

STANDARD SPECIFICATION
JANUARY 2010

DIVISION 16

SECTION 16B BUILDING SURVEILLANCE SECURITY SYSTEM

16B.01 GENERAL:

- A. All work under this Section is subject to the Contract Documents, Contract Drawings and the "General Conditions Governing all Contracts," all of which form a part of this Section as if written out in full herein.
- B. The contractor for work under this specification is referred to the General Conditions, Special Conditions and all Contract Documents, all of which are hereby made part of this specification.
- C. Perform all necessary removals, cuttings, repairs, replacements etc., for the completion of this work and provide all materials, labor, tools and equipment required to perform the work as specified herein.
- D. Contractor must carefully examine the site of the proposed work, as well as its adjacent area, and seek other usual sources of information for they will be conclusively presumed to have full knowledge of any and all conditions on, about, or above the site relating to, or affecting in anyway, the performance of the work to be done under this contract which were or should have been indicated to a reasonably prudent bidder.

NOTE: NOTIFY ARCHITECT BEFORE STARTING WORK.
ALL WORK TO BE DONE UNDER THE DIRECTION OF THE ARCHITECT.
NO WORK TO BE PERFORMED ON WEEKENDS WITHOUT PRIOR APPROVAL FROM THE ARCHITECT.

16B.02 BUILDING SURVEILLANCE SECURITY SYSTEM

- A. It is the intention of these specifications to set forth the minimum requirements for the performance of a CCTVSS that can provide adequate and reliable surveillance. In all details not specifically stated herein, it is understood that the equipment shall meet or exceed those requirements of the Electronic Industries Association (EIA) and the Underwriters Laboratories (UL) that are current at the time of award or installation.
- B. The CCTVSS shall be designed and constructed as highly reliable surveillance system consisting of; Cameras, Lenses, Camera Enclosures, Camera Mounts, Monitors, Digital Recording System, Power Supplies and Equipment Control Cabinet.

Note: All listed above should be supplied as indicated on drawings.

- C. System Components:

16B-1 BUILDING SURVEILLANCE SECURITY SYSTEM

STANDARD SPECIFICATION
JANUARY 2010

1. Elevator; Ceiling mounted, indoor type, vandal proof, color dome camera, Model # ED550 manufactured by EverFocus Electronics Corp. or approved equal.

Specifications:

Pickup Device	1/3" Sony Interline Transfer Super HAD CCD
Video Format	NTSC/PAL
Picture Format	768 x 494 NTSC / 752 x 582 PAL
Horizontal Resolution	560 TVL
Sensitivity	0.002 Lux (SENS-UP x128), 0.25 Lux / F=1.2
S/N Ratio	Over 50 dB (AGC Off)
Gamma Correction	0.45
Sync. Mode	Line Lock/Internal Sync.
OSD	Yes
True Day/Night	Yes (Auto IR Cut Filter, B/W Sensitivity Enhanced)
Lens	Vari-focal 2.9 (or better) ~10mm
Backlight Comp.	Yes, Off/Low/Middle/High selectable
White Balance	ATW(2500~8300 oK)/AWC/Manual
Auto Gain Control	Yes, Off/Low/Middle/High selectable
DNR	Yes, Off/Low/Middle/High selectable
SENS-UP	Off/Auto: x2 ~ x128 selectable
Camera ID	On/Off
Motion Detection	Off/On (4-Zone, Position/Size/Tone)
Privacy Function	Off/On (4-Zone, Position/Size/Tone)
Sharpness	Off/On (Adjustable Level)
H-Mirror	Off/On
Power Source	12VDC/24VAC
Power Consumption	24VAC: 5W max. / 12VDC: 3.5W max.
Vandal Resistant	Yes
Dimensions (W x H)	118 x 101 mm / 4.7" x 4"
Weight	0.7 kg / 1.5 lbs

2. Indoor; Ceiling or wall mounted, indoor type, vandal proof, color dome camera, Model # ED550 manufactured by EverFocus Electronics Corp. or approved equal.

Specifications:

Same as above with exception of;

Lens	Vari-focal 9 ~22mm
------	--------------------

3. Outdoor; Wall mounted, true day/night, vandal proof, color dome camera, Model # EHD525EX (for distances up to 50 L.F.) manufactured by EverFocus / Sony or approved equal.

STANDARD SPECIFICATION
JANUARY 2010

Specifications:

Pickup Device	1/3" Sony ExView Super HAD CCD
Video Format	NTSC or PAL
Picture Format	768 x 494 (NTSC) / 752 x 582 (PAL)
Horizontal Resolution	560 TVL
Video Output	BNC 1.0 Vp-p, 75 ohm
Sensitivity	0.1 Lux/F=1.2
S/N Ratio	Over 50dB (AGC Off)
Electronic Shutter	1/50 (1/60) ~ 1/100,000 sec.
Flickerless	On/Off switch
Backlight Comp.	On/Off switch
Auto Gain Control	On/Off switch
Auto White Balance	Yes
Sync. Mode	Line Lock/Internal Sync.
Gamma Correction	0.45
Lens	f=2.9~10mm / f=9~22mm
Iris Level	Auto
Dimensions (W x H x D)	130 x 98.8 x 130 mm / 5.1" x 3.9" x 5.1"
Operating Temp.	-40°C ~ 50°C / -40°F ~ 122°F
Humidity	20% ~ 80% humidity
Power Source	12VDC / 24VAC
Power Consumption	With Heater: 24VAC: 20.5W max. / 12VDC: 11.5W max.
Power Consumption	Without Heater: 24VAC: 6W max. / 12VDC: 4W max.
Weight	1.7 kg / 3.7 lbs.
Weatherproof	IP66 rated
Vandal Resistant	Yes

4. Outdoor; Wall mounted, true day/night, vandal proof, color bullet camera, Model EZ550 (for distances greater than 50 L.F.) manufactured by EverFocus Electronics Corp. or approved equal.

Specifications:

Pickup Device	1/3" Sony Interline Transfer Super HAD CCD
Video Format	NTSC / PAL
Scanning System	NTSC: 525 TVL, 60 fields/sec. PAL: 625 TVL, 50 fields/sec.
Video Output	BNC 1.0 Vp-p, 75 ohm
Picture Elements	768 x 494 (NTSC) / 752 x 582 (PAL)
Horizontal Resolution	560 TVL
Sensitivity	0.002 Lux (SENS-UP x128), 0.25 Lux/F=1.2 0 Lux (IR On)

STANDARD SPECIFICATION
JANUARY 2010

Sync. Mode	Internal Sync./Line Lock
Gamma Correction	0.45
Electronic Shutter	1/50 (1/60) ~ 1/100,000 sec.
S/N Ratio	Over 50dB (AGC Off)
Backlight Comp.	Yes (Off/Low/Middle/High)
Auto White Balance	ATW/AWC/Manual
Auto Gain Control	Yes (Off/Low/Middle/High)
True Day/Night	Yes, with IR cut filter
DNR	Yes (Off/Low/Middle/High)
Lens Type	Vari-focal 6~50mm lens
IR Distance	50 meters / 164 feet
IR Wavelength	850 nm
IR LED Lifespan	Up to 20,000 hours
Power Source	24VAC \pm 10%, 100VAC~240VAC, 250mA
Power Consumption	24VAC, 20W / 100VAC~240VAC, 18W
Dimension (L x H)	275 x 115 mm / 10.8" x 4.5"
Weight	1.8 kg / 4 lbs (without bracket) 2.2 kg / 4.8 lbs (with bracket)
Operating Temp.	-40°C ~ 50° C / -40°F ~ 122°F (20% ~ 80% humidity)
Heater	Yes, built-in
Weatherproof	IP66 rated
Vandal Resistant	Yes

5. Digital Video Recording System; Compact DVR, ECOR4D Series (4) channels or ECOR8D Series (8) channels, manufactured by EverFocus Electronics Corp. or approved equal.

Specifications:

Video Format	NTSC	PAL
Resolution	D1: 704x480 Half-D1: 704x240 CIF: 352x240	D1: 704x576 Half-D1: 704x288 CIF: 352x288
Video Compression	MPEG4	
Operating System	Embedded Linus	
Video Input	4 or 8 camera inputs (BNC, 1 Vp-p/75ohm)	
Video Output	1 Main Monitor, 1 Vp-p/75ohm 1 VGA Main Monitor output	
Display Option	Full and 4 screens for live view and playback	
Picture-in-Picture	(PIP) for live view	
Audio	1 Input & 1 Output 1 Vpp @ 20 KOhm	
Internal Storage	1 internal 3.5" SATA hard drive	
Record Mode	Continuous, Schedule, or Event recording	
Recording Resolution	NTSC: 704x480, 704x240, 352x240	

STANDARD SPECIFICATION
JANUARY 2010

Contrast Ratio	0.264x0.264 mm
Aspect Ratio	5:04
Viewing Angle (H/V)	160°/160°
Color Depth	16.2 M
Response Time	5ms
Video System	NTSC/PAL
Frequency (H)	30 ~ 80 KHz
Frequency (V)	56 ~ 75Hz
Built-in Speakers	2w x 2, with gradual volume increase
Video In/Out (BNC Type)	2/2
VGA In (15 Pin)	1
Audio In	2
PC Stereo In	1
Filter Type	2D Comb Filter
MTBF (approx.)	50,000 hours
Regulations	TUV-NRTL (same as UL), CB FCC(B), CE-EMC(LVD)
Power Consumption	50 W
Power Source	AC110~230V (50/60Hz)
Dimension (w/stand)	465 x 332 x 88 mm / 18.31" x 13.08" x 3.46"
Weight	7.45 kg / 16.4 lbs

7. Equipment/Control Cabinet; Wall mounted cabinet 0331-6010-35-17 (23.62"W x 39.37"H x 13.78"D) manufactured by Haewa Corp., or approved equal.

Specification:

Type:	Single door SN-Enclosures 0331, Equipment/Control Cabinet:
Size:	As indicated or suitable for equipment; DVR, 19" LCD flat color monitor, remote control and mouse
Rating:	NEMA 4, UL/CSA/GL/Lloyds Approval
Material:	Mild Steel, Door 14GA, Body 16GA, Mounting Plate 12GA
Surface Finish:	Epoxy-Polyester powder coat, textured color RAL 7035, light gray finish
Features:	2 cable entry plates in bottom of enclosure Secured from inside, reversible door Ground studs on door and body of enclosure Door seal is continuous foamed-in-place gasketing Quick release hinge pins Tamper resistant double mandrel key-locks 180° door opening angle Profile bars on inside of door with holes pattern for attachment of cable harnesses, ducts or additional components 14 ga intermediate vented steel shelves

STANDARD SPECIFICATION
JANUARY 2010

- E. All electrical work should be installed in accordance to specifications. All security wiring shall be concealed, or provided in conduit as noted on the drawings.
- F. The system shall be wired in strict accordance with the manufacturer's recommendations and wiring diagram. All wiring shall be free of grounds and short circuits.
- G. Supply and install all fittings and accessories, whether or not they are specified, required for proper, safe, and reliable operation of the system.
- H. No exposed equipment shall be installed without the Architects/Engineer's approval of design, finish, and mounting detail.

16B.04 TRAINING

- A. Security Contractor shall train a minimum of two (2) operators for system operation. The instructions shall be provided by a representative of the Security Contractor prior to building occupancy.
 - 1. Each operator shall be provided with complete, printed operating instructions (written in English and Spanish).
 - 2. Briefing sessions shall be scheduled to suit the Owner's requirements, and may be scheduled at any time from the award of the contract to the end of the guarantee period, at the Owner's request.

16B.05 SERVICE AND PREVENTIVE MAINTENANCE

- A. Field service to be performed by the system installer technicians, during guarantee period.
- B. Service shall include; system testing and installation if necessary of all software updates available from the system manufacturer during guarantee period at no extra charge.
- C. Service shall also include:
 - 1. Incorporation of hardware and software fixes and updates available to improve system reliability as they become available. Any equipment replacements and wiring changes if required.
 - 2. Regularly scheduled preventative maintenance.

Note: Contractor shall submit to the building Owner a schedule of tasks and frequency of performances prior to system acceptance.

16B.06 GUARANTEES

STANDARD SPECIFICATION
JANUARY 2010

- A. Upon completion of all work to be performed under this Contract and acceptance of same by Architect, this Contractor shall guarantee that all workmanship and materials used in the performance of this contract, shall remain free from defects for a period of one (1) year, in addition to manufacturer's standard warranties. All guarantees to be from the date, when **Final Certificate of Occupancy** is issued from Department of Buildings. This contractor shall guarantee to repair or replace, as determined by Architect, any defective portions of the system, during the guarantee period.

END OF SECTION