

SECTION 16750 - CLOSED CIRCUIT TELEVISION (CCTV)

City of San Diego, CWP Guidelines

PART 1 - GENERAL

1.1 WORK OF THIS SECTION

- A. The WORK of this Section includes providing the closed circuit television (CCTV) system and accessories required for a complete and operable plant CCTV system, including video and remote control cable.

1.2 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.
 - 1. Section 16050 Basic Electrical Materials and Methods

1.3 CODES

- A. The WORK of the Section shall comply with the current editions, with revisions, of the following codes and City of San Diego Supplements:
 - 1. National Electrical Code

1.4 SPECIFICATIONS AND STANDARDS

- A. Except as otherwise indicated, the current editions of the following apply to the WORK of this Section:
 - 1. NEC National Electrical Code; Article 800 Communication Circuits
 - 2. ANSI/IEEE 241 Recommended Practice for Electric Power Systems in Commercial Buildings
 - 3. ANSI/NEMA 250 Enclosures for Electrical Equipment
 - 4. Safety Rules U.S. Department of Health and Human Services

1.5 SHOP DRAWINGS AND SAMPLES

- A. The following shall be submitted in compliance with Section 01300:
 - 1. Block diagram showing system relationships of major components and quantities and interconnecting cable requirements.
 - 2. Control console and panel arrangements, equipment and outlet devices, and special mounting details.
 - 3. Catalog literature with camera and monitor specifications.

4. Documentation of qualifications of system manufacturer and installer.

1.6 OWNER'S MANUAL

A. The following shall be included in the OWNER'S MANUAL in compliance with Section 01300:

1. Manufacturer's instructions for operation of CCTV system.
2. Manufacturer's maintenance procedures.
3. Circuit diagnosis of CCTV system.
4. Wiring designation schedule for major components including camera.
5. List of replacement parts.
6. List of authorized service centers.
7. Wiring diagrams showing terminal identification for field-installed wiring.
8. Identification of color coding used in system wiring.

1.7 QUALITY ASSURANCE

- A. **Local Service:** The manufacturer shall have a local service agency (within 50 miles of the site) which maintains properly trained personnel and adequate spare parts and is able to respond and complete repairs within 24 hours.
- B. **Notice:** A typewritten notice shall be placed at the [camera and] monitor station. The notice shall contain the name, address, and telephone number of the [CONTRACTOR] [and] [Installer]. The notice shall be mounted in a metal frame and shall be attached to [].

1.8 FIELD TESTING

- A. **Testing:** CCTV system shall be field-tested for compliance with the indicated requirements.
- B. **Acceptance:** Testing shall demonstrate that CCTV system performance is satisfactory for lighting encountered during nighttime operation.
- C. **Sealing/Locking:** At completion of testing, adjustments shall be locked or sealed.
- D. **Witnesses:** The OWNER and the CONSTRUCTION MANAGER (at the option of either) reserve the right to witness field tests.

1.9 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. **Delivery of Materials:** Products shall be delivered in original, unbroken packages, containers, or bundles bearing the name of the manufacturer.
- B. **Storage:** Products shall be carefully stored in a manner that will prevent damage and in an area that is protected from the elements.

1.10 QUALIFICATIONS

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NTS: In the paragraph below, define the terms "comparable size and complexity" for the equipment or system specified. Requiring experience of more than one successful project requires sound justification and prior written approval from the City Project Manager.

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- A. CCTV system components shall be manufactured by firms that are regularly engaged in the production of CCTV cameras, monitors, and auxiliary equipment similar to that required for this project, and having at least one successful installation of comparable size and complexity completed in the recent past. Installations of comparable size and complexity shall have the following characteristics: [].
- B. The firm installing the CCTV system shall have had prior successful installation experience with CCTV systems in similar scope to the system on this project and have at least one successful installation of comparable size and complexity completed during the recent past.

PART 2 - PRODUCTS

2.1 GENERAL

- A. **Camera:** CCTV camera shall be sealed, designed for low-light levels and shall automatically adjust for changes in light level; pickup tube shall be silicon array type. Power consumption shall be 250 watts maximum at 115 VAC. Geometric distortion shall be 2 percent or less; video level shall be maintained within 6 db over a range of 600,000:1 of scene illumination. Resolution shall be 700 horizontal lines. Camera shall have a 16 to 160 mm E 1.8 automatic iris zoom lens. Lens shall be fitted with a sun shroud.
- B. **Monitor:** The monitor shall be 15-inch using solid state circuitry and quick disconnect circuit modules. The unit shall have regulated low voltage power supply and stabilized high voltage power supply and comply with ELA RS-170 specifications and Department of Health and Human Services Safety Rules.
- C. **Remote Control:** Desk-mounted remote control unit for the camera shall be mounted in a single cabinet. Controls shall include power, pan and tilt, zoom and speed for the camera.
- D. **Future Connections:** CCTV system shall include provisions for [] additional connection ports for future needs.

2.2 MANUFACTURERS

- A. Products indicated, of the type or model (if any) shall be manufactured by one of the following (or equal):
 - 1. Camera:
 - Sony
 - Panasonic

RCA

2. Monitor:

Sony
Panasonic
RCA

3. Controls:

Pelco MSC DT, MPT-115 and MCZ-5

PART 3 - EXECUTION

3.1 INSTALLATION

A. **General:** Products and equipment shall be installed in accordance with the manufacturer's written installation instructions and the following:

1. CCTV products shall be adequately ventilated and securely anchored.
2. Raceway recommended by the manufacturer shall be installed.
3. Conductor terminations at screw terminals shall be accomplished with hooked, spade lugs. Shielding shall be continuous and shall be grounded at the monitor which shall be frame grounded. Wiring shall be cabled within enclosures and banded neatly to terminals.
4. Units shall be mounted to maximize coverage of the main entrance area. Wiring throughout the system shall be identified in accordance with shop drawings; identification shall be applied at all terminations and access fittings. Connections to monitor shall be waterproof and flexible and shall be accomplished with cable connectors.

**** END OF SECTION ****