Journal of Critical Reviews

ISSN- 2394-5125 Vol 7, Issue 8, 2020

COUNTRY CLUB HORSE RIDING

Suha Falah Al-Sahafi[1], Tarek Rajab[2], Aida Nayer[3]

[1,2,3]College of Architecture and Design, Effat University, Qasr Khuzam St., Kilo.2, Old Mecca Road. P.O.BOX 34689, Jeddah 21478, Saudi Arabia

E-mail: [1]salsahafi@effatuniversity.edu.sa, [2]tragab@effatuniversity.edu.sa, [3]anayer@effatuniversity.edu.sa

Received: 20.04.2020 *Revised: 24.05.2020* *Accepted: 15.06.2020*

Abstract

In this work, the development of Country Club Horse Riding facility in Jeddah, Saudi Arabia is presented. Three case studies related to equestrian facilities have been examined. Based on the analysed case studies, for the proposed horse riding facility, the total estimated gross floor area is 25000 m². Furthermore, the horse riding facility is comprised of several important zones, which area sport zone, service zone, health zone, outdoor zone stables zone and education zone. In addition, the proposed development site for the horse riding facility is located at Thuwal, at the north of Jeddah on the coast of the Red Sea, with a site area of 25000 m². The architectural of this facility was designed based on the basic shape of the Arabian horse. In addition, health and safety conditions for stable training and recreation were applied to the facility. The development of this horse riding facility is expected to enhance the involvement in equestrian sport among the community of Saudi Arabia. Furthermore, the facility is expected to produce professional athletes that can compete at international level and contribute fame to the nation of Saudi Arabia.

Keywords-- horse, stables, Equestrian, club house, Saudi Arabia

DOI: http://dx.doi.org/10.31838/jcr.07.08.95

INTRODUCTION

The Arabian horse is a type of steed that has emerged from the Middle east [1]. With an unique facial structure and an elevated tail hearse, the Arabian horse is amongst the most distinctive stallions on the planet [2]. In addition, it is reckoned as the most established breed, with historical evidence of the existence of these Arabian horses in the Middle East a few centuries ago [3]. Over time, Arabian horses have distributed throughout the globe and are used to develop many breeds by incorporating endurance, eloquence, stamina and bone strength. At present, Arabian horses are used for horse riding in major sporting events like equestrian [4].

Equestrian is a sport that features a fast, breath-taking and powerful movement that is demonstrated by the rider and the horse [5]. Equestrian sport needs equipment, and the most crucial one is the steed [6]. While steed cannot be planned or produced in the same way as a modern machinery, equestrian games require the rearing of good quality horse that can be achieved with an extensive selection, development and testing procedure [6]. In addition, these horses must be trained in a proper horse riding center so that they can perform accordingly during the competition period [7].

History has shown that Saudi Arabia has a great deal of regard for the Arabian horses and their importance to the Kingdom of Saudi Arabia in terms of their involvement in equestrian sports [8]. In addition, the government of Saudi Arabia has introduced a 2030 vision aimed at producing high-quality athletes and horses in the field of equestrian sport [9]. This requires the establishment of a dedicated clubhouse that can be used to train the athletes and the horses. Therefore, in order to meet the requirement of vision 2030, this work presents the development of Country Club Horse Riding facility in Jeddah, Saudi Arabia.

CASE STUDIES

In this work, three case studies related to equestrian facilities have been examined. The details of the case studies is stated as follow:

a. Dressage Arena Extension
b. Klagshamn's Equestrian Center
c. Al Shaqab Equestrian Academy

Dressage Arena Extension

Dressage Arena Extension is located at Aachen, Germany (Figure 1). It was designed by a german based architect. This building has an area of 1200 m². The concept of this project was done to provide an extension to the Dressage Arena with a grandstand and other functional facilities. The capacity of the grandstand is 1200 seats. The architecture is split into two structural elements: the audience stand structure, a wide staircase and a spreading roof, and the corresponding operational spaces. The seating stand on the top floor is accessible by a wide staircase which offers capacity for 1200 attendees. In addition, the stand was designed with a roof and the glass façade on each side, which are up to 16 meters high and 18 meters wide, to shield guests from the weather. The ground floor below the grandstand is composed of amenities, including sanitary facilities, logistics and mechanical and electrical equipment, as well as rooms for transient usage. The audience stand was constructed with reinforced concrete and steel roofing frames. The framework of the roof consists of a reinforced steel structure protected by trapezoidal metal panels, which includes padding and protection. In addition, the steel beam sits on a reinforced concrete circle framework at the back of the elevated concrete foundation. The space distribution of Dressage Arena includes stables (18%), arena (27%), parkings (36%), administration (9%) and sports club (10%).

Figure 1. Dressage Arena Extension

Klagshamn's Equestrian Center

Klagshamn's Equestrian Center is located at Zenotz, Ultzama Valley, Navarra, Spain (Figure 2). It was designed by architect Francisco Mangado. The equestrian center has an area of 5200 m². The location of the houses connects directly to the site of the cement plant. The 2 main buildings, the stable and the riding room, have unique, intertwined roof structures that connect the various purposes of the facility. Structures were designed in such a way as to establish a multitude of spaces through the site, the entry garden, the field and the riding path. Robust building materials such as concrete, glue-laminated wood, and brick were used to create the center. Furthermore, the wall and ceiling are geometrical structures in the shape of pillars and panels that represent the underlying structure of the building. The exterior is made of perforated sheet metal which facilitates the use of natural lighting and sound absorption. The space distribution of Klagshamn's Equestrian Center includes stables (26%), arena (23%), services (33%), administration (10%) and medical (8%).

Figure 2. Klagshamn's Equestrian Center

Al Shaqab Equestrian Academy

Al Shaqab Equestrian Academy is located at Doha, Qatar (Figure 3). It was designed by architect Leigh and Orange Ltd. This academy has an area of 980000 m². The architectural design concept of this academy is based on a central horse shoe shapes. The Academy has 20 show jumping stables with air conditioning. There is also an enclosed semi-roofed arena (9600 m²) and an air-conditioned arena (6000 m²) with a seating capacity of 6 000 attendees. In addition, there is a veterinary center at the academy which is comprised of equine hospital, clinic and laboratory. Furthermore, there is equestrian club house which accommodates a swimming pool, gymnasium and a restaurant. The stables are made of marble and stainless steel. The space distribution of Al Shaqab Equestrian Academy includes stables (21%), arena (23%), parking (42%), administration (8%) and medical (6%).

Figure 3. Al Shaqab Equestrian Academy

PROGRAM ASSUMPTION AND SPACE DETAILS

For the Country Club Horse Riding, the details of gross floor area is shown in Table 1. Based on Table 1, the total estimated gross floor area is 25000 m². Furthermore, the Country Club Horse Riding facility is comprised of several spaces, which are sport zone, service zone, health zone, outdoor zone stables zone and education zone.

Table 1. Space details

Space	Gross Floor Area (m²)
Sport zone	13000
Service zone	2064
Health zone	4000
Outdoor zone	736
Stables zone	4200
Education zone	1000
Total	25000

PROPOSED SITE AND ANALYSIS

The proposed site is located at at Thuwal, at the north of Jeddah on the coast of the Red Sea (Figure 4). This site has an area of 25000 m². Moreover, the site is surrounded by unused lands the future project can be expanded. The sea is known for its strong winds and unpredictable local currents. The climate of the Red Sea is the result of northeasterly wind and a southwesterly wind. The overall average water temperature is 22 °C (72 °F). Temperature and visibility remain good to around 200 m (656 ft.). In addition, the soil is rich with minerals and suitable for the agriculture. There are water treatment plant and Lath electricity station near the site. The site is accessible from the main highway. Furthermore, the traffic is normal during off peak hours and slightly congested during peak hours. In terms of noise level, the area is generally quiet. In addition, all utilities are provided to the site. Furthermore, near by the site, there is a metro station, police station and King Abdullah of Science and Technology city.

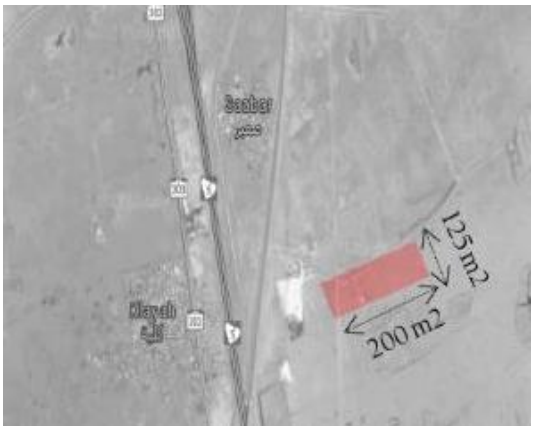

Figure 4. Proposed site for development

PROJECT DESIGN

The aim of this project is to develop a Country Club Horse Riding facility where people can enjoy outdoor and indoor activities, training, horse riding, jumping, polo, global auctions, international and local beauty competitions for Arab horses and the project allows people with physical disabilities to practice horse riding and other sports. The architectural of this facility was designed based on the basic shape of the Arabian horse. In addition, health and safety conditions for stable training and recreation were applied to the facility. The building was constructed using steel concrete with composite column and flab slab. The finishing material used were wood, metal and concrete.

The roof of this facility was constructed using wood and steel beams. Furthermore, the convex inner shape also serves to keep ceilings clean and aseptic. The flooring of the facility was done using rubber buck, rubber mats, stone dust, plastic grids and hemps. Furthermore, the facility was incorporated with natural heat ventilation design, and thermal insulation materials. In addition, there are outdoor parks and vast parking spaces for the visitors. The architectural design of the building is shown in Figure 5 to Figure 8, respectively.

Figure 5. Overview of the Country Club Horse Riding facility

Figure 6. Overview of the stables

Figure 7. Outdoor Park

Figure 8. Indoor cafe

CONCLUSION

This work has demonstrated the development of Country Club Horse Riding facility in Jeddah, Saudi Arabia. The total estimated gross floor area for this facility is 25000 m^2.In addition, the facility is comprised of several zones, which are sport zone, service zone, health zone, outdoor zone stables zone and education zone. This facility is expected to engage the community of Saudi Arabia in equestrian sport and enhance the involvement and achievement of Saudi Arabiae questrian athletes at international level.

REFERENCES

1. Lange C 2016 Purity, Nobility, Beauty and Performance: Past and Present Construction of Meaning for the Arabian Horse *The Meaning of Horses* (Routledge) pp 53–67
2. Almarzook S, Reissmann M and Brockmann G A 2017 Diversity of mitochondrial DNA in three Arabian horse strains *J. Appl. Genet.***58** 273–6
3. Nicolle D 2017 Horse Armour in the Medieval Islamic Middle East Arab. Humanit. Rev. Int. d'archéologie Sci. Soc. sur la péninsule Arab. J. Archaeol. Soc. Sci. Arab. Penins.
4. Forrest S 2017 The New Equestrian Economy in China *Equestrian Cultures in Global and Local Contexts* (Springer) pp 35–61
5. Dashper K 2016 Human-animal relationships in equestrian sport and leisure (Routledge)
6. Gillett J and Gillett D 2017 The Aging of Canadian Equestrian Sport *Equestrian Cultures in Global and Local Contexts* (Springer) pp 155–69
7. Jones K L 2017 Outside Horses, Inside Men: Equestrian Sport, Disability, and Theology *J. Disabil. Relig.***21** 152–63
8. Schiettecatte J and Zouache A 2017 The horse in Arabia and the Arabian horse: origins, myths and realities *Arab. Humanit. Rev. Int. d'archéologie Sci. Soc. sur la péninsule Arab. J. Archaeol. Soc. Sci. Arab. Penins.*
9. Moshashai D, Leber A M and Savage J D 2018 Saudi Arabia plans for its economic future: Vision 2030, the National Transformation Plan and Saudi fiscal reform *Br. J. Middle East. Stud.* 1–21.