



The Royal Commission for AlUla Board of Directors Resolution Regarding the Regulatory Guidelines for Parking Sunshades Canopies

No. (C/28/25/1) dated 19/05/1447 H corresponding to 10/11/2025 G

The Board of the Royal Commission for AlUla,

Based on the authorities legally mandated to it,

Upon perusal of clauses (Third) and (Fourth) of Royal Order No. (A/38) dated 29/1/1442 H, and paragraphs (Fourth) and (Twenty) of Article (Seven) of the Royal Commission for AlUla's Statute issued under the aforementioned Royal Order.

Upon perusal of paragraph (3) of Article (Five) of the Law of Municipalities and Rural Areas issued under Royal Decree No. (M/5) dated 21/02/1397 H.

Upon perusal of Article (Three) of the Law of Municipal Licensing Procedures issued under Royal Decree No. (M/59) dated 23/09/1435H, and paragraph (7) of Article (Fifteen) of the Executive Regulations for the Law of the Municipal Licensing Procedures, issued by Ministerial Resolution No. (4500665986) dated 05/08/1445 H.

Upon perusal of Articles (Second) and (Third) of the Regulations of Municipal Violations Penalties issued under Ministerial Resolution No. (92) dated 05/02/1442 H.

Upon perusal of the Technical Guidelines for Car Canopies Within Property Boundaries, issued by Ministerial Resolution No. (1/4500929799) dated 20/11/1446 H.

In alignment with RCU's objective to develop the Geographical Boundaries within its jurisdiction and to enhance the related works, services, and developmental sectors.

Has decided the following:

First: Approve the Regulatory Guidelines for Parking Sunshades Canopies, as per the accompanying draft.

Second: The penalty resulting from the violation of the provisions of the guideline referred to in Clause (First) shall be applied as follows:



Violation	Unit	Responsible for the Violation	Level of Impact	Notification	Rectification Period After Warning	Violation Value	Clarifications
Violation of the provisions of the Regulatory Guideline for Parking Sunshades Canopies	Per canopy	Owner	Non-severe	Apply	7 days	1500 SAR	With rectification of the violation

Third: Nothing in this Resolution shall prejudice the application of the Executive Rules of the Regulations of Municipal Violations Penalties issued by Ministerial Resolution No. (1/4600402464) dated 20/11/1446 H and the Table of Penalties for Municipal Violations issued by Ministerial Resolution No. (4400905854) dated 19/11/1444 H, provided they do not contradict the provisions of this Resolution.

Fourth: The Governor of the RCU may take the necessary decisions to amend the Guidelines referred to in clause (First), as needed, while keeping the Board of Directors of the RCU informed of any procedures taken in this regard.

Fifth: The RCU shall take all necessary measures to ensure compliance with the provisions of this Resolution.

Sixth: Property owners shall rectify the status of existing Parking Canopies constructed prior to the issuance of this Resolution, to ensure compliance with the provisions set out in the guidelines referred to in Clause (First) and shall obtain the necessary permit within a period not exceeding thirty (30) days from the effective date of this Resolution.

Seventh: This Resolution, along with its annexes, shall be published on the RCU's official website and shall come into effect ninety (90) days from the date of its publication.

Eighth: This Resolution shall be communicated to whoever is required to implement it.

AlUla

Regulatory Guidelines
for Parking Sunshade
Canopies





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1 - Introduction

The Chapter is subdivided in the following sub sections:

- 1.1 Background**
- 1.2 Glossary / Term Definitions**
- 1.3 General Provisions**
 - 1.3.1 Purpose of This Guideline
 - 1.3.2 Authority and Applicability
 - 1.3.3 Users / Stakeholders
 - 1.3.4 Inspection Elements
 - 1.3.5 General Provisions for Implementation, Enforcement and Monitoring
- 1.4 Summary Of Applicable Parking Scenarios**

1.1. Background

1.1.1. Overview

The Royal Commission for AlUla (RCU) was established pursuant to Royal Order No. (A/296) dated 26/10/1438H. RCU is the supreme authority controlling the work, services and projects provided, including areas related to municipal and rural affairs, within the geographical boundaries of Al-Ula Governorate, and the heritage and cultural sites. In Khaybar Governorate, the heritage, historical and cultural sites in Taima Governorate, Qal'at al-Mu'atham, and any other sites outside the borders of Al-Ula Governorate will be added to RCU's jurisdiction later, and it has full supervision over them, including the administrative and operational aspects associated with them.

1.2. Glossary / Term Definitions

1.2.1	Geographical Boundaries	Al-Ula Governorate, the heritage and cultural sites in Khaybar Governorate, the heritage, historical and cultural sites in Taima Governorate, Qal'at al Mu'atham and any other sites outside the governorate's borders will be added to the Commission's jurisdiction later.
1.2.2	Invisible Design	It is the integrated and seamless element that users do not notice or think about by itself.
1.2.3	Shading	It is the difference in light and darkness of a surface.
1.2.4	Parking Sunshade Canopy	It is an independent shed and is usually made of lightweight materials, such as metal or fabric that protects cars parked from sunlight in parking areas.
1.2.5	Tensile Fabric	It is a type of construction material in which the fabric is flexible, lightweight and stretchable, and is often used to create canopy structures.
1.2.6	The Commission/ RCU	The Royal Commission for Al Ula (RCU)
1.2.7	PV Panels	Also known as solar panels, they generate a flow of electricity when exposed to sunlight and are often integrated into canopy structures as a sustainable design methodology.
1.2.8	Owner	Owner of the property that includes a canopy, any person who owns a common share in it, and any person transferred ownership is transferred from the original owner
1.2.9	Environmental impact	A natural, chemical, biological, cultural, social or economic change to the ecosystem as a result of the project's activities
1.2.10	Light Pollution	Discomfort caused by unnatural artificial lighting
1.2.11	Noise Pollution	A discordant mixture of sounds with unwanted continuity
1.2.12	Guideline/ Guidelines	Regulatory guidelines for Parking Sunshades Canopies



1.3. General Provisions

1.3.1. Purpose of this Guideline

This guideline was developed as part of the design guidelines that aim to provide specific information to target groups to achieve the goals, policies and framework of the geographical boundaries to set design standards for car parking shades in accordance with the vision of RCU, the strategic principles and works of the RCU framework plans and related master plans.

The guideline is a regulating reference for persons of natural and legal status when undertaking work related to car parking shades within the geographical boundaries that falls within the RCU's jurisdiction.

Objective of this guideline:

1. Guaranteeing the quality of installation for both existing and new car shades.
2. Confirming the safe placement of sunshades to prevent any hazards to pedestrian pathways and accessibility for people with disabilities.
3. Enforcing the use of car sunshades in accordance with relevant instructions and standards.
4. Ensure good practices for the design, sustainability and construction of parking canopy structures.
5. Provide innovative solutions and options for the design of parking canopy structures in line with AlUla's unique heritage, archaeology and landscape.
6. Design integration of parking canopy structures with the surrounding buildings, landscape and built environment.

1.3.2. Authority and Applicability

1. This guideline applies within the geographical boundaries.
2. These instructions apply to both existing and new parking shades in the summary of parking models listed in (Section 4) and should be used when preparing new master plans or additional directions for parking shades.
3. Enclosed parking garages that are added to the total floor area of the building are exempt from the application of this guideline.

1.3.3. Users / Stakeholders

01. Owners of residential and administrative buildings

This guideline provides owners with the necessary requirements, standards and instructions for organizing car parking shades.

02. Supervisory or regulatory entities

This guideline represents a reference for the authorities responsible for all issues related to car parking shades.

03. Professional consultants and engineering offices

This guideline specifies, for consultants and engineering offices, the technical specifications and approved models for the planning, implementation, and organization of car parking shade.

04. Real estate developers

This guideline explains to real estate developers all the necessary requirements, standards and design guidelines for regulating car parking shades.

1.3.4. Inspection Elements

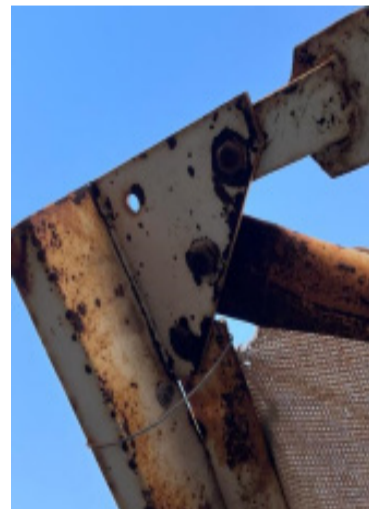
Examples of violations



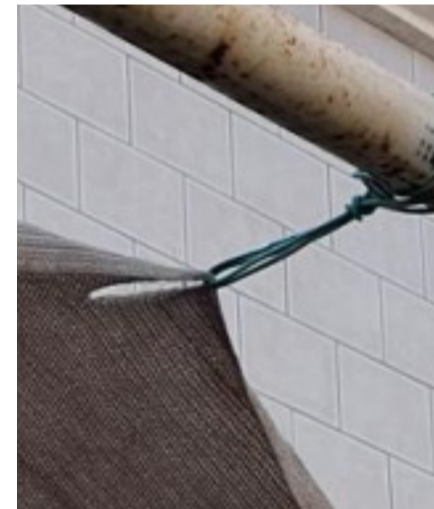
Rust at the base of the canopy



Rust in canopy columns



Rust in the hinges of the installation of bridges



Damage to the canopy sail



Leave the canopy bases exposed



Peeling in the paint



Rust in canopy bridges



Columns outside the property boundary

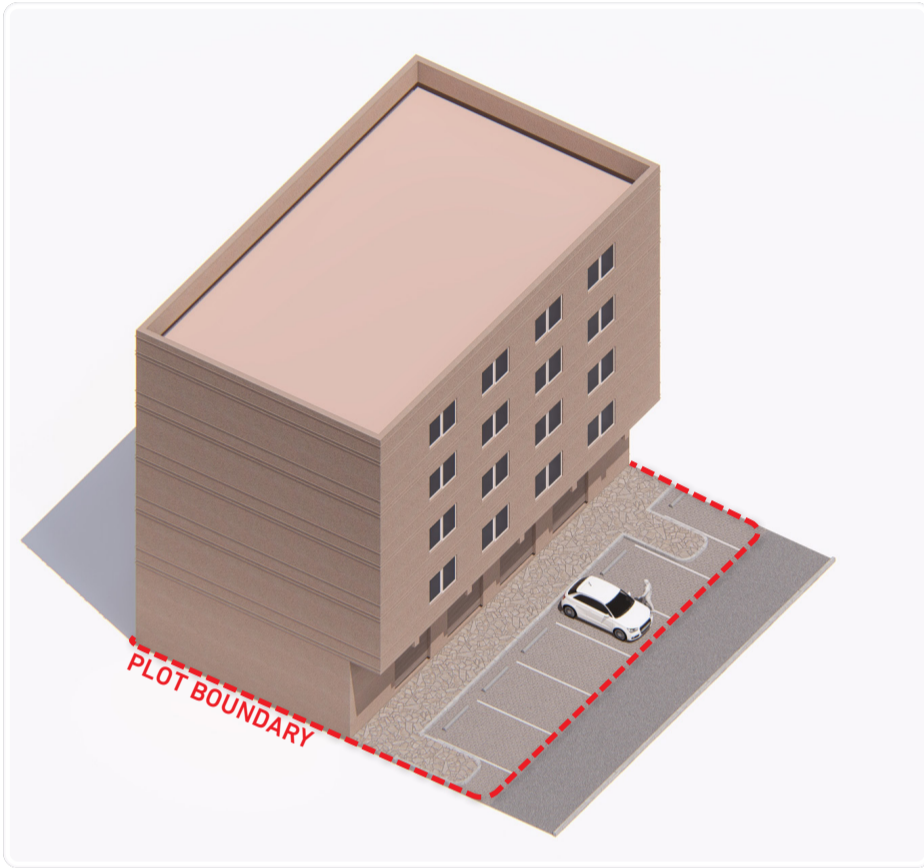


1.3.5. General Provisions for Implementation, Enforcement and Monitoring

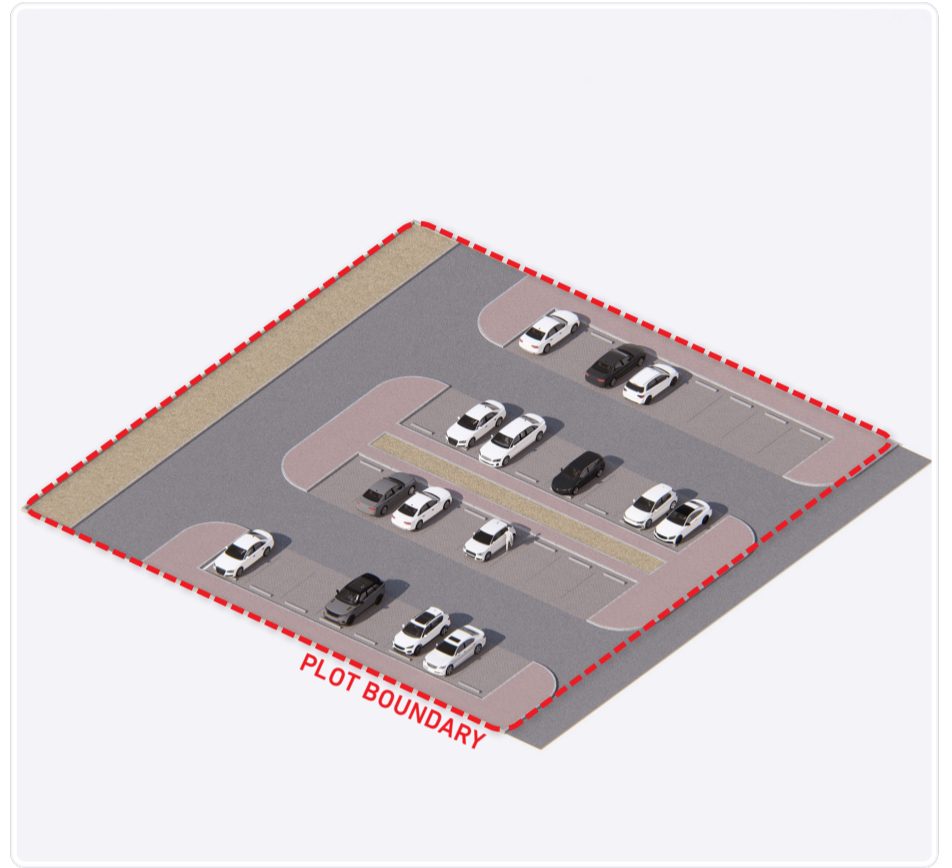
1. Adhere to all instructions in this guideline, and the owner must obtain the necessary licenses from RCU before installing the canopy.
2. Taking into consideration what is stated in Paragraph (1), the rules, regulations and instructions issued by the government agencies related to the activity must be adhered to such as (the Saudi Building Code, the Saudi Standards and Metrology Authority, the Saudi Fire Protection Code, security and safety instructions) etc.
3. This guideline shall be subject to update whenever deemed necessary. All amendments and additions shall constitute an integral part of the Guideline and shall be enforceable as of the date of their publication in the Official Gazette.
4. This guideline is regulatory and may be updated periodically, and property owners should be aware of any amendments or additions.
5. The canopy or canopies must be removed by the owner upon the Commission's request to do so in the event that it conflicts with any of the existing or future RCU projects. This does not prejudice the commission's right to remove it on its own initiative in the event that the owner does not comply with the removal, without the license holder having the right to claim any compensation as a result of any of that.
6. In the event of non-compliance with the requirements or instructions set forth in this Guideline, the RCU shall be entitled to impose the prescribed penalties for each violation, in accordance with its jurisdiction.
7. The owner is responsible for taking the necessary measures to ensure the safety of the sidewalk and landscaping during the implementation of car shades, and the penalties stipulated by the law will be applied to him in the event of his violation of this.
8. The owner bears full legal responsibility for the canopy and the damage caused to it or its surroundings.
9. When installing canopies, all matters related to security and safety for workers and passers-by, preserving the nature of the surrounding environment, and adhering to safety precautions during construction mentioned in the general Saudi building code, must be taken into consideration.
10. The owner and the engineering office undertaking the implementation of the canopies are committed to ensuring that these works do not affect the safety of pedestrians, property, vehicle movement, and street paths in any way.
11. The owner is responsible for any damage to the canopies, and is obligated to replace them, as described in (Section 2-2).
12. The owner is obligated to remove all waste resulting from the construction of the canopies and transport them to the designated places at his expense.
13. The Commission is examining the site according to the following:
 - After the completion of the construction of the canopies, to ensure that they comply with the instructions and that there are no damages resulting from their construction.
 - Ensure existing canopies comply with the instructions in this guideline and evaluate the quality and strength of the structure as described in the examples listed in (Section 4.3.1) Inspection Items.
14. The owner and the engineering office contracted to implement the canopies are obligated to address any observation resulting from non-compliance with the requirements and instructions contained in the guide within the period specified by the commission.
15. The RCU shall have the right to remove the canopy in the event that the execution differs from the requirements and instructions set forth in this Guideline, without prejudice to the provisions of Paragraph (6) of this Article..

1.4. Summary Of Applicable Parking Scenarios

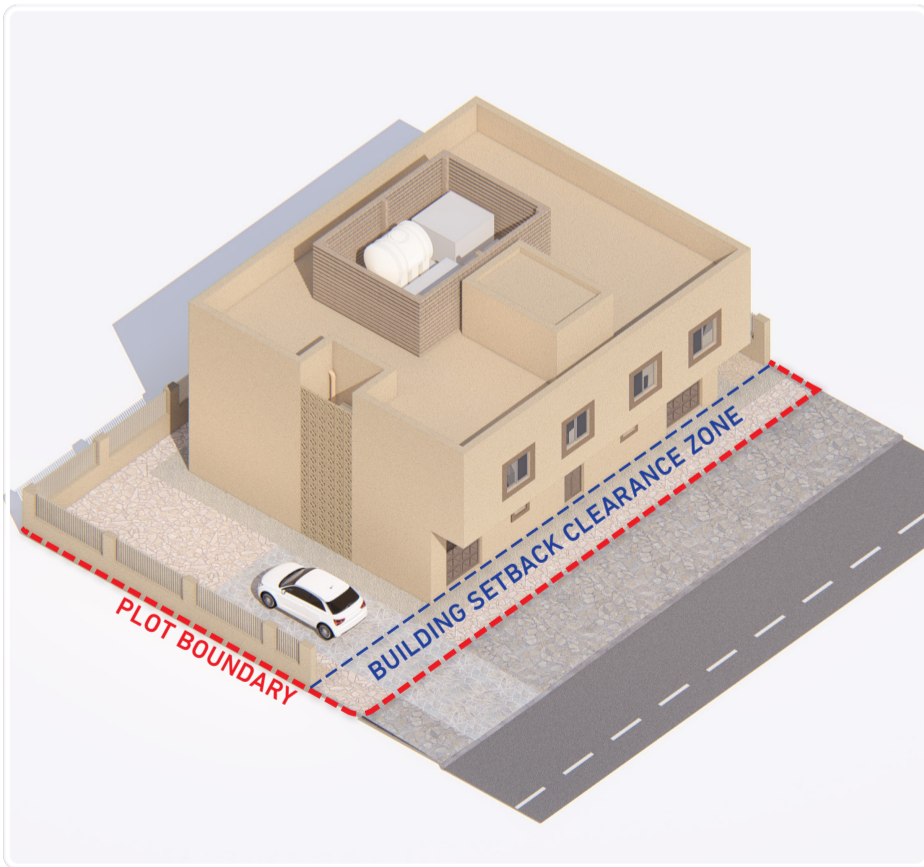
The instructions contained in this guideline are based on the following models:



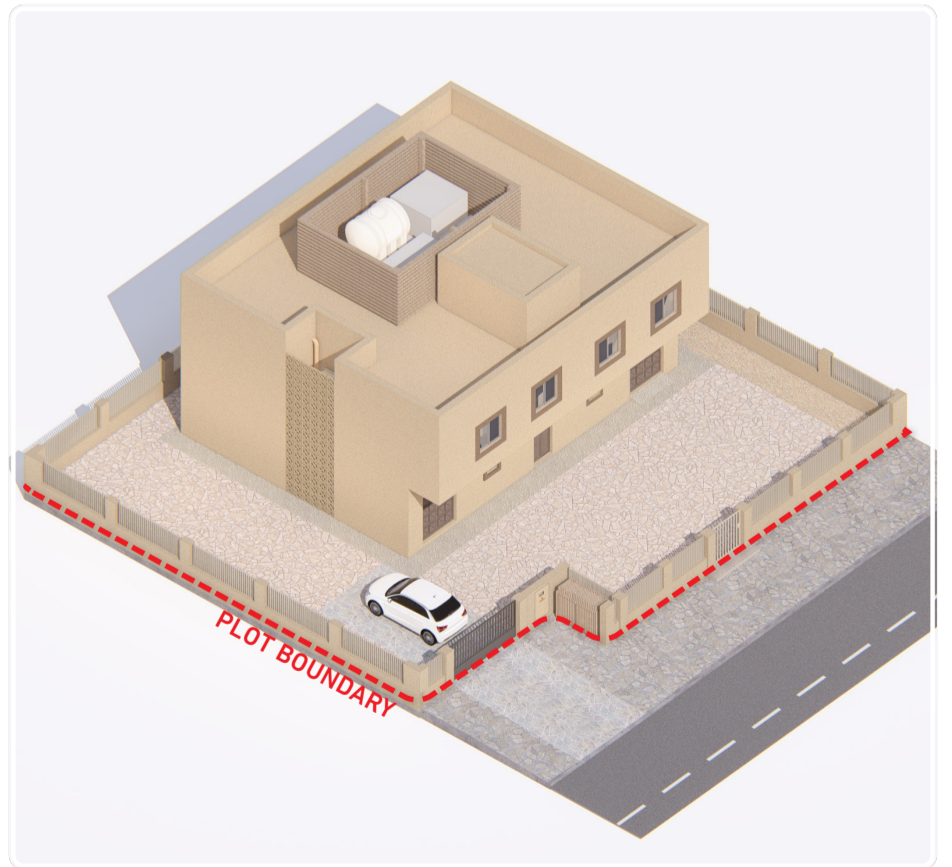
01. BUILDINGS WITH CAR PARKING
(including Mixed-Use, Commercial, Retail, Hospitality, Governmental)



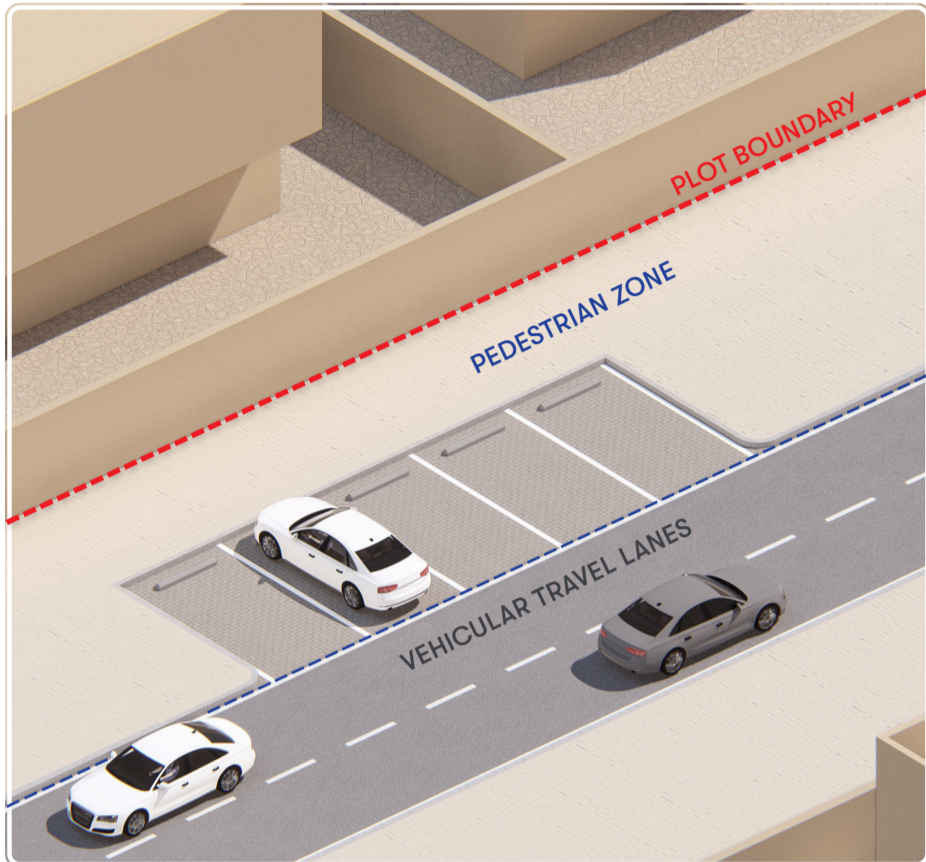
02. DEDICATED CAR PARKING PLOTS
(including Infrastructure, Commercial, Retail, Hospitality, Governmental, Open Spaces)



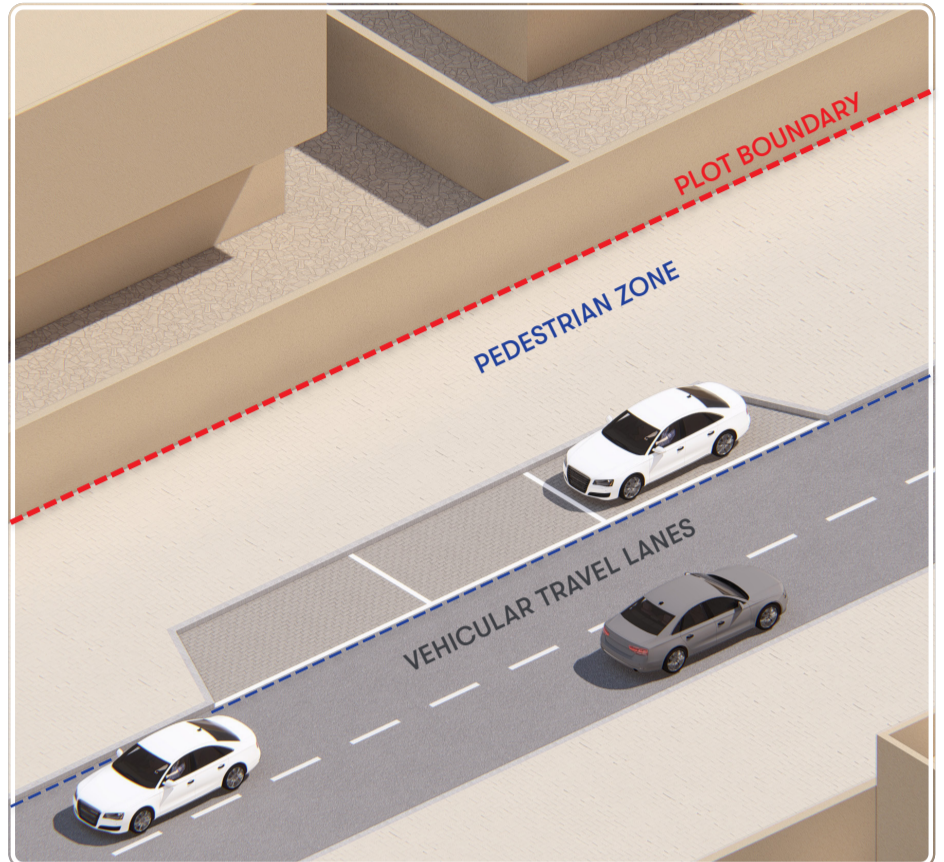
03. PRIVATE RESIDENCE (unfenced)



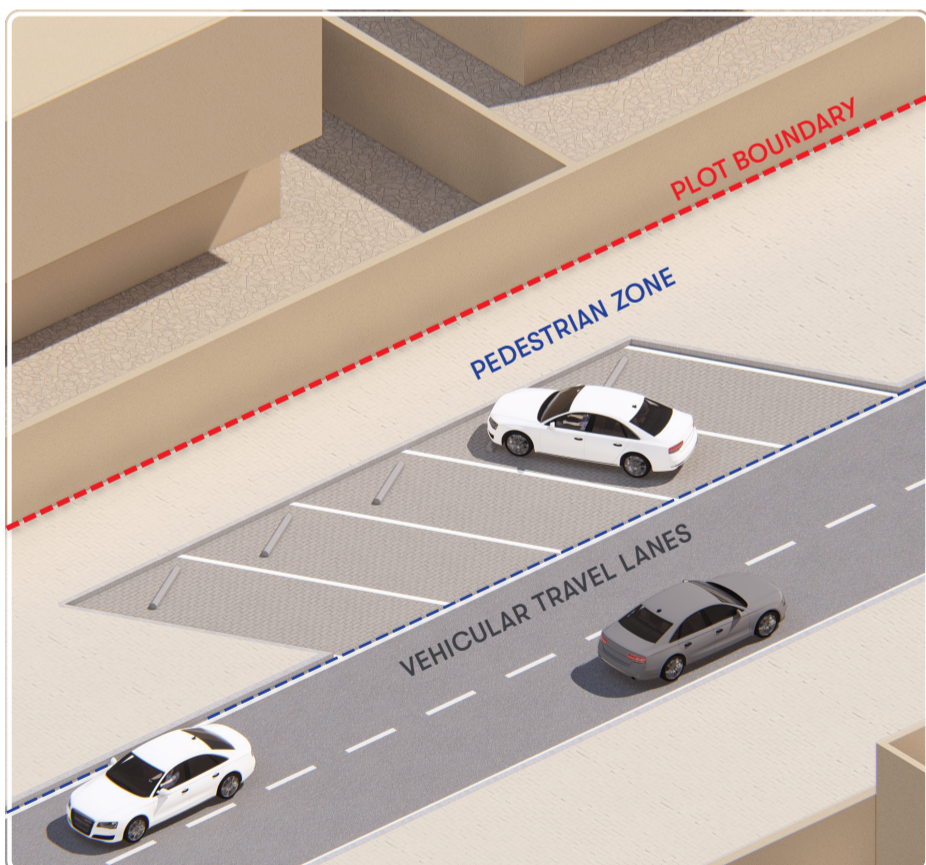
04. Private residence (fenced).



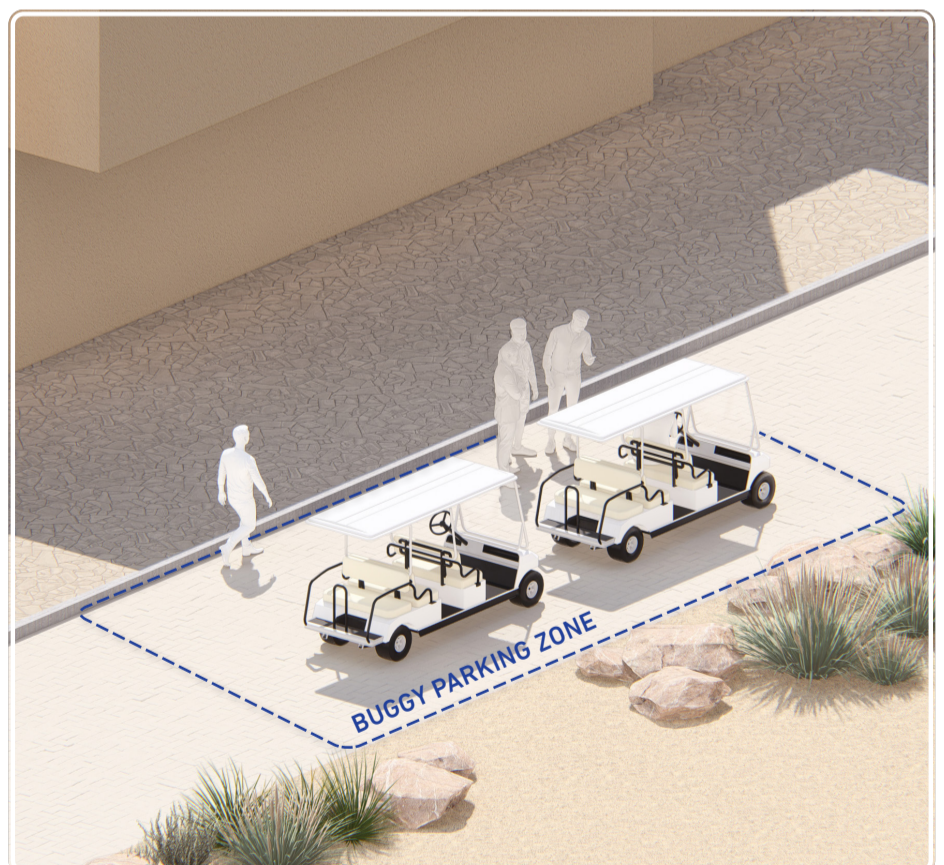
05. PARKING TYPE - PERPENDICULAR PARKING



06. PARKING TYPE - PARALLEL PARKING



07. PARKING TYPE - ANGLED PARKING



08. Types of private shading for golf car parks





2 - General Instructions

The Chapter is subdivided in the following sub sections:

- 2.1 General Instructions
- 2.2 Appropriate Design Application
 - 2.2.1 Materiality and Design Unity
 - 2.2.2 Prohibited Materials
 - 2.2.3 Allowed Materials
 - 2.2.4 Colour Palette
- 2.3 Accessibility Instructions
- 2.4 Sustainability Instructions
- 2.5 Constructability Instructions
- 2.6 Operations & Maintenance Instructions
- 2.7 Softscape Application

2.1. General Instructions

This part of the guideline includes instructions for targeted users / stakeholders regarding the various elements of car shades and their location.

This section specifies the standards and instructions stipulated as follows:

It is not permitted to install canopies in the following cases:

1. If the canopies obscure the facade of the shops on the ground floor or are not suitable for pedestrian walkways and small means of transportation, and in areas that are not conducive to movement by private cars.
2. Or any current or future contexts that the commission may deem to be inconsistent with the framework plan or vision for the geographical boundaries. Taking into consideration the unique specifications of each location.

Canopies:

1. Parking shades are not permitted to be installed outside the boundaries of private property.
2. The projection of the canopies must not exceed a maximum of 3.8 meters. Please see Figure 2.1 on page No. 20 It is necessary to adhere to the dimensional standards when implementing the canopies.
3. Car parking shade structures shall be designed in harmony with the architectural elements of the buildings to blend in with the architectural style and characteristics of the surrounding area see Section 4. The selection of colors from the designated code shall be in accordance with Section 4-2-2 of this guideline.
4. The height of the canopies ranges between 2.5 and 3 meters maximum. Please see Figure 2.2.
5. It is prohibited to construct canopies in parking lots located at the setback corner.
6. One model for the structure of parking canopies must be adhered to for the parking lots of the owners of one building. See Section 4.
7. The canopies pole must be installed at a maximum distance of 0.2 to 0.5 meters from the edge of the sidewalk.
8. Parking canopy structures must not be built above the main gate.
9. Avoid limiting the shading of large parking lots with canopies, and thus find a balanced approach between shading with trees and canopies.
10. In accordance with Section 6.1.2, it is prohibited to cover the sides of the parking shade structure or the entire structure with sails or otherwise.
11. Car parking shade structures must be constructed within the boundaries of the plot of land in question and not exceed the scope of the area allocated for that plot. Please see figure 2.1.A
12. Parking canopy structures must not obstruct pedestrian path.
13. Do not obstruct the movement of vehicles in front of the main entrances.
14. Parking canopy structures must not interfere with the vehicular path.
15. Parking spaces must be allocated for people with disabilities on a slope no less than 90 cm wide.
16. It is prohibited to establish canopy structures near electrical transformers and electrical room doors and entrances.
17. The ideal pole width of the canopy structure should not exceed 0.35 m.

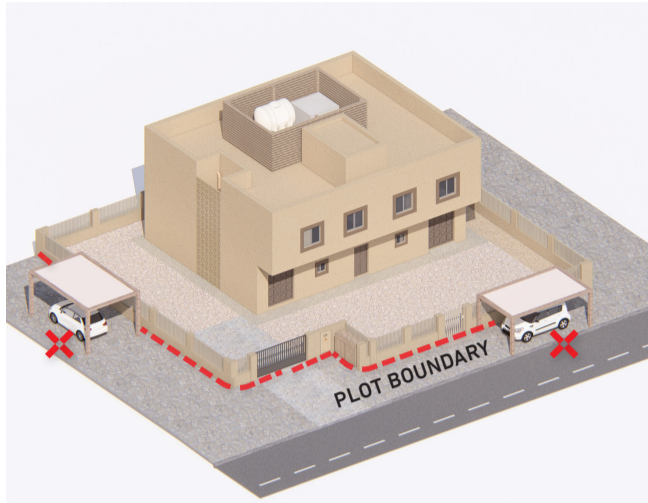


Figure 2.1.A: Car parking shade structures must be constructed within the boundaries of the plot

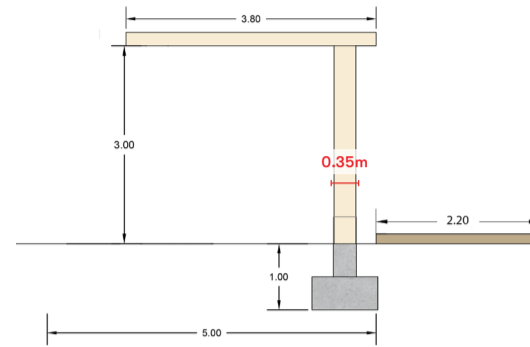


Figure 2.1.B: ideal pole width of the canopy structure.

Planting:

1. At least one tree must be planted every 6 m on the sidewalk and central islands to provide shade on the sidewalk and when placing parking lots, and fixed planting beds should not be placed in front of the entrances to parking lots and buildings. Please see figure 2.1.C
2. It is preferable to adhere to local species of plants and trees according to the planting plate that belongs to the geographical scope.
3. Shading must be provided for 40% of the total number of parking spaces either by planting trees or canopy structures.



Figure 2.1.C: Planting

2.1.1. Cross-Section Application

Parking Scenarios Shade Structure Placement above Parking

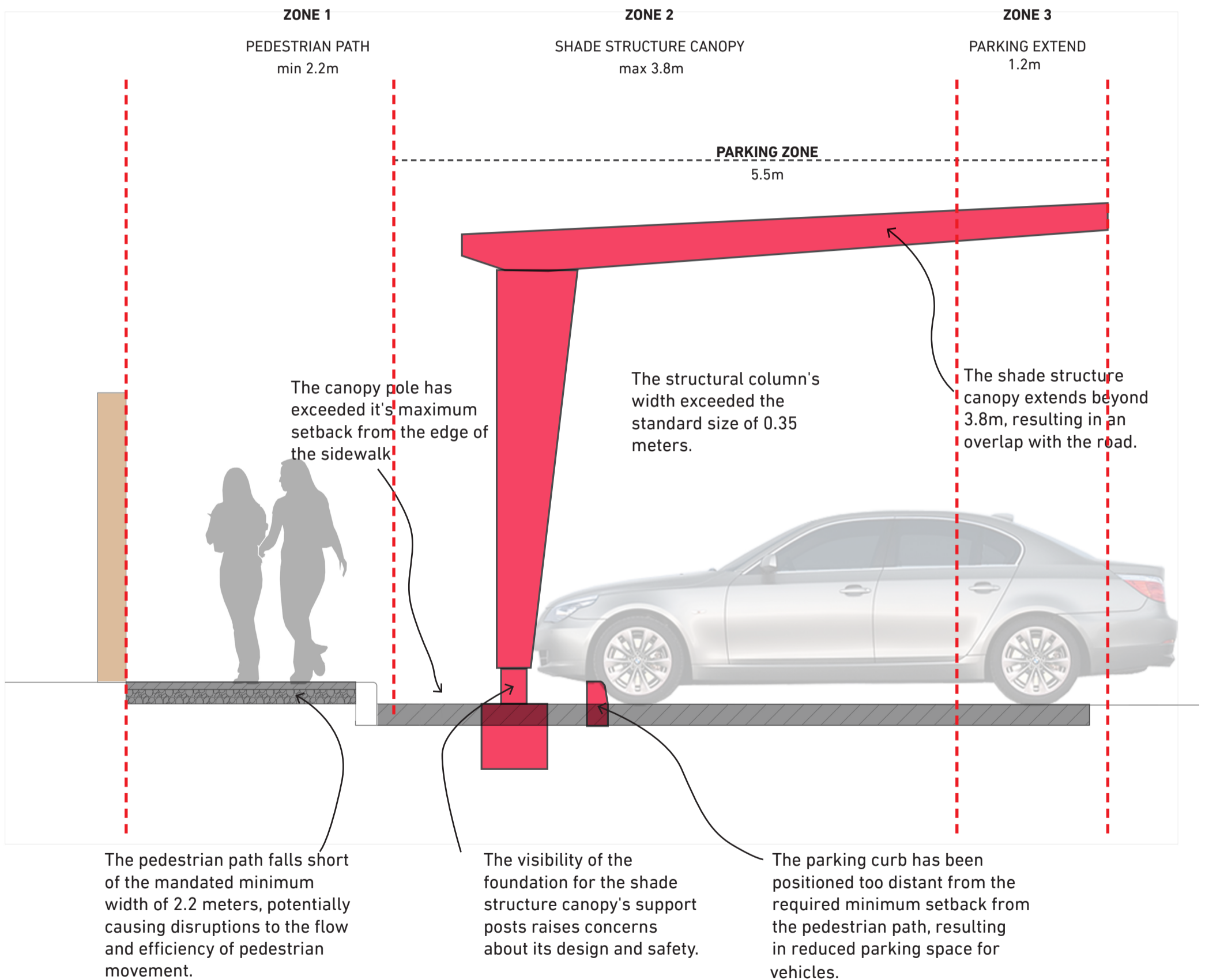


Figure 2.1: Non-Compliant Shade Structure Placement Principles

Parking Scenarios Shade Structure Placement above Parking

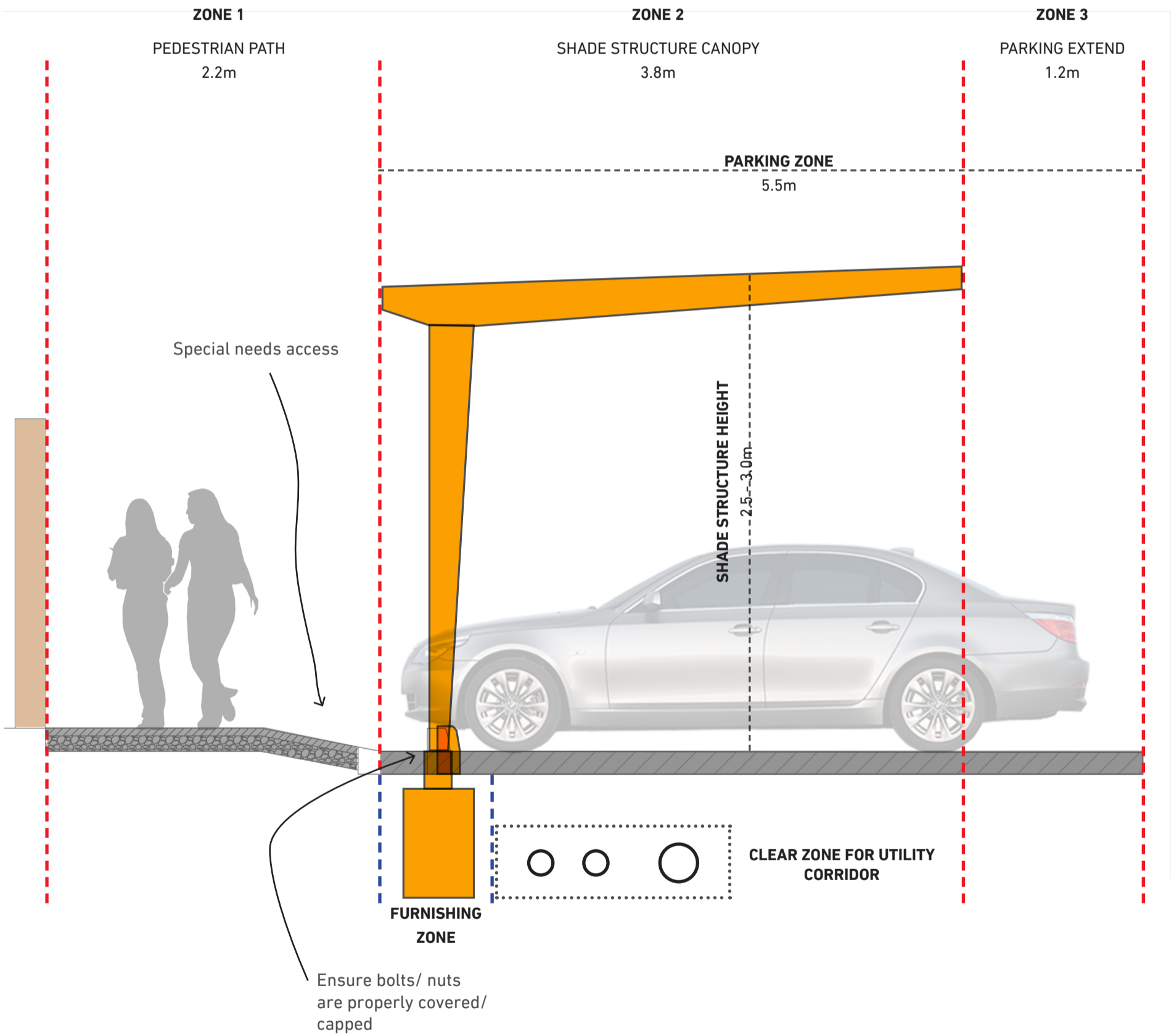


Figure 2.2: Compliant Shade Structure Placement Principles

2.1.2. Parallel Parking Scenario

Follow the [relevant instructions for designing parking spaces](#) approved by the commission for use in parallel parking spaces.

Instructions for Parallel, Perpendicular & Angled Parking

1. Use parking shade structures only in areas designated for parking. Please see Figures 2.3, 2.7 and 2.11.
2. Car parking shade structures must not interfere with vehicle routes, please see Figures 2.4, 2.8 and 2.12.
3. Car parking shade structures must not obstruct pedestrian paths. Please see Figures 2.13, 2.9 and 2.5.
4. Car shade structures must be compatible with the requirements and instructions shown in this figure. Please refer to Figures 2.6, 2.10 and 2.14.

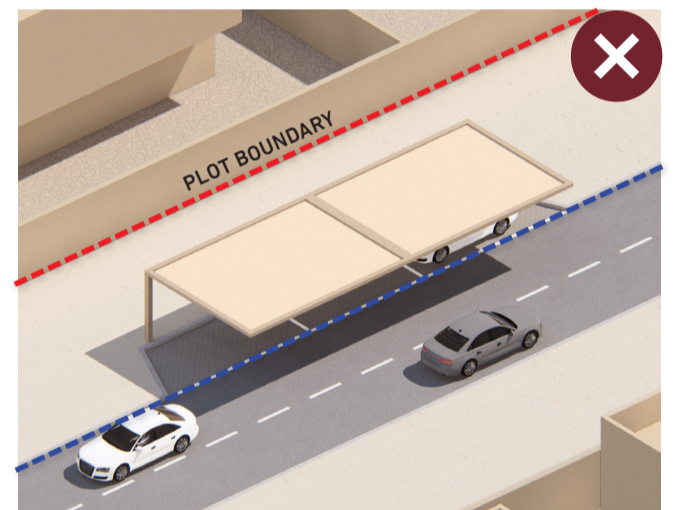
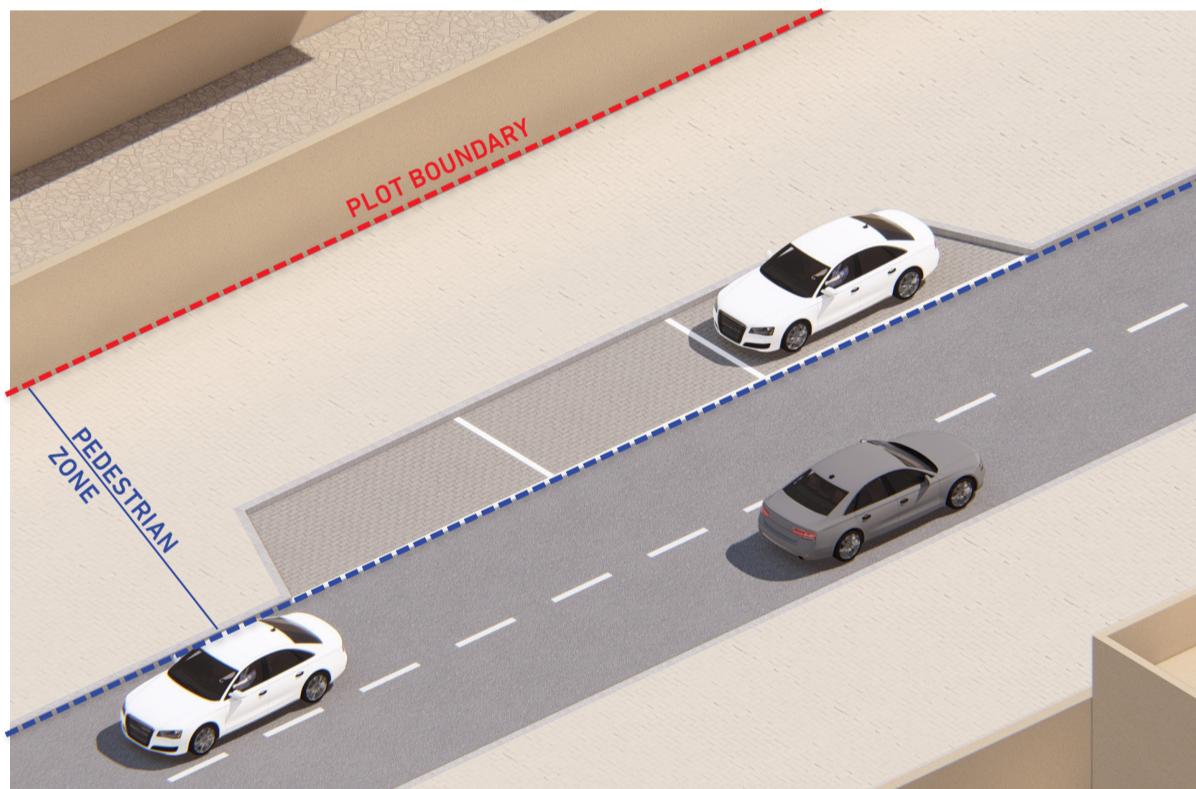


Figure 2.4: Overlapping to vehicular zone

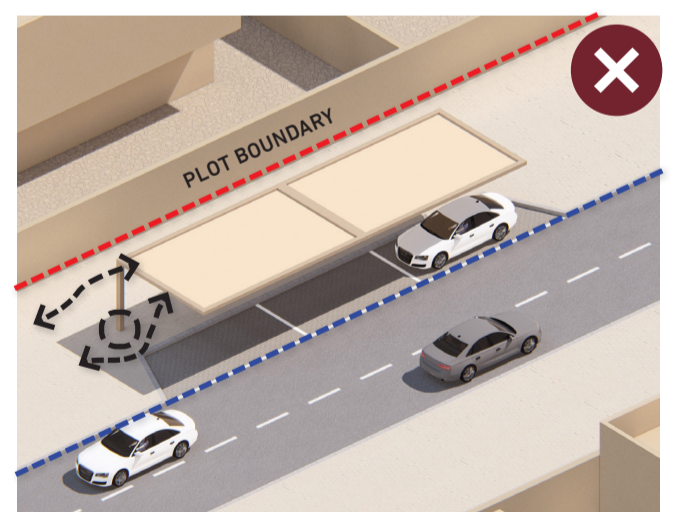


Figure 2.5: Obstruction of footpath flow

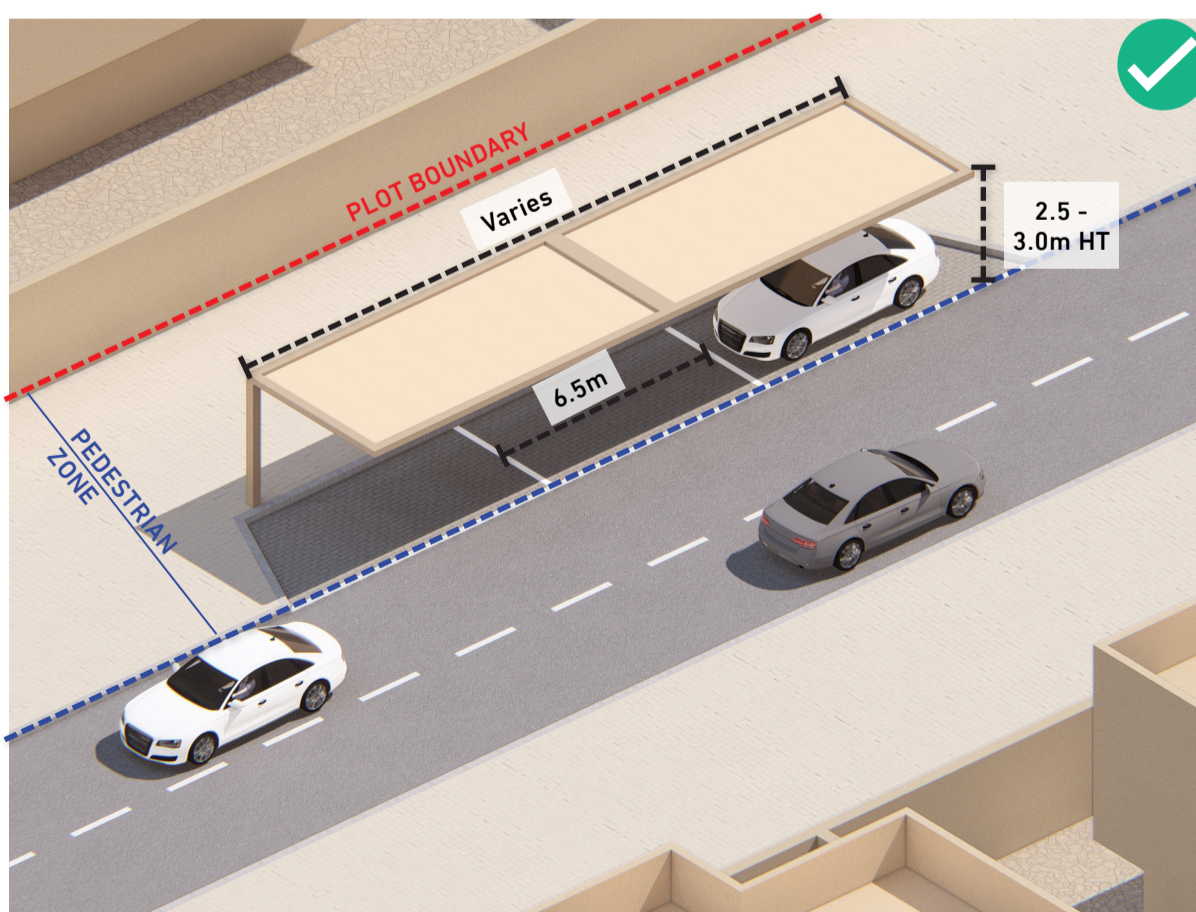


Figure 2.3: Parking shade structure designed within specified boundaries

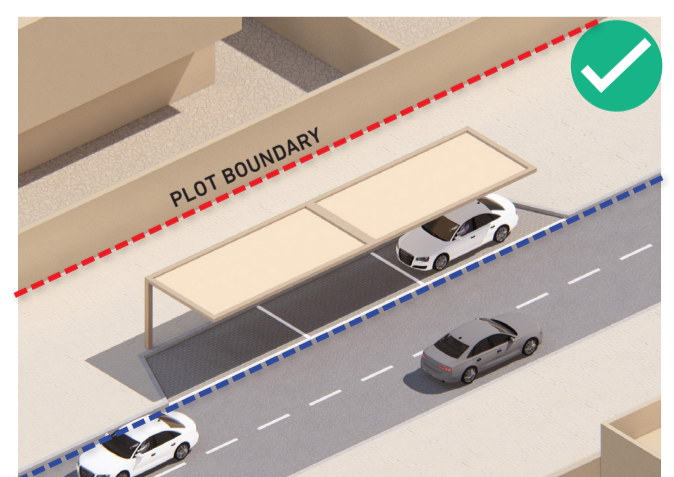


Figure 2.6: Car park structure integrated within the parking boundary

2.1.3. Perpendicular Parking Scenario

Follow the [relevant instructions for designing parking spaces](#) approved by the commission for use in vertical parking spaces.

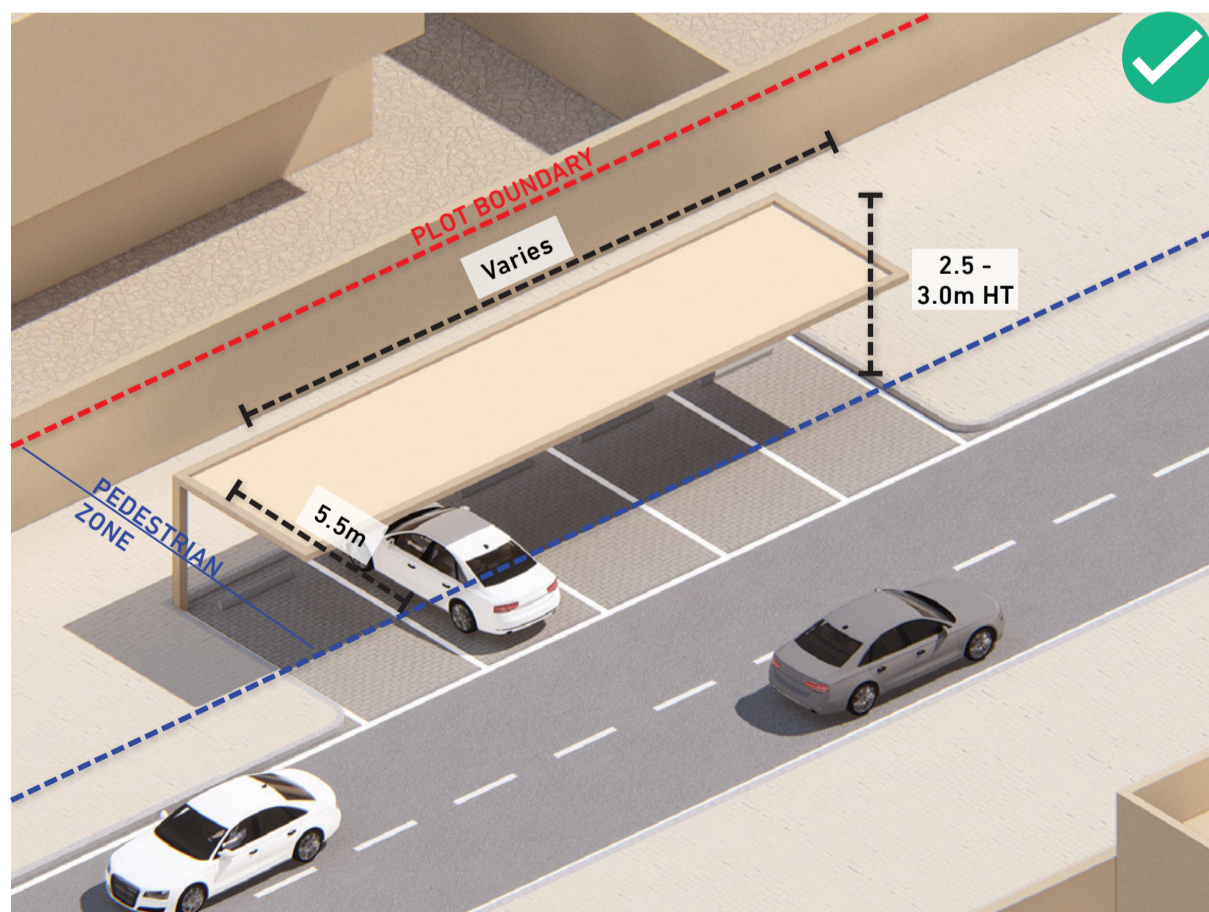
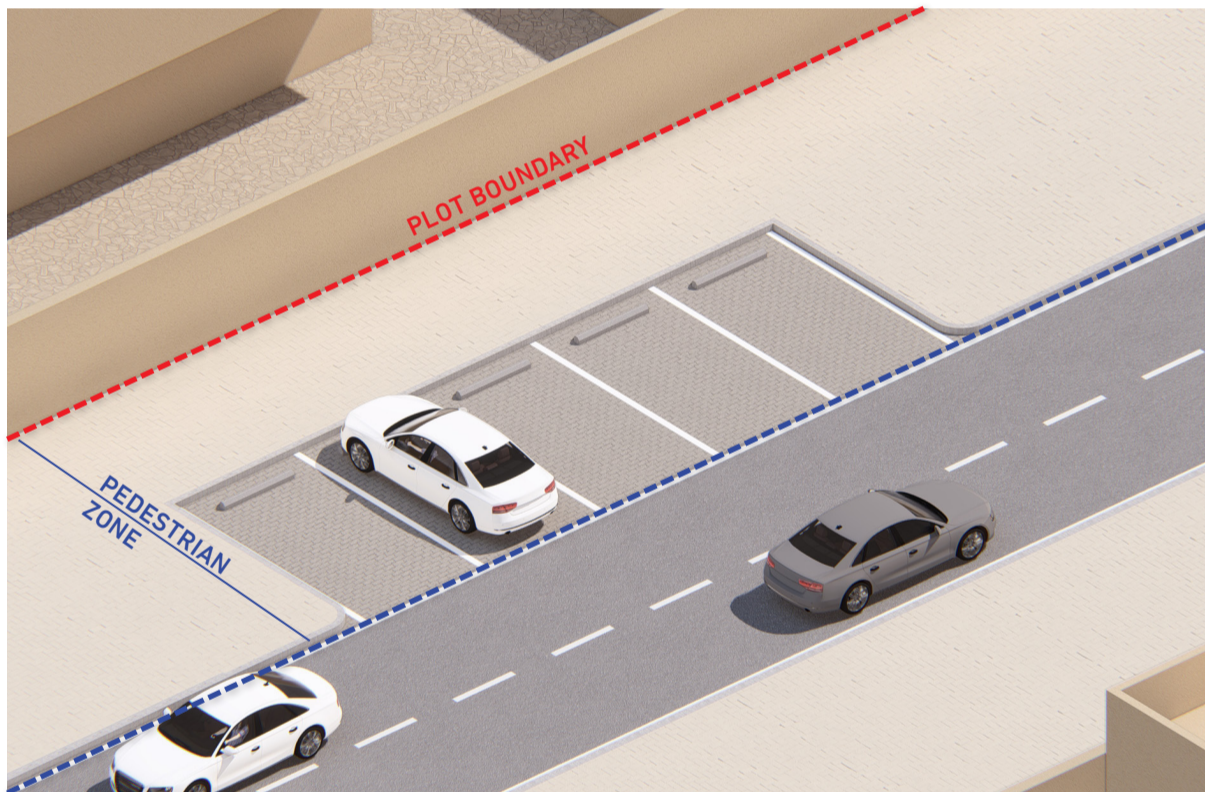


Figure 2.7: Parking shade structure designed within specified boundaries

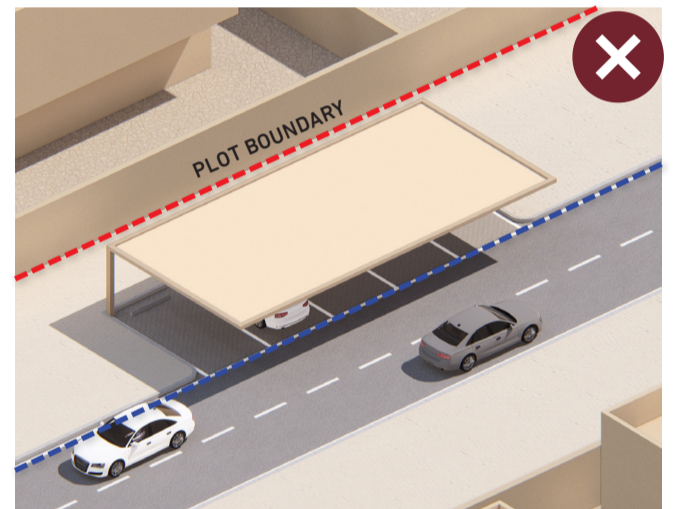


Figure 2.8: Overlapping to vehicular zone

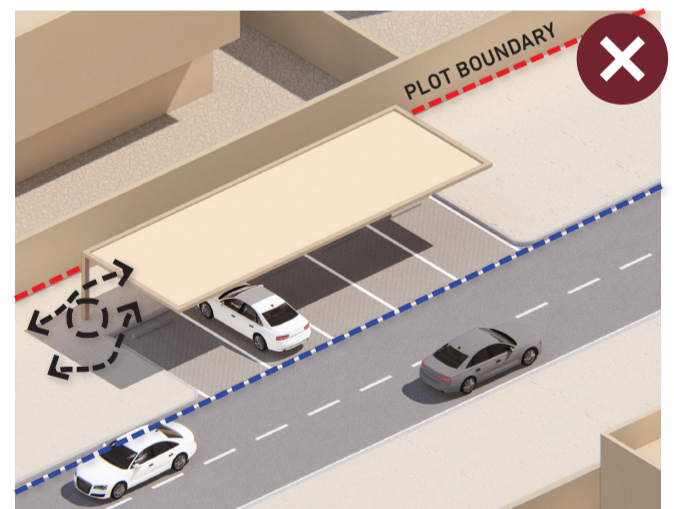


Figure 2.9: Obstruction of footpath flow

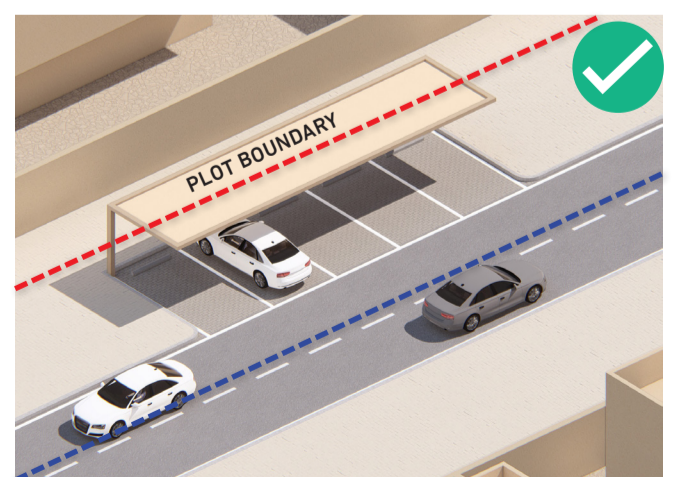


Figure 2.10: Car park structure integrated within the parking boundary

2.1.4. Angled Parking Scenario

Follow the [relevant instructions for designing parking spaces](#) approved by the commission for use in angled parking spaces.

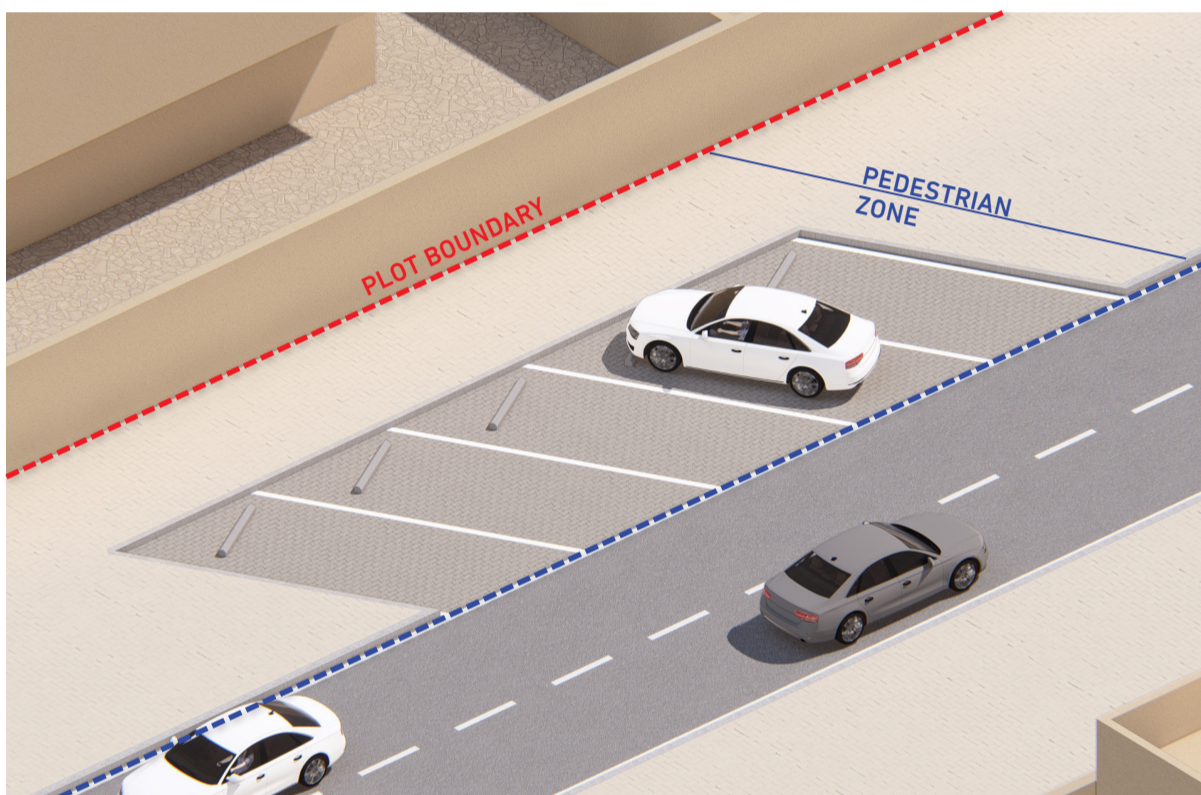


Figure 2.11: Parking shade structure designed within specified boundaries

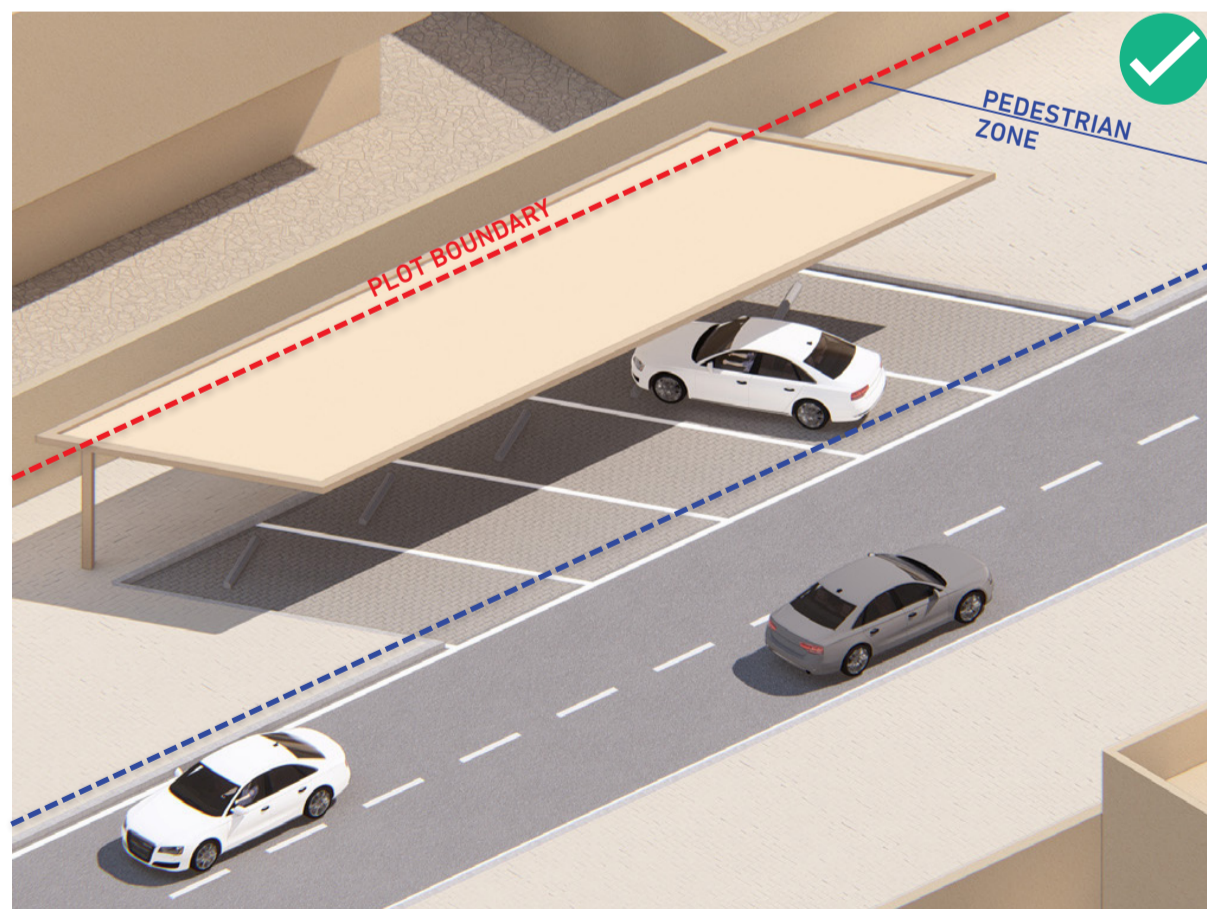


Figure 2.12: Overlapping to vehicular zone

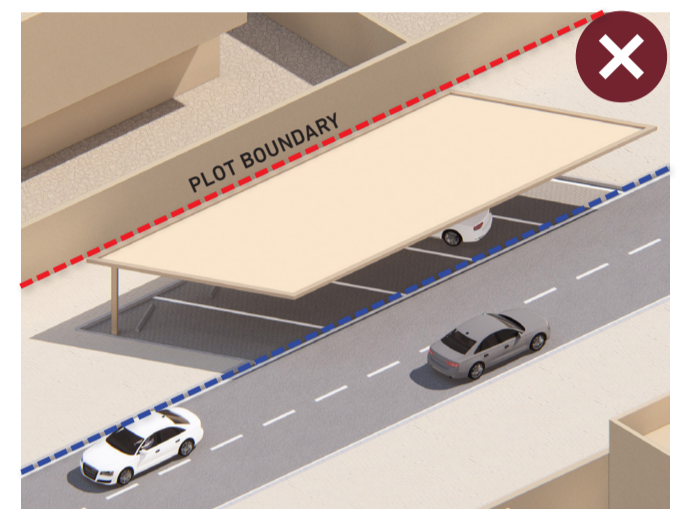


Figure 2.13: Obstruction of footpath flow

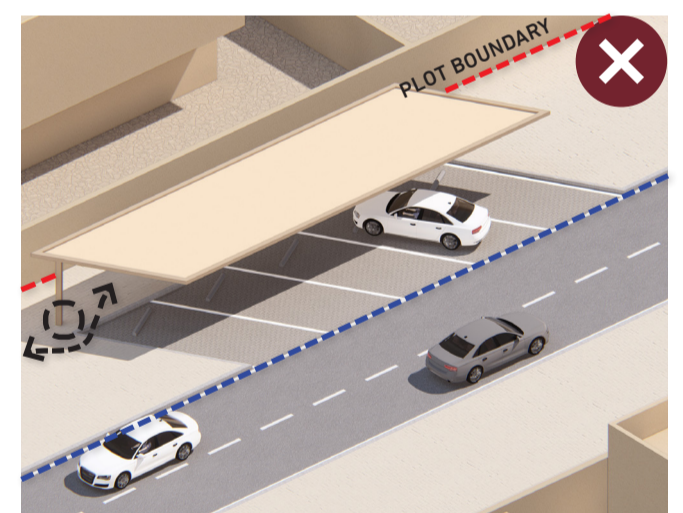
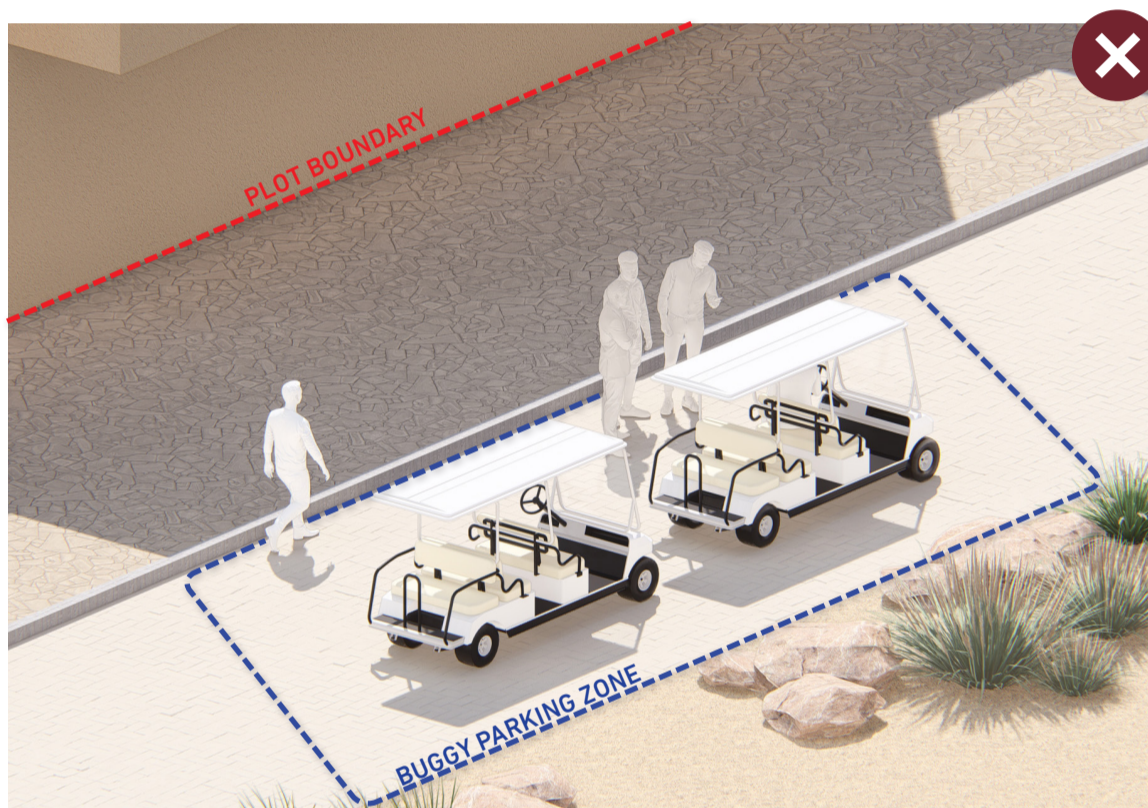


Figure 2.14: Car park structure integrated within the parking boundary

2.1.5. Buggy/Golf Car Stops Scenario

Follow the [relevant instructions for designing parking spaces](#) approved by the commission for use in golf car parks.



Instructions

1. The design of car parking structures should complement the surrounding landscape and architectural elements using materials and colors that harmonize with the natural environment, see Figure 2.16.
2. The parking arrangement should facilitate entry and exit, and provide paths between parking lots and designated paths.
3. Shaded parking areas should be easily accessible by people with disabilities by providing designated areas in accordance with accessibility standards and regulations.

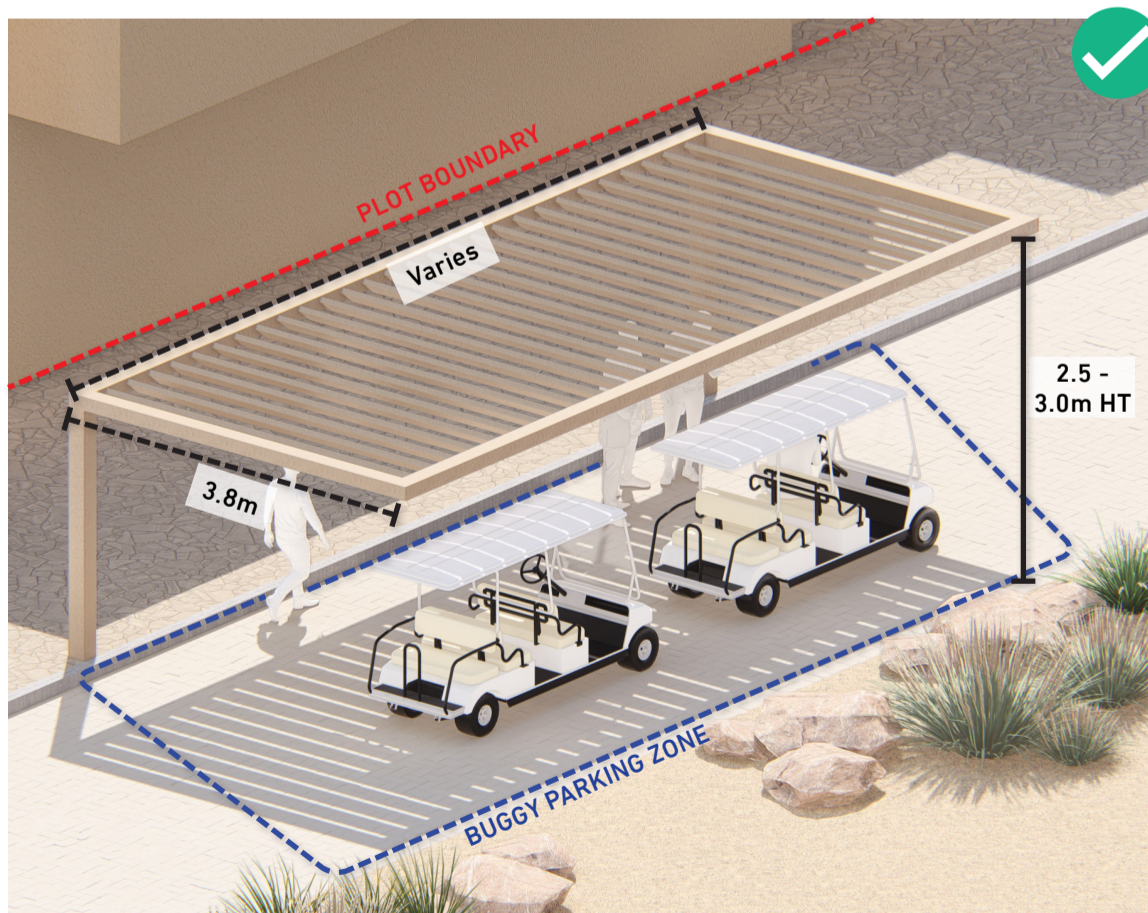


Figure 2.15: Designated buggy/golf car shaded parking

Figure 2.16: Parking shade structure designed in harmony with the architecture

2.1.6. Prohibited Designs and Conditions

Examples of Prohibited designs and conditions

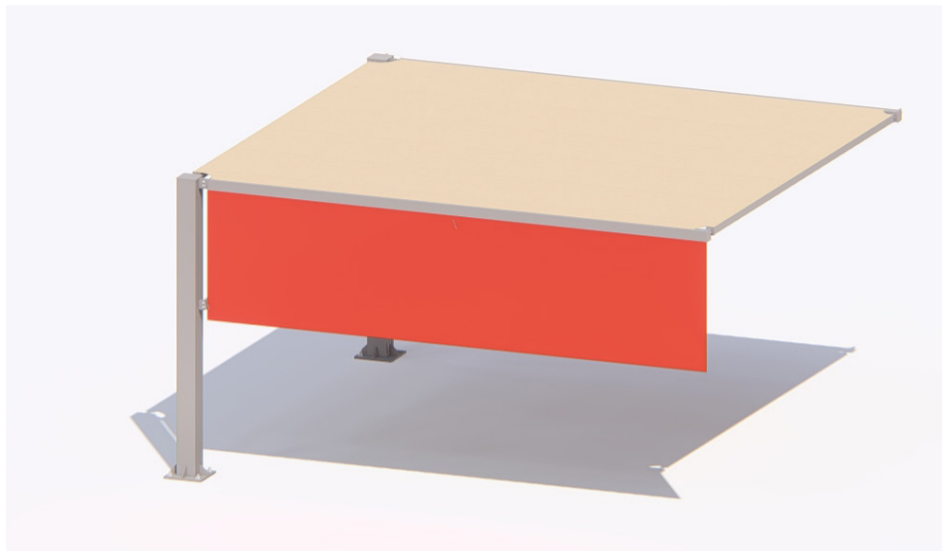


Figure 2.17: Covering Partial Sides

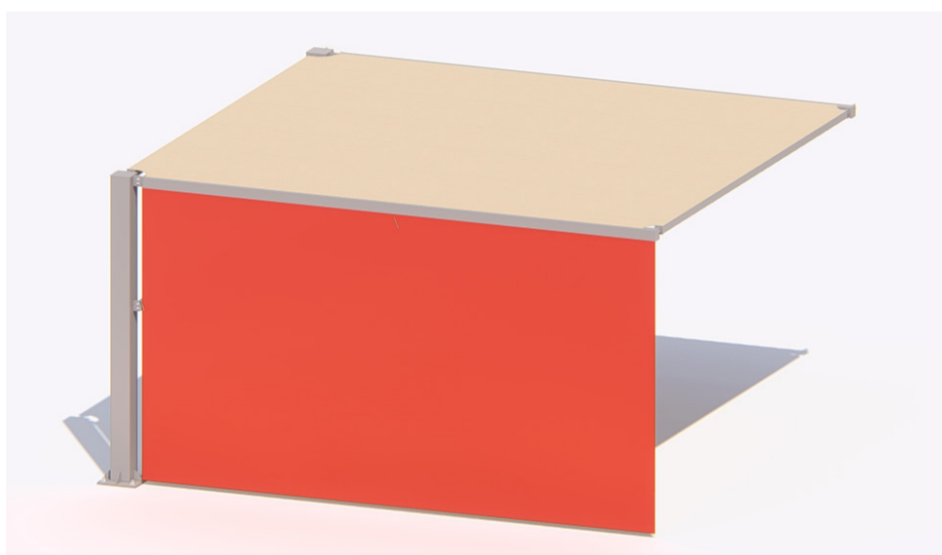


Figure 2.18: Covering Complete Sides

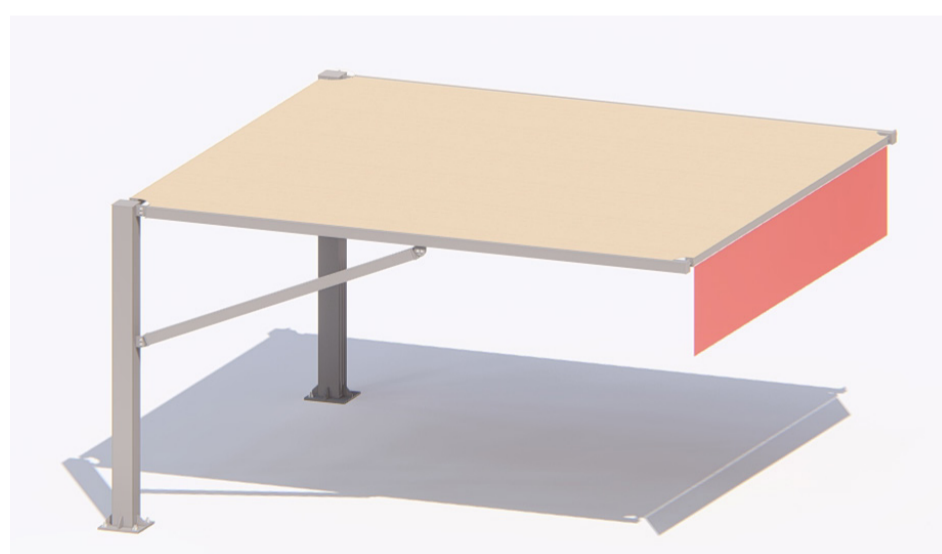
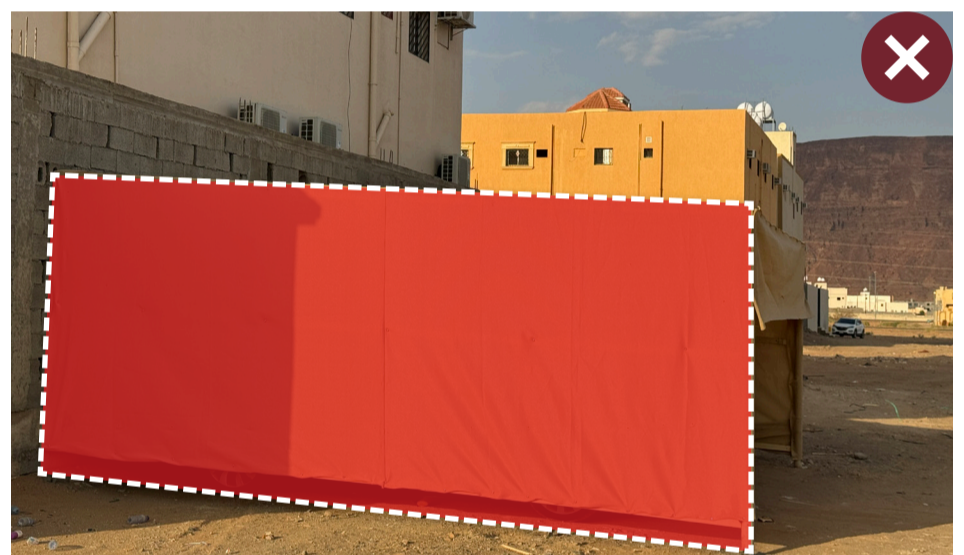


Figure 2.19: Covering Partial Front



Examples of Prohibited Designs Perimeters

1. It is prohibited to cover any side of the parking lots as shown in Figures 2.17, 2.18, 2.19, and 2.20.2.15.
2. It is required to adhere to the design set forth in Section 4
3. It is prohibited to have structural tension cables, such as: Figure 2.22
4. Prevents structural columns carrying excessive loads, such as: Figures 2.23 and 2.24

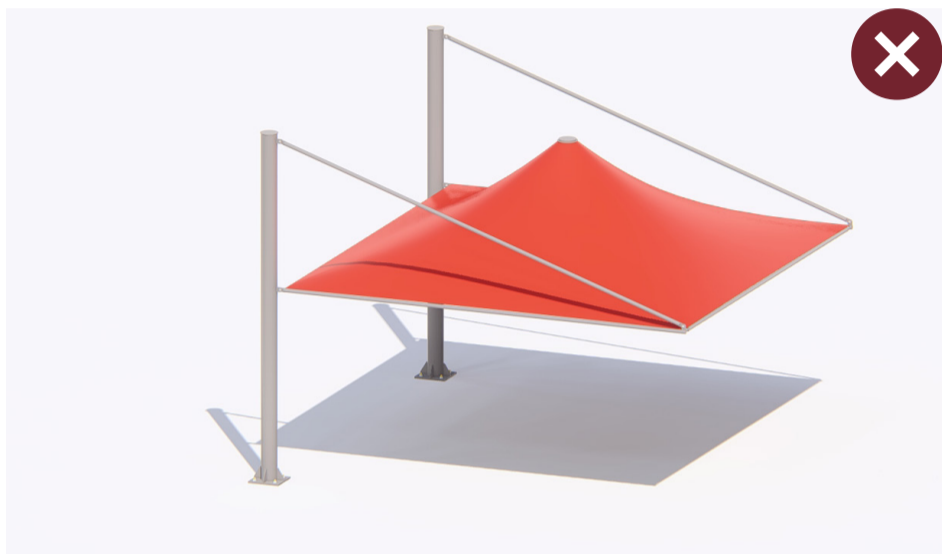


Figure 2.20: Example of unacceptable shade structure design.

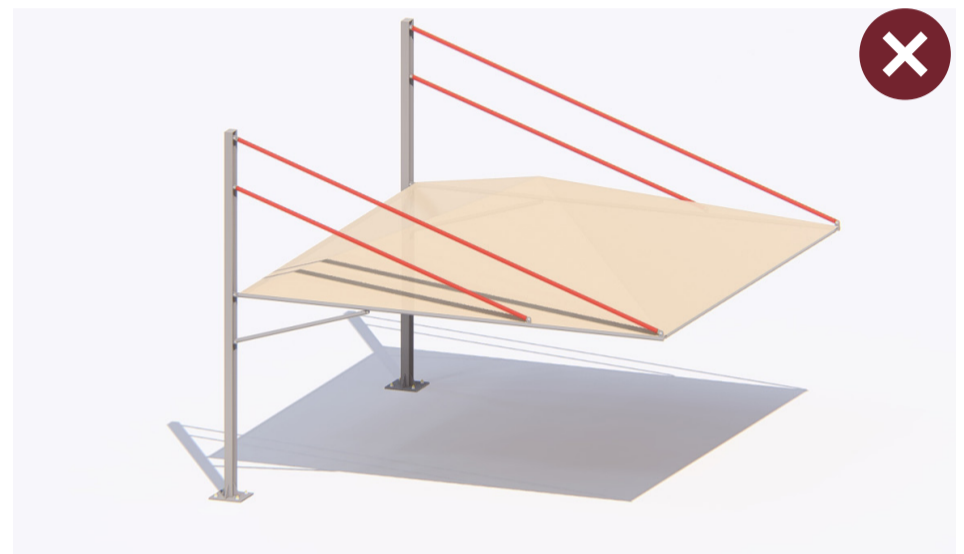


Figure 2.21: Example of Structural Tension Cables.

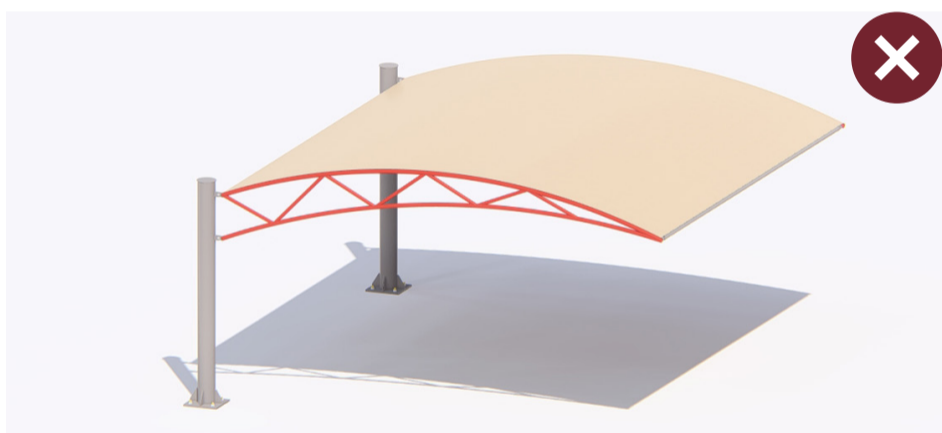


Figure 2.22: Example of Excessive Load-Bearing Structure #1.

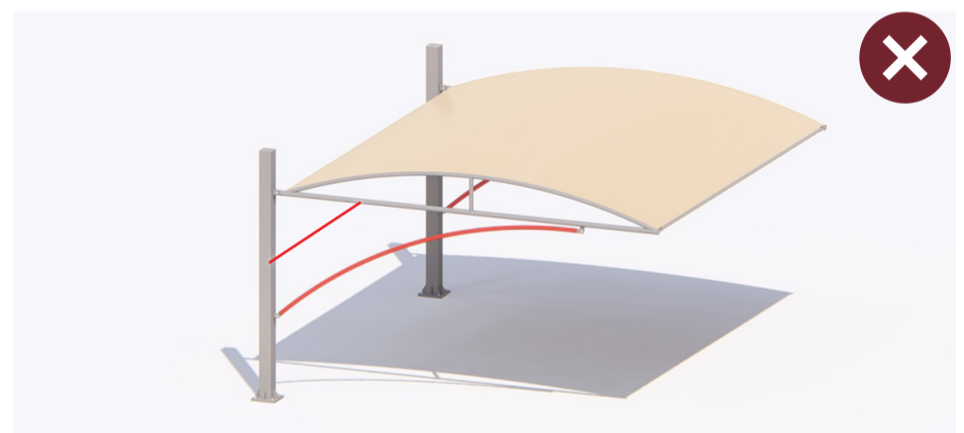


Figure 2.23: Example of Excessive Load-Bearing Structure #2.

2.2. Appropriate Design Application

2.2.1. MATERIALITY & DESIGN UNITY

The design must contribute to the excellence and quality of the local character and support sustainability. Local building materials can be used. The selection of building materials and technologies is an essential aspect of the design process. Please see Figure 2.24.

Designers must take advantage of the region's climate, which is known for its temperature differences between day and night, by choosing appropriate materials, and they can also benefit from local sources.

All canopies design proposals shall comply with the following requirements:

1. Propose the canopy location based on the surrounding architectural context.
2. Take into consideration the public realm and master plans when selecting materials.



Figure 2.24: Example of materials and design applicable for shade structure

2.2.2. PROHIBITED MATERIALS



Figure 2.25: Illustration of Prohibited Materials

2.2.3. PERMITTED MATERIALS



Figure 2.26: Illustration of Permitted Materials

2.2.4. COLOUR PALETTE

The specified color palette for the geographical area shall comply with the following instructions:

- Sandy desert, sandy colors and shades of green are acceptable because they blend in with nature and the non-urban environment.
- White, grey, black, blue, and strong bright colors such as: red and yellow, including different color and shades, should be avoided.
- Concrete block/aluminum sheet/column work prevents unfinished and/or unpainted frames.
- Colors must be harmonious when more than one color is used, and the main color combination as shown below must provide the majority of the colors applied to the structure.
- The same or similar colors can be used on existing and new buildings to unify a group of buildings/structures, please see Figure 2.27.
- Contrasting colors or materials can be used to highlight specific architectural features, or to divide large surface areas.

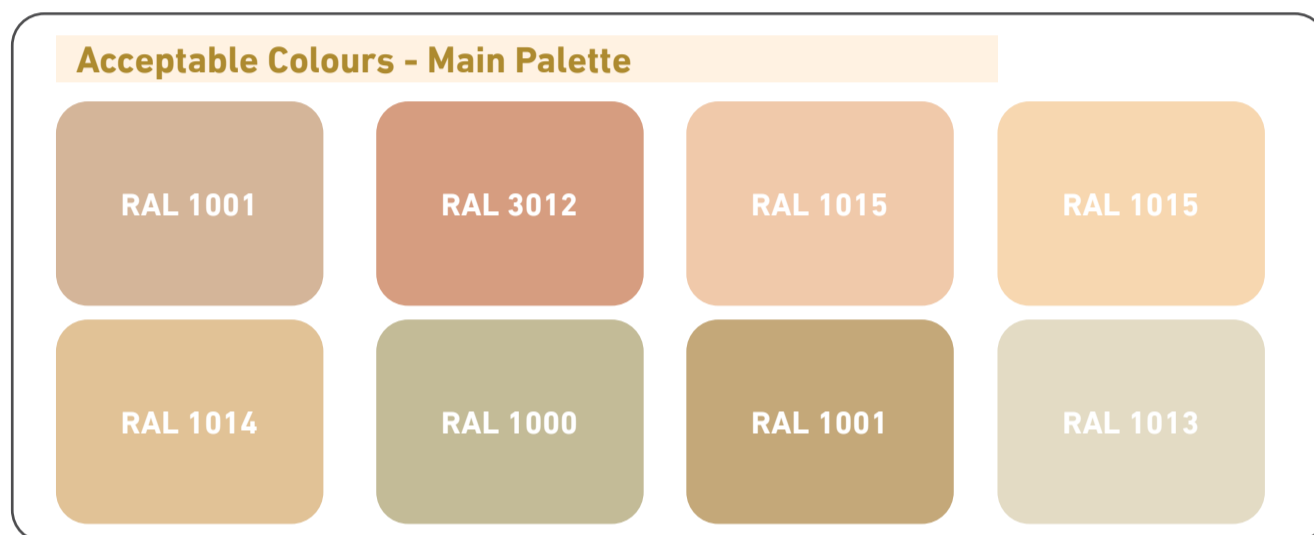


Figure 2.27: Example of an Acceptable Colour Palette Combinations

2.3. Accessibility Instructions

Rationale

The location of the canopy must not negatively affect the movement in the surrounding areas of cars, people or residents, as it must be of an appropriate size taking into consideration the height and location of the poles.



Figure 2.28: Shading provision above Disabled Parking Zones



Figure 2.29: Suitable scaled Shade for taller vehicles



Figure 2.30: Shade Structure too low for purpose

Instructions

1. Design canopy structures with inclusivity in mind so that they suit all people regardless of age, ability or condition. Please see Figure 2.28.
2. The path leading to and from shaded parking must be wide enough to accommodate wheelchairs and wheelchairs Aided on mobility.
3. Use gentle ramps, handrails, and non-slip surfaces instead of stairs, and connect them to parking lots designated for people with disabilities.
4. Ensure the stability of ground surfaces under and around canopies and must be non-slip with materials consistent with the architectural context.
5. Commitment to the minimum canopy height to prevent obstacles for long cars and ambulances - minimum 2.5 m maximum 3.0 m, please see Figure 2.29
6. Signs and supporting elements, such as the sign for people with disabilities, must be designed in a way that achieves accessibility for all segments of society.
7. Providing sufficient movement space within the canopy area for wheelchairs, strollers, and mobility aids.
8. Avoid overcrowding the area with many equipment and means.
9. Illuminate the canopies adequately in times of low light without glare.
10. Place lighting devices to reduce shadows and ensure safe movement.
11. Comply with accessibility guidelines issued by the King Salman Center for Disability Research.
12. Surveillance cameras should be placed on canopy poles when required by the area or government instructions.
13. Ensure that these structures do not obstruct security systems such as surveillance cameras
14. It is advisable to provide shading on the site as much as possible, taking into consideration possible parking constraints.

NOTE :

Please see the King Salman Center for Disability Research

2.4. Sustainability Instructions

Rationale

Sustainability is important in all aspects of design including the construction of canopy structures, and the local environment, weather and community needs must be considered when designing to ensure the positive impact of canopies.



Figure 2.31: PV-Panel Car Parking Shade Structure



Figure 2.32: Shade Structure made from Recycled Materials



Figure 2.33: Shade coverage made of Prohibited Materials

Instructions

1. Prioritize the use of recycled/recyclable materials in material selection, see Figure 2.32.
2. Choose durable, long-lasting, low-maintenance materials to minimize alternatives.
3. Preferably source building materials locally to minimize carbon footprint.
4. Design shade structures for multiple purposes such as placing photovoltaic panels, see Figure 2.31.
5. Shade structures with photovoltaic panels are permitted in commercial parking lots and must be designed and installed by a qualified person in compliance with regulations and instructions.
6. Enhancing natural airflow in the design of canopies to reduce the need for artificial cooling.
7. Designing canopy structures to be easily dismantled and reassembled to reduce waste.
8. Choosing environmentally friendly and harmless finishes and materials.
9. Harmony of structures with the natural environment and local architectural specifications.
10. Using prefabricated materials as much as possible to reduce on-site waste and energy consumption.
11. Choose materials with high solar reflectance index values to reduce the impact of heat waves.
12. Provide shade for at least 40% of parking spaces.
13. Avoid reflective surfaces such as concrete in parking lots.
14. Consider using demountable shade structures for flexibility.
15. Choose durable and weather-resistant materials such as fabric shades or retractable shades.
16. Ensure easy access for vehicles with appropriate permits.
17. Size canopy structures based on the number and size of vehicles and mobility.
18. Canopy structures materials should be free from noise and light pollution.

2.5. Constructability Instructions

Rationale

The constructability instructions will help ensure that canopy structures are constructed effectively, safely, and durably, meeting the needs of users while enhancing the environment in which they are placed. Best practice and local guidelines/regulations in regards to safety, design and Implementation.



Figure 2.34: Cleaning the site after construction is complete



Figure 2.35: Safety Wear (PPE) whilst working on-site



Figure 2.36: Unsafe construction conditions

Instructions

1. Conduct a comprehensive site analysis prior to construction, including understanding soil type, sun direction, wind patterns, and checking any underground utilities or barriers.
2. Ensure that all structures must be able to withstand weather events and strong winds
3. Obtaining all required permits and adhering to the Saudi Building Code and the Saudi Fire Protection Code.
4. Choose sustainable materials that can withstand local climate conditions including UV-resistant choices Violet for effective shading.
5. Giving safety priority by following safety guidelines and using appropriate equipment, please see Figure 2.35 and Figure 2.36.
6. Reducing the environmental impact through waste management, protecting plants, preventing soil erosion, and using environmentally friendly materials as much as possible.
7. Consider hiring specialists and competent companies to create complex designs.
8. The structure must be inspected for defects and a third-party verification process must be undertaken after construction.
9. Use adjustable designs if possible, especially for structures created with moving elements.
10. Maintain records of construction process details, materials, and modifications for future maintenance or repairs.
11. The site must be thoroughly cleaned after construction by removing debris and waste materials, please see Figure 2.34.

2.6. Operations & Maintenance Instructions

Rationale

Canopies Structures are long-term solutions to ensure adequate shading facilities above permanent car parking locations. These structures are to ensure safe, efficient and manageable maintenance instructions, which is to be regularly actioned to ensure the longevity of the elements.



Figure 2.37: Damage to the Fabric Awning Sail



Figure 2.38: Peeling & Rust of the Painted Metal Finish



Figure 2.39: Rust at the Base of the Shade Structure Column

Instructions

1. The joints, bolts, materials, finishes and general integrity of the canopy structures should be inspected regularly by a professional inspector.
2. Keep the canopy structures clean with soap and water to prolong their life and maintain their appearance, avoiding harsh chemicals.
3. Cover all metal materials with anti-rust paint/paint, see Figure 2.38.
4. Ensure that all screws and nuts in the base are covered with caps.
5. Evaluate the UV protection capacity periodically, especially for materials sensitive to sunlight. Address any damage, even minor problems, immediately to prevent larger problems. When there is doubt about safety, access to the site is restricted until evaluation and repair are carried out.
6. Consider using UV-reducing materials if signs of corrosion appear.
7. Address any damage, even minor problems, immediately to prevent bigger problems. When there is any doubt about safety, restrict access to the site until it is evaluated and repaired.
8. Replace worn parts or sections instead of temporary repairs for long-term structural integrity, see Figure 2.37.
9. Ensure secure installation by checking brackets, screws and fastening systems, see Figure 2.39.
10. Check for nests or insect infestations, especially in natural materials or near trees, and these must be treated by specialists. The stability of the structure is checked after extreme weather events to ensure that there are no signs of structural weakness.
11. Use insect repellent and environmentally friendly materials when needed.
12. Know the expected life of the canopy structure materials and provide an alternative when nearing the end of their useful life.
13. Monitor physical damage, such as: fading, thinning, and fragility and take the necessary measures to address any of these.
14. The stability of the structure is checked after severe weather phenomena to ensure that there are no signs of structural weakness.
15. Ensure that all metal materials are treated with anti-rust powder coating.
16. Ensure that the slope is appropriately designed to prevent water from accumulating under the canopies.

2.7. Landscape Application

2.7.1. Integration of Natural Shading

Due to the lack of sufficient natural shading, this leads to a high degree of Earth's surface temperature and planting trees and placing them on sidewalks and parking lots will be one of the most sustainable practices for parking, which can reduce surface temperatures and increase the comfort level for pedestrians in the geographical area. Please see Figure 2.41.

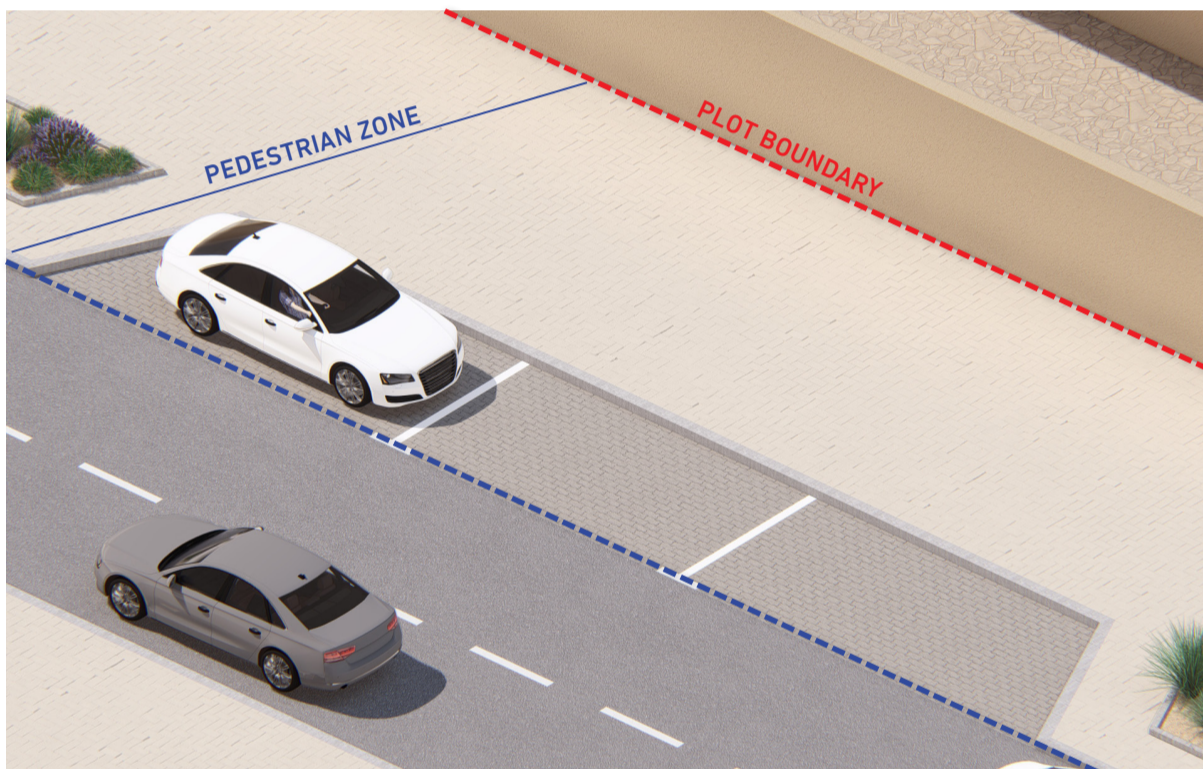


Figure 2.40: Existing Site Conditions

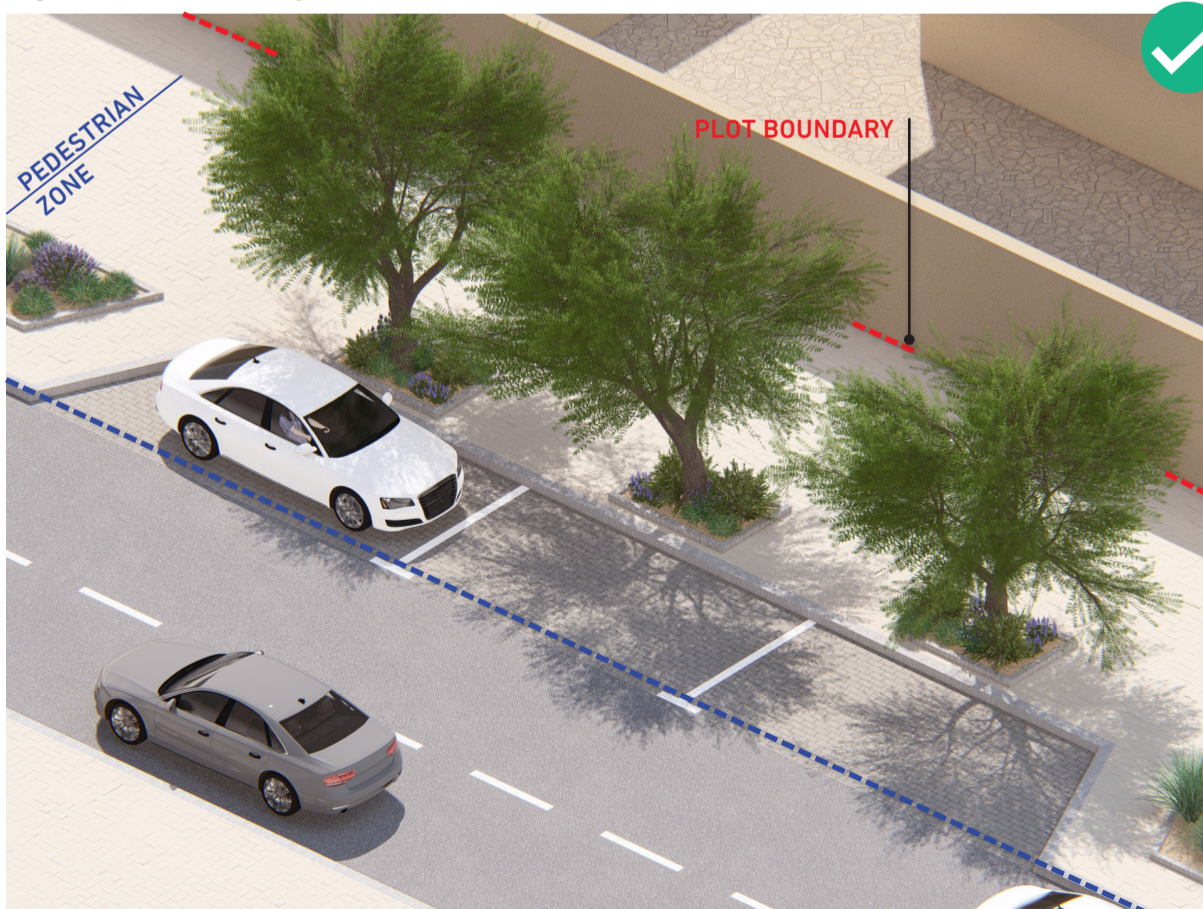


Figure 2.41: Canopy trees offer shade and contribute to reducing the temperature at ground level

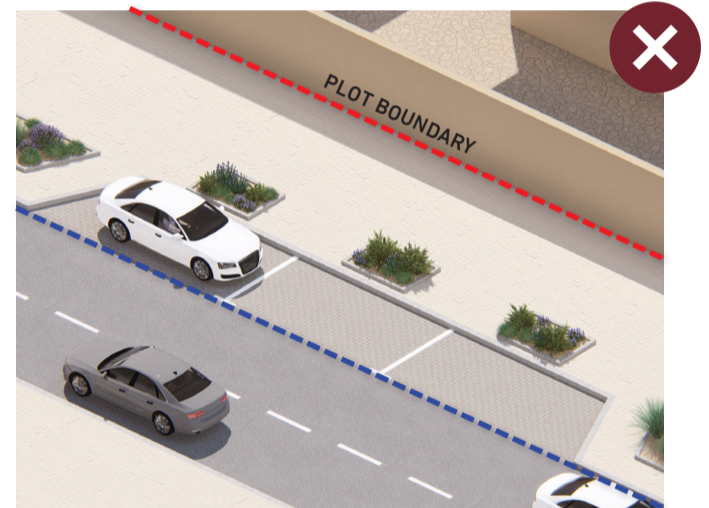


Figure 2.42: Plantings at a low height do not offer shade to the parking area

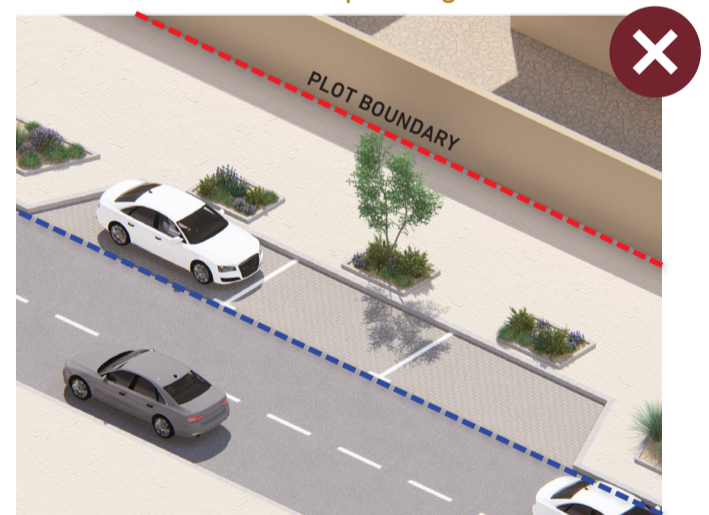


Figure 2.43: Lack of canopy trees

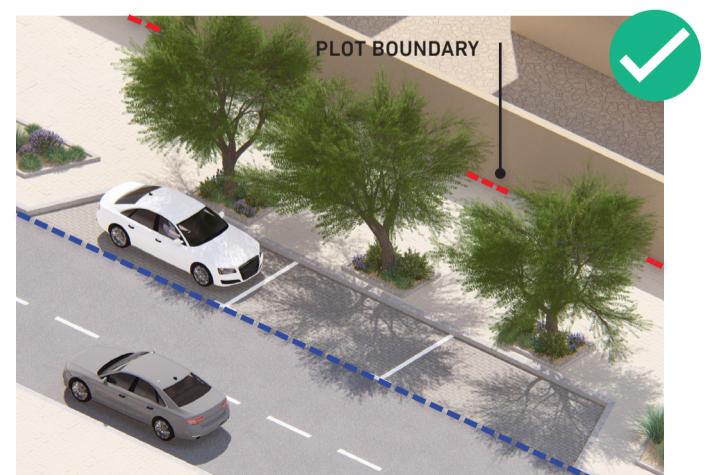
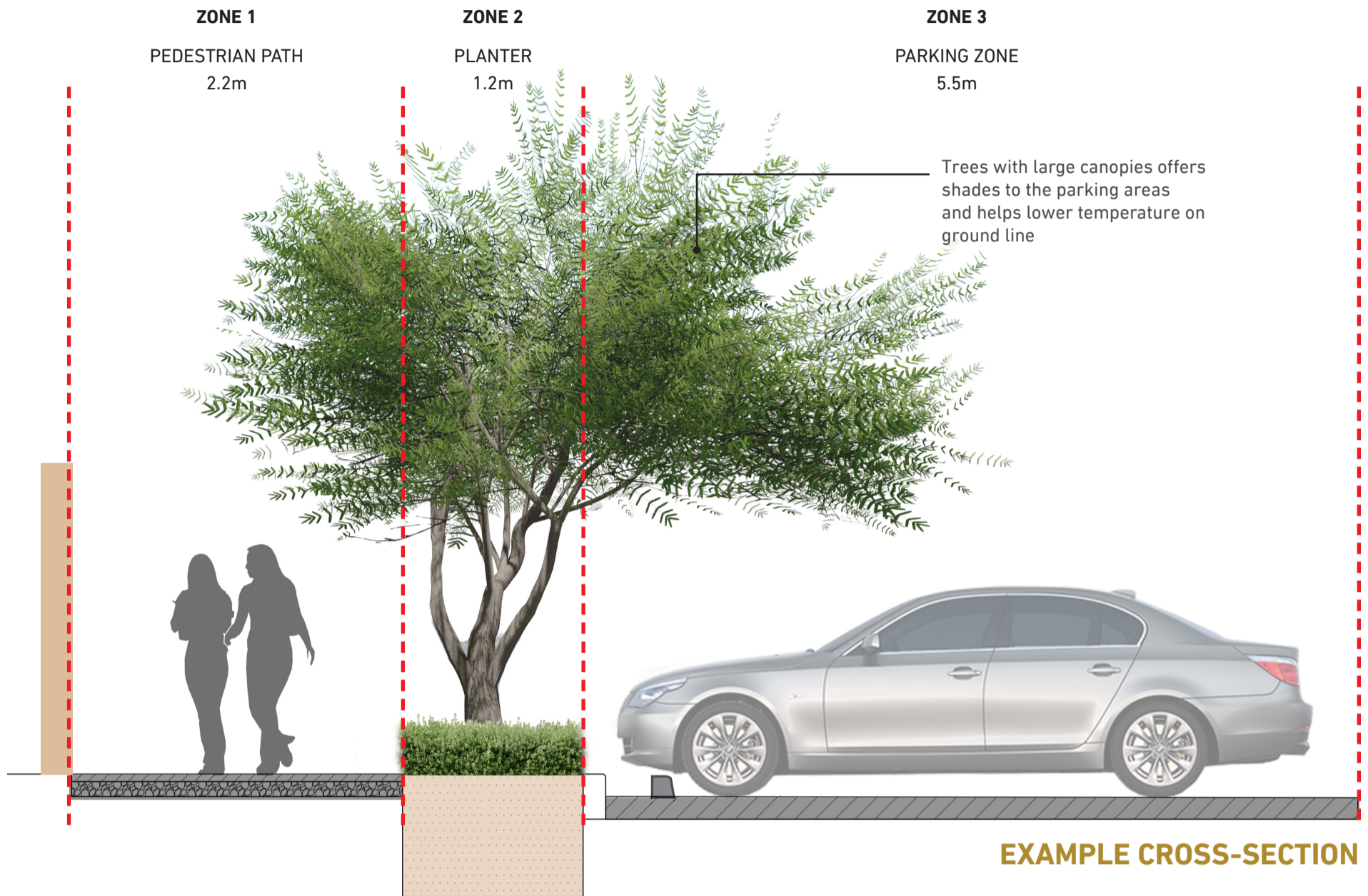


Figure 2.44: Parking zone shaded by large canopy trees.



Instructions

1. Use perennial trees with high specifications to ensure sufficient shade from the first day of implementation. Please see Figure 2.44
2. Use only local trees from the mentioned group to avoid using excess water in the irrigation process.
3. At least one tree should be planted for every 6m on sidewalks and planting beds to provide shade for sidewalks and future parking lots.
4. Trees should be planted taking into consideration underground facilities/passages to ensure adequate root area.
5. Consider the distance of tree locations in relation to other structures, maintaining a minimum distance of 3 meters.

SHADING PLANTS PALETTE [EXAMPLES]



Ziziphus Spina-Christi



Acacia Raddiana



Acacia Gerrardii



Acacia Tortilis





3 - Specific Instructions

The Chapter is subdivided in the following sub sections:

- 3.1 Private (On-Plot) Car Parking
 - 3.1.1 Multi-Story Building
 - 3.1.2 Private Residence
 - 3.1.3 Dedicated Parking Areas



3.1. Private (On-Plot) Car Parking

3.1.1. Multi-Story Buildings

Design guidelines must be followed for canopy structures to be consistent and uniform throughout the geographical boundary and to avoid contamination.

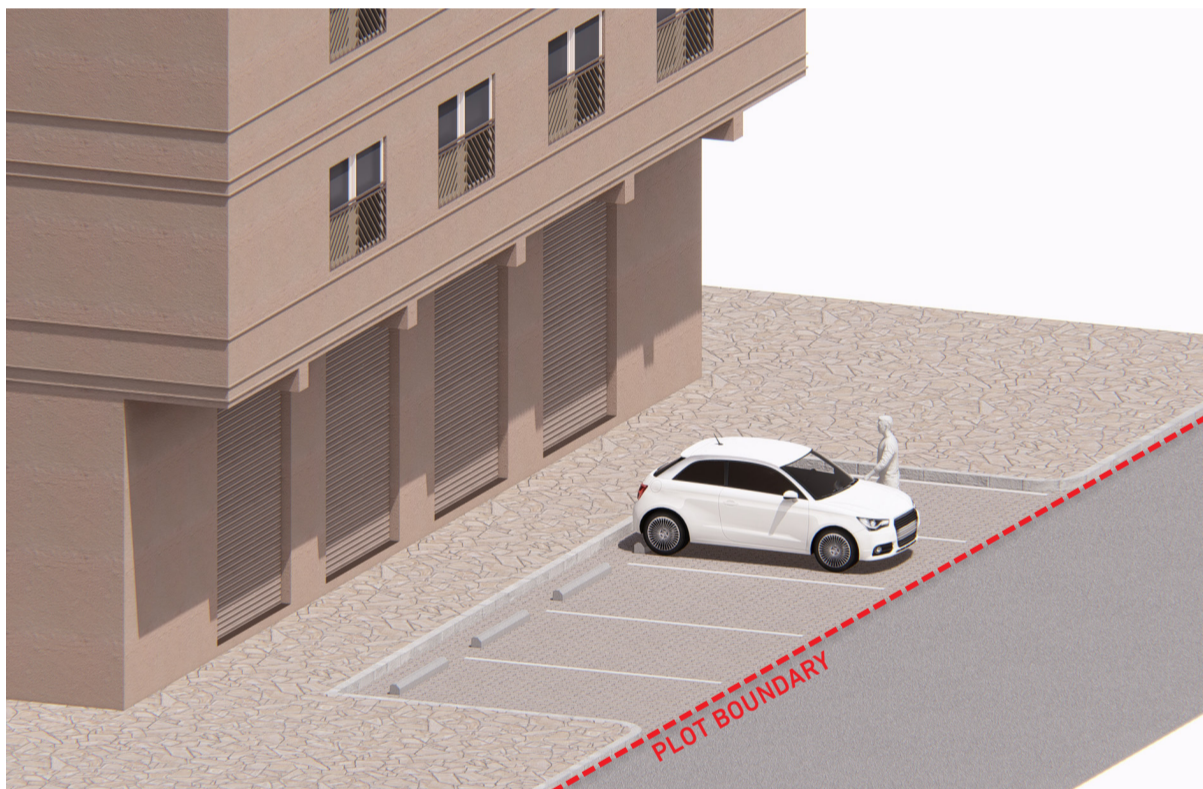


Figure 3.1: Existing Site Conditions

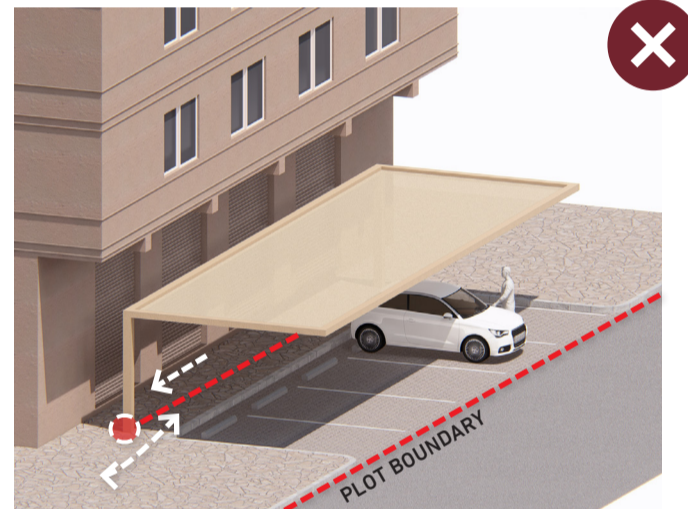


Figure 3.3: Obstructing of footpath flow

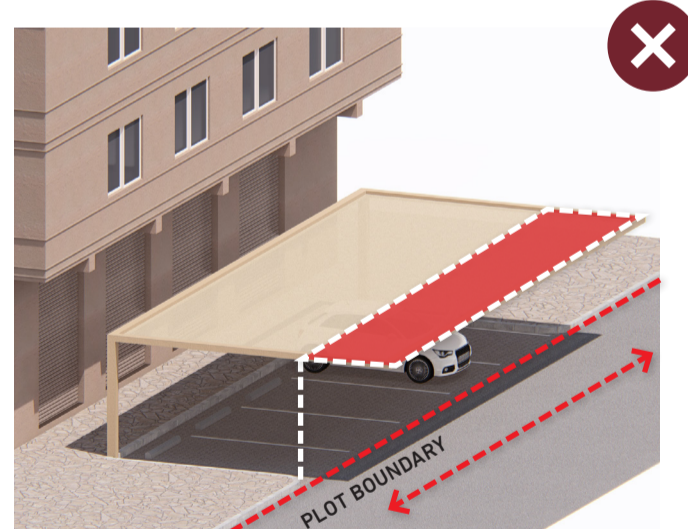


Figure 3.4: Overlapping vehicular zone

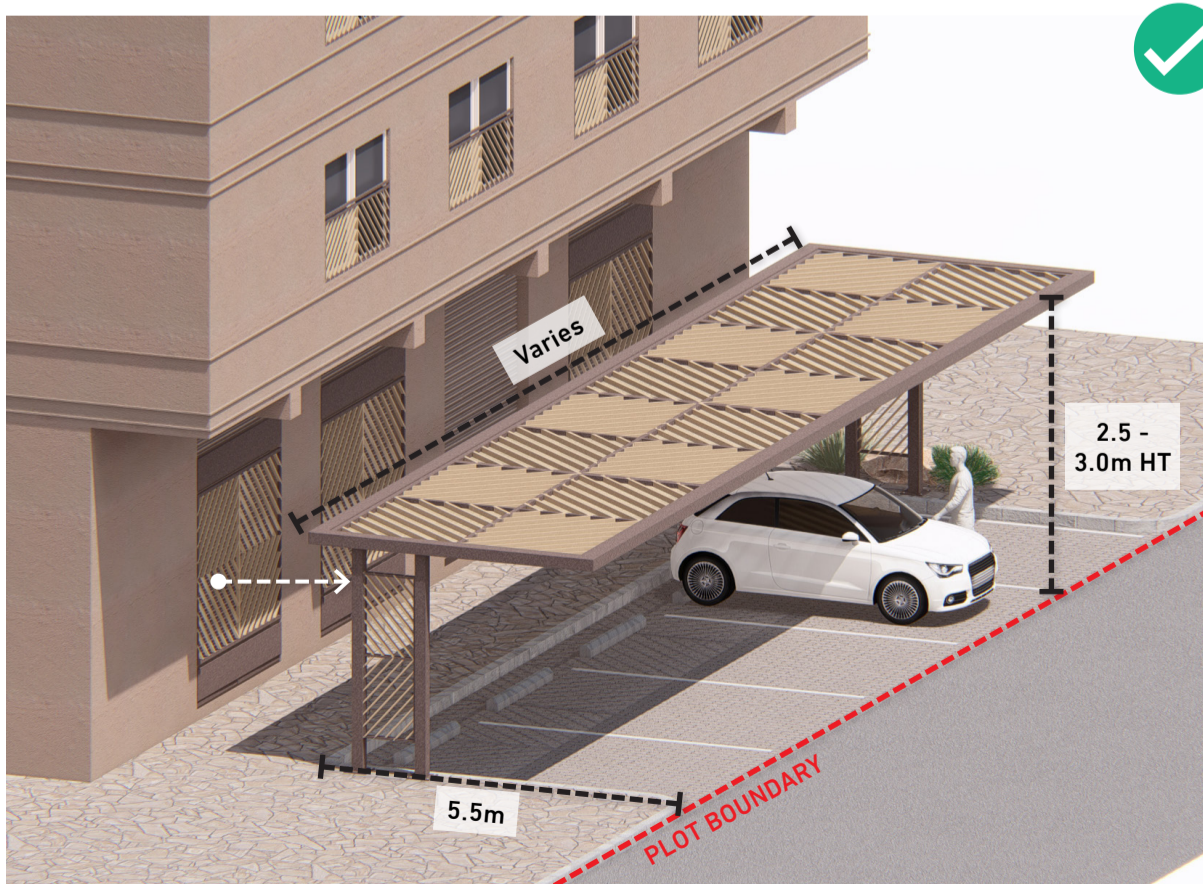


Figure 3.2 Designed in harmony with the architectural style

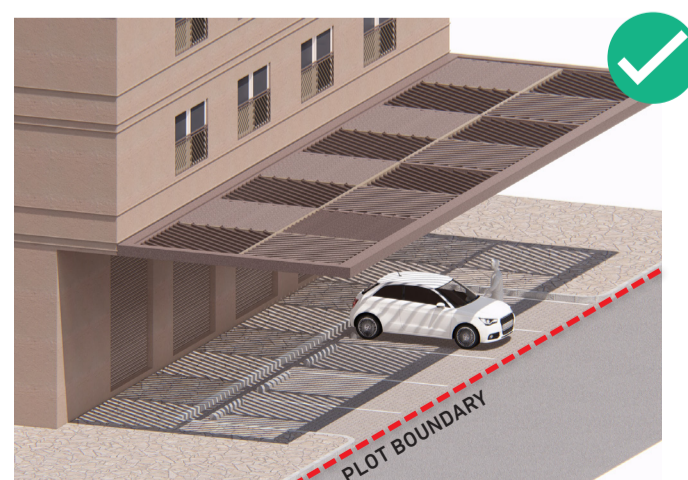
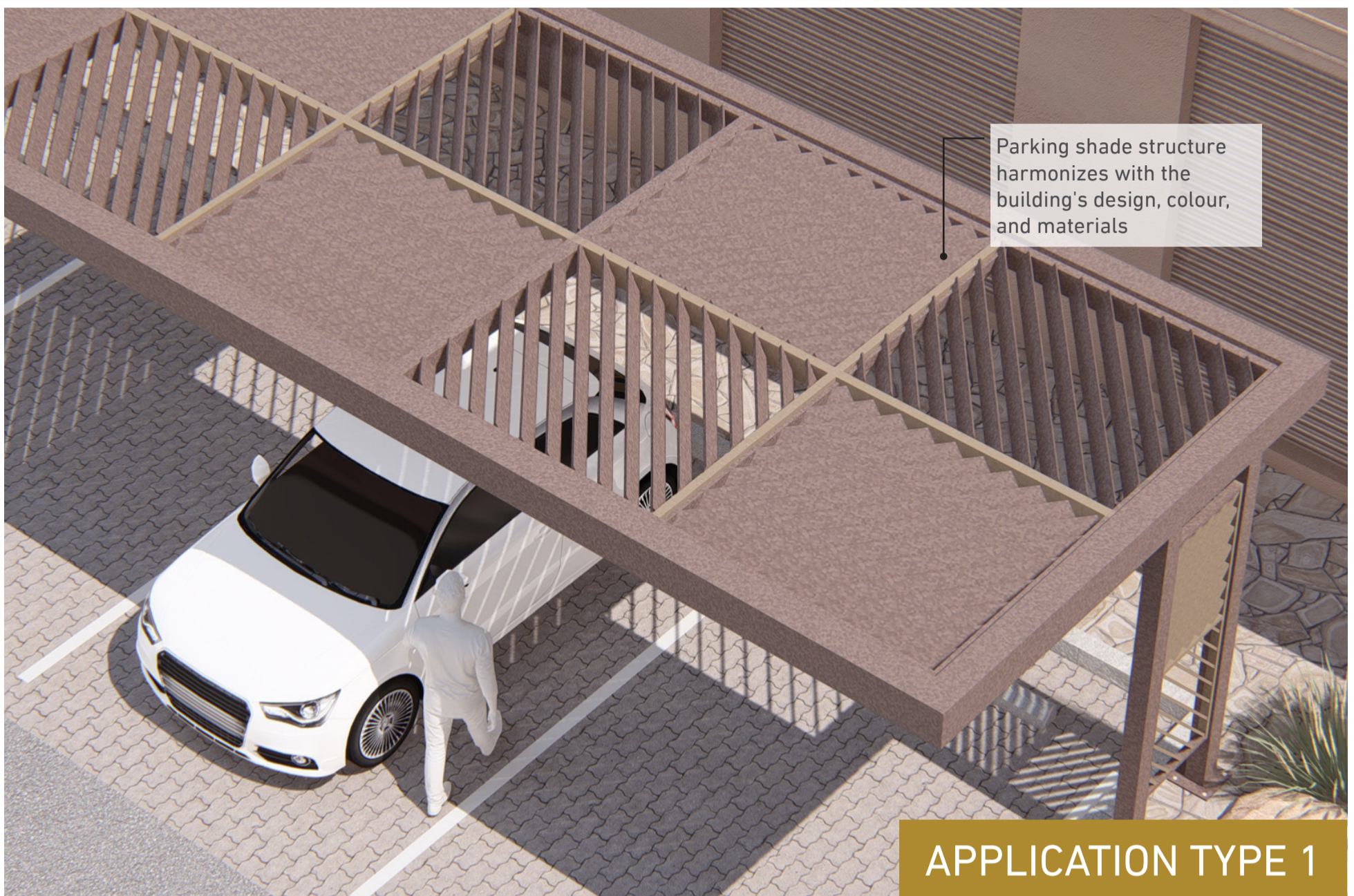


Figure 3.5: Incorporated into the architectural facade while enhancing the design.



Instructions

1. The length of the front setback must be a minimum of 6m.
2. The width of the pedestrian path in the front setback must be a minimum of 2.2 m.
3. The parking area must be paved with interlocking tiles.
4. The difference in the level of sidewalks where the new sidewalk meets the old one must be addressed.

NOTE :

Parking shade designed for implementation in a multi-story urban area

ELEMENTS

Reference Image and Pattern

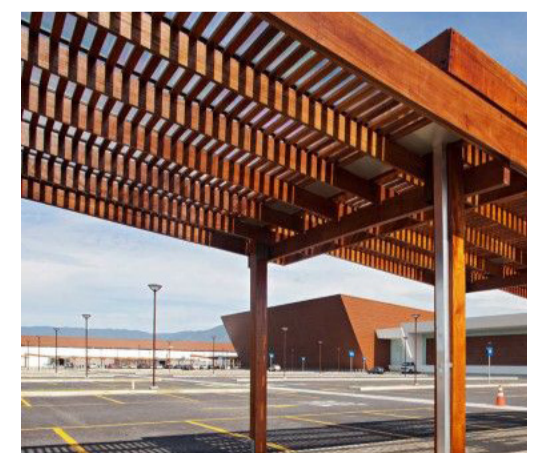


Figure 3.6: Wooden louvers car park shade structure

3.1.2. Private Residences (Fenced / Unfenced)

Users shall follow the instructions for designing canopies in their private residences and comply with this Guideline.

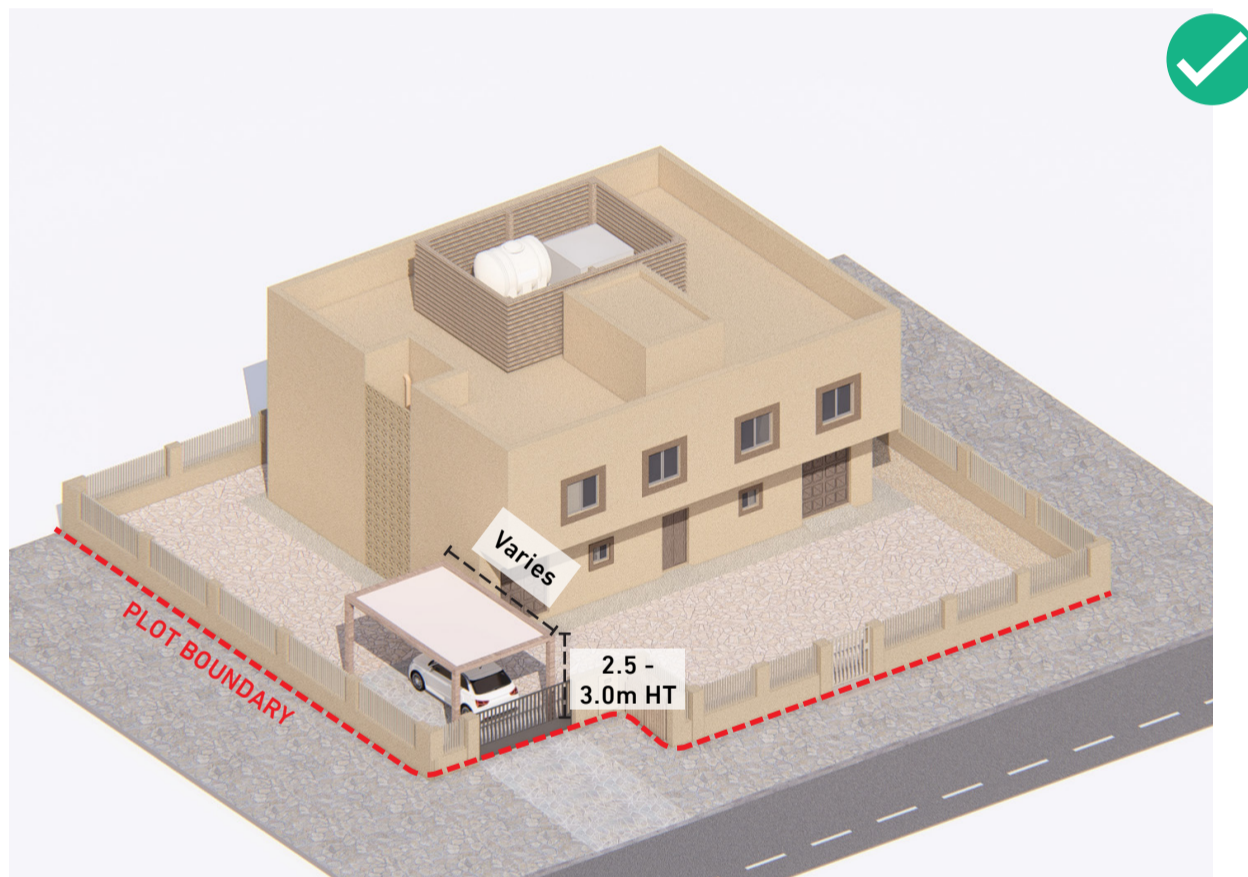


Figure 3.7: Residential area with a boundary wall that incorporates structures within its limits

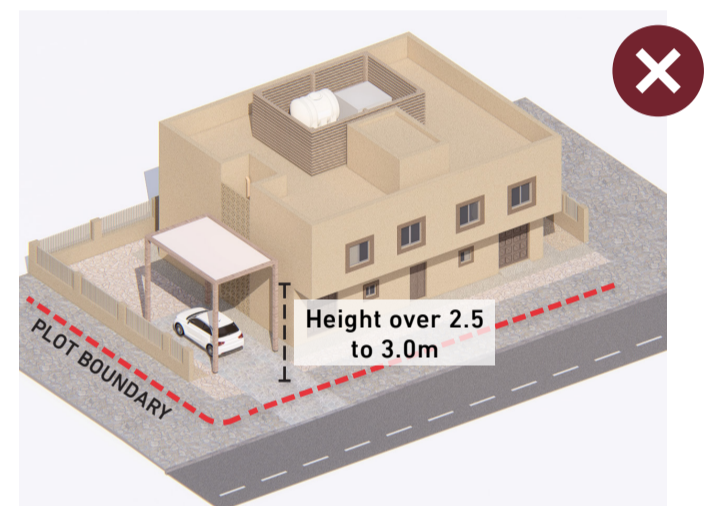


Figure 3.9: Structure exceed height limit extending high above boundary wall

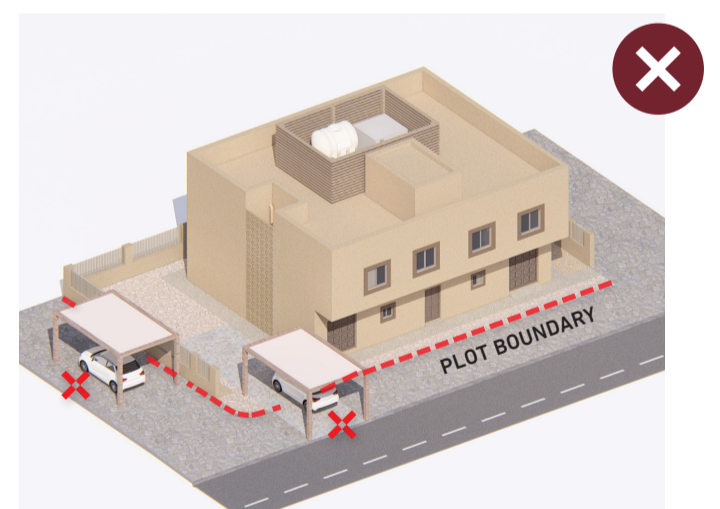


Figure 3.10: Overlap outside of the plot

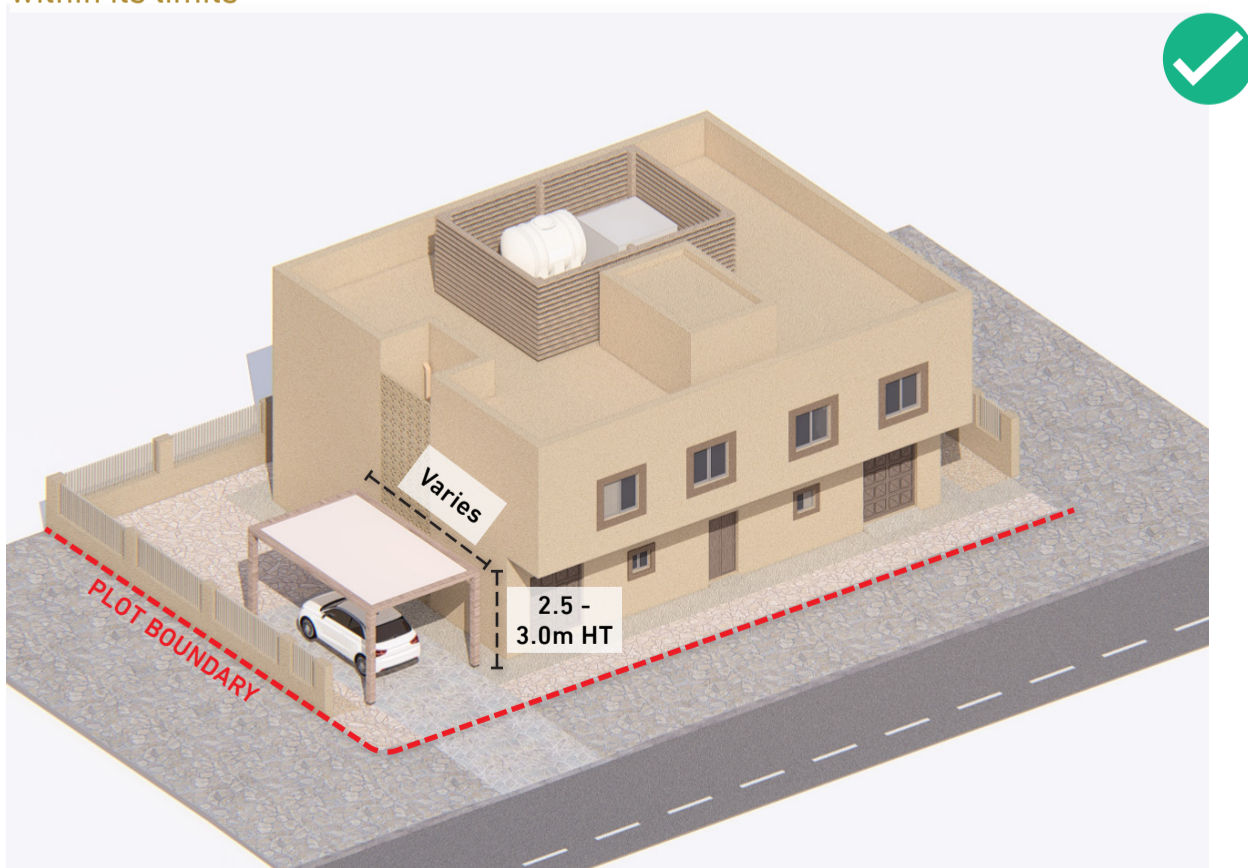


Figure 3.8: Residential area without a boundary wall that incorporates structures within its limits



Figure 3.11: Integrated with style of the residence



Instructions

1. Colors and materials must be selected from the custom color palette described in Section 2.
2. The model of canopy structures with uniform basic dimensions must be adhered to in all residential villas.
3. Do not use the fence as a support for structures in the design of canopies.
4. The coverage of canopy structures on a plot shall not exceed 20% of the same plot.

NOTE :

Parking shade designed for implementation in a private residence in an urban area.

ELEMENTS

Reference Image and Pattern

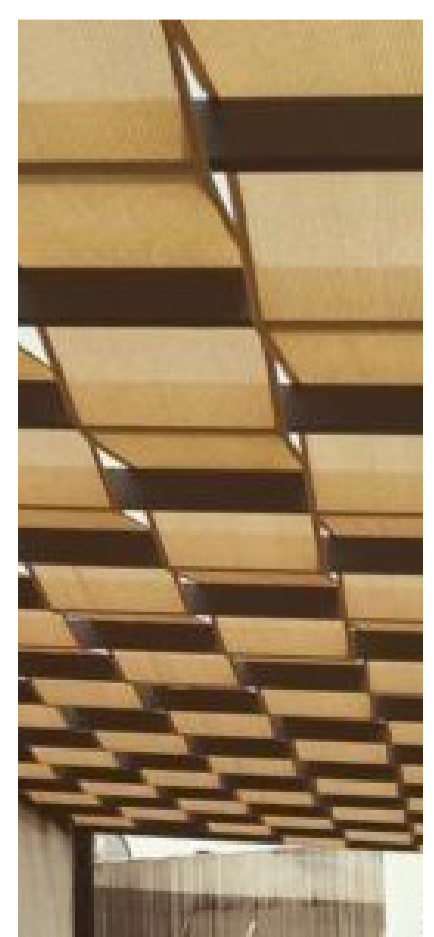
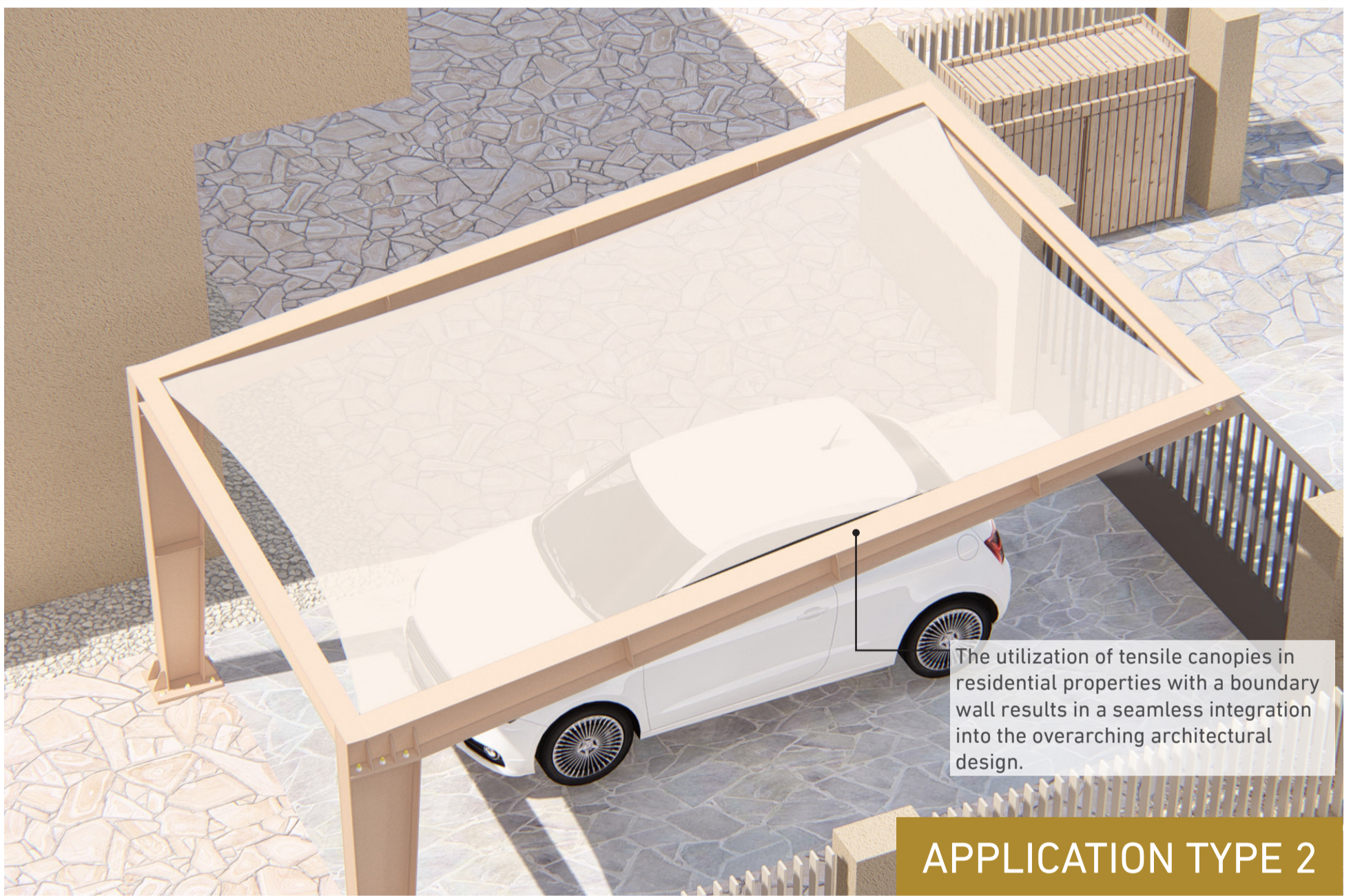


Figure 3.12: Canopy shade of tensile and wooden materials



APPLICATION TYPE 2

Instructions

1. The colors and materials shall be selected from the color palette specified in Section 2-2-4.
2. The model of the canopy structures shall be adhered to with the basic dimensions standardized in all residential villas in accordance with Section 2-1-3.
3. The height of the canopy structures shall not extend above the fence.
4. The coverage of the canopy structures on the plot shall not exceed 20% of the plot itself.

NOTE :

Parking shade designed for implementation in a private residence in an urban area.

ELEMENTS

Reference Image and Pattern



Figure 3.13: Tensile shading

3.1.3. Dedicated Parking-Areas

The shapes of current canopy structures vary, in terms of materials and colors, and instructions must be followed for designated parking lots so that the canopy structures are consistent and uniform throughout the geographic boundaries, to achieve a better visual aesthetic, and to ensure public safety.

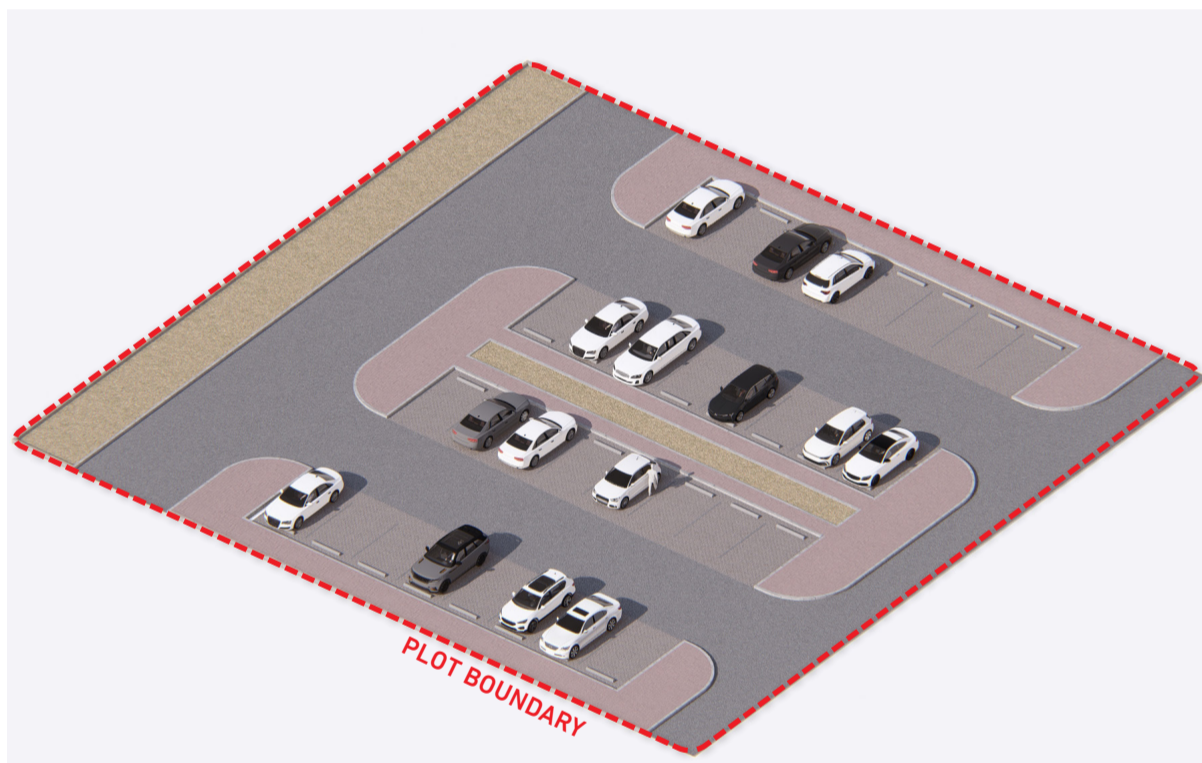


Figure 3.14: Existing Site Conditions

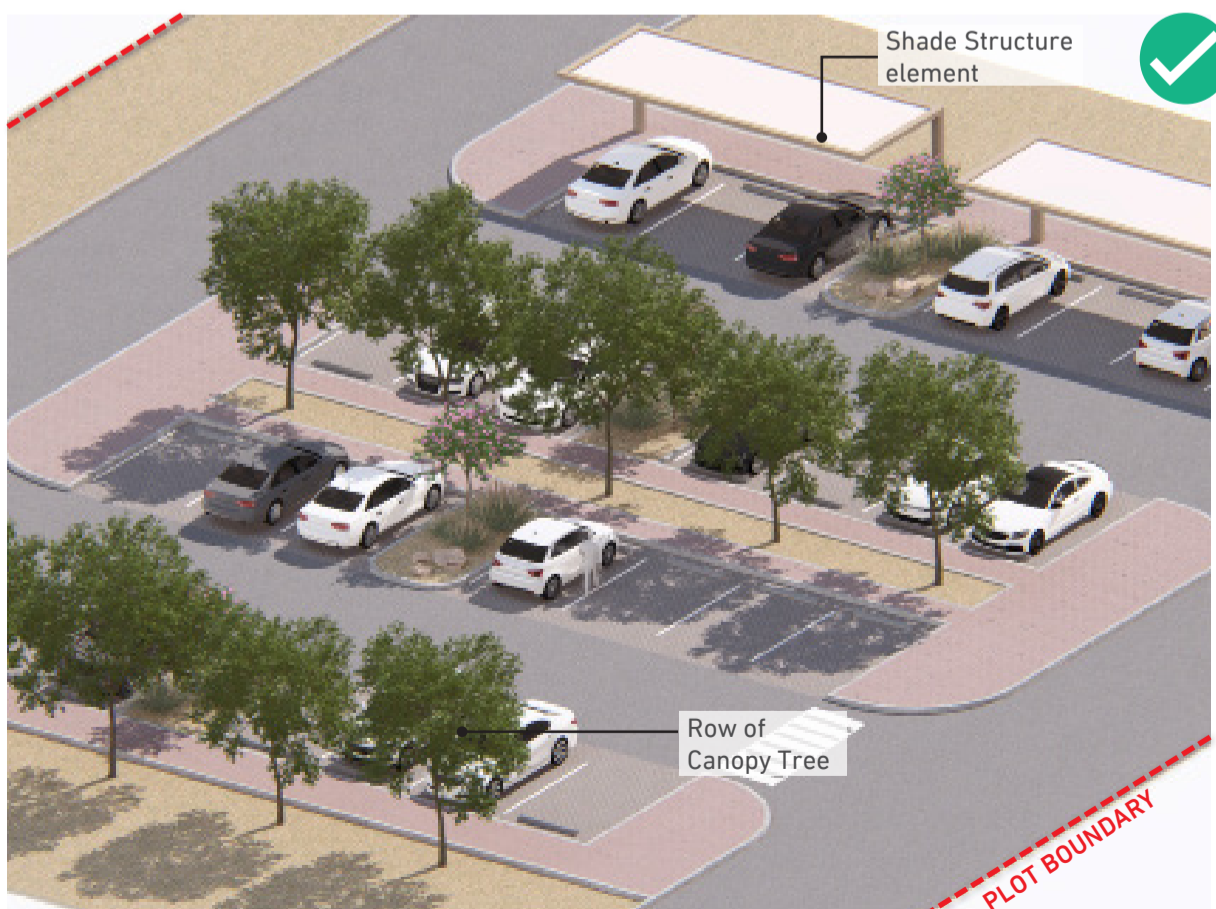


Figure 3.15: Incorporating softscape and shade structure elements

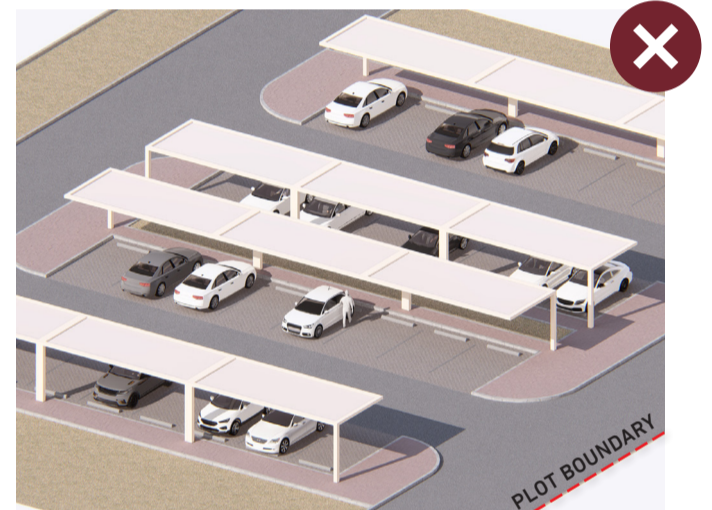


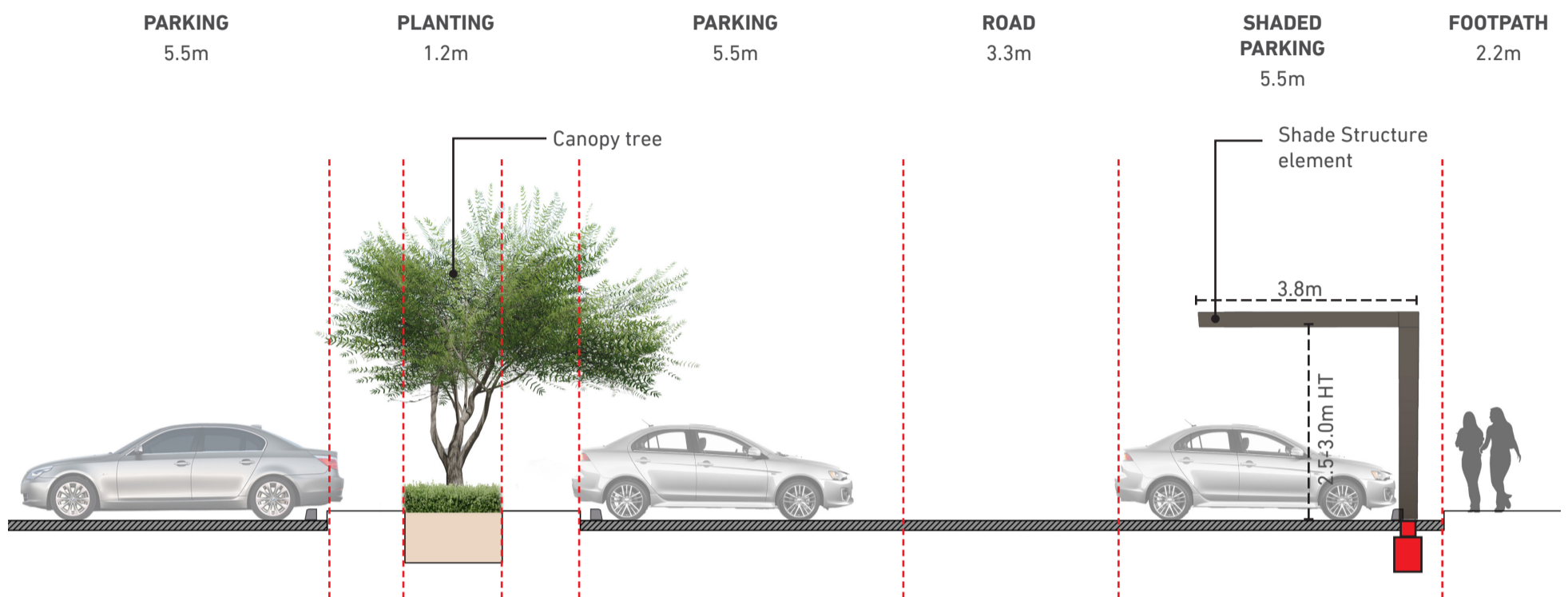
Figure 3.16: Avoid full coverage with shade structure



Figure 3.17: Avoid to be fully unshaded



Figure 3.18: Balance approach of softscape and shade structure



EXAMPLE CROSS-SECTION

Instructions

1. Parking must be provided for people with disabilities at all entrances.
2. Ramps and handrails must be provided for easy access to parking lots for people with special needs.
3. The roofs of canopy structures must be integrated with the design of the surrounding area and must be consistent with it without obscuring the landscape around it.
4. Canopy structures should be avoided as the only option in areas designated for parking, and a balance approach between natural elements and canopy structures should be applied.
5. Ensure alignment between general guidelines and public domain guidelines.
6. Ramps must be allocated to facilitate accessibility for people with special needs in parking lots, in addition to canopy.

NOTE :

Refer to Chapter 2, Section 2.7 - Softscape Application for Plant Palette

ELEMENTS

Reference Image

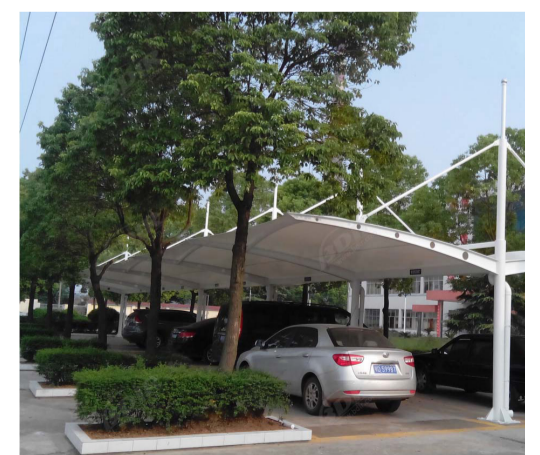


Figure 3.19: Harmony of the softscape and shade structure

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4 - Design Application Scenarios

The Chapter is subdivided in the following sub sections:

- 4.1 Design Scenario - 1
- 4.2 Design Scenario - 2
- 4.3 Design Scenario - 3

4.1. Design Scenario - 1

4.1.1. Application within Building Car Park

Design Proposal Explanation

Design implementation of a prefabricated canopy frame model. This type is characterized by quick on-site installation and easy use of painted steel bars and wooden panels. Please see Section 5-2 Construction Instructions.

Design Application

1. Remove any obstructions in the designated area and check the underground utilities on site to avoid any interference.
2. Obtaining any necessary permits or approvals from local authorities.

3. Digging holes for the foundation of the foundations and pouring concrete on them to provide a stable base for the steel columns.
4. Lifting steel columns and beams painted according to the structural design and color finishes approved by the main group Figure. 4.1
5. All finished materials are treated with protective materials to enhance sustainability and weather resistance.

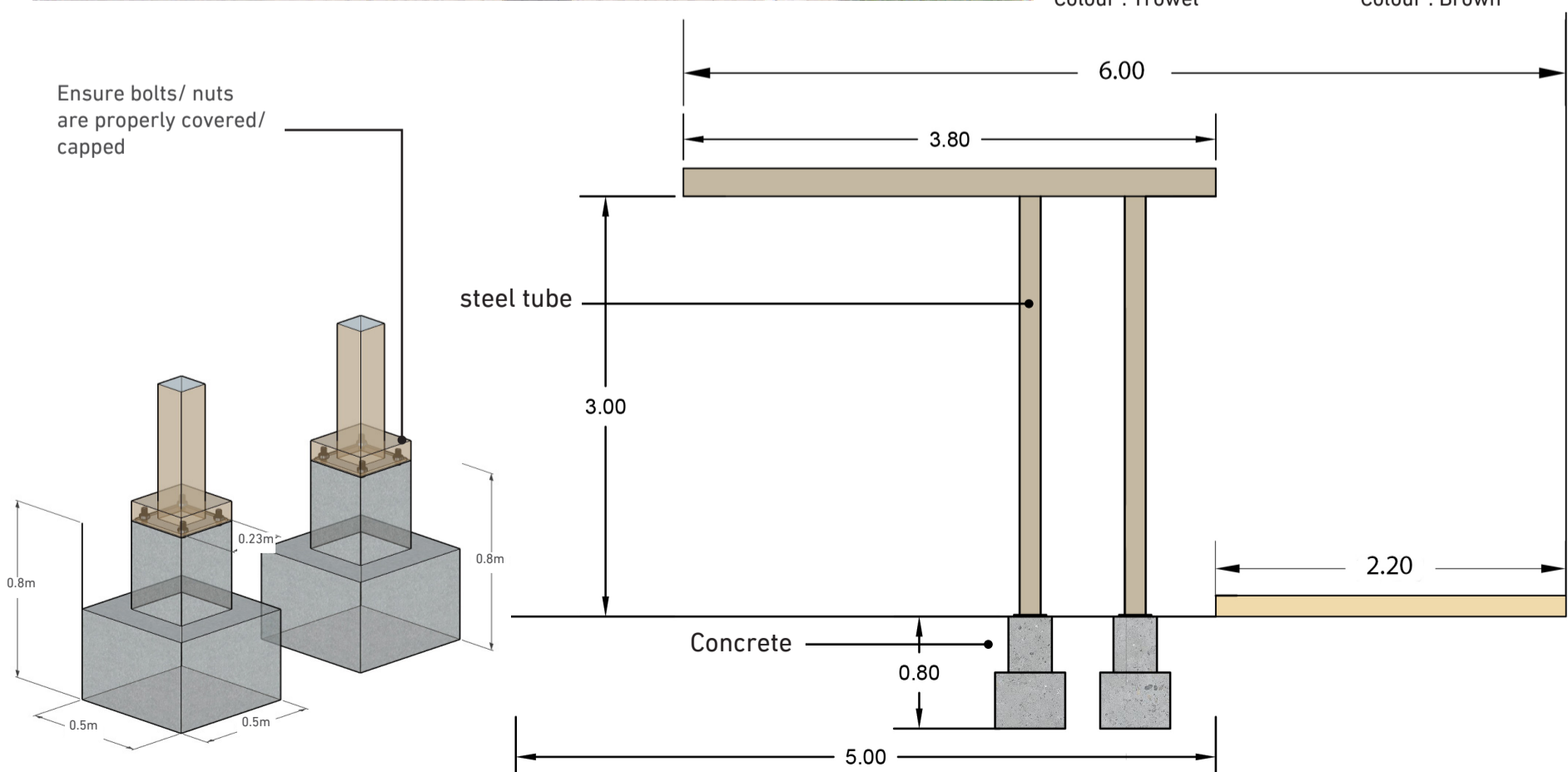
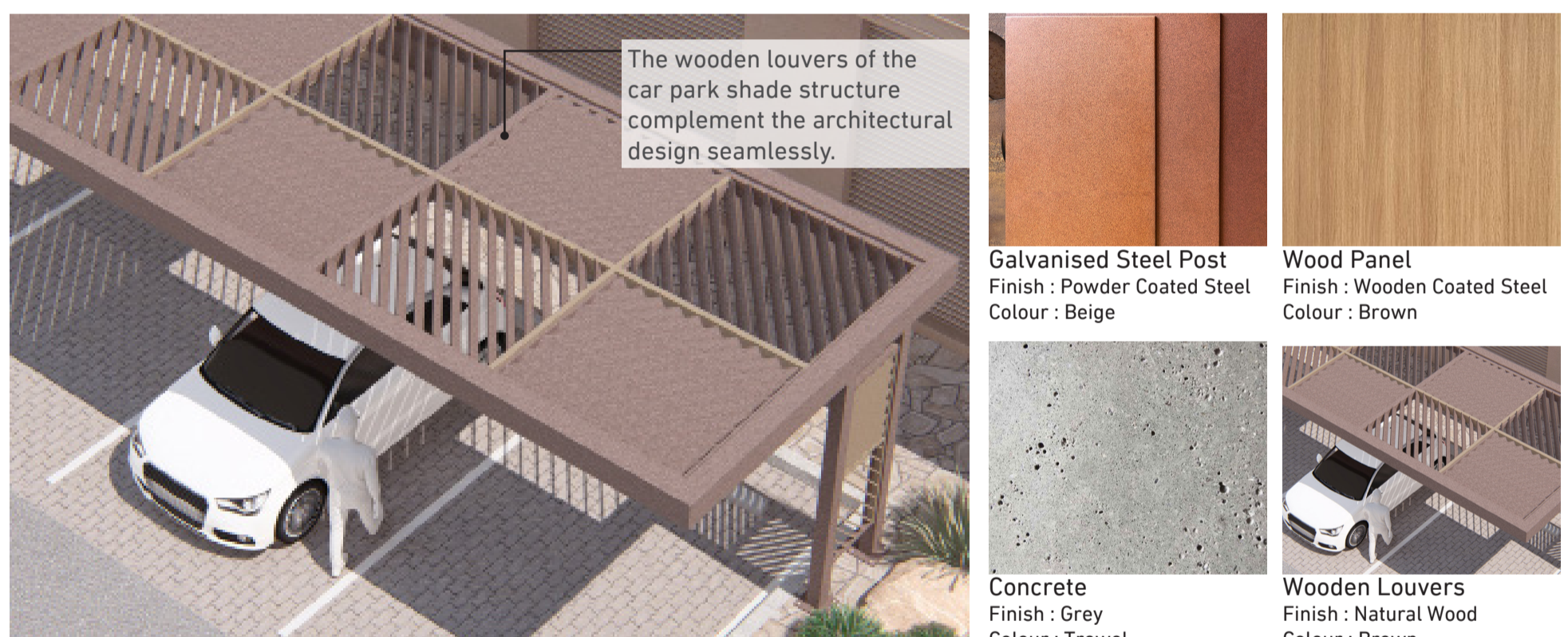


Figure 4.1: Wooden Panel Shade structure for Building Car Park Section



4.2. Design Scenario - 2

4.2.1. Application within Private Residence (Fenced)

Design Proposal Explanation

Implementation of the design for a model of prefabricated canopy structures. This type is characterized by quick installation on site and the ease of using tensile structures and UV-resistant roofs. Please see Section 5-2 Instructions for Possibility of Construction.

Design Application

1. Remove any obstructions in the designated area and check the underground utilities on site to avoid any interference.
2. Obtaining any necessary permits or approvals from local authorities.

3. Installation of anchor plates, bases or foundation points based on design requirements and engineers' recommendations.
4. Lifting essential structural elements, such as: painted steel columns with color finishes approved by the main group Fig. 4.2
5. Apply tension to fabric membranes over support structures to achieve desired shape and shading.
6. Use fixtures and tensioning systems to attach the fabric to support structures, ensuring the fabric is securely attached to anchor points or bases to be stable and resistant to wind and environmental factors.

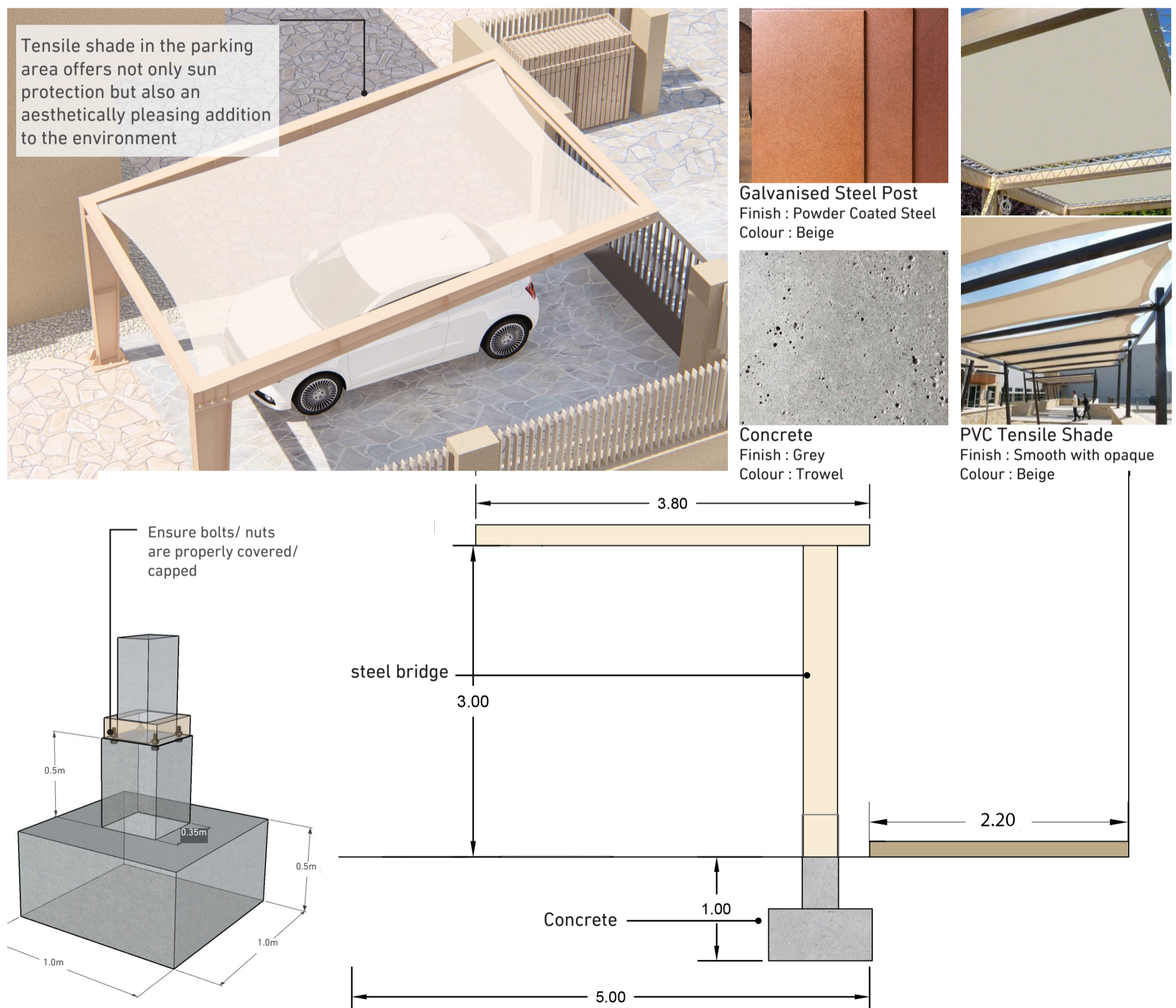


Figure 4.2: PVC Tensile Shade structure for Private Residence with Boundary Wall Section

4.3. Design Scenario - 3

4.3.1. Application within a Dedicated Car Parking Plot

Design Proposal Explanation

Implementation of the design for a model of prefabricated canopy structures. This type is characterized by quick installation on site and the ease of using steel bars covered by wood and UV-resistant roofs. Please see Section 5-2 Construction Possibility Instructions.

Design Application

1. Remove any obstructions in the designated area and check the underground utilities on site to avoid any interference.
2. Obtaining any necessary permits or approvals from the local authorities.
3. Digging holes for the foundation of the foundations and pouring concrete on them to provide a stable base for the steel columns.
4. Installation of steel columns and beams according to the structural design and with an acceptable color finish from the main panel, Figure 3.4.
5. Install wood panels on a steel frame using appropriate fasteners.
6. All finished materials are treated with protective materials to enhance sustainability and weather resistance.

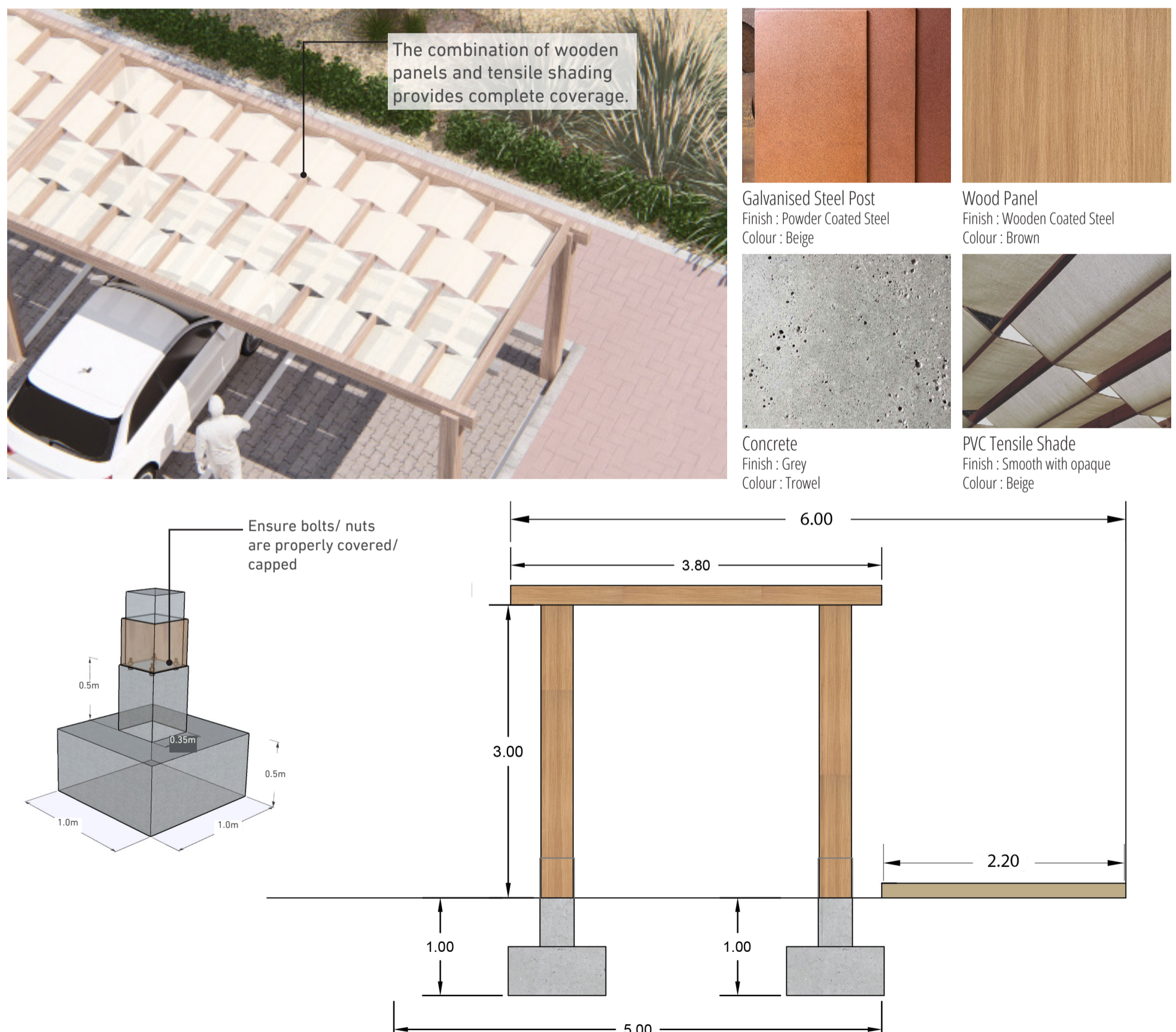


Figure 4.3: Wooden and Tensile Shade structure for Dedicated Car Parking Plot Section



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