

1.0 GENERAL

1.1 Related UBC Guidelines

- .1 UBC Technical Guidelines
- .2 Section 17900

1.2 Coordination Requirements

- .1 UBC Electronic Systems and Secure Access (ESSA).

1.3 Description

- .1 This section covers requirements for Access Control Systems. The Access Control System is installed by ESSA. General Requirements for this system for Consultants and Contractors are provided in Section 17900.
- .2 These guidelines provide reference to particular types, grades and models of products. In general, the references include both generic descriptions and specific product details. These references shall not be construed as a directive to sole-source products from any particular vendor except where this is specifically stated.
- .3 Closed circuit television (CCTV) system that monitors both live and recorded events for security access shall include the following:
 - .1 CCTV cameras.
 - .2 Video switcher/Multiplexers.
 - .3 Video recorders.
 - .4 Video monitors.
 - .5 Power transformers.

2.0 MATERIALS

2.1 CCTV Camera

- .1 Device Location
 - .1 Wall or ceiling mountable Standard viewing angle of 45° degree or wider. Whenever possible, camera should be faced away from available light source. Exact location shall be determined primarily by available light and viewing subject matter.
- .2 Wiring
 - .1 Adhere to NF standards 2/18 FT4 rated wire for power (FT6 rated wire if required); RG59U FT4 rated co-axial cable for video signal (FT6 rated if required). Home run to monitoring equipment, concealed pathway. Maximum wire length 250" unless specified.
- .3 Device Feature
 - .1 24 VAC OR 12 VDC operation 1/3" CCD image sensing.
 - .2 NTSC scanning standard (525 lines, 30 frames/second) Horizontal resolution 470 TV lines.
 - .3 Minimum illumination 2 LUX/F1.2 (color), 0.1 LUX/F1.2 (black & white) Video output 1.0V, 75~ composite.
 - .4 Backlight compensation.
 - .5 Adjustable white balance.
 - .6 Automatic grain control.

- .7 Electronic iris, or fixed iris (under stable lighting condition), Internal sync/line lock. BNC connections.
- .8 Operating temperature shall be between minus -10° C to plus +40° C.

2.2 Video Switcher/Multiplexer

- .1 Device Location
 - .1 Should be installed in a mechanically secured room or preferably alarmed. Shelf and rack mountable at a height that is convenient for the system user and serviceperson.
- .2 Wiring
 - .1 Adhere to NF standards. All cameras home-run to the multiplexer RG59U FT4 rated co-axial cables (FT6 rated if required). BNC connections Multiplexer powered from 120VAC outlet, dedicated breaker if possible.
- .3 Device Features
 - .1 120VAC, 60HZ operation. BNC connections. Pixel resolution 720 X 464 Video signal 1.0V, 75~ composite. Date and time stamping. On screen menu programming. Operating temperature shall be between plus +5° C to plus +40° C.

2.3 Video Recorder

- .1 Device Location
 - .1 Should be installed in a mechanically secure room or preferably alarmed cabinet. Shelf or rack mountable at a height that is convenient for the system user and serviceperson.
- .2 Wiring
 - .1 Adhere to NF standards. Video signals to recorder typically fed from the multiplexer RBG59U FT4 rated co-axial cable (FT6 rated if required). BNC connections. Powered from 120VAC outlet, dedicated breaker if possible.
- .3 Device Features
 - .1 12 VAC 60Hz operation. BNC connections. Video signals 1.0V 75~ composite. Minimum horizontal resolution 240 lines. Additional RCA audio and video capable. Minimum frame rate; 5 frames/sec/24 hour's time lapse. Operating temperature shall be between plus +10° C to plus +30° C.

2.4 Video Monitor

- .1 Device Location
 - .1 Monitors should be installed in a mechanically secured room or cabinet, preferably alarmed. Shelf or rack mountable at a height that is convenient for system user and serviceperson.
- .2 Wiring
 - .1 Adhere to NF standards. Video signals to monitor fed from multiplexer RG59U FT4 rated co-axial cable, FT6 rated if required. BNC connection. Powered from 120VAC outlet, dedicated breaker if possible
- .3 Device Features
 - .1 120 VAC 60Hz operation. NTSC scanning standard. BNC connections. Minimum horizontal resolution 300 lines. Additional RCA audio and Video capable. Operating temperature shall be between 0° C to plus+30° C.

2.5 Power Transformers

- .1 Device Location
 - .1 Should be “wire-in” type and mounted close to the power supply in the communication room. Plug-in type under restricted circumstances. Compatible with any ½” punch out conduit box. Must not be installed above false ceiling if space is “return air” plenum type.
- .2 Wiring
 - .1 Adhere to NF standards 2/18 FT4 rated wire (FT6 rated if required). Home run directly to control panel.
- .3 Device Features
 - .1 Fully certified Class 2 rated. ULC and CSA approved. Fail-safe in the event of current overload or short circuit