

Council Meeting AGENDA NO. 5/12

	ation:	Tuesday 10 April 2012 Council Chambers, Level 6, Civic Centre, 1 Devlin Stre 7.30pm	et, Ryde
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LATE ITEMS

6 ARGYLE CENTRE - BUILDING CONDITION AND PROPOSED ACTIONS

Report prepared by: Group Manager - Corporate Services

Report dated: 3 April 2012 **File No.:** GRP/11/7/1/6 - BP12/373

REPORT SUMMARY

This report advises Council of the latest assessment of the Argyle Centre that details the building condition; OHS issues affecting the work environment and the results of recent Air Quality and Mould Assessment reports. The report considers the costs of rectifying the current water penetration into the building and options regarding relocating staff to other locations.

The report recommends that all use of the Argyle Centre building cease following the relocation of staff to either; Level 2 West Ryde Community Centre; or Level 1A of the Ryde Library facility, for the reasons detailed in the report. It is further recommended that the preliminary estimate of \$1.19 million be funded from Council's Investment Property Reserve and that the Argyle Centre building be permanently closed from August 2012, which is the projected timeframe to complete the relocation of all staff.

RECOMMENDATION:

- That Council endorse the relocation of all Community Life staff from the Argyle Centre and cease the usage of the Argyle Hall for the reasons as stated in the report.
- 2. That Council delegate to the General Manager the authority to determine the most effective option for the staff relocation as detailed in the report.
- 3. That Council endorse the allocation of \$1.19 million, as the preliminary estimate, to meet the fitout and relocation costs to be funded from the Property Investment Reserve.
- 4. That once all staff have been relocated, the Argyle Centre (offices and Hall) be permanently closed and secured, pending a further report to Council on the future use of the site.

ATTACHMENTS

- 1 SLR report for the Argyle Centre Indoor Air Quality & Mould Assessment
- 2 SLR report for the Argyle Hall Indoor Air Quality & Mould Assessment
- 3 United Services Union letter dated 3 April 2012 regarding the Argyle Centre

Report Prepared By:

Roy Newsome Group Manager - Corporate Services



Report Approved By:

Roy Newsome Group Manager - Corporate Services

Terry Dodds Group Manager - Public Works

Danielle Dickson Group Manager - Community Life



History

The condition of Council's buildings and infrastructure has been the subject of previous reports to Council. Council also has been previously advised of the need to develop an accommodation plan for the co-location of all staff.

Council, at its meeting on 11 October 2011, considered a report on the 'Overview of Condition of Corporate Buildings and Essential Works' and in respect of the Argyle Centre, resolved to allocate \$100,000 for essential works.

These works were essentially broken down into these categories;

- i. Removal of surplus material / records from level 1
- ii. Installation of smoke alarms throughout building
- iii. Alterations within the building to address working environment

Following the appointment of Council's, Group Manager Community Life, in November 2011, a further review of the building's issues and requirements was undertaken.

As a result of this review a number of maintenance initiatives were taken, towards ensuring staff were provided with a healthy and safe working environment.

In addition to the maintenance initiatives, modifications to the office layout were planned and discussed with staff. The aim was to reconfigure the office layout to a more open plan. The estimated cost of these works was \$140,000, which required a request for additional funding of \$65,000 in the December Quarterly Review.

This request was approved by Council resulting in \$140,000 being available for the office modification works.

The approach that has been taken, was to address all essential works in the completion of the office modification changes.

Discussion

As a result of continuing rain in January/February 2012, further issues emerged of mould, rodent infestation, lice and water penetration into the building.

Due to these factors, questions were raised as to the on going suitability of the Argyle Centre in accommodating Council's Community Life group. Issues of dampness, mould and rodent infestation were raised by staff, specifically in relation to their concerns for their health and safety.

In response to these further, on going, concerns from staff, Council commissioned SLR Consulting Australia Pty Ltd in late February 2012, to undertake Indoor Air Quality and Mould Assessment Reports of both the Council Offices and the Hall at the Argyle Centre. The reports are **ATTACHMENT 1** and **ATTACHMENT 2**.



A summary of the findings from these reports are as follows:

<u>Council Offices – Argyle Centre</u>

- The report concluded the air quality to be within accepted guidelines and considered satisfactory.
- Recommended that seal vents on the south eastern office wall be assessed and if they are required, otherwise they should be sealed.
- Recommended seal vents in the Vaccine Room be sealed to prevent contamination of immunisation materials.

Argyle Centre Hall

- Found that the on-going water leaks into the Argyle Hall and Outreach office has provided favourable conditions for mould growth.
- Mould growth in the Argyle Building will continue to be a problem and potentially worsen, until such times as the water leaks in the building are stopped.
- Air quality in the Outreach Office was found to be significantly impacted by the mould growth in the office.
- Due to the health risks to certain groups, recommended that the Outreach Office not be used.
- Found air quality in the Hall to be mostly within accepted guidelines, however fresh air ventilation needs to be improved.
- Current levels of mould were of little risk to users of the Hall in its present state.
 This also applied to staff in the Council offices. However, if water leaks were not stopped, then mould growth is likely to increase.

Actions taken as a result of reports

Council officers have taken the following actions in addressing the findings from the above reports:

- The Outreach office was closed in late February 2012.
- Council's immunisation clinics were transferred from the Argyle Hall to the West Ryde Community Centre in March 2012.
- Users of the Argyle Hall have been accommodated in other Council facilities.
- Meeting was held with all Community Life staff, with the SLR consultant on 27 March 2012, to allow staff to ask questions on various issues of concern.
- Following receipt of the SLR Reports on 19 March 2012, the Group Manager Public Works was requested to provide a detailed estimate for the building, in preventing any future water penetration into the building.

While staff have been kept up to date on issues and actions taken, Council received a letter on 3 April 2012 from the NSW United Services Union (USU), on behalf of staff, outlining similar concerns previously expressed. A copy of this letter is **ATTACHMENT 3.** A response will be provided to staff and the USU, following Council's determination of this matter. It is proposed that once Council has determined this matter, discussions and formal communications will be made both to the affected staff and the USU.



Argyle Centre Rectification Works - Options

The Group Manager Public Works has undertaken an analysis of the available options to Council, with the rates used being validated by WT Partnerships (independent cost planning and quantity surveying consultants).

The Options and estimates are detailed below:

Option	Description	Estimate
1.	No Relocation- Rectify existing building	\$1.375 million

Comment: This option has the highest projected cost of options considered. Further,

given the age of the building, there is a high on going maintenance component projected for this building. Given the level of investment to

renew the building, it is likely that Council may only receive

approximately three years use of these renewal works, as the building is

earmarked for future redevelopment.

2. West Ryde Community Facility - Level 2 \$1.1 million

Comment: This option fulfils the original plan to relocate the Community Life Group

to this location. Any fitout costs are likely to be re-utilised by future tenants if Council vacated the space into the future. However, space could be utilised by other community groups or complementary

commercial services for the community.

3. Ryde Library Facility - Level 1A \$1.190 million

Comment: This option may not be viable as there is a pending agreement by a third

party to lease this space. A meeting is scheduled for 10 April 2012 to confirm this position. If the lease is not progressed, then this location would be the preferred site for staff relocation. This would allow West Ryde Community Facility to be available for complementary commercial

services for the community.

It is therefore recommended that Council's preferred option is to relocate Council's Community Life staff to the West Ryde Community Centre, on the assumption that the lease of Level 1A Pope Street, Ryde (Ryde Library facility) to a third party will proceed on the 10 April 2012.

However, if the lease is not signed then Level 1A of the Library would be the preferred option. This would allow the West Ryde Community Facility to be occupied by community groups.

It is recommended that Council endorse the above approach in determining its preferred location to relocate staff.

Financial Implications

It is proposed that Council allocate the required funds, ranging from \$1.1 million-\$1.19 million, from the Property Investment Reserve.

The current balance of the Reserve is \$ 16.5 million.



ATTACHMENT 1



Indoor Air Quality & Mould Assessment Report

Council Offices - Argyle Centre

35-41 Blaxland Road

Ryde, NSW 2112

Report Number 610.11238.01/IAQ

14 March 2012

City of Ryde Argyle Centre 35-41 Blaxland Road Ryde, NSW 2112

Version: Revision 0



ATTACHMENT 1

City of Ryde Indoor Air Quality & Mould Assessment Report Council Offices - Argyle Centre 35-41 Blaxland Road Ryde, NSW 2112 Report Number 610.11238.01/IAQ 14 March 2012 Revision 0 Page 2

Indoor Air Quality & Mould Assessment Report
Council Offices - Argyle Centre
35-41 Blaxland Road
Ryde, NSW 2112

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DOCUMENT CONTROL

Reference	Status	Date	Prepared	Checked	Authorised
610.11238.01/IA Q	Revision 0	14 March 2012	Holly Levinson	Craig Simpson	Craig Simpson



ATTACHMENT 1

City of Ryde Indoor Air Quality & Mould Assessment Report Council Offices - Argyle Centre 35-41 Blaxland Road Ryde, NSW 2112 Report Number 610.11238.01/IAQ 14 March 2012 Revision 0 Page 3

EXECUTIVE SUMMARY

SLR Consulting Australia Pty Ltd (SLR Consulting) was engaged by Danielle Dickson of the City of Ryde to undertake an Indoor Air Quality and Mould Assessment of the Council Offices located in the Argyle Centre, 35-41 Blaxland Road, Ryde, NSW 2112.

The assessment was conducted on the Friday 2 March 2012. Monitoring was conducted for the following air quality indicators:

Levels of Temperature, Relative Humidity, Carbon Dioxide (CO_2), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOCs), Dust (PM_{10}) and Airborne Microorganisms were monitored at locations within the Office Areas.

The Indoor Air Quality parameters measured in the Office Areas were found to be within accepted guidelines and are considered satisfactory.

Consideration should be given as to whether the wall vents in the south eastern office wall are still required in the current building design. If these vents are no longer required then they should be sealed up to remove a potential route for contaminates to enter the offices.

The wall vents in Vaccine Storeroom are of particular concern considering the sensitive nature of immunisation material stored in this room. The vents in this room should be sealed up to prevent contamination of the immunisation materials. Alternately the immunisation materials could be moved to another room away from the vents.



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APPENDICES

Appendix A Floor Plans
Appendix B Total Volatile Organic Compound Results



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1 INTRODUCTION

SLR Consulting Australia Pty Ltd (SLR Consulting) was engaged by Danielle Dickson of the City of Ryde to undertake an Indoor Air Quality and Mould Assessment of the Council Offices located in the Argyle Centre, 35-41 Blaxland Road, Ryde, NSW 2112.

The Client commissioned the investigation to determine if the areas have adequate indoor air quality and are suitable for the intended use as an office.

To assist in answering these questions, SLR Consulting undertook a site inspection involving the assessment/monitoring for the following Indoor Air Quality indicators:

Levels of Temperature, Relative Humidity, Carbon Dioxide (CO₂), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOCs), Dust (PM_{10}) and Airborne Microorganisms were monitored at fifteen locations within the Office Areas and Hall.

2 METHODOLOGY

2.1 Sampling Locations

A total of thirteen sample locations were monitored for Indoor Air Quality Indicators and one sample locations were monitored for Airborne Microorganisms. The sampling locations within the Office Areas and Hall can be found in the annotated floor plan set out in **Appendix A**.

2.2 Types of Measurements

Spot measurements were taken within the building on Friday 2 March 2012 by placing instruments at selected location, allowing the instruments to stabilise then recording the measurement.

2.3 Indoor Air Quality and Mould

Temperature, Relative Humidity, Carbon Dioxide (CO₂), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOCs), Airborne Particulate Matter as Dust and Airborne Microorganisms were monitored at selected locations throughout the building.

Four types of monitors were used for the monitoring of Indoor Air Quality and Airborne Microorganisms:

- Temperature, Relative Humidity, CO₂ and CO were monitored using a TSI Q-Trak Plus Indoor Air Quality Monitor.
- TVOCs were monitoring using a MiniRAE 2000 Monitor, which utilises a photo-ionisation detector (PID).
- Airborne particulate matter (PM) as Dust (PM₁₀) was monitored using a TSI Dust-Trak Monitor.
- Airborne Microorganisms were sampled using an HYCON BIOTEST RCS Microbial Sampler and analysed by SLR Consulting at the Lane Cove Laboratory.



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2.4 Exposure Standards and Guidelines

The results of the monitoring have been compared to standard Indoor Air Quality guidelines provided by the World Health Organisation (WHO), the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the National Health and Medical Research Council (NHMRC), the American Conference of Government Industrial Hygienists (ACGIH) and SafeWork Australia (formerly NOHSC).

The results of the Airborne Microorganisms monitoring have been compared to a fresh air sample taken outside the building.



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3 RESULTS

3.1 Temperature and Relative Humidity

The results of the temperature and relative humidity monitoring are presented in Table 1.

Table 1 Temperature and Relative Humidity Monitoring Results

Location No.	Location Description	Temperature (°C)	Relative Humidity (%)
1	Downstairs Office Area, Vaccine Store Room (centre)	21.8	52.6
2	Downstairs Office Area, Reception (centre)	22.3	55.3
3	Downstairs Office Area, Open Plan Office (southern end adj. column)	22.6	55.5
4	Downstairs Office Area, Open Plan Office (northern end adj. photocopier)	22.9	58.2
5	Downstairs Office Area, North Eastern Office adj. Lunch Room (centre)	22.7	53.1
6	Upstairs Office Area, Office (northern end adj. stairs)	24.8	57.2
7	Upstairs Office Area, Western Kitchenette (centre)	24.5	57.3
8	Upstairs Office Area, Western Office adj. Store (centre)	23.4	61.9
9	Upstairs Office Area, South Western Office adj. Exit (centre)	23.0	68.4
10	Upstairs Office Area, Female Toilet (centre)	23.9	59.2
11	Upstairs Office Area, South Eastern Office adj. Exit (centre)	23.9	59.6
12	Upstairs Office Area, Eastern Photocopy Area adj. Eastern Kitchenette (centre)	22.4	60.2
13	Upstairs Office Area, Eastern Office adj. Corridor to Eastern Side (adj. wall vents)	24.3	54.5



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3.2 Carbon Dioxide and Carbon Monoxide

The results of the CO₂ and CO monitoring are presented in Table 2.

Table 2 Carbon Dioxide and Carbon Monoxide Monitoring Results

Location No.	Location Description	CO ₂ (ppm)	CO (ppm)
1	Downstairs Office Area, Vaccine Store Room (centre)	635	0.5
2	Downstairs Office Area, Reception (centre)	658	0.4
3	Downstairs Office Area, Open Plan Office (southern end adj. column)	607	0.2
4	Downstairs Office Area, Open Plan Office (northern end adj. photocopier)	624	0.1
5	Downstairs Office Area, North Eastern Office adj. Lunch Room (centre)	636	0.6
6	Upstairs Office Area, Office (northern end adj. stairs)	618	0.7
7	Upstairs Office Area, Western Kitchenette (centre)	564	0.6
8	Upstairs Office Area, Western Office adj. Store (centre)	534	0.7
9	Upstairs Office Area, South Western Office adj. Exit (centre)	545	0.8
10	Upstairs Office Area, Female Toilet (centre)	695	0.6
11	Upstairs Office Area, South Eastern Office adj. Exit (centre)	611	0.7
12	Upstairs Office Area, Eastern Photocopy Area adj. Eastern Kitchenette (centre)	693	0.7
13	Upstairs Office Area, Eastern Office adj. Corridor to Eastern Side (adj. wall vents)	676	0.4



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3.3 Total Volatile Organic Compounds

The results of the TVOC monitoring are presented in **Table 3**, the TVOCs calculations are set out in **Appendix B**.

Table 3 Total Volatile Organic Compounds Monitoring Results

Location No.	Location Description	TVOCs (ppm)	TVOCs (µg/m³)
1	Downstairs Office Area, Vaccine Store Room (centre)	BDL*	BDL*
2	Downstairs Office Area, Reception (centre)	BDL*	BDL*
3	Downstairs Office Area, Open Plan Office (southern end adj. column)	BDL*	BDL*
4	Downstairs Office Area, Open Plan Office (northern end adj. photocopier)	BDL*	BDL*
5	Downstairs Office Area, North Eastern Office adj. Lunch Room (centre)	BDL*	BDL*
6	Upstairs Office Area, Office (northern end adj. stairs)	BDL*	BDL*
7	Upstairs Office Area, Western Kitchenette (centre)	BDL*	BDL*
8	Upstairs Office Area, Western Office adj. Store (centre)	BDL*	BDL*
9	Upstairs Office Area, South Western Office adj. Exit (centre)	BDL*	BDL*
10	Upstairs Office Area, Female Toilet (centre)	BDL*	BDL*
11	Upstairs Office Area, South Eastern Office adj. Exit (centre)	BDL*	BDL*
12	Upstairs Office Area, Eastern Photocopy Area adj. Eastern Kitchenette (centre)	BDL*	BDL*
13	Upstairs Office Area, Eastern Office adj. Corridor to Eastern Side (adj. wall vents)	BDL*	BDL*

^{*} BDL = Below Detection Limit of 0.1ppm or 229 µg/m³



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3.4 Dust (PM₁₀)

The results of the Dust (PM₁₀) monitoring are presented in Table 4.

Table 4 Dust (PM₁₀) Monitoring Results

Location No.	Location Description	Dust (PM ₁₀) (µg/m³)
1	Downstairs Office Area, Vaccine Store Room (centre)	1
2	Downstairs Office Area, Reception (centre)	5
3	Downstairs Office Area, Open Plan Office (southern end adj. column)	7
4	Downstairs Office Area, Open Plan Office (northern end adj. photocopier)	23
5	Downstairs Office Area, North Eastern Office adj. Lunch Room (centre)	26
6	Upstairs Office Area, Office (northern end adj. stairs)	9
7	Upstairs Office Area, Western Kitchenette (centre)	3
8	Upstairs Office Area, Western Office adj. Store (centre)	9
9	Upstairs Office Area, South Western Office adj. Exit (centre)	5
10	Upstairs Office Area, Female Toilet (centre)	5
11	Upstairs Office Area, South Eastern Office adj. Exit (centre)	14
12	Upstairs Office Area, Eastern Photocopy Area adj. Eastern Kitchenette (centre)	2
13	Upstairs Office Area, Eastern Office adj. Corridor to Eastern Side (adj. wall vents)	18

3.5 Airborne Microorganisms

The results of the airborne microorganisms monitoring are presented in Table 5.

Table 5 Airborne Microorganisms Results

		Airborne Microorganisms		
Location No.	Location Description	Airborne Bacteria (CFU/m³)*	Airborne Mould & Yeast (CFU/m³)*	Total Microorganisms (CFU/m³)*
M3	Downstairs Office Area, Open Plan Office (centre)	25	575	600
Fresh Air Outsid	e Building	525	650	1175

^{*} CFU = colony forming units of the microorganisms



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3.6 General Observations

The main internal wall of the office, which formed the south eastern limit of the office, had a series of internal wall vents spread along the wall. These appear to vent into either a void in the office wall or void between the office wall and the hall wall.

An example of these vents can be seen below in Photograph 1.

Photograph 1 Wall vents in Vaccine Store Room



Consideration should be given as to whether these wall vents are still required in the current building design. If these vents are no longer required then they should be sealed up to remove a potential route for contaminates to enter the offices.

The wall vents in Vaccine Storeroom are of particular concern considering the sensitive nature of immunisation material stored in this room. The vents in this room should be sealed up to prevent contamination of the immunisation materials. Alternately the immunisation materials could be moved to another room away from the vents.



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DISCUSSION OF RESULTS

3.7 Temperature and Relative Humidity

Temperature and relative humidity are considered comfort indicators in non-residential buildings.

The guideline temperature ranges to satisfy the majority of occupants are for winter 20°C to 24°C and for summer 22°C to 26°C (ASHRAE Standard 55-2004). For this investigation we have used the summer temperature range of 22°C to 26°C .

Spot measurements of temperature in the majority of areas tested were within the recommended temperature range. The exception to this was Location No. 1 (the Vaccine Store Room) where the temperature at 21.8°C was just below the recommended range. However, the Vaccine Store Room is a Store Room, not a general office area; as such it is unlikely that personnel will be spending more than a few minutes at a time in the area.

Relative humidity of between 30% and 70% is considered suitable for indoor air quality. Low humidity levels (below 35%) can cause drying of the nose, throat and eyes, it can irritate wearers of contact lens and increase the problem of static electricity, whilst high humidity promotes the growth of bacteria and mould and can cause respiratory illness.

Spot measurements of humidity in the majority of areas tested were within the recommended range. Additionally, whilst still within the recommended range, Location No. 9 (Upstairs Office Area, south western office adj. exit) showed humidity levels at the upper limits at 68.4%.

3.8 Carbon Dioxide and Carbon Monoxide

Indoor carbon dioxide concentrations provide an indicator of the adequacy of ventilation within the office. Carbon dioxide concentrations of 800 ppm should be the upper limit to indicate adequate freshair supply to a given building. Levels of 800 ppm to 1,000 ppm usually indicate inadequate ventilation and may cause mild discomfort (in terms of odour and staleness of the air), but these levels are not indicative of risk to human health. The World Health Organization (WHO) has set a goal of 1,000 ppm of carbon dioxide in indoor air for amenity.

The concentration levels recorded for $\rm CO_2$ for all areas were below 800 ppm and below the WHO goal of 1,000 ppm. Therefore there was adequate fresh-air supply/ventilation to the Office.

The SafeWork Australia exposure standard for CO is 30 ppm for an 8-hour time weighted average (TWA) and 200 ppm for the 15-minute short-term exposure limit (STEL). The National Health and Medical Research Council (NHMRC) sets goals of 9 ppm for indoor air quality. In this situation the SafeWork Australia limits are considered to be the minimum standard and the aim should be to meet the NHMRC goals.

The levels for CO in all areas were below the SafeWork Australia TWA exposure standard of 30 ppm and below the NHMRC goal of 9 ppm. In summary, the Carbon Monoxide levels monitored in all locations appear satisfactory.



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3.9 Total Volatile Organic Compounds

The NHMRC has established a goal for TVOCs in indoor air of 500 $\mu g/m^3$. All TVOC concentrations were between <229 $\mu g/m^3$ in the areas monitored. The TVOC concentrations are below the NHMRC guidelines and are considered satisfactory.

3.10 Dust (PM10)

The World Health Organization (WHO) has established guidelines for Dust (PM_{10}) of $50 \mu g/m^3$. All Dust (PM_{10}) concentrations were below the WHO guidelines and are considered satisfactory.

3.11 Airborne Microorganisms

The airborne microorganism concentrations within the Office were lower than airborne microorganism concentrations found in the fresh air outside the building. Furthermore, the airborne microorganism concentrations recorded in the Office were similar to levels found in commercial and residential settings, by SLR Consulting in the past.

No significant areas of visible mould growth were observed within the Office during the inspection. Moreover there were no indicators of hidden mould growth observed.

Therefore with regards to airborne microorganisms, the indoor air quality was considered satisfactory...

4 CONCLUSIONS

The Indoor Air Quality parameters measured (Humidity, Carbon Monoxide, Total Volatile Organic Compounds, Dust (PM_{10}) and Airborne Microorganisms) in the Office Areas were found to be within accepted guidelines and are considered satisfactory.

Consideration should be given as to whether the wall vents in the south eastern office wall are still required in the current building design. If these vents are no longer required then they should be sealed up to remove a potential route for contaminates to enter the offices.

The wall vents in Vaccine Storeroom are of particular concern considering the sensitive nature of immunisation material stored in this room. The vents in this room should be sealed up to prevent contamination of the immunisation materials. Alternately the immunisation materials could be moved to another room away from the vents.

HOLLY LEVINSON, BSc Hons., BOHS CCP

Senior Project Consultant

MAR-

SLR Consulting Australia Pty Ltd



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5 REFERENCES

- Brown S.K. (1997) Indoor Air Quality, Australia: State of the Environment Technical Paper Series (Atmosphere). Department of the Environment, Sport and Territories, Canberra.
- ASHRAE Standard 55-2004 Thermal Environmental Conditions for Human Occupancy.
- Safe Work Australia Hazardous Substances Information System http://hsis.ascc.gov.au/ accessed 05/03/2012.
- WHO (2005) WHO Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulfur Dioxide.

6 ABBREVIATIONS

°C degrees Celsius

ASRAE American Society of Heating Refrigerating and Air-Conditioning Engineers

CO Carbon Monoxide

CO₂ Carbon Dioxide

mg/m³ milligrams per cubic metre
μg/m³ micrograms per cubic metre

NHMRC National Health and Medical Research Council

ppm parts per million

TWA Time Weighted Average (8-hour)

TVOC Total Volatile Organic Compounds

WHO World Health Organisation

7 CLOSURE

This report has been prepared by SLR Consulting Australia Pty Ltd with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of City of Ryde. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR Consulting.

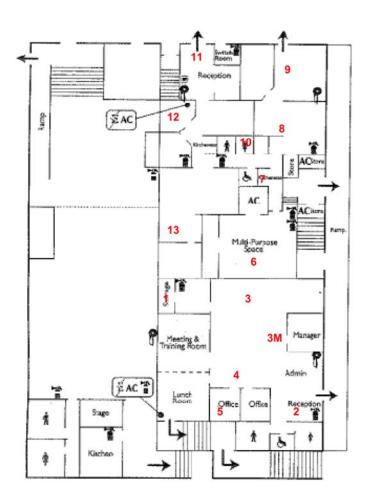
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ATTACHMENT 1

Appendix A
Report Number 610.11238.01/IAQ
Page 1 of 1
FLOOR PLANS

The following floor plans were supplied by the City of Ryde and have been annotated by SLR Consulting to indicate sample locations.



ATTACHMENT 1

Appendix B
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Total Volatile Organic Compound Results

TVOCs were measured using a Minirae 2000, calibrated against isobutylene, with results recorded in ppm. These are set out ${f Table\ A1}$.

The formulae used to convert TVOC measurements in ppm to $\mu g/m^3$ is set out below.

TVOC μg/m³ = (TVOC ppm)(molecular weight isobutylene*) 1000 24.45

Table A1 - TVOC Results

Location No.	Location Description	TVOCs (ppm)	TVOCs (µg/m³)
1	Downstairs Office Area, Vaccine Store Room (centre)	BDL*	BDL*
2	Downstairs Office Area, Reception (centre)	BDL*	BDL*
3	Downstairs Office Area, Open Plan Office (southern end adj. column)	BDL*	BDL*
4	Downstairs Office Area, Open Plan Office (northern end adj. photocopier)	BDL*	BDL*
5	Downstairs Office Area, North Eastern Office adj. Lunch Room (centre)	BDL*	BDL*
6	Upstairs Office Area, Office (northern end adj. stairs)	BDL*	BDL*
7	Upstairs Office Area, Western Kitchenette (centre)	BDL*	BDL*
8	Upstairs Office Area, Western Office adj. Store (centre)	BDL*	BDL*
9	Upstairs Office Area, South Western Office adj. Exit (centre)	BDL*	BDL*
10	Upstairs Office Area, Female Toilet (centre)	BDL*	BDL*
11	Upstairs Office Area, South Eastern Office adj. Exit (centre)	BDL*	BDL*
12	Upstairs Office Area, Eastern Photocopy Area adj. Eastern Kitchenette (centre)	BDL*	BDL*
13	Upstairs Office Area, Eastern Office adj. Corridor to Eastern Side (adj. wall vents)	BDL*	BDL*
14	Hall, Outreach Office (centre)	BDL*	BDL*
15	Hall, Main Hall (centre)	BDL*	BDL*

^{*} BDL = Below Detection Limit of 0.1ppm or 229 µg/m³

^{*} mw isobutylene (C4H8) = 56.104



ATTACHMENT 2



Indoor Air Quality & Mould Assessment Report

Argyle Centre Hall

35-41 Blaxland Road

Ryde, NSW 2112

Report Number 610.11238.02/HALL

19 March 2012

City of Ryde Argyle Centre 35-41 Blaxland Road Ryde, NSW 2112

Version: Revision 1



ATTACHMENT 2

City of Ryde Indoor Air Quality & Mould Assessment Report Argyle Centre Hall 35-41 Blaxland Road Ryde, NSW 2112

Report Number 610.11238.02/HALL 19 March 2012 Revision 1 Page 2

Indoor Air Quality & Mould Assessment Report

Argyle Centre Hall

35-41 Blaxland Road

Ryde, NSW 2112

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City of Ryde Indoor Air Quality & Mould Assessment Report Argyle Centre Hall 35-41 Blaxland Road Ryde, NSW 2112

Report Number 610.11238.02/HALL 19 March 2012 Revision 1 Page 3

EXECUTIVE SUMMARY

SLR Consulting Australia Pty Ltd (SLR Consulting) was engaged by Danielle Dickson of the City of Ryde to undertake an Indoor Air Quality and Mould Assessment of the Argyle Hall, located at the Argyle Centre, 35-41 Blaxland Road, Ryde, NSW 2112.

The building is divided into two functional areas, the Outreach Office Area and the Hall area. The Outreach Office has periodically been used during community immunisation programs. The Hall area is used by a variety of Community Groups and is hired out for functions such as birthdays.

To assist in answering these questions, SLR Consulting undertook a site inspection involving the assessment/monitoring for the following Indoor Air Quality indicators:

- Review of groups using the Hall to determine potential risks to hall users.
- · An inspection of the Hall for mould
- Levels of Temperature, Relative Humidity, Carbon Dioxide (CO₂), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOCs), Dust (PM₁₀) and Airborne Microorganisms were monitored at within the Outreach Office and Hall.

Inspection of the Argyle Hall and associated areas outside hall found evidence of water leaks and mould.

Council staff commented that rats had been observed in the Argyle Building. However during the current inspection no evidence of rodent activity was observed.

On the day of inspection it was raining and an active water leak was present within the Hall. Small areas of mould growth were observed on sections of the Hall ceiling.

In the Outreach Office, evidence of water damage and mould growth were observed. Damp carpet was present against the north west wall of the office. Mould was present on the damp carpet, covering an area approximately 2 metres by 1 metre. Leaves and debris were present on sections of the floor near the external doors.

Outside the Argyle Building, on the northern side, evidence of mould growth was observed on the eaves. This indicated an area of probable long term water leak into the eaves.

Mould growth in the Argyle Building will continue to be a problem and potentially worsen until such times as the water leaks into the building are stopped.

Air quality within the Outreach Office was found to be significantly impacted by the mould growth present in the office. The mould growth present may pose a health risk to adults in sensitive exposure groups such as young children, pregnant women and Senior Citizens. Therefore it is recommended the Outreach Office not be used until water leaks in the building are stopped and mould growth in the office remediated.

Air quality within the Hall was found to be mostly within accepted guidelines for air quality in non residential buildings. The exception was fresh air ventilation in the Hall which was inadequate on the day of monitoring. Consideration should be given to improving fresh air ventilation in the Hall.

There appeared to be little risk from mould to users of the Hall, in the present state. This is also the case for Council personnel working in the Council Offices (excluding the Outreach Office). However if water leaks into the building are not stopped, then mould growth is likely to increase. This may then led to potential health risks to Hall users and Council personnel.



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APPENDICES

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Total Volatile Organic Compound Results
Argyle Hall Usage in February 2012



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City of Ryde Indoor Air Quality & Mould Assessment Report Argyle Centre Hall 35-41 Blaxland Road Ryde, NSW 2112 Report Number 610.11238.02/HALL 19 March 2012 Revision 1 Page 5

1 INTRODUCTION

SLR Consulting Australia Pty Ltd (SLR Consulting) was engaged by Danielle Dickson of the City of Ryde to undertake an Indoor Air Quality and Mould Assessment of the Argyle Hall, located at the Argyle Centre, 35-41 Blaxland Road, Ryde, NSW 2112.

The building is divided into two functional areas, the Outreach Office Area and the Hall area. The Outreach Office has periodically been used during community immunisation programs. The Hall area is used by a variety of Community Groups and is hired out for functions such as birthdays.

The Client commissioned the investigation to determine if the areas have adequate indoor air quality and are suitable for the intended uses. For example, usage for play groups, old people gatherings, Immunisation Centre for children, etc.

To assist in answering these questions, SLR Consulting undertook a site inspection involving the assessment/monitoring for the following Indoor Air Quality indicators:

- Review of groups using the Hall to determine potential risks to hall users.
- An inspection of the Hall for mould
- Levels of Temperature, Relative Humidity, Carbon Dioxide (CO₂), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOCs), Dust (PM₁₀) and Airborne Microorganisms were monitored at within the Outreach Office and Hall.

2 METHODOLOGY

2.1 Sampling Locations

Two sample locations were monitored for Indoor Air Quality Indicators. The sampling locations were within the Outreach Office Area and Hall area, as set out in the annotated floor plan set out in **Appendix A**.

2.2 Types of Measurements

Spot measurements were taken within the building on Friday 2 March 2012 by placing instruments at selected location, allowing the instruments to stabilise then recording the measurement.

2.3 Indoor Air Quality and Mould

Temperature, Relative Humidity, Carbon Dioxide (CO₂), Carbon Monoxide (CO), Total Volatile Organic Compounds (TVOCs), Airborne Particulate Matter as Dust and Airborne Microorganisms were monitored at selected locations in the building.

Four types of monitors were used for the monitoring of Indoor Air Quality and Airborne Microorganisms:

 Temperature, Relative Humidity, CO₂ and CO were monitored using a TSI Q-Trak Plus Indoor Air Quality Monitor.

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- TVOCs were monitoring using a MiniRAE 2000 Monitor, which utilises a photo-ionisation detector (PID).
- Airborne particulate matter (PM) as Dust (PM₁₀) was monitored using a TSI Dust-Trak Monitor.
- Airborne Microorganisms were sampled using an HYCON BIOTEST RCS Microbial Sampler and analysed by SLR Consulting at the Lane Cove Laboratory.

2.4 Exposure Standards and Guidelines

The results of the monitoring have been compared to standard Indoor Air Quality guidelines provided by the World Health Organisation (WHO), the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the National Health and Medical Research Council (NHMRC), the American Conference of Government Industrial Hygienists (ACGIH) and SafeWork Australia (formerly NOHSC).

The results of the Airborne Microorganisms monitoring have been compared to a fresh air sample taken outside the building.

3 RESULTS

3.1 Hall Usage

Annual usage of the Hall as recorded in Council records indicated during the twelve months from 1 July 2010 to 30 June 2011, the Hall had 610 bookings with a total attendance of 29,876 (City of Ryde,2012). It should be noted that many of the people were likely to have attended the Hall multiple times as part of regular bookings.

The weekly usage of the Hall, as recorded in Council records during February 2012, indicated Hall users could be broadly categorised into a number of groups. These groups have been set out below in Table 1 and the Council Record can be found in Appendix C.

Table 1 Groups of Hall Users in February 2012

Groups	Number of Bookings in February	Total Hours Occupancy in February
Play Groups	8	16
Seniors Groups	9	40
Immunisation Activities	1	2.5
Church Groups	7	31
Choir Groups	3	6
Tai Chi Class	8	16
Yoga Classes	4	8
Private Functions	3	18.5



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3.2 Inspection

Inspection of the Argyle Hall and associated areas outside hall found evidence of water leaks and mould.

Fresh air ventilation in the Argyle Hall was provided by opening of windows and doors. Air-conditioning in the Hall was provided by wall based units. These units recycle air and do not provide fresh air into the Hall.

Council staff commented that rats had been observed in the Argyle Building. However during the current inspection no evidence of rodent activity was observed.

During the inspection and monitoring by SLR, the Hall was being utilised by a group of Senior Citizens.

On the day of inspection it was raining and an active water leak was present within the Hall. Small areas of mould growth were observed on sections of the ceiling (See Photograph 1 & Photograph 2).

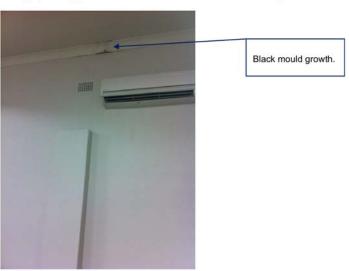
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Photograph 1 Argyle Hall - Active Water Leak into (02/03/12)



Photograph 2 Argyle Hall - Mould Growth Above Air Conditioning Unit.





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In the Outreach Office, evidence of water damage and mould growth were observed. Damp carpet was present against the north west wall of the office. Mould was present on the damp carpet, covering an area approximately 2 metres by 1 metre. Leaves and debris were present on sections of the floor near the external doors (See Photograph 3 and Photograph 4).

Photograph 3 Mould Growth on Area of Damp Carpet in Outreach Office.





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Photograph 4 Outreach Office – Leaves and Debris on Floor Near External Doors.





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In the Argyle Theatre, adjacent to the Hall, a minor water leak was observed in a room at the northern end of the theatre. Water was entering the roof through a ventilation pipe, on the roof, and dripping out of a square hole in the ceiling cladding (See Photograph 5 and Photograph 6).

Photograph 5 Hole in Ceiling Cladding Were Water Was Entering Argyle Theatre.





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Photograph 6 Argyle Theatre – Close Up of Ventilation Pipe Allowing Water to Enter the Theatre During Rain.



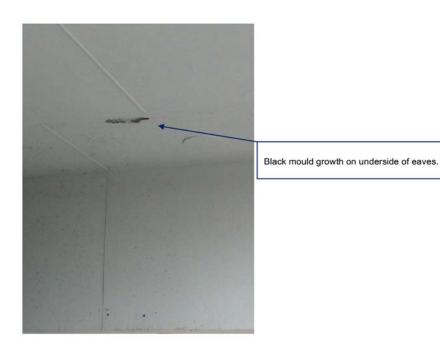


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Outside the Argyle Building, on the northern side, evidence of mould growth was observed on the eaves. This indicated an area of probable long term water leak into the eaves. (See Photograph 7)

Photograph 7 Black Mould Growth Present on the Underside of Eaves, Northern Side of the Argyle Building.





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3.3 Indoor Air Quality

3.3.1 Temperature and Relative Humidity

Temperature and relative humidity are considered comfort indicators in non-residential buildings.

The guideline temperature ranges to satisfy the majority of occupants are for winter 20°C to 24°C and for summer 22°C to 26°C (ASHRAE Standard 55-2004). For this investigation we have used the summer temperature range of 22°C to 26°C .

Spot measurements of temperature in the areas tested were within the recommended temperature range and considered satisfactory.

Relative humidity of between 30% and 70% is considered suitable for indoor air quality. Low humidity levels (below 35%) can cause drying of the nose, throat and eyes, it can irritate wearers of contact lens and increase the problem of static electricity, whilst high humidity promotes the growth of bacteria and mould and can cause respiratory illness.

Spot measurements of humidity in the Outreach Office were within the recommended range. However humidity levels were at the upper limits at 69.4%. The Main Hall humidity at 72.5% was just above the recommended range. It should be noted it was raining on the day of monitoring and this would have impacted on the humidity in the areas.

The results of the temperature and relative humidity monitoring are presented in Table 2.

Table 2 Temperature and Relative Humidity Monitoring Results

Location No.	Location Description	Temperature (°C)	Relative Humidity (%)
1	Hall, Outreach Office (centre)	25.6	69.4
2	Hall, Main Hall (centre)	23.6	72.5*
	Guideline Range	22 - 26	30 - 70

^{*} Figures in bold are outside the Guideline Range



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3.3.2 Carbon Dioxide and Carbon Monoxide

Indoor carbon dioxide concentrations provide an indicator of the adequacy of ventilation within the office. Carbon dioxide concentrations of 800 ppm should be the upper limit to indicate adequate freshair supply to a given building. Levels of 800 ppm to 1,000 ppm usually indicate inadequate ventilation and may cause mild discomfort (in terms of odour and staleness of the air), but these levels are not indicative of risk to human health. The World Health Organization (WHO) has set a goal of 1,000 ppm of carbon dioxide in indoor air for amenity.

The concentration levels recorded for CO_2 for the Outreach Office was below the WHO goal of 1,000 ppm. However, the levels of CO_2 in the Main Hall were 940ppm, which indicates inadequate fresh-air supply/ventilation.

This finding is consistent with the general observations made in the Main Hall by SLR Consulting regarding limited ventilation in the Hall and the presence of a community group of Senior Citizens in the Hall at the time of monitoring. Humans generate carbon dioxide when breathing. Thus if a large group are present in an area with limited fresh air ventilation, carbon dioxide concentrations will rise over time. This can lead to deterioration in air quality in the area during occupancy.

The SafeWork Australia exposure standard for CO is 30 ppm for an 8-hour time weighted average (TWA) and 200 ppm for the 15-minute short-term exposure limit (STEL). The National Health and Medical Research Council (NHMRC) sets goals of 9 ppm for indoor air quality. In this situation the SafeWork Australia limits are considered to be the minimum standard and the aim should be to meet the NHMRC goals.

The levels for CO in both areas were below the SafeWork Australia TWA exposure standard of 30 ppm and below the NHMRC goal of 9 ppm. In summary, the Carbon Monoxide levels monitored in all locations appear satisfactory.

The results of the CO₂ and CO monitoring are presented in Table 3.

Table 3 Carbon Dioxide and Carbon Monoxide Monitoring Results

Location No.	Location Description	CO ₂ (ppm)	CO (ppm)
1	Hall, Outreach Office (centre)	522	0.0
2	Hall, Main Hall (centre)	940	0.0
	Guideline Range	Less than 800	Less than 9

^{*} Figures in bold are outside the Guideline Range



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3.3.3 Total Volatile Organic Compounds

The NHMRC has established a goal for TVOCs in indoor air of 500 $\mu g/m^3$. All TVOC concentrations were between <229 $\mu g/m^3$ in the areas monitored. The TVOC concentrations are below the NHMRC guidelines and are considered satisfactory.

The results of the TVOC monitoring are presented in Table 4, the TVOCs calculations are set out in ${\bf Appendix}\;{\bf B}.$

Table 4 Total Volatile Organic Compounds Monitoring Results

Location No.	Location Description	TVOCs (ppm)	TVOCs (µg/m³)
1	Hall, Outreach Office (centre)	BDL*	BDL*
2	Hall, Main Hall (centre)	BDL*	BDL*
	Guideline Range		Less than 500

^{*} BDL = Below Detection Limit of 0.1ppm or 229 µg/m³

3.3.4 Dust (PM₁₀)

The World Health Organization (WHO) has established guidelines for Dust (PM_{10}) of $50 \, \mu g/m^3$. All Dust (PM_{10}) concentrations were below the WHO guidelines and are considered satisfactory.

The results of the Dust (PM_{10}) monitoring are presented in Table 5.

Table 5 Dust (PM₁₀) Monitoring Results

Location No.	Location Description	Dust (PM ₁₀) (μg/m ³)
1	Hall, Outreach Office (centre)	22
2	Hall, Main Hall (centre)	16
	Guideline Range	Less than 50



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3.3.5 Airborne Microorganisms

The airborne microorganism concentrations in the Main Hall were below the concentrations found in the fresh air outside the building and considered satisfactory.

In contrast airborne microorganism concentrations in the Outreach Office were substantially above the fresh air concentrations. Therefore the concentration of air born microorganisms with the Outreach Office were considered unsatisfactory on the day of monitoring.

The high airborne microorganism concentrations found in the Outreach Office is consistent with the general observations made by SLR Consulting during the site inspection of mould growth on the carpet in the area (see Section 3.2).

The results of the airborne microorganisms monitoring are presented in Table 6.

Table 6 Airborne Microorganisms Results

		Airborne Microorganisms		
Location No.	Location Description	Airborne Bacteria (CFU/m³)*	Airborne Mould & Yeast (CFU/m³)*	Total Microorganisms (CFU/m³)*
M1	Hall, Outreach Office (centre)	1475	950	2425
M2	Hall, Main Hall (centre)	475	550	1025
Fresh Air Outsid	le Building	525	650	1175

^{*} CFU = colony forming units of the microorganisms

4 DISCUSSION

The ongoing water leaks into the Argyle Hall and Outreach Office has provided conditions favourable for mould growth to establish in these areas of the building. Evidence of mould growth under the northern eaves indicated persistent water ingress is also probable in this area. The two main controlling factors of mould growth are moisture and ventilation. Accordingly mould growth in the Argyle Building will continue to be a problem and potentially worsen until such times as the water leaks into the building are stopped.

In the Hall area mould growth is currently limited to a few small areas, an example of which can be seen in Photograph 2. In the current state mould growth in the Hall is unlikely to be a health risk to users of the Hall.

Indoor air quality in the Council Offices (excluding the Outreach Office), located in the Arglye Building, was investigated in the previously issued SLR Report (Report No. 610.11238.01/IAQ, dated 14/02/2012). Findings from this report indicted at the time of monitoring, indoor air quality was acceptable in these offices with no significant areas of mould growth observed. In the current state mould growth in the Offices is unlikely to be a health risk to Council Staff.

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In contrast significant areas of mould growth were present in the Outreach Office on areas of wet carpet. Furthermore in this office, airborne microorganism concentrations were elevated, at approximately double the concentration when compared to the airborne microorganism concentrations in fresh air outside the building. Therefore air quality within the Outreach Office is be impacted by the mould growth present in the office. In the current state mould growth in the Outreach office is likely to pose a health risk to members of the community who are likely to be in risk groups with increased sensitivity to mould.

The risk posed by mould exposure to members of the general community varies with the degree of exposure and characteristics of the people exposed to the mould. Exposure to moulds can lead to a variety of health outcomes. The reactions can range from no reaction, minor allergy like symptoms, to debilitating allergic responses, and invasive fungal diseases leading to death. It is prudent for all people to avoid unnecessary exposure to moulds.

In our daily lives humans are regularly exposed to low concentrations of mould particles, mostly airborne which we breathe in. In healthy individuals, low level exposure to moulds normally does not cause health problems. However sensitive individuals can develop allergic reactions to moulds, especially if exposed to high concentrations of airborne mould particles. Individuals with compromised immune systems are in danger of developing life threatening invasive fungal infections.

For people to have a physiological response to moulds, the mould particles can be alive, dead, incomplete fragments of mould, or the person may react to volatile organic compounds as gases being given off by actively growing moulds. Infection requires exposure to live mould particles.

Groups with increased risk from mould exposure include children under 12, pregnant women, people over 65 years of age, people with compromised immune systems and people with asthma and allergic conditions.

The Hall is currently utilised by a variety of community groups (See Section 3.1). These groups will be comprised of varying sections of community, for example young children, senior citizens, etc. The risk to each of these exposure groups caused by mould exposure will vary with some groups more sensitive than others. For example young children in the Playgroups and Senior Citizens in community groups are more at risk middle age people perhaps in Yoga classes or Choirs.

At the time of writing there appeared to be little risk to users of the Hall. This is also the case for Council personnel working in the Council Offices (excluding the Outreach Office). However if water leaks into the building are not stopped, then mould growth is likely to increase. In the future this may then led to potential health risks to Hall users.

It is understood that the Outreach Office is periodically used for the vaccination of children. The current mould growth in the Office is likely to pose a health risk to children being immunised in the room. Furthermore the mould growth present may pose a health risk to adults in sensitive exposure groups such as pregnant women and Senior Citizens. Therefore it is recommended the outreach Office not be used until water leaks in the building are stopped and mould growth in the office remediated.

Council staff commented that rats had been observed in the Argyle Building. However during the current inspection no evidence of rodent activity was observed. The health risk associated with rats colonising a building are well documented. Accordingly if evidence of rodents within the Argyle building is found then appropriate steps should be taken by Council to eradicate these animals and clean up any rodent faeces, urine and nesting areas.



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5 CONCLUSIONS

Mould growth in the Argyle Building will continue to be a problem and potentially worsen until such times as the water leaks into the building are stopped.

Air quality within the Outreach Office was found to be significantly impacted by the mould growth present in the office. The mould growth present may pose a health risk to adults in sensitive exposure groups such as young children, pregnant women and Senior Citizens. Therefore it is recommended the Outreach Office not be used until water leaks in the building are stopped and mould growth in the office remediated.

Air quality within the Hall was found to be mostly within accepted guidelines for air quality in non residential buildings. The exception was fresh air ventilation in the Hall which was inadequate on the day of monitoring. Consideration should be given to improving fresh air ventilation in the Hall.

There appeared to be little risk from mould to users of the Hall, in the present state. This is also the case for Council personnel working in the Council Offices (excluding the Outreach Office). However if water leaks into the building are not stopped, then mould growth is likely to increase. This may then led to potential health risks to Hall users and Council personnel.

Dr Craig Simpson, BAppScMScs.PhD

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Senior Scientist - Occupational Hygiene



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- City of Ryde (2012) Venue Support Rental Summary Report 1 July 2010 to 30 June 2011
- Safe Work Australia Hazardous Substances Information System http://hsis.ascc.gov.au/accessed 05/03/2012.
- SLR (2012) Indoor Air Quality & Mould Assessment, Council Offices Argyle Centre, 35 41
 Blaxland Road, Ryde NSW 2112. Ref No 610.11238.01/IAQ.
- WHO (2005) WHO Air Quality Guidelines for Particulate Matter, Ozone, Nitrogen Dioxide and Sulfur Dioxide.

7 ABBREVIATIONS

°C degrees Celsius

ASRAE American Society of Heating Refrigerating and Air-Conditioning Engineers

CO Carbon Monoxide
CO₂ Carbon Dioxide

mg/m³ milligrams per cubic metre
μg/m³ micrograms per cubic metre

NHMRC National Health and Medical Research Council

ppm parts per million

TWA Time Weighted Average (8-hour)
TVOC Total Volatile Organic Compounds

WHO World Health Organisation

8 CLOSURE

This report has been prepared by SLR Consulting Australia Pty Ltd with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of City of Ryde. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR Consulting.

SLR Consulting disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

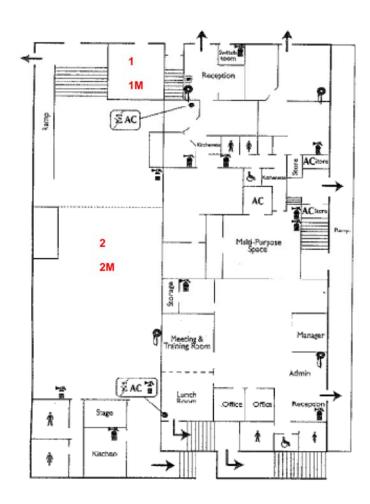


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FLOOR PLANS

The following floor plans were supplied by the City of Ryde and have been annotated by SLR Consulting to indicate sample locations.





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Total Volatile Organic Compound Results

TVOCs were measured using a Minirae 2000, calibrated against isobutylene, with results recorded in ppm. These are set out **Table A1**.

The formulae used to convert TVOC measurements in ppm to $\mu\text{g}/\text{m}^3$ is set out below.

TVOC μg/m³ = (TVOC ppm)(molecular weight isobutylene*) 1000 24.45

Table A1 - TVOC Results

Location No.	Location Description	TVOCs (ppm)	TVOCs (μg/m³)
1	Hall, Outreach Office (centre)	BDL*	BDL*
2	Hall, Main Hall (centre)	BDL*	BDL*

^{*} BDL = Below Detection Limit of 0.1ppm or 229 µg/m³

^{*} mw isobutylene (C4H8) = 56.104



ATTACHMENT 2

Appendix C
Report Number 610.11238.02/HALL
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Argyle Hall Usage – February 2012

The records of Argyle Hall usage in February 2012 are set out in the attached City of Ryde Venue Support Calendar Monthly for February 2012. This was supplied by the City of Ryde Council.

12:00AM - 02:00AM VS - Private Function 21st Birthday Party 08:30AM - 01:30PM

08:30AM - 01:30PM VS - Community Group

08:30AM - 01:30PM VS - Community Group Armenian Seniors

nunisation

VS - Community Group Top Ryde Playgroup

VS - Community Group

10:00AM - 12:00PM

10:00AM - 12:00PM

VS - Community Group Rock and Soul Choir 07:00PM-09:00PM 12

13

74

15

16

17

8

10:00AM - 02:00PM

08:30AM - 01:30PM VS - Community Group

07:00PM - 05:00PM VS - Community Group Rock and Soul Choir

08:30AM - 01:30PM VS - Community Group Armenian Seniors

VS - Community Group

10:00AM - 12:00PM VS - Community Group Top Ryde Playgroup

VS - Community Group

VS - Community Group

VS - Community Group 07:00AM - 09:00AM

seniors Group

10:00AM - 02:00PM

10

=

10:00AM - 12:00PM

12:00PM - 02:00PM VS - Community Group

VS - Community Group

VS - Community Group

VS - Private Function

07:00PM - 10:00PM

2:00PM - 02:00PM

Thai Chi

eniors Group :COAM - 02:COPM

12:00AM - 02:00AM

VS - Community Group

Armenian Seniors 07:00PM - 08:00PM VS - Community Group Rock and Soul Choir

VS - Community Group 38:30AM - 01:30PM

VS - Community Group 09:30AM - 12:30PM

VS - Community Group

VS - Community Group

0:00AM - 12:00PM

Thai Chi 12.00PM - 02:00PM VS - Community Group Top Ryde Playgroup 10:00AM - 12:00PM

Thai Chi

VS - Community Group

VS - Community Group 07:00PM - 10:00PM VS - Community Group

VS - Community Group Members Reception

2:00PM - 02:00PM

eniors Group

20

21

23

23

24

25

10:00AM - 02:00PM

seniors Group

VS - Community Group

7:00AM - 09:00AM

Yoga Classes

35:00PM - 09:00PM

Thai Chi VS - Community Group

> VS - Community Group 07:00PM - 10:00PM VS - Community Group Seniors Group

VS - Private Function

1st Birthday Party 5:30PM - 12:00AM 'oga Classes 7:00AM - 09:00AM **SOTh Birthday** 6:00PM - 12:00AM roga Classes

VS - Community Group

Thai Chi 12:00PM - 02:00PM VS - Community Group

ATTACHMENT 2

Venue Support

Date from: Wednesday, 1 February 2012

S

Sunday

Monday

Tuesday

10:00AM - 12:00PM VS - Community Group Top Ryde Playgroup

10:00AM - 12:00PM

10:00AM - 02:00PM

seniors Group

Thursday

Friday

Saturday

Argyle

VS - Community Group 12:00PM - 02:00PM

Thai Chi

Thai Chi

VS - Community Group 12:00PM - 02:00PM VS - Community Group

VS - Community Group 07:00PM - 10:00PM VS - Community Group

> 07:00PM - 12:00AM VS - Community Group

Maintenance oga Classes 07:00AM - 09:00AM Facility Option: Facility

Booking Types: Rentals/QuickRez/Courses/Maint/Admin/Holiday Facility: Argyle

Date to: Wednesday, 29 February 2012 Complex: VS

Include bookings in parent, child and joint facilities: Yes

February 2012 Wednesday

Printed: 02/03/12, 11:48 AM

Venue Support - Facility Calendar - Monthly

Page: 1



ATTACHMENT 2

Printed: 02/03/12, 11:48 AM

Venue Support - Facility Calendar - Monthly

S 08:30AM - 01:30PM VS - Community Group Church User: ianc Sunday 07:00AM - 06:30PM
VS - Council Use
Natalie Dainer - Leadership
Day (SUM's stc)
07:00PM - 06:00PM
VS - Community Group
Rock and Soul Choir 27 28 10.00AM - 12.00PM
VS - Community Group
Top Ryde Playgroup
12.00PM - 02.00PM
VS - Community Group
Thai Chi
Os.00PM - 10:30PM
Maintenance February 2012 Wednesday 29 Thursday Friday Saturday

Page:

ATTACHMENT 3

03-04-12;11:31 ;

NEW SOUTH WALES LOCAL GOVERNMENT, CLERICAL ADMINISTRATIVE, ENERGY, AIRLINES & UTILITIES UNION

Facsimile Cover Sheet

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	Mr John Neish, General Manager	
ATTENTION:	Facsimile: 9952 8055	
SENDER:	Graeme Kelly, General Secretary	
DATE:	3 April 2012	
NO OF PAGES:	3	
(including cover sheet)		
		-
URGENT:		
MESSAGE:	Re: Argyle Centre	
We will be forwarding the original to you Yes		
We will NOT be forwarding the original to you		
1		The state of the s

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ATTACHMENT 3



03-04-12;11:31

New South Wales Local Government, Clerical, Administrative, Energy, Airlines & Utilities Union

In reply please quote: RYDE 6/24 Contact: Sandie Morthen

3 April 2012

Mr John Neish General Manager Ryde City Council Locked Bag 2069 NORTH RYDE NSW 1670

Facsimile: 9952 8055

Dear Sir

Re: Argyle Centre

The United Services Union has been approached by our members who work at Argyle Centre. The Union is aware that Council has made some attempts to fix some minor problems and have been considering larger refurbishments. The USU does have concerns however, that Council is not adequately addressing the serious issues which may be impacting on our members' health. These include:

- 1. Infestations of vermin that have included mice, rats and pigeons;
- 2. Pigeons nesting in the roof cavity;
- Bird lice, cockroaches and fleas which have now been treated but this was a reactive measure;
- 4. Dead rodents in the air conditioning;
- Sewerage coming through the building. Council's apparent solution to this is to have someone pour a bucket of water into the Theatre toilets once a month;
- 6. Thinners and paint are stored in the Theatre. What processes for the safe storage of chemicals have been put in place;
- Considering the chemicals stored in the building, it does not appear to have adequate fire safety measures in place including evacuation plans;

.../2



ATTACHMENT 3

03-04-12;11:31

(2)

General Manager Ryde City Council Quote: RYDE 6/24 Contact: Sandie Morthen

- 8. Poor temperature regulation. The temperature varies vastly in different areas of the building. Considering that the air conditioning in the Administration Centre was upgraded for similar reasons it seems unfair that staff should continue to work in these conditions;
- 9. Does the building contain asbestos;
- 10. It has been decided that some areas of the building are not safe for the public but staff are expected to work in there;
- 11. Staff has been requested to move items that are currently stored in the Theatre that will place them in contact with the issues that were deemed a threat to public health.

These issues have been raised with Management at Team meetings and through the hazard notification process on a number of occasions.

Furthermore, the Union is aware that the facility at West Ryde was purpose built to house the Community Services staff. Why have staff not been relocated as the facility has been completed for some time.

The Union reserves the right to invoke the Grievance Procedure as per Clause 31 of the NSW Local Government (State) Award 2010.

If you have any enquiries regarding this issue, please do not hesitate to contact our Organiser Ms Sandie Morthen on 0419 761 326 or at the Sydney office on 9265 8211.

Yours faithfully

Graeme Kelly

GENERAL SECRETARY

Per: Stephen Donley, Manager Metropolitan

cc: Rick Gardner, Leonard McColl, Ian Harle, Sam Karakaidos

SM/aw