

**Management and Professional Studies**

**Assignment 03: Design Risk Assessment**

## **Assignment 03**

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### **Assumptions**

- Despite my project being sited in Dublin, Ireland the HSE rules and regulations for this project will be governed by UK legislation.
  - This Risk Assessment examines all risks at the design stage of the Dublin Project
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## **Report**

### **Introduction:**

This report is a designed to identify the inherent risks involved in the construction of the Irish Music Rights Organisation, Dublin at the design stage. The site for this development is has restricted access and is located in the Temple Bar area of Dublin which consists of very small streets and a high density of buildings.

These factors have been identified in the design risk assessment sheets which follow and rated for likelihood of occurrence, severity of harm and Risk Occurring.

I have identified where risks have been minimised and what can be done to achieve a lower risk setting when the contractor is on site. This design risk assessment is organised into a table for each important section of the building. The tables follow this page in a landscape format.

### **Additional Sources of Information:**

Health and Safety in Construction notes, Lecture 5.

### **Notes / Key:**

Population at Risk key:

C = Construction site staff  
V = Visitors  
G = General Public  
S = Service Staff (inc maintenance)

Risk Ratings:

L = Likelihood of occurrence  
S = Severity of harm  
R = Risk Arising

Priority:

1-5 rating  
1 = Low  
5 = High

<b>PROJECT:</b>	Irish Music Rights Organisation, Dublin				<b>CONTRACTOR:</b>	Balfour Developments Ltd			
<b>DISCIPLINE</b>	Student Architect								
<b>ASSESSOR:</b>	Michael Riley				<b>SIGNED</b>			<b>DATE</b>	9 December 2004
Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
SITE	Access								
	Trip	C, V, G	L	L	L/L	1	Maintain safe pedestrian routes around site, possible access to rear of compound		
	Fall from Height	None					NA		
	Manual Handling	None					NA		
	Falling Object	None					NA		
	Moving Plant	C, V, G	H	H	H/H	5	Constricted site access and compound, monitor all traffic.		
	Collapse	C, V	L	L	L/L	2	Existing buildings on site derelict.		
	Noise / Vibrations	C, V, G	H	L	H/L	1	Inform party businesses, restrict construction during unsociable hours.		
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	C, V, G	M	L	M/L	1	Combat at source or protect.		
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required	
			L	S	R			
SITE	Overhead Services							
	Trip	None						
	Fall from Height	C	L	M	L/M	3	Combat at source or protect	
	Manual Handling	C	L	L	L/L	1	Combat at source or protect	
	Falling Object	C, V, G	L	M	L/M	3	Provide secure spaces for tool storage when elevated	
	Moving Plant	C, V, G	H	H	H/H	5	Constrained site access and compound, monitor all traffic	
	Collapse	None						
	Noise / Vibrations	None						
	Dust Fibres	None						
	Gas Fumes / Asphyxia	None						
	Chemical Biological	None						
	Fire Explosion	None						
	Electric	C	L	H	L/H	3	Combat at source or protect	
	Environmental Pollution	None						
	Hazardous Materials	None						

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
SITE	Existing Services								
	Trip	None							
	Fall from Height	None							
	Manual Handling	None							
	Falling Object	None							
	Moving Plant	None							
	Collapse	C, V, G	L	H	L/H	5	Note that a culvert river runs past the site		
	Noise / Vibrations	None							
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required	
			L	S	R			
SITE	Demolition							
	Trip	C	M	L	M/L	1	Combat at source or protect	
	Fall from Height	C	L	M	L/M	1	Combat at source or protect	
	Manual Handling	None						
	Falling Object	C	L	M	L/M	1	Combat at source or protect	
	Moving Plant	C, G	H	H	H/M	5	Restricted site and compound access, monitor all traffic	
	Collapse	C	H	L	H/L	1	Combat at source or protect	
	Noise / Vibrations	None						
	Dust Fibres	C, V	L	M	L/M	3	Check for asbestos etc before demolition	
	Gas Fumes / Asphyxia	None						
	Chemical Biological	None						
	Fire Explosion	C, V, G	L	H	L/H	5	Disconnect gas installations prior to demolition	
	Electric	C	L	H	L/H	5	Disconnect electric installations prior to demolition	
	Environmental Pollution	None						
	Hazardous Materials	C	L	L	L/L	3	Check for all hazardous materials before demolition	

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
SITE	Excavation / Drainage								
	Trip	C, V	L	L	L/L	3	Provide protection to all excavations		
	Fall from Height	None							
	Manual Handling	C	L	L	L/L	1	Combat at source or protect		
	Falling Object	C	L	L	L/L	1	Combat at source or protect		
	Moving Plant	None							
	Collapse	C	L	L	L/L	3	Combat at source or protect		
	Noise / Vibrations	None							
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	C	L	L	L/L	3	Combat at source or protect		
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Walls								
	Trip	None							
	Fall from Height	C, V, G	L	M	L/M	2	Combat at source or protect		
	Manual Handling	C	L	L	L/L	1	Combat at source or protect		
	Falling Object	C, V, G	M	H	M/H	5	Walls extend over pavement, additional protection should be provided at these points		
	Moving Plant	None							
	Collapse	C, V, G	L	L	L/L	1	Combat at source or protect		
	Noise / Vibrations	C, V, G	L	L	L/L	1	Combat at source or protect		
	Dust Fibres	C, V	L	L	L/L	2	Cut blocks in well ventilated areas		
	Gas Fumes / Asphyxia	None							
	Chemical Biological	C	L	L	L/L	1	Follow manufactures recommendations for insulation installation		
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
	Hazardous Materials	C	L	L	L/L	1	Follow manufactures recommendations for insulation installation		

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Floors								
	Trip	C	L	L	L/L	1	Combat at source or protect		
	Fall from Height	C	L	L	L/L	1	Combat at source or protect		
	Manual Handling	C	L	M	L/M	3	Sufficient workers for lifting heavy equipment		
	Falling Object	C, V, G	L	M	L/M	3	Walls extend over pavement, additional protection should be provided at these points.		
	Moving Plant	None							
	Collapse	C	L	H	L/H	3	Combat at source or protect		
	Noise / Vibrations	C, V, G	L	L	L/L	1	Combat at source or protect		
	Dust Fibres	C, V	L	L	L/L	1	Combat at source or protect		
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Roofs								
	Trip	C	L	M	L/M	2	Combat at source or protect		
	Fall from Height	C, V	L	H	L/H	4	Provide man-safe system during roof construction		
	Manual Handling	C	L	L	L/L	1	Combat at source or protect		
	Falling Object	C, V, G	L	M	L/M	3	Provide protection at edge of roof		
	Moving Plant	None							
	Collapse	C, V	L	H	L/H	2	Combat at source or protect		
	Noise / Vibrations	C, V, G	L	L	L/L	1	Combat at source or protect		
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Windows / Screens								
	Trip	None							
	Fall from Height	C, V	M	H	M/H	5	Combat at source or protect		
	Manual Handling	C	M	M	M/M	3	Combat at source or protect		
	Falling Object	C, V, G	M	H	M/H	5	Glazing projects over street level. Provide additional protection at these points.		
	Moving Plant	None							
	Collapse	C, V, G	L	H	L/M	3	Combat at source or protect		
	Noise / Vibrations	None							
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Services								
	Trip	None							
	Fall from Height	None							
	Manual Handling	C	L	L	L/L	3	Combat at source or protect		
	Falling Object	None							
	Moving Plant	None							
	Collapse	None							
	Noise / Vibrations	C, V, G	L	L	L/L	3	Combat at source or protect		
	Dust Fibres	None							
	Gas Fumes / Asphyxia	C, V	L	H	L/H	5	Install services according to manufactures specifications		
	Chemical Biological	C	L	L	L/L	3	Combat at source or protect		
	Fire Explosion	C, V, G	L	H	L/H	5	Install gas services according to manufactures spec		
	Electric	C	L	H	L/H	5	Combat at source or protect		
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Finishes								
	Trip	C, V	L	L	L/L	1	Combat at source or protect		
	Fall from Height	None							
	Manual Handling	C	L	L	L/L	1	Combat at source or protect		
	Falling Object	None							
	Moving Plant	None							
	Collapse	None							
	Noise / Vibrations	C, V, G	L	L	L/L	1	Combat at source or protect		
	Dust Fibres	C, V	L	L	L/L	3	Cut finishes in well ventilated areas, provide dust masks		
	Gas Fumes / Asphyxia	None							
	Chemical Biological	C	L	L	L/L	1	Finishes with low chemical risks have been specified		
	Fire Explosion	None							
	Electric	C	L	H	L/H	5	Combat at source or protect		
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Materials								
	Trip	None							
	Fall from Height	None							
	Manual Handling	None							
	Falling Object	None							
	Moving Plant	None							
	Collapse	None							
	Noise / Vibrations	None							
	Dust Fibres	C, V	L	L	L/L	1	Combat at source or protect		
	Gas Fumes / Asphyxia	None							
	Chemical Biological	C, V	L	L	L/L	1	Combat at source or protect		
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	C, V	L	M	L/M	3	Combat at source or protect		
	Hazardous Materials	C, V, G	L	M	L/M	3	Combat at source or protect		

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Glass Cleaning and Maintenance								
	Trip	None							
	Fall from Height	S	L	H	L/H	3	Man-safe / ab-sailing systems installed		
	Manual Handling	None							
	Falling Object	S	L	H	L/H	3	Combat at source or protect		
	Moving Plant	None							
	Collapse	None							
	Noise / Vibrations	None							
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
	Hazardous Materials	None							

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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Maintenance Access								
	Trip	S	L	L	L/L	1	Combat at source or protect		
	Fall from Height	None							
	Manual Handling	None							
	Falling Object	None							
	Moving Plant	None							
	Collapse	None							
	Noise / Vibrations	None							
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
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Activity / Element	Potential Hazards	Population at Risk	Risk Rating			Priority	Control Measures Required		
			L	S	R				
Structure	Unusual Design Features								
	Trip	None							
	Fall from Height	G	L	H	H	3	Bar located 20 metres above street level. Balustrades designed to reduce wall from height		
	Manual Handling	None							
	Falling Object	G	L	H	H	3	Bar located 20 metres above street level. Balustrades designed to reduce objects falling off building		
	Moving Plant	None							
	Collapse	None							
	Noise / Vibrations	None							
	Dust Fibres	None							
	Gas Fumes / Asphyxia	None							
	Chemical Biological	None							
	Fire Explosion	None							
	Electric	None							
	Environmental Pollution	None							
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