

[ZZS]

BUILDING FOR PRAGUE EMERGENCY MEDICAL SERVICE

*NEW MULTIFUNCTIONAL HEADQUARTERS OF THE PRAGUE EMERGENCY SERVICE ON PROSEK
BUILDING NO. 8211 / ADMINISTRATIVE AND TECHNICAL BUILDING OF THE EMERGENCY MEDICAL
SERVICES EMS*

P.01 COMPETITION BRIEF

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AIM OF THE COMPETITION

INTRODUCTORY WORD OF THE CONTRACTING AUTHORITY

Prague emergency service as one of the best medical services in the Czech Republic and the Central European region, Prague's ambulance service owes its reputation not only to the fact that Prague is one of the most densely populated places in the country, but also to its excellent internal organisation. At present, the administrative and technical facilities of the HMP are scattered in several locations in the city. None of the attempts of my predecessors to merge all the facilities into a more suitable location succeeded. In order not to repeat the previous mistakes, we have decided to use all the experience gained so far in the preparation of the investment project by the Prague EMS itself and the Investment Department of the City Hall. Prague and announce an architectural competition. The aim is to find an answer to the question of how to improve the functioning of the HMP ZZS, to reduce the stress of the staff, whether emergency rescue workers or operators of the medical centre, and thus to help to improve the quality of the service. I believe that a well-designed working environment and high-quality architecture are able to significantly support the work of our paramedics. I believe that, at a broader level, the proven route of the two-round international architectural design competition and the well-established mechanisms of investment preparation will contribute to the higher quality of buildings that the city and its residents have been calling for for many years.

For me, the architectural competition will be a new experience and I am glad that, together with my colleagues from the political part of the jury, we represent all coalition entities. Together with the Mayor of Prague 9 and the excellent independent part of the jury we will look for the best solution for the HMP. I wish the architects - the participants in the competition - the best of luck in putting together inspiration and good ideas into a winning design that will make the public service of the HMP even better.

Milena Johnová

Councilor for Social Policy and Health Care of the City of Prague

INTRODUCTORY WORD OF THE COMPETITION ORGANIZER

This competition is groundbreaking. After competitions for bridges, footbridges or parks, which were held as open competitions, this is the first time since the velvet revolution that an open competition for a new building has been announced. We believe that this competition will become a model for the city to look for architects and designers for major urban investments in the future and that the tradition of awarding a project to the lowest bidder will become a definite thing of the past. The general atmosphere in Prague, where the city is looking for ways to involve private developers in competitions, is also contributing to this; the competition is slowly becoming a platform for seeking consensus on the territory. We already know that other Prague buildings - the upcoming Philharmonic Hall or the reconstruction of the public spaces of the Holešovice market - will become an open platform for finding the best solutions on the basis of architectural competitions.

In our experience, the architectural design competition is already accepted by the political representation of Prague as the only way to quality. However, it will still take some time for the design competition to become more widely accepted by the city apparatus. In the field of education of the city departments and contributory organisations that manage the assets of the capital city, it is important to make the city more aware of the need for a more efficient design process. There is still a lot of work to be done in the field of education of Prague's assets. That is why we greatly appreciate this competition as the first to be announced by the Investment Department, which will provide the investment action for the city.

We wish our colleagues in the architectural profession every success in delivering the best design to meet the demanding needs of the building user. demanding needs of the building's users.

Igor Kovačević
CCEA MOBA

JURY

REGULAR MEMBERS OF THE JURY - INDEPENDENT

JEANNETTE KUO /CH/

She studied architecture at UC Berkeley, Harvard University and ETH Zurich. She is a founding partner of Karamuk Kuo, a Swiss studio based in Zurich, which in recent years has focused on civic amenity and institutional projects. Jeannette Kuo is the author of two books on office and industrial buildings. She has taught Berkeley and Harvard, as well as at MIT and the Polytechnic of Lausanne. She is currently Professor at TU Munich.

www.karamukkuo.com



PETR BURIAN /CZ/

He graduated from the Faculty of Architecture of the Czech Technical University in Prague. During his school days he cooperated with the architectural office DaM spol. s r.o., then with HŠH architekti s.r.o. and since 2006 he has been a partner of DAM architekti s.r.o. He is a co-author of a number of buildings and reconstructions in the territory of the capital city of Prague, especially the Residential House with Gymnasium, an award-winning new building in Prague 1, or the Euro Palace on the Václavské náměstí.

www.dam.cz



MARTIN SLÁDEK /CZ/

DEPENDENT JUROR

He is a co-founder of the Brno studio consequence forma architects, which regularly participates in domestic and international competitions. Currently, he is working on the design of Moravian Square in Brno based on winning an open design competition. The studio uses its experience from the Viennese environment and as a result has been successful in a number of domestic and international competitions.



MARTIN SOBOTA /NL/

He studied architecture and landscape architecture in Oslo and Hannover and subsequently did postgraduate studies at The Berlage in Delft. He is a founding member of CITYFÖRSTER architecture + and head of their Rotterdam office. His projects include a sustainable city for the local government in Zambia, the Rinia mixed-use complex in Albania and the Land Commission office building in Ghana.

www.cityfoerster.net



LENKA MÍKOVÁ /CZ/

INDEPENDENT JUROR

Graduate of the Faculty of Architecture at the Czech Technical University in Prague, founding member of the edit! architekti. Since 2014, she has been running her own studio Lenka Míková Architekti, focusing on small-scale buildings and reconstructions. Award-winning projects include the reconstruction of the foyer of the Czech Philharmonic Hall in the Rudolfinum building or the interior of the Berlin and Letna branches of Freshlabels.

www.lenkamikova.com



REGULAR MEMBERS OF THE JURY - DEPENDENT

MILENA JOHNOVÁ /PRAGUE CITY COUNCILLOR/

She has been a Prague City Councillor since 2018 and was elected as a non-party member of the Prague City Council for Social Policy and Healthcare. Prior to her election, she worked in social services for more than 25 years. In 1994, she co-founded and led the organization Rytmus.



PETR KUBÍČEK /REPRESENTATIVE OF THE CAPITAL CITY OF PRAGUE/

He was elected a Prague City Councillor in 2018 as a member of TOP 09 and STAN- United Forces for Prague. He is the Vice-Chairman of the Committee for Property Management, Property Shares and Business Support of the City Hall. Besides that, as a councillor, he deals with the topics of housing and sports and leisure.



EVA HORÁKOVÁ /REPRESENTATIVE OF THE CAPITAL CITY OF PRAGUE/

Since 2018 she has been a Prague City Councillor, Chair of the Social Policy Committee and Vice-Chair of the Pirates' Club. Before her election, she worked as a nurse for 12 years and was part of the pharmaceutical industry for 13 years.



TOMÁŠ PORTLÍK /MAYOR OF PRAGUE 9/

He has been the mayor of Prague 9 since 2021, and since 2018 he has been a councillor of the City of Prague and a member of the ODS Municipal Council. Since 2006 he has been a councillor of the Prague 9 municipal district. He graduated from the Faculty of Social Sciences of Charles University in Prague, majoring in Media Studies, and from the Metropolitan University Prague.



ALTERNATE JURORS

PAVEL ZELENKA /COUNCILOR OF PRAGUE/

DEPENDENT JUROR - ALTERNATE

He became a representative of the City of Prague in 2018, when he was elected as a representative of the association Praha sobě. He is chairman of the Housing Committee and vice-chairman of the IT and SmartCity Committee. He is also the deputy mayor of Prague 7.

Prior to his election, he worked as a graphic designer in the Marvil studio, which he founded.



JAN JAROLÍM /DEPUTY MAYOR OF THE PRAGUE 9/

DEPENDENT JUROR - ALTERNATE

He has been a representative of the Prague 9 municipality continuously since 1994, with the exception that from 2006 to 2021 he was the head of the municipal council as mayor, and in the remaining years he continues to serve as deputy mayor. Before entering politics, he worked for the Czech Hydrometeorological Institute and the Federal Committee for the Environment.



JAKUB KOŇATA /CZ/

INDEPENDENT JUROR - ALTERNATE

He was a student of architect Jan Bočan, with whom he subsequently collaborated in his design studio, for example at the Czech Embassy in Tbilisi. He is currently working in the KAVA studio, where he has participated, for example, in the competition designs for the Slavie Theatre in České Budějovice, the Congress Centre in Prague or the design of the Park Kavčí hory residence. He ran the design studio at the Czech Technical University with his colleagues Tomáš Novotný and Tomáš Zmek.



HISTORY OF THE ADMINISTRATIVE AND TECHNICAL BUILDING EMS

The Prague Emergency Medical Service (EMS) was founded on December 8, 1857, when it began operating thanks to a group of volunteers.

The service has long operated in various establishments and hospitals. The first official seat of the Prague emergency Medical Service was established in the 1950s on Dukelských hrdinů Street in Holešovice, where it lasted until the end of the 20th century when it moved to Korunní Street in Vinohrady. However, the reconstructed building is unsatisfactory for the overall operation of the emergency medical service, and since 2005 plans have been made for the construction of a new central emergency medical service, where other operations such as administrative facilities, ambulance service, or a training and education center would be combined.

The first plan was to build the EMS on the premises of the Bulovka Hospital in Prague 5, but in 2007 this was abandoned and the construction on the land at the intersection of Povltavská and Vodácká streets in Troja was considered, where two designs for a new building were gradually created. However, due to a disagreement about the land exchange between the Prague-Troja Municipality and the Prague City Council, after seven years of planning the construction was abandoned and in 2017 a new option was considered- the redevelopment of the unbuilt Nová Palmovka centre. The redevelopment proposal was prepared by Josef Pleskot, the architect of the original design of the Prague 8 Municipal Office.

The current architectural competition is trying to find a form for the new EMS headquarters, after 11 years since the first plan for a new EMS building came in third place.



Plans for a new building - Troja I



Plans for a new building - Troja II



Plans for a new building - Palmovka



Plans for a new building - Střížkov



AREA UNDER CONSIDERATION

The area in question is located on the territory of the cadastral territory Střížkov falling under the territory of the Prague 9 municipality.

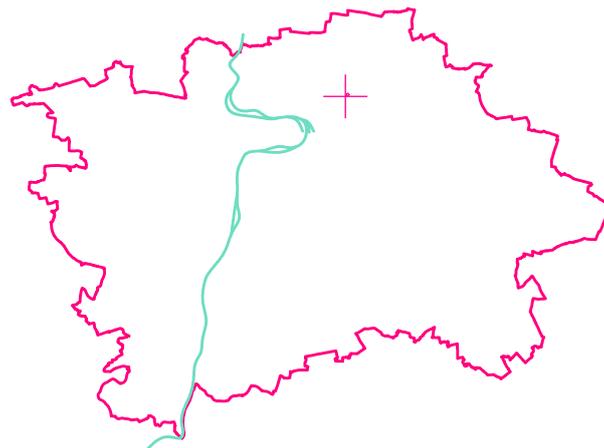
TRANSPORT ACCESSIBILITY

From the north, the city radial D8- Liberecká Street runs around the area in question, from the west Liberecká Street. Class II - Vysočanská, which turns northwards under the Ďáblice housing estate to the west.

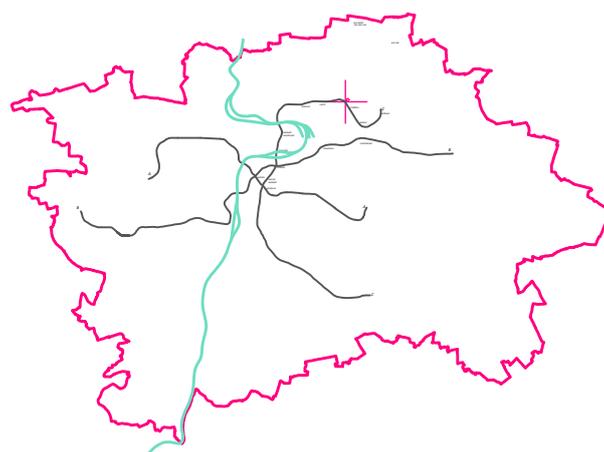
By public transport, the land is best accessible from the metro stop C- Střížkov, in the vicinity of which there are also stops of several bus lines. Nearby is also a bus stop Policlinic Prosek.

PROTECTIVE ZONES

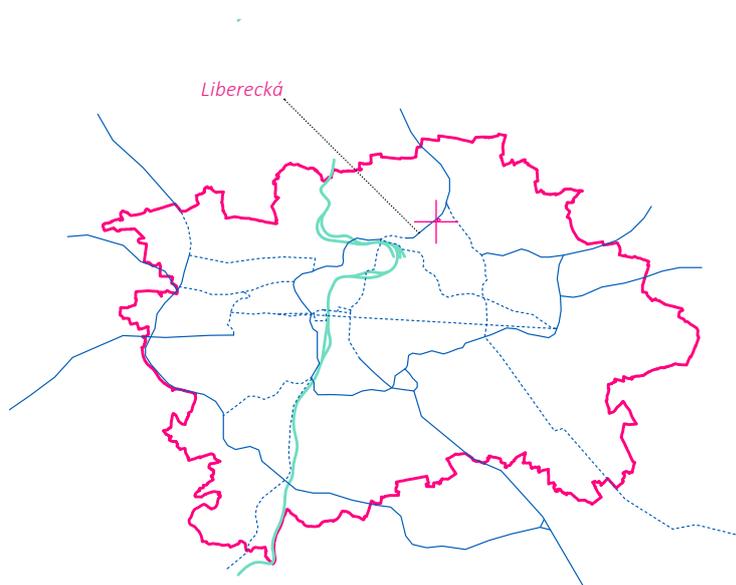
Networks and their protection zones run through the area. To the southwest of the area under consideration lies the protection zone of telecommunication equipment. However, it does not interfere with the area under consideration.



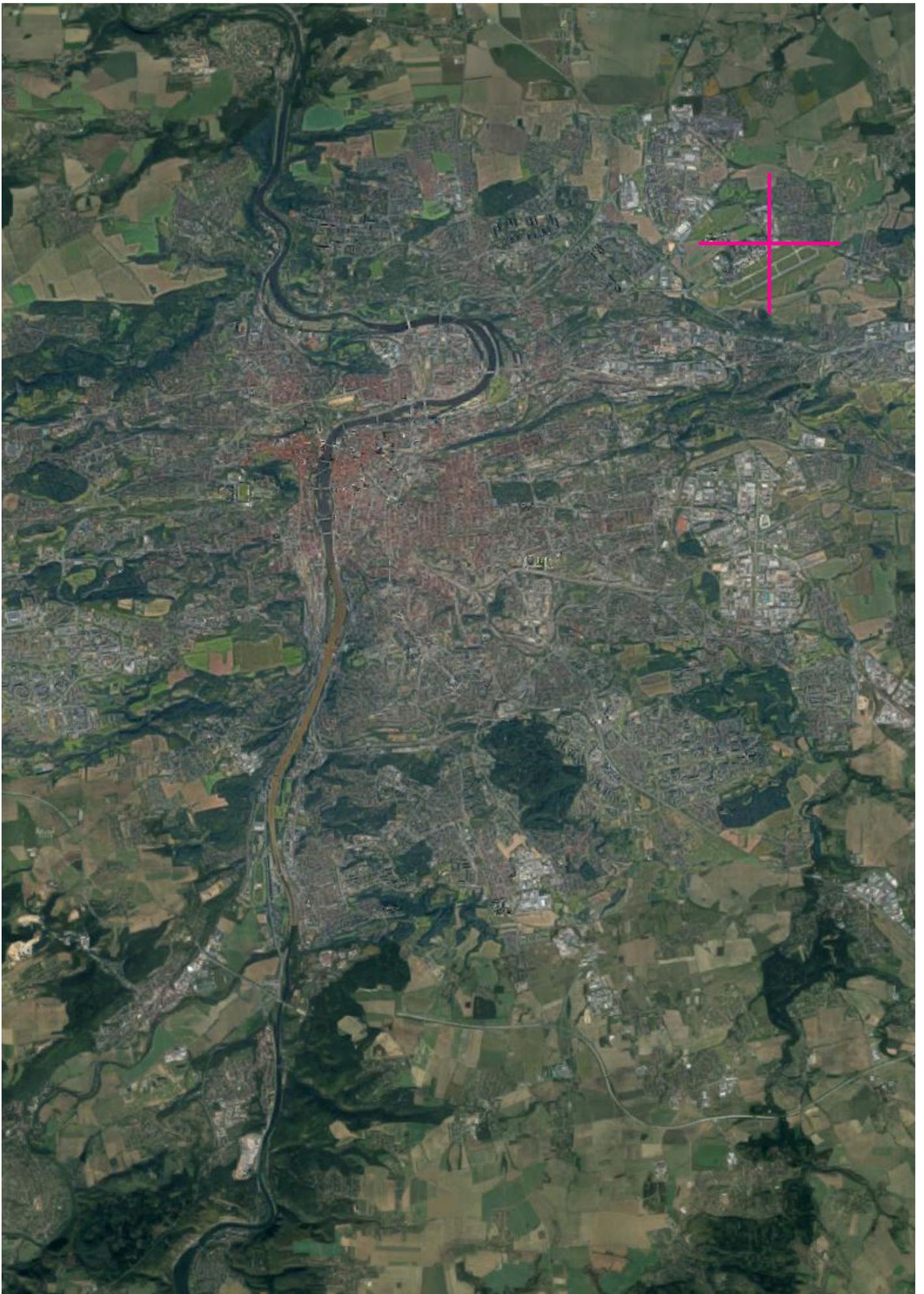
Administrative boundaries of Prague

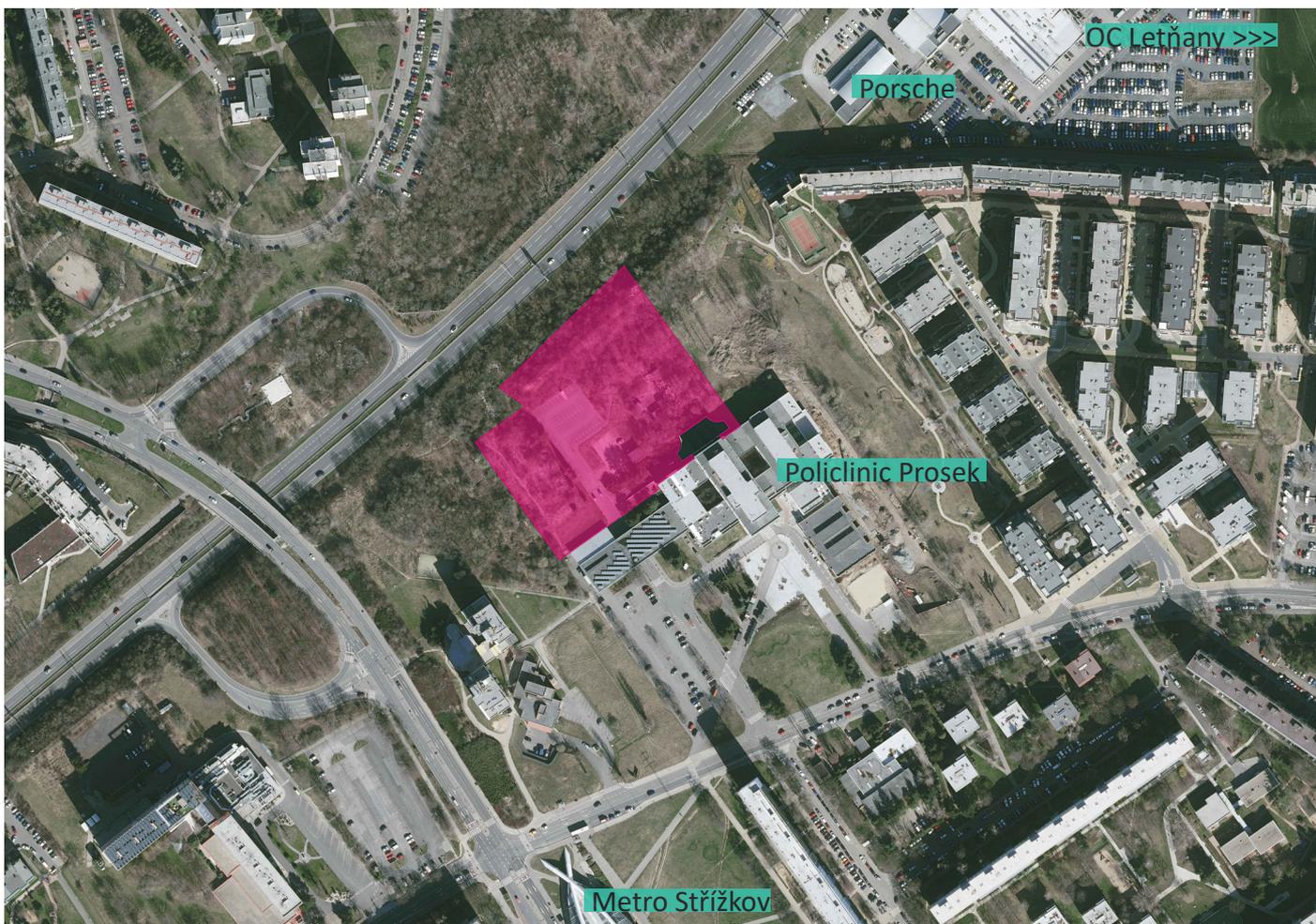


The network of the Prague metro



The network of Prague car transport





LOCATION

The area is located on plots Nos. 515/19, 515/56, 515/58, 515/60, 515/61, 515/62, 515/63, 515/64, 515/65, 515/66, 515/770, 515/85 in cadastral district Střížkov, on the northern edge of the Prosek housing estate.

The Prosek housing estate was built between 1964–71 according to the design of architects Z. Kotas, Z. Turzická, B. Kocián, and J. Novotný as part of the then-planned Northern City.¹ It consists mainly of board houses with a height of 9 floors (23 m) and 11 floors (32 m) and point houses with a height of 5 floors (13 m), which are complemented by low facilities.

The district office is separated from the residential development by the Prosek Polyclinic complex, a building with a height of 2–4 floors, which was completed in May 1985.

FACILITIES NEARBY

Policlinic Prosek is the largest medical facility located in the territory of Prague 9 and one of the largest in Prague. It provides outpatient health care in basic and specialized medical specialties and at the same time it has an inpatient capacity. The catchment area of the polyclinic is mainly Prague 9 and the adjacent part of Prague 9.

Not far from the site (approx. 1.2 km) there is the Letňany Mall, a shopping center with a wide range of shops and services.

ZONING PLANNING DOCUMENTATION

VALID ZONING PLAN

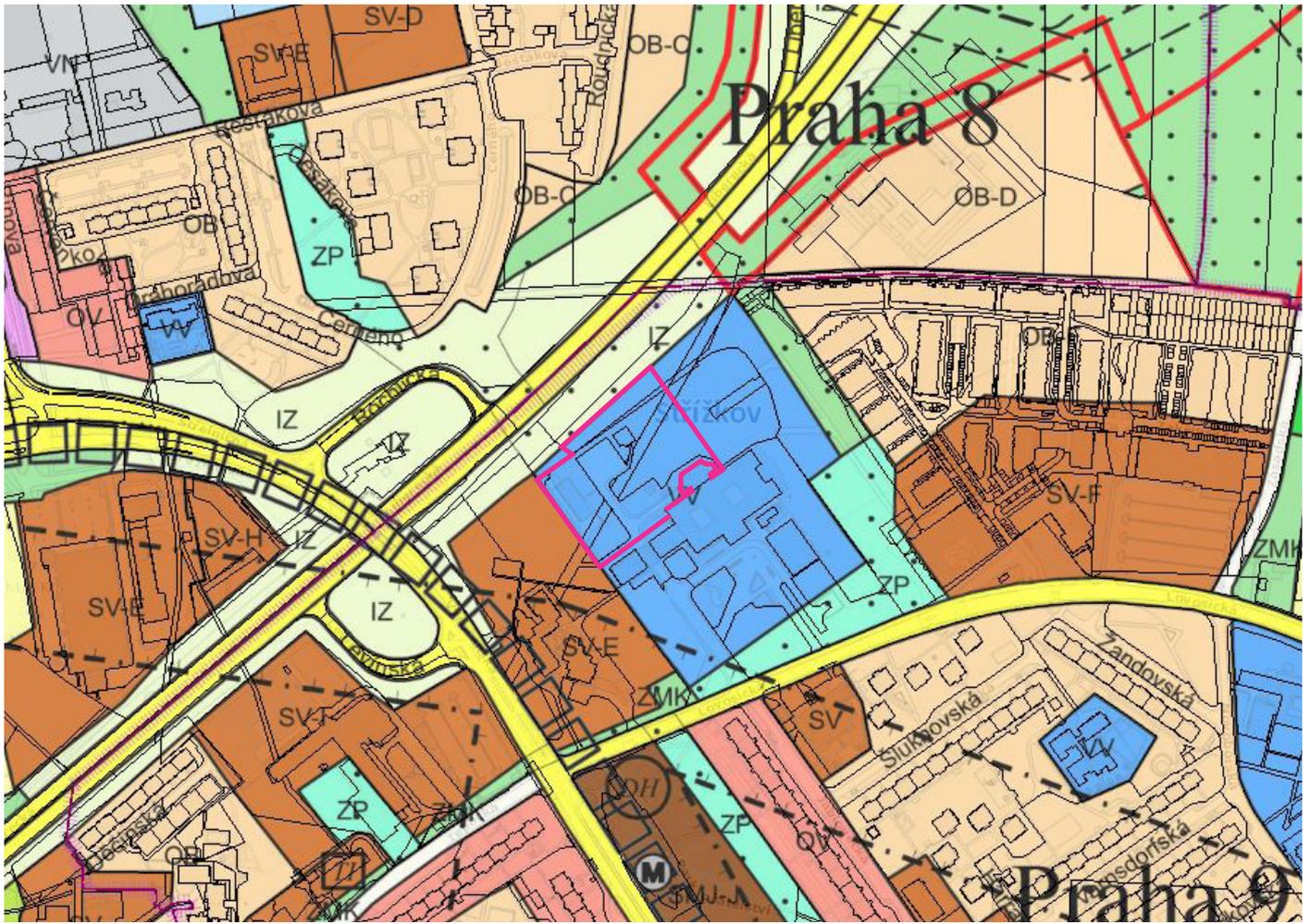
According to the current zoning plan, the Addressed Area is located in an area designated for the construction of public amenities. It is bordered to the north by an isolated greenery, which together with the terrain mound separates the area from ul. Liberecká. To the west, there is an area with permitted mixed Use, with a use rate of E. The current zoning plan defines the solution the area as PF- public facilities. See “Valid zoning plan of Prague” on page 13.

The protective limit of the Kbely Airport is important; it is set by a measure of a general nature establishing the protective zones of the Kbely Military Airport. From the statement of the Ministry of Defence on the intention to construct the building of the Emergency Department, it is stated that the area in question is located within the protection zone of the Kbely Military Airport. The maximum overall height of the building at the site is 327 m above sea level. The maximum height of the integrated rescue system transmitter on the building is 6 metres.

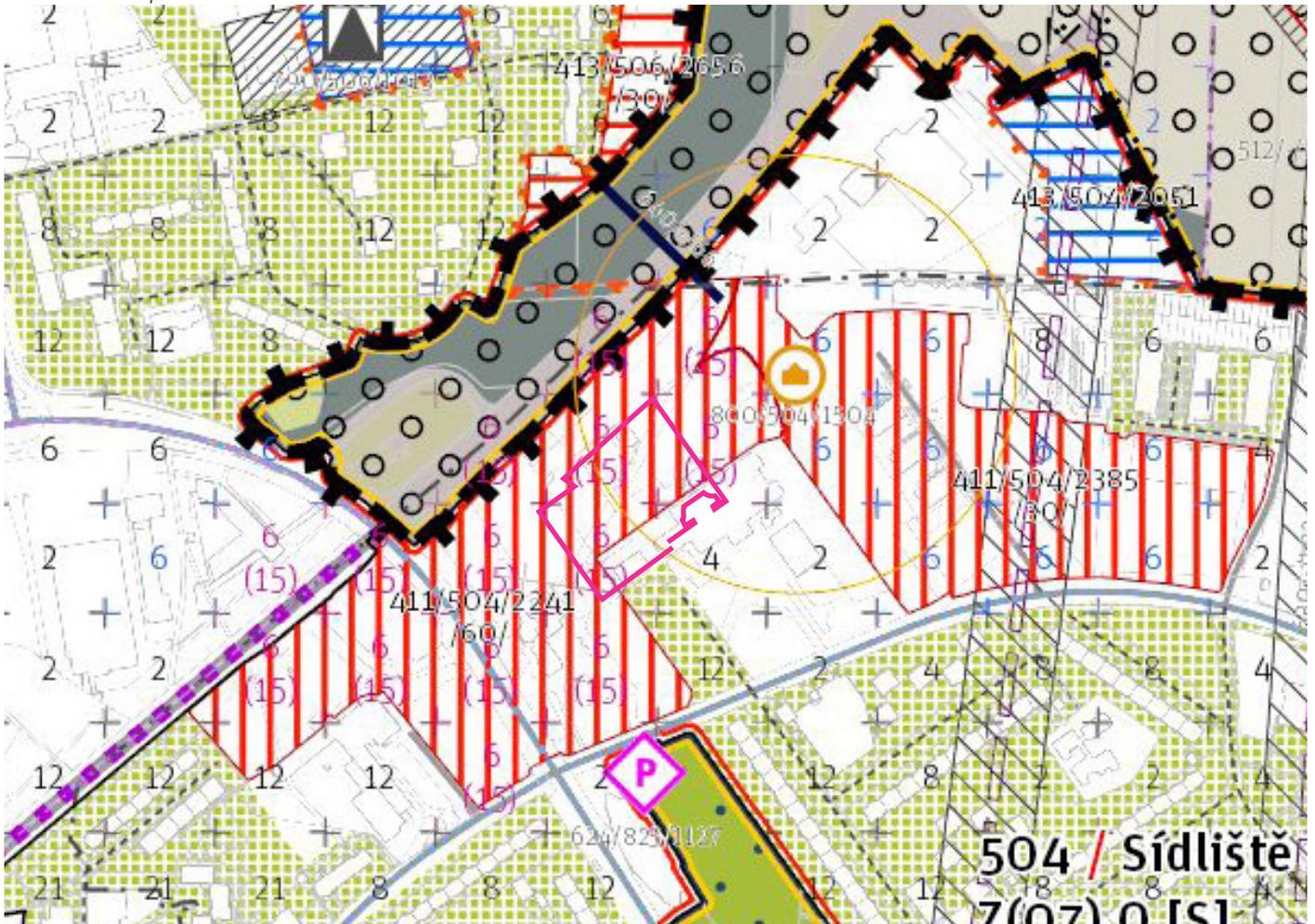
METROPOLITAN PLAN

Metropolitan Plan The Metropolitan Plan addresses the 504 / Sídliště Prosek site and defines it as a transformation area, which is intended for residential use. This is non-binding information as at the time of the competition, the Metropolitan Plan is not in force and is not expected to be in force in the near future.

¹
https://cs.wikipedia.org/wiki/S%C3%ADdli%C5%A1t%C4%9B_Prosek



Valid land-use plan



Draft metropolitan plan

TERRAIN

The area in question lies on a gently sloping hillside which drops from a height of approximately 295 m above sea level to a level of 293 m above sea level (Baltic sea.) in the north-east.

The area is from ul. Liberecká is separated from the area by a 7 m high noise barrier.

GEOMORPHOLOGY

According to engineering and geological surveys, the upper layer of the rocky base- marl and siltstone- is located in the competition area at a depth of about 3.2–4.2 m below the surface (ie about 288.7–291 m above sea level). The rock base is covered by three geotechnical types of cover formations, namely:

1 / GT1- weights- mostly sandy clays and clay sands

2 / GT2- Aeolian and Aeolic-diluvial sediments-

loess and loess clays of solid consistency

3 / GT3- diluvial sediments- saliva weatherings
(yellow-brown clay of solid consistency)

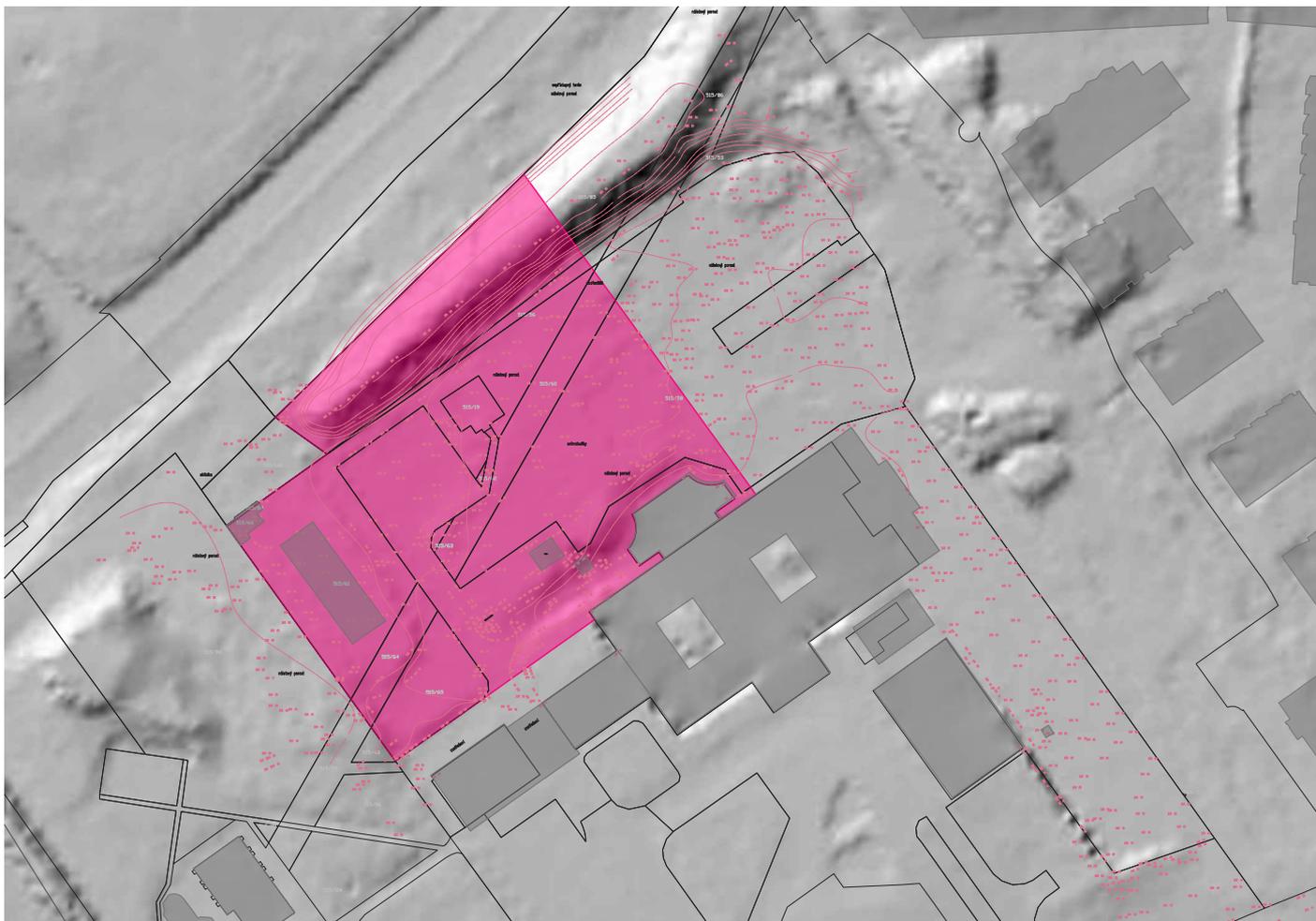
The foundations of the construction should thus be realized by deep piles or a basement floor into the rock base

The groundwater level in the area is expected at a depth of 14-16 m below the terrain.

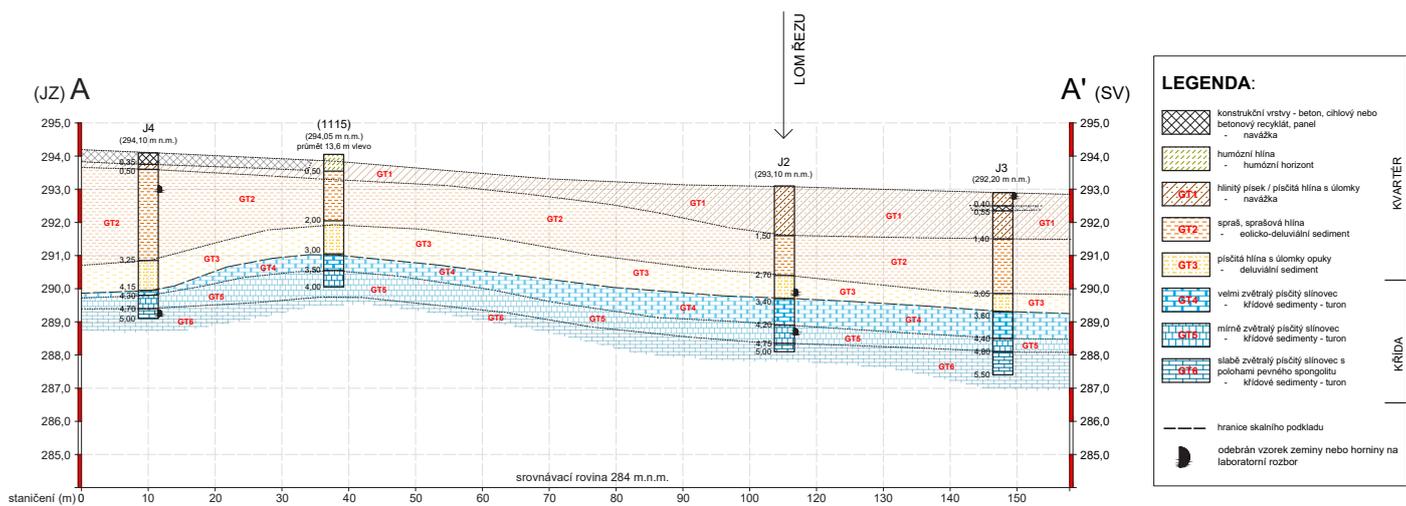
There is a landfill about 3 m high in the area, which will be removed before construction.²

2

Detailed IG survey, Geological survey for rainwater infiltration. Zimola, P. September 2020. Prague.



Cadastral map and terrain around the river



Geotechnical section

LANDSCAPE

The subject site contains green space, tree plantings and 35 individual trees that surround the parking lot and paved concrete areas. However, according to a dendrological survey carried out in August 2020, none of the trees are subject to an arboricultural rating of 1 or 2 (where 1 indicates the highest arboricultural value of the tree), therefore none of the trees require protection.³

According to the Assessment of the impact of a serious intervention on the interests of nature and landscape protection according to §67 of the Act⁴: "... there are no natural or close to nature habitats [in the area]. These are urbanized areas (X1). There is ruderal vegetation of herbs, shrubs with ruderal and non-native species (X8), and by trees whose seeds got planted here by the wind (X12B)."

The evaluation states that there are no specially protected plant species in the area, but there are two plants from the Red List of the Czech Republic, namely European yew (*Taxus baccata* which, however, does not grow here in natural conditions, but was planted as a decorative tree) and white henbane (*Hyoscyamus albus*) in the northern part, the occurrence of which can be considered more or less accidental and therefore does not bring any restrictions to construction.

In connection with the Regional Office, the presence of several specially protected species of fauna was recorded, which will be directly affected by the construction, but their presence is not an obstacle to future construction. For the smooth course of construction, measures to minimize the negative impacts of construction on the territory are recommended. It is recommended to cut down the trees in the non-vegetation period from the beginning of November to the end of March and to prevent the introduction of new invasive trees into the area during construction.

There are no migration corridors passing through the area. No Territorial system of ecological stability passes through the territory, there is no significant landscape element or any protection zone.

EXISTING UTILITY NETWORKS

The plot is currently supplied with sewerage and water, parallel to Vysočanská Street under the Prosek Polyclinic.

A gas pipeline runs under the northwest corner of the plot. Electricity distribution ends at the western wing of the Prosek polyclinic.

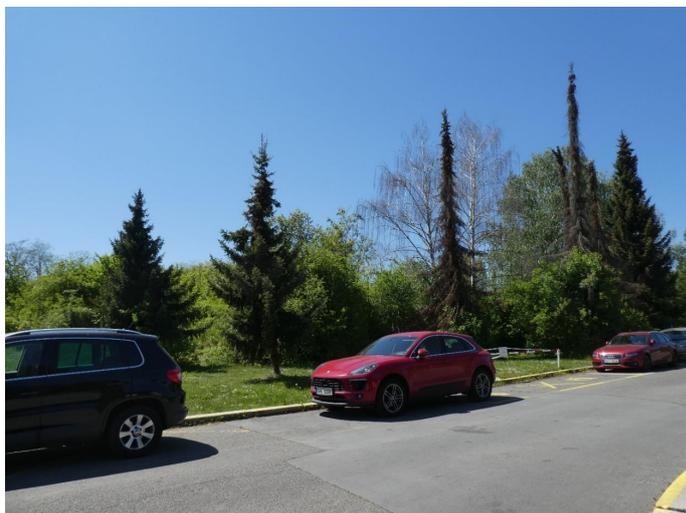
In the proposal, it is necessary to take into account the above-average presence of utility networks in the territory.



View of the area from the noise barrier



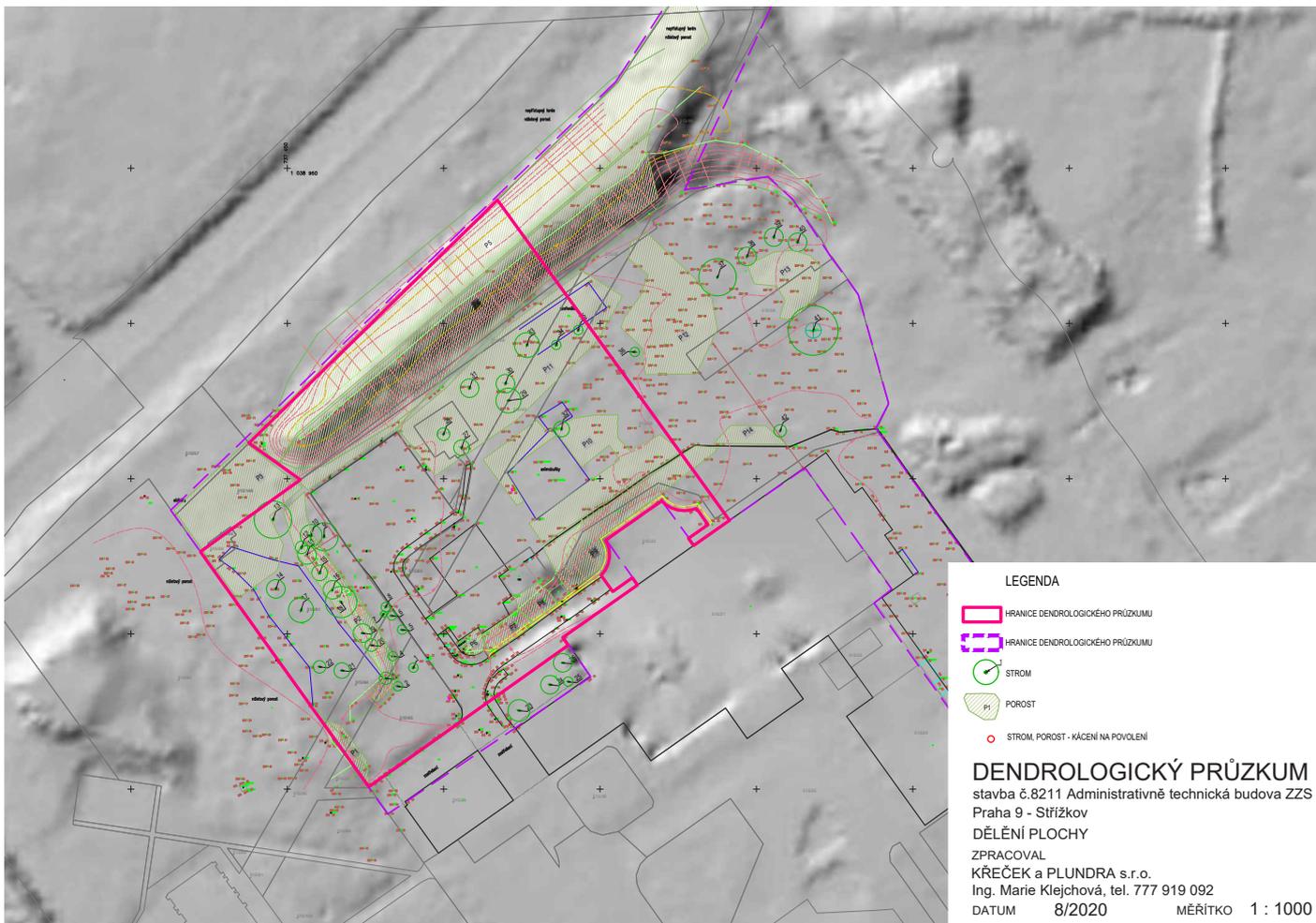
View of gradually overgrown concrete surfaces



Decorative planting contrary to intent

³ Dendrological survey. Administrative-technical building of the EMS, cadastral area. Střížkov. Křeček a Plundra, s.r.o. August 2020.

⁴ Dendrological survey. Administrative-technical building of the EMS, cadastral area Střížkov. Křeček a Plundra, s.r.o. August 2020.



Dendrological survey



Map of utility networks

ASSOCIATED FACILITIES

The continuity of operations between the Prosek Polyclinic and the planned administrative-technical building needs to be ensured especially between the part of the exit base and the designed area.

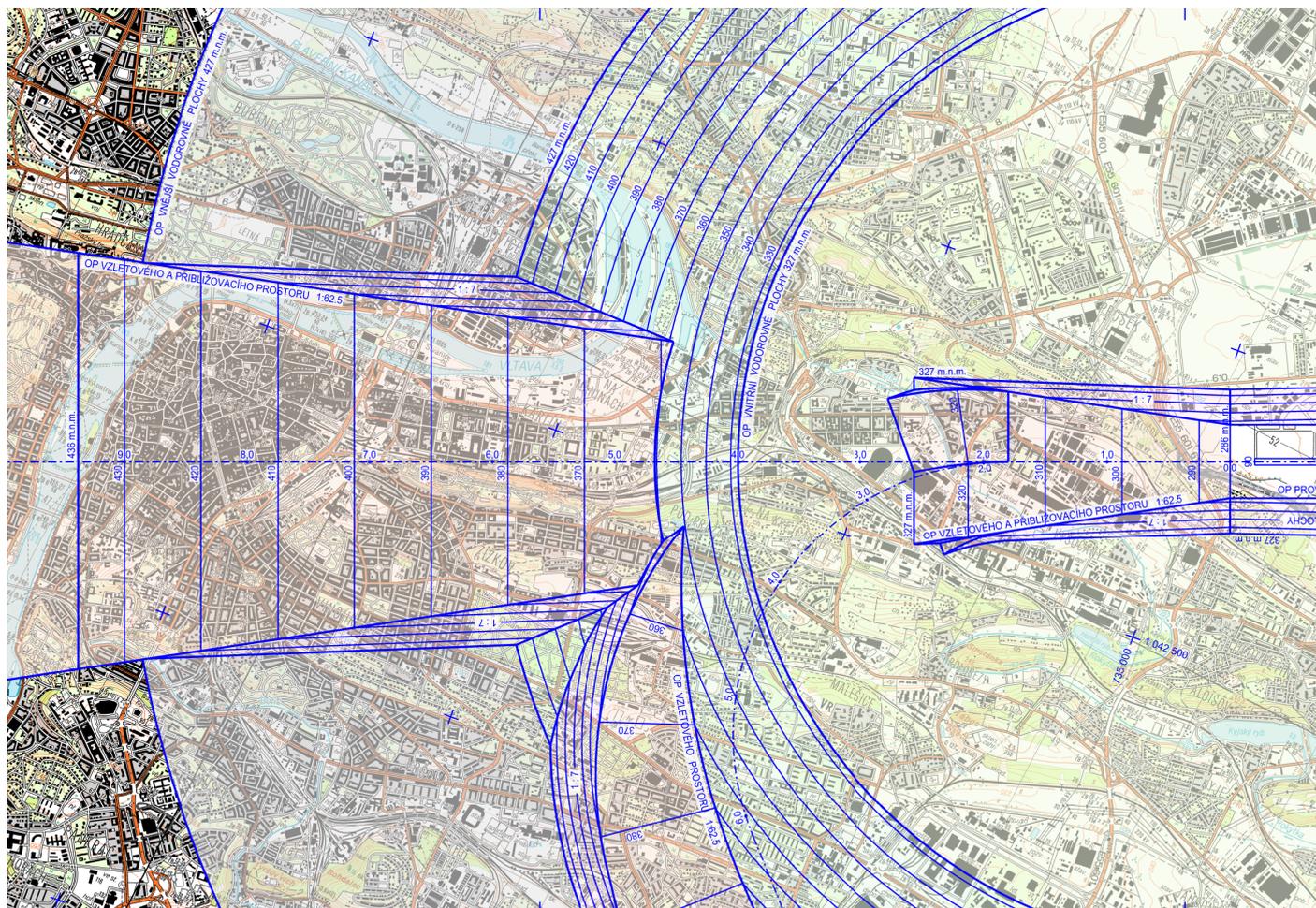
TRANSMISSION CORRIDORS

When designing a building, the antennas need to be placed in such a location that the signals they receive and transmit pass through clear corridors towards all the required transmitters. There must be no fixed obstacles (landscape or buildings) in the path of the signal. The directions of the transmitters are marked on the map, with their height described for each direction. The antennas must be located in close proximity to the MOC (Medical operation center) and its technological facilities.

Suitable placement of antennas and **free passage for signal transmission must be documented in a separate situation and sections** (document P.11).

SAFETY

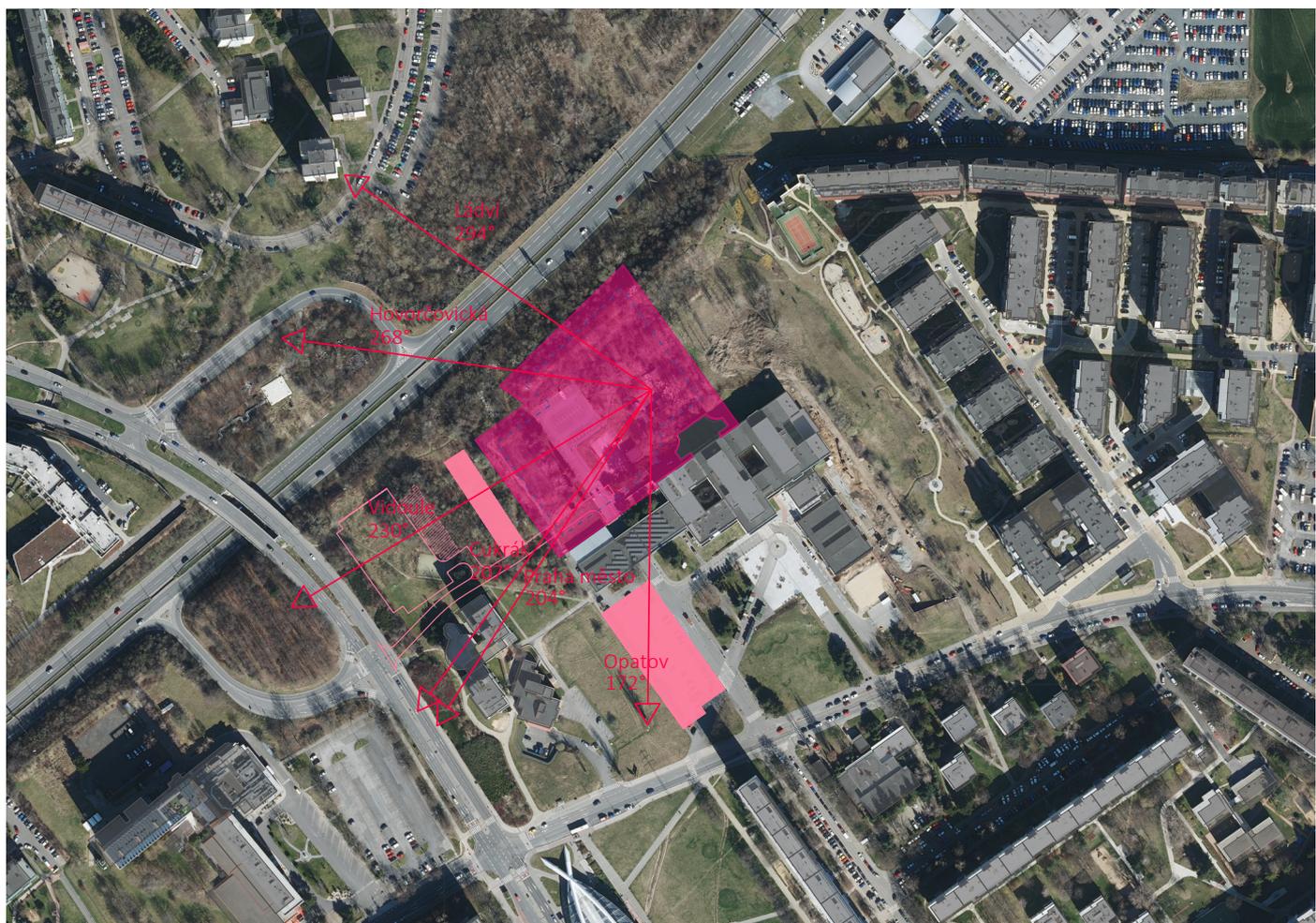
The administrative and technical building of the MOC is an element of critical infrastructure, and therefore it is necessary to maintain a minimum 10 m buffer zone from the edge of the property when designing it. The zone will allow passage of heavy equipment and prevent direct attack on the building.



PROTECTION ZONES OF THE MILITARY AIRPORT KBELY



SITUATION AND CONSTRUCTION PLANS



SITUATION OF TRANSMISSION CORRIDORS

CONSTRUCTION PLANS

Several construction projects are planned in the vicinity of the study area.

NEW ACCESS ROAD

TNew road leading west from ul. Vysočanská to the area in question should become the main access route to the new multifunctional building of the EMS. However, in view of the property conditions in the area and the need to reconcile the individual investments of the private and public sectors in time, it is necessary to design a variant access route through the gate of the existing polyclinic from Lovosická Street. The variant access through the existing gate of the polyclinic must be designed as a temporary connection of the land to the transport infrastructure until all other transport connections in the area are built.

Along with the access road, the construction of a car park with an area of approximately 3,000 m² and a capacity of approximately 120 parking spaces is planned at Vysočanská Street.

PARKING HOUSE

The parking capacity in the area is further extended by a parking house built between ul. Lovosická and the Prosek polyclinic, which will provide 378 parking spaces on a built-up area of 3200 m² in 4 floors. The parking house is designed by ai5, s.r.o. and implemented by the Prague 9 Municipality with the contribution of the Prague City Hall.

RESIDENTIAL HOUSES

Another planned construction in the vicinity of the area under consideration is two apartment buildings on land majority owned (approx. 53%) by BEK Construction and minority owned (approx. 47%) by the City of Prague. The houses will occupy a built-up area of approx. 1700 m² and reach a height of 8 and 11 storeys. They are to be built according to the design of A.D. studio.

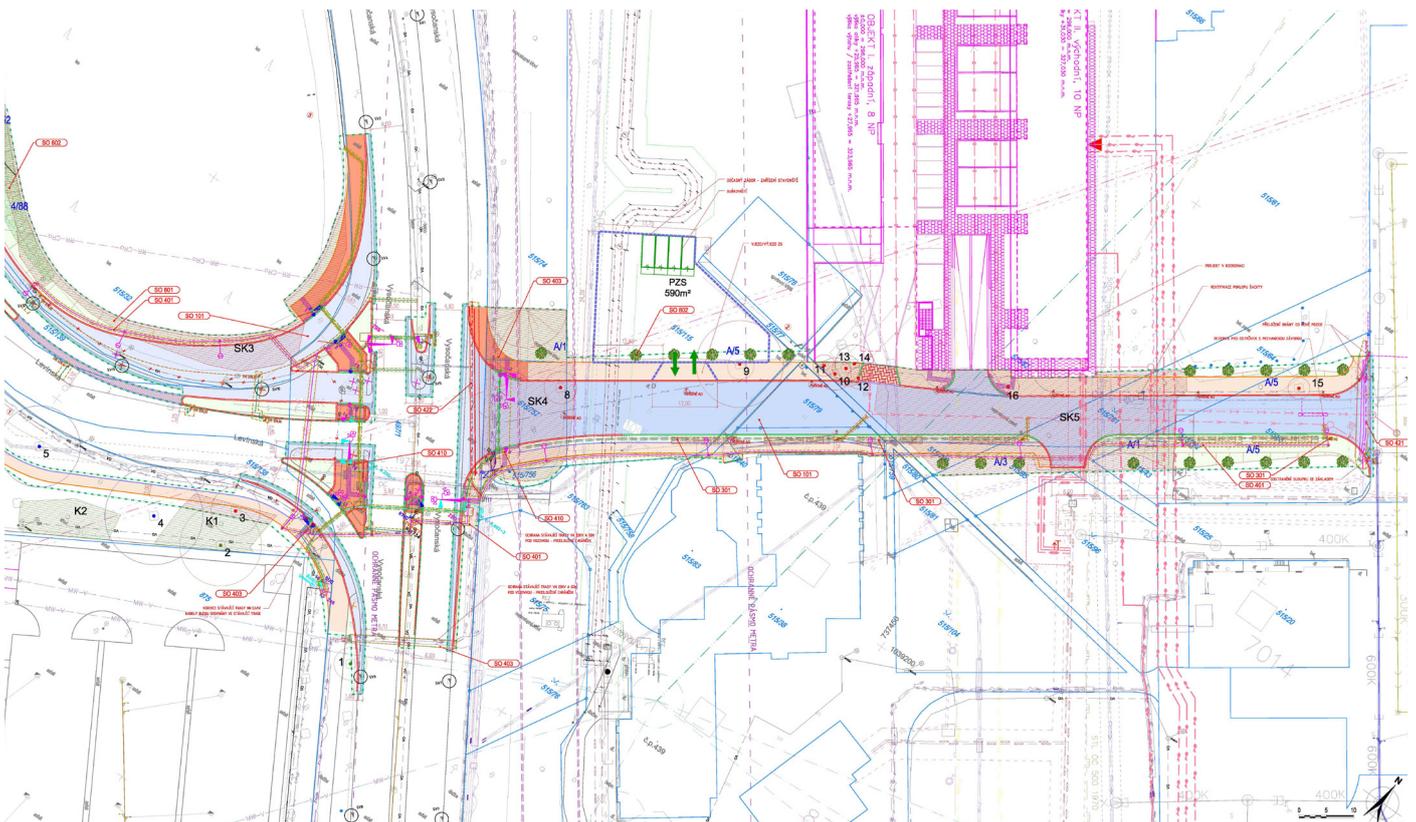
PROSEK IV NURSING HOME

The house is an investment of the Prague 9 municipal district, which is intended to be built on plots of land parc. nos. 515/59 and 515/765, 515/766, 515/768 and 515/769 in the cadastral district of Prague. Střížkov, which are adjacent to the land for the construction of the EMS. There is a study dated 12/2019, prepared by Zero atelier, Ltd., in which the EMS area was also prepared. However, it is only valid for Building I. Buildings II and III are located in the ZZS area and will not be implemented.

FURTHER CONSTRUCTION

PPlans for plot 515/41 to the west of the site have not yet been published, but given the landowner, FINEP, it is likely that further residential development will be built here.

NEW ACCESS ROAD



Coordination situation of the access road connection of the Prague EMS building and the Prosek Polyclinic - from 05/2022

PROSEK IV NURSING HOME



With regard to property rights, only building „I“ will be implemented by the Prague 9 Municipality. The other objects are considered in the study on the land of the designed area and will not be implemented.



Building „I“ - visualization from 05/2022

PROGRAM

The new administrative and technical building of the EMS is planned as the headquarters of the Prague Emergency Medical Service. Its layout and architectural design should respond to the complexity and complexity of the operation, as well as to the comfort of the users who are exposed to excessively stressful situations during their work.

The focal point of the building is the Medical Operations Centre- dispatching centre, where the MOC staff receive calls and deal with crisis situations. The MOC is complemented by other facilities such as an education and training centre with facilities for training rescuers and the public, servicing and cleaning of ambulances and other rescue equipment, or administrative facilities for the entire Prague Emergency medical Service.

It is important that each of the facilities should form a coherent independent unit, which will be connected to the rest of the building according to the requirements and possibilities.

The brief gives a conceptual overview of the requirements for the building. The programme requirements are detailed in **Table 1 - Programme**.

FACILITY AND TRANSPORT REQUIREMENTS

Based on the general programme requirements and taking into account capacity, the required size of the administrative building is approximately 27,000 m² HPP. The capacity of the building is approximately 100 staff and approximately 100-150 visitors.

The traffic calming and other capacities for the Administration Building are based on these figures.

The mode of operation of the building is 24/7/365 and it is within the control center section of the EMS.

Beyond the administration building, increased passage of ambulances, special vehicles and emergency vehicles are anticipated. These requirements are further discussed in Section 11. **TRANSPORTATION, PARKING AND GARAGES**.

PROGRAMME SECTIONS

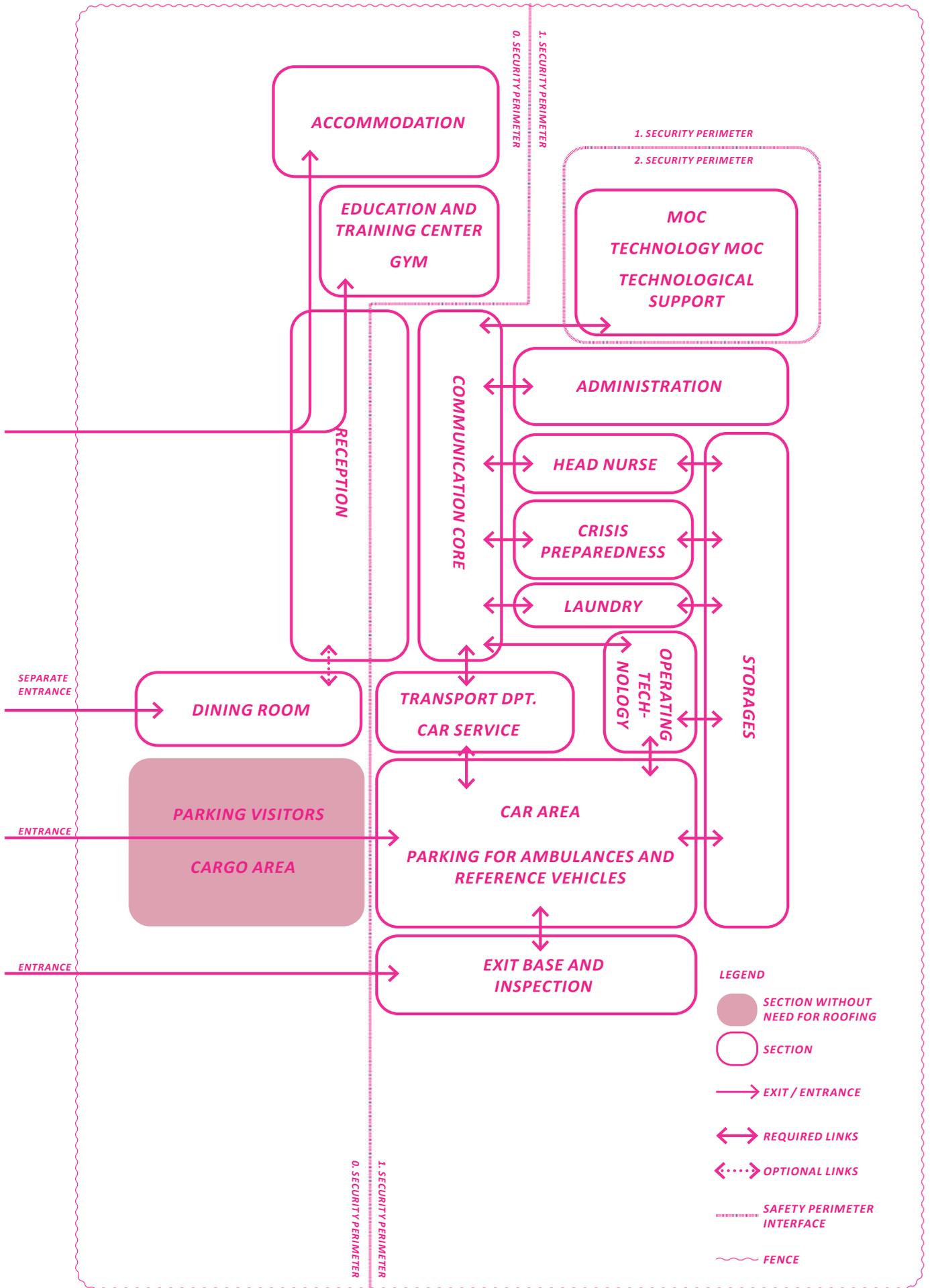
The administrative-technical building of Prague EMS is a multifunctional building with the following sections::

1. **ADMINISTRATION AND DIRECTORATE**
2. **MEDICAL OPERATIONS CENTRE**
3. **EDUCATION AND TRAINING CENTER**
4. **GYM AND SPORTS FACILITIES**
5. **EXIT BASE**
6. **CRISIS PREPAREDNESS WORKPLACE**
7. **HEAD NURSE AND BIOTECHNICIAN WORKPLACE**
8. **ACCOMMODATION**
9. **DINING ROOM WITH KITCHEN**
10. **TRANSPORT AND CAR SERVICE DEPARTMENT**
11. **PARKING**
12. **CAR AREA**
13. **ARCHIVE**
14. **LAUNDRY**
15. **TECHNICAL-OPERATIONAL DEPARTMENT**
16. **SERVICE AND TECHNICAL OPERATIONS**

Each section has its own operational requirements, which are further elaborated if necessary. The general requirements for the whole building and the coordination of sections within the whole area:

- provide natural ventilation throughout the building
- based on the user's experience, dimension the support facilities according to the described program and operation
- design offices as separate
- place meeting rooms according to the program so that meetings can take place throughout the building
- place a cleaning room on each floor
- ensure a two-level scale of security
- separate the MOC space (including the hygienic facilities and the outdoor terrace) from the rest of the building so that it can function as a regime workplace (element of critical infrastructure)
- place exit groups as close as possible to the emergency vehicles
- place emergency vehicles near the exit of the building
- place car service offices as close as possible to garages and workshops
- make all storage spaces available for unloading the base vehicle

SCHEME OF CONNECTIONS OF INDIVIDUAL SECTIONS



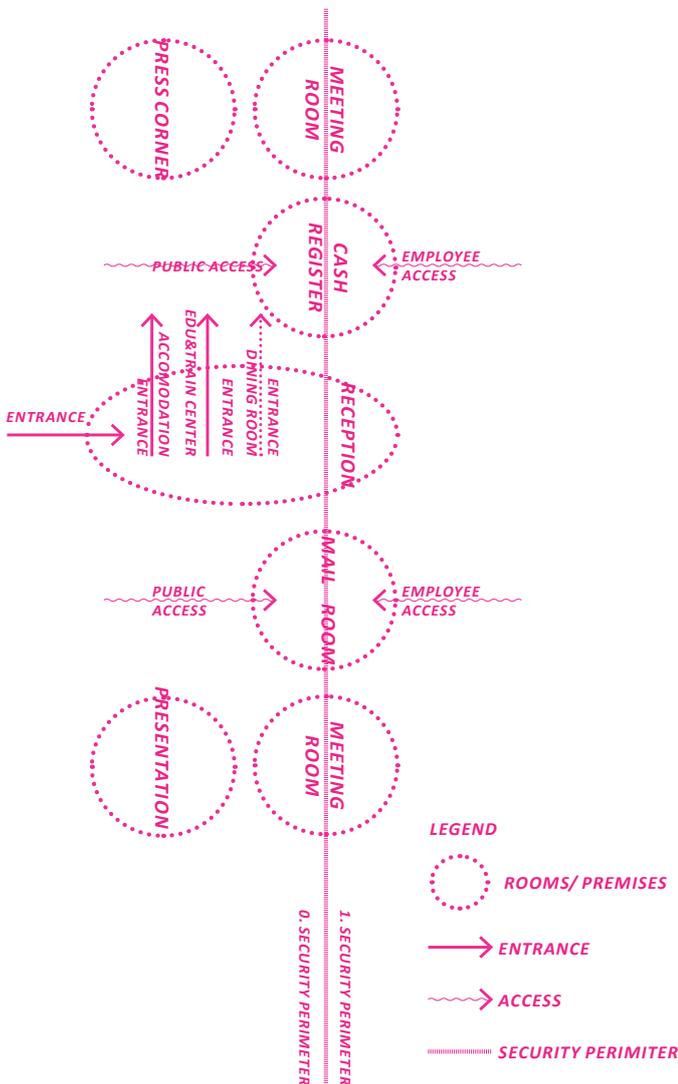
0. MAIN ENTRANCE

Separate areas are designated for the main entrance, where the EMS employees come into contact with the public, which is located at the interface of the 0th and 1st security perimeter.

Within the entrance there is a reception area with a lobby and a waiting room, an area for the presentation of the EMS, a press (conference) corner for the contact of the EMS with journalists and a small meeting room, a mail room with a room for manual archives and a cash room with a room for a safe.

The reception area should be connected to the rest of the building by accommodation, an education and training centre and ideally a canteen..

ENTRANCE ARRANGEMENT SCHEME



1. ADMINISTRATION AND DIRECTORATE

The Administration and Directorate Section is the administrative back office of the entire building. It is divided into several subsections:

- 1.1. DIRECTORATE
- 1.2. SECTION OF NON-MEDICAL HEALTHCARE PROFESSIONALS

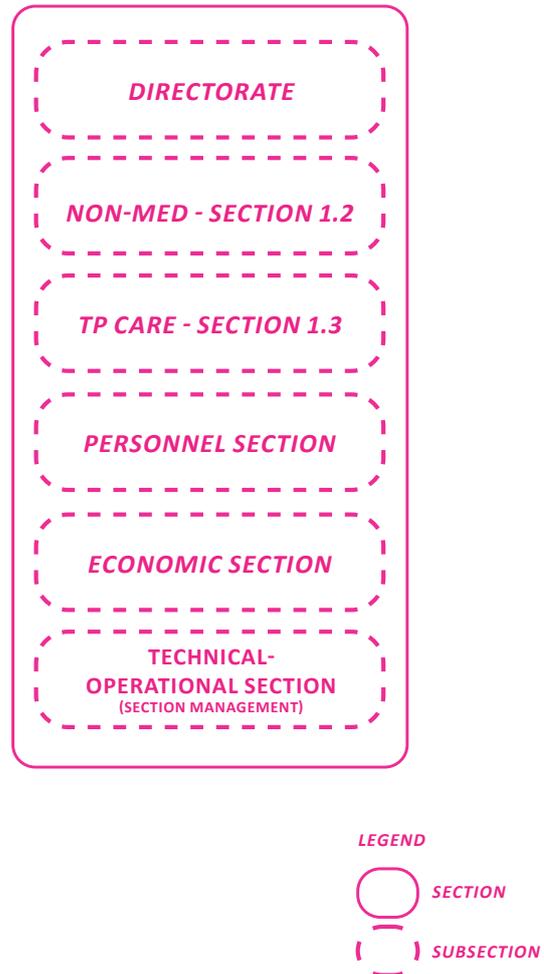
A system of offices and social facilities. In the section, it is necessary to take into account the increased movement of people at the rooms intended for the operation of exit groups, which will be in close contact with the exit ramp. It is therefore recommended that this traffic be located close to the communications core.

- 1.3. THERAPEUTIC PREVENTIVE CARE SECTION

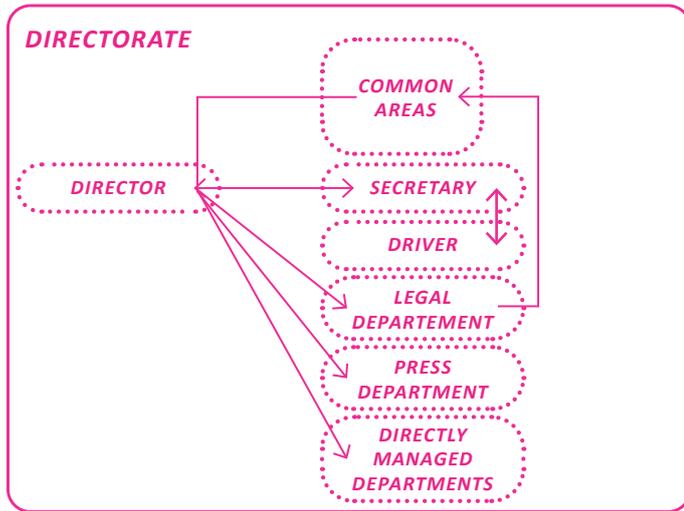
It requires offices and warehouses near the arrival of supply vehicles with the possibility of loading and unloading goods (ramp), on the ground floor or close to the freight elevator, the possibility of driving with a pallet truck directly into the warehouses, and barrier-free access.

- 1.4. PERSONNEL SECTION
- 1.5. ECONOMIC SECTION
- 1.6. TECHNICAL- OPERATIONAL SECTION

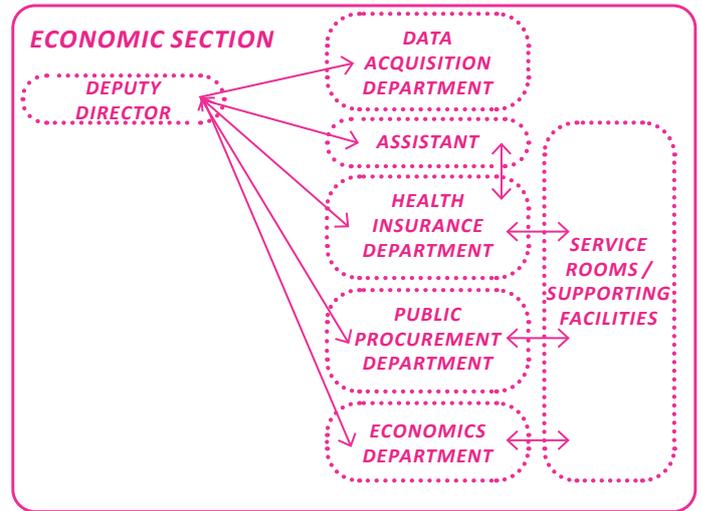
ADMINISTRATION DISTRIBUTION SCHEME



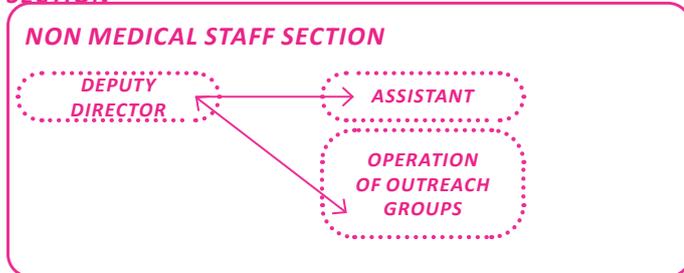
SCHEME OF OPERATION OF DIRECTORATE



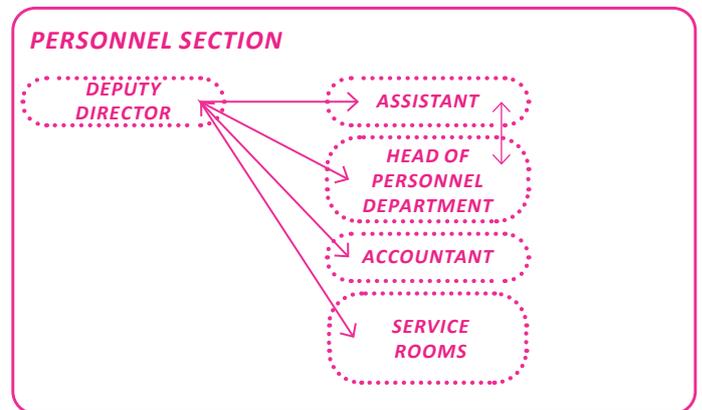
SCHEME OF OPERATION OF THE ECONOMIC SECTION



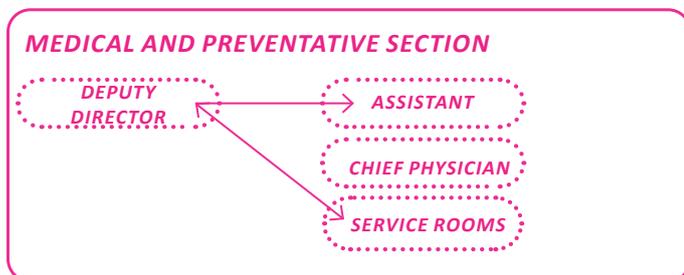
SCHEME OF OPERATION OF THE NON-MEDICAL STAFF SECTION



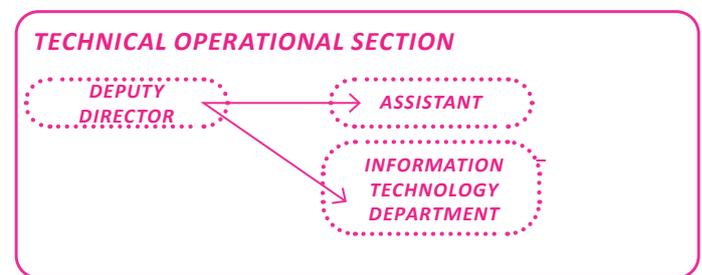
PERSONNEL SECTION OPERATION SCHEME



SCHEME OF OPERATION OF THE MEDICAL AND PREVENTATIVE STAFF SECTION



SCHEME OF OPERATION OF THE TECHNICAL OPERATIONAL SECTION



LEGEND

-  SECTION
-  SUBSECTION
-  DIRECT LINKS
-  INDIRECT LINKS

2. MEDICAL OPERATIONS CENTRE

The Medical Operations Centre (MOC, ZOS in czech) is an **element of critical infrastructure** and therefore operates as a mode workplace that is separate from the rest of the operation.

Its program consists of two subsections:

- 1/ MOC Workplace
- 2/ Workplace of technical support- ICT MOC

Due to its nature, the MOC must be located directly below the antennas so that it is connected to them in the shortest possible way and a quality signal is ensured.

2.1. MOC WORKPLACE

The central element of MOC is the hall with its own entrance, which will be spatially connected by offices, kitchens with a dining room, a crisis hall, and warehouses. Direct passage and connection through the glass walls are required from the offices of the MOC management, from the private relax room, and from the crisis hall (the glass wall will be used to observe the hall with visits). The kitchenette with the dining area can be accessed via the hallway. Close to the hall should be the outdoor area of the terrace (smoking room). Lockers and bathrooms can be located upstairs.

Disposition-wise, one wall of the MOC hall should be full in its entire height so that large-area panels can be placed here in the future. The technological space of the hall should be directly connected to the technological room.

The crisis hall should ideally have its own air conditioning and sanitary facilities.

As part of the MOC solution, rooms for three types of rest should be provided in accordance with the programme::

- 1/ active- exercise;
- 2/ night - relax rooms;
- 3/quiet - quiet rooms for mental relaxation.

At the MOC workplace, personal and freight connections should be separated between the technical rooms and the operating rooms.

Technological requirements for halls (MOC, crisis, and training) are equipped with air conditioning and the possibility of natural ventilation; equipped with central vacuuming; equipped with a gas fire extinguishing system; acoustics solution.

One floor below the crisis, training and MOC halls, technology rooms (TR) will be located in the entire area of the halls.

Technologically, two independent power supplies must be brought to the TR, fed by the building's central diesel generator. The TR will include a power switchboard. The TR will be equipped with its own air conditioning and cooling technology system. The TRs will be connected to vertical and horizontal shafts through which external low-current ground lines can be fed to the rooms. The TRs will be interconnected with other TRs.

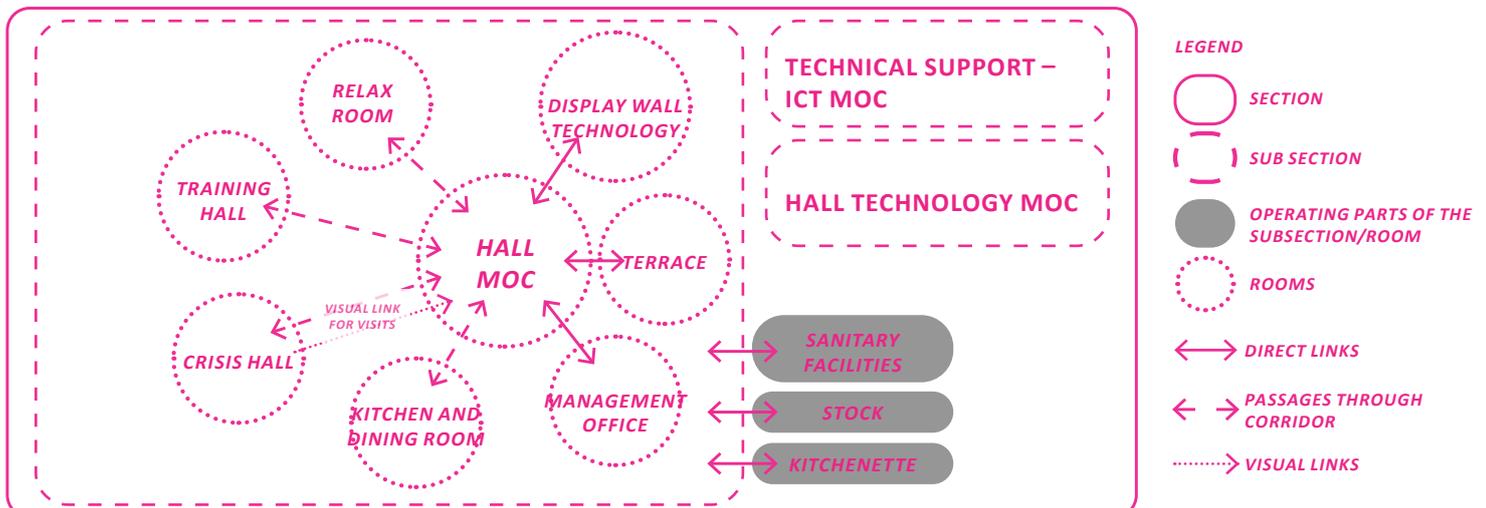
2.2. DEPARTMENT OF TECHNICAL SUPPORT (ICT-MOC)

The technical support workplace serves as a background for the MOC workplace. Its operation is directly linked to the MOC workplace.

SCHEMATIC SECTION OF MOC

HALLS	SUPPORT FACILITIES <small>(Variable men/women)</small>
HALL TECHNOLOGY MOC	TECHNICAL SUPPORT – ICT MOC

DIAGRAM OF REQUIRED CONNECTIONS MOC



3. EDUCATIONAL AND TRAINING CENTER

The ETC spaces are designed as two independent elements:

- 1/ space for education of employees of The Prague Emergency Medical Service;
- 2/ simulation center, which will serve from 2/3 for internal purposes of the organization and from 1/3 for external entities.

3.1. EDUCATIONAL AND TRAINING CENTER

There is space for education, lectures, meetings. Its program consists of a library, study room, offices, classrooms, auditorium, meeting room, and service areas.

3.2. SIMULATION CENTER

Due to the use of external entities, a simulation center is a self-sufficient unit with its own input.

The core of the simulation center is six simulations and one control room, which work similarly to the halls of a television studio - it is possible to adjust their size; partially change their dispositions; are directly connected to video and audio transmission technology, etc.

The control room is used to control simulations in the surrounding rooms, to which it is visually connected by the one-way glass. It is equipped with technologies for transmission and recording of sound from rooms. A separate entrance leads to it outside the simulation room.

The simulation rooms are arranged around the control room and are furnished according to six typical locations:

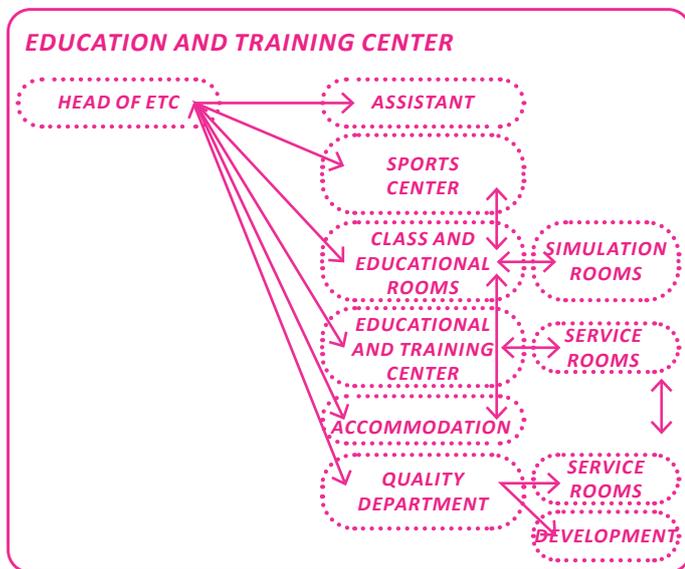
- 1/ apartment
- 2/ ambulance;
- 3/ helicopter installation;
- 4/ building, outdoor space;
- 5/ emergency admission;
- 6/ operating room;

Each of the rooms is accessible through a large entrance door, which allows the removal of large loads (eg ambulance, helicopter, etc.) and is supplemented by a warehouse for medical supplies and unused props. It must be possible to enter the rooms and between the rooms with equipment (eg an ambulance). The load-bearing capacity of the floors must be adapted to the higher load. Each of the rooms corresponds in size to the required program.

Furthermore, near the simulation center are min. two rooms for debriefing and ideally two rooms with a capacity of 10 people for giving feedback and possibly a seminar room with a capacity of 20 people for debriefing and theoretical introductions.

In the simulation center, there are also rooms for the preparation of lecturers, offices, a kitchen and a space for catering and the rest of the participants, an entrance hall, and sanitary facilities with changing rooms.

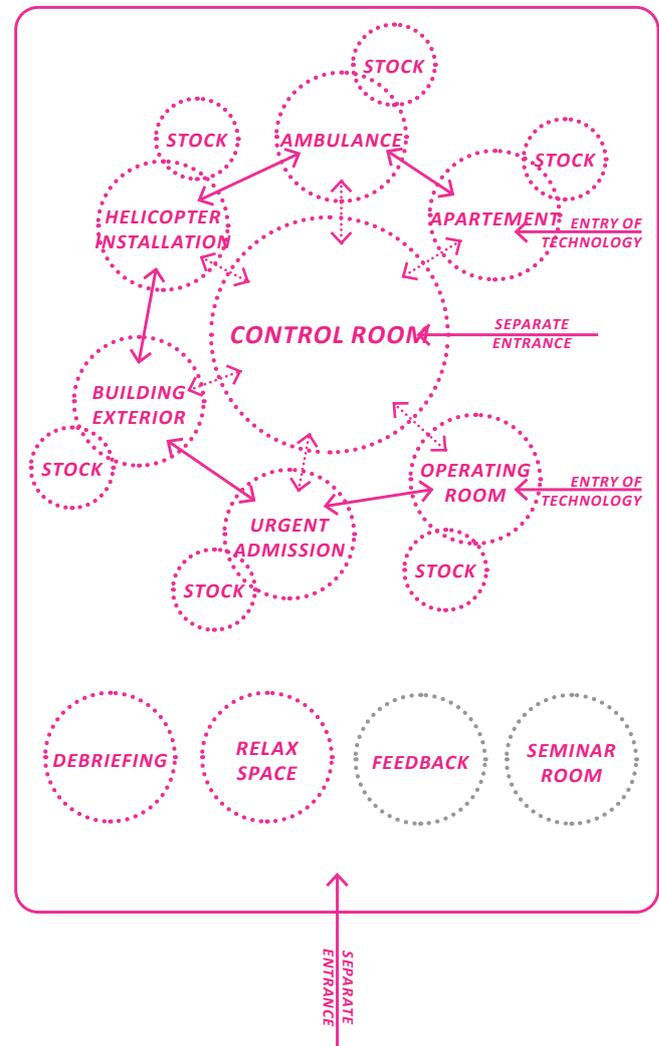
DIAGRAM OF THE REQUIRED LINKS OF THE EDUCATION AND TRAINING CENTRE



LEGEND

- SECTION
- SUBSECTION
- ROOMS
- ROOMS BEYOND THE PROGRAM
- DIRECT LINKS
- INDIRECT LINKS
- VISUAL LINKS

SCHEME OF REQUIRED CONNECTION OF SIMULATION ROOMS



4. GYM AND SPORTS FACILITIES

The emergency medical service building also offers basic sports facilities, which consist of a gym with a playing area of 10 × 20 m, a gym, a cloakroom, tool storage, and sanitary facilities. Ideally, the gym should be designed and located so that it can also serve as a social hall for all emergency medical staff (approximately 100 people). It would also be welcomed to find a place for a climbing wall.

5. EXIT BASE

It will serve as a background for the three rapid emergency rescue groups, emergency medical assistance, and inspector exit groups. The section also has facilities for the chief doctor.

Rooms, restrooms, kitchens, dining rooms, etc. must be located as close as possible to the garage of ambulances so that the crews are able to leave within the time limit of 2 min.

The requirement for garages and parking spaces in three parking spaces for ambulances.

5.1. INSPECTION

Offices of inspectors who go to serious situations, where they command directly at the place of intervention or control the course of operations.

Necessity to place offices as close as possible (within 2 minutes) from exit vehicles.

6. CRISIS PREPAREDNESS WORKPLACE

This workplace ensures the supply of special vehicles in crisis situations. It is operationally connected to warehouses and the communication core. It consists of three offices with facilities.

7. HEAD NURSE AND BIOTECHNICIAN WORKPLACE

The workplace with facilities for the head nurse and biotechnology consists of offices with links to drug stores and biomaterials.

8. ACCOMMODATION

Accommodation capacity is used to accommodate visitors (lecturers) and employees. Accommodation capacity is eight double rooms and four studios, which will allow temporary accommodation for employees. Accommodation should be accessible through a separate entrance through the reception. The rooms are complemented by a living room with a kitchenette, storage, office, cleaning room, and storage for clean and dirty laundry.

9. DINING ROOM WITH KITCHEN

The dining room with a kitchen is to provide hot imported meals in the form of self-service operation. The capacity of the dining room is 200-250 meals.

The gastronomic operation includes food reception, frozen or chilled food storage, dry food and beverage storage, washroom, thermoport storage, kitchen with individual working sections, tableware washroom, garbage storage, and office for kitchen managers. The operation also includes sanitary facilities and changing rooms.

There is a food and beverage outlet in the dining room. The capacity is designed for about 75 seats with three times the turnover.

10. TRANSPORT DEPARTMENT

The Transport Department provides maintenance, facilities and supplies for the fleet. The operations of the transport department consist of two subsections: **vehicle maintenance facilities (car service, car wash, workshops)** and warehouses.

10.1. MAINTENANCE OPERATION

The maintenance operation takes care of external and internal maintenance of emergency vehicles, so it should be located near the garage parking spaces of these vehicles. The maintenance areas themselves are mainly from the mechanical workshop, the space for changing tires, service boxes with jacks, and car washes. These spaces are followed by social facilities with living rooms and administrative facilities of the transport department.

The functions provided by the operation of the car service are:

- > seasonal tire change
- > storage of approx. 800 tires
- > tire inflation
- > wheel balancing
- > gluing tires to discs, disc straightening
- > change of operating fluids
- > vehicle condition check
- > minor maintenance

The following mechanical equipment should be located in the mechanical workshop:

- > Light truck wheel balancer
- > Light truck tire changer
- > Inflator (compressor)
- > 4 × four-column jack with a load capacity of 6t
- > Oil drain container (200l)
- > Service trolley
- > Disc straightener
- > Welding corner
- > Metalworking corner
- > Stand drill
- > Washing counter
- > Straightening plate
- > Anvil
- > Bending machine
- > Panel and lever shears

A separate maintenance area is the car wash. The car wash contains equipment for automatic washing of ambulances and areas for washing other vehicles. In addition to the car wash itself, the plant contains disinfection boxes, a waste store, a chemical cleaning department for the interior of vehicles with a separate room, store and facilities (day room, sanitary facilities, changing rooms and store) for about 10 people.

In the vicinity of the car wash, it is necessary to take into account the installation of a chemical wastewater treatment plant, sedimentation tank, chemical and detergent storage.10.2

WAREHOUSE

Spare parts, liquids, tires, sorted waste, medical gas cylinders, and cylinders and a consumables warehouse accessible from cars should be located close to maintenance areas to allow ambulances to be supplied as well as spare parts and waste to be stored from their repair.

Among the warehouses, there will also be separate warehouses with a special regime, in which waste from the maintenance of emergency vehicles (oils, filters, etc.) will be stored and where the infectious waste will be disposed of.

11. TRANSPORT, PARKING AND GARAGES

Within the emergency medical service, an area of approx. 4,400 m² is required for the parking of employees, visitors, and emergency vehicles. Individual garages and parking will be divided according to the type of vehicles and will be connected to a separate entrance. All stands, except for visitors, must be located in a covered and guarded area.

Garage capacity is set at:

> RZP ambulances <i>Category N2, M2</i>	50 stands
> RLP Vehicles <i>Category M1*</i>	15 stands
> Reference Vehicles: <i>Category M1*</i>	min. 70 stands
> staff, teaching, and visitors	min. 50 stands
> special vehicles <i>towing vehicle with arm, pick up, TPO vehicle - maintenance, etc.</i>	10 stands
<i>Categories N2, N3, O1, O2, O3, O4*</i>	
> Historic Vehicles	20 stands
> other garages according to valid legislation	

Through the parking lots and garages, a passage must be provided for the towing vehicle loaded by the rapid emergency rescue vehicle up to the transport department part. The minimum clear height should be **4 m**.

Dimensions of the largest vehicle for the calculation of the packaging curves: truck-sized vehicle for supply (approx 4 m height).

11.1. INCREASED TRANSPORT REQUIREMENTS

The following transportation requirements are specified beyond the office building:

- transit of ambulances- approx. 50 vehicles with a turnover of approx. 1x per day, i.e. a total of approx. 100 passages per day
- passage of ambulances- approx. 15 vehicles with a turnover of approx. 1x per day, i.e. a total of approx. 30 passages per day
- transit of special vehicles- approx. 10 vehicles with a turnover of approx. 10 times a day, i.e. a total of approx. 200 passes per day

In total, we expect approximately 330 passes per day in addition to the operation of the administration building.

* types of vehicles:

M motor vehicles with at least four wheels and are used for passenger transport

N motor vehicles having at least four wheels and are used for freight transport

O trailer vehicles

M1 vehicles having a maximum of eight passenger seats (excluding the driver's seat) and multi-purpose vehicles

M2 vehicles with more than eight passenger seats (excluding the driver's seat) and whose maximum permissible mass does not exceed 5000 kg

N2 vehicles with a maximum permissible mass exceeding 3500 kg but not exceeding 12 000 kg

O1 trailers with a maximum permissible mass not exceeding 750 kg

O2 trailers with a maximum permissible mass exceeding 750 kg but not exceeding 3500 kg

O3 trailers with a maximum permissible mass exceeding 3500 kg but not exceeding 10 000 kg

O4 trailers with a maximum permissible mass of over 10 000 kg car area

12. CAR AREA

The car area is closely adjacent to the transport department and especially to the car service, parking of ambulance and reference vehicles and warehouses. Programmatically, it has no infill, but it is a fairly large area that allows for the passage, turning and parking of vehicles. The size and spatial arrangement of the car park depends on the layout of the downstream operations of the transport department.

13. ARCHIVES

The archive program consists of two physical archives and one electronic archive supplemented by an office.

14. LAUNDRY

The operation of the laundry begins with the room for receiving dirty laundry, followed by the washing, drying, ironing, and the final phase of dispensing laundry, which is separated from the reception of laundry.

There will be a separate clean and dirty zone in the laundry room. The laundry will be designed as a workplace that meets the parameters for washing and treatment of work clothes that can be contaminated with organic and inorganic substances with the possibility of contact with the infectious environment. A tailor's workshop should be located near the laundry.

Part of the laundry will be brought to the laundry from other workplaces and will be exported back.

15. TECHNICAL- OPERATION DEPARTMENT

This department runs the building and other buildings of the exit bases. The program consists of workshops, warehouses, and offices. The equipment warehouse requires a connection to the exterior to be accessible to external employees who will come to it by ambulances.

16. SERVICES AND TECHNICAL OPERATIONS

Service and technical premises ensure the operation of other parts of the building and are located according to the needs of individual parts. Some technical operations (transport department, MOC technical administration) are described separately.

Other operations are:

16.1. SERVICE FACILITIES

An important service area is the central security desk, where all technologies serving the operation of the building will be brought together (burglar alarm, fire alarm system, camera system, public radio, exact time, television distribution STA access system, attendance system, etc.). The workplace of the central security desk will operate 24/7/365 and will be supplemented with the necessary facilities.

Other required spaces are a workshop, maintenance warehouses, and a room for the building manager.

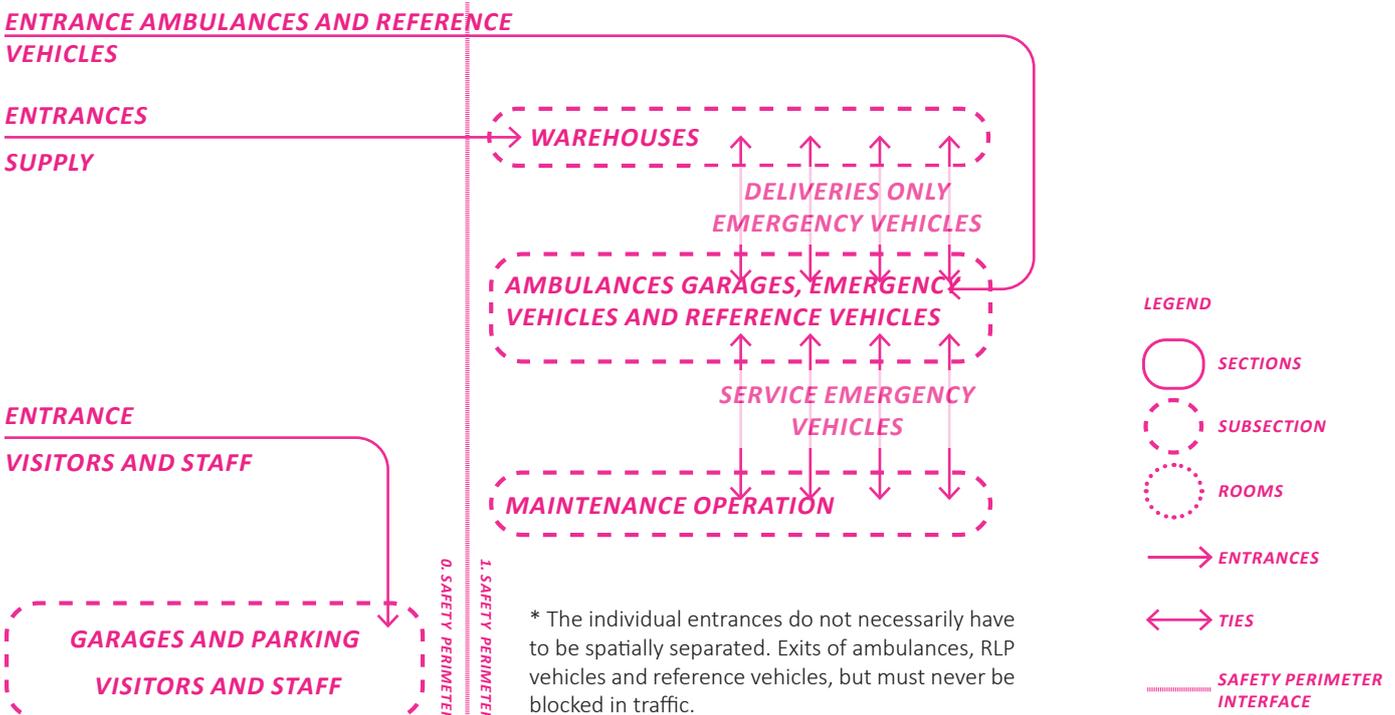
Furthermore, one cleaning room is required on each floor.

SCHEME OF CAR TRANSPORT

ENTRANCE AMBULANCES AND REFERENCE VEHICLES

ENTRANCES SUPPLY

ENTRANCE VISITORS AND STAFF



* The individual entrances do not necessarily have to be spatially separated. Exits of ambulances, RLP vehicles and reference vehicles, but must never be blocked in traffic.

16.2 TECHNICAL BACKGROUND (SUPPORT FACILITIES)

The technical background ensures the operation of individual parts of the building. Operationally, it is divided into two parts:

- 1 / room for a backup diesel generator or battery
- 2 / rooms for air conditioning
- > for MOC halls
- > for technology rooms
- > for the rest of the building

The technical solution of the building includes waste management processes. Within the operation, it is necessary to reserve special places for solutions:

- > sorted municipal waste
- > infectious waste
- > car waste

SAFETY

The designed EMS building as a basic component of the Integrated Rescue System must take into account security issues.

It is necessary to take into account the risk of physical danger to the building, for this purpose it is necessary to solve construction and technical measures at the level of the following parameters:

0. SECURITY PERIMETER

Physical separation from a publicly accessible area with controlled access to the entire complex.

1. SECURITY PERIMETER

Controlled access within the building or its part.

2. SECURITY PERIMETER

Controlled access for regime workplaces (MOC) within the building.

A set of measures will be used to ensure security:

- building-technical > fences, barriers, gates, etc.
- technological > camera systems, remote control, turnstiles, keyless lock system, etc.
- personal

When designing a building, it is necessary to ensure safety **distances from the edge** of the land and from other buildings, min. 10 m. In order to allow the passage of heavy equipment and prevent a direct attack on the building.

ABBREVIATIONS

In case that some abbreviation appears in the text:

MOC (ZOS in CZ) Medical Operations Center

EMS (ZZS in CZ) Emergency medical services

ICT (IKT in CZ) Information and Communication Technologies

TR (TM in CZ) technology rooms

PF (VV in CZ) public facilities