Management and Professional Studies

Assignment 03: Design Risk Assessment

Assignment 03

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

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

PROJECT:	Irish Music Rights Orga	nisation, Dublin		CONT	RACTOR:	Balfour Developmen	ts Ltd	
DISCIPLIN	E Student Architect							
ASSESSOR:	Michael Riley			SIGNI	ED		DATE	9 December 2004
Activity /	Potential Hazards	Population at	Risk Ratin	g	Priority	Control Measures Re	quired	

Activity /	Potential Hazards	Population at	R	isk Rati	ing	Priority	Control Measures Required
Element		Risk	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	Н	Н	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	Н	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					

Notes:

Population at Risk key: C = Construction site staff

V = Visitors

G = General Public

S = Service Staff (inc maintenance)

Risk Ratings: Priority Ratings: L = Low1-5 Rating

M = Medium1 = LowH = High5 = High

PROJECT:	Irish Music Rights Orga	anisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd	
DISCIPLIN								
ASSESSOR	: Michael Riley				SIGN	IED	DATE	9 December 2004
Activity / Element	Potential Hazards	Population at Risk	R	isk Rati	1	Priority	Control Measures Required	
		RISK	L	S	R		I	
SITE	Overhead Services							
	Trip	None						
	Fall from Height	С	L	М	L/M	3	Combat at source or protect	
	Manual Handling	С	L	L	L/L	1	Combat at source or protect	
	Falling Object	C, V, G	L	М	L/M	3	Provide secure spaces for tool s	torage when elevated
	Moving Plant	C, V, G	Н	Н	H/H	5	Constrained site access and con	npound, monitor all traff
	Collapse	None						
	Noise / Vibrations	None						
	Dust Fibres	None						
	Gas Fumes / Asphyxia	None						
	Chemical Biological	None						
	Fire Explosion	None						
	Electric	С	L	Н	L/H	3	Combat at source or protect	
	Environmental Pollution	None						

Notes:

Population at Risk key: C = Construction site staff

V = Visitors

G = General Public

S = Service Staff (inc maintenance)

Hazardous Materials

Risk Ratings: L = LowM = MediumH = High

None

Priority Ratings:

1-5 Rating 1 = Low

PROJECT:	Irish Music Rights Orga	anisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd
DISCIPLIN ASSESSOR					SIGN	IED	DATE 9 December 2004
A33E330K. Wilchael Kliey					3101	IED	DATE 9 December 2004
Activity /	Potential Hazards	Population at	Risk Rating		ing	Priority	Control Measures Required
Element	:	Risk	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	Н	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					

Notes:

Population at Risk key: C = Construction site staff

V = Visitors

G = General Public

S = Service Staff (inc maintenance)

Risk Ratings: L = LowM = MediumH = High

Priority Ratings: 1-5 Rating 1 = Low

PROJECT:	Irish Music Rights Organisation, Dublin	CONTRACTOR:	Balfour Developments Ltd	
DISCIPLINE	Student Architect			
ASSESSOR:	Michael Riley	SIGNED	DATE	9 December 2004

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

Notes:

Population at Risk key: C = Construction site staff

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S = Service Staff (inc maintenance)

Risk Ratings:

L = LowM = Medium

H = High

Priority Ratings:

1-5 Rating

1 = Low

Combat at source or protect

Combat at source or protect

Priority Ratings:

PROJECT:	Irish Music Rights O	rganisation, Dublin			CON	TRACTOR:	Balfour Developme	Balfour Developments Ltd		
DISCIPLIN	IE Student Architect									
ASSESSOR	: Michael Riley			SIGN	IED		DATE	9 December 2004		
Activity /	Potential Hazards	Population at	R	isk Rati	ng	Priority	Control Measures R	Control Measures Required		
Element		Risk	L	S	R					
SITE	Excavation / Drain	nage								
	Trip	C, V	L	L	L/L	3	Provide protection to	all excavat	ions	
	Fall from Height	None								
	Manual Handling	С	L	L	L/L	1	Combat at source or p	protect		
	Falling Object	С	L	L	L/L	1	Combat at source or p	protect		
	Moving Plant	None								

L/L

L/L

L

3

3

Notes:
Population at Risk key:

Risk Ratings:

С

None

None

None

None

None

None C

C = Construction site staffL = Low1-5 RatingV = VisitorsM = Medium1 = LowG = General PublicH = High5 = High

S = Service Staff (inc maintenance)

Collapse

Dust Fibres

Noise / Vibrations

Gas Fumes / Asphyxia

Environmental Pollution

Chemical Biological

Fire Explosion

Electric

PROJECT:	Irish Music Rights Org	anisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd
DISCIPLIN	NE Student Architect						
ASSESSOR	R: Michael Riley				SIGN	IED	DATE 9 December 2004
Activity /	Potential Hazards	Population at Risk	R	isk Rat	ing R	Priority	Control Measures Required
Structure	Walls	KISK	<u> </u>	3	K		
Structure		1					
	Trip	None					
	Fall from Height	C, V, G	L	М	L/M	2	Combat at source or protect
	Manual Handling	С	L	L	L/L	1	Combat at source or protect
	Falling Object	C, V, G	M	Н	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	С	L	L	L/L	1	Follow manufactures recommendations for insulation installation
	Fire Explosion	None					
	Electric	None					
	Environmental Pollution	None					
	Hazardous Materials	С	L	L	L/L	1	Follow manufactures recommendations for insulation installation

Notes:

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S = Service Staff (inc maintenance)

Risk Ratings: L = Low

M = MediumH = High

Priority Ratings: 1-5 Rating

1 = Low

DISCIPLINE Student Architect	
DISCIPLINE Student Alchitect	
ASSESSOR: Michael Riley SIGNED DATE 9 De	cember 2004

Activity /	Potential Hazards	Population at	R	isk Rati	ing	Priority	Control Measures Required
Element		Risk	L	S	R		
Structure	Floors						
	Trip	С	L	L	L/L	1	Combat at source or protect
	Fall from Height	С	L	L	L/L	1	Combat at source or protect
	Manual Handling	С	L	М	L/M	3	Sufficient workers for lifting heavy equipment
	Falling Object	C, V, G	L	М	L/M	3	Walls extend over pavement, additional protection should be provided at these points.
	Moving Plant	None					
	Collapse	С	L	Н	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					

Notes:

Population at Risk key: C = Construction site staff

V = Visitors

G = General Public

S = Service Staff (inc maintenance)

Risk Ratings: L = LowM = MediumH = High

Priority Ratings: 1-5 Rating 1 = Low5 = High

PROJECT:	Irish Music Rights Org	ganisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd	
DISCIPLIN	IE Student Architect							
ASSESSOR	: Michael Riley				SIGN	IED	DATE 9 December 2004	
Activity / Potential Hazards Population at		В	Risk Rating Priority			Control Measures Required		
Element	Fotential Hazards	Risk	L	S	R	Filority	Control Measures Required	
Structure	Roofs							
	Trip	С	L	М	L/M	2	Combat at source or protect	
	Fall from Height	C, V	L	Н	L/H	4	Provide man-safe system during roof construction	
	Manual Handling	С	L	L	L/L	1	Combat at source or protect	
	Falling Object	C, V, G	L	М	L/M	3	Provide protection at edge of roof	
	Moving Plant	None						
	Collapse	C, V	L	Н	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						

Notes:

Population at Risk key:

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S = Service Staff (inc maintenance)

Chemical Biological

Environmental Pollution

Hazardous Materials

Fire Explosion

Electric

None

None

None

None

None

Risk Ratings: L = Low M = Medium H = High Priority Ratings:

1-5 Rating 1 = Low

PROJECT:	Irish Music Rights Org	janisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd
DISCIPLIN	IE Student Architect						
ASSESSOR	: Michael Riley				SIGN	IED	DATE 9 December 2004
Activity / Element	Potential Hazards	Population at Risk	R	isk Rati	ing R	Priority	Control Measures Required
Structure	Windows / Screens						
	Trip	None					
	Fall from Height	C, V	М	Н	M/H	5	Combat at source or protect
	Manual Handling	С	М	М	M/M	3	Combat at source or protect
	Falling Object	C, V, G	М	Н	M/H	5	Glazing projects over street level. Provide additional protection at these points.
	Moving Plant	None					
	Collapse	C, V, G	L	Н	L/M	3	Combat at source or protect
	Noise / Vibrations	None					
	Dust Fibres	None					
	Gas Fumes / Asphyxia	None					
	Chemical Biological	None					
	Fire Explosion	None					
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Notes:

Population at Risk key:

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S = Service Staff (inc maintenance)

Electric

Environmental Pollution

Hazardous Materials

None

None

None

Risk Ratings: Priority Ratings: 1-5 Rating L = LowM = Medium

1 = LowH = High

PROJECT:	DJECT: Irish Music Rights Organisation, Dublin CCIPLINE Student Architect						Balfour Developments Ltd	
ASSESSOR					SIGN	IED	DATE 9 December 2004	
		Population at	Risk Ratir		ng	Priority	Control Measures Required	
Element		Risk	L	S	R		·	
Structure	Services							
	Trip	None						
	Fall from Height	None						
	Manual Handling	С	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	Н	L/H	5	Install services according to manufactures specifications	
	Chemical Biological	С	L	L	L/L	3	Combat at source or protect	
	Fire Explosion	C, V, G	L	Н	L/H	5	Install gas services according to manufactures spec	
	Electric	С	L	Н	L/H	5	Combat at source or protect	
	Environmental Pollution	None						
	Hazardous Materials	None						

Notes:

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G = General Public

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Risk Ratings: L = Low

M = MediumH = High

Priority Ratings:

1-5 Rating 1 = Low

PROJECT:	Irish Music Rights Organisation, Dublin					RACTOR:	Balfour Developments Ltd		
DISCIPLIN	E Student Architect								
ASSESSOR	R: Michael Riley			SIGN	ED	DATE 9 December 2004			
Activity /	Dotontial Hazarda	otential Hazards Population at Risk Ra			ng Priority				
Activity /	Potentiai nazarus	Population at	R	sk Ratii	ng	Priority	Control Measures Require	d	
•	Potentiai Hazarus	Risk	L	SK Ratii	ng R	Priority	Control Measures Require	d	
Element Structure	Finishes	•	L	SK Ratii		Priority	Control Measures Require	d 	

,, ,	1 oternar mazar as	Risk	Kisk Kating				control measures required
Element			L	S	R		
Structure	Finishes						
	Trip	C, V	L	L	L/L	1	Combat at source or protect
	Fall from Height	None					
	Manual Handling	С	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	С	L	L	L/L	1	Finishes with low chemical risks have been specified
	Fire Explosion	None					
	Electric	С	L	Н	L/H	5	Combat at source or protect
	Environmental Pollution	None					
	Hazardous Materials	None					

Notes:

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Risk Ratings: L = Low M = Medium H = High

1-5 Rating 1 = Low 5 = High

Priority Ratings:

PROJECT:		Irish Music Rights Organisation, Dublin					Balfour Developments Ltd	
DISCIPLINE Student Architect ASSESSOR: Michael Riley					SIGNED		DATE 9 December	her 2004
A33L330R. Michael Kiley					3101	ILD	DAIL 7 Decemb	<u> </u>
Activity /	Potential Hazards	Population at	Risk Rating				Control Measures Required	
Element	NA 1 1 1	Risk	L	S	R			
Structure	Materials	T						
	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	М	L/M	3	Combat at source or protect	
	Hazardous Materials	C, V, G	L	М	L/M	3	Combat at source or protect	

Notes:

Population at Risk key:

C = Construction site staff

V = Visitors

G = General Public

S = Service Staff (inc maintenance)

Risk Ratings: L = Low

M = Medium H = High Priority Ratings:

1-5 Rating 1 = Low

PROJECT:	Irish Music Rights Org	anisation, Dublin			CONTRACTOR:		Balfour Developments Ltd		
DISCIPLIN ASSESSOR						IED	DATE 9 December 2004		
Activity /	Potential Hazards	Population at	R	Risk Rating		Priority	Control Measures Required		
Element		Risk	L	S	R				
Structure	Glass Cleaning and	Maintenance							
	Trip	None							
	Fall from Height	S	L	Н	L/H	3	Man-safe / ab-sailing systems installed		
	Manual Handling	None							
	Falling Object	S	L	Н	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							

Notes:

Population at Risk key: C = Construction site staff

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Risk Ratings: L = LowM = MediumH = High

Priority Ratings: 1-5 Rating 1 = Low5 = High

PROJECT:	Irish Music Rights Org	anisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd	
DISCIPLIN							<u> </u>	
ASSESSOR:	: Michael Riley				SIGN	IED	DATE	9 December 2004
Activity / Element	Potential Hazards	Population at Risk	R	isk Rati	ing R	Priority	Control Measures Required	
Structure	Maintenance Access	S	1					
	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						
	Environmental Pollution	None						

Notes:

Population at Risk key: C = Construction site staff

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S = Service Staff (inc maintenance)

Hazardous Materials

None

Risk Ratings: L = LowM = MediumH = High

Priority Ratings: 1-5 Rating

1 = Low

Priority Ratings:

1-5 Rating

PROJECT:	Irish Music Rights Org	anisation, Dublin			CON	TRACTOR:	Balfour Developments Ltd			
DISCIPLIN	E Student Architect									
ASSESSOR	SESSOR: Michael Riley				SIGNED		DATE	9 December 2004		
Activity / Element	Potential Hazards	Population at Risk	R	isk Rati S	ing R	Priority	Control Measures Required			
Structure	Unusual Design Features				K					
	Trip	None								
	Fall from Height	G	L	Н	Н	3	Bar located 20 metres above strudesigned to reduce wall from he	Bar located 20 metres above street level. Balustrades designed to reduce wall from height		
	Manual Handling	None								
	Falling Object	G	L	Н	Н	3	Bar located 20 metres above street level. Balustrades designed to reduce objects falling off building			
	Moving Plant	None						J		
	Collapse	None								
	Noise / Vibrations	None								
	Dust Fibres	None								
	Gas Fumes / Asphyxia	None								
	Chemical Biological	None								
	Fire Explosion	None								
	Electric	None								
	Environmental Pollution	None								

Notes:

Population at Risk key:

C = Construction site staff V = Visitors

G = General Public

S = Service Staff (inc maintenance)

Hazardous Materials

None

Risk Ratings: L = Low