

CONCEPTUAL STUDY OF HANGAR ZONE CSAT

Anticipated scope of work for the Tender purposes

1. Introduction – Key Conditions

Český Aeroholding, a.s. (hereinafter referred to as “CAH”) is the owner of the Prague Airport infrastructure and owner of the companies Letiste Praha, a.s. (Prague Airport, j.s.c.) – the Prague Airport operator and Czech Airlines Technics, a.s. (hereinafter referred to as “CSAT”) – company providing aviation services, in particular aircraft maintenance at the Prague/Ruzyně International Airport (ICAO code “LKPR”, IATA code “PRG”).

The purpose of the Conceptual Study is to survey and analyze the current CSAT operational conditions as well as the prospects for the development of the aircraft maintenance capacities located at LKPR. The aim of the Conceptual Study is i) to investigate and evaluate the limitation of the existing CSAT hangar zone and ii) propose the strategy for the development of existing hangar zone in terms of future provision of the aircraft maintenance capacities designed and located properly to the anticipated long-term demand.

Beside the above-mentioned, also proposal of how the future CSAT facilities located at the new LKPR service area should be planned and organized to be a part of the Conceptual Study as well. There are previously elaborated LKPR airside development studies to be followed accordingly with the aim of providing the heavy maintenance operations in dedicated areas.

2. Scope of the work

2.1. Analytical Part

- Definition of the Client’s intentions – (CAH + CSAT).
- A description and interpretation of territorial and/or zoning limits.
- An analysis and evaluation of the current conditions within the Area of Interest in terms of functional relations, (current and future) operational demand, and desired capacities in particular, not only, in the areas of layout and interior design based on:
 - needs for aircraft maintenance,
 - capacity for aircraft maintenance,
 - capacity for associated technical operation (technical assembly room, storage area, etc.)
 - capacity for offices,
 - capacity for restrooms, daily rooms, changing rooms etc.
 - needs for operation of airfields in adjacent areas
- An analysis of technical conditions influencing the feasibility of design.

2.2. Design Part

Processing of the conclusions from Analytical Part into the proposal of two (2) design options for both hangar zone locations:

- Location A – Design for optimization of the CSAT hangar zone operation (existing Hangar F and planned Hangar G) in relation to the anticipated needs and respecting the current design of Hangar G within the footprint and other basic dimensions defined by previously developed design for the zoning permit purposes.
- Location B – Design of CSAT aircraft maintenance operations at new location within the LKPR airside area in relation to the anticipated relocation of CSAT heavy maintenance capacities.

The output of this phase of the Conceptual Study is to provide a recommendation in regards to a project assignment with an emphasis on the solution of the spatial arrangement and the functional arrangements.

Based on the discussions held with the Client in the meantime, the Contractor will finalize the evaluation of the submitted design proposals and the recommendations will be formulated to endorse the preferred solution. The Contractor will make a presentation regarding submitted proposals and formulated recommendations, to the extent necessary to sufficiently document the strategic considerations for the Contractor's recommendations.

2.3. Advisory Services

- The Contractor is expected to provide advisory services in terms of consultancy regarding the various issues related to subsequent design development and/or construction with the exclusion to activities described hereby in the scope under Chapters No. 2.1 thru 2.2 above.
- The Advisory Services will be provided upon the Client's prior call and/or on previously agreed schedule commencing immediately after Conceptual Study completion with expectations to end no earlier than in 2022.

3. Minimal content of the Conceptual Study Documentation

Analytical Part	Design Part
Analytical report based on the Analytical part scope as referred under Chapter 4 and 5	Detailed text/drawing report with information regarding the design proposal based on the Design part scope as referred under Chapter No. 2.2
	Description and explanation of the preferred solutions, an evaluation of the recommended proposal, summary of pros & cons.
	Functional and organizational scheme of spatial arrangement and functional use of building volumes

4. Area of Interest

4.1. The existing CSAT hangar zone and other involved projects

The area of the existing CSAT hangar zone is located at the south - eastern edge of the northern part of the LKPR. The area is defined by the structure of the existing airport facilities (Hangar F), the operating areas, the taxiway system and long-term LKPR development projects e.g. new RWY 06R/24L, Ground Run-Up Enclosure (hereinafter referred to as "GRE"), Hangar G (see Picture 1 - Situation of the existing area)

Picture 1 - Situation of the existing CSAT hangar zone



Hangar F

The existing Hangar F facility is dedicated to light and heavy maintenance services. The hangar hall dimensions are 211m x 56m. The capacity of the hangar hall allows the maintenance of 6 Code C aircrafts. The hangar hall on its north - western side is adjoined by workshop facilities with dimensions of 217m x 50m where the plumber workshop, composer, carpenter, paint shops, seat workshop, warehouse etc. are located.

The total number of employees is about 650 workers per day shift and about 100 workers in night shift.

Hangar G

The planned Hangar G facility is located at the northeast façade of Hangar F. At present project of Hangar G has a valid zoning permit issued in September 2006.

The main hangar hall is designed to carry light aircraft maintenance. The hall dimensions are 182m x 82.3m. The capacity of the hangar hall allows collateral work on of four (4) Code C aircrafts or 2 Code E aircrafts. The hangar hall is connected to the northwest side with facilities to support maintenance. There are workshops, dining rooms, administration social facilities, cloakrooms located.

The anticipated number of employees in one day shift is 351 and 120 in night shift.

Parallel RWY 06R/24L (hereinafter referred to as "pRWY")

This is a long-term development project of LKPR, which directly influences CSAT hangar zone. The project is coordinated with the facilities of existing Hangar F and planned Hangar G.

The launch of pRWY 06R/24L operation is expected in 2026.

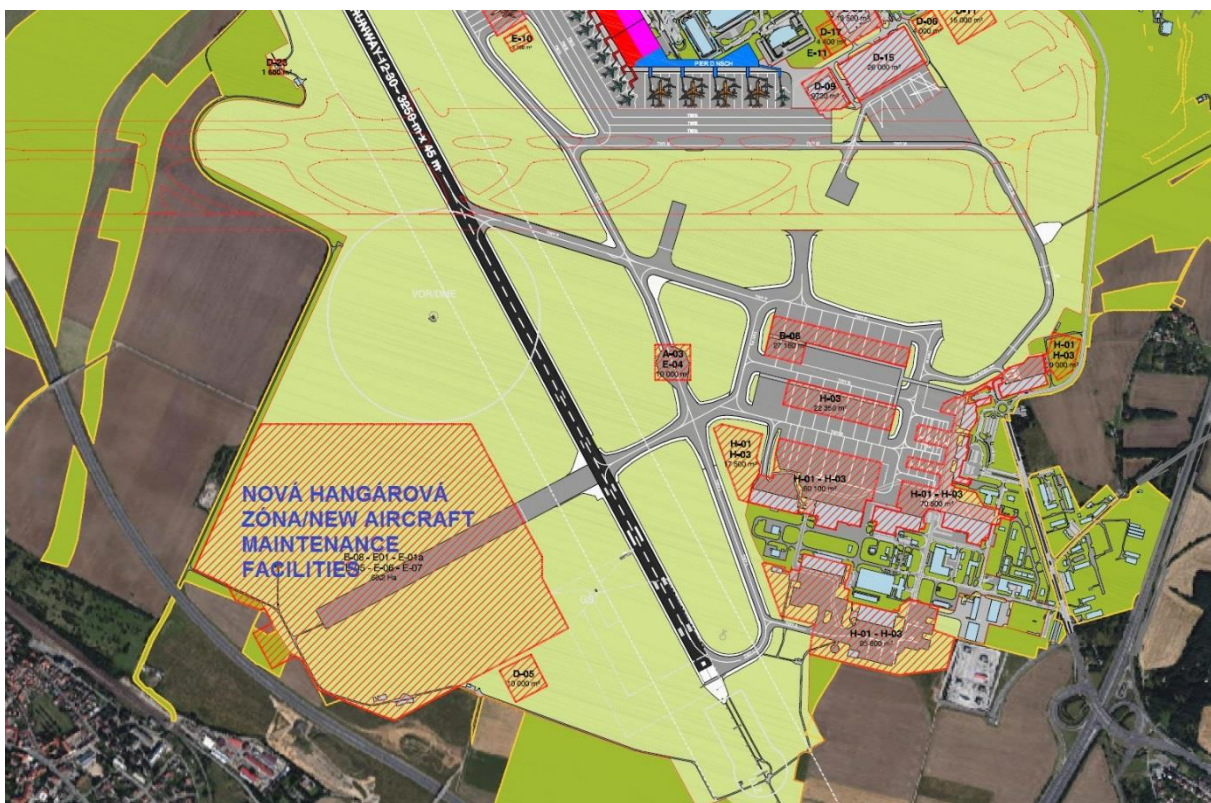
Ground Run-Up Enclosure/GRE:

The GRE is a part of the pRWY 06R/24L project. The GRE area configuration is designed for Code E aircraft. Due to the requirements of acoustic attenuation, the parking space is limited by a four-sided barrier height of 12 meters.

4.2. The development area for hangar zone development

Previously elaborated LKPR airside development study called “A STUDY OF THE PRAGUE AIRPORT LONG-TERM DEVELOPMENT PLAN” (delivered by Aéroports de Paris Ingénierie in 2016 – hereinafter referred to as “ADPi” or “ADPi Study”), has indicated the location within LKPR airside to be the most suitable area for new hangar zone development. The area is located at the southwest edge of the LKPR (see Picture 2 - Situation of the development area). Currently, the area usability is limited by insufficient technical infrastructure available at the place.

Picture 2 - Situation of the development area



5. Future CSAT operational scheme

CSAT expects to build a new hangar G with a capacity of 4 Code C aircraft stands or 2 Code E aircraft stands (flexible setting) over the period of next five years.

Together with the current capacity of the hangar F (6 Code C aircraft stands dedicated to heavy maintenance), the CSAT plans to have from 9 to 10 heavy maintenance stands over the next ten years.

Over the next five years, the construction of a separate hangar with a capacity of one Code C aircraft for aircraft painting work is planned. In the second option, it is possible to consider one stand in the hangar G to be an aircraft painting workplace (in this case, the plan to build a separate hangar dedicated to the aircraft painting work would be abandoned).

Český Aeroholding, a.s.,

Jana Kašpara 1069/1 160 08 Praha 6
IČ: 24821993, DIČ: CZ699003361,

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6. Key Outputs of the Conceptual Study

- Evaluation of the current CSAT operational scheme in relation to the existing operational load.
- Assessment of the prospective status in relation to the current operation of Hangar F and planned Hangar G.
- Based on the perspective of the project, the design of the planned Hangar G project with maximum respect for the current design of Hangar G. Hangar G, must be assessed as a variant, including one painting stand (two options as mentioned above).
- Designing the dimension of optimal aircraft maintenance capacities in relation to the future CSAT operational schema in new location within the LKPR

7. Presentations and Submissions

- Draft of the Analytical Part and Design Part (hereinafter referred to as “Submissions”) will be handed over to the Client for comments electronically in one (1) copy at least three (3) weeks before the scheduled presentation of the Study.
- Final versions will be handed over to the Client electronically in four (4) printed/hard copies and also electronically in one (1) copy (PDF, PPT, editable version e.g. DWG).
- A final presentation of Submissions followed by the recommendations addressed to the CSAT management by the Contractor will take a place.
- All of Submissions will be handed in Czech language or bilingually (Czech/English).

8. Work Schedule

The Applicant will submit a draft of basic time milestones for the preparation, discussion and presentation of the Conceptual Study.

The expected minimum division as stipulated by the Contracting Authority would be as follows:

- a) Introductory Workshop (handover of the information, data and Study sources)
- b) Analytical Workshop I (information/inquiries)
- c) Analytical Workshop II (results of the Analytical Part)
- d) Analytical Part – draft submission
- e) Design Workshop I (evaluation of conceptual part of work – architectural design)
- f) Analytical Part – finalized submission
- g) Design Workshop II (detailed elaboration)
- h) Design Submission – draft
- i) Presentation of Final Design part
- j) Design Submission – finalized
- k) Presentation to management
- l) Providing Advisory Services.

9. Documentation for processing of the Bid

Annex A – The current layout of Hangar F

Annex B – The planned Hangar G layout