

PROGRAMME IN BUILDING SURVEYING

DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND TECHNOLOGY

FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING

UNIVERSITI TEKNOLOGI MARA

PERAK BRANCH

SERI ISKANDAR CAMPUS

BUILDING INSPECTION FOR DEFECT LIABILITY PERIOD AT SETIA ECO GLADES CYBERJAYA

NURUL NAJAH BINTI NASRUL

(2019631068)

BACHELOR OF BUILDING SURVEYING (HONS.)

PRACTICAL TRAINING REPORT

FEBRUARY 2022

PROGRAMME IN BUILDING SURVEYING

DEPARTMENT OF BUILT ENVIRONMENT STUDIES AND TECHNOLOGY

FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING

UNIVERSITI TEKNOLOGI MARA

PERAK BRANCH

SERI ISKANDAR CAMPUS

(BUILDING INSPECTION FOR DEFECT LIABILITY PERIOD AT SETIA ECO GLADES CYBERJAYA)

FEBRUARY 2022

This practical training report is fulfilment of the practical training course.

| PREPARED BY | |
|-------------|--|
| | |

NAME:NURUL NAJAH BINTI NASRULSIGNATURE:

SUPERVISING LECTURER

| NAME | : | TS SR HASNAN BIN HASHIM |
|-----------|---|-------------------------|
| SIGNATURE | : | |
| DATE | : | |

ACKNOWLEDGEMENT

Alhamdulillah, first of all I want to thanks to Allah because finally I'm able to finish my practical training at AMAS FM consultant Sdn Bhd. This task has finished however, it would not have been possible without afford also support and help of many individuals.

I'm using this opportunity to express my gratitude to people who help me to finish this assignment. I had to take the help and guideline of some respected persons, who deserves my greatest gratitude. The completion of this assignment make me feel be grateful.

Firstly, I would like to extend my gratitude to my parents as they always support and help me to complete this assignment by helping giving information and also giving moral support to me. Without their help, I won't be able finish this assignment without all the information.

Finally, I also want to thanks to all my office mates in giving information and guiding me to produce the good assignment. Million thanks also to people who had help me direct or indirectly.

TITLE PAGE ACKNOWWLEDGEMENT i **TABLE OF CONTENT** ii LIST OF TABLE iii LIST OF FIGURE iii **CHAPTER ONE: INTRODUCTION** 1.1 Introduction of company background 1 1.2 Vision and mission 3 3 1.3 Objectives 1.4 Training duration 3 1.5 Scope of work 4 1.6 Organization chart 5 1.7 Company previous project 6 **CHAPTER 2: LITERATURE REVIEW** 2.1 Building inspection 7 2.2 Introduction to defect liability period 7 2.3 Process of complaint on the defect 10 2.4 Method of assessment 11

TABLE OF CONTENT

2.3 Process of complaint on the defect102.4 Method of assessment112.5 The different of checklist172.6 Tools192.7 Conclusion22

CHAPTER 3: THE PROJECT

| 23 |
|----|
| 24 |
| 25 |
| 26 |
| 28 |
| 51 |
| |

CHAPTER 4: PROBLEM IDENTIFY

| 4.1 Issues on defect liability period | | |
|---|----|--|
| | | |
| CHAPTER 5: CONCLUSION AND RECOMMENDATIONS | 53 | |

55

REFERENCE

LIST OF TABLE

| LIST OF TABLE | PAGE |
|--|------|
| Table 1.1: Company background | 2 |
| Table 1.2: Scope of work of AMAS | 4 |
| Table 2.1: Defect assessment of element | 11 |
| Table 2.2: List of tool | 19 |
| Table 3.1: Background of case study | 23 |
| Table 3.2: list of inventory data for elements | 26 |
| Table 3.3: list of inventory data for services | 27 |
| Table 3.4: List of defect sheet of ground floor | 30 |
| Table 3.5: List of defect sheet of first floor | 38 |
| Table 3.6: List of electrical, sanitary and plumbing testing | 48 |

LIST OF FIGURE

| LIST OF FIGURE | PAGE |
|--|------|
| Figure 1.1: Company Logo | 1 |
| Figure 1.2: Location of company | 2 |
| Figure 1.3: Location plan of company | 2 |
| Figure 1.4: AMAS's organization chart | 5 |
| Figure 2.1: Process of complaint on the defect | 10 |
| Figure 2.2: Checklist of defect | 17 |
| Figure 2.3: Checklist of defect | 18 |
| Figure 2.4: Camera | 19 |
| Figure 2.5: Tape | 19 |
| Figure 2.6: Tapping rod | 19 |
| Figure 2.7: Measuring tape | 20 |

| Figure 2.8: L-Square | 20 |
|---|----|
| Figure 2.9: Laser Distance | 20 |
| Figure 2.10: Steel wedge | 20 |
| Figure 2.11: Angle Mirror | 21 |
| Figure 2.12: Spirit Level | 21 |
| Figure 3.1: The view of case study | 23 |
| Figure 3.2: Front view | 24 |
| Figure 3.3: Left view | 24 |
| Figure 3.4: Rear view | 24 |
| Figure 3.5: Pie chart of type of defect | 29 |
| Figure 3.6: close view | 30 |
| Figure 3.7: close view | 30 |
| Figure 3.8: close view | 30 |
| Figure 3.9: close view | 31 |
| Figure 3.10: close view | 31 |
| Figure 3.11: close view | 31 |
| Figure 3.12: close view | 32 |
| Figure 3.13: close view | 32 |
| Figure 3.14: close view | 32 |
| Figure 3.15: close view | 33 |
| Figure 3.16: close view | 33 |
| Figure 3.17: close view | 33 |
| Figure 3.18: close view | 34 |
| Figure 3.19: close view | 34 |
| Figure 3.20: close view | 34 |
| Figure 3.21: close view | 35 |
| Figure 3.22: close view | 35 |
| Figure 3.23: close view | 35 |
| Figure 3.24: close view | 36 |
| Figure 3.25: close view | 36 |
| Figure 3.26: close view | 36 |
| Figure 3.27: close view | 37 |
| Figure 3.28: close view | 37 |
| Figure 3.29: close view | 37 |

| Figure 3.30: close view | 38 |
|--|----|
| Figure 3.31: close view | 38 |
| Figure 3.32: close view | 38 |
| Figure 3.33: close view | 39 |
| Figure 3.34: close view | 39 |
| Figure 3.35: close view | 39 |
| Figure 3.36: close view | 40 |
| Figure 3.37: close view | 40 |
| Figure 3.38: close view | 40 |
| Figure 3.39: close view | 41 |
| Figure 3.40: close view | 41 |
| Figure 3.41: close view | 41 |
| Figure 3.42: close view | 42 |
| Figure 3.43: close view | 42 |
| Figure 3.44: close view | 42 |
| Figure 3.45 (a), (b) (c), (d), (e), (f): Socket testing | 46 |
| Figure 3.46 (a), (b) (c), (d), (e), (f): Sanitary and plumbing testing | 47 |

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION OF COMPANY BACKGROUND



Figure 1.1: Company Logo

AMAS FM CONSULTANT SDN BHD is a company that provide consultancy service for building management work related such as building operation and space management audit, asset inventory, building hand-over and building condition assessment where the company is registered with Ministry of Finance under Building Surveying Section. It was first establish on 9th August 2012 by Sr. Ts. Dr. Abdul Mutalib Aman Shah which is the founder and the director of the company. The company is located at Sungai Udang, Klang, Selangor and has been operated for 10 years until now where the objectives of the company is 'to share our vast knowledge and experience in Physical Asset Management in Malaysia'.



Figure 1.2: Location of company

Table 1.1: Company background

| TITTLE | DESCRIPTION |
|---------------|---|
| COMPANY NAME | AMAS FM CONSULTANT SDN BHD |
| ADDRESS | No.55-A Jalan Udang Kara 31, Off Jalan Hassan, |
| | Sungai Udang, 41250 Klang Selangor |
| YEAR OF | 9 August 2012 |
| ESTABLISH | |
| DIRECTOR OF | Sr. Ts. Dr. Abdul Mutalib Aman Shah |
| COMPANY | |
| CONTACT | 019-2822820 (Sr. Ts. Dr. Abdul Mutalib Aman Shah) |
| EMAIL ADDRESS | amasfm@gmail.com |
| WEBSITE | www.amasfm.my |
| WORKING HOURS | 8.30 A.M – 5.30 P.M (Monday – Friday) |
| | 8.30 A.M – 1.00 P.M (Saturday) |
| LOCATION | AMAS FM CONSULTANT SDN BHD Figure 1.3: Location plan of company |

1.2 VISION AND MISSION

- A. VISION
 - To be a premier Professional Bumiputra Asset Management Consultancy in-line with our customer and national Vision
- **B. MISSION**
 - To upgrade the Facilities Management and Optimizing Asset utilisation in a professional manners adopting industry's best practice, thus giving added value to our customer

1.3 OBJECTIVES

To share our vast knowledge and experience in Physical Asset Management in Malaysia

1.4 TRAINING DURATION

The duration of practical training is starting from *11 October 2021* until *30 January 2022* which is 4 months.

1.5 SCOPE OF WORK

AMAS is a company that provides various services in the field of facilities management. During the practical training, student was given task to focusing and involved on several scopes of work based on project which is 3D scanning project, dilapidation work, building condition assessment and space inventory. Table below is shown the scope of work that providing at AMAS FM CONSULTANT SDN BHD:

| Table 1.2: | Scope | of work | of AMAS |
|------------|-------|---------|---------|
|------------|-------|---------|---------|

| ASSET | Asset register | |
|----------------|--|--|
| MANAGEMENT | Asset condition assessment | |
| FACILITY | Operation and maintenance planning | |
| MANAGEMENT | O & M costing | |
| PROJECT | Refurbishment works | |
| MANAGEMENT | | |
| SPACE | Inventory | |
| MANAGEMENT | Space audit | |
| BUILDING | Building inspection | |
| SURVEYING & | Building condition survey & building audit | |
| BUILDING AUDIT | Defect listing | |
| | Building dilapidation schedule | |
| | Hand-over building | |
| | • Subject Matter Expert (SME) for Building | |
| | Condition Assessment (BCA) | |
| FM TRAINING | Audit space | |
| | Management space | |
| | Asset register | |
| | Inventory/ asset listing | |
| | Assessment/ inspection of building | |
| | conditions | |

1.6 ORGANIZATION CHART



Figure 1.4: AMAS's organization chart

1.7 COMPANY PREVIOUS PROJECT

- Periodic Building Inspection at Summit Subang USJ 2021
- Building Inspection for defect Liability Period at Setia Eco Glades Cyberjaya 2021
- Building Condition Assessments at Institut Tadbiran Awam Negara Wilayah Timur (INTIM) 2020
- Building Condition Assessment at Archaelogy Museum Lembah Bujang 2020
- Dilapidation Survey Report at Kampong Bharu, Kuala Lumpur 2020

CHAPTER 2: LITERATURE REVIEW

2.1 BUILDING INSPECTION

A building inspection is necessary for all new projects and remodels. The objective of a building is to ensure that it complies with the accepted codes' minimal safety criteria. The importance of a building inspection for property buyers cannot be overstated. Every home purchase must be followed by a building inspection. This is because a building inspection is the most reliable way to assess if a home is worth buying or not. The owner may wind up spending money on their building if they do not have an inspection. There are various reasons why a home buyer should conduct a building inspection, including the following: (Five Reasons Why Building Inspections Are Essential For Home Buyers, 2020):

- To determine the actual value of a home
- To identify structural faults in a building
- To properly budget for repairs
- To carry out speedy repairs and avoid costly damage
- To determine the true value of a home

2.2 DEFECT LIABILITY PERIOD

The defect liability period (DLP) is defined as the period of time from the date owner of property receive delivery of vacant possession and keys to their property, where the developer is responsible to fix any defect. DLP works on the same principle as a warranty, in that every owner should inspect their new property so that the developer may correct any issues. The new owner should be aware, however, that not all new projects include a DLP. DLP only protects homes and developments with a Residential title, according to the Housing Development Act (HDA). The HDA is also known as The Housing Developers (Control and Licensing) Act 1966 (Act 118, until the Amendment Bill became law and it was rename to Housing Development Act where it meant to regulate and licence the housing development industry in Peninsular Malaysia. The act is executed with three key goals in mind (Understanding Housing Development Act Malaysia (HDA) And Defect Liability, 2021):

- To check on the abuse of the then infant housing industry.
- To regulate the activities of the housing developers.
- To protect house buyers (only up to certain point.

Aside from the legislation, the Malaysian Construction Industry Development Board (CIDB) has created the Quality Assessment System in Construction (QLASSIC) to measure and assess the quality of a construction job in accordance with the relevant standard requirements. (Norfarahayu Kriya, 2016). The CIDB has established quality requirements for quality developers to give to buyers, ensuring that the new property meets the quality standards it should. The quality is assessed according to the requirement of standard i.e Construction Industry Standard (CIS 7:2006). Therefore, the objectives of QLASSIC are:

- To benchmark the quality of workmanship of the construction industry.
- To establish a standard quality assessment system on quality of workmanship of construction work.
- To assess the quality of workmanship of a construction project based on the relevant approved standard.
- To be used as a criterion to evaluate the performance of contractors based on quality of workmanship.
- To compile data for statistical analysis.

DLP is valid for only 24 months which mean 2 years, starting the day of owner receive the key from the developer. During this time, the client can report any defects discovered or appoint a building inspector or building surveyor to inspect their property for any damage, defects, poor or faulty workmanship and prepare a detailed report for the developer or contractor to review. Defect also referred to any defect, shrinkage, or other fault due to defective workmanship or material. Properties that are not constructed according to the plans or standard specification are also considered as defect. Based on the clause 27(1) of SPA: Any defect, shrinkage or other faults in the said Building which becomes apparent within twenty-four (24) months after the date the Purchaser takes vacant possession of the said Property and which are due to defective workmanship or materials or; the said Building not having been constructed in accordance with the plans and descriptions as specified in the Second and Fourth Schedules as approved or amended by the Appropriate Authority, shall be repaired and made good by the Developer at it own cost and expense within thirty (30) days of the Developer having received written notice thereof from the purchaser.

It's necessary to keep in mind that the defects liability period isn't a chance to fix problems that surface after practical completion; rather, it's a time frame during which the contractor can be summoned back to fix any flaws that surface. If any defects are discovered prior to practical completion, they must be corrected before a certificate of practical completion can be granted (Defects liability period DLP, 2021).

2.3 PROCESS OF COMPLAINT ON THE DEFECT

The developer or management office must receive a written notice/complaint from the owner. The developer is required to correct the flaws within thirty (30) days of receiving the written notice. If the developer does not take action, the owner can carry out the repairs by hiring his contractor, requesting a quotation on the cost of the repair, and notifying the developer of the repairing cost before the work begins, giving the developer the opportunity to do the work. (Teoh, 2021)



Figure 2.1: Process of complaint on the defect

2.4 METHOD OF ASSESSMENT

Before the inspection, each owner should gain a better understanding of the assessment method. An effective way to evaluate interior finishes is to use the 6+1 method. For the purposes of assessing Interior Architectural Work, there are normally six interior finishes in any functional room: floors, walls, ceilings, doors, windows, and fixtures. The owner should also assess basic M&E (mechanical and electrical) equipment in addition to these six functional room interior finishes.

However, the material, design, and aesthetics of residential property are not included in the assessment of defects. It's also crucial to have a better understanding of the assessment procedure and the criteria for evaluating interior finishes. To perform evaluations, the owner can generally use and refer to the quality standards listed. Below is the checklist of defect assessment that has been prepared by CIDB in the QLASSIC guidance book to help to owner understood of the assessment.

| NO | ELEMENT | DEFECT ASSESSMENT |
|----|---------|---|
| 1 | FLOOR | FINISHING |
| | | No trace of dirt on the floor finishes. |
| | | Consistent colour tone. |
| | | No excessive patches on the floor finish. |
| | | ALIGNMENT AND EVENNESS |
| | | • Floor surface must have the same level or not |
| | | exceeding 3mm per 1.20m |
| | | • The gradient in the wet area should be in the |
| | | right direction |
| | | • Variations in the length measurements of |
| | | treads and risers must not exceed 5mm from a |
| | | certain measurement |
| | | • The surface of the carpet should be stretched |
| | | neatly and evenly, and there is no obvious |
| | | effect of the connection |
| | | |

Table 2.1: Defect assessment of element

| | | CRAC | KS AND DAMAGES | | |
|---|------|---|---|--|--|
| | | ٠ | No significant damage to the floor (flaking, | | |
| | | | broken tiles, cracked tiles and the like) | | |
| | | HOLL | OWNESS & DELAMINATION | | |
| | | • | No hollow sound when tapped with hard | | |
| | | | objects/tapping rods | | |
| | | • | • No dents (cracked or peeled carpets and/or | | |
| | | | tiles) | | |
| | | JOINTING | | | |
| | | • | The connection between the floor finishes | | |
| | | | should be consistent, neat and aligned | | |
| | | • | The thickness of the skirting should be | | |
| | | | consistent and no significant space between | | |
| | | | each other | | |
| | | • No holes, more or less paving and dirt on the | | | |
| | | joints | | | |
| | | • There is no significant gap between the | | | |
| | | | wooden strips | | |
| | | • | The surface of the carpet must be stretched | | |
| | | neatly and evenly and no noticeable | | | |
| | | | connections visible | | |
| | | • | The height (lippage) between 2 tiles must not | | |
| | | | exceed 1mm | | |
| 2 | WALL | FINIS | HING | | |
| | | • | No traces of dirt, color tone should be | | |
| | | | consistent | | |
| | | • | The result of painting work is a good level of | | |
| | | | opacity, without brush trace | | |
| | | ALIGN | MENT AND EVENNESS | | |
| | | • | The ceiling surface should be smooth, even, | | |
| | | • | • The ceiling surface should be smooth, even, | | |
| | | | not corrugated and not sagging | | |
| | | • | not corrugated and not sagging The edges of the ceiling should be straight and even | | |

| | | CRAC | KS AND DAMAGES | | | | |
|---|------|------------------|--|--|--|--|--|
| | | • | No significant damage/defects such as flaking, | | | | |
| | | | peeling, melting marks, cracks and the like | | | | |
| | | • | Ceiling tees are not dent or distorted | | | | |
| | | HOLL | OWNESS & DELAMINATION | | | | |
| | | • | The surface should be smooth without chipping | | | | |
| | | due to finishing | | | | | |
| | | JOINTING | | | | | |
| | | • | Connections should be consistent, even and neat | | | | |
| | | • | The connection around the ceiling manhole | | | | |
| | | | should be neat and consistent | | | | |
| | | • | The gap between the ceiling and the wall | | | | |
| | | | should be consistent and insignificant | | | | |
| 3 | DOOR | JOINT | S & GAPS | | | | |
| | | • | There is no significant gap between the door | | | | |
| | | | and the wall | | | | |
| | | • | The gap is consistent between the door leaf | | | | |
| | | | and the frame, and the gap should not exceed | | | | |
| | | | 5mm | | | | |
| | | • | Consistent and insignificant gaps for joints on | | | | |
| | | | door leaves and frames | | | | |
| | | ALIGN | MENT AND EVENNESS | | | | |
| | | • | Align and even with the wall | | | | |
| | | • | The doors should be level with each other and | | | | |
| | | | with the door frame | | | | |
| | | • | The door leaf and frame corners should be | | | | |
| | | | kept at right angles | | | | |
| | | • | No vibrating sound when the door is closed | | | | |
| | | MATE | RIALS & DAMAGES | | | | |
| | | • | No traces of dirt and any significant damage | | | | |
| | | | including paint leaks, brush traces and the like | | | | |
| | | • | No sagging, warping and no rust marks on | | | | |
| | | | door leaves and frames | | | | |

| | | • | The door joints and nail holes are neatly | |
|---|--------|---|--|--|
| | | | plastered, sanded and painted neatly | |
| | | • | Neat paint (including top and bottom of door | |
| | | | leaf) | |
| | | • | Clean gilded and evenly sealed with gaskets | |
| | | Consistent colour tone | | |
| | | FUNCTIONALITY | | |
| | | Easy to open, close and lock | | |
| | | No creaking sound when opening and clos | | |
| | | the door | | |
| | | • | The key set should work | |
| | | ACCE | SSORIES DEFECTS | |
| | | • | Fit fitting accessories are installed and no dirt | |
| | | • | No signs of rust or missing or damaged | |
| | | | accessories | |
| | | Screw evenly and snapped. The screws a | | |
| | | installed correctly | | |
| | | • | For wooden frames, no additional wooden | |
| | | | strips were detected for site adjustment | |
| | | | S & GAPS | |
| 4 | WINDOW | | | |
| 4 | WINDOW | • | There is no significant gap between the window | |
| 4 | WINDOW | • | There is no significant gap between the window frame and the wall | |
| 4 | WINDOW | • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior | |
| 4 | WINDOW | • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls | |
| 4 | WINDOW | • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no | |
| 4 | WINDOW | • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the | |
| 4 | WINDOW | • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame | |
| 4 | WINDOW | ALIGN | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame | |
| 4 | WINDOW | ALIGN | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame IMENT AND EVENNESS Align and even with the wall openings | |
| 4 | WINDOW | ALIGN | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame IMENT AND EVENNESS Align and even with the wall openings Window leaves and frame corners are mounted | |
| 4 | WINDOW | ALIGN | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame IMENT AND EVENNESS Align and even with the wall openings Window leaves and frame corners are mounted at right angles | |
| 4 | WINDOW | ALIGN • • • • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame IMENT AND EVENNESS Align and even with the wall openings Window leaves and frame corners are mounted at right angles RIALS & DAMAGES | |
| 4 | WINDOW | ALIGN • • • • • | There is no significant gap between the window frame and the wall Neat joints between window frames and interior and exterior walls The gaps are consistent and there are no significant gaps at the joints between the window leaf and the frame IMENT AND EVENNESS Align and even with the wall openings Window leaves and frame corners are mounted at right angles RIALS & DAMAGES No traces of dirt and significant | |

| | | The right length of glass -paneled windows | | |
|---|----------|--|--|--|
| | | Good paint/coating with no finishing stains | | |
| | | No rust marks | | |
| | | • Clean gilded and sealed evenly with putty or | | |
| | | with gaskets for aluminium windows | | |
| | | FUNCTIONALITY | | |
| | | Easy to open, close and lock | | |
| | | • No creaking sound when closing and opening | | |
| | | windows | | |
| | | No sign of rainwater dripping | | |
| | | ACCESSORIES DEFECTS | | |
| | | Accessories fit snugly, no traces of dirt | | |
| | | • No traces of rust or missing or defective | | |
| | | accessories | | |
| | | Screw evenly and evenly. The screws are | | |
| | | installed correctly | | |
| 5 | FIXTURES | JOINTS & GAPS | | |
| | | | | |
| | | Neat and consistent joints around the fixture | | |
| | | Neat and consistent joints around the fixtureWelding joints should be even | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY Must be installed tightly, functionally and | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY Must be installed tightly, functionally and securely | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY Must be installed tightly, functionally and securely ACCESSORIES DEFECTS | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY Must be installed tightly, functionally and securely ACCESSORIES DEFECTS The accessories fit snugly, no dirt and no | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY Must be installed tightly, functionally and securely ACCESSORIES DEFECTS The accessories fit snugly, no dirt and no noticeable defects | | |
| | | Neat and consistent joints around the fixture Welding joints should be even ALIGNMENT AND EVENNESS Even and parallel MATERIALS & DAMAGES No signs of dirt and significant damage/defects on the fixture Colours should be consistent and even FUNCTIONALITY Must be installed tightly, functionally and securely ACCESSORIES DEFECTS The accessories fit snugly, no dirt and no noticeable defects No signs of rust or missing or defective | | |

| 6 | MECHANICA | JOINTS & GAPS | | | | |
|---|-----------|---|--|--|--|--|
| | L AND | Neat and consistent joints around M&E | | | | |
| | ELECTRICA | equipment | | | | |
| | L (M&E) | There are no significant gaps | | | | |
| | | The joints are neatly sealed and marked | | | | |
| | | ALIGNMENT AND EVENNESS | | | | |
| | | Align, even and straight | | | | |
| | | MATERIALS & DAMAGES | | | | |
| | | No traces of dirt and significant | | | | |
| | | damage/defects were detected on the | | | | |
| | | equipment | | | | |
| | | Colours should be consistent and even | | | | |
| | | No significant flakes or cracks or paint stains or | | | | |
| | | mortar drips | | | | |
| | | FUNCTIONALITY | | | | |
| | | • Must be installed tightly, functionally and | | | | |
| | | securely | | | | |
| | | No leaks at the joints | | | | |
| | | ACCESSORIES DEFECTS | | | | |
| | | • The accessories fit perfectly, no dirt and no | | | | |
| | | significant damage | | | | |
| | | No sign of missing or defective accessories | | | | |

2.5 THE DIFFERENT OF CHECKLIST

There are several different parties that can be involved in doing home inspection work either the homeowner or the developer. The owner can also perform the inspection work on their own by referring to the QLASSIC handbook issued by CIDB or using the checklist provided by the developer. However, not every defect checklist provided by the developer or contractor is the same because there's no fixed format in this matter and it depends on each developer. The examples below are the checklist issued by different developers.

| OF PROPERTY : TYPE : C | NAME CONTACT NO |
|--|--|
| | INSPECTED DATE |
| INSPECTION LIST | |
| Entrance/Foyer Door frome woode dent Door frome dent Door bell botton crooked | 4 Paint around doorforme 5 Not pained properly around doorfor |
| Wing/Dining 5 Sunken switch 7 Scatchus of stiding day frome 8 Gapt around stiding day frome | 1 Geps orand stiding dar frame 25 uneven switch plates 26 " |
| Terrace/Balcony To Scratchus on sliding door | 11 White patch on tiles 12 White patcheson files |
| Courtyard/Lanai | |
| Dry Kitchen/Kitchenette 12 Paint on frame 14 Inconducte growting 16 Sealant gaps under between sind Wet Kitchen/Yard 20 Scratch counter 21 Paint 221 Pa | 13 Paint on door glass 15 the alue choice inside drawer 17 Scelant gaps 18 Paint [19] Paint above and doore [23] scretches |
| 24 Dirty Store/DB Room | |
| | |

Figure 2.2: Checklist of defect

| Address: | | | | Date: | | | |
|---|-------------------------------------|----------------------------------|---|--|-----------------------------|-----------|----------|
| Note : This checklist is for perso comprehensive . Contact a qual M - missing, S - scratched, E | naluseon ifed ASHI) - damage | ly. Itshi certified ed, B- | build not be i home inspe broken, R | used in place of an official home inspe ictor for an official inspection. - repair/replace, W - Water Damage | ection. This , L - Leaki | list may | y not be |
| Exterior | Good | сĸ | Bad | Roof | Good | ак | Rad |
| Back Doors | 0000 | un | Lau | Chimney | 0000 | un | Dau |
| Deck porch natio | | | | Gutters and downshouts | | | |
| Doothell | | | | Soffits and fascia | | | |
| Drhewar | | | | When was it last replace d? Are th | tere e nom ac | hingting | 57 |
| Front Doors | | | \vdash | Notes: | | | |
| Garage Doors | | | \vdash | | | | |
| Garbage receptade | | | ┼──┤ | | | | |
| House number | | | | | | | |
| Maibox | | | | | | | |
| Outdoor lights | | | | Garage | Good | ак | Bad |
| Paint and trim | | | | Ceiling | | | |
| Parking | | | | Doors | | | |
| Recycling receptade | | | | Floors | | | |
| Sidewalks | | | | Lights | | | |
| Siding (brick/stone/cement) | | | | Storage | | | |
| Traffic noise | | | | Walls | | | |
| Windows | | | | Windows | | | |
| Are things bose, cracked, damag | ed, rotted, b | ug Infesi | ted? | Is the garage dooropeneroperat | ing properly? | 1 | |
| Notes: | | | | Notes: | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| V | Cond | OV. | Ded | - Circulator | Cond | CV. | Deal |
| Drainane | 0000 | un | Dau | Biockares | 0000 | un | Dad |
| Fences and rates | | | + | Dittorages Carbon Monovide Detector | $\left \right $ | | <u> </u> |
| Retaining wall | | | + | Mantie | $\left \right $ | | |
| Shad | | | ┼──┤ | Soot | $\left \right $ | | <u> </u> |
| Sprinklers | | | + | Tiles | \vdash | | |
| Swimming nool | $\left - \right $ | | ├ | Any huidun inside? Compositive | ine comenter | t to roof | 7 |
| Tipes, shrubs and lawn dead, dwi | haar buala | feste d? | | Net or 100 period contraction of the second se | are connected | 0.001001 | |
| Votes: | | | | 14ACD. | | | |
| esercit. | | | | | | | |

Figure 2.3: Checklist of defect

2.6 TOOLS

Tools are also an important part in inspection where the right tools are necessary for conducting inspection of a home and to perform inspection safely. There are many types of tools that can be used by inspector to offer an inspection of enhanced value.

| NO | TOOLS | DESCRIPTION |
|----|---|---|
| 1 | CAMERA Figure 2.4: Camera | To capture the defects as to record the data for report purpose and reference for contractor |
| 2 | TAPE <i>Figure 2.5: Tape</i> | To mark the defect. Most common used to mark the depth of crack. |
| 3 | TAPPING ROD Image: state states | To check for hollow floor tiles by knock lightly against the tiles. |

Table 2.2: List of tool

| 4 | MEASURING TAPE | To measure the distance. |
|---|----------------------------|---|
| | Figure 2.7: Measuring tape | |
| 5 | L-SQUARE | To measure the accurate 90° |
| | | angles. Mostly used on between wall and floor or stairs |
| | Figure 2.8: L-Square | |
| 6 | LASER DISTANCE | Quick measure distance to a |
| | | target unit the unit's laser spot. |
| | Figure 2.9: Laser Distance | |
| 7 | STEEL WEDGE | Usually used with the spirit level |
| | | 1.2m to check that edges are |
| | Figure 2.10: Steel wedge | straight and aligned |
| | rigare zirer otoor mougo | |

| 8 | ANGLE MIRROR | Generally used to gain visibility |
|---|---------------------------|-----------------------------------|
| | | of areas which are hard to |
| | | reach. |
| | | |
| | | |
| | | |
| | | |
| | 1983 a | |
| | | |
| | Figure 2.11: Angle Mirror | |
| 9 | SPRIT LEVEL | To indicate whether a surface is |
| | | horizontal (level or vertical |
| | | (plumb) |
| | | |
| | • 🗊 🛄 🧭 | |
| | | |
| | | |
| | Figure 2.12: Spirit Level | |

2.6 CONCLUSION

In conclusion, defect is most common things that always occur no matter whether new house or old. The new house is usually undergone a period where defects will be rectified by the developer. Therefore, defect liability period under the Housing Development Act (HDA) is existing which act like warranty in order to help new buyer or owner to discover the defects of their new property within the 12 months or 24 months as stated in act. Home inspection is not complicated since the owner could conduct the inspection on their own and regarding on that, QLASSIC under the CIDB is created to guide the owner to more understand about the defect assessment and the process of the complaint. After all, it became owner's right to issue any complaint regarding the quality of the building.

CHAPTER 3: THE PROJECT



3.1 BACKGROUND OF CASE STUDY

Figure 3.1: The view of case study

The owner, Mr. Rahman Bin Azman, has hired AMAS FM Consultant Sdn Bhd to conduct Building Condition Assessments (BCA) for one unit of two-story semi-detached house in Setia Eco Glades, Cyberjaya, Selangor. In general, it was carried out by a visual inspection of the building and evaluations of the house's state. This comprises structural, civil, and building evaluations. The examination and data gathered at the site were analysed, with the results tallied and images attached..

| Table 3.1: Background | of case study |
|-----------------------|---------------|
| TITTLE | D |

| TITTLE | DESCRIPTION |
|-----------------|---------------------------------------|
| OWNER'S NAME | Mr. Rahman Bin Azman, |
| LOCATION | Setia Eco Glades, Cyberjaya, Selangor |
| BUILDING STATUS | Residential |
| NO OF STOREY | two-story semi-detached house |
| CONSULTANT | AMAS FM Consultant Sdn Bhd |

3.2 VIEW OF CASE STUDY



Figure 3.2: Front view



Figure 3.3: Left view



Figure 3.4: Rear view

3.3 METHOD OF INSPECTION

The working methodology is as the following:

- a) A group of surveyors consists of 4 people to cover the whole building.
- b) Form with a checklist prepared by the elements. This form contains details about the location, the elements and the type of defects.
- c) Briefings from the house's owner be held before entering the site and begin inspection work. Permission to carry out building inspection is also required.
- d) The inspection work was conducted and photographs taken as part of the final report.
- e) Reporting and analysis are based on the inspection report

There are several tools have been used for data collection and inspection such as:

- a) Digital calliper
- b) Measuring tape
- c) Laser distance
- d) Camera
- e) Retractable tiles tester
- f) Test pen
- g) Crack ruler
- h) 13 Amp ELCB & Socket tester.

3.4 INVETORY DATA

The inventory data in the house's area is identified through an inspection. The inventory data is inspected in accordance with the Sales and Purchase Agreement's Fourth Schedule: Building Description. Table below is show the inventory data of the case study:

Table 3.2: list of inventory data for elements

| NO | ELEMENT | AVAILABLE | |
|-----|---|-----------|----|
| | | YES | NO |
| 1 | STRUCTURE | / | |
| 2 | WALL | / | |
| 3 | ROOFING COVERING | / | |
| 4 | ROOF FRAMING | / | |
| 5 | CEILING | / | |
| 6 | WINDOWS | / | |
| 7 | DOORS | | |
| | Main entrance | / | |
| | Bedroom | / | |
| | Toilet | / | |
| | Kitchen | / | |
| 8 | IRONMONGERY | / | |
| 9 | WALL FINISHES | | |
| | Kitchen | / | |
| | All bath | / | |
| | Others | / | |
| 10 | FLOOR FINISHES | | |
| | Living room, dining, foyer & guest room | / | |
| | Store & Kitchen | / | |
| | Utility, Bath 4 | / | |
| | All first floor bedroom & staircase | / | |
| | Terrace | / | |
| 11) | FENCING | / | |
| 12) | TURFING | / | |

| NO | ELEMENT | QUANTITY |
|----|--|----------|
| 1) | SANITARY AND PLUMBING | |
| | Basin | 6 |
| | Water Closet | 5 |
| | Shower | 5 |
| | Kitchen sink | 1 |
| | Long bath | 1 |
| | TOTAL | 18 |
| 2) | ELECTRICAL INSTALLATION | |
| | Lighting point | 41 |
| | Power point 13A | 36 |
| | Air-cond Point | 6 |
| | Instantaneous water heater point | 1 |
| | Ceiling fan point | 7 |
| | SMATV socket outlet | 3 |
| | Solar water heating system | 1 |
| | TOTAL | 95 |
| 3) | INTERNAL TELECOMMUNICATION TRUNKING | |
| | AND CABLING | |
| | Telephone socket outlet | 3 |
| | Intercom point | 1 |
| | Doorbell point | 1 |
| | TOTAL | 5 |
| | TOTAL OVERALL | 118 |

Table 3.3: list of inventory data for services

3.5 VISUAL-WALK THRU ASSESSMENT

During the inspection, the type of defect discovered at Setia Eco Glades was consistent, although the severity of the defects varied. The inspection findings were tallied and images were attached. The following are some of the most common faults found: -

- Dirt stain
- Improper installation
- Watermark
- Peeling of paint
- Chipping
- Uneven plaster and paint
- Cracks
- Rust
- Hole
- Gap
- Bent
- Scratch mark
- Leakage

3.5.1 DEFECTS OF SUMMARY



Figure 3.5: Pie chart of type of defect

The amount type of defect at the case study is shown in the part chart above. The highest defect recorded is crack which the total is 9 (24%) of crack. most of the defects were found at the exterior site. However, all defect recorded is consider as minor crack where the possible of this defects occurs due to the weather. The second highest defect reported was dirt stain (8 defects, 21%) while each chipping and uneven surface were recorded 4 totals of defect (11%). Other than that, 3 defects of broken (8%) were found involving the element of floor. Numerous other minor defect found such as peeling of paint, insect nest, improper work, paints problem, leakage, tilt, rust and gap with 1 defect (3%) reported.

A) GROUND FLOOR

| Table 3.4: List o | f defect sheet | of ground floor |
|-------------------|----------------|-----------------|
|-------------------|----------------|-----------------|

| Defect | A1 | Location | Car Porch |
|-----------------|------------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Uneven surface on wall | Quantity | 1 |
| | Figure 3.6: close | view | |

| Defect | Δ7 | Location | Car Porch |
|------------------------|------------------|-------------|------------------|
| Indication code | | Location | |
| Element | Copping | Type / Item | Finishes (Paint) |
| Defect | Cracks on coping | Quantity | 1 |
| Figure 3.7: close view | | | |

| Defect | A11 | Location | Car Porch |
|-----------------|----------------------|-------------|------------------|
| Indication code | | | |
| Element | Column | Type / Item | Finishes (Paint) |
| Defect | Dirt stain on column | Quantity | 1 |
| | Figure 3.8: close | e view | |

| Defect | A12 | Location | Car Porch |
|-----------------|-------------------|-------------|------------------|
| Indication code | | | |
| Element | Column | Type / Item | Finishes (Paint) |
| Defect | Crack on column | Quantity | 1 |
| | Figure 3.9: close | view | |

| Defect | A13 | Location | Car Porch |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Column | Type / Item | Finishes (Paint) |
| Defect | Chipping on column | Quantity | 1 |
| | Figure 3.10: close | e view | |

| Defect | A100 | Location | Car Porch |
|-----------------|--------------------|-------------|-----------|
| Indication code | | | |
| Element | Floor | Type / Item | Pavement |
| Defect | Broken on floor | Quantity | 1 |
| | Figure 3.11: close | e view | |

| Defect | A110 | Location | Car Porch |
|-------------------------|---------------------|-------------|------------------|
| Indication code | | | |
| Element | Base | Type / Item | Finishes (Paint) |
| Defect | Peeling of paint on | Quantity | 1 |
| | base | | |
| Figure 3.12: close view | | | |

| Defect | A113 | Location | Car Porch |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Base | Type / Item | Finishes (Paint) |
| Defect | Dirt stain on base | Quantity | 1 |
| | Figure 3.13: close | e view | |

| Defect | A120 | Location | Car Porch |
|--|---------------|-------------|------------------|
| Indication code | | | |
| Element | Base | Type / Item | Finishes (Paint) |
| Defect | Crack on base | Quantity | 1 |
| Defect Crack on base Quantity 1 Image: Second secon | | | |

| Defect | A18 | Location | Terrace |
|-----------------|----------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Uneven paint on wall | Quantity | 1 |
| | Figure 3.15: close | e view | |

| Defect | A29 | Location | Terrace |
|-----------------|----------------------|-------------|---------|
| Indication code | | | |
| Element | Roof | Type / Item | Soffit |
| Defect | Dirt stain on soffit | Quantity | 1 |
| | Figure 3.16: close | e view | |

| Defect | A33 | Location | Terrace |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Chipping on wall | Quantity | 1 |
| | Figure 3.17: close | e view | |

| | | | 1 |
|-----------------|---------------------|-------------|------------------|
| Defect | A57 | Location | Patio |
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Insect nest on wall | Quantity | 1 |
| | Figure 3.18: clos | e view | |

| Defect | A58 | Location | Patio |
|-----------------|--|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Improper plaster and paint work on wall | Quantity | 1 |
| | Figure 3.19: close | e view | |

| Defect | B1 | Location | Dining |
|-----------------|--------------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (paint) |
| Defect | Crack on the wall | Quantity | 1 |
| | Bi Figure 3.120: clos | re view | |

| Defect | B3 | Location | Dining |
|-----------------|--------------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (paint) |
| Defect | Chipping on the wall | Quantity | 1 |
| | B3 Figure 3.21: close | e view | |

| Defect | B6 | Location | Dining |
|-----------------|--------------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (paint) |
| Defect | Paint problems on wall | Quantity | 1 |
| | BC Figure 3.22: close | e view | |

| Defect | B7 | Location | Kitchen |
|-----------------|----------------------|-------------|----------|
| Indication code | | | |
| Element | Door | Type / Item | Lock set |
| Defect | Scratch mark on lock | Quantity | 1 |
| | set | | |
| | Figure 3.23: close | e view | |

| Defect | B25 | Location | Kitchen |
|-----------------|-----------------------|-------------|-------------|
| Indication code | | | |
| Element | Sanitary and plumbing | Type / Item | Bottle trap |
| Defect | Leaking bottle trap | Quantity | 1 |
| | Figure 3.24: close | e view | |

| Defect | B8 | Location | Yard |
|-----------------|--------------------|-------------|--------|
| Indication code | | | |
| Element | Door | Type / Item | Grille |
| Defect | The grille tilt | Quantity | 1 |
| | Figure 3.25: close | e view | |

| Defect | B13 | Location | Guest room |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Crack and paint | Quantity | 1 |
| | problem on wall | | |
| | Figure 3.26: close | e view | |

| Defect | B16 | Location | Staircase |
|-----------------|-------------------------|-------------|----------------|
| Indication code | | | |
| Element | Staircase | Type / Item | Finishes |
| | | | (Timber Strip) |
| Defect | Dirt stain on staircase | Quantity | 1 |
| | Figure 3.27: close | e view | |

| Defect | A19 | Location | Right Elevation |
|-----------------|---------------------|-------------|-----------------|
| Indication code | | | |
| Element | Gate | Type / Item | Timber Strip |
| Defect | Broken timber strip | Quantity | 1 |
| | Figure 3.28: close | e view | |

| Defect | A22 | Location | Right Elevation |
|-----------------|----------------------|-------------|-----------------|
| Indication code | | | |
| Element | Gate | Type / Item | |
| Defect | Rusty and peeling of | Quantity | 1 |
| | paint on gate | | |
| | Figure 3.29: close | e view | |

B) FIRST FLOOR

Table 3.5: List of defect sheet of first floor

| Defect | C31 | Location | Family Area |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Dirt stain on wall | Quantity | 1 |
| | Figure 3.30: close | e view | |

| Defect | C34 | Location | Family Area |
|-----------------|----------------------|-------------|--------------|
| Indication code | | | |
| Element | Door | Type / Item | Door railing |
| Defect | Scratch mark on door | Quantity | 1 |
| | railing | | |
| | Figure 3.31: close | e view | |

| Figure | 3.31: | close | view |
|--------|-------|-------|------|
|--------|-------|-------|------|

| Defect | C35 | Location | Family Area |
|-----------------|-----------------------|-------------|----------------|
| Indication code | | | |
| Element | Floor | Type / Item | Finishes |
| | | | (Timber strip) |
| Defect | Scratch mark on floor | Quantity | 1 |
| | Figure 3.32: close | | |
| | Figure 3.32: close | e view | |

| Defect | C78 | Location | Family Area |
|-----------------|-----------------------|-------------|------------------|
| Indication code | | | |
| Element | Ceiling | Type / Item | Finishes (Paint) |
| Defect | Dirt stain on ceiling | Quantity | 1 |
| | Figure 3.33: close | e view | |

| Defect | C00 | Location | Equily Area |
|-----------------|--------------------|-------------|------------------|
| Delect | C99 | Location | Family Area |
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Crack on wall | Quantity | 1 |
| | Figure 3.34: close | e view | |

| Defect | C2 | Location | Bedroom 2 |
|-----------------|----------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Uneven paint on wall | Quantity | 1 |
| | Figure 3.35: close | e view | |

| Defect | C6 | Location | Bedroom 2 |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Crack on wall | Quantity | 1 |
| | Figure 3.36: close | e view | |

| Defect | C7 | Location | Bedroom 2 |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Dirt stain on wall | Quantity | 1 |
| | Figure 3.37: close | e view | |

| Defect | C13 | Location | Bath 2 |
|-----------------|---------------------|-------------|------------------|
| Indication code | | | |
| Element | Ceiling | Type / Item | Finishes (Paint) |
| Defect | Chipping on ceiling | Quantity | 1 |
| | Figure 3.38: close | e view | |

| Defect | C102 | Location | Bath 2 |
|-----------------|-----------------------|-------------|--------|
| Indication code | | | |
| Element | Floor | Type / Item | Tiles |
| Defect | Broken on floor tiles | Quantity | 1 |
| | Figure 3.39: close | e view | |

| Defect | C20 | Location | Bedroom 1 |
|-----------------|--------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Crack on wall | Quantity | 1 |
| | Figure 3.40: close | e view | |

| Defect | C21 | Location | Bedroom 1 |
|-----------------|----------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (Paint) |
| Defect | Open gap on wall | Quantity | 1 |
| | between window frame | | |
| | Figure 3.41: close | e view | |

| | | | Douroonn i |
|-----------------|----------------------|-------------|--------------|
| Indication code | | | |
| Element | Window | Type / Item | Window frame |
| Defect | Dirt stain on window | Quantity | 1 |
| | frame | | |
| | Figure 3.42: close | e view | |

| Defect | C47 | Location | Master Bedroom |
|-----------------|------------------------|-------------|----------------|
| Indication code | | | |
| Element | Door | Type / Item | Strike plate |
| Defect | Scratch mark on strike | Quantity | 1 |
| | plate | | |
| | Figure 3.43: close | e view | |

| Defect | C64 | Location | WID |
|-----------------|----------------------|-------------|------------------|
| Indication code | | | |
| Element | Wall | Type / Item | Finishes (paint) |
| Defect | Uneven paint on wall | Quantity | 1 |
| | CGY | | |
| | Figure 3.44: close | e view | |

3.5.2 DEFECT INDICATION PLAN

(A) GROUND FLOOR





(B) FIRST FLOOR



3.5.3 ELECTRICAL, SANITARY AND PLUMBING

The inspection is carried out for all house's area that had been installed with electrical, sanitary and plumbing equipment. All electrical, sanitary and plumbing equipment had been tested to identify if there is problem with the equipment.

A) ELECTRICAL EQUIPMENT TESTING

Photographs below showed the tests that being conducted for electrical equipment at the case study.





(a)









Figure 3.45 (a), (b) (c), (d), (e), (f): Socket testing

B) SANITARY AND PLUMBING EQUIPMENT

Photographs below showed the tests that being conducted for sanitary and plumbing equipment at the case study.





(a)

(b)





(e)

(f)

Figure 3.46 (a), (b) (c), (d), (e), (f): Sanitary and plumbing testing

| Table 3.6: List of electrical | , sanitary a | and plumbing | g testing |
|-------------------------------|--------------|--------------|-----------|
|-------------------------------|--------------|--------------|-----------|

| NO | LOCATION | SYSTEM | EQUIPMENT | QUANTITY | FUN | CTION |
|-----|-------------|------------|-------------|----------|-----|-------|
| | | | | (nos) | YES | NO |
| 1) | Car Porch | Electrical | Power point | 1 | / | |
| | | | 13A | | | |
| 2) | Living Area | Electrical | Power point | 5 | / | |
| | | | 13A | | | |
| 3) | Dining Area | Electrical | Power point | 2 | / | |
| | | | 13A | | | |
| 4) | Store | Electrical | Power point | 1 | / | |
| | | | 13A | | | |
| 5) | Utility | Electrical | Power point | 1 | / | |
| | | | 13A | | | |
| 6) | Kitchen | Electrical | Power point | 6 | / | |
| | | | 13A | | | |
| | | Sanitary | Water tap | 1 | / | |
| | | & | | | | |
| | | Plumbing | | | | |
| 7) | Yard | Electrical | Power point | 1 | / | |
| | | | 13A | | | |
| | | Sanitary | Water tap | 1 | / | |
| | | & | | | | |
| | | Plumbing | | | | |
| 8) | Guest | Electrical | Power point | 3 | / | |
| | Room | | 13A | | | |
| 9) | Family Area | Electrical | Power point | 4 | / | |
| | | | 13A | | | |
| 10) | Bedroom 2 | Electrical | Power point | 3 | / | |
| | | | 13A | | | |
| 11) | Bedroom 1 | Electrical | Power point | 3 | / | |
| | | | 13A | | | |
| 12) | Master | Electrical | Power point | 4 | / | |
| | Bedroom | | 13A | | | |
| | | | | | | |

| 13) | WID | Electrical | Power point | 1 | / | |
|-----|--------|------------|--------------|---|---|--|
| | | | 13A | | | |
| 14) | Bath 4 | Sanitary | Wash basin | 1 | / | |
| | | & | tap | | | |
| | | Plumbing | Water closet | 1 | / | |
| | | | Shower | 1 | / | |
| | | | Water tap | 1 | / | |
| 15) | Bath 3 | Sanitary | Wash basin | 1 | / | |
| | | & | tap | | | |
| | | Plumbing | Water closet | 1 | / | |
| | | | Shower | 1 | / | |
| | | | Handheld | 1 | / | |
| | | | bidet spray | | | |
| | | | hose | | | |
| 16) | Bath 2 | Sanitary | Wash basin | 1 | / | |
| | | & | tap | | | |
| | | Plumbing | Water closet | 1 | / | |
| | | | Shower | 1 | / | |
| | | | Handheld | 1 | / | |
| | | | bidet spray | | | |
| | | | hose | | | |
| 17) | Bath 1 | Sanitary | Wash basin | 1 | / | |
| | | & | tap | | | |
| | | Plumbing | Water closet | 1 | / | |
| | | | Shower | 1 | / | |
| | | | Handheld | 1 | / | |
| | | | bidet spray | | | |
| | | | hose | | | |
| 18) | Bath 2 | `Sanitary | Wash basin | 1 | / | |
| | | & | tap | | | |
| | | Plumbing | Water closet | 1 | / | |
| | | | Rain shower | 1 | / | |
| | | | head with | | | |
| | | | handheld | | | |

| | spray | | | |
|--|-------------|---|---|--|
| | Handheld | 1 | / | |
| | bidet spray | | | |
| | hose | | | |
| | Long bath | 1 | / | |
| | tap | | | |
| | | | | |

3.6 CONCLUSION

Overall, the 2-story semi-detached house is in great condition. Several defects were discovered, as detailed in the defect inspection forms As for the owner further information, possibilities a new defect will occur during defects liability period in future.. The owner can file a formal defect form with the developer and should keep a copy for their records.

CHAPTER 4: PROBLEMS

4.1 ISSUES ON DEFECT LIABILITY PERIOD

There are several issues found based on defect liability period as listed below:

A. LESS AWARENESS FROM THE OWNER

In Malaysia, first-time house purchasers are still unaware of defect liability period (DLP) claims. Some people believed that it was their job as buyers to fix any damage to the house. Furthermore, most buyers may not be informed about or comprehend the Defect Liability Clause in the Sale & Purchase Agreement (SPA). It is the lawyer's job to further explain the DLP to the buyer.

Delay is also a problem in this case where some homeowners like to postpone making a defect inspection on the house without realizing the expiration of the DLP period is near. Although the Defect Liability Period (DLP) may appear to be long, the owner should not postpone their property inspection if they want all defects repaired before moving in.

B. CONTRACTOR REFUSE TO REPAIR THE DEFECT

Another issue that can be highlighted in this matter is developer refuse to repair the defect. All defects that occur during the DLP period are the responsibility of the developer to repair, not the homeowner. However, there are also some cases where the property developer insists on not wanting to repair the defect on the buyer's unit.

Some developers will also delay time or lazily repair defects on the home until the expiration of the DLP. According to the conditions set when after the date the report is given, the developer is given a period of 30 days to repair the defects of the house. It is also the responsibility of the owner not to delay the time to make a complaint to the developer so that such a situation does not occur.

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

At the end of this chapter, AMAS FM is a firm that provides building management work-related consultancy services such as building operation and space management audits, asset inventory, building hand-over, and building condition assessment. It is a good company where students can obtain experience and knowledge because they are exposed to company projects and can apply what they have learned in university.

The literature review for the chosen topic was explained, with secondary data coming from sources such as articles, journals, and websites.We can see the value of the defect liability period to the owner in this chapter because it acts as a warranty to assist the owner in claiming the defect from the developer by understanding the complaint method. Aside from that, choosing the correct approach and guidelines for defect inspection and assessment is crucial. As a result, the Construction Industry Development Board (CIDB) developed the Quality Assessment System in Construction (QLASSIC) as a guideline.

Based on the inspection, the new house in Setia eco glade revealed various faults noted in the case study. The majority of the defects were discovered on the site's exterior. It is also necessary to test the electrical, sanitary, and plumbing systems to ensure that they are in good working order. However, the overall report concludes that the house is in good condition, as the defects discovered are minor.

There are several issues found regarding on defect liability period which is less awareness from the owner about the importance of the defect liability period. It becomes part of the owner's responsibility to alert of this matter. The owner can list all problems and photograph each defect so it can be used as a reference for the developer. Most developers will provide a defect claim form that the owner must complete and submit to one of them. Next issue, developers refuse to repair the defect. According to Choong (2019), the House Buyer's Association (HBA) states if the developer does not reply to the defect claim, the owner can appoint their own contractor and reclaim the repair costs from the developer. After 30 days, if the developer still refuses to rectify the repairs or refuses to pay the repair costs, the owner can file a claim with the Tribunal for Homebuyer Claims as they will help for action to be taken against the developer.

REFERENCE

- Five Reasons Why Building Inspections Are Essential For Home Buyers. (2020). Retrieved 25 January , 2022, from businesseek.com: http://www.businesseek.com/building-inspections-essential-homebuyers/
- Defects liability period DLP. (21 May, 2021). Retrieved 9 December, 2021, from designingbuildings: https://www.designingbuildings.co.uk/wiki/Defects_liability_period_DL P
- Understanding Housing Development Act Malaysia (HDA) And Defect Liability. (30 March, 2021). Retrieved 9 December, 2021, from Propertyguru: https://www.propertyguru.com.my/property-guides/hdahousing-development-act-malaysia-defect-liability-9580
- Choong, S. (11 July, 2019). What to do if your 'new' property has defects & 4 other must-knows about Defect Liability Period (DLP). Retrieved 2022 January, 2022, from iProperty.com.my: https://www.iproperty.com.my/guides/what-to-do-if-your-new-propertyhas-defects-4-other-must-knows-about-defect-liability-period-dlp-fag
- CIDB. (2017). Buku panduan kualiti untuk pemilik rumah. Kuala Lumpur: CIDB.
- Norfarahayu Kriya, Z. Y. (2016). Generic House Components and Their Practical Ways to Assess By House. *International Congress on Technology, Engineering, and Science (IConTES 2016).*
- Teoh, J. (30 April, 2021). *Know Your Rights as a Homeowner: What Can a Homeowner Claim For From the Developer if the Property Has Defects?* Retrieved 13 December, 2021, from Halim Hong Quek: https://hhq.com.my/publications/know-your-rights-as-a-homeowner-what-can-a-homeowner-claim-for-from-the-developer-if-the-property-has-defects/