

MECHANICAL & ELECTRICAL WORKS AT SCOIL MHUIRE BUNCRANA

DESIGNER'S RISK ASSESSMENT

This project involves the installation of mechanical and electrical services within an existing school building. Ipsum Consulting Engineers Ltd are responsible for the design of the M&E services alterations.

We, as the designers of the Mechanical and Electrical Services at the above project, having reviewed our design are of the opinion that there are no residual risks in the design of the installation that a competent contractor experienced in this type of work would not know about from reading the drawings and specifications. This is subject to the items noted below and the Risk Assessment Forms attached.

It assumes the competent contractors shall be familiar with standard site health and safety practices for the type of work they are undertaking and that they are experienced working within a retail environment.

We have also reviewed the access strategy for plant delivery and are of the opinion that suitable routes are available.

At the time of design, no materials known to be hazardous to health have been specified that would require special measures for stripping out at the end of their working life. All redundant Mechanical, Electrical & Refrigeration components shall be disposed of in accordance with current legislation.

The Contractor will be expected to produce Risk Assessments and Method Statements for all tasks.

Sub-Contractor management shall be the responsibility of the Contractor.

There shall be no live working. The contractor is reminded however that due care and attention should be exercised as this is an existing live building.

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers
Risk Assessment

Trade: All					
Project Title: Scoil Mhuire Buncrana			Job Number: 6052 Risk No: 001		
Design Stage: Tender					
Made By: Ronan Doherty		Checked By: Frank O'Kane		Date: May 2019	
Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☒	Public ☒	User ☒

Risk Assessment														
Severity of incident	☐	H - fatality, injury or illness causing long term disability	Severity <table border="1"> <tr> <td>H/L ☐</td> <td>H/M ☐</td> <td>H/H ☐</td> </tr> <tr> <td>M/L ☐</td> <td>M/M ☒</td> <td>M/H ☐</td> </tr> <tr> <td>L/L ☐</td> <td>L/M ☐</td> <td>L/H ☐</td> </tr> </table>	H/L ☐	H/M ☐	H/H ☐	M/L ☐	M/M ☒	M/H ☐	L/L ☐	L/M ☐	L/H ☐	High	
	H/L ☐	H/M ☐		H/H ☐										
	M/L ☐	M/M ☒		M/H ☐										
L/L ☐	L/M ☐	L/H ☐												
☒	M - injury or illness causing short term disability													
☐	L - other injury or illness													
Likelihood of event occurring	☐	H - certain or near certain to occur		Medium										
	☒	M - reasonably likely to occur												
	☐	L - very seldom or never to occur												
Low														
H/H: avoid wherever possible All other values: Control or minimise risks														

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Installing and maintaining services at high level.	Fall from height.	Due care and attention using appropriate access equipment. Install equipment as close to ceiling level as possible.	Contractor/ Maintenance Staff
	Injury to public.	Plant not to be installed above safe working height from step ladders. Proper Lifting Equipment Area to be coned-off. Method Statement.	Contractor/ Maintenance Staff

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers Risk Assessment

Distribution:	☒ Planning Supervisor
---------------	---

Trade: All	
Project Title: Scoil Mhuire Buncrana	Job Number: 6052 Risk No: 002
Design Stage: Tender	
Made By: Ronan Doherty	Checked By: Frank O'Kane Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☐	Public ☐	User ☐
----------------	---	---	---	------------------------------------	----------------------------------

Risk Assessment															
Severity of incident	☒ ☐ ☐	H - fatality, injury or illness causing long term disability M - injury or illness causing short term disability L - other injury or illness	Severity <table border="1" style="width: 100%;"> <tr> <td style="width: 33%;">High</td> <td style="width: 33%;">H/L ☒</td> <td style="width: 33%;">H/M ☐</td> <td style="width: 33%;">H/H ☐</td> </tr> <tr> <td>Medium</td> <td>M/L ☐</td> <td>M/M ☐</td> <td>M/H ☐</td> </tr> <tr> <td>Low</td> <td>L/L ☐</td> <td>L/M ☐</td> <td>L/H ☐</td> </tr> </table>	High	H/L ☒	H/M ☐	H/H ☐	Medium	M/L ☐	M/M ☐	M/H ☐	Low	L/L ☐	L/M ☐	L/H ☐
High	H/L ☒	H/M ☐	H/H ☐												
Medium	M/L ☐	M/M ☐	M/H ☐												
Low	L/L ☐	L/M ☐	L/H ☐												
Likelihood of event occurring	☐ ☐ ☒	H - certain or near certain to occur M - reasonably likely to occur L - very seldom or never to occur													
H/H: avoid wherever possible All other values: Control or minimise risks															

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Installation of boiler units, pumps, valves and piping in plantrooms. Cable containment, main mechanical panel. Lighting Installation.	Personnel Injury. Risk of dropping plant onto personnel.	Due care and attention. Method Statements by Contractors.	Contractor

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers Risk Assessment

Distribution:	☒ Planning Supervisor
---------------	---

Trade: Electrical	
Project Title: Loreto College	Job Number: 6052 Risk No: 004
Design Stage: Tender	
Made By: Ronan Doherty	Checked By: Frank O'Kane Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☐	Public ☐	User ☐
----------------	---	---	---	------------------------------------	----------------------------------

Risk Assessment																										
Severity of incident	☒ H - fatality, injury or illness causing long term disability ☐ M - injury or illness causing short term disability ☐ L - other injury or illness		<table border="1" style="width: 100%;"> <tr> <th colspan="3">Severity</th> </tr> <tr> <td></td> <td>H/L</td> <td>H/M</td> <td>H/H</td> </tr> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;"> High Medium Low </td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>M/L</td> <td>M/M</td> <td>M/H</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>L/L</td> <td>L/M</td> <td>L/H</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>	Severity				H/L	H/M	H/H	High Medium Low	☐	☒	☐	M/L	M/M	M/H	☐	☐	☐	L/L	L/M	L/H	☐	☐	☐
Severity																										
	H/L	H/M	H/H																							
High Medium Low	☐	☒	☐																							
	M/L	M/M	M/H																							
	☐	☐	☐																							
L/L	L/M	L/H																								
☐	☐	☐																								
Likelihood of event occurring	☐ H - certain or near certain to occur ☐ M - reasonably likely to occur ☒ L - very seldom or never to occur																									
H/H: avoid wherever possible All other values: Control or minimise risks																										

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Working in vicinity of live electrical services.	Risk of electric shock. Risk of burns and scalds.	Refer to electrical as-built drawings and docs. R.A. Method statements	Contractor

Distribution:	☒ Planning Supervisor
---------------	---

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers
Risk Assessment

Trade: Electrical		
Project Title: Scoil Mhuire Buncrana		Job Number: 6052 Risk No: 005
Design Stage: Tender		
Made By: Ronan Doherty	Checked By: Frank O'Kane	Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☒	Public ☐	User ☐
-----------------------	---	---	--	------------------------------------	----------------------------------

Risk Assessment																							
Severity of incident	☐	H - fatality, injury or illness causing long term disability	Severity <table border="1" style="border-collapse: collapse;"> <tr> <td></td> <td>H/L</td> <td>H/M</td> <td>H/H</td> </tr> <tr> <td rowspan="3" style="text-align: center; vertical-align: middle;"> High Medium Low </td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>M/L</td> <td>M/M</td> <td>M/H</td> </tr> <tr> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>L/L</td> <td>L/M</td> <td>L/H</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>		H/L	H/M	H/H	High Medium Low	☐	☐	☐	M/L	M/M	M/H	☒	☐	☐	L/L	L/M	L/H	☐	☐	☐
		H/L		H/M	H/H																		
	High Medium Low	☐		☐	☐																		
M/L		M/M		M/H																			
☒		☐		☐																			
L/L	L/M	L/H																					
☐	☐	☐																					
☒	M - injury or illness causing short term disability																						
☐	L - other injury or illness																						
Likelihood of event occurring	☐	H - certain or near certain to occur																					
	☐	M - reasonably likely to occur																					
	☒	L - very seldom or never to occur																					
H/H: avoid wherever possible All other values: Control or minimise risks																							

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Low voltage installation, testing and maintenance.	Risk of electric shock, burns and scalds.	Provision of detailed Method Statement. Work only by authorised persons. Permit to work. Restricted access. Ensure all Existing supplies Isolated prior to working on these services.	Contractor/ Maintenance staff.

Distribution: ☒ Planning Supervisor
--

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers Risk Assessment

Trade: Mechanical		
Project Title: Scoil Mhuire Buncrana		Job Number: 6052 Risk No: 006
Design Stage: Tender		
Made By: Ronan Doherty	Checked By: Frank O'Kane	Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☐	Public ☐	User ☒
-----------------------	---	---	---	------------------------------------	---

Risk Assessment															
Severity of incident	☒ ☐ ☐	H - fatality, injury or illness causing long term disability M - injury or illness causing short term disability L - other injury or illness	Severity <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">High</td> <td style="width: 33%; text-align: center;">Medium</td> <td style="width: 33%; text-align: center;">Low</td> </tr> <tr> <td style="text-align: center;">H/L ☐</td> <td style="text-align: center;">H/M ☒</td> <td style="text-align: center;">H/H ☐</td> </tr> <tr> <td style="text-align: center;">M/L ☐</td> <td style="text-align: center;">M/M ☐</td> <td style="text-align: center;">M/H ☐</td> </tr> <tr> <td style="text-align: center;">L/L ☐</td> <td style="text-align: center;">L/M ☐</td> <td style="text-align: center;">L/H ☐</td> </tr> </table>	High	Medium	Low	H/L ☐	H/M ☒	H/H ☐	M/L ☐	M/M ☐	M/H ☐	L/L ☐	L/M ☐	L/H ☐
High	Medium	Low													
H/L ☐	H/M ☒	H/H ☐													
M/L ☐	M/M ☐	M/H ☐													
L/L ☐	L/M ☐	L/H ☐													
Likelihood of event occurring	☐ ☒ ☐	H - certain or near certain to occur M - reasonably likely to occur L - very seldom or never to occur													
H/H: avoid wherever possible All other values: Control or minimise risks															

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Welding/soldering/brazing work on pipe work.	Fire, burns and scalds.	Due care and attention to be used and protective barriers to be employed over all flammable substances. Portable extinguishing equipment. Regulators must be fitted with flashback arrestors and non return valves. Secure storage of compressed gas cylinders.	Contractor.

Distribution:	☒ Planning Supervisor
----------------------	---

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers Risk Assessment

Trade: Mechanical		
Project Title: Scoil Mhuire Buncrana		Job Number: 6052 Risk No: 007
Design Stage: Tender		
Made By: Ronan Doherty	Checked By: Frank O'Kane	Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☐	Public ☐	User ☐
-----------------------	---	---	---	------------------------------------	----------------------------------

Risk Assessment															
Severity of incident	☒ ☐ ☐	H - fatality, injury or illness causing long term disability M - injury or illness causing short term disability L - other injury or illness	Severity <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">High</td> <td style="width: 33%; text-align: center;">Medium</td> <td style="width: 33%; text-align: center;">Low</td> </tr> <tr> <td style="text-align: center;">H/L ☒</td> <td style="text-align: center;">H/M ☐</td> <td style="text-align: center;">H/H ☐</td> </tr> <tr> <td style="text-align: center;">M/L ☐</td> <td style="text-align: center;">M/M ☐</td> <td style="text-align: center;">M/H ☐</td> </tr> <tr> <td style="text-align: center;">L/L ☐</td> <td style="text-align: center;">L/M ☐</td> <td style="text-align: center;">L/H ☐</td> </tr> </table>	High	Medium	Low	H/L ☒	H/M ☐	H/H ☐	M/L ☐	M/M ☐	M/H ☐	L/L ☐	L/M ☐	L/H ☐
High	Medium	Low													
H/L ☒	H/M ☐	H/H ☐													
M/L ☐	M/M ☐	M/H ☐													
L/L ☐	L/M ☐	L/H ☐													
Likelihood of event occurring	☐ ☐ ☒	H - certain or near certain to occur M - reasonably likely to occur L - very seldom or never to occur													
H/H: avoid wherever possible All other values: Control or minimise risks															

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Thermal installation application may require use of solvent based adhesives.	Respiratory illness or loss of consciousness caused by asphyxia by exposure to substance.	Follow manufacturer's instructions. Keep area well ventilated where adhesives being applied. Observe COSHH requirements.	Contractor
Use of sterilisation agents	Respiratory illness or loss of consciousness caused by asphyxia by exposure to substance. Risk of burns, environmental damage.	Follow manufacturer's instructions and observe COSHH requirements.	Contractor

Distribution:	☒ Planning Supervisor
----------------------	---

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers Risk Assessment

Trade: Mechanical		
Project Title: Scoil Mhuire Buncrana		Job Number: 6052 Risk No: 008
Design Stage: Tender		
Made By: Ronan Doherty	Checked By: Frank O'Kane	Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☐	Public ☐	User ☐
-----------------------	---	---	---	------------------------------------	----------------------------------

Risk Assessment															
Severity of incident	☒ ☐ ☐	H - fatality, injury or illness causing long term disability M - injury or illness causing short term disability L - other injury or illness	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3" style="text-align: center;">Severity</th> </tr> <tr> <td style="width: 33%; text-align: center;"> High H/L ☐ </td> <td style="width: 33%; text-align: center;"> H/M ☒ </td> <td style="width: 33%; text-align: center;"> H/H ☐ </td> </tr> <tr> <td style="text-align: center;"> Medium M/L ☐ </td> <td style="text-align: center;"> M/M ☐ </td> <td style="text-align: center;"> M/H ☐ </td> </tr> <tr> <td style="text-align: center;"> Low L/L ☐ </td> <td style="text-align: center;"> L/M ☐ </td> <td style="text-align: center;"> L/H ☐ </td> </tr> </table>	Severity			High H/L ☐	H/M ☒	H/H ☐	Medium M/L ☐	M/M ☐	M/H ☐	Low L/L ☐	L/M ☐	L/H ☐
Severity															
High H/L ☐	H/M ☒	H/H ☐													
Medium M/L ☐	M/M ☐	M/H ☐													
Low L/L ☐	L/M ☐	L/H ☐													
Likelihood of event occurring	☐ ☒ ☐	H - certain or near certain to occur M - reasonably likely to occur L - very seldom or never to occur													
H/H: avoid wherever possible All other values: Control or minimise risks															

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Confined Spaces, small ceiling voids and service crawl ways at height.	Adequate light. Risk of falling	- Contractors to detail provision for ensuring adequate ventilation and light are provided to operatives to ensure good working conditions. - Provide details of minimum lux levels. - Contractors to detail provision for ensuring safe working on crawl ways	Contractor

Distribution:	☒ Planning Supervisor
----------------------	---

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers
Risk Assessment

Trade: Electrical		
Project Title: Scoil Mhuire Buncrana		Job Number: 6052 Risk No: 010
Design Stage: Tender		
Made By: Ronan Doherty	Checked By: Frank O'Kane	Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☒	Public ☒	User ☒
-----------------------	---	---	--	---	---

Risk Assessment														
Severity of incident	☒ H - fatality, injury or illness causing long term disability ☐ M - injury or illness causing short term disability ☐ L - other injury or illness	Severity <table border="1"> <tr> <td>High</td> <td>H/L ☐</td> <td>H/M ☒</td> <td>H/H ☐</td> </tr> <tr> <td>Medium</td> <td>M/L ☐</td> <td>M/M ☐</td> <td>M/H ☐</td> </tr> <tr> <td>Low</td> <td>L/L ☐</td> <td>L/M ☐</td> <td>L/H ☐</td> </tr> </table>	High	H/L ☐	H/M ☒	H/H ☐	Medium	M/L ☐	M/M ☐	M/H ☐	Low	L/L ☐	L/M ☐	L/H ☐
High	H/L ☐		H/M ☒	H/H ☐										
Medium	M/L ☐		M/M ☐	M/H ☐										
Low	L/L ☐		L/M ☐	L/H ☐										
Likelihood of event occurring	☐ H - certain or near certain to occur ☒ M - reasonably likely to occur ☐ L - very seldom or never to occur													
H/H: avoid wherever possible All other values: Control or minimise risks														

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Identifying live and services cabling within the building to be removed for Lighting Upgrade and rewire (e Works) and any redundant cabling in order to safely isolate where appropriate and strip out.	Electric Shock	Method Statements required – review of existing installations in the building.	Contractor
Any upgrade of the power cabling for rewire	Electric Shock	Method Statements required – review of existing installations in the building. No Live Working	Contractor
Working on existing switchgear	Electric Shock	Method Statements required – review of existing installations in the building. No Live Working	Contractor

Issue	Date	By	Checked
1	30.04.19	RD	FOK



Ipsum Consulting Engineers
Risk Assessment

Distribution: ☒ Planning Supervisor			

Issue	Date	By	Checked
1	30.04.19	RD	FOK

Ipsum Consulting Engineers Risk Assessment

Trade: Mechanical		
Project Title: Scoil Mhuire Buncrana		Job Number: 6052 Risk No: 011
Design Stage: Tender		
Made By: Ronan Doherty	Checked By: Frank O'Kane	Date: May 2019

Person at Risk	Contractor ☒	Other Contractor ☒	Maintenance Staff ☒	Public ☐	User ☐
-----------------------	---	---	--	------------------------------------	----------------------------------

Risk Assessment																							
Severity of incident	☐	H - fatality, injury or illness causing long term disability	Severity <table border="1" style="border-collapse: collapse; text-align: center;"> <tr> <td>H/L</td> <td>H/M</td> <td>H/H</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>M/L</td> <td>M/M</td> <td>M/H</td> </tr> <tr> <td>☒</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>L/L</td> <td>L/M</td> <td>L/H</td> </tr> <tr> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>			H/L	H/M	H/H	☐	☐	☐	M/L	M/M	M/H	☒	☐	☐	L/L	L/M	L/H	☐	☐	☐
H/L	H/M	H/H																					
☐	☐	☐																					
M/L	M/M	M/H																					
☒	☐	☐																					
L/L	L/M	L/H																					
☐	☐	☐																					
	☒	M - injury or illness causing short term disability																					
	☐	L - other injury or illness																					
Likelihood of event occurring	☐	H - certain or near certain to occur	High Medium Low																				
	☐	M - reasonably likely to occur																					
	☒	L - very seldom or never to occur																					
H/H: avoid wherever possible All other values: Control or minimise risks																							

RISK	HAZARD	ACTIONS AND CONTROL MEASURES	ACTION BY
Gas System pipework Installation.	Falls into trenches. Working at heights Confined Spaces Existing Services	Provision of detailed Method Statement. Work only by authorised persons. Permit to work. Restricted access. Ensure all Existing supplies Isolated prior to working on these services. Provide barriers to trenches. Provide suitable walkways over trenches. Keep trenches free from debris and water. Carry out Cat Scan prior to opening trenches to identify existing services.	Contractor/.

Issue	Date	By	Checked
1	30.04.19	RD	FOK



Ipsum Consulting Engineers
Risk Assessment

Distribution: ☒ Planning Supervisor

Issue	Date	By	Checked
1	30.04.19	RD	FOK