Introduction

In our design approach, we used the land plot's current situation and existing vegetation as a starting point to create and visualize a building that serves KarinDom's needs and purposes as it fits into the urban fabric. We strived to create a building that increases the sense of security as well as the sense of interaction with the natural elements of the area by using the site's building limit lines to create the project masses - creating what we call the green house in the middle of the project to juxtapose the connection between the users and the relocated trees and greenery.

The school is divided into two floors that make op 1475m2 built up area and 730m2 underground basement area (with the ability to park up to 20 cars), and a total landscape area of 1000m2 (200m2 in the green house zone and 800m2 within the accessible green terrace roofs).

Building Surroundings

To optimize the maximum use of the land plot initially we thought to create the rectangular shaped masses which are used in the neighboring buildings and create a definition to the urban fabric of the area.

Accessibility

Along Prilep Street, we created an access road with four different functions to act as transportation links. First to serve as a vehicular access point to the project and the underground parking; second as a short-term stopping point; third to work as exiting road from the project in the opposite direction of Prilep Street and Fourth as a separate pedestrian road. The building has four different entrances: three of which are aligned to the entrance road to the parking ramp and the fourth serves as a back / service entrance. The design contains a simple, clear layout and accessible circulation routes with a minimum 1.8 m width for wheelchairs users.

Effectiveness

As shown in the project's plans and areas studies and as per the regulations, guidelines and the KarinDom's requirements and needs we created two levels of above ground spaces. The first level will contain the A,B,C,D,E,F,G,H and I spaces, And the second level will contain the J,K,L,M and N spaces as required in the competition brief.

Safety and Security

To ensure the creation of secure spaces to the children and the users we design a double height glass entrance area with a good sight line to the project entrance and interior corridors. Along with three road bumps located in front of three of the building's four entrances. We have also designed a see three fence / barrier to ensure that the children do not roam around outside the premises of the school, while at the same time not feeling confined by a fence that blocks sight out towards the neighborhood.

Sustainability

The design strives to connect with the environment and create a place that invites the natural habitat to flourish. We have ensured that each tree is replanted again on site, either in the green courtyard zone (the green house), surrounding the building, or on the roofs of the school (we carefully selected the location of each tree to make sure that the shorter trees with smaller roots are able to get on the roof,

while the larger trees with larger roots would need to be planted directly on the ground. We utilized sustainable design solutions - as natural light and ventilation; using large glazed facades for common areas that require a lot of natural light and minimization of heat loss/HVAC running costs and controlled light windows for the classrooms - and other cost effective aspects to minimize on running costs in order to allocate more resources towards the special needs equipment.

Flexibility and adaptability

Spaces were designed to allow function changes by having an almost rectangular shape in every space aligned with the building lines limits with minimizing fixed furniture into one single element located in the entrance to create the sense of stability to the users and a separate positioning to the vertical cores to allow future adaptation.

Health and comfort

Our spatial design aims to ensure creating a good thermal comfort and natural lighting using the plots orientation, masses design and the placement of the Green House. A natural ventilation access for every space. Accessible personal care facilities on both floors as required in the competition brief.

Sensory Awareness

Using natural lighting solutions achieves an appropriate level of glare-free controllable lighting along with creating a visual contrast and texture which can be used for sensory way finding without a high level of stimuli by using pastel colors to provide a calming background to learning. Mobilizing the sensory elements using color, light, sound, texture and aroma therapeutically. We also insured placing railings on every wall and door, and ceiling track hoist accommodation as shown in the reflected ceiling plan.