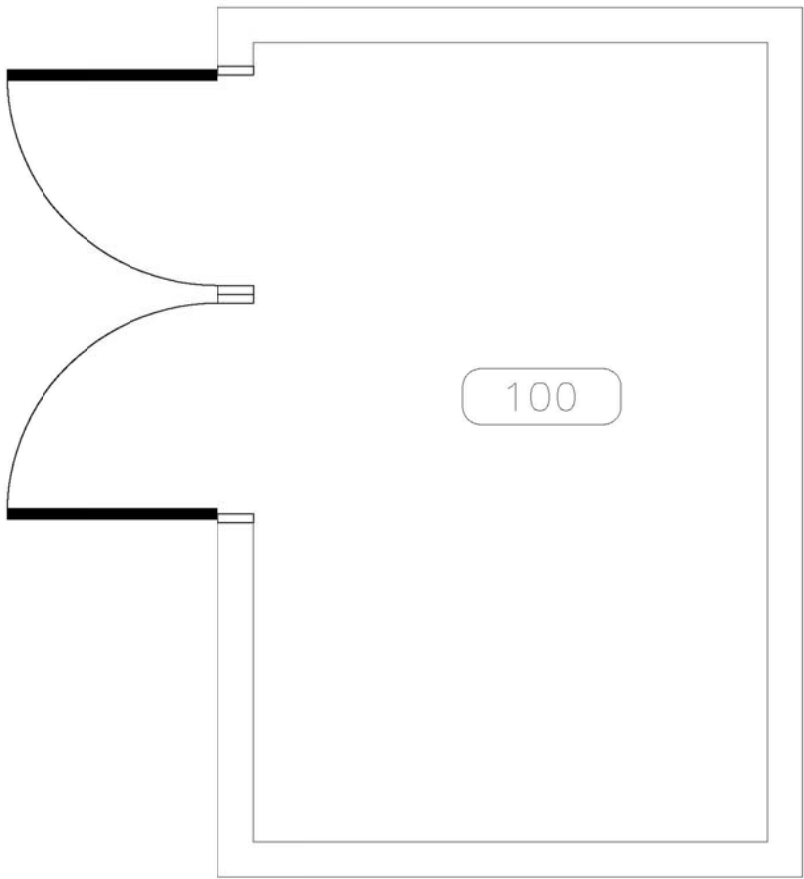
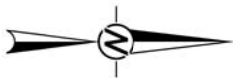
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ACM Inventory

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Included	M	100	Storage Area	Ceiling	Ceiling	Wood	High	No	No	No	Good																	
Included	M	100	Storage Area	Doors	Regular Door	Wood	High	No	No	No	Good	Non-suspect door.																
Included	M	Exterior	Exterior	Walls	Walls	Wood	High	No	No	No	Good																	
Excluded	1	Exterior	Roof	Exterior Roof	Exterior Roof							Not assessed due to scope of work.																



APPENDIX B

Floor Plan



SCHEMATIC ONLY, NOT TO SCALE

NOTE(S)

1. ASBESTOS IS A CARCINOGEN. DO NOT BREATHE ASBESTOS DUST.
2. ASBESTOS-CONTAINING MATERIALS WERE NOT OBSERVED WITHIN THE SHED AT THE TIME OF THE ASSESSMENT.

REFERENCE(S)

PLAN OBTAINED FROM INFRASTRUCTURE SERVICES DEPARTMENT CITY OF SASKATOON. DATED: 16/11/2016.

CLIENT
CITY OF SASKATOON

CONSULTANT



YYYY-MM-DD 2017-10-24

DESIGNED KH

PREPARED AM

REVIEWED KH

APPROVED AG

PROJECT
ASBESTOS ASSESSMENT
NUTANA LAWN BOWLING STORAGE SHED
310 - 7TH STREET EAST

TITLE
STORAGE SHED

PROJECT NO.
1667963

CONTROL
1000-HM-0001

REV.
0

FIGURE
1

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

For more information, visit golder.com

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16820 107 Avenue
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Canada
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Nutana Lawn Bowling Storage Garage

Sample Number Sample Description

Sample Location

No suspect asbestos-containing materials were observed during the assessment.



NOTE:
THESE DRAWINGS HAVE BEEN PREPARED
BASED ON INFORMATION PROVIDED BY
OTHERS. THE CITY HAS TAKEN STEPS TO
VERIFY THE ACCURACY AND/OR
COMPLETENESS OF THIS INFORMATION BUT
SHALL NOT BE RESPONSIBLE FOR AND
ERRORS OR OMISSIONS THAT MAY BE
INCORPORATED AS A RESULT OF ERRONEOUS
INFORMATION PROVIDED BY OTHERS THAT
WAS NOT ABLE TO BE VISUALLY CONFIRMED.

- GENERAL NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES
 2. DRAWINGS ARE NOT TO BE SCALED.
 3. ALL DRAWINGS TO BE READ IN CON-
JUNCTION WITH THE SPECIFICATIONS
UNLESS OTHERWISE NOTED.
 4. VERIFY SITE CONDITIONS, DIMENSIONS
AND LOCATION OF ALL UTILITIES PRIOR
TO THE START OF CONSTRUCTION.
 5. REPORT ALL DISCREPANCIES TO THE
CONSULTANT.

REV	ISSUED FOR	DATE
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DESIGNED BY:	DRAWN BY:	CHECKED BY:	REQUESTED BY:
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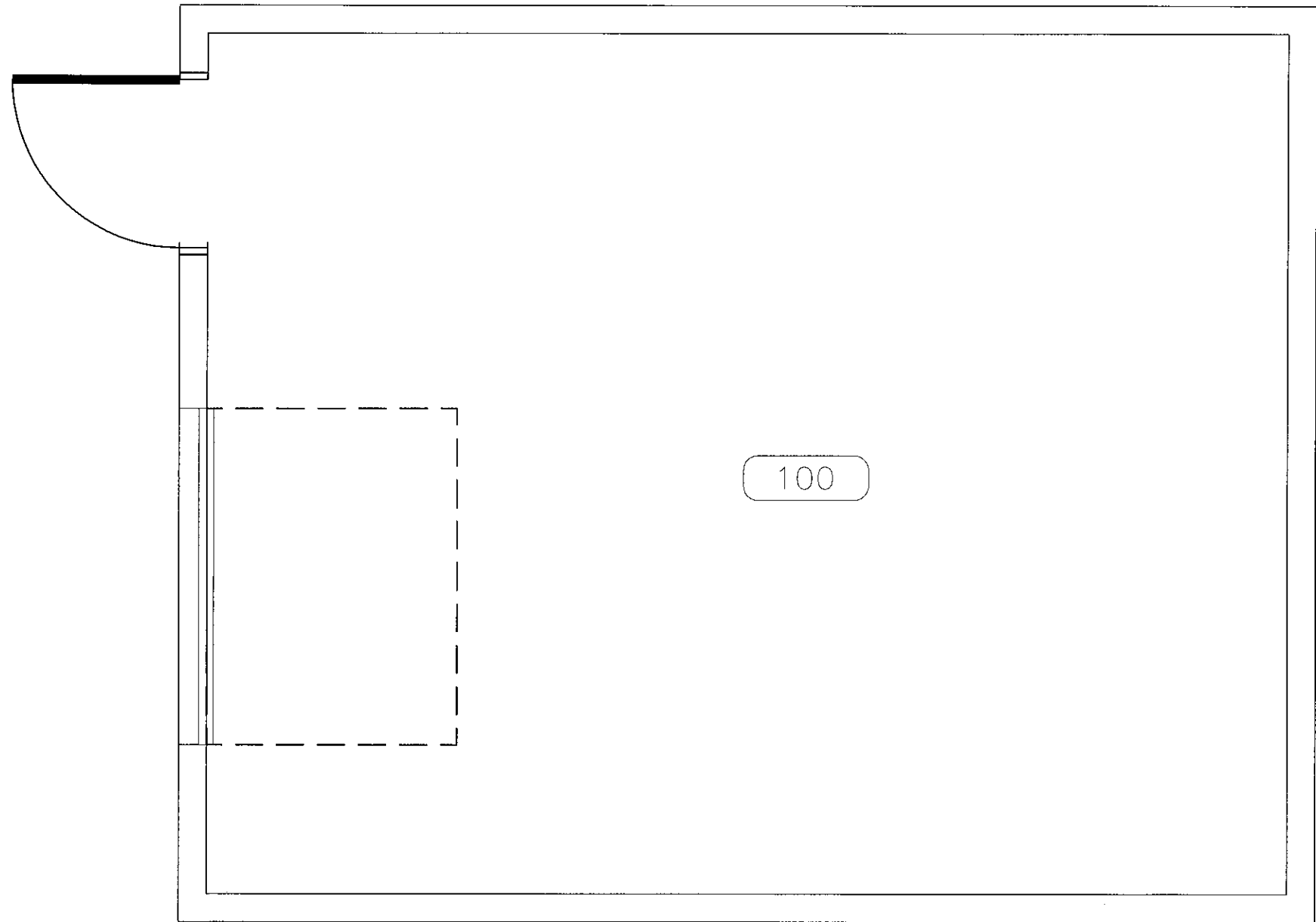
SCALE:	DATE:
1:30	16/11/2016

SHEET NAME
Storage Garage Base Plan

PROJECT TITLE
688 Nutana Clubhouse

PROJECT NO.	SHEET

REV. NO.



Notes: 1) Asbestos is a carcinogen. Avoid
breathing dust.
2) No suspect asbestos-containing
materials were observed on
site during the assessment.