ARCHITECT'S DUTIES IN RELATION TO SUPERVISION OF CONSTRUCTION PROJECTS

SHARISA HUSSEIN

A master's project report submitted in fulfillment of the requirements for the award of the degree of Master of Science in Construction Contract Management.

> Faculty of Built Environment Universiti Teknologi Malaysia

> > JANUARY 2013

DEDICATION

Assc. Prof. Dr Maizon Hashim... "For your concern and patience, I would always be thankful to you."

To my dearest mother – Fatimah Mohamed Zin, brothers and sister... "Thanks for your love, patience and encouragement."

> To my friends – Nadirah Zulkhanain & classmates of CCM and colleagues... "Thanks so much for your advices, ideas and support."

To Mr. Hilmi Mat Tahir, Saifuddin Hilmi and family.. "Thank you for your help and strong support"

ACKNOWLEDGEMENTS

In the name of Allah most gracious most merciful

In preparing this research, I was in contact with many people, researchers, academicians, and practitioners. They have contributed towards my understanding and thoughts. In particular, I wish to express my sincere appreciation to my main research supervisor Assoc. Prof. Dr. Maizon Hashim, for encouragement, guidance, critics and ideas throughout the whole process of writing this research. I appreciate every single time she has spent to advice me.

I am also very thankful to all lectures in Construction Contract Management of Universiti Teknologi Malaysia, especially to Associate Professor Dr. Rosli Abdul Rashid and Mr. Jamaludin Yaakob for their guidance, advices and motivation during the process of completing the master project.

I am also indebted to librarians at Perpustakaan Sultanah Zanariah, Universiti Teknologi Malaysia (UTM) who also deserve special thanks for their assistance in supplying the relevant literatures. My fellow postgraduate students should also be recognised for their support. My sincere appreciation also extends to all my colleagues and others who have provided assistance at various occasions. Their views and tips are useful indeed. Most of all, I wish to express my deep sense of gratitude to my family, especially to my parents, brothers and sisters for their never-ending support and motivation. Thank you and God bless.

ABSTRACT

Generally, an architect in a building contract has a duty to supervise the building works to ensure that they are being carried out in conformity with the contractual specifications. Supervision is part of the work by the architect that needs close attention because the final outcome of the finished product depends on the quality of work produced by the contractor on site. The nature and scope of the duties, liabilities and responsibility of architects over supervision of construction are usually determined by the contractual terms of their appointments. The scope of architect's duty to supervise has created confusion and litigation which in part arisen out of an incomplete definition and understanding of the role of the architect. An analysis of the factors causing delay of building construction projects in Malaysia have shown that ineffective and lack of supervision by the consultants as one of the major factors. Hence, the objective of this research is to identify the extent of an architect's duties to the client for supervision of construction projects by exploring the issue of work conformance and responsibility for detecting, preventing and correcting defective work. All relevant legal court cases regarding the architect's duties in supervision will be analyzed in order to obtain the research findings. Analysis will be conducted by reviewing and clarifying all the facts and issues of the case law. The research has determined the scope of architect's duties in relation to supervision of construction projects. Architect's duty to carry out proper inspection will depend on what was being carried out on site at the time, the importance of the element work in question, and the confidence that the architect may have in the contractor's overall competence. Reasonable examination of the works did not require the architect to go into every matter in detail. The architect does not guarantee that his inspection will reveal or prevent all defective work. However, closer and more frequent supervision will be expected of work that is important or critical.

ABSTRAK

Secara umumnya, seorang arkitek dalam kontrak bangunan bertanggungjawab untuk menyelia kerja-kerja bangunan dan memastikan kerja tersebut dijalankan selaras dengan spesifikasi kontrak. Penyeliaan adalah sebahagian daripada kerja oleh arkitek yang memerlukan perhatian teliti kerana hasil akhir produk siap bergantung kepada kualiti kerja yang dihasilkan oleh kontraktor di tapak. Skop kerja, liabiliti dan tanggungjawab arkitek terhadap penyeliaan pembinaan biasanya ditentukan oleh terma kontrak pelantikan mereka. Skop tugas arkitek untuk menyelia telah mencipta kekeliruan yang timbul daripada definisi yang tidak lengkap dan kurang pemahaman tentang peranan arkitek. Analisis yang dijalankan mengenai faktor-faktor kelewatan projek pembinaan bangunan di Malaysia telah menunjukkan bahawa kekurangan pengawasan oleh perunding sebagai salah satu faktor utama. Oleh itu, objektif kajian ini adalah untuk mengenalpasti sejauh manakah tugas seorang arkitek kepada pelanggan bagi penyeliaan projek pembinaan dengan meneroka isu pematuhan kerja dan tanggungjawab untuk mengesan, mencegah dan membetulkan kecacatan kerja. Semua kes mahkamah berkaitan undang-undang mengenai tugas arkitek dalam penyeliaan akan dianalisis untuk mendapatkan dapatan kajian. Analisis akan dijalankan dengan mengkaji dan menjelaskan semua fakta dan isu undang-undang kes. Tugas arkitek untuk menjalankan pemeriksaan yang betul akan bergantung kepada apa yang sedang dijalankan di tapak sesuatu masa, kepentingan sesuatu elemen kerja, dan keyakinan arkitek terhadap kecekapan kontraktor. Pemeriksaan kerja yang munasabah tidak memerlukan seorang arkitek untuk memeriksa setiap perkara secara terperinci. Arkitek tidak menjamin bahawa pemeriksaannya akan mendedahkan atau menghalang semua kecacatan atau kerja rosak. Walau bagaimanapun, penyeliaan yang lebih terperinci dan lebih kerap adalah perlu terhadap kerja yang penting atau kritikal.

TABLE OF CONTENTS

CHAPTER

TITLE

PAGE

DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	V
ABSTRAK	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	xii
LIST OF ABBREVIATIONS	xiii
LIST OF CASES	xiv

1 INTRODUCTION

1.1	Background of the Research	1
1.2	Problem Statement	3
1.3	Objective of the Research	5
1.4	Scope of the Research	5
1.5	Research Methodology	6
1.6	Research Structure	7
1.6	Significance of the Research	8

DUTIES OF PROFESSIONAL ARCHITECT UNDER CONSTRUCTION CONTRACTS

2

3

2.1	Introduction		9	
2.2	Defini	initions and Qualification of Architect		10
2.3	A Pro	fessional's Star	ndard	11
	2.3.1	Standard of C	Care	12
	2.3.2	The Degree o	f Skill Required	15
	2.3.3	Perfection No	ot Required	17
2.4	Scope	of Duty		18
	2.4.1	Contractual I	Duties	19
		2.4.1.1	Contract of Employment	19
		2.4.1.2	Conditions of Engagement	19
		2.4.1.3	American Institute of Architects	20
			(AIA) Documents	
		2.4.1.4	The Royal Institute of British	23
			Architects (RIBA) Agreements	
	2.4.2	Statutory Dut	ies	24
2.5	Nature	e of Duty to Su	pervise	26
2.6	Liability to the Employer		29	
2.7	Summary 3		30	

ARCHITECT'S DUTIES TO SUPERVISE CONSTRUCTION PROJECTS

 3.2 Supervision 3.2.1 Nature and Meaning 3.2.2 Purposes 3.2.3 Duration 	32
3.2.2 Purposes	33
1	34
3.2.3 Duration	35
	36

	3.2.4	Dutie	s and R	Responsibility Regarding	37
		Super	rvision		
	3.2.5	Scope of Supervision Duties		38	
		a)	Duty	to Review Design	38
		b)	Duty	to Inspect	39
			i)	Inspection Requirements	40
			ii)	Timing of Observations /	40
				Site Visits	
			iii)	Scope of Inspection	41
				Limited to 'Readily	
				Observable Areas'	
		c)	To G	ive Instructions	41
		d)	Duty	to Advice and Provider	42
			Of In	formation	
3.3	Archi	tect's L	ect's Liability for Defective Works		
3.4	Preve	ntion ag	gainst I	Defect and Deficiencies	44
	3.4.1	Critic	al Leve	el of the Work	48
	3.4.2	Not a	Guara	ntor of Contractor's Work	48
	3.4.3	Meth	od of C	Construction	49
3.5	Detec	tion of	Defecti	ive Works	49
3.6	Interv	ention	to Corr	ect Any Errors	50
3.7	Deleg	Delegation of Duties 5			51
3.8	Summ	nary			53

4 ANALYSIS OF RESEARCH

4.1	Introduction	55
4.2	Duty to Advise and to Provide Full and Coordinated	56
	Information	
4.3	Architect's Duty to Review Design During	59

Construction

4.4	Duty to Inspect 6		
	4.4.1	Inspection Pattern to Detect Defective	63
		Works that is covered up between	
		The Inspections	
4.5	Detec	tion and Prevention of Defective Works	66
	(Rease	onable Examination)	
	4.5.1	Duty to Supervise Regarding Contractor's	68
		Method of Work	
	4.5.2	Approval of Contractor's Work	69
4.6	Interv	ention to Correct Any Indications of Potential	71
	Failur	e	
4.7	Archit	tect's Duty to Use Reasonable Care and	74
	Profes	ssional Skills	
4.8	Summ	nary	75

5 CONCLUSION AND RECOMMENDATION

5.1	Introd	Introduction		
5.2	Sumn	Summary of Research Findings		
	5.2.1	Prevention, Detection and Correction of	78	
		Defective Work by the Contractor		
	5.2.2	To Intervene and Give Instructions if	81	
:		The Contractor's Working Methods or		
		Temporary Works Prove Unsuccessful		
	5.2.3	Intervention to Correct Any Indications of	83	
		Potential Failure of the Permanent Design		
5.3	Concl	usion	84	
5.4	Recor	Recommendation		
	5.4.1	Level of Supervision Required	90	

5.4.2	Act with High Professional Integrity	90
5.4.3	Undertake Design Work with Adequate	91
	Competence Reasonable Skill and Care	
5.4.4	Carry out Professional Work with Faithfully	91
	and Consistently	
5.4.5	Participate in Architectural Programs, Seminar	91
	or Workshop	
5.4.6	Addressing Performance Standards in	92
	Construction Documents	
5.4.7	Risk Management	92
5.4.8	Inspection Plan	93

REFERENCES

94

LIST OF TABLES

TABLE NO.	TITLE	PAGE

Table 1	Supervision Overview 1	31
Table 2	Supervision Overview 2	54
Table 3	Supervision Relevant Cases	87

LIST OF ABBREVIATIONS

AC	Appeal Cases
All ER	All England Law Reports
AMR	All Malaysia Reports
BLR	Building Law Reports
Cal.	California Reports
Cal. App	California [CA] Appellate Reports
CLJ	Construction Law Journal
Cont. Cas. Fed.	Contract Cases, Federal
Con LR	Construction Law Reports
CLR	Commonwealth Law Reports
DCA	District Court of Appeal
Fla.	Florida Reports
HBC	Hudson's Building Contract
HL	House of Lords
LGR	Local Government Reports
MLJ	Malayan Law Journal
N.E	North Eastern Reporter
N.Y	New York [NY] Reports
PAM	Pertubuhan Arkitek Malaysia
QB, QBD	Law Reports: Queen's Bench Division
SLR	Singapore Law Reports
WLR	Weekly Law Reports
WR	Weekly Reporter

LIST OF CASES

CASES

PAGE

Aetna Insurance Company v Hellmuth, Obata & Kassabaum Inc	3, 17
Corporation (1968) 392 F.2d 472	
Alexander Corfield v David Grant (1992) 29 Con LR 58	35
Armitage v Palmer (1960) 175 EG 315	58
Badgley v Dickson (1886) 13 AR 494	12
Brickfield Properties Ltd v Newton (1971) 1 WLR 862	27, 38, 59
Brown v McBro Planning & Dev. Co. (DVI 1987)	52
Caparo Industries Pic v Dickman (1990) 2 AC 605	82
Chai Min Hin and Anor v Immediate Strategy Sdn. Bhd. & Anor	15
(2010) MLJU 147	
Chambers v Goldthorpe (1901) 1 KB 624	15, 30, 38
Choy Meng Heng @ Chai Min Hin and Anor v Immediate Strategy	9, 14
Sdn Bhd & Anor (2010) MLJU 147	
Chuang Uming (Pte) Ltd v Setron (2000) 1 SLR 166	70
Clayton v Woodman & Son (Builders) Ltd (1962) 2 QB 533	18
Comptroller of Virginia ex rel Virginia Military Institute v King (1977)	56
Consarc Design Ltd v Hutch Investments Ltd (2002) 84 Con LR 36	40, 66
Cotton v Wallis (1955) 3 All ER 373	15, 19, 33, 80
Covil v Robert & Co (Ga. 1965), Paxton v Alameda County	14
(Cal. App. 1953) 259 P.2d 934, 938,	

CASES

PAGE

Cross v Leeds Corporation (1902) Hudson Building Contracts,	15, 31, 38
4 th Edition	
Department of National Heritage v Steensen Varming Malcahy (1998)	44
60 Con LR 63	
530 East 89 Corp. v Unger (NY 1977) 373 NE.2d 276	17
East Ham Corporation v Bernard Sunley & Sons Ltd (1996) AC 406	32, 66, 76
Equitable Debenture Assets Corporation Ltd v William Moss Group Ltd	44, 68
(1984) 2 Con LR 1	
Florida Hotels Pty Ltd v Mayo (1965) 113 CLR 588	74
Gables CVF, Inc v Bahr, Vermeer & Haecker Architect Ltd (1993)	50
NW 2d 706	
George Fischer Holdings Ltd v Multi Design Consultants Ltd (1998)	75
ConL85	
Greaves v Baynham Meikle (1975) 1 WLR 1095	18
Henderson v Mernett Syndicate (1995) 2 AC 145	3
Hor Wei Kheng & Anor Tam Mui Ee v Rakyat Corp Sdn Bhd	81
& Ors (2010) MLJU 321	
Hubert v Aitken (1888)	56
Jameson v Simon (1899) 1 F (Ct. of Sess.) 1211	15, 40, 46
Keel v Titan Construction Corporation (1986) OK CIV APP 13	3
Kortz v Kimberlin (1914)	55
Lee v Bateman (1893) The Times, October 31	62
Leicester Guardians v Trollope (1911) 75 JP 197	60
Loh Chiak Eong & Anor v Lok Kok Beng & Ors (2102) MLJU 1014	10, 16, 6
London Borough of Merton v Lowe (1981) 18 BLR 130	31, 44, 68
London County Council v Cattermoles (Garages) Ltd (1953) 1 WLR 997	62
Major v Leary (1934) 241 App. Div. 606, 268 N.Y.S 413	17

CASES

PAGE

Marshall v Lindsey County Council (1935) 1 KB 516, 540 (CA)	18
McGlinn v Waltham Contractors Ltd (2007) EWHC 149 (TCC)	47, 72
Nauman v Harold K. Beecher & Assocs. (1970)	56
New Islington and Hackney Housing Association v Pollard Thomas	69
and Edwards (201) BLR 74	
R v Peto (1826) 1 Y & J 37; Kimberley v Dick (1871) 13 LR Eq 1;	2
Brodie v Cardiff Corp (1919) AC 337	
Roland A. Wilson v FortyO-Four Grand Corp (1976),	52
Westerhold v Carroll (1976), Lee County v Southern Water	
Contractors (Fla. Dist. Ct. App. 1974)	
Saunders v Broadstairs Local Board (1890) HBC	62
Sim & Associates (sued as a firm) v Alfred Tan (1994) 3 SLR 169	1,78
Skidmore, Owings and Merrill v Connecticut Gen Life Ins Co (1963)	56
Steven Phoa Cheng Loan & 72 Ors v Highland Properties Sdn Bhd	82
& 9 Ors (2000) 3 AMR 3567	
Sutcliffe v Chippendale and Edmondson (1971) 18 BLR 149	18, 46, 55, 74
Sutcliffe v Thackrah (1974) AC 727	34
University of Glasgow v William Whitfield (1989) 5 Const LJ 73	44
Victoria University of Manchester v Hugh Wilson (1984) 2 Con LR 43	39
Voli v Inglewood Shire Council (1963) 110 CLR 74	19
Walker v Wittenberg, Delony & Davidson (1996)	55
Walstrom v Hill (1970) 213 Wis. 533	39
William Tompkinson v St Miachael in the Hamlet (1990) CLJ 319	40

CHAPTER 1

INTRODUCTION

1.1 Background of the Research

The nature and scope of the duties, liabilities and responsibility of architects over supervision of construction are usually determined by the contractual terms of their appointment. The architect is employed to carry out their duties in respect of design and supervision as stated in the contract with the defined purpose.¹ He/she is engaged primarily to ensure that the works are executed effectively, economically and to discharge their responsibilities professionally.

Generally, an architect has a duty to supervise the building works in order to ensure that the works are being carried out in conformity with the contractual specifications.² In most standard forms of construction contract, the architect's primary responsibility is to supervise the construction in order to ensure that works are performed to the standard specification which the contract requires. Furthermore, an architect has to provide drawings and information which the contractor may require to

¹ David Cheah, 8th September 2012, *The Roles of the Architect, Engineer and Quantity Surveyor*, PAM CPD Lecture, Board of Architect Malaysia

² Singapore Court of Appeal's case of Sim & Associates (sued as a firm) v Alfred Tan [1994] 3 SLR 169

enable the works to be completed within reasonable time. Even in the absence of expressed provision in the contract, such a duty will be implied in law.³

The architect supervises the work at periodic times during the construction stage, but not as frequent or same purposes as the contractor. Architects must be familiar with the work and report the general progress and quality of the completed work to the owner. Furthermore, the architect should be responsible for discovering any nonconforming work and correcting defective work that is available to be seen.⁴

Client has an expectation that the architect will perform his duties under the contract in such a manner as to protect his interests and that he will perform his duties reasonably, so as to achieve the objective as contemplated by the contract.⁵ The architect will supervise the work to ensure that as far as is reasonably possible, that the quality of work is as specified in the contract. Based on PAM CPD Lecture (2012)⁶ by David Cheah about the roles of the architect, there are three (3) duties of architect to the employer during the course of supervision duties. These are:-

- i) The prevention, detection and correction of defective work
- ii) To intervene and give instructions if the contractor's working method or temporary works prove unsuccessful
- iii) Interventions to correct any indications of potential failure of the permanent design

From this nature of duty, it can be described that the responsibility in supervision are to observe and check something over a period of time in order to see how it develops, so that the architect can make any necessary changes track. It can be described as the duty to prevent, detect and correct the defective works which depends

³ *R v Peto* (1826) 1 Y & J 37; *Kimberley v Dick* (1871) 13 LR Eq 1 and *Brodie v Cardiff Corp* (1919) AC 337.

⁴ Grant A. Simpson, James B. Atkins, May/June 2006 Edition of Texas Architect, *Observations, inspections and the contractors's warranty,* Texas Society of Architects

⁵ Donald Keating (1991) Keating on Building Contracts, London Sweet & Maxwell. Pg 300

⁶ David Cheah, 8th September 2012, *The Roles of the Architect, Engineer and Quantity Surveyor*, PAM CPD Lecture, Board of Architect Malaysia

on the degree of skill of the architect.⁷ The architect must supervise the works reasonably in compliance with statutory provisions to enable him to issue certifications under the contract that the work has been satisfactorily carried out in accordance with contract drawings and specifications.

1.2 Problem Statement

The architect has a duty not to delay the project.⁸ The results based on an analysis of the factors causing delay of building construction projects in Malaysia⁹ have shown that ineffective and lack of supervision by the consultants as one of the major factors. Architect's failure to properly supervise may caused the project to delay beyond its completion date and thus causing additional expense in the performance of the contract. There might be cases where an architect have been employed and have not been able to measure up to expectations. ¹⁰ A failure to exercise reasonable skill and care by a professional consultant, be it an architect, engineer or quantity surveyor would invariably be liable for breach of contract. An architect that fails to follow contractual provision may be liable to the building owner as his agent for any additional expense or cost involved.¹¹

The collapses of the Stadium Terengganu's roof and the Jaya Supermarket's building also have drawn attention to architects and their responsibilities. In Jaya Supermarket tragedy, the Petaling Jaya City Council hastily declared that the architect in charge of the demolition is solely responsible under the local by-laws. DP Architects

⁷ Daniel Atkinson, 2007, Architect's Duty of Inspection, Atkinson Law

⁸ Keel v Titan Construction Corporation

⁹ Wa'el Alaghrabi, Mohd Razali A. Kadir, Azizah Salim and Ernawati, 2005, Significant Factors Causing Delay of Building Construction Projects in Malaysia, UPM

¹⁰ Aetna Insurance Company v Hellmuth, Obata & Kassabaum Inc Corporation (1968) 392 F.2d 472

¹¹ Henderson v Mernett Syndicate (1995) 2 AC 145

Sdn Bhd as the architect consultant and the party who submitted the planning of project has been blacklisted by the State Government.¹²

Similarly, the incident of roof collapse at Sultan Mizan Zainal Abidin Stadium back in June 2009, fingers were quickly pointed at the architect and the contractor. There has been questioned whether the architect was responsible for the supervision, testing or commissioning of the construction and whether the architect allowed a defective building to be built which would affect the safety and health of the occupants.¹³ It was found that the project architect, Ar. Dato' Kamarul Bahrin Shah was not involved in the analysis or award of the roofing works. Lembaga Arkitek Malaysia (LAM) is satisfied that he has acted professionally at all times when carrying out the scope of works for which he was appointed and there is no case to answer and any wrongdoing that may have been implied by the official Investigation Committee report.

The basic consideration and responsibility of an architect in the design of a public building is to ensure the safety and health of the building's occupants and users. In the case of a failed building, the responsibilities of the architect would have to be ascertained with regards to the design and supervision duty.¹⁴ Even though the sufficient evidence was adduced that the consultants were not required to carry out day to day supervision, it has been often asked by the architects why the legal action taken against architect whenever buildings or any other built form collapses, without inquiring their faults and circumstances leading to the collapse. It has brought embarrassment and mental agony to them. As a principal submitting person and notional leader of the building team, the architect, in the first instance and without investigation, will always be deemed to be at fault as the consultant who is responsible for the cause of the collapse.

¹² 6 Firms blacklisted in Jaya Supermarket collapse, June 5, 2009, The Star

¹³Dato' Ar. Nur Haizi Bt. Abdul Hai, December 2010, *Warta LAM*, Lembaga Arkitek Malaysia, Percetakan Skyline Sdn. Bhd.

¹⁴ Refer no.13

1.3 Objective of the Research

This study is undertaken with the objective to identify the extent of an architect's duties to the client for supervision of construction projects by exploring the duties for detecting, preventing and correcting defective work.

1.4 Research Scope

The main element in this research is regarding the scope of the duties, liabilities and responsibility of Architect over supervision during construction phase which will be discussed in detail. The scope of this research will be limited to the following areas:

- i) The research scope will only focusing on *Code of Professional Conduct* of a professional architect in *Rule 28 Part IV under Architects Rules* 1996
- *ii)* The research scope will also focus on *Standard Conditions of Engagement* of a professional architect in *Rule 29 of Part IV under Architects Rules 1996*
- iv) The research scope will focusing on the duties and services of professional architect in supervision in Rule 4, 5 and 6 Part II Architects (Scale of Minimum Fees) Rules 1986
- v) The research scope will be focusing on the architect's responsibility in supervision. It will be based on relevant statutes, common law, and regulations of administrative agencies which governed the legal obligations and responsibilities owed to the client.

vi) The research will also look at duties and services of supervision under AIA and RIBA agreements that are relevant to the analysis of case law.

1.5 Research Methodology

In this research, literature review will be the primary methods that will be used to complete this study. Sources for literature review will be collected from books, newspaper article, journals and magazines. These sources provide a lot of data that can help to get a clear view on the background of the study and understanding the issues. Literature review regarding to the architect's duties in supervision will be collected to get a clear view about the topic.

The next stage will be analyzing the data collection. All the collected cases, information, ideas, data and opinions will be analyzed in order to obtain the research findings of the case studies on the related legal court cases. The analysis will be conducted by reviewing and clarifying all the facts and issues of the case law. It includes the circumstances that architect might be liable in performing their supervision duties and the review on judge's decision at the point of law regarding to this issue.

The final stage of the research process will be the writing up of the collected data and to summaries the research findings as well as conclusion. The whole process of the research will be reviewed in order to achieve the research objectives. Conclusion and recommendations will be made based on these findings during the stage of case analysis.

1.6 Research Structure

This research consists of five (5) chapters. Based on the research methodology, the following are the brief descriptions of each chapter:

Chapter 1: Introduction

This chapter presents the overall content on the research. It introduces the background of the research, problem statement, objective, scope, significance of the research and method to achieve the objective.

Chapter 2: Duties of Professional Architect under Construction Contracts

This chapter concentrates on the duties, responsibility and liability of Professional Architect to the client which will be based on the agreement of architectural professional services.

Chapter 3: Architect's Duties to Supervise Construction Projects

This chapter will focus about the responsibility of an architect regarding to supervision of construction projects in order to ensure that the understanding of the issue is achieved.

Chapter 4: Analysis of Research

This chapter analyses the results from the judicial decisions as reported in law reports which are related to the research issue on architect's duties in supervision of construction projects. Selected cases will be discussed and analyzed in detail.

Chapter 5: Conclusion and Recommendation

Conclusion on the research based on all the discussion and analysis of both International and Malaysian cases in the previous chapter will be presents in this chapter. Recommendation will be given to give information and gain awareness among the professionals.

1.7 Significance of the Research

In order to ensure the works are carried out to an acceptable level of quality, the supervision duty is very important. Supervision is part of the work by the contractor that needs close attention and supervision because the final outcome of the finished product depends on the quality of work produced by the contractor on site. Hence, it is expected that the works will be supervised by the architects to ensure that there is no compromise in design and actual construction work. It is the responsibility of the architect to carry out periodic, if not regular, inspection on site to ensure that the quality of work done by the contractor is up to par. Inadequate supervision is believed to be one of the major causes of delay in construction projects and will be consequential in the future.¹⁵

Thus, this research is important to gain awareness among the architects and the owners in what manner and under which circumstances an architect should be held responsible for the negligent act. The quality of supervision has a major influence on the overall performance and efficiency of construction project. Nevertheless, if the issues and problems as stated in this paper can be taken into consideration by the related agent, then the construction industry may have an opportunity to take effective measures to overcome the problems faced in getting the right quality of work done at all levels.

¹⁵ Wa'el Alaghrabi, Mohd Razali A. Kadir, Azizah Salim and Ernawati, 2005, *Significant Factors Causing Delay of Building Construction Projects in Malaysia*, UPM

REFERENCES

- Abdul Aziz Hussin (2009) Roles of Professionals in Construction Industry, Universiti Sains Malaysia
- Abdul Hai, Dato' Ar. Nur Haizi, December (2010) *Warta LAM*, Lembaga Arkitek Malaysia, Percetakan Skyline Sdn. Bhd.
- AIA (2008) The Architect's Handbook of Professional Practice, 14th Edition, John Wiley & Sons
- AIA A201, Article 4 (2007 ed.)
- Architects Act 1967
- Armes, Murray (2010) An Inspector Calls: Architect's Site Visits, Probyn Miers Ltd
- Atkinson, Daniel (2007) Architect's Duty of Inspection, Atkinson Law
- Atkins, James B. & Simpson, Grant A. (2006) *Managing Project Risk: Best Practices* for Architects and Related Professionals, Wiley & Sons

Barrett, Kevin (2008) Defective Construction Work, Blackwell Publishing

Board of Architects Malaysia (www.lam.gov.my)

Chung, John (2004) Architects' Duties, Kelvin Chia Partnership

Cornes, D.L (1985) Design Liability in the Construction Industry, Collins

- David Cheah, 8th September 2012, *The Roles of the Architect, Engineer and Quantity Surveyor*, PAM CPD Lecture, Board of Architect Malaysia
- Lee, Byrum C.,1999, 2003 & 2005 Supplements, Architect/Engineer Liability, Lee Associates
- Grant A. Simpson, James B. Atkins, May/June 2006 Edition of Texas Architect, Observations, inspections and the contractors's warranty, Texas Society of Architects
- Helena O'Connor, Architectural Services During Construction: Duties and Liability, Vol. 04.01 2012, Perkins & Will
- Keating, Donald (1991) Keating on Building Contracts, London Sweet & Maxwell
- Standard Conditions of Engagement of a professional architect in Rule 29 of Part IV under Architects Rules 1996
- The American Institute of Architects, (2008). *The Architect's Handbook of Professional Practice*, Hoboken, NJ: John Wiley&Sons, pp 39.
- The Entrusty Group (2007) *What are the Obligations of the Contractor During Defect Liability Period*, Master Builders

Uniform Building By-Laws 1984

- Wa'el Alaghrabi, Mohd Razali A. Kadir, Azizah Salim and Ernawati, 2005, Significant Factors Causing Delay of Building Construction Projects in Malaysia, UPM
- Wallace, I.N. Duncan (1970) Hudson's Building and Engineering Contracts 10th Edition, Sweet & Maxwell

6 Firms blacklisted in Jaya Supermarket collapse, June 5, 2009, The Star