

## **FUNCTIONAL REQUIREMENTS**

### **1.3.10 Supplementary Requirements for The Parking Garage**

#### **Overview**

Parking Garage is an integral part of the 1Door4Care Integrated Treatment Centre project. This project component has been named Phase 1A Parking Garage since it is intended to be developed and handed over prior to the development of 1Door4Care facility. The reason for this sequential arrangement is the necessity to provide the required parking capacity during construction of the new facility which will decommission considerable number of existing parking spaces.

In order to respond to the demanding schedule of this project Sponsors initiated the Site Plan Control application with the intent to obtain required approvals in order to commence the construction of the Parking Garage as early as possible.

#### Reference:

##### 1.3.10 Appendix A including:

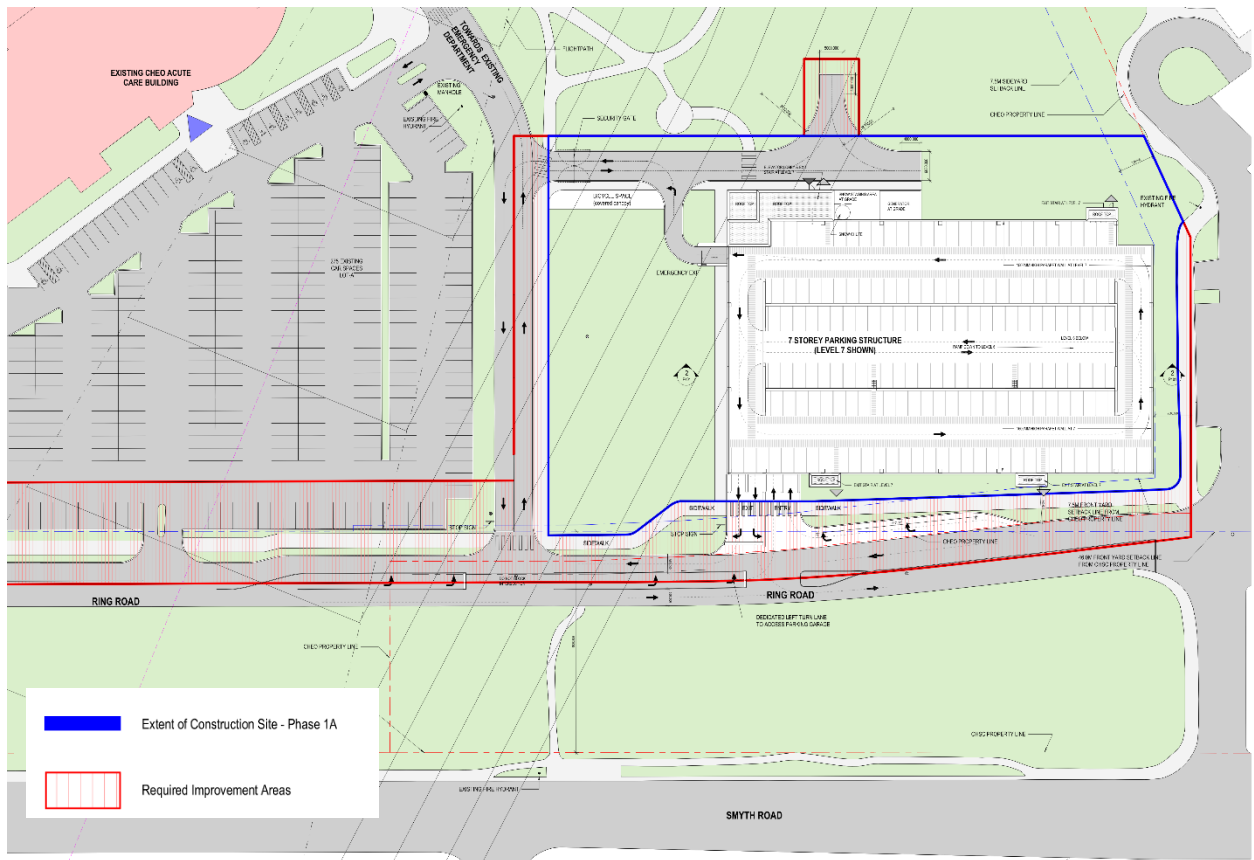
Architectural Drawings: 1.3.10 APP A – ARCH.pdf (P003, P201, P202, P203, P400A, P401)

Landscape Drawing: 1.3.10 APP A – LAND.pdf (L112)

Electrical Drawing: 1.3.10 APP A – ELEC.pdf (E001)

The following are **Requirements:**

1. General: All materials, finishes and execution and conformance to technical standards in this section shall include the same performance as specified for the entire project under 1Door4Care facility.
2. Include the scope of work as illustrated on drawings in Appendix A forming part of this OS Section 1.3.10 in addition to all other requirements listed in other sections of the OS related to Parking Garage as follows:
  - 2.1. Include the boundary of the Parking Garage Phase 1A development consistent with the Drawing P003 and consistent with the Site Plan Control application issued to the City of Ottawa as referenced in the Background Documents.



- 2.2. Locate the Parking Garage as shown on the illustrative detail Drawings P003, L112 to allow on meeting requirements of OS Section 1.2.4 Site Circulation and Parking for the minimum parking spaces count.
- 2.3. The existing gravel lot area shall remain as is. It may be used as staging area for the construction purpose and shall be restored to the original condition upon completion of Phase 1A including gravel paving, the entrance way, curbs, and other existing landscape components. The restoration shall include complete removal of the crane base/ foundation.. If used as a

- construction staging area the temporary construction access to this area shall be from the Ring Road and must not interfere with the existing emergency driveway .
- 2.4. Construction activities must not impede the functioning of the emergency access driveway expected to be fully operational during the construction on a 24/7 basis.
  - 2.5. In addition to restoration of the existing gravel lot area as shown on Architectural Drawing P003 and Landscape Drawing L112 provide required upgrades to the existing driveway serving CHEO emergency entrance such as pavement/surfacing, curbs required by tying the new service driveway. The pavements and surfacing shall match the specification for the 1Door4Care parking and driveways.
  - 2.6. Refer to Architectural Drawing P003. Provide adjacent service driveway including manoeuvring space turn around including a steel swing gate with the appropriate access control device synchronized with the emergency gate in the Parking Garage providing remote unlocking of this gate in emergency conditions as well as providing automatic gate opener activation. Provide all required electrical, IT, mechanical and automation components to operate the 2x3 m gate. The monitoring and control shall be tied back to the security office as directed by CHEO.
  - 2.7. Provide an asphalt emergency exit driveway complete with curbs from the Parking Garage connecting to the service driveway complete with the emergency gate with the automatic release synchronized with the service driveway gate operations and monitored by the security office.
  - 2.8. Provide required grading to all areas and required storm water management including all infrastructure to service the facilities and the site.
  - 2.9. In addition to requirements of this section the location, layout, functional planning, massing, and sizing related to the multistory Parking Garage structure inclusive of all required service spaces, on ground improvements, location and sizing of the entry and exit driveways shall be consistent with the detail Architectural Drawings, Landscape Drawing, and consistent with the Site Plan Control application issued to the City of Ottawa as referenced in the Background Documents. For clarity, “consistent” shall mean reflecting the exemplar intent of the referenced drawings in Appendix A, responding to the performance requirements for capacity of the parking as required by OS section 1.2.4 and responding to technical and detailed construction requirements of the referenced structures and as required by the other sections of OS.
  - 2.10. Include the scope of work as shown on Landscape Drawing and as described in Landscape OS Section 1.2.6
  - 2.11. Provide bike storage space including the steel supporting structure for roofing. The roofing system shall be a metal or glass-based system or combination of both with appropriate drainage. Roofing component shall extend past the perimeter of the concrete slab on grade forming the floor of the storage area by 1000mm in all directions. Provide bike racks to meet capacity requirements of OS Section 1.2.4. Overall distribution of bike racks in various locations to be subject to CHEO approval.
    - 2.11.1. Provide the exterior structure finishes to match quality of the outdoor components for the 1Door4Care specifications.
    - 2.11.2. Provide the required lighting under the roofed area and around the structure as required.
  - 2.12. Provide the Emergency Duress (Call) Station in the vicinity of bike storage station to match to match quality and performance of panic stations for the 1Door4Care specifications.
  - 2.13. Provide the widening to the Ring Road as shown on Drawing P003 along with all required improvements including:

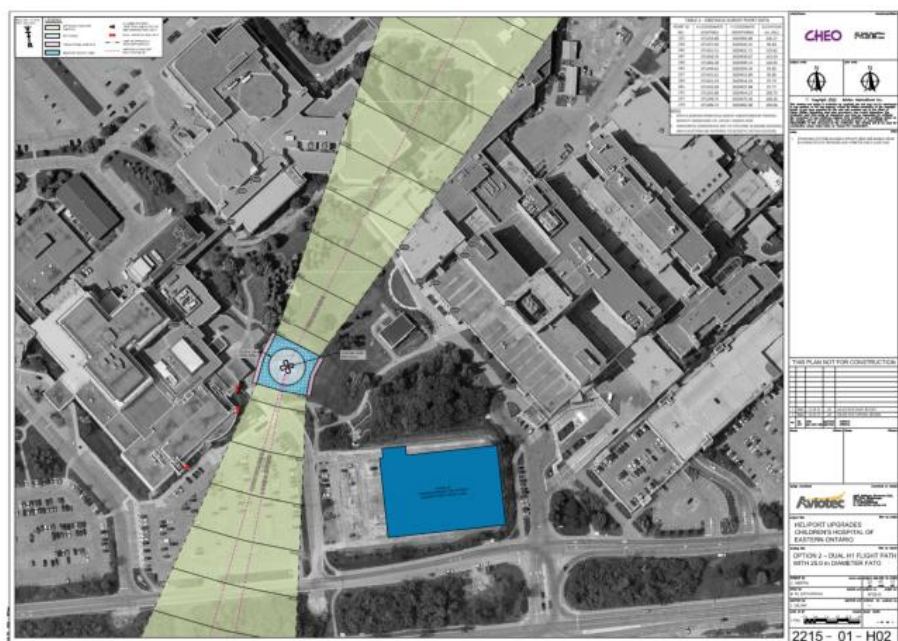
- 2.13.1. Right turn lane widening and left turn new lane and widening allowance.
- 2.13.2. Replacement of the paving/making good where required by roads adjustments including curbs exit and entry ways to the Parking Garage.
- 2.13.3. Exit and entry ways to the on-ground parking along with the service lane.
- 2.14. Refer to Architectural Drawings:
  - 2.14.1. Provide the multistory Parking Garage structure with floor-to-floor elevations providing minimum clearance as noted on the referenced drawings
  - 2.14.2. Provide sloped ramps with the maximum slopes of 5% and as noted on the plan and sectional drawings for all levels.
  - 2.14.3. Provide the snow removal chute, including all required provisions for full functionality of its operations at the top level as well as at the grade.
  - 2.14.4. Provide all required service spaces as required by the functionality of the Parking Garage including all code provisions.
  - 2.14.5. Provide signage as required by code and Authorities Having Jurisdiction in addition to signage and wayfinding provisions in the other sections of OS.
  - 2.14.6. Provide all required building components in conformance with OS Part 3 Technical Specifications including Parking Garage and parking control (access- exit) equipment with all provisions for power and data connections as required.
  - 2.14.7. Provide enhanced materiality of the exterior elevations. The materiality of 1Door4Care facility and the Parking Garage shall have common elements to create more homogeneous character for these project components.
  - 2.14.8. Provide the required climate control to the spaces designated as heated and air-conditioned rooms as listed in OS Section 1.4.2. Provide adequate envelope performance for these spaces subject to exterior environment for moisture and thermal control.
  - 2.14.9. Provide elevations and decorative screens attached to the elevational components of Parking Garage to enhance architectural appeal of this facility consistent with architecture of 1Door4Care facility. The Parking Garage screens shall be metal or glass-based materials or combination of both materials designed in conformance to code requirements for open air parking garage.
  - 2.14.10. Refer to the Arborist Report located in the Background Information. It is the intent of this project to preserve the wooded area to the North of existing parking garage. Any proposed location for the crane and equipment outside the boundary of Project Co construction site shall be approved by Sponsors and shall be subject to restoration including the full scope of repair of existing site components including the landscape features and making good any temporary provisions required during construction such as fencing, temporary hydro, etc. The restoration shall include complete removal of the crane base/ foundation.
  - 2.14.11. Refer to the Electrical Drawing for information supporting illustrative design schematics. Refer to electrical narratives and specification in other sections of OS for the requirements related to the Parking Garage.

## Heliport Background

The existing Helipad is located in proximity to the site designated as Phase 1A Parking Garage development. There are a number of requirements related to the helipad and the flight path protection that impact the construction site of the Parking Garage including the area designated as potential construction site staging to the west of this development, since it is within the current flight path restriction zone.

There are two reports listed in the Background Information providing the information related to the analysis of various flight paths configurations and other requirements.

- **2020 report AP2018-CHEO\_Heliport\_Options\_Analysis-Prelim\_F+R-R2-20200603s** provides information regarding existing conditions and language related to the specific helipad issues such as identification of the Obstacle Survey Plan (OSP), Obstacle Identification Surface (OIS), Obstacle Limitation Surface (OLS) and information regarding typology of aircraft in use with some dimensional attributes. This report also includes an obsolete option analysis along with other dated information related to cost estimates, etc. As noted above the purpose in providing this report is to provide information on the existing conditions and the helipad issues and OSP, OIS and OLS. **2022 report AP2215-CHEO\_Heliport\_Finding+Recomm-Prelim-R2-20221007** includes updated options regarding the flight paths and specifically Option 1 and Option 2.
- ❖ Option 1 (flight path from the north) has been set aside by the Contracting Authority as a nonviable solution and shall not be pursued.
- ❖ Option 2 has been accepted by CHEO as the ultimate final option for the flight approach with the intent to make it available as an approved flight path prior to Financial Close however this is subject to confirmation by the Contracting Authority..
- ❖ As described in the report (Option 2 as illustrated on Drawing H02), there are number of conditions that need to be met prior to implementing and prior to having it licenced by the Authorities Having Jurisdiction (AHJ) such as Transport Canada.
- ❖ CHEO is currently pursuing this implementation and approvals for this the flight option including the dual approach (N-S) as illustrated on Drawing H02 below:



- ❖ Option 2 will be considered a primary and preferred option upon fulfilling these conditions required by regulations. The Contracting Authority will advise when the Option 2 is approved by AHJ.
- ❖ Up until such time and as notified by the Contracting Authority, the specification for this section shall assume the currently **existing flight path** as the base for the performance of this section. The current condition provides the flight path from the south as illustrated on the drawing E 001 below:



The following are **Requirements**:

- 2.14.12.** Provide the construction site logistics including staging of construction and comprehensive brief illustrating feasibility of the construction assuming that the flight path option is the existing condition as illustrated on Drawing E01.
- 2.14.13.** Provide the alternative construction site logistics including staging of construction and comprehensive brief illustrating feasibility of the construction assuming that the flight path option is the Option 2 as illustrated on Drawing H02.
- 2.14.14.** Project Co shall ensure that the construction development including operations of crane (s) on site must not interfere nor create overlap or be in collision with the flight path or impede operations of helicopters. Refer to flight path diagram included in the referenced drawings and reports. Location of the proposed crane shall be subject to the CHEO approval.
- 2.14.15.** Project Co shall ensure that the construction site for the Parking Garage including the potential staging areas in the vicinity of the flight path is conforming with the requirements of the pertaining regulations by Authorities Having Jurisdiction.
- 2.14.16.** Project Co. shall provide a comprehensive report addressing the issue of identification Obstacle Survey Plan (OSP), Obstacle Identification Surface (OIS), Obstacle Limitation Surface (OLS) and addressing the components of the construction and staging site (s) accordingly. The report shall outline means of protection of the integrity of the flight path from obstructions by fixed objects such as cranes, lifts etc., elements that can be subject

to air downwash both fixed and loose in addition to other obstacles including vehicular and pedestrian traffic, The report shall include the proposed means of temporary signalization and warning lights systems as well as outline of communication protocols both internal and external throughout the construction duration.

- 2.14.17.** Provide Parking Garage roof top obstruction lights as required by regulations to provide positioning and warning to the air traffic related to helipad and the flight path. Assume the monitoring and control at the 1Door4Care security office.

**END OF SECTION**