Observation of temporary accommodation for construction workers according to the code of practice for temporary construction site workers amenities and accommodation (MS2593:2015) in Johor, Malaysia

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Abstract. The Malaysian government is currently improving the quality of workers temporary accommodation by introducing MS2593:2015 (Code of Practice for Temporary Site Workers Amenities and Accommodation) in 2015. It is in line with the initiative in the Construction Industry Transformation Programme (2016-2020) to increase the quality and well-being of construction workers in Malaysia. Thus, to gauge the current practice of temporary accommodation on complying with the particular guideline, this paper has put forth the observation of such accommodation towards elements in Section 3 within MS2593:2015. A total of seventeen (17) temporary accommodation provided by Grade 6 and Grade 7 contractors in Johor were selected and assessed. The results disclosed that most of the temporary accommodation was not complying with the guideline, where only thirteen (13) out of fifty-eight (58) elements have recorded full compliance (100%), and the lowest compliance percentage (5.9%) are discovered in the Section 3.12 (Signage). In a nutshell, given the significant gap of compliance between current practices of temporary accommodation and MS2593:2015, a holistic initiative need to be in place for the guideline to be worthwhile.

1. Introduction
The construction industry is one of the important sectors in contributing to the economic growth of Malaysia. The Gross Domestic Product (GDP) in Malaysian construction has increased to MYR 14,517 Million in the third quarter of 2018 from MYR 13,530 Million in the second quarter of 2018 [1]. With the development in the construction industry, there is a need for a significant number of construction workers to overcome the prevalent shortage in the construction industry.

Construction worker normally consists of a foreign worker. According to [2], the contractor tend to employ foreign workers as they can limit preparation for workers accommodation. An unacceptable level of condition for current workers accommodation is one of the factors which causes Malaysian citizen were reluctant to work in the construction sector [3, 4]. Additionally, a better quality of accommodation and site service is one of the strategies to encourage local citizen to work in the construction industry [5].
According to Standards Specification for Building Works [6], the contractors are responsible for providing and maintaining temporary accommodation for their workers for the particular project. Since the characteristics of the construction project are temporary, generally the contractors or the employer are providing the temporary accommodation for the workers inside or near the construction site.

Before the existence of MS2593:2015 (Code of practice for Temporary Construction Site Workers’ Amenities and Accommodation), the need in providing temporary accommodation for construction workers are briefly described in Specification of Building Construction by Public Work Department (PWD) and embedded in respective contract document for the project. The specifications for temporary accommodation is mention in Section A (Preliminaries and General Condition), Item 28 (Contractor’s Temporary Accommodation and Facilities for Work-men Living on Site) which listed thirteen (13) requirements in constructing temporary accommodation including materials, size, basic amenities, and responsible person for workers management.

While the government is encouraging the use of MS2593:2015 as a guideline for the development of temporary accommodation, this research emphasised on current practices by the contractor in providing their temporary accommodation. Therefore, the objective of this study is to evaluate the current compliance of contractors in providing temporary accommodation for construction workers according to elements in Section 3 of MS2593:2015.

2. Temporary amenities and accommodation for construction workers

The principle in providing a workers accommodation is to ensure the welfare of the workers and acceptable condition for the living environment [7, 8]. While the Ministry of Municipality and Environment of Qatar (2016) define temporary accommodation as a premise constructed for workers to live for a specified period before it is dismantled [9].

According to [10], currently, there are references available for workers accommodation from all over the world, including Malaysia. The amenities provided by each references are shown in Table 1. It can be seen that initiatives to enhance the welfare of construction workers were spearheaded by developed nations. As per Table 1, the MS2593:2015 are covering a total of 17 elements, from the cooking area to solid waste treatment. Meanwhile, other standards were trailing behind with four to eight elements less than the MS2593:2015. Although all of them did not fulfil the listed amenities (as per MS2593:2015), the movement towards the betterment of such offerings was evidence.

Table 1. Amenities offered for different references [10]

| Amenities                  | MS 2593:2015 (Malaysia) | Work Safety (ACT Code of Practice for Construction Industry Amenities) Code of Practice 2010 (Australia) | Guidance on Workers’ Accommodation 2009 (IFC & EBRD) | Temporary Labor Camps 1910.142 2007 (United States) |
|----------------------------|-------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Cooking area               | ✓                       | ✓                                                                                | x                                               | ✓                                               |
| Dining area                | ✓                       | ✓                                                                                | x                                               | ✓                                               |
| Drainage                   | ✓                       | ✓                                                                                | x                                               | ✓                                               |
| Electricity                | ✓                       | ✓                                                                                | x                                               | ✓                                               |
| First aid and medical facilities | ✓                    | ✓                                                                               | x                                               | ✓                                               |
| Leisure and social         | ✓                       | x                                                                                | x                                               | x                                               |
| Bed arrangement            | ✓                       | ✓                                                                                | x                                               | ✓                                               |
| Personal locker            | ✓                       | x                                                                                | ✓                                               | x                                               |
| Natural ventilation        | ✓                       | ✓                                                                                | ✓                                               | ✓                                               |
| Toilet facilities          | ✓                       | ✓                                                                                | ✓                                               | ✓                                               |
| Bathroom/ sanitary facilities | ✓                    | ✓                                                                               | ✓                                               | ✓                                               |
| Lighting and ventilation   | ✓                       | x                                                                                | ✓                                               | ✓                                               |
Signage ✓ x x x
Water ✓ ✓ ✓ ✓
Sullage discharge ✓ ✓ x x
Sewage disposal ✓ ✓ ✓ ✓
Solid waste ✓ ✓ ✓ ✓

Note: ✓ Specified in document  x Not specified in the document

2.1 Temporary construction site workers’ amenities and accommodation - Code of Practice
In 2015, the Department of Standards Malaysia established a code of practice for temporary construction site workers’ amenities and accommodation (MS2593:2015). There is four (4) section in MS2593:2015 which includes Section 1: Scope and General, Section 2: Planning for Temporary Workers’ Amenities and Accommodation, Section 3: Specification for Temporary Workers’ Amenities and Accommodation, and Section 4: Management and Maintenance of Temporary Workers’ Amenities and Accommodation.

In Section 3: Specification for Temporary Workers’ Amenities and Accommodation, the standards list twelve (12) sub-section consists of: (1) general, (2) building, (3) room/ dormitory, (4) sanitary facilities, (5) cooking and dining area, (6) water, (7) waste disposal, (8) drainage, (9) electricity, (10) first aid and medical facilities, (11) leisure and social facilities, and (12) signage. Each sub-section specifically describe the minimum requirement for construction workers in Malaysia.

2.2 Construction workers
According to Construction Industry Development Board (CIDB) Malaysia, a construction worker is personnel that work in the construction industry, and it is divided into three (3) criteria which are general construction workers, skilled construction workers, and semi-skilled construction workers [11]. They are further divided into two (2) types of registration according to their nationality (i.e. local and foreign workers). As shown in Table 2, the number of registered construction personnel increases in 2016 and slightly decrease in 2017 for both types of registration.

| Types of Registration          | 2015 | 2016 | 2017  |
|-------------------------------|------|------|-------|
| Local Construction Personnel  | 575,474 | 613,843 | 605,884 |
| Foreign Construction Personnel | 141,068 | 153,720 | 95,777 |
| **Total**                     | 716,542 | 767,563 | 701,661 |

3. Methodology
To achieve the objective in the study, a qualitative method through observation is being used to observe the current condition of living quarters prepared by the contractors. According to [13], there are generally two classifications of observation, namely: direct observation and participant observation. This study chose direct observation to have reliable indicators of current practices by contractors. A checklist develops by using variables in Section 3, MS 2593:2015, coupled with processes in Figure 1 (as suggested by [14]) is used to assist the particular direct observation.

Further, the checklist is firstly validated by two (2) academicians from the construction department to ensure its validity and efficacy. Later, selected active contractors of Grade 6 and 7 around the state of Johor, which currently has construction projects were contacted, this to confirm their participation and availability of temporary accommodation for their workers.
4. Results and discussion
The results were obtained by observing seventeen (17) temporary accommodation for a construction project located in Johor. Three (3) of them are Centralized Labour Quarters (CLQ) while the others are typical workers’ living quarters (rumah kongsi). The detail of construction project site for this study is shown in Table 3. However, for the privacy of the company, each company/construction site are characterised using alphabetical convention. Overall, the lowest recorded project value is RM 5 million (USD 1.2 million), and the highest is more than RM 50 million (USD 12 million).

Table 3. Information on construction project site

| Num. | Construction Site | Company Grade | Project Value (RM) |
|------|-------------------|---------------|--------------------|
| 1    | A                 | G7            | >20 million        |
| 2    | B                 | G7            | >20 million        |
| 3    | C                 | G7            | >20 million        |
| 4    | D                 | G7            | >20 million        |
| 5    | E                 | G7            | >50 million        |
| 6    | F                 | G7            | 13.3 million       |
| 7    | G                 | G7            | >12 million        |
| 8    | H                 | G7            | 15.6 million       |
| 9    | I                 | G7            | 23.6 million       |
| 10   | J                 | G7            | >10 million        |
| 11   | K                 | G7            | >10 million        |
| 12   | L                 | G6            | 6.9 million        |
| 13   | M                 | G6            | 8.3 million        |
| 14   | N                 | G6            | 7.2 million        |
| 15   | O                 | G6            | >5 million         |
| 16   | P                 | G6            | >6 million         |
| 17   | Q                 | G6            | >6 million         |

To present meaningful results, observations were focusing on compliance towards MS2593:2015. Nevertheless, additional remarks are provided, i.e. Not Relevant/Not Applicable (NR/NA) to capture any specifications that are not needed by the workers’ quarters due to several circumstances, e.g. workers’ quarters which not faced any mosquito attacks may not providing any mosquito screen. Therefore, Table 4 to Table 13 outlined overall results (in frequency) and its summarisation of compliance percentage (in % - which excluding NR/NA).
Section 3.3 (Room/ dormitory)

Table 4. Observation results towards seventeen (17) temporary accommodation for Section 3.3 (Room/ dormitory)

| Specifications                                                                 | Comply | Non-Comply | NR/NA | Compliance % |
|--------------------------------------------------------------------------------|--------|------------|-------|--------------|
| 1 Single-gender                                                                  | 17     | 0          | 0     | 100          |
| 2 Good condition, aired and cleaned at regular intervals                        | 3      | 14         | 0     | 21.4         |
| 3 Lockable doors and windows                                                     | 17     | 0          | 0     | 100          |
| 4 Mosquito screens, where necessary                                             | 0      | 0          | 17    | NR           |
| 5 Adequate furniture                                                             | 2      | 15         | 0     | 11.8         |
| 6 Sleeping area or resting area shall not be less than 3 m² per worker.          | 2      | 15         | 0     | 11.8         |
| 7 The height of room shall not be less than 2.4 m.                               | 9      | 8          | 0     | 52.9         |
| 8 Bed arrangement - separated for each worker.                                  | 4      | 0          | 13    | 100          |
| 9 Bed arrangement - where double-deck bunks are used, there shall be enough     | 3      | 0          | 14    | 100          |
| clear space between the lower and upper bunk of the bed. The minimum space      |        |            |       |              |
| range is from 0.70 m to 1.10 m.                                                  |        |            |       |              |
| 10 Bed arrangement - each worker is provided with a mattress and pillow          | 12     | 5          | 0     | 70.1         |
| 11 Personal locker of adequate size shall be provided for storage of personal   | 2      | 15         | 0     | 11.8         |
| belongings                                                                      |        |            |       |              |
| 12 Natural lighting and ventilation - windows or openings having an aggregate    | 2      | 15         | 0     | 11.8         |
| area of not less than 5 % of the floor area of the room                          |        |            |       |              |
| 13 Natural lighting and ventilation - using mechanical ventilation (e.g. exhaust | 2      | 15         | 0     | 11.8         |
| fan).                                                                           |        |            |       |              |

Table 4 outlines the observation result for room/dormitory. In general, each living quarters are designed to be single-gender quarters. Nevertheless, only four from thirteen specifications obtain compliance percentage of more than 80% (bolded), and five items are below than 20% compliance (underlined). The lowest percentage of compliance for Section 3.3 is the preparation of furniture, sleeping area, natural lighting, and ventilation.

Section 3.4 (Sanitary facilities)

Table 5. Observation results towards seventeen (17) temporary accommodation for Section 3.4 (Sanitary facilities)

| Specifications                                                                 | Comply | Non-Comply | NR/NA | Compliance % |
|--------------------------------------------------------------------------------|--------|------------|-------|--------------|
| 1 Hand washbasins (sufficiently provided)                                       | 3      | 14         | 0     | 17.6         |
| 2 Water baths (kolah)                                                           | 14     | 3          | 0     | 82.3         |
| 3 Washing area                                                                  | 1      | 15         | 1     | 6.3          |
| 4 Drying area                                                                   | 1      | 15         | 1     | 6.3          |
| 5 Toilet - shall be installed so as to provide adequate privacy and lockable     | 17     | 0          | 0     | 100          |
| door                                                                            |        |            |       |              |
| 6 Toilet - shall be connected to the sewer, where practicable                    | 16     | 0          | 1     | 100          |
| 7 Toilet - If connection to a sewer is not practicable, (1) adopting fixed      | 0      | 0          | 17    | NR           |
| type toilet with on-site holding tank for scheduled dislodging or adopting fixed type toilet with on-site sewage treatment facilities, |

5
adequately provided to comply with regulated discharged quality

|   | Toilet - (connected or not to a sewer) shall be serviced as required |   |   | 17.6 |
|---|------------------------------------------------------------------|---|---|------|
| 8 | 3 | 14 | 0 |
|   |   |   |   |
|   | Toilet - shall be installed in such manner as to prevent any odours reaching dining facilities |   |   | 64.7 |
| 9 | 11 | 6 | 0 |
|   |   |   |   |
|   | The minimum numbers and size of toilet per workers; |   |   |   |
| 10 |   |   |   |
|   | · Toilet - (minimum no. 1) ≤ 25 males - 1 water closet or latrine and 1.2 m length of urinal, or | 14 | 0 | 3 |
|   | · > 25 ≤ 50 males - 2 water closets or latrines and 2.4 m length of urinal | 0 | 0 | 17 |
|   | · > 50 ≤ 100 males - 3 water closets or latrines and 4.8 m length of urinal | 0 | 0 | 17 |
|   | · > 100 males - 2 water closets or latrines and 2.4 m length of urinal + 1 additional water closets or latrines and additional 1.2 m length of urinal for every 50 males in excess | 2 | 1 | 14 |
|   | · size of latrines or water closets with pedestal-type closet fitting > 1.5 m x 0.75 m | 2 | 0 | 15 |
|   | · size of water-closets with fittings other than pedestal-type closet fitting > 1.25 m x 0.75 m. | 15 | 0 | 2 |
| 11 | Bathrooms and others - flooring is made of anti-slip hard washable materials | 17 | 0 | 0 |
| 12 | Bathrooms and others - conveniently located and easy access | 11 | 6 | 0 |
| 13 | Bathrooms and others - adequate water supply | 15 | 1 | 0 |
| 14 | Bathrooms and others - separate bathroom facilities shall be provided with adequate privacy for the exclusive use of males or females, where both males and females are employed | 0 | 15 | 2 |
| 15 | Bathrooms and others - (1) bathrooms only > 1.5 m x 0.75 m (minimum width), or | 15 | 1 | 0 |
| 16 | Bathrooms and others - (2) bathroom with closet fitting > 2 m x0.75 m (minimum width). | 0 | 0 | 17 |
| 17 | Lighting and ventilation - Well lit. Every water-closet, latrine, urinal or bathroom shall be provided with (1) natural lighting and natural ventilation by means of ≥ 1 openings, (2) providing a total opening area of > 0.2 m2 per water-closet, latrine, urinal or bathroom. Such openings shall be capable of allowing a free, uninterrupted passage of air | 16 | 1 | 0 |

From the observation data of sanitary facilities (Table 5), 11 items were recorded of more than 80% compliance (bolded), while only four (4) items within the region of less than 20% (underlined). In general, the quarters are lacking in providing basic amenities such as hand washbasins, washing and drying area. Apart, the toilet is adequate, but only 17.6% are maintained as required, and every quarter is provided with toilet, but six (6) of them are not conveniently located. Meanwhile, one of the quarters faced inadequacy with water supply.
Section 3.5 (Cooking and dining area)

Table 6. Observation results towards seventeen (17) temporary accommodation for Section 3.5 (Cooking and dining area)

| Specifications                                                                 | Comply | Non-Comply | NR/NA | Compliance % |
|-------------------------------------------------------------------------------|--------|------------|-------|--------------|
| 1. Built in adequate and easy to clean materials                              | 16     | 1          | 0     | 94.1         |
| 2. Kept in a clean and sanitary condition                                     | 16     | 1          | 0     | 94.1         |
| 3. Separated from sleeping areas                                              | 17     | 0          | 0     | 100          |
| 4. The minimum area of kitchen shall be not less than 4.5 m² and the minimum width shall be more than 1.5 m | 5      | 12         | 0     | 29.4         |
| 5. Adequate height of kitchen shall be not less than 2.25 m and average height of rooms with sloping ceiling shall not be less than 2.25 m. | 7      | 10         | 0     | 41.2         |
| 6. Adequate number of suitable tables and seating shall be provided for eating meals | 6      | 11         | 0     | 35.3         |
| 7. Dining area shall be conducive to the conditions such as fan, flow-through ventilations or other alternate methods | 3      | 14         | 0     | 17.6         |
| 8. A sink unit of adequate size, with clean water supply                       | 11     | 6          | 0     | 64.7         |
| 9. A suitable space or shelves for storage of workers’ provisions shall be provided such as for utensils and food | 10     | 7          | 0     | 58.8         |
| 10. Garbage bins, with removable liners and secure lids shall be provided     | 2      | 15         | 0     | 11.8         |

On the other hand, according to Table 6 (cooking and dining area), only three (3) items were beyond the mark of 80% (bolded), while two (2) were less than 20% (underlined). The kitchen area in all quarters is provided separately from the worker’s room. However, only five (5) have complied with the minimum area suggested, and six (6) of them are equipped with suitable table and seating area. Sink and adequate space are provided in the majority of quarters, but unfortunately, proper garbage bins were observed to be lacking.

Section 3.6 (Water)

Table 7. Observation results towards seventeen (17) temporary accommodation for Section 3.6 (Water)

| Specifications                                                                 | Comply | Non-Comply | NR/NA | Compliance % |
|-------------------------------------------------------------------------------|--------|------------|-------|--------------|
| 1. Water used for consumption shall be obtained directly from the authority that provides main water supply | 16     | 0          | 1     | 100          |
| 2. Where such water supply is not available, potable water shall be provided from sources approved by the local authorities | 14     | 1          | 2     | 93.3         |

Apart, results for water facility as in Table 7 shows that the majority of the quarters were consuming water obtained directly from the local authority, except for one quarter. And most of the quarters are completed with storages and pumps to support the water needed for their workers. Overall, their compliance with this Section is well above 80% (bolded).
Section 3.7 (Waste disposal)

Table 8. Observation results towards seventeen (17) temporary accommodation for Section 3.7 (Waste Disposal)

| Specifications | Comply | Non-Comply | NR/NA | Compliance % |
|----------------|--------|------------|-------|--------------|
| 1 Wastewaters generated from kitchen sinks, bathrooms and wet areas shall be adequately treated prior to discharge in compliance with Environmental Quality Act 1974 (Act 127) | 2 | 15 | 0 | 11.8 |
| 2 The provision of sewerage facilities shall comply with Water Services Industry Act 2006 (Act 655). | 16 | 1 | 0 | 94.1 |
| 3 The discharge of treated sewage shall comply with Environmental Quality (Sewage) Regulations 2009. | 2 | 15 | 0 | 11.8 |
| 4 Handling, transportation and disposal of solid waste by licensed/approved contractors shall adhere to the requirement of the authority, as stipulated in Environmental Quality Act 1974 (Act 127). | 2 | 15 | 0 | 11.8 |
| 5 Wastewaters generated from kitchen sinks, bathrooms and wet areas shall be adequately treated prior to discharge in compliance with Environmental Quality Act 1974 (Act 127) | 2 | 15 | 0 | 11.8 |

For waste disposal facility, according to the results in Table 8, the provision of general sewerage facilities is the only item that has the highest compliance with specification stated in MS2593:2015, while the rest of the items recorded less than 20% compliance.

Section 3.8(Drainage), Section 3.9 (Electricity), Section 3.10 (First aid and medical facilities), & Section 3.11 (Leisure and social facilities)

Table 9. Observation results towards seventeen (17) temporary accommodation for Section 3.8 (Drainage), Section 3.9 (Electricity), Section 3.10 (First aid and medical facilities), & Section 3.11 (Leisure and social facilities)

| Section 3.8 (Drainage) | Specifications | Comply | Non-Comply | NR/NA | Compliance % |
|------------------------|----------------|--------|------------|-------|--------------|
| 1 The presence of stagnant water shall be avoided to address the proliferation of disease vectors such as mosquitoes, flies and others, as stipulated in Drainage Works Act 1954 (Act 354). | 16 | 1 | 0 | 94.1 |

| Section 3.9 (Electricity) | Specifications | Comply | Non-Comply | NR/NA | Compliance % |
|--------------------------|----------------|--------|------------|-------|--------------|
| 1 To provide adequate electricity supply | 16 | 1 | 0 | 94.1 |

| Section 3.10 (First aid and medical facilities) | Specifications | Comply | Non-Comply | NR/NA | Compliance % |
|------------------------------------------------|----------------|--------|------------|-------|--------------|
| 1 Adequate or necessary facilities, as stipulated in Factories and Machinery (Safety, Health and Welfare) Regulations 1970 shall be provided. | 16 | 1 | 0 | 94.1 |

| Section 3.11 (Leisure and social facilities) | Specifications | Comply | Non-Comply | NR/NA | Compliance % |
|---------------------------------------------|----------------|--------|------------|-------|--------------|
For workers not less than 100 workers residing at the place of employment shall construct a community hall capable of accommodating such number of persons as maybe specified.

Provide facilities for sports and other recreational activities as may be specified.

Next, given the minimal items described within certain Sections, results for four (4) Sections that were related to drainage, electricity, first aid and medical facility, and leisure and social facilities were combined in Table 9. As can be seen, the first three (3) Sections (i.e. drainage, electricity, and first aid and medical facilities) were recorded of more than 80% compliance (bolded). Whereas for Section of leisure and social facilities, the compliance percentages were less than 20% (underlined). Zoomed in further, only a marginal number of quarters (three) did comply with both items within the said Section.

**Section 3.12 (Signage)**

**Table 10.** Observation results towards seventeen (17) temporary accommodation for Section 3.12 (Signage)

| Specifications                                                                 | Comply | Non-Comply | NR/NA | Compliance % |
|--------------------------------------------------------------------------------|--------|------------|-------|--------------|
| 1 Signs shall be readable and legible, well-illuminated, clear and placed at a consistent height. | 1      | 16         | 0     | 5.9          |
| 2 The signs shall be made of robust materials and easy to change, clean and repair. | 1      | 16         | 0     | 5.9          |
| 3 Types of signs- orientation signs - sketches, plans, models, etc.;          | 1      | 16         | 0     | 5.9          |
| 4 Types of signs- directional signs - directional information from point A to B; | 1      | 16         | 0     | 5.9          |
| 5 Types of signs- functional signs - explanatory information;                | 1      | 16         | 0     | 5.9          |
| 6 Types of signs- informative signs - purely informative, for example a name; | 1      | 16         | 0     | 5.9          |
| 7 Types of signs- signs for emergency exits.                                 | 1      | 16         | 0     | 5.9          |

Following the previous tables, in overall, several specifications records Not Relevant (NR) especially when options were given within Sections, e.g. amenities for the toilet. Furthermore, the lowest percentages of compliance are reported in Section 3.12 (Signage) for the whole sub-specifications (seven items). Meanwhile, the highest percentage of compliance (i.e. 100%) were recorded in thirteen (13) sub-specifications, including Section 3.3 (Room/ dormitory), Section 3.4 (Sanitary facilities), and Section 3.5 (Cooking and dining area).

Additionally, items that scored more than 90% of compliances are seen limited partly to the basic necessity, such as single-gender room, lockable door and window, bed arrangement, water bath, toilet facilities, cooking facilities, water supply, sewage disposal, drainage, electricity, first aid and medical facilities. However, items such as washing and drying area, leisure facilities, and signage are recorded lower percentages of compliance among both grades of contractors.

**5. Conclusion**

The hierarchy of needs suggested that all five hierarchical needs shall be followed in order to improve employee’s performance. These needs include physiological needs, safety needs, social needs, needs for self-esteem, and needs for self-actualisation [15]. Most of the particular needs were embedded as specifications in the standard of MS2593:2015. Therefore, ensuing from the inclusive standard, the study aims to evaluate the compliance of Grade 6 and Grade 7 contractors in Johor in providing
temporary accommodation for construction workers according to elements in Section 3 of MS2593:2015. The results disclosed that most of the temporary accommodation was not complying with the guideline, where only thirteen (13) out of fifty-eight (58) elements have recorded full compliance (100%). This was comparable with the findings from the research of [4], which revealed the average level of workers accommodations being offered by the contractors.

Given the unfamiliarity of the standard itself, since it was just being introduced in 2015, it can be concluded that the respective contractors are still in the infancy phase towards compliances of MS2593:2015. Furthermore, the comprehensive nature of the standard compared to comparable standards (as visualised in Table 1) has partly contributed to lower compliances. Thus, due to the significant gap of compliance between current practices of temporary accommodation and MS2593:2015, holistic initiatives need to be in place for the standard to be worthwhile. Aside from pertinent promotions from respective government agencies (e.g. CIDB), collaborations between government-to-government and government-to-private are direly needed to encapsulate the all-inclusive ecosystem, which finally able to ensure successful undertakings.

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