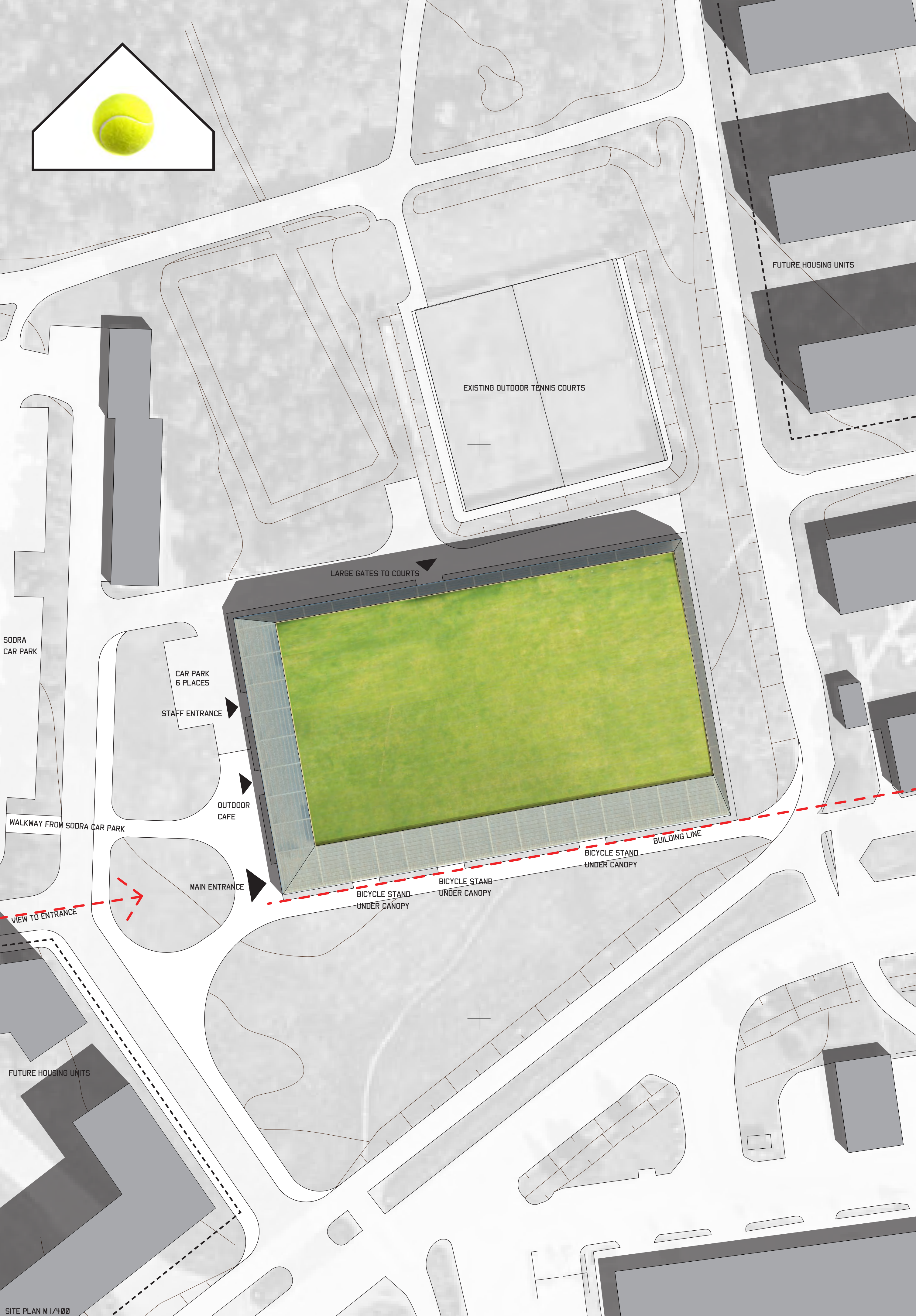
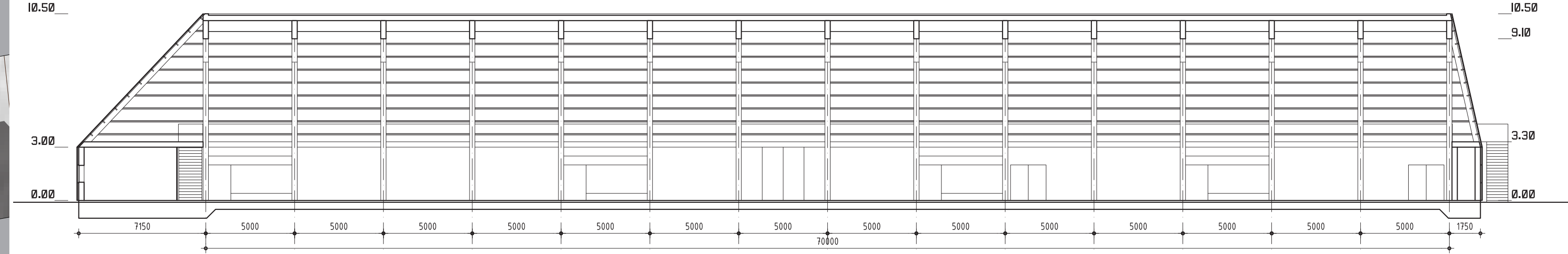




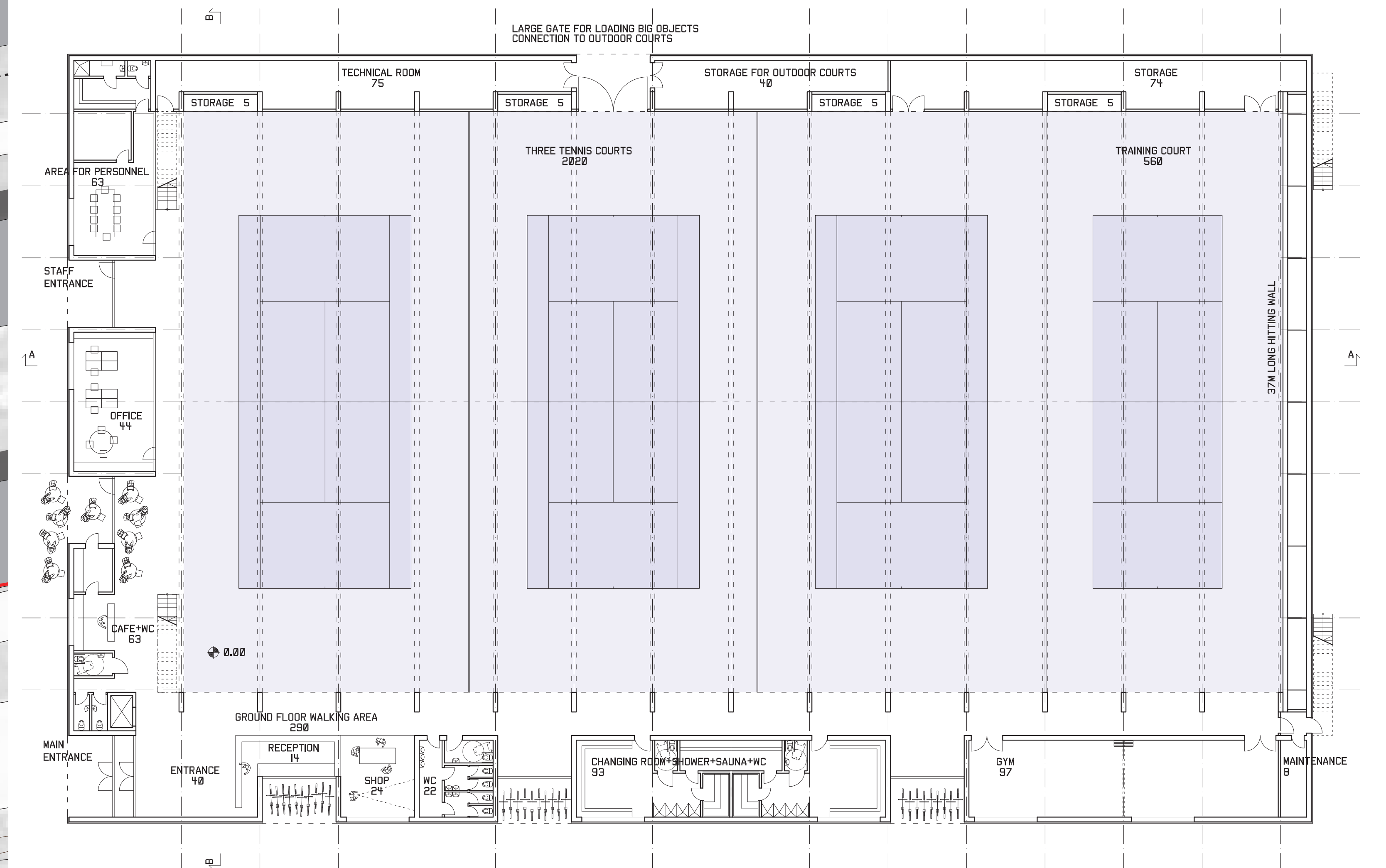
SITE PLAN M 1/400



LONG SIDE FACADE M 1/200



SECTION A-A M 1/200



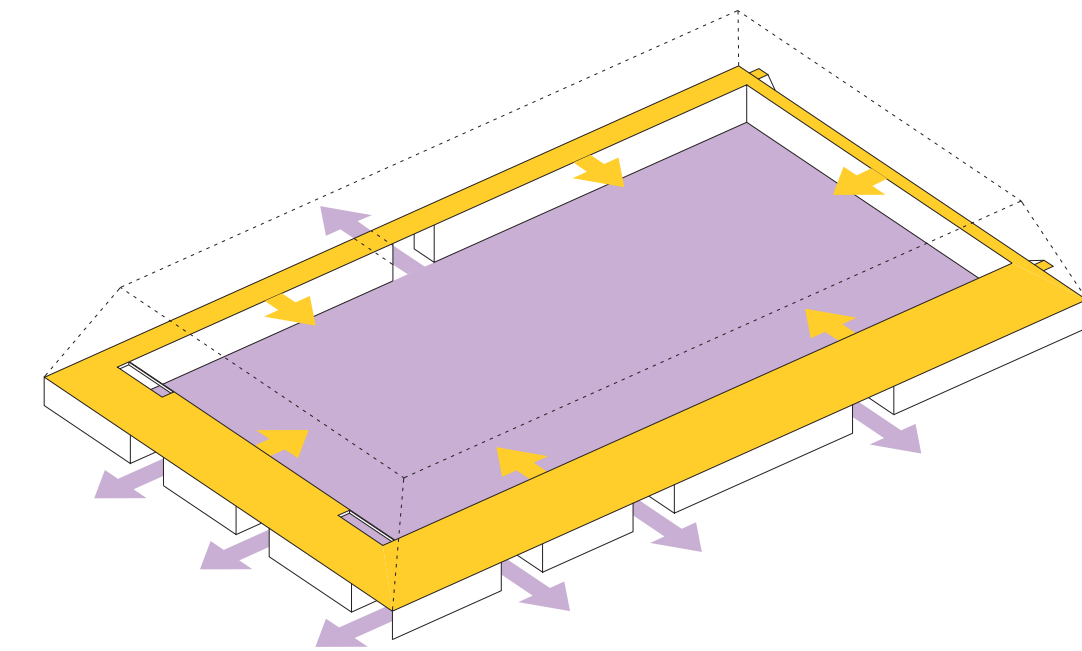
GROUND FLOOR PLAN M 1/200

BUILDING PARAMETERS:

Ground floor area:	3547 m ²
First floor area:	870 m ²
Total floor area:	4417 m ²
Building area:	3905 m ²
Building volume:	35800 m ³

FLEXIBLE BUILDING SYSTEM:

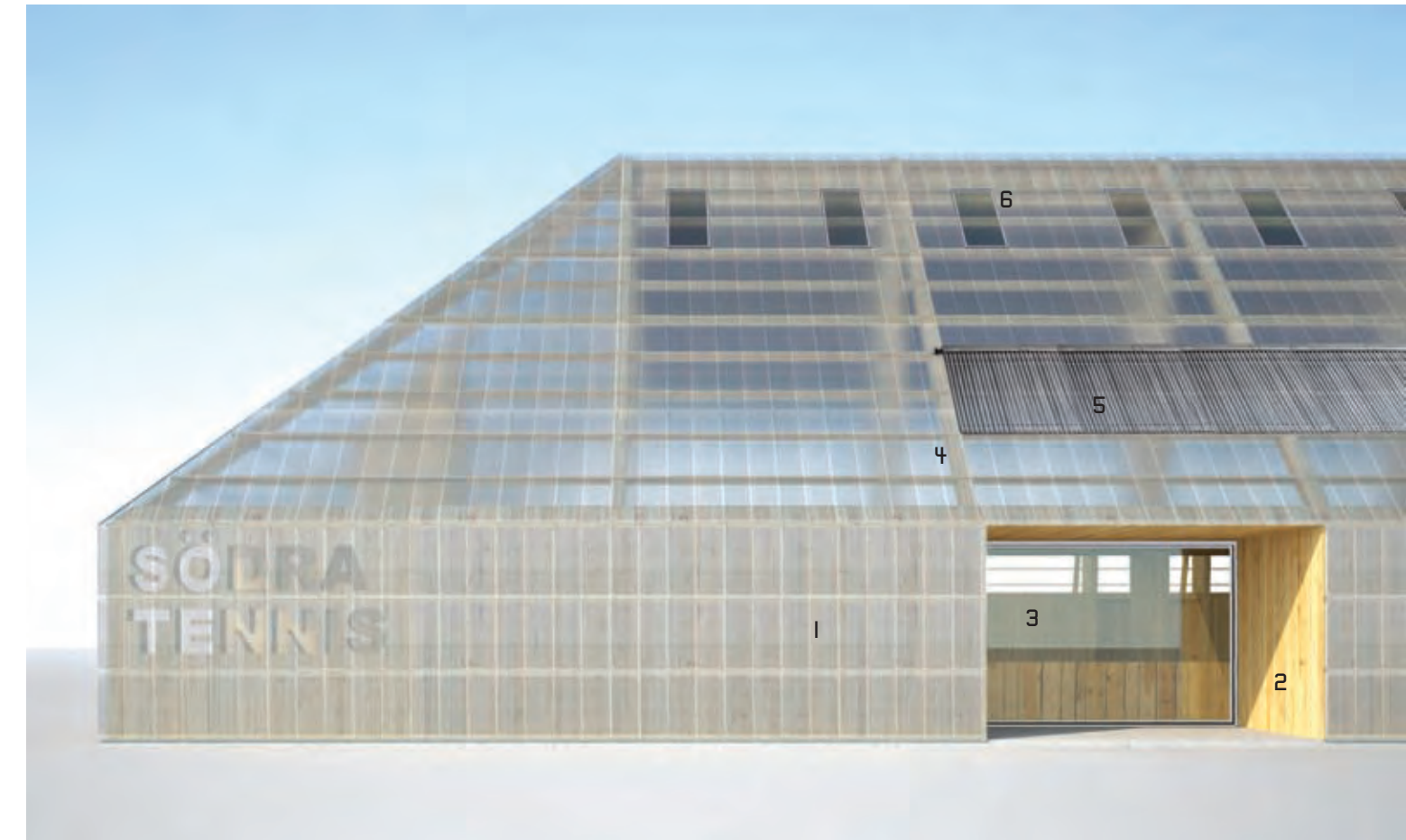
The idea of the building could be realized in many places modifying number of courts, size of supporting functions, providing openings for entrances and changing color of the polycarbonate shell. The significant character of the HOUSE OF TENNIS will be maintained anyway and different modifications of the architecture will form a lively family.



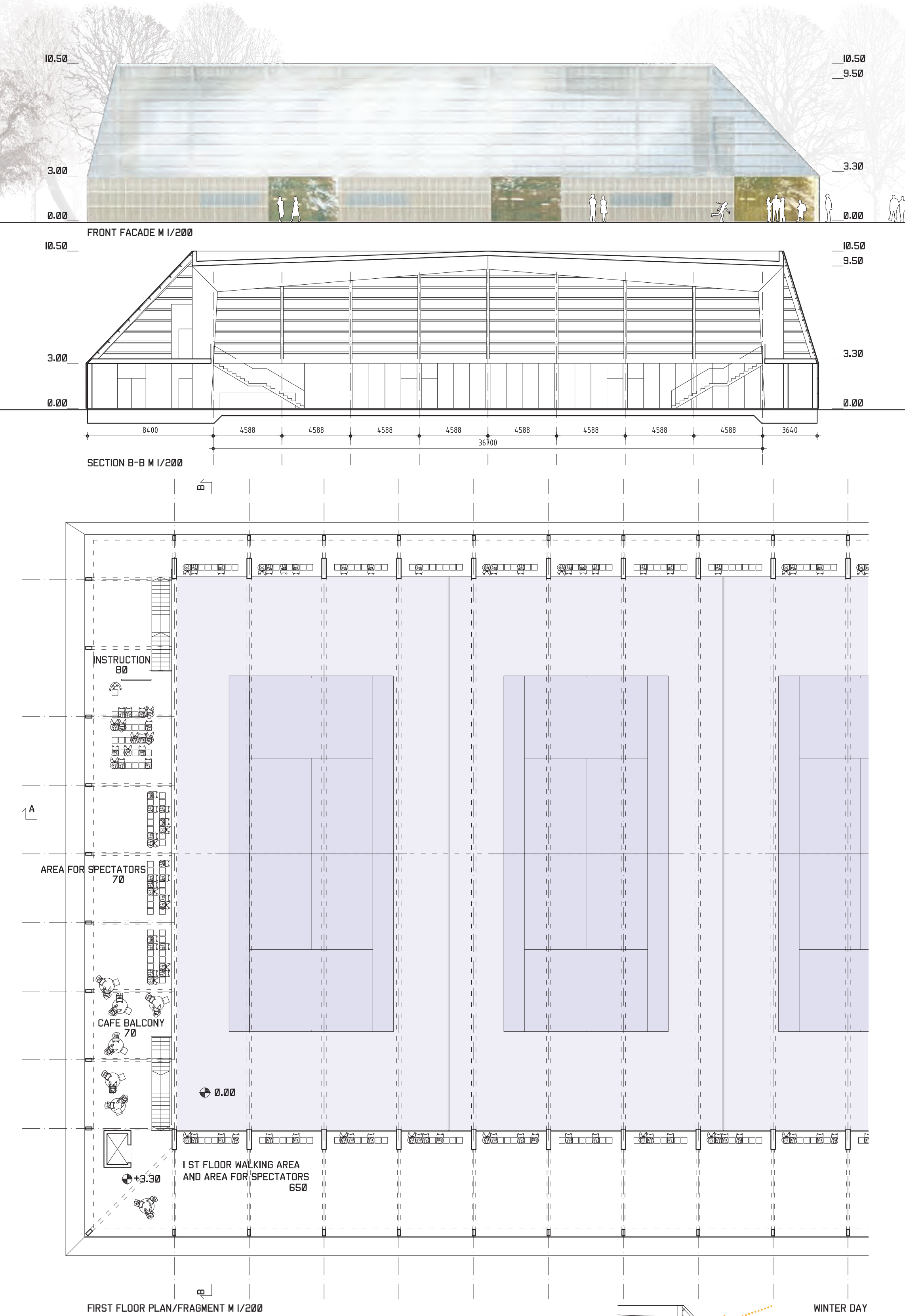
SPATIAL ORGANIZATION:

Layout of the plan manifests the open character of tennis game. Tennis courts and supporting spaces are open to surroundings on the ground floor. Visual connections from inside and outside are provided and mutual communication created. On the first floor surrounding spectator area focuses on the game.

1 - POLYCARBONATE SHELL, 2 - SOLID WOOD WALL, 3 - SHADED WINDOW, 4 - GLULAM BEAMS, 5 - SOLAR COLLECTOR, 6 - VENTS



THE HOUSE OF TENNIS



SUSTAINABILITY ISSUES:
 Design principles and choice of materials in this project illustrates the energy concept of maximizing the use of sun energy.
 To determine the exact materials and potential of coupled local energy recourses (heat pump, solar collector, photovoltaics) it is necessary to perform multi zone energy simulation of building.

Design principles used to provide background for successful realization of the concept:

- Compact building volume reduces overall heat loss.
- Exposed thermal mass of floor slabs and solid wood perimeter structure accumulates sun energy and balances the temperature shifts during summer/winter, day/night.
- Double layer facade with transparent multi cell polycarbonate protects wooden structure in the same time preserving the appearance of wood.
- Preheating of the inlet air together with decentralized heat recovery gives significant reduction of heating demand.
- Sloped transparent roof with good sun exposure. Possible placement of solar collectors and photovoltaics. Sloping roof also provides the diffused daylight in the courts and creates the air movement for natural ventilation
- Sedum carpet flat roof absorbs heavy rain and also gives extra insulation. Rain water easily could be collected and used for toilets or watering the outside tennis courts.
- Night ventilation during summer could be realized efficiently.

