

EXECUTIVE SUMMARY

This report is a survey of the existing lighting conditions for One Christina Crescent, and includes a listing of design criteria which will be pertinent to the future redesign of the lighting system. The survey consists of a detailed description of the existing lighting systems and major hardware (including luminaires, lamps, ballasts, control devices, and daylight elements). Also present in this report is a review of the general conditions and finish specifications for the five spaces to be redesigned. These five spaces consist of the second floor open office, second floor auditorium, lobby, second floor café/dining area, and the outdoor space where the structural tripod is located.

Appropriate design criteria are considered and presented for each of the five spaces to be redesigned. In general the design criteria are dictated by the specific use of the space with consideration that the building is used as a corporate office for a prominent bank. VDT use, as well as employee mood and fatigue guide the criteria for the open office. The most critical space for design criteria is the auditorium which has specific requirements for the various types of programs that take place within the room. Daylight is a major factor in all of the interior spaces due to the fact that most of the building consists of aluminum and glass curtain walls. ASHRAE/IESNA Standard 90.1 requirements for power consumption are presented for each of the spaces for use in analysis and future redesign.

Finally, this report includes an evaluation and critique of the existing lighting conditions for One Christina Crescent. Evaluation is based upon the design criteria which are introduced in this report. Detailed performance analyses were conducted for both the second floor open office and auditorium using AGI32 software. In general, the existing lighting conditions are more than sufficient in terms of proper illuminance and ambient light levels. However, uniformity within the lighting design is very noticeable. This can be an issue with corporate offices with regard to productivity and employee mood. Most employees at this building spend long hours at a cubicle primarily working with a personal computer. Accent lighting and some non-uniformity would greatly improve the existing lighting design by reinforcing a sense of pleasantness and relaxation.

One Christina Crescent is a project that offers the opportunity to consider those aspects of lighting design which apply to corporate offices. Lighting designs for this category of buildings must always consider productivity as well as the impression of the company that is inferred through the visual appearance.