

**County of Nevada  
Information & General Services Department  
Purchasing Division**



**INVITATION TO BID  
For**

**WAYNE BROWN CORRECTIONAL FACILITY (WBCF) SECURITY  
SYSTEM UPGRADE**

**Project Manual  
Including  
BIDDING DOCUMENTS, SPECIFICATIONS  
AND CONTRACT DOCUMENTS**

**Prequalified Vendors Only**

Date Issued **August 13, 2019**

**Bid Due Date:**

**September 10, 2019**, 3:30 p.m. Pacific Time

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(See page 3 of Invitation to Bid)
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## INVITATION TO BID

FOR: **Wayne Brown Correctional Facility Security System Upgrade**

LOCATED AT: **925 Maidu Ave., Nevada City, CA**

Sealed bids will be received at the office of the:

Purchasing Division  
c/o Auditor/Controller Office  
County of Nevada  
950 Maidu Ave.  
Nevada City, California 95959

until **3:30 p.m.** local time on **September 10, 2019** for the above referenced project.

Bids received after said time will not be accepted and will be returned unopened.

At said place and time, and promptly thereafter, all bids that have been properly submitted will be publicly opened and read aloud. All interested parties are invited to attend.

The Nevada County Purchasing Agent, on behalf of the Nevada County Sheriff, hereinafter collectively referred to as "County," is accepting bids from the following prequalified vendors: **Accurate Controls, Cornerstone Detention Products and Stanley Convergent Security Solutions, Inc.** These vendors submitted statements of qualifications and were prequalified by the County to bid on the overall project to furnish, install, maintain, and warranty electronic control systems at the Wayne Brown Correctional Facility (WBCF). **Bids received from firms not mentioned above shall not be considered.**

The work to be performed includes the following:

**Provide, install, test and commission a replacement and upgrade of the jail security system at the Wayne Brown Correctional Facility as described in the attached plans and specifications. All General Conditions from the Request for Qualifications by which bidders were pre-qualified for this solicitation shall apply.**

Bids shall be: **Lump Sum.**

Bids must be for all of the work described herein unless the bid form specifically indicates a bid item is optional.

**Obtaining Contract Documents:** Official copies of the Contract Documents for bidding may be and may be seen in the Purchasing Office excluding plans unless they are made available. These documents are also available electronically for free of charge at the following link: [www.mynevadacounty.com/purchasing](http://www.mynevadacounty.com/purchasing). Alternatively, these documents may be purchased for approximately \$30 in person at the Purchasing Division, 950 Maidu Ave, Nevada City, CA 95959.

Contractor will be required to possess a California **C-7 or C-10** contractor's license at the time the bid is submitted.

All written requests, correspondence and/or communications of any kind regarding the project, including any sealed bids which are submitted by mail, shall be addressed to:

Desiree Belding, CPPB  
Nevada County Purchasing Division  
950 Maidu Avenue  
Nevada City, CA 95959  
(530) 265-1557  
[desiree.belding@co.nevada.ca.us](mailto:desiree.belding@co.nevada.ca.us)

A Pre-Bid Conference will be held on **August 22, 2019** at 2:00 p.m. at the Wayne Brown Correctional Facility (Lobby), 925 Maidu Ave., Nevada City, CA.

In order to ensure responses may be provided to all vendors in a timely manner, questions must be received by **5:00 p.m., August 27, 2019.**

**For all bids over \$25,000, each bidder must submit a cashier's check, certified check or a bidder's bond in an amount equal to 10% of the total amount of the bid.**

The bidder to whom a contract is awarded will be required to furnish a performance bond and a labor and materials bond guaranteeing faithful performance and payment of all debts related to this contract.

**Prevailing Wages:** The Work is subject to the payment of not less than prevailing wages under Labor Code Section 1770 et seq. Bidders are hereby notified that the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification or type of worker needed to perform the Work under the contract which will be awarded to the successful bidder. Information is available at <http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm> . Bidders are further notified that this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Further information on Compliance Monitoring Unit requirements can be found at <https://www.dir.ca.gov/dlse/cmucmu.html> .

No contractor or subcontractor may be listed on a bid proposal for a public works project submitted on or after March 1, 2015 unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5, with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a).

No contractor or subcontractor may be awarded a contract for public work on a public works project awarded on or after April 1, 2015 unless registered with the Department of Industrial relations pursuant to Labor Code section 1725.5.

Contractor agrees to comply with all related provisions of the Labor Code, including but not limited to, the provisions of Labor Code Section 1775 relating to the payment of prevailing wages, Section 1777.5 relating to the employment of apprentices and Section 1811-1813 relating to the payment of Overtime. Failure to comply with the proper prevailing wage requirements may result in a penalty of up to \$200 per day per worker. Failure to comply with apprenticeship requirements may result in a penalty of \$100-\$300 for each calendar day of violation. Failure to pay proper overtime rate may result in a penalty of \$25 per day per worker.

**Disadvantage Business Enterprise:** The County of Nevada, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252) and the regulations of the Department of Commerce (15 C.F.R., Part 8), issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award..

**Award:** The Contract, if it is awarded, shall be awarded to the lowest responsible bidder whose proposal complies with the specified requirements. The award of Contract will be made by the Board of Supervisors. The Contractor shall execute and return the Contract, with the required bonds and insurance certificate, within ten (10) calendar days after notice of award.

**Rejection of Bids:** County reserves the right, acting in its sole discretion, to waive immaterial bid irregularities, to accept or reject any and all bids, or to abandon the Project entirely. The County of Nevada reserves the right to reject any or all bids. No bid will be considered unless it is made on a blank

form furnished by the County of Nevada and is made in accordance with the provisions of the proposal requirements and conditions set forth in the contract documents.

DATED: \_\_\_\_\_

COUNTY OF NEVADA  
STATE OF CALIFORNIA

By \_\_\_\_\_  
Chairman, Board of Supervisors

## INSTRUCTIONS TO BIDDERS

FOR: **Wayne Brown Correctional Facility Security System Upgrade**  
LOCATED AT: **925 Maidu Ave., Nevada City, CA**

### 1. **DEFINITIONS**

Bidder: One who submits a bid directly to County as distinct from a sub-bidder who submits a bid to a bidder

Successful Bidder: The lowest, qualified, responsive, responsible bidder to whom County makes an award

Bidding Documents:

- Invitation to Bid
- Instruction to Bidders
- Bid Form
- Bidders Bond or other security
- Experience Statement
- Subcontractor Listing
- Bidder's Representations
- Proposed Contract Documents
- Project Design Drawings
- Project Design Specifications
- Any and all Addenda

### 2. **COPIES OF BIDDING DOCUMENTS**

Complete copies of the drawings and project manual for use in preparing bids may be obtained in accordance with the Invitation to Bid.

Partial sets of bidding documents will not be issued. Complete sets of bidding documents shall be used in preparing bids. County assumes no responsibility for errors or misinterpretations resulting from the use of incomplete sets of bidding documents. If bidder believes its set of bidding documents is incomplete, it shall be the responsibility of bidder to contact County to confirm that Bidder has a complete set.

County, in making copies of bidding documents available on the above terms, does so only for the purpose of obtaining bids on the work and does not confer a license or grant for any other use.

### 3. **QUALIFICATIONS OF BIDDERS**

Only those firms that have been pre-qualified by the County are eligible to submit bids for this work.

### 4. **INSPECTION OF SITE OF WORK**

Bidders are required to inspect the site of the work in order to satisfy themselves, by personal examination or by such other means as they may prefer, of the location of the proposed work and as to the actual conditions of and at the site of work. If, during the course of the examination, bidder finds facts or conditions which appear confusing to bidder, bidder shall apply to County for additional information and explanation before submitting the bid. However, no such supplemental information so requested or furnished shall vary the terms of the specifications or the Contractor's sole responsibility to satisfy himself or herself as to the conditions of the work to be performed, unless an addendum has been issued.

The submission of a bid by the bidder shall constitute the acknowledgment that, if awarded the contract, bidder has relied and is relying on bidder's examination of (a) the site of the work, (b) the access to the site, and (c) all other data, matters, and things requisite to the fulfillment of the work and on bidder's own knowledge of existing conditions on and in the vicinity of the site of the work to be constructed under the contract, and not on any representation or warranty of County. No claim for additional compensation will be allowed which is based upon a lack of knowledge of the above items.

Where technical reports or data have been utilized in the preparation of the contract documents, bidder may rely upon the accuracy of the technical data contained in such reports but not upon the interpretations or opinions contained therein for the completeness thereof for the purpose of bidding or construction.

Where plans and specifications contain drawings of physical conditions in or relating to existing surface conditions, including underground facilities, which are at or contiguous to the site, bidder may rely upon the accuracy of the data contained in such drawings but not upon the completeness thereof for the purposes of bidding or construction. If a mass diagram has been prepared for a project, it is for design purposes only. If it is made available to bidders, County assumes no responsibility whatever for the information contained therein and makes no guarantees with respect to reliance thereon.

Before submitting a bid, each bidder will, at bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work and which bidder deems necessary to determine its bid for performing and furnishing the work in accordance with the time, price and other terms and conditions of the contract documents.

On request in advance, County will provide each bidder access to the site to conduct such explorations and tests as each bidder deems necessary for submission of a bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.

The lands upon which the work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the work are identified in the contract documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by County unless otherwise provided in the contract documents.

## **5. EXAMINATION OF CONTRACT DOCUMENTS**

The contract documents shall consist of the following:

1. Invitation to Bid
2. Instruction to Bidders
3. Contractor's Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award)
4. Contract
5. Addenda which pertain to the Contract
6. The Bonds or other security
7. Any supplementary conditions or any and all written agreements amending or extending the work, time or price contemplated
8. The Plans and Specifications and Drawings as identified in the Contract
9. Certificates of Insurance
10. Other: \_\_\_\_\_



Each bidder shall thoroughly examine and be familiar with legal and procedural documents, general conditions, specifications, drawings and addenda (if any). The submission of a bid shall constitute an acknowledgment upon which County may rely that the bidder has thoroughly examined and is familiar with the contract documents. The failure or neglect of a bidder to receive or examine any of the contract documents shall in no way relieve that bidder from any obligation with respect to that bidder's bid or to the contract. No claim for additional compensation will be allowed which is based upon a lack of knowledge of any contract documents.

#### **6. INTERPRETATION OF CONTRACT DOCUMENTS**

No oral representations or interpretations will be made to any bidder as to the meaning of the contract documents. Any ambiguities, inconsistencies in the plans and specifications or other contract documents, or problems which are visible by an inspection of the site or review of the contract documents shall be resolved prior to bidding. Request for an interpretation shall be made in writing and delivered to County at least 10 days before the time announced for opening the proposals. Interpretations by County will be in the form of an addendum to the contract documents and, when issued, will be sent as promptly as is practical to all parties to whom the bid documents have been issued. All such addenda shall become part of the contract. County reserves the right to amend any contract language which it determines is ambiguous prior to award of the bid.

#### **7. ADDENDA**

Each bid shall include specific acknowledgment, in the space provided, of receipt of all addenda issued during the bidding period. Failure to so acknowledge will result in the bid being rejected as not responsive. The Contractor is responsible for verifying that all addenda have been received and for obtaining all addenda prior to submitting bids for the work. Addenda may also be issued to modify the bidding documents as deemed advisable by County. All addenda for this bid solicitation will only be distributed online in Public Purchase.

No addenda will be issued later than four (4) days prior to the date for receipt of bids except an addendum, if necessary, postponing the date for receipt of bids or withdrawing the request for bids.

#### **8. BIDDERS QUESTIONS**

Bidders shall submit all questions online via Public Purchase. The County makes no assurances that questions received within five (5) calendar days of the bid opening date will be answered. All addenda for this bid solicitation will only be distributed online in Public Purchase. Only those listed as Plan Holders for this bid will be notified when addenda are issued. The County will not issue addenda by other means or methods. It is the sole responsibility of bidders or other interested parties to monitor this website for possible addenda to this bid

#### **9. BIDS**

Bids shall be made on the blank forms prepared by County and included herein. Bidders may extract these pages from the book of specifications or submit the entire book. All bids shall give prices, both in writing and in figures, and shall be signed by the bidder or bidder's authorized representative with bidder's address and shall provide all other information requested on the bid form. If the bid is made by an individual, his or her name, signature and post office address must be shown; if made by a firm or partnership, the name and post office address of the firm or partnership must be shown; if made by a corporation, the bid shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation, and the title of the person who signs on behalf of the corporation.

**10. SUBMISSION OF BIDS**

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be included in a sealed envelope addressed to the Nevada County Purchasing Division. If mailed, the bids shall be addressed to:

**Submit Bids to: US Mail, Fed Ex,  
UPS, etc. to:**  
Nevada County Purchasing Division  
Eric Rood Administrative Center  
950 Maidu Avenue  
Nevada City, CA 95959

or

**Hand Deliver to:**  
Nevada County **Auditor/Controller's  
Office Suite # 230**  
Eric Rood Administrative Center, 2nd  
floor 950 Maidu Avenue  
Nevada City, CA 95959

The bid shall be identified on the outside with the bidder's name, license number and address and with the project title.

Each bid shall be accompanied by the bid security if bid over \$25,000 and other required documents.

If the bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "BID ENCLOSED" on the face thereof.

Bids shall be deposited at the designated location prior to the time and date for receipt of bids indicated in the Invitation to Bid, or the modified time and date indicated by addendum. Bids received after the time and date for receipt of bids will be returned unopened. Bidder shall assume full responsibility for timely delivery at the location designated for receipt of bids.

Oral, telephone, or telegraph bids are invalid and will not receive consideration. No bidder may submit more than one bid. Multiple bids under different names will not be accepted from one firm or association.

**11. PRE-BID CONFERENCE OR WALK-THROUGH**

A pre-bid conference or walk-through will be held on **August 22, 2019** at 2:00 p.m. at the **Wayne Brown Correctional Facility (Lobby), 925 Maidu Ave., Nevada City, CA**

The representatives of County, any consultants and/or Project Engineer will be present to answer questions. Any questions which, in the opinion of County, cannot be answered by direct reference to the bidding documents will be answered by formal written addenda as outlined above.

The pre-bid conference or walk-through will include a tour of the site of the work conducted by representatives of County. All prequalified firms are invited to attend.

Bids will be accepted from bidders who did not attend the pre-bid conference, but bidders will be charged with all the information disseminated at the pre-bid conference as if they had been present.

Firms not prequalified for this project will not be allowed to participate in the Pre-Bid Conference now will bids be accepted.

**12. BID PRICE**

The bid price shall include everything necessary for the completion of construction and fulfillment of the contract including, but not limited to, furnishing all materials, equipment, tools, plant and other facilities and all management, superintendence, labor and services, except as may be provided otherwise in the contract documents.

In the event of a difference between the price quoted in words and a price quoted in figures for the same quotation, the words shall be considered the amount bid. Discrepancies between the indicated sum or total of figures and the correct sum or total will be resolved in favor of the correct sum or total.

**13. BASIS OF BIDS**

The bidder shall submit both a lump sum price and prices for all unit cost items and alternatives shown on the bid form. Failure to comply may be cause for rejection.

Where specific quantities are given they are approximate only, being given as a basis for the comparison of bids, and the County of Nevada does not, expressly or by implication, warrant that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or advisable by County. The amount of the bid for comparison purposes will be the total of all items. The total of unit basis items will be determined by extension of the item price bid on the basis of the estimated quantity set forth for the item.

The bidder shall set forth for each item of work, in clearly legible figures, an item price and a total for the item in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the "Total" column shall be the extension of the item price bid on the basis of the estimated quantity for the item.

In case of discrepancy between the item price and the total set forth for the item, the item price shall prevail; however, if the amount set forth as an item price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or in the case of unit basis items is the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for the item shall prevail in accordance with the following:

- a. As to unit basis items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price.
- b. As to lump sum items, the amount set forth in the "Total" column shall be the item price.

In accordance with the provision of Section 6707 of the State Labor Code, each bidder shall list, in any bid item calling for trenching of 5 feet or more in depth, the amount contained in the proposal for adequate trench and excavation sheeting, shoring, and bracing or equivalent method for the protection of life and limb which shall conform to applicable Safety Orders.

**14. TAXES**

Bid prices shall include allowance for all federal, state and local taxes.

**15. CONTRACT TIME**

The date by which the work is to be completed (the contract time) is set forth in the contract documents.

**16. SUBSTITUTE MATERIAL AND EQUIPMENT**

The contract, if awarded, will be on the basis of material and equipment described in the drawings or specified in the specifications without consideration of possible substitute or "co-equal" items. Whenever it is indicated in the drawings or specified in the specifications that a substitute or "co-equal" item of material or equipment may be furnished or used by Contractor if acceptable to County, application for such acceptance will not be considered by County until after the effective date of the contract unless an addendum is issued to all bidders authorizing the use of a specified substitute. The procedure for submittal of any such application by Contractor and consideration by County is set forth in the contract documents.

**17. LIST OF SUBCONTRACTORS**

Each bid shall have listed on the form provided herewith the name and address of each subcontractor to whom the bidder proposes to sublet portions of the work in excess of one-half of one percent of the total amount of the bid or, in the case of bids for construction of streets or highways, including bridges, in

excess of one-half of one percent of the Contractor's total bid or \$10,000, whichever is greater, per Public Contracts Code Section 4104. For the purpose of this paragraph, a subcontractor is defined as one who contracts with the Contractor to furnish materials and labor, or labor only for the performance of work at the site of the work.

County has the right to review the suitability and qualifications of any subcontractor or supplier proposed by the Contractor. As part of this review County may request an experience statement with pertinent information as to similar projects and other evidence of qualification for each such subcontractor, person and organization. If County, after due investigation, has reasonable objection to any proposed subcontractor, County may, before giving the notice of award, request the apparent successful bidder to submit an acceptable substitute without an increase in bid price. If the apparent successful bidder does not make such substitution, the contract shall not be awarded to such bidder, but Contractor's failure to make such substitution will not constitute grounds for sacrificing the bid security. Any subcontractor, other person or organization so listed and to whom County does not make written objection prior to the giving of the notice of award will be deemed acceptable to County subject to revocation of such acceptance after the effective date of the agreement as provided in the contract documents.

No Contractor shall be required to employ any subcontractor, other person or organization against whom Contractor has reasonable objection.

The Contractor may not change any subcontractor listed on its bid without written approval from County after a determination that the requirements of Public Contracts Code Section 4107 have been met.

**18. BID GUARANTY (BID BOND)**

Bid Guaranty (Bid Bond) is required on all bids over \$25,000.

The bid shall be accompanied by a bid guaranty bond (bid bond) duly completed on the form provided herewith or a form which is substantially similar, by a guaranty company authorized to carry on business in the State of California, for payment to County in the sum of at least 10 percent of the total amount of the bid, or alternatively by a certified or cashier's check, payable to County in the sum of at least 10 percent of the total amount of the bid. A bid bond form which provides further payment of attorney's fees or which contains a termination date will not be considered to be "substantially similar". The amount payable to County under the guaranty bond, or the certified or cashier's check and the amount thereof, as the case may be, shall be forfeited to County as liquidated damages in case of a failure or neglect of the bidder to furnish, execute and deliver to County the required performance and payment bonds, evidence of insurance, and to enter into, execute and deliver to County the contract on the form provided herewith, within **14** days after being notified in writing by County that the award has been made and the agreement is ready for execution.

All bonds shall have a power of attorney authorizing the signature of the person authorized to sign on behalf of the Surety attached to the bond. The power of attorney signature and the principal's signature shall each (both) be notarized.

The bid bond shall name County as beneficiary and shall specify that the bond is valid for the bid opening of this project as scheduled in the Invitation to Bid.

**19. RETURN OF BID GUARANTEES**

Within 10 days after the bids are awarded, County will return the bid guarantees (other than bid bonds) accompanying the bids for bids not considered in making the award. All other bid guaranties will be held until the contract has been fully executed, after which they will be returned to the respective bidders whose bids they accompany.

**20. MODIFICATION OR WITHDRAWAL OF BIDS**

Bids submitted early may be modified or withdrawn by notice to the party receiving bids at the place and prior to the time designated for receipt of bids. Such notice shall be in writing over the signature of the bidder or be by telegram; if by telegram, written confirmation over the signature of bidder must have been mailed and postmarked on or before the date and time set for receipt of bids; it shall be so worded as not to reveal the amount of original bid. Bids may also be modified or withdrawn in person by the bidder or an authorized representative provided bidder can prove bidder's identity and authority. Withdrawn bids may be resubmitted up to the time designated for the receipt of bids provided that they are then fully in conformance with these instructions to bidders.

If, within 24 hours after bids are opened, any bidder files a duly signed written notice with County and promptly thereafter demonstrates to the reasonable satisfaction of County that there was a material and substantial mistake in the preparation of the bid, that bidder may withdraw his or her bid and the bid security will be returned. Thereafter, that bidder will be disqualified from further bidding on the work.

**21. OPENING OF BIDS**

Bids will be opened publicly and read aloud. An abstract of the amounts of the base bids and major alternates (if any) will be made available after the opening of bids.

**22. BIDS TO REMAIN OPEN**

All bids shall remain open and subject to acceptance for a period of **60** days from the date of opening, but County may, in County's discretion, release any bid and return the bid security prior to that date.

**23. POSTPONEMENT OF OPENING**

County reserves the right to postpone the date and time for opening of bids at any time prior to the date and time announced in the advertisement.

**24. AWARD OF CONTRACT-PROTESTS**

The Contract, if it is awarded, will be awarded to the lowest responsible bidder whose bid complies with the requirements set forth herein. The lowest bidder shall be the bidder submitting the lowest price for the work as specified. In the case of a lump sum bid, the lowest price for the work shall be the lowest lump sum price bid, excluding all alternates.

Within **60** days after the time of opening the bids, County will act either to accept a proposal or to reject all proposals. The acceptance of a proposal will be evidenced by a notice of award of contract in writing.

County will use email to notify bidders of the decision of the County on the award of this Bid. Therefore, it is essential that bidders identify one or more contact persons on the Bid Proposal Form who have frequent access to email. The County will not be responsible for delivery failure of email due to firewalls, spam filters, or individuals' failure to retrieve email messages. The County will not attempt to re-deliver any messages which fail due to no fault of the County.

The award of contract shall obligate the bidder whose bid is accepted to furnish a performance bond, payment bond, warranty bond, and evidences of insurance (certificates of insurance and endorsements specified in the contract) and execute the agreement set forth in the contract documents.

In addition but not limited to the following, the County reserves the right to reject any and all bids and to waive any and all formalities, and the right to disregard all nonconforming, non-responsive, or conditional bids. County reserves the right to reject the bid of any bidder if County believes that it would not be in the best interest of the project to make an award to that bidder, whether because the bid is not responsive or

the bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by County. County reserves the right to reject any bids which omit a bid on any one or more items on which bids are required; any bids which omit unit prices if unit prices are required; any bids in which unit prices are unbalanced in the opinion of County; any bid accompanied by insufficient or irregular bid security; and any bids from bidders who have previously failed to perform properly or to complete on time contracts of any nature.

County may consider the qualifications and experience of subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work as to which the identity of subcontractors and other persons and organizations must be submitted as provided herein. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by County.

If there is reason to believe that collusion exists among the bidders, none of the bids of the participants in such collusion will be considered, and County may likewise elect to reject all bids received.

### **Protests and Appeals:**

1. Bid Protest. Any bid protest must be in writing, received by the Purchasing Agent at the Rood Administrative Center, 950 Maidu Avenue, Suite 130, Nevada City, CA, before 5:00 p.m. no later than five working days following the notice of intent to award (herein referred to as the Bid Protest Deadline), and must comply with the following requirements:
  - 1.1 General. Only a bidder who has actually submitted a Bid Proposal is eligible to submit a bid protest. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest. If required by County, the protesting bidder must submit a non-refundable fee in the amount specified by County, based upon County's reasonable costs to administer the bid protest. Any such fee must be submitted to County no later than the Bid Protest Deadline, unless otherwise specified. For purposes of this Section 1, a "working day" means a day that County is open for normal business, and excludes weekends and holidays observed by County.
  - 1.2 Protest Contents. The bid protest must contain a complete statement of the basis for the protest and all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion or portions of the documents upon which the protest is based. The protest must include the name, address, email address, and telephone number of the person representing the protesting bidder if different from the protesting bidder.
  - 1.3 Copy to Protested Bidder(s). A copy of the protest and all supporting documents must be concurrently transmitted by fax or by email, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
  - 1.4 Bidders Response to Protest. The protested bidder may submit to the County a written response to the protest, provided the response is received before 5:00 p.m., within two working days after the Bid Protest Deadline or after actual receipt of the bid protest, whichever is sooner (the "Response Deadline"). The response must include all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address, email address, and telephone number of the person representing the protested bidder if different from the protested bidder.
    - a. Copy to Protesting Bidder. A copy of the response and all supporting documents must be concurrently transmitted by fax or by email, by or before the Bid Protest Deadline, to the protesting bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
  - 1.5 Exclusive Remedy. The procedure and time limits set forth in this section are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. A bidder's failure to comply with these procedures will constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.

1.6 Right to Award. The County Board of Supervisors reserves the right to award the Contract to the bidder it has determined to be the responsive, responsible bidder submitting the lowest bid, and to issue a notice to proceed with the Work notwithstanding any pending or continuing challenge to its determination.

**25. SIGNING OF AGREEMENT**

When County gives a Notice of Award to the successful bidder, it will be accompanied by unsigned counterparts of the agreement and all other contract documents.

Three (3) copies of the contract documents will be prepared by County. All copies will be submitted to Contractor, and Contractor shall execute the contract, insert executed copies of the required bonds and power of attorney, and submit all copies to County within 10 days. The date of execution of the contract shall be left blank for filling in by County.

**26. NOTICE TO PROCEED**

County shall give the successful bidder written notice to proceed with the work within 5 days of the execution of the contract. Notwithstanding any other provision of the contract, County shall not be obligated to accept or to pay for any work furnished by the Contractor prior to delivery of notice to proceed whether or not County has knowledge of the furnishing of such work.

**27. PERFORMANCE AND OTHER BONDS**

The contract documents set forth County's requirements as to performance and other bonds. When the successful bidder delivers the executed contract to County, it shall be accompanied by the required contract security. The bonds shall be provided on County's forms or on forms which are substantially similar. Notwithstanding any language contained in the bonds, County shall not be liable for attorney's fees either for the enforcement of the bond or for any other action under this Contract. Bonds shall not contain any date of termination.

**28. CONTRACTUAL RESTRICTIONS**

No official of County who is authorized in such capacity and on behalf of County to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspecting, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for County who is authorized in such capacity and on behalf of County who is in any legislative, executive, supervisory, or other similar function in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

**29. POSTING SECURITY IN LIEU OF RETENTION**

The Contractor may elect to receive 100% of payments due under this contract from time to time, without retention of any portion of the payment by the public agency, by depositing securities of equivalent value with County in accordance with the provisions of Section 22300 of the California Public Contract Code; except that no such substitution shall be allowed where federal money is funding the project and federal regulations or policies would prohibit such substitution of securities for the retention. Securities eligible for investment shall include those listed in Section 16430 of the California Government Code, or bank or savings and loan certificates of deposits. Such securities, if deposited by the bidder, shall be valued by County whose decision on the valuation of the securities shall be final. The bidder shall be the beneficial owner of any securities substituted for money withheld and shall receive any interest thereon.

**30. LIQUIDATED DAMAGES**

The County is authorized by Government Code Section 53069.85 to assess liquidated damages for delay. County refers bidders to the Contract for review of the liquidated damages provision to be included in this Contract.

**31. ELIGIBILITY TO WORK**

The County of Nevada encourages its contractors and subcontractors to use the US. Citizenship and Immigration Services E-Verify system to verify that employees are eligible to work in the United States. Information about the E-Verify system is available at [www.dhs.gov/e-verify](http://www.dhs.gov/e-verify).

**32. CONFIDENTIALITY**

All prequalified bidders that chose to bid on this project will be required to sign a confidentiality agreement in order to obtain Bid Documents for this project.



**CHECKLIST OF DOCUMENTS ENCLOSED BY BIDDER**

Bidder shall acknowledge he or she has enclosed all required Bidding Documents listed herein by signing his or her initials in "Bidder" column, after each item.

DOCUMENT	SIGNATURES	
	BIDDER	COUNTY REP.
1. BID FORM (signed)		
2. ACKNOWLEDGMENT OF ADDENDA		
3. BID SECURITY: Bid Bond for bids over \$25,000 (must be signed by corporate surety); or Cashier's Check; or Certified Check; or Cash		
4. EXPERIENCE STATEMENT FORM		
5. SUBCONTRACTOR LISTING (signed)		
6. BIDDER'S REPRESENTATIONS: (BIDDER'S QUALIFICATIONS, NONCOLLUSION DECLARATION)		

**BID FORM**  
(Nevada County Standard Form Bid Document)

BID TO THE COUNTY OF NEVADA FOR:  
**Wayne Brown Correctional Facility Security System Upgrade**

Name of Bidder \_\_\_\_\_

The work to be done and referred to herein is in Nevada County, State of California, and shall be constructed in accordance with the Plans, Specifications (including the payment of not less than the wage rates set forth therein) and the Contract annexed hereto.

The work to be done is shown upon project documents entitled: **Wayne Brown Correctional Facility Security System Upgrade.**

The undersigned, as bidder, declares that the only persons or parties interested in this bid as principals are those named herein; that this bid is made without collusion with any other person, firm, or corporation, and in submitting this bid, the undersigned bidder agrees that he or she has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to and all other documents listed or incorporated in the bidding documents and contract documents; and bidder proposes, and agrees if this bid is accepted, that bidder will contract with the County of Nevada in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus, and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of County as therein set forth, and that bidder will take in full payment therefor the following:

Item No.	Item	Unit of Measure	Total
BASE BID	WBCF Security System Upgrade	Lump Sum	

TOTAL OF BASE BID (in words): \_\_\_\_\_  
\_\_\_\_\_

The undersigned bidder agrees to furnish the required bonds or other security and to enter into a contract within the time specified in the Instructions to Bidders, and further agrees to complete all work covered by the bid, in accordance with all requirements of the contract.

Receipt of copies of the following addenda is hereby acknowledged.

<u>Addendum No.</u>	<u>Bidder's Signature</u>	<u>Date Acknowledged</u>
_____	_____	_____
_____	_____	_____

All addenda received have been considered in preparation of this bid. Enclosed herewith are the Bid Form, Bid Bond or other security, Experience Statement, Subcontractor Listing and Bidder's Representations form.

In submitting this bid it is understood that the right is reserved by County to reject any and all bids, and it is understood that this bid may not be withdrawn during the period set forth in the Instructions to Bidders.

Envelopes containing bids must be marked as required by the Instructions to Bidders.

County reserves the right to reject any and all bids and to waive any irregularities in bids.

The amount of the bid for comparison purposes will be the total of all items. The total of unit basis items will be determined by extension of the item price bid on the basis of the estimated quantity set forth for the item.

Prices bid shall include overhead, profit and all applicable taxes.

By submission of this bid, each bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that this bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this bid with any other bidder or with any competitor.

A bid bond for bids over \$25,000 will accompany this bid in a sum of not less than ten percent (10%) of the total amount of the bid and shall be on a form approved by County or a form which is substantially similar, which is attached hereto.

If this bid shall be accepted and the undersigned shall fail to contract as aforesaid, and to give the performance bond and labor and material bond as required in the contract with a surety satisfactory to County within the number of days set forth in the Instructions to Bidders after receipt of notice that the contract has been awarded to the undersigned, County may, at its option, determine that the bidder has abandoned the contract and thereupon the award of the contract shall be null and void and the bidder and surety shall forfeit the security accompanying this bid to the County of Nevada.

Accompanying this bid is \_\_\_\_\_

\_\_\_\_\_  
("Bidder's Bond", "Cashier's Check", "Certified Check" or "Cash")

for \$\_\_\_\_\_ an amount equal to ten percent (10%) of the total bid.

The names of individuals who are principals in any partnership, joint venture, business association or corporation in the foregoing bid are as follows:

\_\_\_\_\_  
\_\_\_\_\_

Licensed in accordance with an act providing for the registration of contractors, License No.

\_\_\_\_\_.

DATED: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
Authorized Signature of Bidder

PRINTED NAME OF AUTHORIZED REPRESENTATIVE \_\_\_\_\_

BUSINESS ADDRESS: \_\_\_\_\_

PLACE OF RESIDENCE: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

CLASSIFICATION OF CONTRACTOR'S LICENSE: \_\_\_\_\_

EXPIRATION DATE OF CONTRACTOR'S LICENSE: \_\_\_\_\_

DIR No. \_\_\_\_\_

**NOTE:** If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation; if bidder is a co-partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the co-partnership; and if bidder is an individual, his or her signature shall be placed above. If a bidder is a joint venture, the documents must be signed by an authorized officer of each firm to the joint venture and shall include the California Contractor's License number of each partner to the joint venture. The signature of any attorney-in-fact must be notarized.

**BIDDER'S BOND**

STATE OF CALIFORNIA

COUNTY OF NEVADA

KNOW ALL PERSONS BY THESE PRESENT,

That we \_\_\_\_\_ as principal, and \_\_\_\_\_ as surety, are held and firmly bound unto the County of Nevada in the sum of ten percent (10%) of the total amount of the bid of the principal above named, submitted by said principal to the County of Nevada for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, to the County of Nevada, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents. In no case shall the liability of the surety hereunder exceed the sum of \$ \_\_\_\_\_.

The condition of this obligation is such that whereas the principal has submitted the above-mentioned bid to the County of Nevada, as aforesaid, for certain construction specifically described as follows, for which bids are to be opened at Nevada City, California on \_\_\_\_\_, 20\_\_ for \_\_\_\_\_.

NOW, THEREFORE, if the aforesaid principal is awarded the contract, and within the time and manner required by the contract documents, after the prescribed forms are presented to him or her for signature, enters into a written Contract, in the prescribed form, in accordance with the bid, and files two bonds with the County of Nevada, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; otherwise it shall be and remain in full force and effect.

Notice to Surety shall be provided at:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this \_\_\_\_\_ day of \_\_\_\_\_, A.D. 20\_\_.

_____ Seal	_____ Seal
_____ Seal	_____ Seal
_____ Seal	_____ Seal
Principal	Surety

**NOTE:** Signature of Surety shall be notarized. Power of attorney for surety with corporate seal affixed must be attached.

APPROVED AS TO FORM  
BY COUNTY COUNSEL

\_\_\_\_\_

**EXPERIENCE STATEMENT**

The following outline is a record of the bidder's recent experience in construction of a type similar in magnitude and character to that contemplated under this contract:

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### **SUBCONTRACTOR LIST**

Listed hereunder is the name, Contractor's license number, the address of place of business, and the category of the work on the Contract for each subcontractor who will perform work or labor or render service to the undersigned bidder in or about the construction of the work hereinabove described, in excess of one-half of one percent (0.5%) of the total bid, if the contract for the said work is awarded to the undersigned.

(Attach additional sheet, if necessary, and note attachment on this page.)

Name of Subcontractor	Contractor's License #	DIR Registration Number	Location of Business	Category of Work To Be Performed	% of Total Work

Signature of Contractor/Bidder: \_\_\_\_\_

**BIDDER'S REPRESENTATIONS**

I, the undersigned, declare as follows:

- 1. **BIDDER'S QUALIFICATIONS:** That neither I nor a company of which I am more than 50% owner have been disqualified from bidding, removed from a public works construction project or otherwise been prevented from bidding because of a violation of law or a safety regulation.

Further, I declare under penalty of perjury that neither I nor a company of which I am more than a 50% owner have had more than one final, unappealable finding of contempt of court by a Federal court within the immediately preceding two year period because of failure to comply with an order of the Federal court (Public Contract Code Section 10232), which orders the Contractor to comply with an order of the National Labor Relations Board.

Further, I declare under penalty of perjury that I have not been convicted by any court of any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of state or federal antitrust law in connection with the bidding upon, award of, or performance of any public works contract.

- 2. **WORKER'S COMPENSATION CERTIFICATION (LABOR CODE SECTION 1861):** That I am aware of the provisions of Section 3700 of the Labor Code of the State of California, which requires every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

- 3. **NONCOLLUSION DECLARATION:** I, the undersigned, declare that I am the \_\_\_\_\_ of \_\_\_\_\_ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

DATED: \_\_\_\_\_

BIDDER: \_\_\_\_\_



**CERTIFICATION OF NONDISCRIMINATION IN EMPLOYMENT**

(This certification shall be executed by the Bidder in accordance with Section 60-1.6 of the Regulations of the President's Committee on Equal Employment Opportunity for implementing Executive Orders 10925 and 11114.)

The Bidder represents that he (has, has not) participated in a previous contract or subcontract subject to either the equal opportunity clause herein or the clause contained in Section 301 of Executive Order 10925; that he (has, has not) filed all required compliance reports; and that the representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained prior to subcontract awards.

NAME OF COMPANY \_\_\_\_\_

PRINT NAME OF BIDDER \_\_\_\_\_

(Signature of Bidder) \_\_\_\_\_

Dated: \_\_\_\_\_

**(NOTE: Circle has or has not above, whichever applies.)**

The contractors will comply, with all Federal statutes relating to non-discrimination. These include but are not limited to (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. Subsections 1681-1683 and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S. C. Sec. 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (29 U.S.C. Subsections 6101-6107) which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 93-255), as amended, relating to non- discrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to non- discrimination on the basis of alcohol abuse or alcoholism; (g) Subsections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to the confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. Sec. 3601 et seq.), as amended, relating to the sale, rental, or financing of housing; (i) Subtitle A, Title II of the Americans with Disabilities Act of 1990, which prohibits discrimination against disabled persons; and (j) Department of Justice Non-Discrimination Regulations, 28 CFR Part 42, Subparts C, D, E, and G; and Department of Justice regulations on disability discrimination, 28 CFR Part 35 and Part 39 and any other non-discrimination provisions in the specific statute(s) under which application for Federal assistance is being made.

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**PUBLIC CONTRACT CODE**  
**PUBLIC CONTRACT SECTION 10285.1 STATEMENT**

In accordance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder **has**, **has not** \_\_\_\_\_ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: You must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Bid. Signing this Bid on the signature portion constitutes signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

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**PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE**

In accordance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a Federal, State, or local government project because of a violation of law or a safety regulation?

Yes                                                  No

If the answer is yes, explain the circumstances in the following space.

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**Public Contract Code 10232 Statement**

In accordance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Bid. Signing this Bid on the signature portion constitutes signature of this Statement and Questionnaire.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Signature of Contractor \_\_\_\_\_

# **Sample CONTRACT**

FOR

**WAYNE BROWN CORRECTIONAL FACILITY (WBCF) SECURITY  
SYSTEM UPGRADE**

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\_\_\_\_\_  
**(Date)**

(Standard Public Works Contract)

**SAMPLE CONTRACT**  
COUNTY OF NEVADA  
STATE OF CALIFORNIA

THIS CONTRACT, made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, by and between the COUNTY OF NEVADA, hereinafter referred to as "County," and \_\_\_\_\_, hereinafter referred to as Contractor.

WITNESSETH: That the County and Contractor, for the consideration hereinafter mentioned, agree as follows:

**ARTICLE I: DEFINITIONS**

Wherever used in these general conditions or in the other contract documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Act of God

"Act of God" means an earthquake or flood, or other cataclysmic phenomenon of nature. A rain, windstorm, high water or other natural phenomenon of unusual intensity for the specific locality of the work, which might reasonably have been anticipated from historical records of the general locality of the work, shall not be construed as an Act of God.

Addenda

Written or graphic instruments issued prior to the opening of bids which clarify, correct or change the bidding documents.

Application for Payment

The form accepted by County which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the contract documents.

Calendar Days

Consecutive days of the month, including Saturdays, Sundays and holidays. A calendar day shall be the 24 hours running from midnight to the next midnight.

Change Order

A document which is signed by Contractor and County and authorizes an addition, deletion or revision in the work, or an adjustment in the contract price or the contract time, issued on or after the effective date of the contract.

Contract Documents

The written agreement covering the performance of the work and the furnishing of labor, materials and equipment in construction of the work. The agreement shall be construed to include the:

1. Invitation to Bid
2. Instruction to Bidders
3. Contractor's Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award
4. Contract
5. Addenda which pertain to the Contract
6. The Bonds
7. Any supplementary conditions or any and all written agreements amending or extending the work, time or price contemplated
8. The Plans and Specifications and Drawings as identified in the Contract
9. Certificates of Insurance
10. Approved Change Orders
11. Other: \_\_\_\_\_

Contract Price

Either the total lump sum bid of the Contractor or the total of the unit price bids of the Contractor extended based upon the estimated quantities set forth in the bid, or combinations thereof, plus or minus any adjustments made in accordance with the contract.

Contractor

The person or persons, co-partnership, joint venturers or corporation who have entered into a contract with County as party or parties of the second part and/or their legal representatives.

Contractor's Plant and Equipment

Everything, except labor, brought onto the site by the Contractor in order to carry out the work, but not to be incorporated in the work.

County

The County of Nevada and any person or persons to whom the power belonging to County shall be duly designated, including but not limited to an engineer or architect. Only those persons designated in writing by the County Executive Officer or Director of the department overseeing the project shall have authority to act on behalf of County.

Day

A calendar day of 24 hours, except when preceded by "working", as defined below.

Defective

An adjective which when modifying the word "work" refers to work that is unsatisfactory, faulty or deficient, or does not conform to the contract documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the contract documents, or has been damaged (unless responsibility for the protection thereof has been assumed by County).

Directed

"Directed", "designated", "permitted", "required", "accepted", and words of like import, wherever and in whatever manner used means as directed, designated, permitted, required, and accepted by County.

Director

"Director" shall mean the Director of the department overseeing the project.

Drawings

The drawings which show the character and scope of the work to be performed and which have been prepared or approved by County and are referred to in the contract documents.

Effective Date of the Contract

The date indicated in the Contract on which it becomes effective, but if no such date is indicated it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.

Engineer

The person specifically designated in writing by County to function as staff adviser and/or consultant to County on engineering matters relating to this contract. Only those persons designated by County, in writing, shall have authority to act for County in the administration of this contract. Said written designation shall be signed by the County Executive Officer or Director of the department overseeing the project.

Equal

A device, material, equipment, technique or method that conforms to the intent of that specified or indicated on the Drawing.

Field Order

A written order issued by County which orders minor changes in the work but which does not involve a change in the contract price or the contract time.

Final Acceptance, Date of

The date when all final punch list items are corrected, the final inspection has been completed and when the governing body and/or funding agency formally accepts the project as complete. This date will be used to establish the start date of the one-year warranty period for the contract.

Laboratory

The designated testing laboratory authorized by County to test materials and work involved in the contract.

Lien

Any claim by a person entitled to file a stop notice pursuant to the provisions of California Civil Code Sections 3179, et seq.

Notice of Award

The written notice by County to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, County will sign and deliver the Contract.

Notice to Proceed

A written notice given by County to Contractor fixing the date on which the contract time will commence to run and on which Contractor shall start to perform Contractor's obligations under the Contract Documents.

Partial Completion

Placing a portion of the work in service for the purpose for which it is intended (or a related purpose) before reaching completion of all the work.

Person

Includes firms, companies and corporations.

Project

The total construction which is required by the Contract Documents which may be all of the work or a part as indicated in the Contract Documents.

Schedule of Values

A list of divisions of the total scope of work under the contract made by the Contractor and approved by the County for purposes of progress payments.

Shall

"Shall" or "will", whenever used, is mandatory.

Shop Drawings

All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the work and all product data illustrations, brochures, standard schedules, performance charts, instructions, diagrams, samples, and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the work.

Specifications

Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the work and certain administrative details applicable thereto.

Standard Specifications

Specifications which are authored and authorized by a particular industry or agency which may be incorporated by reference. Where so incorporated, they are incorporated for use of technical data and specifications only. If there is a conflict between the standard specifications and express terms of this contract, the provisions set forth in the contract shall prevail.

Subcontractor

An individual, firm or corporation having a direct contract with Contractor or with any other subcontractor for the performance of a part of the work at the site.

Substitute

A device, material, equipment, technique or method of construction that differs from that intended or indicated on the Drawings.

Sufficient

"Sufficient", "necessary", "proper", "acceptable", "satisfactory", "desirable", and words of like import, wherever and in whatever manner used, with or without reference to the County, means sufficient, necessary, proper, acceptable, satisfactory and desirable in the judgment of the County.

Supplementary Conditions

An addition to the Contract Documents which supplements the main Contract.

Underground Facilities

All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work

Work to be paid for on the basis of unit prices.

Work

The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

Working Day

A working day is any day except Saturdays, Sundays, or legal holidays and days on which the Contractor is specifically required by special provisions, by any labor contract, or by law, to suspend construction operations. Also excepted is any day on which the Contractor is prevented by inclement weather conditions resulting therefrom, or other phenomena of nature from proceeding with at least seventy-five percent (75%) of the normal labor and equipment force for at least five (5) hours toward completion of the current controlling item on the accepted project schedule. Should the conditions prevent the work from beginning at the usual starting time, or prevent the Contractor from proceeding with seventy-five percent (75%) of the normal labor and equipment force for a period of at least five (5) hours, and the crew is dismissed as a result thereof, Contractor will not be charged for a working day whether or not conditions change so that the major portion of the day could be considered to be suitable for work on the controlling item.

**ARTICLE II: SCOPE OF WORK**

Contractor, at Contractor's own proper costs and expense, shall do all the work and furnish all the materials necessary to construct and/or reconstruct and complete in good workmanlike and substantial manner and to the satisfaction of the County, the following: **Per plans and specifications prepared by the County of Nevada, the fabrication, installation, testing and commissioning of an upgrade of the jail security system at the Wayne Brown Correctional Facility**, which shall be constructed in accordance with this Contract, the Invitation to Bid, the Instruction to Bidders, the Plans and Specifications and Drawings, and all other contract documents attached hereto and which are incorporated herein by reference and made a part of this Contract as if set forth in full.

**ARTICLE III: CONTRACT TIME**

Contractor will start work to be performed under this Contract within **5** days after the Contractor is instructed in writing by County to proceed with the work. Said work shall be diligently prosecuted to completion. All the work shall be completed and ready for acceptance within **270** calendar days from the

date of the mailing of the Notice to Proceed. When any period of time is referred to in the contract documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

This project is a multi-year project. As such, the contract time anticipates inclement weather.

#### **ARTICLE IV: CHANGE OF CONTRACT TIME**

##### Change by Change Order

The contract time may only be changed by change order. A request for an extension or shortening of the contract time shall be based on written notice delivered by the party making the request to County promptly after the occurrence of the event giving rise to the request and stating the general nature of the request. Notice of the extent of the request with supporting data shall be delivered to County and shall be accompanied by the written statement that the adjustment requested is the entire adjustment to which the requesting party has reason to believe it is entitled as a result of the occurrence of said event. No request for an adjustment in the contract time will be valid if not submitted in accordance with the requirements of this paragraph and section 01 32 00, 1.14.

##### Contract Time May Be Extended

The contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor if the request is made therefor as provided in this Article. Such delays shall include, but not be limited to, acts of neglect by County or others performing additional work, or to fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

##### Delay and Price Change

All time limits stated in the contract documents are of the essence. There shall be no adjustment of contract price due to delays which are not caused by the County, including but not limited to delays for fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God and the acts of any other person or entity. The provisions of this Article shall not exclude recovery for damages for delay which is caused by the County.

##### Delays in Completion of the Work

1. Notice of Delays: Whenever the Contractor foresees any delay in the prosecution of the work, and in any event immediately upon the occurrence of any delay which the Contractor regards as unavoidable, Contractor shall notify County in writing of the probability of the occurrence of such delay and its cause in order that County may take immediate steps to prevent, if possible, the occurrence or continuance of the delay or, if this cannot be done, may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the work are to be delayed thereby. It will be assumed that any and all delays which have occurred in the prosecution and completion of the work have been avoidable delays, except such delays as shall have been called to the attention of County at the time of their occurrence and found by County to have been unavoidable. The Contractor shall make no requests for extensions of time as to delay not called to the attention of County at the time of its occurrence.
2. Avoidable Delays: Avoidable delays in the prosecution or completion of the work shall include all delays which in the opinion of County would have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or Contractor's subcontractors.
3. Unavoidable Delays: Unavoidable delays in the prosecution or completion of the work shall include all delays which, in the opinion of County, result from causes beyond the control of the Contractor and which could not have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or the subcontractors and/or any suppliers. Delay in completion due to contract modifications ordered by County and unforeseeable delays in the completion of work or interference by other contractors employed by County will be considered unavoidable delays insofar as they interfere with the Contractor's completion of the work.



### Extension of Time

1. **Avoidable Delays:** In case the work is not completed in the time specified, including such extensions of time as may have been granted for unavoidable delays, the Contractor will be assessed damages for delay in accordance with the liquidated damages provision. The County, however, shall have the right to grant an extension of time for avoidable delay if it is deemed in County's best interest to do so. During such extension of time, the Contractor will be charged for engineering and inspection services and other costs but will not be assessed damages for the delay.
2. **Unavoidable Delays:** For delays which County considers to be unavoidable, the Contractor shall, pursuant to Contractor's application, be allowed an extension of time beyond the time herein set forth, proportional to such delay or delays, in which to complete the contract. During such extension of time, neither extra compensation for engineering and inspection provided nor damages for delay will be charged to the Contractor.

### Liquidated Damages

County and Contractor recognize that time is of the essence and that County will suffer financial loss if the work is not completed within the time specified above, plus any extensions thereof allowed in accordance with this contract. They also recognize the delays, expense and difficulties involved in proving the actual loss suffered by County if the work is not completed on time. Accordingly, instead of requiring any such proof, and due to impracticality and difficulty of ascertaining exact damages caused by delay, County and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay County of Nevada \$200 for each day that expires after the time specified above for completion. Such damages shall only be payable by Contractor to County if the delay is a result of the failure of Contractor to timely perform on its part and not occasioned by the County or any State or Federal agency. In case of joint responsibility for delay in the final completion of the work, where two or more separate contracts are in force at the same time and cover work at the same site, liquidated damages assessed against any one Contractor will be based upon the individual responsibility of that Contractor for the delay as determined by, and in the judgment of, County. County shall have the right to deduct the liquidated damages from any money in its hands, otherwise due, or to become due, to Contractor, or to sue for and recover compensation for damages for nonperformance of this contract within the time stipulated. It is acknowledged that the subject contract is a public project which is subject to the provisions of the Public Contracts Code. Accordingly, County has determined and the Contractor acknowledges that the liquidated damages as established herein are governed by the provisions of Government Code Section 53069.85 and are predicated upon the reasonable damages accruing to County stemming from any delay in the completion of this project.

### **ARTICLE V: CONTRACT PRICE**

County shall pay Contractor for performance of the work in accordance with the Contract Documents in current funds as follows: \_\_\_\_\_ Dollars (\$\_\_\_\_\_)

### **ARTICLE VI: CHANGE OF CONTRACT PRICE**

#### Contract Price

The contract price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the contract price.

#### Change by Change Order

The contract price may only be changed by a written change order. Any request for an increase or decrease in the contract price shall be based on written notice delivered by the party making the request to the other party prior to the commencement of any extra work. Said request shall state the exact nature of the request.

Data regarding any change shall be delivered by Contractor prior to commencing extra work and shall be accompanied by Contractor's written statement that the amount requested covers all amounts (direct, indirect and consequential) to which the Contractor is entitled as a result of the extra work to be done. If said request is granted, County will issue a written change order therefor. No request for an adjustment in the contract price will be valid if not submitted in advance and in accordance with this paragraph and Section 01 32 00-1.04.

#### Determination of Change in Contract Price

The value of any work covered by a change order or of any request for an increase or decrease in the contract price shall be determined in one of the following ways:

1. Where the work involved is covered by unit prices contained in the contract documents, by application of unit prices to the quantities of the items involved (subject to the provisions regarding unit price work set forth below).
2. By mutual agreement, and if there is no mutual agreement, no. 3 directly below shall apply.
3. On the basis of the cost of the work determined as provided below plus a Contractor's fee for overhead and profit as provided below.

#### Cost of the Work

The term "cost of the work" means the sum of all costs necessarily incurred and paid by Contractor in the proper performance of the extra work required or permitted under a change order. Except as otherwise may be agreed to in writing by County, such costs shall be in amounts no higher than those prevailing in the locality of the project and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the work under schedules of job classifications agreed upon by County and Contractor. Payroll costs for employees not employed full time on the work shall be apportioned on the basis of their time spent on the work. Payroll costs shall include salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by County in writing.
2. Cost of all materials and equipment furnished and incorporated in the work, including costs of transportation and storage thereof, and suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless County deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to County. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to County, and Contractor shall make provisions so that they may be obtained.
3. Payments made by Contractor to the subcontractors for work performed by subcontractors. If required by County, Contractor shall obtain competitive bids from subcontractors acceptable to Contractor and shall deliver such bids to County who will then determine which bids will be accepted. If a subcontract provides that the subcontractor is to be paid on the basis of cost of the work plus a fee, the subcontractor's cost of the work shall be determined in the same manner as Contractor's cost of the work. All subcontracts shall be subject to the other provisions of the contract documents insofar as applicable.
4. Costs of special consultants (including engineers, architects, testing laboratories, surveyors, and accountants) employed for services specifically, and only, related to the work.
5. Supplemental costs including the following:

- a. The proportion of necessary transportation, travel and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the work.
- b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the work, and cost, less market value of such items used but not consumed which remain the property of Contractor.
- c. Rentals of all construction equipment and machinery and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by County, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof, all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the work.
- d. Sales, consumer, use or similar taxes related to the work, and for which Contractor is liable, imposed by laws and regulations.
- e. Deposits lost for causes other than negligence of Contractor, any subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
- f. Losses and damages (and related expenses), not compensated by insurance or otherwise, to the work or otherwise sustained by contractor in connection with the performance and furnishing of the work (except losses and damages within the deductible amounts of property insurance established by County), provided they have resulted from causes other than the negligence of Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of County. No such losses, damages and expenses shall be included in the cost of the work for the purpose of determining Contractor's fee. If, however, any such loss or damage requires reconstruction and Contractor is placed in charge thereof, Contractor shall be paid for services a fee proportionate to that stated below under Contractor's fee.
- g. The cost of utilities, fuel and sanitary facilities at the site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the work.
- i. Cost of premiums for additional bonds and insurance required because of changes in the work and premiums for property insurance coverage within the limits of the deductible amounts established by County in this contract.

Not Included in Cost of the Work

The term "cost of the work" shall not include any of the following:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by Contractor whether at the site or in Contractor's principal or a branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in this contract or specifically covered above under costs of special consultants, all of which are to be considered administrative costs covered by the Contractor's fee.
2. Expenses of Contractor's principal and branch offices other than Contractor's office at the site.
3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the work and charges against Contractor for delinquent payments.

4. Cost of premiums for all bonds and for all insurance whether or not Contractor is required by the contract documents to purchase and maintain the same (except for the cost of premiums specifically covered above).
5. Costs due to the negligence of Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective work, disposal of materials or equipment wrongly supplied and making good any damage to property.
6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included herein.

#### Contractor's Fee

The Contractor's fee allowed to Contractor for overhead and profit shall be determined by a fee based on the following percentages of the various portions of the cost of the work:

1. For all allowable costs of the work incurred under the paragraphs dealing with payrolled employees and costs of materials and equipment, the Contractor's fee shall be fifteen percent;
2. For all allowable costs of the work incurred under the paragraph dealing with work done by subcontractors, the Contractor's fee shall be five percent; and if a subcontract is on the basis of cost of the work plus a fee, the maximum allowable to Contractor on account of overhead and profit of all subcontractors shall be fifteen percent, for a total add-on of twenty percent.
3. No fee shall be payable on the basis of costs itemized under paragraphs dealing with special consultants, supplemental costs and/or costs not included in cost of the work.
4. The amount of credit to be allowed by Contractor to County for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in Contractor's fee by an amount equal to ten percent of the net decrease; and
5. When both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with paragraphs 2(a) through 2(d) above.

#### Cost Breakdown

Whenever the cost of any work is to be determined as set forth herein, Contractor will submit, in form acceptable to County, an itemized cost breakdown together with supporting data.

#### Cash Allowances

It is understood that Contractor has included in the contract price all allowances so named in the contract documents and shall cause the work so covered to be done by such subcontractors or suppliers and for such sums within the limit of the allowances as may be acceptable to County. Contractor agrees that:

1. The allowances include the cost to the Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and
2. Contractor's cost for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the contract price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

Prior to final payment, an appropriate change order will be issued to reflect actual amounts due Contractor on account of work covered by allowances, and the contract price shall be correspondingly adjusted.

#### Unit Price Work

Where the contract documents provide that all or part of the work is to be unit price work, initially the contract price will be deemed to include for all unit price work an amount equal to the sum of the

established unit prices for each separately identified item of unit price work times the estimated quantity of each item as indicated in the contract documents. The estimated quantities of items of unit price work are not guaranteed and are solely for the purpose of comparison of bids and determining an initial contract price. Determinations of the actual quantities and classifications of unit price work performed by Contractor will be made by County. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item. Except for items shown on the bid sheet or in the specifications as "contingency" items where no additional amounts will be allowable, where the quantity of any item of unit price work performed by Contractor differs more than 25 percent from the estimated quantity of such item indicated in the contract documents and there is no corresponding adjustment with respect to any other item of work, and if either party believes that it has incurred additional expense or reduced cost as a result thereof, either party may make a claim for an increase or decrease in the contract price if the parties are unable to agree as to the amount of any such increase or decrease.

#### Final Pay Quantities

When the estimated quantities for a specific portion of the work are designated on the plans as final pay quantities, said estimated quantities shall be the final quantities for which payment for such specific portion of the work will be made, unless the dimensions of said portions of the work shown on the plans are revised by the Engineer. If such dimensions are revised, and such revisions result in an increase or decrease in the quantities of such work, the final quantities for payment will be revised in the amount represented by the changes in the dimensions. The estimated quantities for such specific portion of the work shall be considered as approximate only and no guarantee is made that the quantities which can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantities. No allowance will be made in the event that the quantities based on computations do not equal the estimated quantities.

When portions of an item have been designated on the plans as final pay quantities, portions not so designated will be measured and paid for in accordance with the applicable provisions of these specifications and the special provisions.

In case of a discrepancy between the quantities shown on the plans as final pay quantities and the quantity of the same item shown in the Engineer's Estimate, payment will be based on the final pay quantities shown on the plans.

### **ARTICLE VII: PAYMENTS TO CONTRACTOR**

#### Source of Funds

The source of funding by the County for this work shall be: \_\_\_\_\_ Org Code/Account Code \_\_\_\_\_

#### Schedule of Values

The schedule of values established for the work will serve as the basis for progress payments and will be incorporated into a form of application for payment acceptable to County. Schedule of Values line items to be broken down to a level of detail acceptable to the Engineer, to include the value of the Scope of Work for each Specification Section at a minimum.

#### Invoices

Invoices or applications for payment to the County shall be detailed and shall contain full documentation of all work performed and all reimbursable expenses incurred. Where the scope of work on the contract is divided into various tasks, invoices shall detail the related expenditures accordingly. Labor expenditures need documentation to support time, subsistence, travel and field expenses. No expense will be reimbursed without adequate documentation. This documentation will include, but not be limited to, receipts for material purchases, rental equipment and subcontractor work.

#### Progress Payment

Once each month County shall cause an estimate to be made covering the work completed as of the date of the estimate. No materials shall be paid for until incorporated into the work. If, however, County reaches an agreement with Contractor to pay for materials and equipment not yet incorporated into the

work due to some special circumstances, then Contractor must show that the materials or equipment were delivered and are suitably stored at the site. In that event, the payment shall be based on a bill of sale, invoice or other documentation submitted by Contractor and warranting that County has received the materials and equipment free and clear of all liens, charges, security interests and encumbrances (which are hereinafter referred to as "liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect County's interest therein, all of which will be satisfactory to County. The amount of retention with respect to progress payments will be five percent (5%).

#### Amounts of Progress Payments

Prior to completion, progress payments will be in an amount equal to:

1. Ninety-five percent (95%) of the work completed, and
2. Where applicable pursuant to the above, ninety percent (90%) of materials and equipment not incorporated in the work but delivered and suitably stored, less in each case the aggregate of payments previously made.
3. Thirty-five days after recording of the Notice of Completion but not later than 60 days after completion of the work as defined in Public Contract Code section 7107, and upon Contractor providing all required documentation, County will pay an amount sufficient to increase total payments to Contractor to one hundred percent (100%) of the contract price, less such amounts as County shall determine in accordance with this contract. County reserves the right to retain such funds as it shall determine in accordance with the contract documents to complete the work.
4. The Contractor may elect to receive 100% of payments due under this contract from time to time, without retention of any portion of the payment by the public agency, by depositing securities of equivalent value with County in accordance with the provisions of Section 22300 of the California Public Contract Code; except that no such substitution shall be allowed where federal money is funding the project and federal regulations or policies would prohibit such substitution of securities for the retention. Securities eligible for investment shall include those listed in Section 16430 of the California Government Code, or bank or savings and loan certificates of deposits. Such securities, if deposited by the bidder, shall be valued by County whose decision on the valuation of the securities shall be final. The bidder shall be the beneficial owner of any securities substituted for money withheld and shall receive any interest thereon.

#### Contractor's Warranty of Title

Contractor warrants and guarantees that title to all work, materials and equipment covered by any application for payment, whether incorporated in the project or not, will pass to County no later than the time of payment free and clear of all liens.

#### Payment of Progress Payment

County will submit each progress pay estimate to Contractor. Upon receipt back from Contractor of a signed copy of the pay estimate, County shall process the pay estimate for payment. The amount approved by County will become due thirty (30) days after receipt of the signed progress pay estimate. Said payment shall be made by County to Contractor unless County has knowledge of claims or liens filed in connection with the work.

Pursuant to Public Contract Code Section 20104.50, if the County fails to make any progress payment within thirty (30) days after receipt of an undisputed and properly submitted payment request it shall pay interest to Contractor at the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure. "Progress payment" for purposes of this paragraph includes all payments due Contractor except that portion of the final payment designated by the contract as retention earnings.

Also, pursuant to Public Contract Code Section 20104.50, each payment request shall be reviewed by County as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request. Any payment request determined not to be a proper payment request suitable

for payment shall be returned to Contractor as soon as practicable, but not later than seven (7) days after receipt. A request returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper. The number of days available to County to make a payment without incurring interest pursuant to Public Contract Code Section 20104.50 shall be reduced by the number of days by which County exceeds the seven (7) day return requirement. A payment request shall be considered properly executed if funds are available for payment of the payment request, and payment is not delayed due to an audit inquiry by the financial officer of the County.

#### County's Recommendation of Payment

By County's recommending any payment, Contractor cannot conclude that County represents that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the work in the contract documents or that there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by County or County to withhold payment to Contractor.

#### County May Refuse to Make Payment

County may refuse to make payment of the full amount or any part if, in County's opinion, it would be incorrect to make such payment. County may also refuse to make any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in County's opinion to protect County from loss because:

1. The work is defective, or completed work has been damaged requiring correction or replacement,
2. The contract price has been reduced by written amendment or change order,
3. Contractor has been required to correct defective work or complete work, or
4. Of County's actual knowledge of the occurrence of any of the events enumerated in paragraphs relating to suspension of work and termination.

County may refuse to make payment of the full amount because claims have been made against County on account of Contractor's performance or furnishing of the work or liens have been filed in connection with the work or there are other items entitling County to a set-off against the amount recommended, but County must give Contractor immediate written notice stating the reasons for such action.

#### Completion and Final Inspection

When Contractor considers the entire work ready for its intended use, Contractor shall notify County in writing that the entire work is completed. Within a reasonable time thereafter, County and Contractor shall make an inspection of the work to determine the status of completion. If County does not consider the work complete, County will notify Contractor in writing giving the reasons therefor. If County considers the work incomplete, County will prepare and deliver a list of items to be completed or corrected before final payment. Contractor shall immediately take such measures as are necessary to complete or correct the listed items.

#### Acceptance and Final Application for Payment

After Contractor has completed all such measures to remedy deficiencies to the satisfaction of County and delivered all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, marked-up record documents, property owner's releases and other documents, all as required by the contract documents, and after County has indicated that the work is acceptable, Contractor may make application for final payment. The final application for payment shall be accompanied by all documentation called for in the contract documents, together with complete and legally effective receipts, releases or waivers (satisfactory to County) from all subcontractors or material suppliers and an affidavit of Contractor that the releases and receipts include all labor, services, material and equipment for which a lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the work for which County or County's property might in any way be responsible, have been paid or

otherwise satisfied; and consent of the surety, if any, to final payment. If any subcontractor or supplier fails to furnish a release or receipt in full, or if a stop notice has been filed, Contractor may furnish a bond or other collateral satisfactory to County to indemnify County against any lien.

#### Final Payment

If, on the basis of County's review of the final application for payment and accompanying documentation, all as required by the contract documents, County is satisfied that Contractor's obligations under the contract documents have been fulfilled, County will, within seven (7) days after receipt of the final application for payment, process the application for payment. Otherwise, County will return the application to Contractor, indicating in writing the reasons for refusing to make final payment, in which case Contractor shall make the necessary corrections and resubmit the application. Thirty-five days after presentation to County of the application and accompanying documentation, in appropriate form and substance, but no later than 60 days after completion of the project as defined in Public Contract Code section 7107, or thirty-five (35) days after recording of a Notice of Completion, whichever date is later, the full retention will become due and will be paid by County to Contractor.

#### Delay in Completion Through No Fault of Contractor

If, through no fault of Contractor, final completion of the work is significantly delayed and if County so confirms, County shall, upon receipt of Contractor's final application for payment, and without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted. If the remaining balance to be held by County for work not fully completed or corrected is less than the retainage stipulated in the contract, and if the appropriate bonds have been furnished, the written consent of the surety to the payment of the balance due for that portion of the work fully completed and accepted shall be submitted by Contractor to County with the application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

#### Contractor's Continuing Obligation

Contractor's obligation to perform and complete the work in accordance with the contract documents shall be absolute. Neither the issuance of a certificate of substantial completion, nor any payment by County to Contractor under the contract documents, nor any use or occupancy of the work or any part thereof by County, nor any act of acceptance by County nor any failure to do so, nor any review and approval of a shop drawing or sample submission, nor the issuance of a notice of acceptability, nor any correction of defective work by County will constitute an acceptance of work not in accordance with the contract documents or a release of Contractor's obligation to perform the work in accordance with the contract documents.

#### Waiver of Claims

The making and acceptance of final payment will constitute:

1. A waiver of all claims by County against Contractor, except claims arising from unsettled liens, or from defective work appearing after final inspection or from failure to comply with the contract documents or the terms of any special guarantees specified therein, or from any outstanding claims; however, it will not constitute a waiver by County of any rights in respect of Contractor's continuing obligations under the contract documents; and
2. A waiver of all claims by Contractor against County other than those previously made in writing and still unsettled.

#### Books of Account and Audit Provision

Contractor shall maintain on a current basis complete books and records relating to this contract. Such records shall include, but not be limited to, documents supporting all bids, all income and all expenditures. The books and records shall be original entry books with a general ledger itemizing all debits and credits for the work on this contract. In addition, Contractor shall maintain detailed payroll records including all



subsistence, travel and field expenses, and canceled checks, receipts and invoices for all items. These documents and records shall be retained for at least five years from the completion of this contract. Contractor will permit County to audit all books, accounts or records relating to this contract or all books, accounts or records of any business entities controlled by Contractor who participated in this contract in any way. Any audit may be conducted on Contractor's premises or, at County's option, Contractor shall provide all books and records within a maximum of fifteen (15) days upon receipt of written notice from County. Contractor shall refund any moneys erroneously charged. If County ascertains that it has been billed erroneously by Contractor for an amount equaling 5% or more of the original bid, Contractor shall be liable for the costs of the audit in addition to any other penalty to be imposed.

## **ARTICLE VIII: PRELIMINARY MATTERS**

### Delivery of Certificates of Insurance

Before any work at the site is started, Contractor shall deliver to County certificates (and other evidence of insurance requested by County) which Contractor is required to purchase and maintain in accordance with the insurance provisions herein.

### Delivery of Bonds

When Contractor delivers the executed Agreements to County, Contractor shall also deliver to County the bonds required herein. Notwithstanding the language in bonds authorizing attorneys' fees to be awarded if suit is brought upon the bond, no attorneys' fees shall be payable for any other suit brought under this contract.

### Pre-construction Conference

Within **3 days** after receipt of the Notice to Proceed, but before contractor starts the work at the site, a conference attended by Contractor and County and others as appropriate will be held to discuss schedules, procedures for handling shop drawings and other submittals and for processing applications for payment, and to establish a working understanding among the parties as to the work.

### Delivery of Schedules

Within **7 days** after receipt of written notice to proceed, Contractor shall submit to County for review:

1. A preliminary schedule of shop drawing submissions;
2. A preliminary schedule of product deliveries;
3. A preliminary schedule of values for all of the work which will include quantities and prices of items aggregating the contract price and will subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of work which will be confirmed in writing by Contractor at the time of submission.

### Finalizing Schedules

At least ten (10) days before submission of the first application for payment a conference attended by Contractor, County and others as appropriate will be held to finalize schedules. The finalized progress schedule will be acceptable to County as providing an orderly progression of the work to completion within the contract time, but such acceptance will neither impose on County responsibility for the progress or scheduling of the work nor relieve Contractor from full responsibility therefor. The finalized schedule of shop drawing submissions will be acceptable to County as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to County as to form and substance.

### Before Starting Construction

Contractor shall provide County with at least 72 hours written notice of the date on which it intends to commence work. Before undertaking each and every part of the work, Contractor shall carefully study and compare the contract documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall promptly report in writing to County any conflict, error or discrepancy

which Contractor may discover and shall obtain a written interpretation or clarification from County before proceeding with any work affected thereby; however, Contractor shall not be liable to County for failure to report any conflict, error or discrepancy in the contract documents, unless Contractor had actual knowledge thereof or should reasonably have known thereof.

#### Contractor's Representations

In order to induce County to enter into this agreement, Contractor makes the following representations:

1. Contractor has familiarized himself or herself with the nature and extent of the contract documents, work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the work.
2. Contractor has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the work which were relied upon by County in the preparation of the drawings and specifications and which have been identified in the contract documents.
3. Contractor has made or caused to be made examinations, investigations, and tests and studies of such reports and related data necessary for the performance of the work at the contract price, within the contract time and in accordance with the other terms and conditions of the contract documents; and no additional examinations, investigations, tests, reports or similar data are or will be required by Contractor for such purposes.
4. Contractor has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the contract documents.
5. Contractor has given County written notice of all conflicts, errors or discrepancies that have been discovered in the contract documents and the written resolution thereof by County is acceptable to Contractor.

#### **ARTICLE IX: CHANGES IN THE WORK**

##### County May Order Changes

Without invalidating this contract and without notice to any surety, County may, at any time or from time to time, order additions, deletions or revisions in the work; these will be authorized by change order. Upon receipt of any such document, Contractor shall promptly forward any request for change in the contract price and, if instructed to do so, proceed with the work involved which will be performed under the applicable conditions of the contract documents (except as otherwise specifically provided).

##### Failure to Agree to a Price or Time Change; Claims

If County and Contractor are unable to agree as to the extent, if any, of an increase or decrease in the contract price or an extension or shortening of the contract time that should be allowed, a claim may be made therefor but the work shall proceed if County so instructs.

##### No Change in Time or Price for Work Not Required

Contractor shall not be entitled to an increase in the contract price or an extension of the contract time with respect to any work performed that is not required by the contract documents as amended, modified and supplemented except in the case of an emergency as set forth herein and except in the case of uncovering work for inspection or testing as set forth in this contract.

##### Changes in Time or Price

County and Contractor shall execute appropriate change orders (or written amendments) covering:

1. Changes in the work which are ordered by County or are agreed to by the parties;
2. Changes in the contract price or contract time which are agreed to by the parties; and
3. Changes in the contract price or contract time which embody the substance of any written decision rendered by County in response to a request therefor.

### Notice to Sureties

If notice of any change affecting the general scope of the work or the provisions of the contract documents (including, but not limited to, contract price or contract time) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be Contractor's responsibility, and the amount of each applicable bond will be adjusted accordingly. Failure to give such notice shall not release the surety from its obligations to County.

## **ARTICLE X: CONTRACT DOCUMENTS**

### Intent

The contract documents comprise the entire agreement between County and Contractor concerning the work. The contract documents are complementary; what is called for by one is as binding as if called for by all. The contract documents will be construed in accordance with California law.

### Contract Interpretation

It is the intent of the contract documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the contract documents. Any work, materials or equipment that may reasonably be inferred from the contract documents as being required to produce the intended results will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials or equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the contract documents) shall be effective to change the duties and responsibilities of County or Contractor, or any of their consultants, agents or employees from those set forth in the contract documents, nor shall it be effective to assign to County, or any of County's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of this contract. Clarifications and interpretations of the contract documents shall be issued by County.

### Conflicts, Errors and Discrepancies

If during the performance of the work, Contractor finds a conflict, error or discrepancy in the contract documents, Contractor shall so report to County in writing at once and before proceeding with the work affected thereby shall obtain a written interpretation or clarification from County.

### Amending Contract Documents

The contract documents may be amended to provide for additions, deletions and revisions in the work or to modify the terms and conditions thereof by change order. Contract price and contract time may only be changed by change order.

### Supplementary Contract Documents

In addition to the above, the requirements of the contract documents may be supplemented, and minor variations and deviations in the work may be authorized in one or more of the following ways:

1. A field order,
2. County's approval of a shop drawing or sample, or
3. County's written interpretation or clarification.

### Reuse of Documents

Neither contractor nor any subcontractor or supplier or other person or organization performing or furnishing any of the work under a direct or indirect contract with County shall have or acquire any title to or ownership rights in any of the drawings, specifications or other documents (or copies of any thereof) prepared by or bearing the seal of County; and they shall not reuse any of them on extensions of the

project or any other project without written consent of County and specific written verification or adaptation by County.

#### Contract Documents

The contract documents comprise the entire agreement between the parties and may be amended only by writing signed by both parties or by written change order. The contract documents shall include this contract, any general and special conditions, plans and specifications, bidding documents and addenda thereto, and all proposals submitted by Contractor. In the case of ambiguity or conflict, the documents shall be given the following priority:

1. Special provisions or conditions
2. Standard Public Works Contract
3. Project plans
4. Standard plans
5. Standard specifications
6. All other documents incorporated by reference.

### **ARTICLE XI: THE PROJECT SITE**

#### Availability of Lands

County shall furnish, as indicated in the contract documents, the lands upon which the work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of Contractor. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by County, unless otherwise provided in the contract documents. If Contractor believes that any delay in County's furnishing these lands, rights-of-way or easements entitles Contractor to an extension of the contract time, Contractor may make a claim therefor as provided for herein. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### Physical Conditions

If the contract documents identify those reports of explorations and tests of subsurface conditions at the site that have been utilized by County in preparation of the contract documents, Contractor may rely upon the accuracy of the factual data contained in such reports but not upon interpretations or opinions contained therein or for the completeness or representativeness thereof for Contractor's purposes. If construction drawings of physical conditions in or relating to existing surface and subsurface structures (except underground facilities discussed below) at or contiguous to the site have been utilized by County in preparation of the contract documents, Contractor may rely upon the accuracy of the factual data contained in such drawings but not the completeness thereof for Contractor's purposes. If Contractor believes that any factual data on which Contractor is entitled to rely is inaccurate, or any physical condition uncovered or revealed at the site differs materially from that indicated, reflected or referred to in the contract documents, Contractor shall, promptly after becoming aware thereof and before performing any work in connection therewith (except in an emergency as permitted herein), notify County in writing about the inaccuracy or difference. Failure to notify County promptly shall relieve County of any liability for any and all claims resulting from such inaccuracy or difference.

#### County's Review

County will review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise Contractor in writing of County's findings and conclusions.

#### Possible Document Change

If County concludes that there is a material error in the contract documents or that because of newly discovered conditions a change in the contract documents is required, a change order will be issued in writing as provided to reflect and document the consequences of the inaccuracy or difference.

#### Possible Price and Time Adjustments

In each case of inaccuracy or difference, an increase or decrease in the contract price or an extension or shortening of the contract time, or any combination thereof, will be allowable to the extent that they are attributable to any such inaccuracy or difference. If County and Contractor are unable to agree as to the amount or length thereof, a claim may be made therefor as provided in the contract documents.

#### Preservation of Property

Due care shall be exercised to avoid injury to existing highway improvements or facilities, utility facilities, adjacent property, and roadside trees, shrubs, and other plants that are not to be removed. Roadside trees, shrubs, and other plants that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and water lines, all highway facilities and any other improvements or facilities within or adjacent to the project shall be protected from injury or damage, and if ordered by County, the Contractor shall provide and install suitable safeguards, approved by County, to protect such objects from injury or damage. If such objects are injured or damaged by reason of the Contractor's operations, they shall be replaced or restored at the Contractor's expense. The facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the work, or as good as required by the specifications accompanying the contract, if any such objects are a part of the work being performed under the contract. County may make or cause to be made such temporary repairs as are necessary to restore to service any damaged facility. The cost of such repairs shall be borne by the Contractor and may be deducted from any moneys due or to become due to the Contractor under the contract. Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in protecting or repairing property, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

#### Contractor's Office

The Contractor shall maintain on the project site a suitable office or other protected area in which shall be kept project copies of the contract documents, project progress records, etc., which shall be accessible to County during normal working hours.

### **ARTICLE XII: LABOR, MATERIAL AND PERFORMANCE BONDS**

#### Bonds to be Provided

The Contractor shall furnish two bonds each in the amount of one hundred (100%) percent of the contract price, one as security for the faithful performance of the work, and the other as security for the faithful payment and satisfaction of all persons furnishing materials and performing labor for the project. The bonds shall be issued by a corporation duly and legally licensed to transact surety business in the State of California. The labor and materials bond shall remain in force throughout the period required to complete the work and for 35 days after the recording of the Notice of Completion. The performance bond shall remain in force for a period of 365 days after final acceptance of the work to cover any defects in workmanship, materials, or equipment which develop in that time. The bonds must be executed by a duly licensed surety company and accompanied by a certified copy of the authority to act. The scope of the bonds or the forms thereof shall in no way affect or alter the liabilities of the Contractor to County. Bonds shall be executed on the forms included in the contract documents.

#### Insolvency or Termination of Right to Do Business

If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in California, Contractor shall within five days thereafter substitute another bond and surety, both of which must be acceptable to County. If an acceptable substitute is not furnished within five days, County may terminate Contractor.

### **ARTICLE XIII: CONTRACTOR LIABILITY AND INSURANCE**

#### Liability of Contractor

The Contractor shall be liable for all damages and injury which shall be caused to County or any other owners of property on or in the vicinity of the work or which shall occur to any person or persons or

property whatsoever arising out of the performance of this contract. Contractor agrees to hold County harmless and indemnify County for any such losses.

#### Contractor's Liability Insurance

Contractor shall purchase and maintain commercial general liability and other insurance as is appropriate for the work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance and furnishing of the work and Contractor's other obligations under the contract documents, whether it is to be performed or furnished by Contractor, by any subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the work, or by anyone for whose acts any of them may be liable:

1. Claims under workers' disability benefits and other similar employee benefit acts;
2. Claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
4. Claims for damages insured by personal injury liability coverage which are sustained (a) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or (b) by any other person for any other reason;
5. Claims for damages, other than to the work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom;
6. Claims arising out of operation of laws or regulations for damages because of bodily injury or death of any person or for damage to property; and
7. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

To the extent that Contractor's work, or work under Contractor's direction, may require blasting, explosive conditions, or underground operations, the comprehensive general liability coverage shall contain no exclusion relative to blasting, explosion, collapse of buildings, or damage to underground property.

The insurance required by this paragraph shall be "per occurrence" coverage and shall include the specific coverages and be written for not less than the limits of liability and coverages provided herein, or required by law, whichever is greater. The commercial general liability insurance shall include completed operations insurance. All such insurance shall remain in effect until final payment and at all times thereafter when Contractor may be correcting, removing or replacing defective work. In addition, Contractor shall maintain such completed operations insurance for at least one year after final payment and furnish County with evidence of continuation of such insurance at final payment. If Contractor's insurance is canceled prior to completion of the project and the Contractor does not furnish a new Certificate of Insurance prior to cancellation, County may obtain the required insurance and deduct the premium from contract moneys due the Contractor.

At the option of Contractor, evidence of coverage and limits may be furnished by an umbrella liability policy certificate in addition to certificates for worker's compensation and employer's liability, and comprehensive automobile and general liability policies.

#### Contractual Liability Insurance

The commercial general liability insurance required above will include contractual liability insurance applicable to Contractor's obligations hereunder.

#### Owner's Liability Insurance

Contractor shall purchase and maintain Owner's liability insurance. This insurance shall be issued in the name of County and shall protect and defend County and its agents against all claims arising as a result of the operations of Contractor. The coverage and limits of liability shall be co-extensive with those

specified for the Contractor's liability insurance. The Owner's liability insurance may be provided by naming County and its agents as an additional insured on the Contractor's liability insurance.

#### Schedule of Required Insurance

1. Worker's Compensation Insurance: Statutory amount and employer's liability of \$1,000,000.
2. Contractor's Commercial General Liability Insurance (bodily injury, property damage and including contractual liability insurance, completed operations and products liability insurance): \$2,000,000
3. Physical Damage to Owner Owned Property (remodeling or retrofitting project) or Builder's Risk Insurance (new construction project) including but not limited to fire, extended coverage, vandalism, malicious mischief, and optional perils coverage; full value of work to be performed under contract including supplies and equipment stored or used in connection with the project with a maximum deductible of \$500.
4. Comprehensive Business or Commercial Automobile Liability Coverage (bodily injury liability, property damage liability, uninsured motorist protection and including non-owned and hired automobile liability): \$1,000,000.
5. Errors and Omissions insurance is required, Contractor shall maintain Technology Professional Liability Errors and Omissions Insurance in the minimum amount indicated, and shall promptly provide proof of such insurance evidenced by a certificate of insurance, or other documentation acceptable to County. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by the Contractor in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, copyright, trademark, invasion of privacy violations, information theft, release of private information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.
  - (i) The Policy shall include, or be endorsed to include, **property damage liability coverage** for damage to, alteration of, loss of, or destruction of electronic data and/or information "property" of the County in the care, custody, or control of the Contractor. If not covered under the Contractor's liability policy, such "property" coverage of the County may be endorsed onto the Contractor's Cyber Liability Policy as covered property as follows:
  - (ii) **Cyber Liability coverage** in an amount sufficient to cover the full replacement value of damage to, alteration of, loss of, or destruction of electronic data and/or information "property" of the County that will be in the care, custody, or control of Contractor.
  - (iii) The Insurance obligations under this agreement shall be the greater of 1—all the Insurance coverage and limits carried by or available to the Contractor; or 2—the minimum Insurance requirements shown in this agreement. Any insurance proceeds in excess of the specified limits and coverage required, which are applicable to a given loss, shall be available to County. No representation is made that the minimum Insurance requirements of this agreement are sufficient to cover the indemnity or other obligations of the Contractor under this agreement.

#### Notice Requirement

All the policies of insurance (or the certificates or other evidence thereof) required to be purchased and maintained by the Contractor shall contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least ten (10) days prior written notice has been given to County by registered mail.

#### Deductibles and Self-Insured Retentions

Any deductibles or self-insured retentions must be fully disclosed by Contractor and approved by County prior to commencement of work. At County's option, the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects County, its officials and employees, or Contractor shall provide a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

#### Risk of Loss

Liability for loss or damage to equipment, materials, workmanship or services occurring on or off the site shall be the responsibility of the Contractor. Liability for completed work shall not be assumed by County until both the work has been completed and County has accepted the work as complete. County will not be responsible for purchasing and maintaining any property insurance to protect the interests of Contractor, subcontractors or others in the work. The risk of loss will be borne by Contractor, subcontractor or others suffering any such loss and if any of them wishes property insurance coverage in addition to insurance required herein, each may purchase and maintain it at the purchaser's own expense.

#### Waiver of Rights

Contractor waives all rights against County and its agents for all losses and damages caused by any of the perils covered by the policies of insurance provided for above and any other property insurance applicable to the work, and all other parties named as insureds in such policies for losses and damages so caused. Each subcontract between Contractor and a subcontractor will contain similar waiver provisions by the subcontractor in favor of County and its agents and all other parties named as insureds. None of the above waivers shall extend to the rights that any of the insured parties may have to the proceeds of insurance held by County as trustee or otherwise payable under any policy so issued.

#### No Right of Recovery

County and Contractor intend that any policies provided as set forth herein shall protect all of the parties insured and provide primary coverage for all losses and damages caused by the perils covered thereby. Any insurance or self-insurance maintained by County shall be in excess of Contractor's insurance and shall not contribute to it.

#### Receipt and Application of Proceeds

Any insured loss under the policies of insurance required herein will be adjusted with County and made payable to County as trustee for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause. County shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged work shall be repaired or replaced, the moneys so received applied on account thereof and the work and the cost thereof covered by an appropriate change order or written amendment.

#### County's Duties as Trustee

County as trustee shall have power to adjust and settle any loss with the insurers.

#### Acceptance of Insurance

If County has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by Contractor on the basis of its not complying with the contract documents, County shall notify Contractor in writing thereof and Contractor shall immediately provide proof of the proper coverage. Contractor shall provide to County such additional information in respect of insurance provided by it as County may reasonably request. County may at its option waive any type of insurance required herein which County in its discretion deems to be inapplicable to the type of project being constructed. Any such waiver shall be in writing by the County Executive Officer.

#### Verification of Coverage

Contractor shall furnish County with certificates of insurance and with original endorsements affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and



endorsements are to be on forms provided by County and are to be received and approved by County before work commences.

#### Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

### **ARTICLE XIV: MATERIALS AND EQUIPMENT**

#### Material and Equipment

Unless otherwise specified, Contractor shall furnish and assume full responsibility and risk of loss for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the work.

#### Quality of Materials and Equipment

All materials and equipment shall be of good quality and new, except as otherwise provided in the contract documents. If required by County, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. Contractor may be required to show that materials and/or equipment will be available in sufficient quantity or time so as to assure top quality performance of the contract. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable supplier except as otherwise provided in the contract documents; but no provision of any such instructions will be effective to assign to County, or any of County's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the work or any duty or authority to undertake responsibility contrary to the provisions of this contract.

#### Storage of Materials and Equipment

Materials and equipment shall be stored where specified by County and so as to insure the preservation of their quality and fitness for the work. Stored equipment and materials shall be located so as to facilitate inspection. The Contractor shall be responsible for all damages that occur to materials and equipment until the completion and final acceptance of the work by the County.

#### Substitute Items

Whenever materials or equipment are specified or described in the contract documents by using the name of a proprietary item or the name of a particular supplier the naming of the item is intended to establish the type, function and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other suppliers may be accepted by County if sufficient information is submitted in advance by Contractor to allow County to determine that the material or equipment proposed is equivalent or equal to that named.

The procedure for review by County will include the following: requirements for review of substitute items of material and equipment or modification or alteration of the design of any material or equipment or portion of the work will not be accepted by County from anyone other than Contractor. If Contractor wishes to furnish or use a substitute item of material or equipment or modification or alteration of the design of any material or equipment or portion of the work, Contractor shall make written application to County for acceptance thereof, certifying that the proposed substitute or modification or alteration will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of completion on time, whether or not acceptance of the substitute or design modification or alteration for use in the work will require a change in any of the contract documents (or in the provisions of any other direct contract with County for work on the project) to adapt the design to the proposed substitute or design modification or alteration and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute or design modification or alteration from that specified will be identified in the application and

available maintenance, repair and replacement service will be indicated, where necessary. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute or design modification or alteration, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by County in evaluating the proposed substitute or design modification or alteration. County may require Contractor to furnish at Contractor's expense additional data about the proposed substitute or design modification or alteration. County will be allowed a reasonable time within which to evaluate each proposed substitute or design modification or alteration. County will be the sole judge of acceptability, and no substitute or design modification or alteration will be ordered, installed or utilized without County's prior written acceptance which will be evidenced by either a change order or an accepted shop drawing. County may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute or design modification or alteration. Contractor shall pay all costs for redesign required by the implementation of the proposed substitute.

#### Operating and Maintenance Instructions and Manufacturer's Warranties

Before receiving payment for more than 60 percent of the purchase value of any equipment and prior to installation of said equipment, the Contractor shall deliver to County acceptable manufacturer's operating and maintenance instructions covering each item of equipment assembly provided under this contract and each and every warranty provided by the manufacturer. Manufacturers' standard brochures or manuals will be modified to reflect only that model or series of equipment installed on this project. All extraneous material will be crossed out or otherwise altered as acceptable to County.

The operating and maintenance instructions shall include, as a minimum, the following data for each item of mechanical, electrical, and instrumentation equipment:

1. An itemized list of all data provided.
2. Name and location of the manufacturer, the manufacturer's local representative, the nearest supplier and spare parts warehouse.
3. Accepted submittal information applicable to operation and maintenance.
4. Recommended installation, adjustment, start up, calibration, and troubleshooting procedures.
5. Recommended lubrication and an estimate of yearly quantity needed.
6. Recommended step-by-step procedures for all modes of operation.
7. Complete internal and connection wiring diagrams.
8. Recommended preventive maintenance procedures and schedule.
9. Complete parts lists, by generic title and identification number, with exploded view of each assembly.
10. Recommended spare parts.
11. Disassembly, overhaul, and re-assembly instructions.
12. Complete, as applicable, operating and maintenance instructions, transmittal forms and summary sheets.
13. Nameplate data for all equipment supplied, including make, model and serial numbers, type and motor data together with designation and location of equipment.

Before final acceptance of the project, the Contractor shall bind all of the above in an appropriately labeled binder. Each completed binder shall contain only that material which can be held in a non-expanded position. A complete table of contents listing all items and their location in the set shall be included in each binder. For ready reference, the Contractor shall compile a complete list of manufacturer's local representatives for each item provided. In addition to withholding payment where Contractor fails to provide County with manufacturer's warranties, Contractor shall also be deemed to

have personally warranted the equipment to the same extent as the manufacturer's warranty on the equipment.

#### Patent Fees and Royalties

Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the work or the incorporation in the work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the contract documents for use in the performance of the work and if to the actual knowledge of County its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by County in the contract documents. Contractor shall indemnify and hold harmless County and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorneys' fees and court and arbitration costs) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, product or device not specified in the contract documents, and shall defend all such claims in connection with any alleged infringement of such rights.

### **ARTICLE XV: PLANS AND SPECIFICATIONS**

#### Interpretation of Plans, Specifications and Drawings

The plans, specifications and the drawings are intended to be explanatory of each other. Any work indicated on the drawings and not in the plans or specifications, or vice versa, shall be executed as if indicated in both. Where not specifically stated otherwise, all work and materials necessary for each unit of construction, including special construction for any specific brand or shape of material called for even though only briefly mentioned or indicated, shall be furnished and installed fully and completely as a part of the Contract. As the figured dimensions shown on the drawings and in the specifications of the contract may not in every case agree with scale dimensions, the figured dimensions shall be followed in preference to the scaled dimensions. Should it appear that the work to be done, or any of the matters relative thereto are not sufficiently detailed or explained in the contract documents, the Contractor shall apply to County for such further explanations as may be necessary, and shall conform thereto as part of the contract so far as may be consistent with the terms thereof. In the event of any doubt or question arising respecting the true meanings of the plans, specifications or drawings, the decision of County shall be final and conclusive.

Where for convenience the specifications are arranged by job classification or divided into various sections, it is to be understood this separation is for the convenience of all parties involved and is not to be considered as the limits of the work required of any separate trade. The terms and conditions of such limitations are wholly between Contractor and its subcontractors during both the bidding and construction phase; i.e., all work shown, specified, implied or necessary for the completion of each trade's work, as well as for the proper completion of the project as a whole shall be coordinated by Contractor and the subcontractors during bidding and construction and shall be provided in this contract.

#### Ownership

All plans and specifications shall remain the property of County and shall be returned to County before the final certificate will be issued.

#### Handicapped Access

Where applicable, it is the County's intent for all features on the plans and specifications to conform to applicable regulations for the accommodation of physically handicapped persons in buildings and facilities used by the public.

### **ARTICLE XVI: SHOP DRAWINGS AND SAMPLES**

#### Shop Drawings

After checking and verifying all field measurements and after complying with applicable procedures herein, Contractor shall submit to County for review and acceptance in accordance with the accepted schedule of shop drawing submissions or other appropriate action if so indicated herein, the number of copies specified of all shop drawings, which will bear a stamp or specific written indication that Contractor has satisfied Contractor's responsibilities under the contract documents with respect to the review of the submission. All submissions will be identified as County may require. Such drawings shall be approved by County before any work involving the drawings is performed. The data shown on the shop drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable County to review the information as required.

#### Samples

Contractor shall also submit to County for review and acceptance with such promptness as to cause no delay in work, all samples required by the contract documents or as requested by County. All samples will have been checked by and accompanied by a specific written indication that Contractor has satisfied Contractor's responsibilities under the contract documents with respect to the review of the submission and will be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which intended.

#### Contractor's Review

Before submission of each shop drawing or sample, Contractor shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each shop drawing or sample with other shop drawings and samples and with the requirements of the work and the contract documents.

#### Notice of Variation

At the time of each submission, Contractor shall give County specific written notice of each variation that the shop drawings or samples may have from the requirements of the contract documents, and, in addition, shall cause a specific notation to be made on each shop drawing submitted to Engineer for review and acceptance of each such variation.

#### County's Review

County will review and accept with reasonable promptness shop drawings and samples, but County's review and acceptance will be only for conformance with the design concept of the project and for compliance with the information given in the contract documents and shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the contract documents) or to safety precautions or programs incident thereto. The review and acceptance of a separate item as such will not indicate acceptance of the assembly in which the item functions. Within a reasonable time after receipt of drawings or samples, County will return marked up copies indicating one of the following four actions:

1. If review and checking indicates no exceptions, copies will be returned marked "NO EXCEPTIONS TAKEN" and work may begin immediately on incorporating the material and equipment covered by the submittal into the work.
2. If review and checking indicates limited corrections are required, copies will be returned marked "MAKE CORRECTIONS NOTED" and work may begin immediately on incorporating the material and equipment covered by the submittal into the work.
3. If review and checking indicates insufficient or incorrect data has been submitted, copies will be returned marked "AMEND AND RESUBMIT". No work may begin on incorporating the material and equipment covered by this submittal into the work until the submittal is revised, resubmitted, and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED".
4. If review and checking indicates the material and equipment submittal is unacceptable, copies will be returned marked "REJECTED". No work may begin on incorporating the material and

equipment covered by this submittal into the work until a new submittal is made and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED".

Contractor shall direct specific attention in writing to revisions other than the corrections called for by County on previous submittals. The Contractor may authorize material or equipment supplier to deal directly with County with regard to such submittals; however, ultimate responsibility for the accuracy and completeness of the information contained in the submittal shall remain with the Contractor. Normally, a separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Submittals on various items using a single transmittal form will be permitted only when the items taken together constitute a manufacturer's "package" or are so functionally related that expediency indicates checking or review of the group or "package" as a whole.

#### Contractor's Responsibility for Variation

County's review of shop drawings or samples shall not relieve Contractor from responsibility for any variation from the requirements of the contract documents unless Contractor has in writing called County's attention to each such variation at the time of submission and County has given written acceptance of each such variation by a specific written notation thereof incorporated in or accompanying the shop drawing or sample review nor will any review by County relieve Contractor from responsibility for errors or omissions in the shop drawings or from responsibility for having complied with the provisions above.

#### Work Performed Prior to Shop Drawing or Sample Review

Where a shop drawing or sample is required by the specifications, any related work performed prior to County's review of the pertinent submission will be the sole expense and responsibility of Contractor.

### **ARTICLE XVII: SUBCONTRACTORS, SUPPLIERS AND OTHERS**

#### Objectionable Parties

Contractor shall not employ any subcontractor, supplier or other person or organization, whether initially or as a substitute, against whom County may have reasonable objection. Contractor shall not be required to employ any subcontractor, supplier or other person or organization to furnish or perform any of the work against whom Contractor has reasonable objection. If the contract documents require the identity of certain subcontractors, suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) to be submitted to County in advance for acceptance by County and if Contractor has submitted a list thereof in accordance with the contract documents, County's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the contract documents) of any such subcontractor, supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case Contractor shall submit an acceptable substitute, the contract price will be increased by the difference in the cost occasioned by such substitution and an appropriate change order will be issued. No acceptance by County of any such subcontractor, supplier, or other person or organization shall constitute a waiver of any right of County to reject defective work. The Contractor may not change any subcontractors listed on its bid without written approval from County after a determination that the requirements of Public Contracts Code Section 4107 have been met.

#### Responsibility for Subcontractors

Contractor shall be fully responsible to County for all acts and omissions of the subcontractors, suppliers and other persons and organizations performing or furnishing any of the work under a direct or indirect contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the contract documents shall create any contractual relationship between County and any such subcontractor, supplier or other person or organization, nor shall it create any obligation on the part of County to pay or to see to the payment of any moneys due any such subcontractor, supplier or other person or organization except as may otherwise be required by laws and regulations. County may furnish to any subcontractor or other person or organization, to the extent practical, evidence of amounts paid the Contractor on account of specific work done.

### Division of Work

The divisions and sections of the specifications and the identifications of any drawings shall not control Contractor in dividing the work among subcontractors or suppliers or delineating the work to be performed by any specific trade.

### Subcontracts

All work performed for Contractor by a subcontractor will be pursuant to an appropriate agreement between contractor and the subcontractor which specifically binds the subcontractor to the applicable terms and conditions of the contract documents for the benefit of County and contains waiver provisions as required herein. Contractor shall pay each subcontractor a just share of any insurance moneys received by Contractor on account of losses under policies issued pursuant to this Contract.

## **ARTICLE XVIII: PERFORMANCE OF THE WORK**

### Supervision

Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the contract documents. Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. Contractor shall be responsible to see that the finished work complies accurately with the contract documents.

### Superintendence

Contractor shall keep on the work at all times during its progress a competent resident superintendent, acceptable to County, who shall not be replaced without written notice to County except under extraordinary circumstances. The superintendent will be Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor. When work is not in progress and during periods when work is suspended, arrangements acceptable to County shall be made for emergencies. If the superintendent is not present, County shall give direction to the next in command and said direction shall be binding.

### Personnel

Contractor shall provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the contract documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the work or property at the site or adjacent thereto, and except as otherwise indicated in the contract documents, all work at the site shall be performed during regular working hours, and Contractor will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday without County's written consent given after prior written notice to County.

### Order of Work

If a sequence or procedure is specified in the special provisions or plans for the project, Contractor shall be required to follow the sequence or procedure specified. The price for compliance with a specified sequence or procedure will be considered as part of the bid price and no extra amounts will be allowed therefor.

### Safety and Protection

Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. Contractor shall take all reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

1. All employees on the work and other persons and organizations who may be affected thereby;
2. All the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and underground facilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of underground facilities and utility owners when prosecution of the work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to herein caused, directly or indirectly, in whole or in part, by Contractor, any subcontractor, supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, shall be remedied by Contractor. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as all the work is completed and County has issued a notice to County and Contractor that the work is acceptable.

The Contractor shall at all times so conduct the work as to insure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work, and to insure the protection of persons and property. No road or street shall be closed to the public except with the permission of County and other governmental authority. Fire hydrants on or adjacent to the work shall be kept accessible to fire fighting equipment at all times. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks and private and public driveways, and the proper functioning of all gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses.

The Contractor shall leave a night emergency telephone number or numbers with the local law enforcement office, so that contact may be made easily at all times in case of trouble or emergencies. The names and telephone numbers of at least two medical doctors practicing in the vicinity and the telephone number of the local ambulance shall be prominently displayed adjacent to all telephones.

Any lighting fixtures shall be installed, mounted and directed in a manner precluding glare to approaching traffic.

#### Detours

Where detours are necessary, Contractor shall construct and remove detours as provided in the special provisions, or as shown on the plans, or as directed by County. The failure or refusal of Contractor to construct and maintain detours at the required time shall be sufficient cause for closing down the work until remedied. The cost of the detours shall be considered a part of the contract price or as included in other items of work as noted in the special provisions and no extra amounts shall be paid therefor.

#### Safety Representative

Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be Contractor's superintendent unless otherwise designated in writing by Contractor to County.

#### Alcoholic Beverages

Absolutely no alcoholic beverages shall be permitted on the job site.

#### Emergencies

In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from County, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give County prompt written notice as soon as possible thereafter. If County determines that a change in the contract documents is required because of the action taken in response to an emergency, a change order will be issued to document the consequences of the changes or variations.

#### Warranty and Guarantee

Unless the plans and/or specifications require a longer period for any warranted item, Contractor warrants all of the work completed under this contract by Contractor for a period of one year from the date of final

completion. Said warranty includes the guarantee that all work is completed in accordance with the contract documents and that the work is not defective in any way and is fit for its intended use. Work not conforming to the plans and specifications shall be considered defective. If within the warranty period any work is found to be defective, Contractor shall promptly, without cost to County and in accordance with County's written instruction, either correct such defective work or remove it from the site and replace it with non-defective work. If Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, County may have the defective work corrected or removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by Contractor. Nothing in this paragraph shall serve as a waiver of the statute of limitations for breach of contract or latent defects.

#### Environmental and Toxics Warranty

Contractor warrants that no asbestos-containing materials, no PCB-containing fixtures or equipment or other toxic or hazardous materials or equipment other than what is contained in standard building materials were installed on this project without County's express written consent. Contractor further warrants that no asbestos-containing materials, PCB-containing fixtures or equipment or other toxic or hazardous materials were discovered during construction of this project which were not disclosed to County in writing.

Contractor also warrants that its operations during the project were not in violation of any applicable federal, state or local environmental law or regulation dealing with hazardous materials or toxic substances, and no notice from any governmental body has been given to Contractor claiming any such violation or calling attention to the need for any work, repairs, construction, or installation or in connection with the project in order to comply with such laws with which Contractor has not complied. If there are any such notices with which Contractor has complied, Contractor shall provide County with copies thereof.

This warranty shall survive completion of the project, and Contractor shall indemnify County for any breach thereof.

#### Access to Work

County's representatives, testing agencies and governmental agencies with jurisdictional interests will have access to the work at reasonable times for their observation, inspecting and testing. Contractor shall provide proper and safe conditions for such access.

#### County May Stop the Work

If Contractor fails to conform with the contract documents, if the work is defective, if the work is being carried out in an unsafe manner, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the work in such a way that the completed work will conform to the contract documents, County may order Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated; however, this right of County to stop the work shall not give rise to any duty on the part of County to exercise this right for the benefit of Contractor or any other party.

#### Alternative Methods of Construction

Whenever the plans or specifications provide that more than one specified method of construction or more than one specified type of material or construction equipment may be used to perform portions of the work and leave the selection of the method of construction or the type of material or equipment to be used up to the Contractor, it is understood that County does not guarantee that every such method of construction or type of material or equipment can be used successfully throughout all or any part of any project. It shall be the Contractor's responsibility to select and use the alternative or alternatives which will satisfactorily perform the work under the conditions encountered. In the event some of the alternatives are not feasible or it is necessary to use more than one of the alternatives on any project, full compensation for any additional cost involved shall be considered as included in the contract price paid for the item of work involved and no additional compensation will be allowed therefor.

#### Correction or Removal of Defective Work



If required by County, Contractor shall promptly, as directed, either correct all defective work, whether or not fabricated, installed or completed, or, if the work has been rejected by County, remove it from the site and replace it with non-defective work. Contractor shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made thereby.

#### Acceptance of Defective Work

If, instead of requiring correction or removal and replacement of defective work, County prefers to accept it, County may do so. Contractor shall bear all direct, indirect and consequential costs attributable to County's evaluation of and determination to accept such defective work (such costs to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to final payment, a change order will be issued incorporating the necessary revisions in the contract documents with respect to the work; and County shall be entitled to an appropriate decrease in the contract price, and, if the parties are unable to agree as to the amount thereof, County may make a claim therefor as provided in this Contract. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to County. No acceptance of defective work shall occur without an express written acknowledgment by County that work described therein is defective and that County is electing to proceed under this clause. No acceptance of defective work may be inferred from any actions by County staff or its agents.

#### County May Correct Defective Work

If Contractor fails within a reasonable time after written notice of County to proceed to correct and to correct defective work or to remove and replace rejected work as required by County in accordance with the above, or if Contractor fails to perform the work in accordance with the contract documents, or if Contractor fails to comply with any other provision of the contract documents, County may, after seven days' written notice to Contractor, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph County shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, County may exclude Contractor from all or part of the site, take possession of all or part of the work, and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the site and incorporate in the work all materials and equipment stored at the site or for which County has paid Contractor but which are stored elsewhere. Contractor shall allow County, County's representatives, agents and employees such access to the site as may be necessary to enable County to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of County in exercising such rights and remedies will be charged against Contractor, and a change order will be issued incorporating the necessary revisions in the contract documents with respect to the work; and County shall be entitled to an appropriate decrease in the contract price, and, if the parties are unable to agree as to the amount thereof, County may make a claim therefor as provided in this Contract. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of Contractor's defective work. Contractor shall not be allowed an extension of the contract time because of any delay in performance of the work attributable to the exercise by County of County's rights and remedies hereunder.

#### Adjusting Progress Schedule

Contractor shall submit to County for acceptance adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the general requirements applicable thereto.

#### Substitute Method of Construction

If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the contract documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to County, if Contractor submits sufficient information to allow County to determine that the substitute proposed is equivalent to that indicated or required by the contract documents. The procedure for review by County will be similar to that provided in the paragraph

regarding substitution of materials or equipment. No extension of time or extra compensation will be paid to the Contractor by virtue of County's accepting a substitute method of construction.

#### Suggestions to Contractor

Any plan or method of work suggested by County to the Contractor but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor; and County shall assume no responsibility therefor and in no way be held liable for any defects in the work which may result from or be caused by use of such plan or method of work. Acceptance by the Contractor of any plan or method of work or change suggested by County shall not relieve the Contractor from any other requirements or provisions of the contract.

#### Permits

Unless otherwise provided for herein, Contractor shall obtain and pay for all construction permits and licenses necessary or incidental to the work. County shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the work, which are applicable at the time of opening of bids. County shall pay all charges of utility connections to the work.

#### Laws and Regulations

Contractor shall give all notices and comply with all laws and regulations applicable to furnishing and performance of the work. Except where otherwise expressly required by applicable laws and regulations, County shall not be responsible for monitoring Contractor's compliance with any laws or regulations. If Contractor observes that the specifications or drawings are at variance with any laws or regulations, Contractor shall give County prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated herein. If Contractor performs any work knowing or having reason to know that it is contrary to such laws or regulations, and without such notice to County, Contractor shall bear all costs, damages, fines or penalties, arising therefrom.

#### Taxes

Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by Contractor in accordance with the laws and regulations of the place of the project which are applicable during the performance of the work.

#### Use of Premises

Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the project site and land and areas identified in and permitted by the contract documents and other land and areas permitted by laws and regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the work. Should any claim be made against County by any such owner or occupant because of the performance of the work, Contractor shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim by arbitration or at law. Contractor shall, to the fullest extent permitted by laws and regulations, indemnify and hold County harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court and arbitration costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against County to the extent based on a claim arising out of Contractor's performance of the work.

Fences which cross, abut, or are on easements shall at all times be maintained by the Contractor in a condition which provides the functional purpose of the fence. Temporary fencing of the construction area will be permitted and temporary fencing shall provide the same functional purpose as existing fencing. Unless otherwise indicated, all improvements within easements shall be restored to conditions that existed prior to the start of work.

Before final acceptance of the work the Contractor shall obtain a written statement of release from each property owner that granted an easement for the work. Release statement shall indicate the property

owner's acceptance of the site conditions as restored by the Contractor. The County may waive said written releases where a property owner refuses to sign same but only upon making a determination that there is no work to be completed with respect to said property.

#### Site Clean-Up

During the progress of the work, Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the work. At the completion of the work, Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by County. Contractor shall restore to original condition all property not designated for alteration by the contract documents.

The Contractor is advised that the final cleanup of the project shall be done with meticulous care and that the County expects all ductwork, cubicles, cabinets, motor control centers, control panels, rooms, and enclosures to be thoroughly vacuum cleaned and dust-free prior to acceptance of the work.

#### Protection of Structures

Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the work or adjacent property to stresses or pressures that will endanger it.

#### Restoration of Structures

The Contractor shall remove such existing structures or monuments as may be necessary for the performance of the work and, if required, shall rebuild the structures or monuments thus removed in as good a condition as found. Contractor shall also repair all existing structures or monuments which may be damaged as a result of the work under this contract.

All curbs, gutters, driveways, sidewalks, and similar structures that are damaged by the installation of the work shall be reconstructed by the Contractor. Reconstruction shall be of the same kind of material with the same finish and in not less than the same dimensions as the original work. All concrete shall be as set forth in the specifications, or as required by County if not so specified. Repairs shall be made by removing and replacing the entire portions between joints or scores and not merely refinishing any damaged part. All work shall match the appearance of the existing improvements as nearly as possible.

All road and streets where the surface is removed, broken or damaged, or in which the ground has caved or settled due to work under this contract, shall be completely resurfaced and brought to the original grade and crown section unless otherwise indicated. Before resurfacing material is placed, edges of pavements shall be trimmed back far enough to provide clean, solid, vertical faces, and shall be free of any loose material. All cultivated areas, lawns, and other surface improvements which are damaged by actions of the Contractor shall be restored as nearly as possible to their original conditions.

#### Environmental Control

The Contractor shall not pollute the construction site or any drainage course or its tributary inlets with fuels, oils, bitumens, acids, insecticides, herbicides or other harmful materials. The Contractor shall comply with all applicable Federal, State, County and municipal laws concerning pollution of waterways. Contractor shall submit a plan for preventing such occurrences if required by County. Special measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides, from spilling and entering public waters.

Where the Contractor is required to connect or otherwise work around existing lines carrying sewage or process wastes, Contractor shall perform the work to prevent the spill of sewage and insure the delivery of sewage to the treatment plants. Where the Contractor chooses to provide temporary pumping of sewage, Contractor shall first have the pumping facilities approved by County and shall provide 100 percent standby equipment on 24-hour basis.

The Contractor shall provide the means for preventing or lessening all dust nuisances and damages. Such means shall consist of applying water, dust palliative, or both all in accordance with local ordinances and regulations or as directed by County.

#### Record Documents

Contractor shall maintain in a safe place at the site one record copy of all drawings, plans, specifications, addenda, change orders, field orders and written interpretations and clarifications in good order and annotated to show all changes made during construction. These record documents together with all approved samples and a counterpart of all accepted shop drawings will be available to County for reference. Upon completion of the work, these record documents, samples, and shop drawings will be delivered to County.

#### As-Built Drawings

The Contractor shall also maintain a neatly marked set of record drawings showing the final locations and layout of all mechanical, electrical, and instrument equipment; piping and conduit, structures, and other facilities. Drawings shall be kept current weekly, with all field instructions and change orders; mechanical, electrical, and instrumentation equipment accommodations; and construction adjustment. Drawings shall be subject to the inspection of the County at all times and progress payments may be withheld if drawings are not current. At the final inspection the Contractor shall submit to County all as-built drawings in the form of both hard copy and electronic PDF. Drawings shall be stamped "AS-BUILT", dated and signed by the Contractor. The work will not be formally accepted until as-built drawings are accepted by County.

#### Continuing the Work

Contractor shall carry on the work and adhere to the progress schedule during all disputes or disagreements with County. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted specifically herein or as Contractor and County may otherwise agree in writing.

#### Indemnification

To the fullest extent permitted by laws and regulations, Contractor shall indemnify, defend and hold harmless County and its consultants, agents and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court and arbitration costs) arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expenses (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (including the work itself) including the loss of use resulting therefrom and (b) is caused in whole or in part by any negligent act or omission of Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable. The Contractor's indemnification obligation shall apply whether or not the act giving rise to such claims, damages, losses and expenses is caused in part by a party indemnified hereunder or arises by or is imposed by law and regulations regardless of the negligence of any such party.

#### Statutory Limitations

In any and all claims against County or any of its consultants, agents or employees by any employee of Contractor, any subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable, the indemnification obligation above shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor or any such subcontractor or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

#### Related Work at Site

County may perform other work related to the project at the site by County's own forces, have other work performed by utility companies or let other direct contracts therefor which shall contain conditions similar to these. If the fact that such other work is to be performed was not noted in the contract documents, written notice thereof will be given to Contractor prior to starting any such other work; and, if Contractor believes that such performance will involve additional expense to Contractor or requires additional time and the parties are unable to agree as to the extent thereof, Contractor may make a claim therefor as provided for herein. Any difference or conflict arising between the Contractor and any other Contractor

employed by County, or between the Contractor and the workers of County with regard to their work, shall be submitted to County and the Contractor shall abide by County's decision in the matter. If the work of the Contractor is delayed because of any facts or omissions of any other Contractor or of County, the Contractor shall on that account have no claim against County other than for an extension of time.

#### Access to Site

Contractor shall afford each utility company or district and other contractor who is a party to such a direct contract (or County, if County is performing the additional work with County's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the work with theirs. Contractor shall do all cutting, fitting and patching of the work that may be required to make its several parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of County and the others whose work will be affected. The duties and responsibilities of Contractor under this paragraph are for the benefit of such utility companies or districts and other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between County and such utility companies or districts and other contractors.

#### Acceptance of Work by Others

If any part of Contractor's work depends for proper execution or results upon the work of any such other contractor or utility company or district (or County), Contractor shall inspect and promptly report to County in writing any delays, defects or deficiencies in such work that render it unavailable or unsafe for such proper execution and results. Contractor's failure so to report will constitute an acceptance of the other work as fit and proper for integration with Contractor's work except for latent or nonapparent defects and deficiencies in the other work.

### **ARTICLE XIX: TESTS AND INSPECTIONS**

#### Tests and Inspections Required by Laws or Regulations

If laws or regulations of any public body having jurisdiction require any work (or part thereof) to specifically be inspected, tested or approved, Contractor shall assume full responsibility therefor, pay all costs in connection therewith and furnish County the required certificates of inspection, testing, approval or compliance. Contractor shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with County's acceptance of a supplier of materials or equipment proposed to be incorporated in the work, or of materials or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the work. The cost of all inspections, tests and approvals in addition to the above which are required by the contract documents shall be paid by County (unless otherwise specified). Contractor must utilize materials and equipment which are available for inspection at the plant or at the point of distribution in California in the case of foreign materials or equipment.

#### Other Inspections and Tests

All inspections, tests or acceptances other than those required by laws and regulations of any public body having jurisdiction shall be performed by organizations acceptable to County.

#### General Requirements

All materials, equipment, installation, and workmanship included in this contract, if so required by County, shall be tested and inspected to prove compliance with the contract requirements. Installed leakage tests and other piping tests shall be as specified in the technical provisions of these specifications.

No tests specified herein shall be applied until the item to be tested has been inspected and approval given for the application of such test. Contractor shall give County timely notice of readiness of the work for all required inspections, tests or approvals.

Tests and inspections shall include:

1. The delivery acceptance test and inspections.

2. The installed tests and inspections of items as installed.

Tests and inspections, unless otherwise specified or accepted, shall be in accordance with the recognized standards of the industry.

The form of evidence of satisfactory fulfillment of delivery acceptance test and of installed test and inspection requirements shall be, at the discretion of County, either by tests and inspections carried out in County's presence or by certificates or reports of tests and inspections carried out by approved persons or organizations. The Contractor shall provide and use forms which include all test information and are acceptable in content to County.

Installed Tests and Inspection

All equipment shall be tested by the Contractor to the satisfaction of County before any facility is put into operation. Tests shall be as specified herein and shall be made to determine whether the equipment has been properly assembled, aligned, adjusted and connected. Any changes, adjustments or replacements required to make the equipment operate as specified shall be carried out by the Contractor as part of the work.

At least 30 days before the time allowed in the construction schedule for commencing testing and start up procedures, the Contractor shall submit to County, details of the procedures Contractor proposes to adopt for testing and start up of all mechanical and electrical equipment to be operated singly and together, excepting when such procedures have been covered in the specifications. Such tests shall be conducted using potable water where water is required for such testing. The water required for such tests shall be provided by the Contractor.

During the testing of equipment, the Contractor shall make available experienced factory trained representatives of the manufacturers of all the various pieces of equipment, or other qualified persons who shall instruct County's personnel in the operation and care thereof. Instruction shall include step-by-step troubleshooting procedures with all necessary test equipment. All manufacturer's instructions shall be provided in writing.

If, under test, any portion of the work shall fail to fulfill the contract requirements and is altered, renewed or replaced, tests on that portion when so altered, removed or replace, together with all other portions of the work as are affected thereby, shall, if so required by County, be repeated within reasonable time and in accordance with the specified conditions, and the Contractor shall pay to County all reasonable expenses incurred by County as a result of the carrying out of such tests.

Where, in the case of an otherwise satisfactory installed test, any doubt, dispute or difference should arise between County and the Contractor regarding the test results or methods or equipment using in the carrying out by the Contractor of such test, then County may order the test to be repeated. If the repeat test, using such modified methods or equipment as County may require, substantially confirms the previous test then costs in connection with the repeat test will be paid by County, otherwise the costs shall be borne by the Contractor. Where the results of any installed test fail to comply with the contract requirements for such test then such repeat tests as may be necessary to achieve the contract requirements shall be made by the Contractor at Contractor's own expense.

Work Requiring Testing

If any work (including the work of others) that is required by the Contract Documents to be inspected, tested or accepted is covered without written concurrence of County, it must, if requested by County, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given County timely notice of Contractor's intention to cover the same and County has not acted with reasonable promptness in response to such notice.

Contractor's Obligation

Neither observations by County nor inspections, tests or approvals by others shall relieve Contractor from Contractor's obligations to perform the work in accordance with the contract documents.

#### Uncovering Work Covered Contrary to County's Request

If any work is covered contrary to the written instructions of County or Code or contract requirements, it must, if requested by County, be uncovered for County's observation and replaced at Contractor's expense.

#### Uncovering Work for Inspection or Testing

In addition to the provisions above regarding work requiring testing, if County considers it necessary or advisable that covered work be observed by County or inspected or tested by others, Contractor, at County's request, shall uncover, expose or otherwise make available for observation, inspection or testing as County may require, that portion of the work in question, furnishing all necessary labor, material and equipment. If it is found that such work is defective, Contractor shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and County shall be entitled to an appropriate decrease in the contract price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefor as provided in this contract. If, however, such work is not found to be defective, Contractor shall be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction; and, if the parties are unable to agree

### **ARTICLE XX: SUSPENSION OF WORK AND TERMINATION**

#### County May Suspend Work

County may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety days by notice in writing to Contractor. As soon as possible, County will fix the date on which work will be resumed. Contractor shall resume the work on the date so fixed. If Contractor believes that such suspension justifies an increase in the contract price or an extension of the contract time and County and Contractor are unable to agree to the amount or extent thereof, Contractor may make a claim therefor as provided herein.

#### County May Terminate

Except as limited by law or regulation, County may terminate upon the occurrence of any one or more of the following events:

1. If Contractor commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if Contractor takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such time relating to the bankruptcy or insolvency;
2. If petition is filed against Contractor under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against Contractor under any other federal or state law in effect at the time relating to bankruptcy or insolvency;
3. If Contractor makes a general assignment for the benefit of creditors;
4. If a trustee, receiver, custodian or agent of Contractor is appointed under applicable law or under contract, whose appointment or authority to take charge of property of Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of Contractor's creditors;
5. If Contractor admits in writing an inability to pay its debts generally as they become due;
6. If Contractor persistently fails to perform the work in accordance with the contract documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established herein as revised from time to time or fails to make prompt payment to subcontractors or for materials or labor or persistently disregards laws, ordinances or instructions of the County);

7. If Contractor disregards laws or regulations of any public body having jurisdiction;
8. If Contractor disregards the authority of County or its agents; or
9. If Contractor otherwise violates in any substantial way any provisions of the contract documents;

County may, after giving Contractor (and the surety, if there be one) seven days' written notice and to the extent permitted by laws and regulations, terminate the services of Contractor, exclude Contractor from the site and take possession of the work and of all Contractor's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion), incorporate in the work all materials and equipment stored at the site or for which County has paid Contractor but which are stored elsewhere, and finish the work as County may deem expedient. In such case Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct, indirect and consequential costs of completing the work (including but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) such excess will be paid to Contractor. If such costs exceed such unpaid balance, Contractor shall pay the difference to County. Such costs incurred by County will be approved as to reasonableness by County and incorporated in a change order, but when exercising any rights or remedies under this paragraph County shall not be required to obtain the lowest price for the work performed. Where Contractor's services have been so terminated by County, the termination will not affect any rights or remedies of County against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by County will not release Contractor from liability.

#### County May Abandon

Upon written notice to Contractor County may, without cause and without prejudice to any other right or remedy, elect to abandon the work and terminate the agreement. Contractor shall stop work as specified in said notice, terminate all subcontracts, deliver all materials already paid for and secure the site. In such case, Contractor shall be paid for all work executed and any actual expense sustained. No lost profit for work not yet undertaken shall be due to Contractor.

#### Contractor May Stop Work or Terminate

If, through no act or fault of Contractor, the work is suspended for a period of more than ninety days by County or under an order of court or other public authority, or County fails to act on any application for payment within thirty days after it is submitted, or County fails for thirty days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days' written notice to County, terminate the agreement and recover from County payment for all work executed and any expense sustained. In addition and in lieu of terminating the agreement, if County has failed to act on an application for payment or County has failed to make any payment as aforesaid, Contractor may upon seven days' written notice to County stop the work until payment of all amounts then due. The provisions of this paragraph shall not relieve Contractor of the obligations to carry on the work in accordance with the progress schedule and without delay during disputes and disagreements with County.

### **ARTICLE XXI: COUNTY'S AGENT'S STATUS DURING CONSTRUCTION**

#### County's Representative

County may appoint representatives during the construction period. The duties and responsibilities and the limitations of authority of such agents during construction are set forth herein and shall not be extended without written consent of County.

#### Agent's Authority

County may delegate authority to an employee or agent, including an engineer or an architect, to determine the amount, quality, acceptability and fitness of the several kinds of work, material and equipment which are to be paid for under the contract; to decide for the County all questions relative to the true construction, meaning and intent of the contract documents; to decide all questions relative to the classification and measurements of quantities and materials and the fulfillment of this contract, and to reject or condemn all work or material which does not conform to the terms of this contract. The



representative's decision in all matters is the decision of County and shall be final and binding on Contractor.

#### Replacement of Representative

County reserves the right to terminate the employment of the representative at any time.

#### Visits to Site

Where a representative represents County, said representative will make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed work and to determine, in general, if the work is proceeding in accordance with the contract documents. However, Contractor must supervise the work and cannot rely on said representative or County as they will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. The representative's efforts will be directed toward providing for County a greater degree of confidence that the completed work will conform to the contract documents. On the basis of such visits and on-site observations, the representative will keep County informed of the progress and adequacy of the work.

#### Observation of Work

If County and the representative agree, the representative will observe the performance of the work. The duties, responsibilities and limitations of authority of the representative in observing the work will be as provided herein. If County designates another agent to represent County at the site who is not the representative's agent or employee, the duties, responsibilities and limitations of authority of such other person will be as provided in supplementary conditions.

#### Clarifications and Interpretations

The representative may be appointed to issue (with reasonable promptness) such written clarifications or interpretations of the requirements of the contract documents (in the form of drawings or otherwise) as the representative may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the contract documents. If Contractor believes that a written clarification or interpretation justifies an increase in the contract price or an extension of the contract time and the parties are unable to agree to the amount or extent thereof, Contractor may make a claim therefor as provided in the contract. Said claim shall be made to County unless a representative has been selected to provide such clarifications or interpretations.

#### Authorized Variations in Work

If a representative is appointed, such representative may authorize minor variations in the work from the requirements of the contract documents which do not involve an adjustment in the contract price or the contract time and are consistent with the overall intent of the contract documents. These may be accomplished by a field order and will be binding on County, and also on Contractor who shall perform the work involved promptly. If Contractor believes that a field order justifies an increase in the contract price or an extension of the contract time and County and Contractor are unable to agree as to the amount or extent thereof, Contractor may make a claim therefor as provided in this Contract.

#### Rejecting Defective Work

If a representative is appointed, such representative will have authority to disapprove or reject work which the representative believes to be defective, and will also have authority to require special inspection or testing of the work whether or not the work is fabricated, installed or completed. Any decision made by said representative in disapproving or rejecting work shall be binding on Contractor.

#### Determinations for Unit Prices

If a representative is appointed, such representative will determine the actual quantities and classifications of unit price work performed by Contractor. The representative will review with the Contractor the representative's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an application for payment or otherwise). The representative's written decisions thereon will be final and binding upon Contractor.

### Claims and Disputes

For purposes of this paragraph, "claim" shall be defined as set forth in Public Contracts Code Section 20104(b)(2). Claims shall be presented in writing and include the documents necessary to substantiate the claim. Claims must be filed with the designated County representative no later than thirty (30) days after the occurrence of the event giving rise thereto or denial of the change order, whichever occurs last. The form of said claims shall be the same as is required by Government Code Sections 910 and 910.2.

If the claim is under \$50,000, County shall respond in writing to Contractor within 45 days of receipt of Contractor's claim or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the County may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to Public Contract Code Section 20104.2, upon mutual agreement of the County and Contractor. The County's written response to the claim, as further documented, shall be submitted to Contractor within 15 days after receipt of the further documentation or within a period of time no greater than that taken by Contractor in producing the additional information, whichever is greater.

For claims over \$50,000 and less than or equal to \$375,000, County shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the County may have against Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to Public Contract Code Section 20104.2, upon mutual agreement of County and Contractor. The County's written response to the claim, as further documented, shall be submitted to Contractor within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by Contractor in producing the additional information or requested documentation, whichever is greater.

If Contractor disputes County's written response, or County fails to respond within the time prescribed above, Contractor may so notify County, in writing, either within 15 days of receipt of County's response or within 15 days of County's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer with such County representatives as the County Executive Officer or the Board of Supervisors directs for settlement of the issues in dispute. Upon such demand, County shall schedule a meet and confer conference within 30 days for settlement of the dispute.

Following the meet and confer conference, if the claim or any portion remains in dispute, Contractor may file a claim with the Board of Supervisors pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. Pursuant to authority granted by Government Code Section 930.2, all claims filed with the Board of Supervisors pursuant to the Government Code shall be filed within 90 days of the denial of the original claim by the County representative. The running of the period of time within which a claim under the Government Code must be filed shall be tolled by any period of time utilized by the meet and confer conference. Any lawsuit which Contractor intends to bring with respect to any claim filed pursuant to the Government Code which claim has been denied by County must be commenced not later than six months after the recording of the notice of completion or not later than six months after the date final payment is deposited in the mail or personally delivered, whichever date comes first. If a civil action is filed, the mediation provisions set forth in Public Contract Code Section 20104.4 shall apply unless waived by mutual stipulation of County and Contractor or unless County elects to resolve the dispute pursuant to Public Contract Code Section 10240 et seq.

For every claim that Contractor makes, it shall provide the following documentation upon request of County as a condition precedent to consideration of the claim: Contractor's bidding calculations forms, cost estimates, time sheets, trend reports, job cost analysis records, labor records, as-built documents, any other records used by Contractor in arriving at its bid price, and any other documents or records kept by Contractor during the course of construction. In the event that claims are made, Contractor agrees that County shall have the right to conduct a complete audit of the books and records of Contractor relating to this project and any books and records relating to overhead, profit or general office expenses charged to this project.

Public Contract Code Section 9204, as enacted by AB 626, establishes a claim resolution process required for public works projects. In the event of any conflict between the provisions of this Contract and Public Contract Code Section 9204, the provisions of Public Contract Code Section 9204 shall prevail.

#### Representative's Decision

Where a representative is appointed, the rendering of a decision by the representative with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by County or Contractor of such rights or remedies as either may otherwise have under the contract documents or by laws or regulations in respect of any such claim, dispute or other matter.

#### Limitations on Representative's Responsibilities

Neither the County's representative's authority to act nor any decision made by the representative in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the representative or County to Contractor, any subcontractor, any supplier, or any other person or organization performing any of the work, or to any surety for any of them.

#### Construction Methods and Safety

Notwithstanding any references to laws and regulations, rules, codes or standards in the contract documents, the representative and County will not be responsible for Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and the representative and County will not be responsible for Contractor's failure to perform or furnish the work in accordance with the contract documents.

#### Acts and Omissions of Contractor

Neither the County nor its representatives will be responsible for the acts or omissions of Contractor or of any subcontractor, any supplier, or any other person or organization performing or furnishing any of the work.

### **ARTICLE XXII: PARTIAL COMPLETION**

#### Partial Completion (Completion of a Portion of the Work)

Use by County of any finished part of the work, which has specifically been identified in the contract documents, or which County and Contractor agree constitutes a separately functioning process or facility that can be used by County without significant interference with Contractor's performance of the remainder of the work, may be accomplished prior to completion of all the work subject to the following:

1. County at any time may request Contractor in writing to permit County to use any such part of the work which County believes to be ready for its intended use and substantially complete. If Contractor agrees, Contractor will certify to County that said part of the work is substantially complete and request County to issue a certificate of substantial completion for that part of the work. Contractor at any time may notify County in writing that Contractor considers any such part of the work ready for its intended use and substantially complete and request County to issue a certificate of substantial completion for that part of the work. Within a reasonable time after either such request, County and Contractor shall make an inspection of that part of the work to determine its status of completion. If County does not consider that part of the work to be substantially complete, County will notify Contractor in writing giving the reasons therefor. If County considers that part of the work to be substantially complete, County will deliver to Contractor a written recommendation as to the division of responsibilities pending final payment between County and Contractor for the entire work with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties. Unless Contractor disagrees in writing and so informs County promptly, County's aforesaid recommendation will be binding on Contractor until final payment for the entire work.
2. County may at any time request Contractor in writing to permit County to take over operation of any such part of the work although it is not substantially complete. A copy of such request will be sent to Contractor and within a reasonable time thereafter County and Contractor shall make an

inspection of that part of the work to determine its status of completion and will prepare a list of the items remaining to be completed or corrected thereon before final payment. If Contractor does not object in writing to County that such part of the work is not ready for separate operation by County, County will finalize the list of items to be completed or corrected and will deliver such list to Contractor together with a written recommendation as to the division of responsibilities pending final payment between County and Contractor with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the work which will become binding upon County and Contractor at the time when County takes over such operation (unless they shall have otherwise agreed in writing). During such operation and prior to substantial completion of such part of the work, County shall allow Contractor reasonable access to complete or correct items on said list and to complete other related work.

3. No occupancy or separate operation of part of the work will be accomplished prior to the insurers who are then providing the property insurance having acknowledged notice thereof and in writing effecting the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policies, but the property insurance shall not be canceled or lapse on account of any such partial use or occupancy. Each party shall be responsible for notifying its own insurer.

### **ARTICLE XXIII: ARBITRATION**

#### Arbitration

Where the total of all claims filed by Contractor are under \$375,000, County shall have the option of electing arbitration pursuant to Public Contract Code Sections 10240, et seq. If County does so elect, the mediation provisions of Public Contract Code Section 20104.4 shall not apply pursuant to Public Contract Code Section 20104(a)(2). If County does not elect such arbitration pursuant to Public Contract Code Sections 10240 et seq., the provisions of Public Contract Code Section 20104.4 shall apply.

Where the total of all claims filed by Contractor are above \$375,000, the arbitration provisions of this contract are voluntary. Neither County nor Contractor shall be required to enter into mediation or arbitration for amounts above \$375,000. Written consent of both parties to mediate or arbitrate such claims shall be a prerequisite to such mediation or arbitration. If the parties agree to arbitrate claims above \$375,000, the provisions of Public Contract Code Sections 10240, et seq. shall be utilized.

#### Time to Request Arbitration

No request for arbitration of any claim, dispute or other matter that is required to be referred to County initially for decision will be made until the earlier of (a) the date on which County has rendered a decision or (b) the tenth day after Contractor has presented its evidence to County if a written decision has not been rendered by County before that date. Unless otherwise required by law, no request for arbitration of any such claim, dispute or other matter will be made later than thirty days after the date on which County has rendered a written decision. Notice of the request for arbitration will be in writing to the other party.

### **ARTICLE XXIV: LABOR AND EMPLOYMENT**

#### Worker's Compensation Certification

By my signature hereunder, as Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract.

#### Prevailing Wage Rates

In accordance with the provisions of Section 1770 and 1773 of the Labor Code, the County of Nevada has determined that prevailing wage rates are applicable to the work to be done. The Contractor shall post a copy of the wage rates on the job site. The County is required to provide notice to the Department of Industrial Relations of any public work contract subject to prevailing wages within five (5) days of award.

The general prevailing wage rates determined by the Director of Industrial Relations (DIR), for the county or counties in which the work is to be done, are available from the California Department of Industrial Relations' Internet website at <http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>.

In accordance with Section 1771.1 of the Labor Code, a contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4014 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in Chapter 1 of Part 7 of the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5.

Contractor and all subcontractors must comply with the requirements of Labor Code Section 1771.1(a) pertaining to registration of contractors pursuant to Section 1725.5. Registration and all related requirements of those sections must be maintained throughout the performance of the Contract. The DIR has launched an online application to assist public works contractors in meeting these requirements at <https://efiling.dir.ca.gov/PWCR/ActionServlet?action=displayPWCRegistrationForm>

Pursuant to California Labor Code Section 1775, Contractor shall forfeit Two Hundred Dollars (\$200.00) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates for such work or craft, and said amounts shall be distributed pursuant to the requirements of said Section 1775. Any employee whose type of work is not covered by any of the classified wage rates shall be paid not less than the rate of wage listed for the classification which most nearly corresponds to the type of work to be performed.

#### Collective Bargaining Agreements

Pursuant to California Labor Code Section 1773.8, Contractor shall pay travel and subsistence payments to all workers needed to execute the work as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Section 1773.8 of the Labor Code.

#### Payroll Records

This Contract is subject to compliance monitoring and enforcement by the DIR. The Contractor and each subcontractor must furnish certified payroll records to the Labor Commissioner at least monthly.

Contractor shall be responsible for keeping accurate payroll records as required by California Labor Code Section 1776. Contractor is aware that a penalty of twenty-five dollars (\$25.00) per day or portion thereof for each worker may be assessed for noncompliance with said section. Contractor shall forward to County a certified copy of each payroll record within ten days after close of each payroll period. Such certification shall include a statement that payroll is correct and complete and complies with prevailing wage requirements.

If by the 15th of the month, the Contractor has not submitted satisfactory payrolls for all work performed during the monthly period ending on or before the 1st of that month, County will retain an amount equal to 5 percent of the estimated value of the work performed during the month from the next monthly estimate, except that such retention shall not exceed \$10,000. Retentions for failure to submit satisfactory payrolls shall be additional to all other retentions provided for in the contract. The retention for failure to submit payrolls for any monthly period will be released for payment on the monthly estimate for partial payments next following the date that all the satisfactory payrolls for which the retention was made are submitted.

The Contractor and each subcontractor shall preserve their payroll records for a period of three years from the date of completion of the contract.

#### Limitations on Hours Worked

Eight hours constitutes a day's work and workers shall be limited to working 8 hours during any one calendar day and 40 hours during any one calendar week. Contractor and all subcontractors shall keep an accurate record of hours worked by each worker for each calendar day and each calendar week which record shall be available for inspection during business hours. Contractor shall, pursuant to California Labor Code Section 1813, forfeit twenty-five dollars (\$25) for each day for each worker where such worker is required or permitted to work more than 8 hours in any one day and 40 hours in any one week in violation of the provisions of the Labor Code. No overtime shall be authorized unless prior written approval of County is obtained permitting such overtime. If such overtime work is authorized by County,

Contractor shall compensate each worker required to work overtime at the rate of one and one-half (1-1/2) times the basic rate of pay. All costs for overtime inspection, except those occurring as a result of overtime and shift work established as a regular procedure, shall be paid by the Contractor. Overtime inspection shall include inspection required during holidays, Saturdays, Sundays, and any weekday between the hours of 5:00 p.m. and 7:00 a.m. Such costs will include but will not necessarily be limited to engineering, inspection, general supervision and other overhead expenses which are directly chargeable to the overtime work. All such charges shall be deducted by County from payments due the Contractor.

#### Equal Employment Opportunity and Nondiscrimination

During the performance of this contract, the contractor agrees to abide by all provisions of Section 1735 of the California Labor Code, as amended, regarding nondiscrimination practices.

#### Employment of Apprentice Labor

Reference is hereby made to Section 1777.5 of the Labor Code of the State of California, which regulations shall govern the employment of apprentices on the work.

#### Preference for Resident Labor

In the employment of labor for doing the work, the Contractor shall give preference to qualified persons residing within the general area of the work.

#### Incompetent Workers

If at any time any worker employed by Contractor or any of the subcontractors shall be declared by County to be incompetent or unfaithful in executing the work, the Contractor, on receiving written notice, shall forthwith initiate appropriate action to dismiss such person.

#### Labor Class Substitutions

If Contractor substitutes a labor classification or provides a new classification which results in a reduction in the contract price, County's execution of a change order evidencing said reduction in price shall in no way be construed, either express or implied, as consent to the use of said labor classification in the performance of any work on the project.

### **ARTICLE XXV: ASSIGNMENT**

No assignment by a party hereto of any rights under or interests in the contract documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the contract documents.

### **ARTICLE XXVI: CONFLICT OF INTEREST RESTRICTIONS**

No official of County who is authorized in such capacity and on behalf of County to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspecting, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for County who is authorized in such capacity and on behalf of County who is in any legislative, executive, supervisory, or other similar function in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

### **ARTICLE XXVII: WAIVER OF RIGHTS**

No action or lack of action on the part of County at any time to exercise any right or remedy conferred upon it under this contract shall be deemed to be a waiver on the part of County of any of County's rights or remedies.

**ARTICLE XXVIII: SUCCESSORS IN INTEREST**

County and Contractor each bind themselves, their partners, successors, assigns and legal representatives to the other party hereto, their partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the contract documents.

**ARTICLE XXIX: NOTICE**

Giving Notice

Whenever any provision of the contract documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent registered or certified mail, postage prepaid, to the last business address known to the giver of the notice. The business addresses of Contractor given in the bid form and Contractor's office at the site of the work are hereby designated as the places to which all notices, letters, and other communication to Contractor will be delivered. However, County or Contractor may change their addresses at any time by an instrument in writing delivered to the other.

Joint Venture Contractor

In the event the Contractor is a joint venture of two or more Contractors, all grants, covenants, provisos and claims, rights, powers, privileges and liabilities of the contract shall be construed and held to be several as well as joint; any notice, order, direction, request or other communication required to be or that may be given by County to the Contractor under this agreement shall be well and sufficiently given to all persons being the Contractor if given to any one or more of such persons; any notice, request or other communication given by any one of such persons to County under this agreement shall be deemed to have been given by and shall bind all persons being the Contractor.

**ARTICLE XXX: VENUE AND JURISDICTION**

This contract shall be construed in accordance with the laws of the State of California and the parties agree that venue shall be in Nevada County, California.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement on the date first written, above. One counterpart each has been delivered to County, Contractor, and the Sureties. All portions of the contract documents have been signed or identified by County and Contractor.

ATTEST:

\_\_\_\_\_  
Julie Patterson Hunter  
Clerk of the Board

COUNTY OF NEVADA

By: \_\_\_\_\_  
Honorable Richard Anderson  
Chairman, Board of Supervisors

CONTRACTOR

By: \_\_\_\_\_  
Licensed in accordance with an act providing for the  
registration of Contractors  
License Number: \_\_\_\_\_

Fed. Tax ID No: \_\_\_\_\_

Telephone No: \_\_\_\_\_

Department of Industrial Relations

Registration No.: \_\_\_\_\_



**CERTIFICATION OF WORKERS' COMPENSATION**  
(LABOR CODE SECTION 1861)

STATE OF CALIFORNIA COUNTY OF  
NEVADA

I, the undersigned, do hereby certify:

That I am aware of the provisions of Section 3700 of the Labor Code of the State of California, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract.

Executed at \_\_\_\_\_, California, on the \_\_\_\_\_ day of \_\_\_\_\_, . I

certify under the penalty of perjury that the foregoing is true and correct.

Contractor-Employer

\*\*\*\*\*

**BOND OF FAITHFUL PERFORMANCE**

**Know All Persons by These Presents:**

**THAT WHEREAS**, the County of Nevada awarded to \_\_\_\_\_, hereinafter designated as the "Contractor," a contract for the work **consists generally of** Construction of Nevada County Operations Center

**AND WHEREAS**, the Contractor is required to furnish a bond in connection with said contract guaranteeing the faithful performance thereof;

**NOW, THEREFORE**, We the undersigned Contractor and Surety, are held and firmly bound unto the County of Nevada, in the **sum of Enter Dollar Amount dollars (\$000,000.00)**, to be paid to the said County, its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly be these presents.

The condition of this obligation is such that if the above Contractor, its heirs, executors, administrators, successors or assigns shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the foregoing contract and any alteration thereof made as therein provided, on its part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the County of Nevada, its officers and agents, as therein stipulated, then this obligation shall become and be null and void; OTHERWISE, it shall be and remain in full force and effect.

In case suit is brought upon this bond the Surety shall pay all court costs, expenses and the reasonable attorney's fees fixed by the court in the event the claimant is deemed to be the prevailing party.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

**IN WITNESS WHEREOF**, we have hereunto set our hands and seals on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ .

**CONTRACTOR:**

**SURETY:**

By:

Its:

By:

Its:

Address of Surety for Service of Notice and/or Process

Surety California Secretary of State Corporation Number:

Contractor Secretary of State Corporation Number:

NOTE: Signatures of Contractor and Surety must be notarized, and signature of surety must be accompanied by a duly authorized power of attorney if executing as attorney-in-fact.

This form has been approved by County Counsel

**PAYMENT BOND**

Know All Persons by These Presents:

**THAT WHEREAS**, the County of Nevada has awarded to \_\_\_\_\_, as principal, hereinafter designated as the "Contractor," a contract for the work described as follows consists generally of the following: : Construction of Nevada County Operations Center

**AND WHEREAS**, said Contractor is required by the Contract and the provisions of Chapter 7 (commencing with Section 3247) of Title 15, Part 4, Division 3, of the Civil Code, to furnish a bond in connection with said contract;

**NOW, THEREFORE**, We, the undersigned Contractor and Surety are held and firmly bound unto the County of Nevada in the sum of Dollar Amount (\$00,000.00), for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that if said Contractor, its heirs, executors, administrators, successors or assigns, or subcontractors, shall fail to pay any materials, provisions, provender, or other supplies or teams, implements or machinery used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, as required by the provisions of Chapter 7 (commencing with Section 3247) of Title 15, Part 4, Division 3, of the Civil Code, and provided that the claimant shall have complied with the provisions of said Code, the Surety hereon will pay for the same in an amount not exceeding the sum specified in this bond; OTHERWISE, the above obligation shall be void. In case suit is brought upon this surety bond the Surety will pay all court costs, expenses and the reasonable attorney's fees fixed by the court in the event the claimant is deemed to be the prevailing party. This bond shall insure to the benefit of any and all persons, companies or corporations entitled to file claims under section 3181 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

**IN WITNESS WHEREOF**, we have hereunto set our hands and seals on this \_\_\_\_\_ day of \_\_\_\_\_, 20 .

CONTRACTOR:

SURETY:

By:  
Title:

By:  
Title:

Address of Surety for Service or Notice and/or Process:

---

Surety California Secretary of State Corporation Number:  
Contractor Secretary of State Corporation Number:

NOTE: Signatures of Contractor and Surety must be notarized, and signature of Surety must be accompanied by a duly authorized power of attorney if executing as attorney-in-fact.

This form has been approved by County Counsel.

# SPECIFICATIONS

**WAYNE BROWN CORRECTIONAL FACILITY**

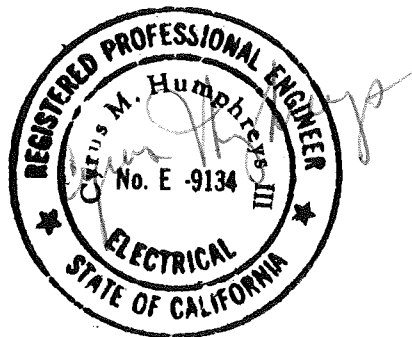
**JAIL SECURITY SYSTEM UPGRADES  
NEVADA COUNTY**

**SPECIFICATIONS**

April 5, 2019

Prepared by:

Alta Consulting Services, Inc.  
San Jose, CA 95131



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DIVISION 1  
GENERAL REQUIREMENTS

SECTION 01010 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 TITLE OF PROJECT

- A. Wayne Brown Correctional Facility  
Jail Security System Upgrades  
Nevada County, California

1.2 DESCRIPTION OF WORK

- A. The work includes all of the work indicated on or reasonably inferred from the Drawings and Specifications identified as a part of the Contract Documents including, but not necessarily limited to:
1. Upgrade and expansion of the existing security-control system.
  2. Expansion of the existing intercom system.
  3. Electrical system upgrades, including the replacement of UPS system batteries at several locations in the facility.
  4. Upgrading and expansion of the existing video surveillance system including new cameras and added video storage capacity.
- B. Specifically included in the work are the following:
1. The upgrading of the existing security control system software and hardware as needed to incorporate the doors and devices added since the earlier system replacement in 2012 as well as the devices to be added and controlled under this project. This work will include upgrading the HMI programming at all touchscreens as well as PLC programming for the added devices.
  2. As noted in the transition description below this work will be accomplished in a staged manner while maintaining the secure operation of the facility.  
  
The existing pneumatic locks and field wiring shall be reused by the new security control system.  
  
Two groups of visitation booths will receive local lock status indicators both inside the booths and outside each door for inmate notification. The exiting magnetic locks and call in buttons shall remain in service. Any required lock modifications and adjustments to the current door hardware are not a part of this project, but the contractor shall coordinate with the County for scheduling this work by their vendor.
  3. The existing intercom system shall be expanded as indicated on the drawings. The project will include all needed hardware, wiring and conduit, and system programming to fully incorporate these added devices into the integrated security control system.

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4. The existing UPS systems shall be provided with new battery banks sized to provide the required runtimes at each of the locations. The exception to this is in the main equipment room where a failed system has recently been replaced. The contractor shall verify that the installed UPSs have adequate capacity to support the attached loads for the required duration. If any require size adjustment this will be addressed via a change order if needed.
5. The current video surveillance system consists of digital cameras, UTP cabling, and a central digital recording system and monitors at several locations throughout the facility. The majority of this equipment and software was manufactured by Vicon.

The intent of this project is to expand the video recording system in both duration and capabilities to provide for a one-year retention of all video images including all of the cameras that are currently connected as well as those that are to be added as a part of this project. Any new hardware and software provided under this contract shall be compatible and fully integrated with the existing security control system.

A number of additional cameras shall be added to address known weak areas to address the newer PREA requirements and identified uncovered areas in the facility. These are identified on the drawings.

Two large (40 inch diagonal) LCD monitors and associated video workstation shall be added in the Central Control Room over the windows for general observation of up to 25 images each. The images to be displayed shall be selected by the Owner at the time of installation

The existing conduits and cable pathways shall be reused for the new system components where possible and the new added cameras and cables shall be installed in a manner appropriate for a detention environment. This shall include metallic conduit for all cables in areas exposed to inmates regardless of height and fully supported and concealed cabling where possible.

1.3 CONTRACTOR'S USE OF PREMISES

- A. Coordinate the use of the premises under the direction of the County. Contractor shall have limited use of the premises for work, storage, access, parking and equipment. The County reserves the right to employ others at the site concurrently with the work of this Contract.

1.4 OWNER OCCUPANCY AND WORK SCHEDULING

- A. Contractor is advised that the project site is an operating detention facility. As such continuous operation of the facility in a safe and secure manner is mandatory. No interruption of services will be tolerated without prior arraignments with the County.
- B. County will fully occupy the building and site during the construction period. Any work that will significantly restrict access or egress from the facility must be fully coordinated.
- C. Unless otherwise noted, the County will move non-fixed equipment and furnishings from the work areas.
- D. During the project the County may be upgrading the flooring and millwork at the control points on an as needed basis. Coordination of this work with the security system upgrade work shall be included in the scope of this project.
- E. At the completion of each shift, the Contractor shall fully clean all areas affected by the work and shall remove all debris and waste from the site. All materials, tools, supplies and equipment shall be removed to the designated lay-down area. Temporary closure shall be provided where existing construction has been cut or demolished to provide access for work, and it is not possible to complete the new work and repair the opening in one shift.



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- 1.5 One of the major areas of concern when implementing the planned security control upgrades is how the transition from the existing to the upgraded system is best accomplished. The need for the facility to remain in full, secure operation during the transition should be the basis for all planning in this effort.
- A. Considerations to accomplish this work include:
- Safety of the Inmates, Staff, and Public
  - Maintaining full inmate control
  - Minimizing required Staff Overtime
  - Minimizing the impacts on related functions like court transfers and visitations.
  - Allowing the Contractor reasonable blocks of time to perform the work
- B. Some of the techniques that have been used to achieve above goals involve extensive coordinated planning by the contractor and the facility staff for not only the on-site activities, but potentially for any needed off-site preparation and staging of the equipment.
- C. At the conclusion of the installation of the added and replaced equipment, perform one full final systems verification test.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION 01010

NEVADA COUNTY  
JAIL SECURITY SYSTEM UPGRADES

SECTION 01040 - PROJECT COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including other Division 1 Specification Sections, apply to this Section.
- B. Requirements for Pre-Construction Conference, Coordination Meetings, and Progress Meetings are included in Section 01200 "Project Meetings."
- C. Requirements for the Contractor's Construction Schedule are included in Section 1300 and Section 17000.

1.2 SUMMARY

- A. This Section specifies administrative and supervisory requirements necessary for Project coordination.

1.3 GENERAL

- A. The Contractor shall fully coordinate the requirements of the contract documents. In the case of disagreement between the drawings and the specifications, or within either document itself, the better quality or greater quantity of work shall be the basis of the Contract.
- B. The Contractor is solely responsible for coordination of bidding and the scope of work of any subcontractors. Neither the County nor any of its consultants will act as arbiter as to which trade or subcontractor is to furnish and install various items or systems indicated or otherwise required by the Contract Documents.

1.4 COORDINATION

- A. Coordinate construction activities included under various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different sections of the Specifications that are dependent upon each other for proper installation, connection, and operation.
  - 1. Where installation of one part of Work is dependent on installation of other components, either before or after its own installation, schedule construction activities in the sequence required to obtain the best results.
  - 2. Where space is limited, coordinate installation of different components to assure maximum accessibility for required maintenance, service and repair.
  - 3. Make adequate provisions to accommodate items scheduled for later installation.

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- B. **Work Hours:** Work hours shall be as mutually agreed between the County and the Contractor. Coordinate daily schedule of work to permit cleaning and removal of material at the completion of daily shift as required in Section 01010 Summary of Work. As required by the County, or as requested by the Contractor and approved in advance by the County, work during evenings and on weekends shall be scheduled at no additional cost to the County.
- C. **Sequence of Work:** Identify specific phases of work to accommodate jail operational requirements. Coordinate cutover sequence and schedule to accomplish the work. Facility will remain in operation throughout project. Limited areas will be made available for installation for limited periods of time. Existing electronic systems shall remain in operation for all other areas that have not yet been cut over to the new systems. Refer to the Instructions to Bidders, General Conditions, and the requirements of Section 17000.

1.5 PERSONNEL

- A. **Staff Names:** Within ten (10) days of Notice to Proceed, submit a list of the Contractor's principal staff assignments, including the Project Engineer, Project Superintendent and other personnel in attendance at the site; identify individuals, their duties and responsibilities; list their addresses and telephone numbers.
- B. For the purposes of this Contract, the titles, "Project Superintendent", "Construction Superintendent", and "Project Manager" shall be synonymous.
- C. If staff assignments for Project Engineer or Project Superintendent are different from those proposed in the Contractor's Statement of Qualifications, or if further personnel information is required, submit resumes demonstrating the qualifications of the Project Engineer and/or Project Superintendent. Resumes shall establish that the individuals assigned are qualified as described in the Request for Statement of Qualifications for this project.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION 01040

NEVADA COUNTY  
JAIL SECURITY SYSTEM UPGRADES

SECTION 01045 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for cutting, fitting and patching required to complete the work including, but not limited to:
1. Providing access above finished ceilings and throughout walls for installation of new work.
  2. Removing and replacing work not in conformance with Contract Documents or manufacturer's instructions.

1.2 SUBMITTALS

- A. The documents generally indicate the extent of the work. In order to execute this work, access may be required through existing construction. Submit a proposal describing proposed cutting and patching procedures at least fifteen (15) days prior to the time cutting and patching will be performed. Request approval to proceed. Include the following information, as applicable, in the proposal:
1. Describe the extent of cutting and patching required. Indicate how it will be performed. At some locations, cutting and patching may require adding additional framing to support the edge of the cut material and to facilitate installation of new patching. Indicate methods to be used to provide support of patching material.
  2. List products to be used and firms or entities that will perform Work.
- B. Approval by the County to proceed with cutting and patching does not waive the County's right to later require additional patching, repair or removal and replacement of unsatisfactory work.

1.3 QUALITY ASSURANCE

- A. Requirements for Structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
- B. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the County's opinion, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Any construction cut and patched by the contractor in a visually unsatisfactory manner shall be repaired and re-patched to the County's satisfaction.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

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- A. Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible if identical materials are unavailable or cannot be used. Use materials whose installed performance will equal or surpass that of existing materials.

2.2 GYPSUM BOARD MATERIALS

- A. Fire Rated Gypsum Board: ANSI/ASTM C36; fire resistive type, UL listed, 5/8 inch thick ends square cut, tapered edges.
- B. Joint Materials: ANSI/ASTM C475; GA 201 and GA 216; reinforcing tape, joint compound, adhesive, water, and fasteners.
- C. Screws: ASTM C1002, self-tapping, bulge head, length to penetrate framing member not less than 5/8 inch.

2.3 ACOUSTIC TILE CEILING MATERIALS

- A. Grid: Match existing.
- B. Accessories: Stabilizer bars, clips, splices, edge moldings, hold down clips, and other items required for complete and sound installation of suspended grid system.
- C. Acoustic Tiles: Match existing

2.4 WALL SURFACES

- A. Paint or otherwise finish to match existing adjacent surfaces.

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PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.

3.2 PREPARATION

- A. Support: Provide support of work to be cut.
- B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide dust containment in finished and occupied spaces.
- C. Avoid interference with use of adjoining areas or free passage to adjoining areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining construction.
  - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to the size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side onto concealed surfaces.
- C. Patching: Patch with seams that are as invisible as possible. Comply with specified tolerances.
  - 1. Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
  - 2. Remove existing wall coverings and replace with new materials, if necessary to achieve uniform color and appearance.
  - 3. Where patching occurs in a smooth painted surface, extend final paint coat over entire unbroken surface containing the patch after the area has been received primer and second coat. Extend painting to the nearest transition/intersection of plane.
- D. Removal and Replacement: Remove existing suspended ceiling framing, tile, and light fixtures, to the extent necessary, to provide access for new work.

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1. Patch, repair, and rehang existing suspended tile ceilings as necessary to provide an even-plane surface of uniform appearance. Replace any material damaged as a result of new work.

3.4 CLEANING

- A. Clean areas and spaces where cutting and patching are performed on a daily basis. Completely remove paint, mortar, oils, putty and similar items. Thoroughly clean piping, conduit and similar features before applying paint or other finishing materials. Restore damaged pipe covering to its original condition.

END OF SECTION 01045

NEVADA COUNTY  
JAIL SECURITY SYSTEM UPGRADES

SECTION 01200 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for project meetings, including, but not limited to, the following:
  - 1. Preconstruction Conference.
  - 2. Coordination Meetings.
  - 2. Progress Meetings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Section 01040 "Project Coordination" for procedures regarding coordinating project meetings with other construction activities.
  - 2. Section 17000.

1.2 PRECONSTRUCTION CONFERENCE

- A. The County will schedule a Preconstruction Conference approximately ten (10) days after execution of the Agreement. The Conference will be at the Project Site or another convenient location.
- B. Attendees: Authorized representatives of the County, Contractor and other concerned parties shall attend the Conference, including the Contractor's Project Engineer and Project Superintendent. All participants at the Conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress, which may include, but will not be limited to the following items:
  - 1. Construction schedule.
  - 2. Critical work sequencing.
  - 3. Designation of responsible personnel.
  - 4. Procedures for processing field decisions and Change Orders.
  - 5. Procedures for processing Applications for Payment.
  - 6. Distribution of Contract Documents.
  - 7. Submittal of Shop Drawings, Product Data and Samples.
  - 8. Preparation of record documents.
  - 9. Use of premises.
  - 10. Parking availability.
  - 11. Equipment deliveries and priorities.
  - 12. Safety procedures.
  - 13. First aid.
  - 14. Security.



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15. Housekeeping
16. Working hours.
17. Existing conditions.

1.3 COORDINATION MEETINGS

A. Initial Coordination Meeting with the County:

1. Coordinate the scheduling of a Coordination Meeting with the County and others (as selected by the County) to determine a mutually acceptable time and place (at the Project Site or another convenient location). The Initial Coordination Meeting is expected to be held approximately 30 days after the Notice to Proceed. The Contractor shall schedule the meeting immediately after receiving approval of the initial submittals listed in paragraph 1.10.B.1 of Section 17000.
3. Following the Initial Coordination Meeting, incorporate the County's decisions and submit a Progress Submittal in accordance with Section 17000, within 10 days of the Meeting.

B. Subsequent Coordination Meetings:

1. It is the County's expectation that any further coordination required can be handled during Progress Meetings. However, if subsequent Coordination Meetings are deemed necessary by the County, the County will schedule them with the Contractor. Meetings will be at the Project Site or another convenient location.
2. Following each meeting, incorporate the County's decisions into the next scheduled Progress Submittal in accordance with Section 17000.

C. Attendees: Authorized representatives of the County, Contractor and other concerned parties shall attend each Coordination Meeting, including the Contractor's Project Engineer and Project Superintendent.

D. Agenda: Discuss the County's choices for colors, labeling nomenclature, touchscreen layouts, door/call priority, alarm tones, and other items which require decisions by the County.

1.4 PROGRESS MEETINGS

A. Conduct Progress Meetings at the Project Site on a weekly basis when work is taking place on-site, and bi-weekly at other times. Establish a regular date and time for the Progress Meetings at the Pre-construction Conference.

B. Attendees: At a minimum, the County and Contractor shall be represented at these meetings, including the Contractor's Project Superintendent. Representatives of subcontractors, governing authorities or other project-related organizations may also attend, as appropriate. All participants at the Conference shall be familiar with the Project and authorized to conclude matters relating to Work.

C. Agenda: The County will prepare the agenda for each meeting, which shall include at a minimum: progress towards resolution of issues raised at the preceding meeting, review of the Contractor's progress to date and projections in the following week.

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- D. When work by the County's force is taking place concurrent with the Contractor's work, additional meetings may be scheduled by the County to coordinate the work of the various parties.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not applicable

END OF SECTION 01200

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SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work.
- B. Related Sections:
  - 1. Section 01600 "Material and Equipment" contains requirements which relate to this Section.
  - 2. Section 17000 "Electronics and Communications General" contains additional submittal requirements.

1.2 DEFINITIONS

- A. General Submittals include, but are not limited to, the following:
  - 1. Permits.
  - 2. Applications for Payment.
  - 3. Performance and Payment Bonds.
  - 4. Insurance Certificates.
  - 5. Listing of Subcontractors.
  - 6. Contractor's Construction Schedule.
  - 7. Daily Construction Reports.
  - 8. Schedule of Values
  - 9. Schedules and Databases
  - 10. Samples
  - 11. Progress Submittals
  - 12. Test Reports
  - 13. Documents of Record
- B. Shop Drawings include, but are not limited to, the following:
  - 1. Preliminary Shop Drawings
  - 2. Fabrication Shop Drawings.
  - 2. Installation Shop Drawings.
  - 3. Shopwork manufacturing instructions.
  - 4. Templates and patterns.
- C. Product Data include, but are not limited to, the following:
  - 1. Manufacturers' lists.
  - 2. Equipment list and Product Data
  - 3. Standard color charts.

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1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal allowing sufficient time before scheduled performance of related construction activities to avoid delay.
- B. Submittal Preparation: Place a permanent label or title block on, or attach a cover sheet to, each submittal for identification. On the label, title block or cover sheet, indicate at least the following information:
  - 1. Project: Wayne Brown Correctional Facility Jail Security System Upgrades.
  - 2. The name of the entity that prepared each submittal.
  - 3. The date the submittal was transmitted.
  - 4. The Article of the Specifications that the submittal is intended to fulfill (e.g. Section 17000, Article 1.11.C.2 - Equipment List and Product Data).
- C. Contractor's Review Stamp: The Contractor must review and stamp all submittals, prior to transmission to the Owner. Submittals received without the Contractor's Stamp will be returned without action.
- D. Transmit all submittals to the person or entity identified by the County

1.4 GENERAL SUBMITTALS

- A. Contractor's Construction Schedule:
  - 1. Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart-type, proposed Construction Schedule. Indicate start and completion dates for each major work item including, but not limited to: each submittal required, each task listed in Article 1.16 of Section 17000, and each test required in Division 17. Submit a minimum of three (3) copies for review at the Preconstruction Conference. Allow at least 14 days for each submittal to be reviewed; additional time will be required for any re-submittals necessary.
  - 2. If any changes are required by the County, revise the schedule to reflect the County's changes. No construction shall be started until the Construction Schedule is approved by the County. Do not deviate from the Construction Schedule approved by the County, unless the Contractor has informed the County in writing of such deviation and written acceptance for said specific deviation has been granted by the County.
  - 3. Prepare an updated Construction Schedule weekly, clearly identifying the completion dates of any work completed, any changes required by the County, and any other proposed schedule changes. Submit a minimum of three (3) copies of the most recent Construction Schedule at each Progress Meeting.
- B. Daily Construction Reports: The Contractor shall maintain a job site Construction Log which shall be kept available for review by the County. At a minimum, record the information listed below on a daily basis; transmit record copies to the Owner at each Progress Meeting:
  - 1. General Progress of the Work; partial completions.

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2. Accidents and unusual events.
  3. Meetings and significant decisions.
  4. Stoppages, delays, shortages and losses.
  5. Orders and requests of governing authorities.
  6. Change Orders received, implemented.
  7. Services connected, disconnected.
- C. Submit three hard copies of all Record Drawings to the County. Record Drawings shall be original plots or first generation reproductions, indistinguishable from the originals. Record Drawings shall also be architectural size "D" (21 inches x 33 inches). The height of each alphanumeric character on the drawings shall be greater than 0.07 inches (text height should generally be 0.1 inches). Current version of AutoCAD (.dwg) files shall also be submitted on CD for all Record Drawings. The format of the files shall conform to the County's CAD standards or as otherwise approved by the County.

1.5 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
- B. For each Shop Drawing submittal, at least one complete set of all drawings submitted shall be blacklines accompanied by a .pdf copy of the drawing separately submitted as an attachment to a submittal e-mail to the designated County project representative. Unless otherwise approved by the County, all Shop Drawings shall be architectural size "D" (21 inches x 33 inches). The height of each alphanumeric character on the drawings shall be greater than 0.07 inches (text height should generally be 0.1 inches).
- C. Refer also to the County General Conditions of the Contract.

1.6 PRODUCT DATA

- A. Collect Product Data into a single submittal for the project. Product data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not proposed, mark copies to indicate applicable information.

1.7 ACTION ON SUBMITTALS

- A. Where action is required, the County's designated consultant will review each Submittal as necessary and recommend overall or sectional acceptance as appropriate, according to the following criteria:
1. No Exceptions Taken - Action A: "Action A" means that fabrication, manufacture, cabling and/or installation shown on the drawings may proceed, providing the work is in accordance with the Contract Documents. Final acceptance of the work will be contingent upon such

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- compliance.
2. Make Corrections Noted - Action B: "Action B" means that fabrication, manufacture, cabling and/or installation shown on the drawings may proceed, and that final acceptance of the work will be contingent upon compliance with all notations and all requirements of the Contract Documents.
  3. Amend and Resubmit: The Contractor shall revise the submittal in accordance with notations thereon, and resubmit without delay to obtain a different action marking.
  4. Rejected - Action C: "Action C" means no work so marked shall be fabricated, manufactured, cabled, and/or installed, and that the Contractor shall resubmit new submittals as required until resubmission is no longer required. Submittals marked "Action C" (and unmarked submittals where marking is required) shall not be used in connection with performance of the work.
- B. Review and/or acceptance of Submittals shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents, unless the Contractor has informed the County in writing of such deviation at the time of submission and written acceptance for said specific deviation has been granted by the County. Nor shall review/acceptance relieve the Contractor from responsibility for errors and omissions in the Submittals. Nor shall any relief from site observation be implied by submittal reviews.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION 01300

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SECTION 01500 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Temporary Utilities: electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
- B. Temporary Controls: noise, dust and pollution control.
- C. Construction Facilities: construction aids.
- D. Protection of work and existing features to remain.
- E. Periodic Cleaning.

1.02 TEMPORARY ELECTRICITY

- A. Power service is provided at the site. Any temporary electrical distribution needed by the Contractor shall be the Contractor's responsibility. Provide UL approved flexible power cords as required. Comply with NEC and all other regulatory requirements.
- B. Costs of power shall be borne by the County except that the County will not be responsible for any additional costs or delays occasioned by loss of power service to the project.
- C. Temporary power consumption shall not disrupt the County's need for continuous service.

1.03 TELEPHONE SERVICE

- A. The Contractor shall not use the existing telephone service at the site.
- B. Provide continuous direct or mobile telephone communication capability to the Project Superintendent throughout the length of the project.
- C. All costs for telephone communication shall be the responsibility of the Contractor.
- D. Coordinate access for telephone service installation and removal with facility maintenance staff.

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1.04 SANITARY FACILITIES

- A. Existing permanent facilities are available for use by construction personnel. The County may designate one of the toilet rooms for worker's use. Clean designated toilet facilities on a daily basis. At the end of construction, insure facilities are clean and operational. Remove all evidence of prior use.

1.05 TEMPORARY PARKING AND STORAGE AREA

- A. A limited number of Contractor's construction vehicles will be permitted on-site at any one time. Storage of vehicles and large construction equipment will not be permitted unless prior approval of County is obtained. The County assumes no risk due to use by the Contractor and its employees and subcontractors.
- B. At the County's sole discretion, space may be made available at the site for temporary storage of materials. Contractor shall be responsible for the security of materials, tools and other items at the site.

1.06 DUST CONTROL

- A. Execute Work by methods to minimize raising dust from demolition and/or construction operations.
- B. Provide positive means to prevent air-borne dust from dispersing into atmosphere. Prior to commencement of demolition, install physical barriers to contain dust. Cover all equipment and furnishings. The Contractor shall be responsible for costs of cleaning equipment and furnishings contaminated by failure to control dust and debris from the work.
- C. Following work and cleaning, remove all dust control elements.

1.07 TEMPORARY FENCING AND BARRICADES

- A. Furnish, install, and maintain adequate temporary barricades, other enclosures, and warning signs/directional barriers to allow for protection of persons and property as required by applicable regulations, codes and laws.

1.08 CONSTRUCTION AIDS

- A. Furnish, install, and maintain temporary construction aids as required for the proper and safe execution of the work. Such aids shall consist of, but not necessarily be limited to: staging, ladders, platforms, railings, hoists, lifts, chutes, etc.
- B. Comply with all safety and regulatory requirements.



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1.09 PROTECTION OF WORK

- A. Protect all existing and installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Provide protective coverings at walls, projections, jambs, sills and soffits of openings.
- D. Protect finished floors, stairs and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Refer also to the General Conditions of this Contract.

1.10 PROGRESS CLEANING

- A. Maintain areas so as to be free of waste materials, debris and rubbish. Maintain site so as to be in clean and orderly condition.
- B. Remove debris and rubbish from closed or remote spaces prior to enclosing the space.
- C. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- D. Remove waste materials, debris and rubbish from site weekly or more frequently as required by the County and dispose off-site.
- E. County's waste containers shall not be used at any time.

1.11 REMOVAL OF UTILITIES, FACILITIES AND CONTROLS

- A. Remove temporary above grade or buried utilities, equipment, facilities, materials prior to final completion.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore facilities used during construction to as-new condition.

PART 2 PRODUCTS

Not Applicable

PART 3 EXECUTION

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Not Applicable

END OF SECTION 01500

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SECTION 01600 - MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Transportation and handling.
- C. Storage and protection.
- D. Substitutions
- E. Request For Substitution.

1.2 RELATED SECTIONS

- A. Division 17 - All Sections.

1.3 PRODUCTS

- A. Products: Means new material, components, equipment, fixtures and systems forming the Work. Do not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for re-use.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Where several manufacturers are listed, the Contractor may choose which manufacturer's product to provide. The Contractor's product selections shall be shown on the Equipment List and Shop Drawings. For each category, provide products of the same manufacturer. Provide interchangeable components for similar components.
- D. Provide products which are new, unused, and undamaged.
- E. Provide products which, at the time of bidding, are the manufacturers' current models and versions; do not provide discontinued items which have been replaced by newer models or versions.

1.4 TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement or damage.

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- D. All deliveries must be received by the Contractor. No deliveries will be accepted by the Owner or at the Owner's other facilities.

1.5 STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures at approved locations.
- B. For exterior storage of fabricated products, place on sloped supports, above ground.
- C. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- D. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement or damage.
- E. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

1.6 SUBSTITUTIONS

- A. Manufacturers' names, patents, and model numbers used in conjunction with materials, processes or equipment included in the specifications are used to establish standards of quality, utility, and appearance. Materials, processes or equipment which, in the opinion of the County, are equivalent in quality, utility, and appearance may be substituted for those listed, subject to the following conditions:
  - 1. Substitutions shall be equal, in the opinion of the County, to the requirements of the Contract Documents. The burden of proof of such shall rest with the Contractor. When the County, in writing, accepts a Substitution, it is with the understanding that the Contractor guarantees the substituted article or material to be better than or equal to the one specified and to fit properly within the construction. Approved Substitutions shall not relieve the Contractor of its responsibilities for the proper execution of the work, or from any provisions of the Contract Documents.
  - 2. In order to be considered by the County and its engineering consultant, a Request for Substitution shall be submitted by the Contractor for any and all Substitutions. Each Request For Substitution shall conform to the provisions of this Section in order to receive consideration.
- B. Each bidder shall base its bid on the Contract Documents, including all specified products and any addendums issued by the County, not on proposed substitutions.

1.7 REQUEST FOR SUBSTITUTION

- A. Clearly mark each Request for Substitution with the words, "Request for Substitution."

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- B. Clearly identify the specified material(s), process(es) or equipment to be replaced by the Substitution. Indicate related Specification Section and paragraph numbers.
- C. Provide complete documentation to fully substantiate the compliance of the proposed Substitution with the requirements for Substitutions, demonstrating that the Proposed Substitution is equal to the work to be replaced. This documentation shall include the following items, to the extent applicable:
  - 1. Product Data, including drawings or photographs, descriptions of product(s), and complete product specifications.
  - 2. Descriptions of fabrication and installation processes and procedures.
  - 3. Samples, where applicable or requested.
  - 4. A detailed comparison of the significant qualities of the proposed Substitution with those of the specified work to be replaced. Organize comparisons similar to the part(s) of the Specifications relating to the work replaced, to the extent possible.
- D. Note any additional work which must be performed as a result of the substitution.
- E. If the substituted item would result in a cost savings to the County, indicate the available cost savings.
- E. Indicate the reason for, and/or the advantage of, the substitution. (For example: "lower cost," "higher quality," "Preferred manufacturer," etc.)
- F. Submission of a Request for Substitution and/or subsequent inclusion of a product identified as approved Substitution constitutes a representation that the Bidder/Contractor:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the Substitution as for the specified product.
  - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete as a result of the Substitution, with no additional cost to the County.
  - 4. Waives claims for additional costs or time extension which result from the acceptance or rejection of a Substitution.
  - 5. Acknowledges that the final approval of a Substitution will be made after review and approval of detailed shop drawings. If it subsequently becomes apparent that the substitute product is incapable of meeting the specified requirements or that modification is necessary for installation, the Contractor shall provide the specified product.
- G. The County may return, without consideration, any Requests for Substitution which do not comply with the requirements of this Section.

PART 2 - PRODUCTS

Not Used

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PART 3 - EXECUTION

Not Used

END OF SECTION 01600

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DIVISION 17  
SECURITY ELECTRONICS

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SECTION 17000 - ELECTRONICS AND COMMUNICATIONS GENERAL

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Work of Division 17 includes:
  - 1. Furnish labor, materials, and equipment necessary to provide complete and operable electronics systems as described in the Sections of Division 17, and as shown on the drawings.
  - 2. Pay all fees and charges for business licenses, inspections, permits, and other services required for the work of Division 17. Questions regarding County permit requirements should be directed to the County Building Department at (530) 265-1222.
  - 3. Remove existing door control, intercom, and other systems to the extent established in these documents.
  - 4. Relocate equipment to the extent established in these documents.
- B. Work of this Section includes:
  - 1. General requirements applying to all Sections of Division 17.
  - 2. Submittals.
  - 3. Sequencing of work.
  - 4. Coordination with work of other Divisions.
  - 5. Training requirements for facility staff.
  - 6. Record documentation.
  - 7. Substitution procedures and criteria.
  - 8. Equipment, materials, and characteristics common to all electronic systems specified under Division 17.
  - 9. Supervision.
  - 10. Installation practices.
  - 11. Testing requirements.
- C. The requirements of this Section govern the following Sections:
  - 1. Section 17010 – Signal Raceway Systems and Branch Circuit Wiring.
  - 2. Section 17030 – Uninterruptible Power Supply System.
  - 3. Section 17550 – Intercom Systems.
  - 4. Section 17600 – Surveillance Closed Circuit Television System.
  - 5. Section 17800 – Control Electronics.
- D. The General Requirements of Division 1 apply to the work of Division 17.

1.2 PROJECT DESCRIPTION



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- A. The project site is an existing facility which houses administrative offices and jail facilities operated by Nevada County. The building is a single-story structure with a mezzanine in some of the housing units.
- B. The facility currently has a number of electronic control and monitoring systems. Some of these systems are operated from a central control room on the first floor of the building. Additional functions are operated from a number of local control panels in the inmate housing modules and other parts of the facility. These control panels are currently touchscreen type HMI devices. These control points are interfaced to the field devices using a PLC based control system that also manages the operation of the intercom and CCTV system to create a fully integrated security control system. The field devices are all in reasonably good condition with no known issues in their operation and connections to the security control system.
- C. The work of this contract generally includes the following:
  - 1. Verifying the current operations of the existing equipment and providing any specified upgrades to the application programs and the custom programming of the HMI, PLC and VMS systems programming to incorporate any new devices added under this contract as well as any corrections needed for the devices installed by the County since the original system completion.
  - 2. The existing wiring and control cables to the pneumatic locks will be used with the control system. The door control field devices (electric door locks and door position indicator switches) will remain in place.
  - 3. Expand the number of stations as indicated on the drawings and providing any new expansion hardware needed on the existing Harding intercom system.
  - 4. Adding magnetic door locks and their associated door security status switches.
  - 5. Expand the existing CCTV system and cameras as indicated in the plans and specifications.
  - 6. Furnishing and installing replacement batteries in the existing UPS systems other than the main UPS in electrical room A.
  - 7. Providing any related items such as conduit, raceways, power connections, and all other items required by the Contract Documents, applicable codes, manufacturer's recommendations, or as otherwise needed for fully functioning and secure systems.
  - 8. All project management, supervision, testing, documentation, training, and related services needed to complete the work identified in the specifications.
  - 9. Software development and/or customization, including documentation, and provision of source code to the County.

1.3 COMBINED PRESCRIPTIVE AND PERFORMANCE REQUIREMENTS

- A. The Contractor is advised that Division 17 requirements include a combination of prescriptive and performance specifications. Compliance with the performance specifications, and coordination and integration of the performance and prescription requirements, will require design detailing on the part of the Contractor.
- B. The performance requirements are intended to establish overall system performance requirements, satisfy the operational requirements, establish the inter-coordination requirements for the Division 17 systems, and define the operational interrelationships between the systems.

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- C. Where stated, the prescriptive requirements establish the minimum quality, characteristics, and types of components, equipment, and materials to be used to achieve the stated system performance requirements. The Contractor is advised, however, that prescriptive specifications have not been provided to satisfy all of the specified performance requirements.
- D. The Contractor shall carefully consider all of the requirements for each of the Division 17 systems when preparing its bid. Any questions regarding the intent of these requirements, the scope of the systems, or their coordination requirements must be submitted in writing prior to bidding in accordance with the Instructions to Bidders. The Contractor shall have no claim for either extra compensation or extra time on the grounds that it did not understand the scope of the work, the requirements of the work, or the coordination requirements.

1.4 INTENT AND INTERPRETATIONS

- A. The intent of these specifications is to provide sufficient information from which the Contractor can provide complete and operational systems that comply with the functional and performance requirements contained herein. It is the Contractor's responsibility to provide each of these systems with all of their requisite components, features and appurtenances necessary to meet the functional and performance requirements contained herein.
- B. The word "provide" where used in these specifications, shall mean to perform detailed design (where necessary), furnish, integrate, install, test, adjust, and document.

1.5 SPECIAL BID REQUIREMENTS

- A. To enhance competition and to maximize the flexibility afforded to the Contractor, many of the functional and performance requirements have not been reduced to prescriptive specifications. For example, the Contractor has various options regarding equipment selection, provided that the equipment selected meets the functional and performance requirements set forth herein. In addition, certain detailed information including, but not limited to, identification of all point-to-point terminations, final quantities, detailed conduit routing, interface circuitry, internal rack layouts, power supply details and system programming are left for preparation by the Contractor. The detailing of these designs to incorporate final equipment, wiring and other appurtenances selected by the Contractor, and/or required by Code authorities, is part of the Contractor's work and responsibility.
- B. The Contractor has the responsibility to select products that meet the requirements of these Sections. The Contractor is advised, however, that certain areas of the design (such as wiring, conduit, power requirements, interface design and circuitry, etc.) may be affected by the Contractor's product selection. The Contractor is responsible for verifying that all products chosen by it, including substitutions, are compatible with each other and with the products specified in the Contract Documents. Depending upon the Contractor's equipment selections, other products or equipment requirements shown in the Contract Documents may need to be altered to accommodate the Contractor's product selections. Identification of such alterations, including any work of other Divisions, shall be the Contractor's responsibility and any and all additional costs for such alterations, including those of other Divisions, shall be included in the Contractor's bid. The overall governing

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requirement is that the Contractor provides complete working systems in accordance with the functional and performance requirements contained herein.

- C. The Contractor is advised that, due to the nature of detention facility construction, the requirements of these Sections may be more stringent than would be required for other types of facilities. In particular, the amount of coordination and installation work is particularly intensive and should be carefully considered at the time of bidding.
- D. By submitting a bid, the Contractor represents and warrants as follows:
1. That it has thoroughly reviewed the specifications and related drawings, noted the interrelationships between the systems and identified the interfaces with the existing facility including, but not limited to, the control panels, door hardware and frames, the electrical, mechanical, elevator, and other systems.
  2. That it has reviewed the device plans, the control-panel drawings, the functional descriptions, and the device schedules at the end of various Sections. The Contractor acknowledges that these items are complementary, and any requirement shown for one is the same as if it were shown for all. The Contractor further warrants that it has reconciled these items with one another to determine the hardware and software requirements.
  3. That it has reviewed the specification Sections and drawings for equipment monitored and controlled by the control systems. The Contractor warrants that it has inspected the site and examined in particular detail the door hardware, and mechanical and electrical systems to ascertain the control and monitoring requirements.
  4. That it has reviewed the wiring requirements shown in the drawings and in the specifications. The Contractor acknowledges that the wiring identified in the drawings and specifications is intended to establish a minimum performance requirement and that it may be necessary for the Contractor to select a different (higher performance) type of cabling, or a greater quantity of cabling, to meet the requirements of particular products or the Contractor's own established practices, or by other reasons dictated by the Contract Documents or good construction practices. The Contractor warrants that it has considered these requirements in preparing its bid and had included any additional cable costs accordingly.
  5. The Contractor acknowledges that the size and amount of some raceway has been shown explicitly, while the size and amount of other raceway has been left to the Contractor's discretion. Explicitly stated sizes and quantities are intended to indicate minimum acceptable sizes and quantities. The Contractor warrants that it has reviewed the drawings carefully and has inspected the raceway available to ascertain the proper size and quantity of additional raceway and appurtenances necessary, and that it understands that it is the Contractor's responsibility to provide such raceway. The Contractor further warrants that it has inspected the existing conditions in preparing its bid to determine suitable conduit routings.
  6. That it has reviewed the various diagrams (on the drawings) for each specified system, and the system descriptions, product specifications, and functional requirements, and has selected products and interconnecting wiring that will provide systems meeting all of the requirements.
  7. That it has considered the amount of coordination, engineering, testing, quality control, safety program and project management time required to meet the overall project requirements, as well as the cost of other labor needed to meet the requirements for the specified systems.

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8. That it has considered the time and materials necessary to complete all product data submittals, shop drawings, record drawings, operations manuals, maintenance manuals, training manuals, training classes and software documentation.
9. That it understands the requirements of the Specifications and has included all of the labor, equipment and material necessary to provide and install the complete systems in a manner that meets both the performance and prescriptive requirements of the Specifications.

E. Software Licenses:

1. The Contractor shall grant, and/or provide, and/or transfer to the County full and unrestricted ownership of licenses for all designs and all software (including all provided source code, object code, and executable code) for this project. Such licenses shall be in perpetuity and without restrictions of the number of users and remote sites, except licenses purchased by the Contractor and transferred to the County which are available only in a form requiring periodic renewal and/or having restrictions as to the number of users. The Contractor's bid shall identify in detail any licenses that will not be provided in perpetuity and shall itemize all periodic renewal fees or charges. The Contractor's bid shall also identify in detail any licenses which cannot be provided without restrictions of the number of users and/or remote sites and such licenses shall, at a minimum, permit the full, concurrent operation of the systems as described in the Contract Documents.
2. All software prepared or modified by the Contractor or its agents or suppliers for this project shall be provided to the County, including source code, object code, executable code, and databases, together with licenses in perpetuity. Licenses for software prepared or modified by the Contractor or its agents or suppliers for this project shall be granted without restrictions. For example, restrictions on the type of use, restrictions on the rights to modify or extend the software, or restrictions of the number of users and remote sites shall not be acceptable.

1.6 OVERALL SYSTEM REQUIREMENTS

- A. In general, provide systems whose electronics equipment is centralized in electronics rooms, to maximize security and to permit maintenance with minimal disruption of normal operations. Except where otherwise shown on the drawings, to the greatest extent possible, limit equipment located outside electronics equipment rooms to the controlled devices, sensors, transducers, system wiring, and the control and annunciator apparatus.
- B. Design the systems components to be modular with electrical connections made between components by connectors. This will allow maintenance staff to rapidly replace a failed component.
- C. In general, introduce unswitched electrical power in the electronics rooms, rather than at control panels or field devices (door locks, intercoms, cameras, etc.) to make the systems more difficult to defeat and less susceptible to tampering.
- D. In general, connect primary power for all security systems to feed from existing UPS systems shown in the drawings.
- E. Provide systems which have:

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1. Permanently installed components with proper alignment, sufficient ventilation and cooling, and adequate access for maintenance.
2. Wiring and cabling which is properly supported, protected, labeled, and dressed. Include spare conductors as appropriate and pull-wires in empty conduits.
3. Electrical interconnections including signal, power, and ground connections of sufficient quantity and quality to implement required system function and performance.
4. Equipment that is fully adjusted, optimally aligned, functionally tested, and performance tested from end-to-end under all operational conditions.
5. Documentation which is fully communicative, and thoroughly describes the system design, installation, interconnection, operation, maintenance, and service.

1.7 CONTRACTOR QUALIFICATIONS

- A. All work shall be the responsibility of a single Integration Contractor experienced in the design, integration, programming, installation, and testing of systems similar to those specified herein. The Contractor shall have submitted a Statement of Qualifications in accordance with the County's Request for Statement of Qualifications for this project. The Contractor shall be qualified to complete this project, in the opinion of the County, as evidenced by receipt of a Notice of Qualification from the County for this project.
- B. The Contractor shall be licensed as required by local regulations and any Authorities Having Jurisdiction (AHJ). The Contractor shall have held a valid and applicable contractor's license for at least 5 years. Having held a general business or retailer's license shall not be construed as meeting this requirement.

1.8 WARRANTIES

- A. The warranties for the work of this project shall start upon final acceptance of the system by the County.
- B. Repair or replace defective work or materials discovered during the warranty period. The warranty period shall be the longer of the following:
  1. One year from date of final system acceptance by the County.
  2. The period established by an equipment manufacturer for its products.
- C. The benefits of manufacturers' warranties which are supplied with the products, and which exceed the specified warranty, shall also inure to the County.
- D. Respond to requests for warranty work or repair promptly, in accordance with the Service Response Times below. Provide temporary equipment to maintain usability of complete systems if repairs or replacements take more than 4 working days.
- E. Work and materials shall be considered defective if, at any time during the warranty period, one or more of the following conditions occurs:
  1. The overall system performance becomes inferior to the specified performance, or to the performance measured at the time of final testing and adjustment.

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2. The performance of an item of equipment becomes inferior to the specified performance, or the manufacturer's specifications.
3. Any specified function becomes inoperative or exhibits symptoms of being intermittently inoperative.
4. Any function normally provided by an item of equipment or system becomes inoperative or exhibits symptoms of being intermittently inoperative.
5. Any function described in the manufacturer's literature or in the Operations Manuals becomes inoperative or exhibits symptoms of being intermittently inoperative.

1.9 SERVICE RESPONSE TIMES

A. Definitions:

1. **Emergency Maintenance Request:** A system failure that will require an emergency repair call will be determined by the County. Typically, they will be any failure that has an impact on the secure operation of the facility or would create a potential life safety hazard.
2. **Normal Maintenance Request:** These maintenance requests will typically be for all other system failures that do not impact life safety or security (i.e.: a burnout indicator, low audio volume, or weak CCTV image).
3. **Service response time** shall be the period between the service call being placed by an authorized County representative, and the arrival of a qualified Contractor's maintenance technician on-site.

B. Emergency Requests

1. Response shall be within two hours following telephone notification by the County.
2. This response time shall apply 24 hours per day, 365 days per year.

C. Normal Requests

1. Response shall be within four hours during normal business hours (8 a.m. to 5 p.m., Monday through Friday, non-holidays).
2. At all other times, response shall be within 8 hours.

D. Spare Parts

1. In addition to the spare parts required to be turned over to the County at the completion of the installation, the Contractor shall maintain an adequate inventory of parts and service equipment to repair and make operational each system type within 12 hours of initial arrival on-site.

E. Maintenance Agreement

1. The Contractor shall be capable of entering into a renewable maintenance agreement with the County following completion of the initial warranty period.

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1.10 SUBMITTAL SCHEDULE AND SEQUENCE

A. General:

1. Submit general information, product data, shop drawings, and operations/maintenance manuals for review and approval in accordance with the provisions of Section 01300.
2. Submit drawings stapled together.
3. Submit printed material bound or stapled together, with dated title sheets.

B. Submittal Schedule:

1. Submit the following on or before the indicated number of calendar days after the Notice to Proceed:

Calendar Days After Notice to Proceed	
10	Schedule of Values
10	Manufacturer's Lists
10	Contractor's Construction Schedule
30	Preliminary Shop Drawings
30	Equipment List and Product Data
40	Preliminary Fabrication Shop Drawings
40	Preliminary Schedules and Databases
40	Samples

2. Submit the following on or before the indicated number of calendar days after the Initial Coordination Meeting with the County (refer to Section 01200):

Calendar Days after Coordination Meeting	
30	Final Schedules and Databases
30	Final Fabrication Drawings
30	Installation Shop Drawings

3. Submit the following at least the indicated number of calendar days prior to the first Training sessions for the County:

Calendar Days Prior to Training	
60	Operations and Maintenance Manual Formats
45	Draft Operations Manuals
15	Final Operations Manuals

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4. Submit the following at least the indicated number of calendar days prior to the Final Site Visit:

Calendar Days Prior to Final Site Visit	
90	Test Plan and Forms
45	Draft Maintenance Manuals
15	Final Test Report

5. Submit the following on or before the indicated number of calendar days after Final Site Visit:

Calendar Days After Final Site Visit	
30	Final Maintenance Manuals
30	Record Drawings
30	Software

C. Partial Submittals Not Acceptable:

1. For each of the submittal items listed above and described below, submit all material as a complete set.
2. Incomplete submittals will not be reviewed. They will be returned with only general comments describing the deficiencies and/or missing information.

D. Submittal Sequence:

1. For each of the submittal categories listed above, submit the listed items in the exact sequence shown. Do not submit an item until all previous items have been approved.
2. Resubmittals:
  - a. Submittals which have been returned without review (with only general comments) and without approval shall be corrected and resubmitted in their entirety.
  - b. Submittals which have been marked with notations calling for supplemental submittals, shall not be entirely resubmitted; only the supplementary items shall be (re)submitted.
  - c. Do not resubmit previously accepted items, unless the reviewer's comments explicitly request a resubmittal of that item.



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1.11 SUBMITTAL CONTENTS

- A. Submit each submittal with the minimum contents as described below.
- B. General Submittals:
  - 1. Schedule of Values: Breakdown of the Contractor's bid for the work in accordance with the General Conditions of this Contract. At a minimum, list dollar values associated with each of the following items:
    - a. List dollar values associated with each submittal required separately.
    - b. List separate dollar values for labor and materials associated with each Section of Division 17, excluding dollar values associated with submittals (include separate dollar values for Section 17000-labor, 17000-materials, 17005-labor, etc.).
    - c. Break the dollar values of the work of each Section down by floor, or otherwise to indicate the anticipated progression of the work.
    - d. List any other work included in the Contractor's bid which does not appear in a, b or c above.
  - 2. Contractor's Construction Schedule: Refer to Section 01300.
  - 3. Preliminary Schedules and Databases:
    - a. Device schedules listing each field device to be connected to the security system and listing the location of the device or its associated door name or number.
    - b. Nomenclature for all possible calls and alarms.
    - c. Databases associating each possible touchscreen operator action with the actions of other devices. For example, list camera/monitor switching assignments and which intercom stations are activated when a call request is answered (for each possible call request).
    - d. Other schedules and databases as specified under Division 17.
    - e. Types and durations of tones proposed for various actions.
  - 4. Final Schedules and Databases:
    - a. Following the Coordination Meeting with the County revise the schedules and databases and resubmit for final approval.
  - 5. Samples:

Products which are specified to be submitted as samples include:

    - a. Mock-ups of customized and fabricated items as required by the County.
    - b. Submit scaled drawings or print-outs depicting each proposed touchscreen menu, screen, segment, button, icon, message box and other text and graphic objects appearing on each touchscreen.
    - c. For each item or type of material which is available in more than one color, finish, or style, submit available colors, finishes, and styles for selection by the County. Submit written descriptions, photographs, color charts, swatches, samples, etc. as needed to enable

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consideration of all the manufacturers' standard colors, finishes and styles. Where appropriate, include a recommendation for each choice.

- d. Submitted colors, finishes, and styles shall include, but not be limited to, those for the following:
  - 1) Touchscreen segments, buttons, icons and other text and graphic objects appearing on each touchscreen. Show proposed colors for each object and control condition.
  - 2) Equipment racks and cabinets, including casework in the Central Control Room.
  - 3) Wall plates and device covers.
  - 4) Control panels.

6. Progress Submittals:

- a. Submit periodic progress submittals for, but not limited to, the following:
  - 1) PLC coding (ladder diagrams and source).
  - 2) Software (source code).
  - 3) Touch-screen layouts for each screen, showing each graphical object, segment, and their colors.
  - 4) Programmable functions.
- b. Submit the most current information at 30-day intervals, or more frequently, throughout development.

C. Product Data Submittals:

1. Manufacturers' Lists:

- a. For each system, list the selected manufacturer and series number for each product category. Organize by specification Section, within each Section; organize similarly to Part 2 of that Section.

2. Equipment List and Product Data:

- a. Following approval of Manufacturers' List, submit a complete equipment list.
- b. List each and every specified item, and all proposed material and equipment to be furnished under Division 17. For each item, list the manufacturer's name, model or catalog number, a short description, the approximate quantity, and special conditions or exceptions (if any).
- c. Organize similarly to the previously submitted Manufacturers List and include a unique reference number for each item.
- d. If a Request for Substitution is pending for an item, clearly show that the request is pending and list the date the request was submitted.
- e. Include a copy of the manufacturer's catalog or specification sheet for each item. Mark each sheet with same item reference number(s) used on the equipment list. If more than one item or version is shown on a sheet, clearly mark the sheet to indicate which item(s) or version(s) are being submitted.

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- f. An Equipment List and its Product Data may be separately submitted for each Section of Division 17. However, all equipment and materials for each Section shall be submitted together; submittals with missing items will be considered incomplete.
- D. Shop Drawings:
1. For each category listed below, submit all shop drawings for all Division 17 work together as a set, so that interrelationships between systems are clearly shown. Drawing submittals that are missing systems or elements of systems will be considered incomplete.
  2. Shop Drawings shall not be prepared by reproducing the Construction Documents through photographic, Diazo, electrostatic, xerographic, or similar means.
  3. As a minimum, shop drawings shall have sufficient detail and content to enable an average technician to perform the fabrication and installation of the specified systems. Greater detail may be required in specific cases to fulfill specified requirements, or the Contractor's needs.
  4. Preliminary Shop Drawings:
    - a. Draft of the Shop Drawing List, including proposed sheet numbers, titles, and descriptions.
    - b. Draft title sheet, with symbol lists, legends, etc.
    - c. An overall single-line diagram of all systems specified under Division 17, with each major item (UPS, PLC, I/O module, computer, touchscreen, intercom controller, control panel, etc.) at each location shown as a single block. The overall single-line diagram shall show the interconnections between the Division 17 major items and the interconnections with existing systems and equipment and with any equipment provided by others. Include a unique reference number or designation for each point of interface between systems. Utilize the overall single-line diagram in coordinating points of demarcation, and finalizing the exact methods of interfacing, between the various systems.
    - d. Floor plans.
    - e. Riser diagrams.
    - f. Conduit details for any existing conduit to be re-used and any new conduit to be provided.
    - g. Show exact sizes, types, and locations (including mounting heights) for each added backbox, pull box, junction box, cabinet, conduit, sleeve, gutter, etc.
    - h. For each run of conduit or other raceway to be used (existing or new), show the proposed types and quantities of wires and cables (distinguish among existing to remain, existing to be removed and new to be installed). Show typical fills.
  5. Preliminary Fabrication Shop Drawings:
    - a. Scaled and dimensioned drawings of all custom assemblies and fabricated items.
    - b. Include details of all components, materials, finishes, and colors, sufficient to reveal the item's appearance and its compliance with the Contract Documents. Develop drawings so they are suitable for fabrication of the items, including mechanical and electrical work.
    - c. As applicable to the project requirements, fabrication shop drawings shall include, but not be limited to:
      - 1) Custom control panels
      - 2) Rack panel layouts (for the Central Control Room and each equipment cabinet)

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- 3) Details for mounting in custom casework
6. Final Fabrication Drawings:
    - a. Following the initial Coordination Meeting with the County, revise the fabrication drawings, and resubmit for final approval.
  7. Installation Shop Drawings:
    - a. Plans, elevations, sections and details of the Central Control Room, all equipment rooms, and all equipment closets which show the physical location, arrangement, and mounting details for each major piece of equipment in their enclosures. Scale drawings to 1/4" = 1'. Dimension as necessary to show exact sizes and locations.
    - b. Single-line diagrams showing manufacturer and model number of each component.
    - c. Wiring diagrams showing point-to-point connections between components, including terminal numbers, color and number coding of each conductor and connection technique to be used. Give special attention to, and show complete details of, the shields and ground conductors.
    - d. Scaled and dimensioned drawings of mounting and installation details. Where appropriate, show attachments to structural systems.
- E. Test Reports:
1. Test Plan and Forms: Develop and submit complete test plans for all tests specified and all tests required to demonstrate compliance with the functional requirements and performance requirements of Division 17. Develop and submit data forms for each test, for all systems of Division 17.
  2. Final Test Report: Submit as specified in Part 3 of this Section.
- F. Documents of Record:
1. Refer to Paragraph 1.12 for requirements for the content of the Final Operations Manuals, Maintenance Manuals, and Record Drawings. The manual formats and draft manuals shall be a subset of the final manuals as described below.
  2. Operations Manual Formats:
    - a. Table of Contents.
    - b. List of proposed, custom-written Short-form Operating Instruction Sheets, and an outline for each.
    - c. List of proposed, custom-written Comprehensive Operating Instructions, and an outline for each.
    - d. List of standard manufacturer's documents to be included.
  3. Maintenance Manual Formats:
    - a. Table of Contents.
    - b. Outline of proposed, custom-written text.

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- c. List of diagrams to be included.
  - d. List of standard manufacturer's documents to be included.
  - e. Outline of maintenance recommendations.
4. Draft Operations Manuals:
    - a. Final Table of Contents.
    - b. Complete text of all custom-written Short-form Operating Instruction Sheets.
    - c. Complete text of all custom-written Comprehensive Operating Instructions.
    - d. List of standard manufacturer's documents to be included.
  5. Draft Maintenance Manuals:
    - a. Final Table of Contents.
    - b. Complete text of custom-written narratives.
    - c. Diagrams.
    - d. List of standard manufacturer's documents to be included.
    - e. Maintenance recommendations.
  6. Final Operations Manuals:
    - a. Following approval of draft Operations Manuals, make final corrections, complete the manuals, and submit three complete manuals to the County.
  7. Final Maintenance Manuals:
    - a. Following approval of draft Maintenance Manuals, make final corrections, complete the manuals, and submit three complete manuals to the County.
  8. Record Drawings:
    - a. Submit three complete sets to the County.

1.12 RECORD DOCUMENTS

A. Operations Manuals:

1. General:
  - a. Operations manuals shall communicate at the level of a layman having no previous experience in the operation of these systems.
  - b. All material shall be typewritten, machine printed or drafted in ink. Standard documents, such as those provided by manufacturers, shall be original printings, or clean, full-size photocopies indistinguishable from the original printings. Facsimile copies will not be accepted.
2. Submittal and Approval Sequence:
  - a. Specified under Paragraph 1.8 of this Section.

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3. Binding and Organization:
  - a. Three-ring binders or bound books.
  - b. Separate from maintenance manuals.
  - c. Label front covers and spines by silk screening, printed insert behind clear plastic, or other approved method.
  
4. Content: As a separate manual for each system, include the following:
  - a. Complete, comprehensive operating instructions prepared especially for this project. Include turn-on and turn-off procedures, typical operating methods and control settings for each method, and simplified block diagrams with explanatory narrative. Standard documents published by the manufacturers shall not be acceptable to meet this requirement.
  - b. Short-form operating instruction sheets prepared especially for this project, having simple and abbreviated instructions suitable for non-technical users with limited knowledge of the systems. Standard documents published by the manufacturers shall not be acceptable to meet this requirement.
  - c. Manufacturers' standard operating instructions and manuals for all items of equipment. Omit installation, servicing, and other technical information.
  - d. Updated list of loose items.
  - e. Include only operating and instructional material; do not include technical material or servicing information.
  - f. Include all work installed under addenda or change orders.
  
- B. Maintenance Manuals:
  1. General:
    - a. Maintenance manuals shall communicate at a technical level to persons familiar with similar systems.
    - b. The manual shall be of sufficient detail that a person of adequate technical ability may familiarize himself with the systems, perform preventative maintenance duties, isolate faulty components, remove components and replace them with spare components, and direct the faulty component to an appropriate service facility.
    - c. All material shall be typewritten, machine printed, or drafted in ink. Standard documents, such as those provided by manufacturers, shall be original printings, or clean, full-size photocopies indistinguishable from the original printings. Facsimile copies will not be accepted.
  2. Submittal and Approval Sequence:
    - a. Specified under Paragraph 1.8 of this Section.
  3. Binding and Organization:
    - a. Three-ring binders or bound books.
    - b. Keep separate from operations manuals.

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- c. Label front covers and spines by silk screening, printed insert behind clear plastic, or other approved method.
4. Content: As a separate, comprehensive maintenance manual for each system, include the following:
- a. A copy of the entire contents of each operations manual.
  - b. Updated equipment list including serial number of each item. List loose items separately.
  - c. A copy of all product data submittals in their final approval form.
  - d. Recorded test data, including final equalization settings, internal- and fixed-control settings, and signal delay and processor settings.
  - e. Theory of Operation: Text discussing the major circuit components, their function and interrelation to one another, inputs and outputs, and major control parameters.
  - f. Record drawings including complete block diagrams, and point-to-point wiring diagrams showing number or color-coding and schematics of custom assemblies.
  - g. Complete servicing information, including manufacturers' standard servicing manuals for all items of equipment.
  - h. Preventive maintenance recommendations:
    - 1) Periodic maintenance schedules.
    - 2) Spare-parts list.
    - 3) Test equipment requirements.
    - 4) Calibrations.
    - 5) Mechanical and electrical adjustments.
  - i. Copies of all manufacturers' warranties.
  - j. Names, address(s), and business telephone number(s) of installing Contractor. Include instructions for obtaining service of the systems during and after the warranty period.
  - k. Include all work installed under addenda or change orders.
  - l. Include both operations and maintenance information in the maintenance manuals.
- C. Record Drawings:
- 1. At the completion of the work of Division 17, revise all Shop Drawings to reflect the record revisions. Submit as required in Section 01300 and Section 17000.
- D. Software:
- 1. Submit master licenses for all software used to program, operate, and modify the operation of the computers, touch screens and PLCs in the facility.
  - 2. Submit original source disks for all required software.
  - 3. Submit all software prepared or modified by the Contractor or its agents or suppliers for this project, including fully commented source code, object code, executable code, and databases.
  - 4. Backup disk copies of all software, including software purchased by the Contractor for use on this project and software custom-developed for this project.

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5. The above software shall be complete to the point that a knowledgeable and trained technician could regenerate and install the original operating programs and custom modifications into the existing or replacement computers and place the system back in full operation.

1.13 TRAINING

- A. Provide training as specified in Part 3 of this Section.

1.14 REGULATORY REQUIREMENTS

- A. The regulatory requirements establish minimum standards for the work, but do not relieve the Contractor from work shown or specified which exceeds the codes or standards.
- B. Comply with all pertinent codes and regulations (Federal, State and local).
- C. Comply with codes, standards, and references listed in Division 01.
- D. Codes:
  1. Comply with the following codes, utilizing the versions designated by the Authorities Having Jurisdiction (AHJ) as applicable to the project. Where no version has been so designated, utilize the latest version.
  2. California Electrical Code (CEC).
  3. NFPA - 101, Code for Safety to Life from Fire in Buildings and Structures (Life Safety Code).
  4. Americans With Disabilities Act (ADA).
  5. Nevada County Codes
- E. Reference Standards:

Except where otherwise shown or specified, comply with the latest versions of the following standards.

  1. National Electrical Contractors Association - Standard of Installation.
  2. American Correction Association - Standards for Adult Correctional Institutions, (ACA Standards).
  3. EIA/TIA 568 - Commercial Building Telecommunications Wiring Standard.
  4. EIA/TIA 569 - Commercial Building Standard for Telecommunications Pathways and Spaces.
  5. EIA/TIA 606 - Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.
  6. ADA Accessibility Guidelines (ADAAG).
- F. Provide UL-Listed products where required and for which listing service is available.
- G. Utilize UL-Recognized components where required within fabricated assemblies.

1.15 EXISTING CONDITIONS

- A. Portions of the work of Division 17 may include the installation of raceways, wiring, and system components in existing portions of the Institution. Every effort has been made to confirm the nature and extent of existing conditions shown on the drawings and in the specifications. However, the accuracy of this information is not guaranteed, and the Contractor is responsible for verifying all field conditions and dimensions related to the work of Division 17 prior to preparation of shop drawings.



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Any conflicts between actual field conditions and the Contract Documents shall be referred to the County for resolution.

- B. The work will be performed in an occupied jail and Correction's administrative facility. The security of the facility is critical and shall not be compromised as a result of the Contractor's work on the systems. All activities on the site shall be coordinated and scheduled in advance with the County. The work shall be sequenced in a manner that minimizes the extent of system down time and impacts on the operation of the facility

PART 2 - PRODUCTS

2.1 STANDARDS

- A. Where these project Specifications include model or series numbers, provide products (including substitutions) which meet or exceed the manufacturers' published specifications for the functional performance of the specified model or series, the same as if the manufacturers' published specifications were enumerated within these project Specifications. This requirement is in addition to the other requirements of these project specifications. This requirement is not intended to apply to factors that do not affect the operation, performance, reliability, or code-compliance of products or systems (such as appearance or color).
- B. For equipment requiring primary electrical power, provide equipment which operates on 120 volts AC at 60 Hertz, except where otherwise specified or shown on the drawings.
- C. Provide equipment and materials which are rated for continuous operation (24 hours per day, 365 days per year).

2.2 CABINETS, ENCLOSURES, AND ACCESSORIES

As applicable to the scope of the project, products meeting the specifications below may be required to accomplish the specified work.

- A. Wall-Mounted Equipment Cabinets - NEMA 1:
  - 1. Description: Cabinets to enclose equipment such as input/output (I/O) cards and racks, interfacing relays, amplifiers, etc.
  - 2. Specifications:
    - a. Wall-mountable cabinet, meeting requirements of NEMA type 1.
    - b. Hinged doors, with latch mechanism. Provide with keyed lock kit.
    - c. Include interior (rear) panels.
    - d. Material: Cold-rolled steel, 14 gauge, minimum.
    - e. Construction: Seams continuously welded and ground smooth, without knockouts or holes.
    - f. Finish: Factory-applied gray polyester powder coat, over phosphatized steel.
    - g. Size: Sized to house all equipment plus 20 percent spare space; minimum acceptable sizes may be specified in other Sections, given in the schedules, or shown on the drawings. Provide single doors, except where otherwise shown or specified.
  - 3. Manufacturers: Hoffman A-xxNxxxx series or approved equal.
- B. Wall-Mounted Equipment Cabinets - NEMA 12:

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1. Description: Dust-tight cabinets to enclose equipment such as programmable logic controllers (PLCs), input/output (I/O) cards and racks, interfacing relays, amplifiers, etc.
  2. Specifications:
    - a. Wall-mountable cabinet, meeting requirements of NEMA type 12.
    - b. Hinged, gasketed doors. Provide with latch kit and keyed locking mechanisms.
    - c. Include interior (rear) panels.
    - d. Material: Cold-rolled steel, 14 gauge, minimum.
    - e. Construction: Seams continuously welded and ground smooth, without knockouts or holes.
    - f. Finish: Factory-applied gray primer on exterior and white enamel on interior, over phosphatized steel.
    - g. Size: Sized to house all equipment plus 20 percent spare space; minimum acceptable sizes may be specified in other Sections, given in the schedules, or shown on the drawings. Provide single doors, except where otherwise shown or specified.
  3. Manufacturers: Hoffman A-xxxxxxLP series, Hoffman A-xxxxxxWFLP series, or approved equal.
- C. Wall-Mounted Equipment Racks - EIA 19-Inch:
1. Description: Metal, swing-out, wall-mounted cabinet for housing amplifiers, signal processors, etc., whose front panels are 19 inches wide and adhere to EIA standards for heights and mounting holes.
  2. Specifications:
    - a. Material: Cold-rolled steel, 16 gauge, minimum.
    - b. Construction: Welded seams.
    - c. Finish: Factory-applied enamel, with color as selected by the County from the manufacturer's standard colors.
    - d. Size: Sized for sufficient vertical panel space to house all equipment plus 20 percent spare space; minimum acceptable sizes may be specified in other Sections, given in the schedules, or shown on the drawings.
    - e. Door: Provide with locking front door.
    - f. Access: Racks shall allow access to the front and rear of all equipment mounted inside.
  3. Manufacturers: Atlas/Soundolier WA300 series, HOME 140 series, Lowell L50 series, or approved equal.
- D. Blank Panels for 19-Inch Racks:
1. Description: Solid metal, blank panels for EIA 19-inch racks, to fill unused openings, and to mount miscellaneous components.
  2. Specifications:
    - a. Material: Cold-rolled steel, 16 gauge, minimum.
    - b. Construction: Formed edges for stiffening.
    - c. Color: To match the rack cabinet in which each panel is mounted.
  3. Manufacturers: Atlas/Soundolier S-19 series, HOME PM series, Lowell SRP series, or approved equal.

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- E. Vent Panels for 19-Inch Racks:
  - 1. Description: Perforated metal panels for EIA 19-inch racks, to fill openings between items of equipment and to provide ventilation.
  - 2. Specifications:
    - a. Material: Cold-rolled steel, 24 gauge, minimum.
    - b. Construction: Formed edges for stiffening.
    - c. Color: To match the rack cabinet in which each panel is mounted.
  - 3. Manufacturers: Soundolier SVP-19 series, HOME PRP series, Lowell VP series, or approved equal.
- F. Plugmold:
  - 1. Provide Plugmold as specified under Section 17010.
  - 2. Connect to branch circuit wiring dedicated and identified as established in the drawings.
- G. Hinged-Cover Terminal Cabinets:
  - 1. Description: Metal, wall-mounted "telephone"-style terminal cabinets to house terminal blocks and punch blocks, and for termination of wiring.
  - 2. Specifications:
    - a. Covers: Hinged, swing-out doors, with locking latch.
    - b. Interior: Wood-backed.
    - c. Finish: Enamel inside and outside.
  - 3. Manufacturers: Square D, Circle AW, or approved equal.
- H. Screw-Cover Terminal Cabinets:
  - 1. Description: Metal, wall-mounted boxes to house terminal blocks and punch blocks, and for termination of wiring.
  - 2. Specifications:
    - a. Covers: Removable flat covers, mounted by screws via slotted mounting holes to enable removal by loosening screws on box.
    - b. Finish: Enamel, inside and outside.
  - 3. Manufacturers: Hoffman, Circle AW, or approved equal.

2.3 RECEPTACLES AND CONNECTORS

- A. Provide receptacles and connectors which are specifically designed and marketed for the purpose for which they are to be utilized.
- B. For power, lighting, and Class 1 signaling circuits, provide receptacles and connectors which are UL-listed, in accordance with the NEC.
- C. Faceplates:
  - 1. Except as otherwise noted or accepted by the County, fabricate all faceplates from 1/4" brushed aluminum with beveled edges.
  - 2. Where located in secure equipment rooms and equipment closets, faceplates may be fabricated from 1/8" stainless steel.
- D. Audio Connectors:

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1. Description: Miscellaneous audio connectors.
  2. Specifications:
    - a. Types: XLR, phone, "RCA" phono.
  3. Manufacturers: Switchcraft, Neutrik, Cannon, or approved equal.
- E. Video Connectors:
1. Description: Coaxial connectors for video signals.
  2. Specifications:
    - a. BNC-type, with bayonet lock.
    - b. Provide crimp-on style; screw-on style is not acceptable.
    - c. "F"-fittings, and other connectors designed for use with radio-frequency signals, are not acceptable for video signals.
  3. Manufacturers: AMP, Amphenol, Kings, or approved equal.

2.4 TERMINATION HARDWARE AND INSTALLATION ACCESSORIES

- A. Fasteners:
1. For devices mounted in high-security areas (such as areas accessible to inmates or prisoners), provide and utilize detention-grade ("tamper-proof") security fasteners as specified in Section 11196.
  2. For each component and item of equipment, provide and utilize fasteners as furnished or recommended by the manufacturer, except where otherwise specified or shown on the drawings.
- B. Terminal Blocks:
1. Description: Screw-terminal style terminal blocks, for termination and cross-cross-cross-connection of wiring.
  2. Specifications:
    - a. Enclosed screw terminals, which do not require crimp-on lugs.
    - b. Capacity: One #14 AWG wire, minimum, or combination of smaller wires.
    - c. Track or rail mounting.
  3. Manufacturers: Phoenix-Contact, Mueller, Buchanan, or approved equal.
- C. Hardware and Installation Accessories:
1. Description: Miscellaneous hardware and installation accessories.
  2. Specifications:
    - a. Spade lugs and crimp-on splices: Tool-crimped, insulated, UL-listed.
    - b. Wires ties: Nylon.
    - c. Wiring duct: Plastic channel with snap-on cover. Open-fingered sides, to allow removal of wiring without disconnection.
    - d. Wire labeling: Machine printed, adhesive labels specifically manufactured for labeling of wire and cable.
  3. Manufacturers: AMP or Thomas-Betts lugs and crimp-on splices, AMP or Panduit wire ties and wire ducting, or approved equals.

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2.5 RELAYS AND ACCESSORIES

- A. General-Purpose Relays:
  - 1. General Requirements:
    - a. Provide relays with high reliability, bounce-free contacts and sealed enclosure with sockets.
    - b. Continuous-duty contact ratings shall be 250 V with a continuous-duty amperage rating at least 50% greater than the peak inrush current rating of the controlled device.
    - c. All relays shall be held in their sockets with hold-down clips.
  - 2. Manufacturer: Potter & Brumfield, Idec, or approved equal.
- B. Low-Current Relays:
  - 1. Description: General-purpose relays for switching loudspeaker circuits and other low-current, Class 2 and Class 3 signaling circuits.
  - 2. Specifications:
    - a. Track mounting, with integral barrier strip.
    - b. Contacts: Four-pole, double-throw, bifurcated, 5-amp rating.
    - c. Coil: 24 volts, DC, 40 milliamps.
    - d. Integral status LED and quenching diode.
  - 3. Manufacturers: FSR K-4, Potter-Brumfield, or approved equal.
- C. Audio Relays:
  - 1. Description: General-purpose relays for switching microphone and line-level audio signals.
  - 2. Specifications:
    - a. Track-mounting, with integral barrier strip having extra common positions for connecting shields.
    - b. Contacts: Two-pole or four-pole, double-throw, bifurcated silver clad with gold, 2-amp rating.
    - c. Coil: 24 volts, DC, 30 milliamps.
    - d. Integral quenching diode.
  - 3. Manufacturers: FSR LK-2, FSR LK-4, Potter-Brumfield, or approved equal.
- D. Latching Relay Driver:
  - 1. Description: Electronically latching relay driver, to convert momentary switch closures to toggling actions.
  - 2. Specifications:
    - a. Input: Momentary, dry contact closure, to toggle status.
    - b. Momentary output: Active only while input switch is closed.
    - c. Maintained output: Toggles each time the input switch is pressed (press to turn on, press again to turn off).
    - d. Lamp output: For use with 24-volt DC status signal.
  - 3. Manufacturers: FSR U-8, FSR U-800, Communications Company SCI-1, or approved equal.

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- E. Relay Power Supplies:
  - 1. Description: General-purpose power supplies to operate relays, relay drivers, LEDs, etc.
  - 2. Specifications:
    - a. Output voltage: 24-volt, DC.
    - b. Output current: Up to 2.5 amperes.
    - c. Integral LED indicator.
    - d. Regulation: Maximum variation of output voltage: 1.5 percent, from no-load to full- load.
  - 3. Manufacturers: FSR CD24-2.5, Soundolier PS24-4R, or approved equal.

2.6 CONDUCTORS

- A. Provide wire and cable which are specifically designed and marketed for the purpose for which they are to be utilized.
- B. Provide wire and cables which are UL-listed and marked for the wiring Class for which they are to be utilized, in accordance with the NEC.
- C. Shielded Audio Cable:
  - 1. Description: Shielded-pair cable for microphones and line-level audio, and other signals requiring shielded cables.
  - 2. Specifications:
    - a. One twisted pair, shielded, jacketed.
    - b. Conductors: #22 AWG stranded copper.
    - c. Shield: Folded foil with #22 AWG drain wire.
    - d. NEC rating: CM or CL2.
  - 3. Manufacturers: Belden 8761, West Penn 291, Mohawk 1671-311, or approved equal.
- D. Speaker Cable:
  - 1. Description: Non-shielded cable for loudspeakers and other Class 2 or Class 3 signaling circuits.
  - 2. Specifications:
    - a. One twisted pair, unshielded, and jacketed.
    - b. Conductors: #18 AWG stranded copper.
    - c. NEC rating: CM or CL2.
  - 3. Manufacturers: Belden 9740, West Penn 224, Mohawk 18(16)2J, or approved equal.
- E. Multi-conductor Control Cable:
  - 1. Description: Multiple-conductor, non-shielded cable for Class 2 or Class 3 signaling circuits.
  - 2. Specifications:
    - a. 20 individual conductors, unshielded, jacketed.
    - b. Conductors: #22 AWG stranded copper.
    - c. NEC rating: CM or CL2.

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3. Manufacturers: Belden 9431, West Penn 275, Mohawk 22(7)20J, or approved equal.
- F. Multi-pair Control Cable:
1. Description: Multiple pair, non-shielded cable for Class 2 or Class 3 signaling circuits requiring twisted pairs.
  2. Specifications:
    - a. Number of pairs: As required.
    - b. Twisted pairs, Unshielded, jacketed.
    - c. Conductors: #22 AWG stranded copper.
    - d. NEC rating: CM or CL2.
  3. Manufacturers: Belden 9744, 9745, 9746, 8747, 8748, 9747, 8749, West Penn 650 Series, or approved equal.
- G. Small Video Cable:
1. Description: Coaxial cable for baseband video signals, for use only on runs of less than 100 cable feet.
  2. Specifications:
    - a. Low-loss RG59U type.
    - b. Impedance: 75 ohms.
    - c. Flame-retardant jacket.
    - d. Inner conductor: #23 AWG, solid, copper.
    - e. Outer conductor: Bare copper braided, 95 percent coverage shield.
    - f. Attenuation: 2.4 decibels per 100 feet, maximum, at 50 Megahertz.
    - g. NEC rating: CL2.
  3. Manufacturers: Belden 8241A, Belden 9259, West Penn 816 or approved equal.

PART 3 – EXECUTION

3.1 GENERAL

- A. The installation requirements of this Section shall govern the design, fabrication, and installation of the systems specified under Division 17. Not all of the comprehensive standards and procedures apply to each system. The Contractor shall be responsible for all standards and procedures which can logically be applied to each particular system. In case of discrepancy between these overall system standards and the individual specification Sections, the latter shall govern.
- B. Verify the performance of all equipment to be equal to or better than the manufacturer's specifications. Repair or replace any item or component which does not meet the manufacturer's specifications.
- C. Install complete and operating systems. Provide and install accessories as required (whether shown and/or specified or not) to form complete and operating systems. The overall governing requirement is to provide complete and operational systems.

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3.2 STAGING

- A. As possible, perform fabrication, assembly, and testing in the Contractor's facility, rather than at the job site is preferred.
- B. As possible, stage complete systems and/or sub-assemblies in the Contractor's facility prior to installation at the job site.
- C. The County and its representatives reserve the right to visit the Contractor's facility at any time to examine the work in progress.

3.3 SUPERVISION

- A. The Contractor's Project Engineer shall provide:
  - 1. Systems engineering.
  - 2. Technical liaison, including participation in meetings and conferences.
  - 3. Preparation and signing of shop drawings.
  - 4. Preparation and signing of submittals.
  - 5. Scheduling.
  - 6. Supervision of shop fabrication, quality control, shop testing, and shop adjustments, prior to delivery of assemblies, sub-assemblies, and equipment to the site.
  - 7. Coordination and recommendations for resolution of conflicts with other work and trades.
  - 8. Participation in the Pre-Construction Conference, all Coordination Meetings, and the Final Site Visit.
  - 9. Training.
- B. The Contractor's Project Superintendent shall provide:
  - 1. Daily on-site supervision.
  - 2. Supervision of all installers.
  - 3. Coordination with other trades.
  - 4. Testing and troubleshooting.
  - 5. Participation in the Pre-Construction Conference, all Coordination Meetings, Progress Meetings, and the Final Site Visit.
- C. Installers:
  - 1. For each system, installers shall be under the direct supervision of a field supervisor who has been trained by the major manufacturers of the equipment utilized in that system.

3.4 GENERAL WORKMANSHIP

- A. Install according to standards of good engineering practice and the specific requirements of this Division.
- B. Workmanship on the installed systems shall be of professional quality, best commercial practice, and accomplished by persons experienced in the techniques and standards of the particular industries involved.
- C. Except where otherwise shown or specified, install all equipment and materials straight, plumb, and level.
- D. Install panels and plates with sides parallel to wall and ceiling lines, or to lines of surrounding surfaces.



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- E. Install items mounted on the ceiling centered in ceiling tiles or elements, with sides of faceplates (or the lines between visible mounting fasteners, for round items) parallel to ceiling grid, building lines, and/or walls.
- F. Securely mount all devices and components. Do not install components by splicing into wiring, cables, or harness. Do not install components by wiring in-line within connectors.
- G. Labeling:
  - 1. Receptacle Plates:
    - a. Install permanent labeling on all receptacles.
  - 2. Equipment:
    - a. Install permanent labeling on equipment to indicate function of each item of equipment (for example: "Video Network Switch").
    - b. Install labeling on equipment to indicate the function of each control or switch (for example: "Control Room Microphone").
    - c. Install labeling on equipment to indicate the normal setting of each control or switch. Where appropriate, normal settings may be marked using self-adhesive drafting symbols or dots applied to the faceplate at the control knob's pointer.
  - 3. Racks:
    - a. Install a permanent label on the face of each main control panel and each grouping of equipment cabinets identifying:

Owner:	Nevada County Sheriff's Office
Installer:	{installing Contractor's name}
  - 4. Labels may be engraved laminated plastic, anodizing, etching, or direct engraving of the plate or panel being labeled, or other methods approved by the County. "Dymo" or "Kroy" tape labeling shall not be acceptable. Securely fasten laminated plastic using screws, rivets, epoxy glue, or cyanoacrylate ("super-glue"); double stick tape or other types of glue shall not be acceptable.
- H. Suitably seal all cabling or system interconnection as necessary after cable has been installed.

3.5 DELIVERY OF LOOSE ITEMS

- A. Loose items include all items not physically fastened into place within the building, i.e., portable and moveable items such as tools, spare parts, etc.
- B. Packing List Requirements:
  - 1. Itemized list of each and every loose item.
  - 2. Include quantities and serial numbers.
- C. Deliver loose items as instructed by the County at or before the time of final testing and training. Include a copy of the packing list. Obtain the signature of the County's representative acknowledging receipt of the loose items.

3.6 CABINETS AND ENCLOSURES

- A. To the extent possible, equip all panels, racks, and cabinets with keyed-alike locks.

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- B. Bundle power cords between components and outlet strips with cable ties, and dressing neatly into the rack, cabinet, or console. Keep separated from signal wiring and signal ducting.
- C. Wall-Mounted Equipment Racks and Cabinets:
  - 1. Install to permit full swing-out of front and rear doors. Install to permit full swing-out of cabinet from wall.
  - 2. Bond electronics equipment cabinets to ground.
  - 3. Install plugmold in the left rear corner (as viewed from rear of cabinet) of each cabinet.
- D. Floor-Standing Equipment Racks and Cabinets:
  - 1. Install to permit full swing-out of front and rear doors.
  - 2. Bond electronics equipment cabinets to ground.
  - 3. Install plugmold in the left rear corner (as viewed from rear of cabinet) of each cabinet.
- E. EIA 19-Inch Racks and Equipment:
  - 1. Bond electronics equipment cabinets to ground.
  - 2. Install plugmold in the left rear corner (as viewed from rear of cabinet) of each cabinet.
  - 3. Install vent panels between power amplifiers, power supplies, and other heat-producing equipment, and at the top of each equipment rack.
  - 4. Mount equipment, controls and panels at convenient working height.
  - 5. Install blank panels to fill any unused rack spaces.
- F. Power to Racks and Cabinets:
  - 1. Connect each rack to the branch circuit power provided under Division 17.

3.7 CONNECTIONS

- A. Make connections to plugs, receptacles, connectors, or solder terminals using rosin-core solder.
- B. Make connections to screw connections using insulated spade lugs.
- C. Splice only in accessible junction boxes, using insulated crimp-on connectors, wire-nuts, or other methods approved by the County.
- D. Serve shielded cables with heat shrink tubing to insulate shield and drain wire and to secure the insulation against fraying or raveling.
- E. Employ the latest installation practices and materials. Coaxial connectors shall be crimp-on. Terminate control wires in crimp-on lugs at terminal strips or with other approved devices. Properly utilize connectors.

3.8 CONDUCTORS

- A. Protection and Support:
  - 1. Protect installed conductors from painting, overspray, and taping or patching compounds.
  - 2. Adequately support cables not installed in conduits.
  - 3. Install edge protection materials (“cat track”) on the edges of holes, lips of ducts of any other point where wiring or cables cross sharp metallic edges.

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4. Install cable support bars to support cables in areas of dense harness breakouts such as behind patch panels, distribution amplifiers, and other multiple input/output devices.
- B. Install cables and wiring neatly within enclosures and cabinets, forming straight lines and smooth corners. Group and neatly bundle cables as to type, and route from source to termination in a uniform manner throughout all equipment housings. Take care not to break the insulation or deform the cable by the liberal use of harness supports.
- C. Except where otherwise shown or specified, install conductors within conduit or raceway. Where existing raceway is not available, install new raceway in accordance with Section 17010.
- D. Maximum Conduit Fills:
  1. Maintain conduit fills equal to or less than those given by Table 1 of Chapter 9 of the NEC, regardless of the class or type of wiring.
- E. Separation of Signal Types: Install in separate conduits, or where installed without conduits install with wide physical separation, or install in separate ducts or bundle separately within cabinets, the following types of signal lines:
  1. Power and lighting (NEC Class 1).
  2. Signaling (NEC Class 1).
  3. Signaling (NEC Class 2/3).
  4. Radio frequency (video, television, radio).
  5. Data and telephone.
  6. Low-level audio (microphones).
  7. Mid-level audio ("line level").
  8. High-level audio (loudspeakers).
- F. Power distribution cabling shall be on the opposite side from signal wiring in equipment enclosures and shall be uniformly located throughout an installation.
- G. Cable Identification:
  1. Identify all cabling (signal and control) with a unique number on a pre-printed or machine-generated label located approximately 1-1/2" from the cable termination at both ends of each cable.
  2. Number or color-code each cable to identify system and purpose.
  3. Number or color-code each conductor of each cable to identify circuits and connections.
  4. Record number and color codes of both cables and conductors on the record drawings.
- H. Testing of Conductors Prior to Termination:
  1. Following installation of all wire and cabling, and prior to termination of any wire and cabling, test all wires and cables.
  2. Measure resistance of each conductor with an ohmmeter to verify integrity.
  3. Measure resistance between conductors of each cable with a megger to verify freedom from shorts or leakage.
  4. Measure resistance between each conductor and the conduit with a megger in which it is installed to verify freedom from shorts or leakage to ground.
  5. Measure the resistance between the conduit and the nearest grounding bar, to verify the conduit is adequately bonded.

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3.9. SHIELDING AND GROUNDING

- A. Provide and install a “single point” signal grounding system. The technical ground system shall be of the “true” type such that the signal grounds in each location are brought to the main building (power) ground at a single point.
- B. Connect all equipment racks and cabinets in a particular location to ground terminal at only one point. Where signals pass between more than one rack or cabinet via copper cable, connect the racks and cabinets together via No. 4 (AWG) stranded insulated copper wire and connect to main building ground at a single point.
- C. For components having 3-wire power cords and separable power and signal grounds, connect signal grounds to ground bus.
- D. For components having 3-wire power cords and non-separable power and signal grounds, omit grounding to bus (grounding will occur through the power cord).
- E. For components having 2-wire power cords, connect signal grounds to ground bus.
- F. Connect shield termination points to ground bus.
- G. Insulate all other grounds such as chassis, shielded audio pairs, coax, or bulkhead connectors from duct work, plumbing or conduit, which in turn may cause accidental contact to ground at points other than those intended.
- H. Ensure that all ground connections are in accordance with the National Electrical Code and other applicable codes.

3.10. PRELIMINARY TESTING AND FINAL ADJUSTMENT

- A. Test each and every circuit, device, control, and function of all systems of Division 17. At a minimum, verify that all performance requirements and functional requirements specified have been fulfilled.
- B. In addition, perform testing and adjustments in accordance with the other Sections of Division 17.

3.11. CLEANING

- A. Continuously remove debris during installation. Protect all equipment and materials from dust, debris and other hazards during installation.
- B. Equipment:
  - 1. Prior to preparation of Final Test Report, clean equipment to remove plaster, taping or patching compound, overspray, paint spills, oil, grease, dust, fingerprints, or other dirt or contaminants to restore equipment to original finish and condition.
- C. Boxes, Enclosures, Cabinets:
  - 1. Prior to preparation of Final Test Report, remove dirt, dust, and debris from the interior of enclosures, outlet boxes, pull and junction boxes, and equipment cabinets.
- D. General:
  - 1. Prior to preparation of Final Test Report, remove temporary protection and facilities installed for protection of the Work during construction. Remove any remaining debris, stains, spills and other foreign deposits that resulted from the installation.

3.12. FINAL TEST REPORT

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- A. Once the work of this Contract has been performed, including testing and adjustments (but excluding work that is required after the Final Site Visit), submit Final Test Report to the County for review:
1. Letters from the Contractor and each Division 17 subcontractor, on their respective letterheads, certifying that the systems are substantially complete, fully tested, adjusted, operational, and ready for inspection, final testing, and tuning.
  2. Photographs of the completed installation. Include photographs of:
    - a. A front elevation view of each equipment rack and cabinet taken with the door (if any) fully open.
    - b. A rear elevation view of each equipment rack and cabinet, showing a full view of the interior of the rack or cabinet, taken from the rear with the door fully opened or with the cabinet swung out from the wall.
    - c. An elevation view of each terminal cabinet, taken with the cover removed or fully opened.
    - d. A close-up view of each type of custom control panel, and a view showing its installed surroundings.
    - e. A typical view of each type of ceiling-mounted device.
    - f. A typical view of each type of wall-mounted device.
    - g. A view of each equipment room, wiring closet, and control room, showing the racks, cabinets, consoles and other equipment.
    - h. Close up views of each type of floor pocket with the covers open, and with the covers closed.
    - i. Professional photographs are not required; color "snapshots" with minimum size of 3" by 5" are acceptable. Photographs shall be legible, well lighted, and well focused, and composed to fill the image with the intended subject as much as possible.
  3. Test Results:
    - a. The results of all tests, measurements, and adjustments which are specified within this Division 17.

3.13 FINAL SITE VISIT

- A. The County will not schedule its Final Site Visit until the Final Test Report has been submitted and reviewed. Allow at least 10 calendar days between receipt of Final Test Report by the County and the earliest desired date for the Final Site Visit. The Contractor is encouraged to communicate informally with the County prior to submission of the Final Test Report to coordinate the scheduling of the Final Site Visit.
- B. Assist the County in observing completion of the work and making final tests and adjustments.
- C. For each system, provide on-site personnel who have participated in the installation and testing of the system.
- D. Provide the following equipment for use during the final site visit:
1. Dual trace, triggered oscilloscope with calibrated settings, minimum bandwidth of 50 Megahertz, and minimum sensitivity of 100 millivolts per centimeter.
  2. Sine wave oscillator with balanced output and distortion below 0.1 percent.
  3. AC voltmeter with 100 millivolt full-scale sensitivity and 50 to 10,000 Hertz frequency response.

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- E. Make any adjustments which are deemed necessary by the County including, but not limited to:
  - 1. Resetting of controls, including internal adjustments and gains.
  - 2. Changes in programming.
  - 3. Changes in shielding or grounding.
  - 4. Minor changes in wiring and termination.
  - 5. Changes in speaker aiming.
  - 6. Re-wiring of speaker taps.
  - 7. All adjustments shall be included in the base bid contract amount.
- F. Additional Site Visits:
  - 1. Additional site visits may be deemed necessary by the County if any of the following conditions are found during the site visit:
    - a. Items of equipment that are missing, non-operational, or not fully connected.
    - b. Items of equipment that do not meet the specifications or the manufacturer's published performance criteria.
    - c. Hum, buzz, or noise that degrades the signal to noise ratio of any circuit by more than 5 decibels from the manufacturers' rated signal-to-noise ratios for the upstream components.
    - d. Any other conditions which are not in accordance with the specifications, drawings, or Contractor's submittals.
  - 2. The Contractor shall make every possible effort, and the County will render reasonable assistance that does not hamper the other work of the site visit, to correct the deficiencies during the site visit to avoid additional site visits.
  - 3. If additional site visits are deemed necessary, the County will submit a written notification of the reasons, and specific descriptions of the deficiencies to be corrected.
  - 4. The Contractor shall, under this Section, reimburse the County for the cost all additional site visits.

3.14 TRAINING

- A. After acceptance of the first phase has been recommended or granted by the County, conduct training sessions covering operation of the systems for the County and facility staff representatives as selected by the County. After each subsequent cut over phase, conduct additional training covering the areas that have been added to the system. Following completion of all phases of the work, conduct a final operational staff orientation as well as training in the maintenance of the systems.
  - 1. Prior to or at the first of each type of training session, provide a copy of the Operations Manual to the trainees.
  - 2. A total of at least 24 hours of on-site training by qualified instructor(s) shall be provided and shall cover the operation and maintenance of all systems upgrades furnished under Division 17.
  - 3. Training sessions shall be a combination of classroom and "hands-on" time, with emphasis placed upon normal and emergency operational procedures.
  - 4. Fulfill additional Training requirements of other Sections.

END OF SECTION 17000

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SECTION 17010 - SIGNAL RACEWAY SYSTEM AND BRANCH POWER CIRCUITRY

PART 1 - GENERAL

1.1 SUMMARY OF WORK INCLUDED

- A. The work of this Section includes, but is not limited to, the work described in this summary as may be required to complete the project.
- B. As shown on the drawings, provide and install:
  - 1. Raceway systems, for all Division 17 work.
  - 2. Terminating devices and connections for electrical power branch circuitry for systems specified under Division 17.
  - 3. Raceway systems, including conduit, standard back boxes, junction boxes and pull boxes, for Division 17 work which is not explicitly shown on the drawings but which is required where existing raceway systems are not large enough to accommodate the cabling for Division 17 systems.
  - 4. Branch power circuitry to support all Division 17 work.
- C. Related Work Specified Elsewhere:
  - 1. Other Sections of Division 17 - other electronics systems.
- D. Division 1 and Section 17000 - Electronics and Communications General Requirements, apply to this Section, except as otherwise specified in this Section.

1.2 SYSTEM DESCRIPTION

- A. Signal raceway systems include conduit, floor sleeves, cable trays, plywood backboards, terminal cabinets, pull boxes, junction boxes, outlet boxes, and related components and accessories necessary to enclose conductors for the electrical and electronics systems.
- B. Raceways shall be provided for all systems furnished under Division 17, to the extent shown on the drawings or otherwise needed to achieve the contractor's implementation of the systems. Where sizes are not explicitly shown on the drawings, conduit shall be sized in accordance with manufacturer's recommendations and NEC requirements.
- C. Except where otherwise shown on the drawings, install the following types of raceway in the designated locations:
  - 1. Electrical metallic tubing (EMT) within electronic equipment closets, hollow wall cavities, and ceiling plenums.
  - 2. Rigid metal conduit for exposed locations and through-slab penetrations (sleeves).
  - 3. Auxiliary gutters or cable tray above terminal cabinets or equipment cabinets in electronics equipment rooms.
- D. Power branch circuitry: Provide Boxes, receptacles, devices, cover plates, plugmold, and accessories, and connect to power branch circuitry. Provide branch circuit wire in existing conduit from the UPS system specified in Section 17030 as shown on the drawings. The overall governing requirement of this Section is to provide complete and operational power systems for all the systems specified in Division 17.

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- E. Existing Conduits: Any existing conduits currently used for the existing door control system, that will not be reused for the replacement door control system, may be used for the branch power circuit risers from the UPS system to the upper floors. Any needed extensions, boxes or other fixtures shall be provided for compliance with the NEC.

PART 2 - PRODUCTS

2.1 RACEWAY

- A. Conduit and Pull-Wires:
  - 1. Provide products as shown on the drawings or as otherwise needed to meet the intended function.
  - 2. Conduits provided under Division 17 shall be steel (PVC, aluminum, or other non-ferrous materials shall not be acceptable).
  - 3. Provide supports and accessory items as needed.
  - 4. Manufacturers: Republic Steel, Triangle, Allied, or approved equal.
- B. Equipment Cabinets:
  - 1. Description: Wall- and floor-mounted cabinets, to enclose electronics equipment, wiring, and for termination of raceway.
  - 2. Equipment cabinets are specified under Section 17000, or under other Sections for their respective systems.
- C. Terminal Cabinets:
  - 1. Description: Wall-mounted cabinets in equipment rooms and wiring closets, for termination of raceway and wiring of electronics systems.
  - 2. Specifications:
    - a. Style: Surface-mounted, with screw cover.
    - b. Depth: 4 inches, minimum, unless otherwise noted on drawings.
    - c. Height and width: 24 inches, minimum, except where otherwise shown on drawings.
    - d. Material: Painted steel.
  - 3. Manufacturers: Circle AW, Raco, Square D, or approved equal.
- D. Auxiliary Gutters:
  - 1. Description: Gutter for termination of conduits above or below equipment cabinets.
  - 2. Specifications:
    - a. Style: Surface-mounted wireway with hinged and screwed covers.
    - b. Depth and width: 4 inches, minimum, except as otherwise shown on drawings.
    - c. Length: Equal to the width of the equipment cabinet(s), unless otherwise shown on the drawings.
    - d. Material: Painted steel.
  - 3. Manufacturers: Circle AW, Raco, Square D, or approved equal.
- E. Boxes:
  - 1. Provide products shown on the drawings or as otherwise needed to meet the intended function.
  - 2. Boxes provided under Division 17 shall be steel (aluminum, PVC, or other non-ferrous materials



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shall not be acceptable).

3. Manufacturers: Steel City, Raco, Circle A-W, or approved equal.

## 2.2 POWER BRANCH CIRCUITRY

- A. Provide plugmold or duplex receptacles inside each equipment rack and equipment cabinet, with isolated grounding wires and receptacles. For each equipment rack and for each equipment cabinet, provide sufficient circuits and receptacles to connect all equipment, plus at least 2 spare receptacles per equipment rack/cabinet. Circuits and receptacles shown on the drawings are diagrammatic and do not necessarily indicate the exact quantities required.
- .B. Provide direct, "hard-wired" connections for equipment which is not factory-equipped with plugs and cords.
- C. Plugmold:
  1. Description: Plugmold to be mounted in equipment racks and cabinets for termination of branch circuits, and for connection of power to plug-and-cord connected equipment.
  2. Specifications:
    - a. Length: 6 inches to 12 inches less than internal height of cabinet.
    - b. Receptacles: 6 inches on center.
    - c. Wires: #12 AWG, with insulated ground wire.
    - d. Painted steel enclosure with snap-on cover.
    - e. Length and quantity: As required to connect all devices, plus to provide at least four spare outlets per populated rack, and a minimum of 10 outlets per rack.
  3. Manufacturers: Wiremold Plugmold 2000 Series, Walker 2GW Series, or approved equal.
- D. Duplex Receptacles and Device Plates:
  1. Description: NEMA WD 1; heavy duty standard grade, isolated ground receptacle
  2. Specifications:
    - a. Device Body: Ivory plastic with standard orange triangle for isolated ground devices.
    - b. Configuration: NEMA WD 6; type as specified and indicated.
    - c. Convenience Receptacle: Type 5-20
  3. Device plates for duplex receptacles shall be smooth stainless steel.
  4. Manufacturers: Hubbell, G.E. Leviton, or approved equal.
- E. Branch Circuit Wiring
  1. Sort drawn copper with 600 VAC THW, THWN, or THHN insulation.
  2. Size and install in accordance with NEC and local regulations.
  3. Manufacturers: Cablec, Rome, Southwire, or approved equal
- F. Branch Circuit Panels:
  1. Description: Branch Circuit Panel to match existing.
  2. Specifications:
    - a. NEMA Type 1 enclosure
    - b. Cabinet less than 6 inches deep
    - c. Single Phase, 3 wire 120/240

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- d. 100 amp minimum main lugs
- e. 16 breaker minimum size
- 3. Manufacturers: Square D, Westinghouse, General Electric, I.T.E., or approved equal.

G. Circuit Breakers:

- 1. Description: Molded Plug-on Circuit Breakers
- 2. Specifications:
  - a. 10,000 AIR.
  - b. All Branch Circuits breakers shall be rated at 20 amperes, 120 volts.
  - c. Reverse-fed main shall be two-pole, 50 ampere, 120/240 volts.
- 3. Manufacturers: Square D, Westinghouse, General Electric, I.T.E., or approved equal.

2.3 BACKBOARDS

A. Plywood:

- 1. Thickness: 3/4 inch, minimum.
- 2. Pys: 5, minimum.
- 3. Rating: A-C, minimum, per American Plywood Association, with A-side exposed to room.
- 4. Size: as shown on drawings, from 48 inch by 96 sheets, oriented vertically.
- 5. Fastening: securely fasten to structure, using at least six 1/4 inch lag screws or bolts per sheet.
- 6. Provide fire-rated plywood as required by codes.

B. Painting:

- 1. Prime coat, plus at least one coat of semi-gloss latex enamel.

PART 3 - EXECUTION

3.1 GENERAL

- A. Except as otherwise specified in this Section, install in accordance with NECA "Standards of Installation" and applicable regulations.
- B. Verify exact locations and mounting heights of devices prior to installation.
- C. Verify exact locations and mounting heights of device boxes for other systems prior to installation.

3.2 RACEWAY

- A. Permanently label the cover of each pull-box, terminal cabinet, and equipment cabinet with its designated system and function.
- B. Do not alter conduit routings (topology) from those shown on the drawings, or combine conduit runs which are shown separately, without the prior, written authorization of the County.
- C. Install accessible pull-boxes as required so that no individual run of conduit is longer than 100 feet, and

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- that no individual run of conduit contains more than 270 degrees (total) of bending. Count each offset as 45 degrees of bending. Show exact locations of pull-boxes on shop drawings and record-drawings.
- D. Install pull-wires in each conduit, with at least 18 inches of slack in each pull box and termination point.
  - E. Permanently label each end of each conduit run used (existing and new) with its destination, by room name (or number) and cabinet designation.
  - F. Size conduits to maintain maximum conduit fills specified under Section 17000.
  - G. Use all-steel set-screws for all raceway fittings.
  - H. Except in designated equipment rooms, equipment closets and where otherwise noted, conceal all raceway within casework, within walls, or above accessible ceilings. Wherever raceway must run exposed through a space that is typically occupied, provide surface raceway or enclose in casework, as directed by County.

3.3 BRANCH CIRCUIT WIRING

- A. Provide all necessary components and devices required for a complete installation.
- B. Coordinate power connections with the installation of the devices they serve.

3.4 BACKBOARD FINISHES

- A. Prime and paint backboards prior to installation of cabinets, boxes, devices, or attached conduits.
- B. Touch-up paint and label backboards after installation of cabinets, boxes, devices, and attached conduits.

END OF SECTION 17010

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SECTION 17550: LOCAL INTERCOM SYSTEM

PART 1 - GENERAL

1.1 SUMMARY OF WORK INCLUDED

- A. The work of this Section includes, but is not limited to, the work described in this summary.
- B. Provide and Install:
  - 1. Additional voice intercom system stations as shown on the drawings.
  - 2. Integrate the added intercom stations into the existing Harding Intercom System.
  - 3. Revise the HMI programming for the control system to access the added intercom stations and to call up any associated CCTV images on the control point monitors.
- C. Related Work Specified Elsewhere:
  - 1. Other Sections of Division 17 - other electronics systems.
- D. Division 1 and Section 17000 Electronics and Communications General Requirements, apply to this Section, except as otherwise specified in this Section.

1.2 LOCAL INTERCOM SYSTEM DESCRIPTION

- A. The system provides integrated facility-wide voice communications among the Central Control Room, movement doors, and other fixed locations.
- B. The system consists of remote intercom stations, Central Control Room master intercom stations, other control point master intercom stations, audio exchanges and the necessary audio controllers.
- C. The system provides two-way talk/listen (half duplex) communications between master intercom stations and one or more remote intercom stations. Master station features shall include call-in, station select, call cancel, push-to-talk, and level control. Station selection shall occur via the integration of the system controller and the Touch Screen/PLC Security System.
- D. Talk/Listen control shall be automatic with the control station being able to switch to manual T/L control if high ambient noise levels occur at either end of the communications link. There shall be two master stations in the Central Control Room, which shall be capable of operating independently of each other.
- E. Additional master intercom stations are located at the other existing control points shown on the drawings.
- F. Master stations shall also be used to access the distributed paging speakers in the zones as indicated on the drawings. Paging zone selection shall be similar to the manual selection of intercom stations via the touchscreen interface. Two-way communication with the paging zones is not required.
- G. Remote intercom stations are located at movement doors, in cells, and other locations as shown on the plans. Remote stations generally consist of heavy-duty intercom loudspeakers, call-button switches and faceplates. Replacement stations shall be mounted into the existing cutouts in door frames or electrical backboxes mounted in block walls.
- H. Sequence of Operation: Refer to Section 17800 for intercom operating sequences and integration with other security functions. Unless otherwise noted in these Contract Documents; verify, document, and duplicate existing local intercom functionality with the new intercom systems. Provide the additional

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capability to allow the Central Control Room operator to take over the operation of any of the existing intercom functions currently handled by the other master intercom stations.

1.3 EXISTING CONDITIONS

- A. The facility is presently served by an existing Harding local intercom system that is integrated with the door-control system. This system includes intercom stations and call buttons located at doors and other locations in the facility. It also includes ceiling speakers that are used for area paging and voice communications. Refer to the drawings for specific locations. These stations communicate with the Central Control Room and/or other locations via twisted pair cable.
- B. A review of the current status of the existing Harding system indicates that there is adequate available capacity for the planned additional stations to be installed. As a part of the proposal process the Contractors shall verify this condition and include in their proposals any additional central switching components needed to fully meet the planned expansion of the system.

1.4 MAINTENANCE & UPGRADES

- A. Diagnose and repair any faults reported by the intercom system controllers.
- B. Upgrade the intercom system operational software to the latest compatible versions available from Harding Instruments.

PART 2 - PRODUCTS

2.1 SYSTEM EQUIPMENT SUMMARY

- A. Required Products Include:
  - 1. Remote Intercom Stations
  - 2. Wiring
  - 3. Terminal strips, punch blocks, etc.
  - 4. Control and power wiring

2.2 LOCAL INTERCOM SYSTEM EQUIPMENT

- A. Remote Intercom Stations:
  - 1. General Requirements:
    - a. The intercom station shall be a modular assembly on a stainless steel plate sized to be mounted into the existing backboxes in the facility.
  - 2. Mechanical Specifications:
    - a. Face Plate shall be 11 gauge Stainless steel.
    - b. Stations to be installed in exterior locations shall be rated for these locations.
    - c. Provide with vandal resistant call-in switch.
    - d. Operating temperature for exterior stations shall be -40 to 120 °F
  - 3. Electrical Specifications:
    - a. Loudspeaker shall be provided with a Mylar cone or other means of moisture protection.

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- b. Any station located electronics shall be protected from dampness and physical damage.
  - c. Sound level shall be a minimum of 82dB at 1 meter at 1 watt.
  - d. Field wiring shall be 22 gauge twisted pair; shielded if required by the manufacturer.
  - b. Frequency response: 300 to 5,000 Hz, to  $\pm 6$  dB.
4. Manufacturer: Harding or approved equal

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Utilize 25 VRMS (nominal) constant voltage lines for all intercom speaker/talk-back circuits.
- B. Use twisted, shielded pair cable for all intercom circuits. Utilize a single-point shield bus at the equipment rack and terminal cabinet end. Dress the other shield end and leave open. Do not allow this lead to inadvertently contact any electrically conducting surface.

3.2 PERFORMANCE TESTS

- A. System Tests:
  - 1. Conduct tests to confirm that the functional characteristics and performance levels of the system as supplied and installed are as specified.
- B. Overall Audio System Characteristics:
  - 1. A minimum of 10 dB headroom before audible distortion shall be provided in all signal paths. Measure above standard operating level for line level signals and above standard low level input for low level signals.
  - 2. Signal-to-noise shall be -60 dB or better when measured below standard signal levels from 32 Hz to 16 kHz on an "A" weighing scale.
  - 3. Crosstalk into any line shall not exceed 60 dB below standard signal levels for that line.
  - 4. Total harmonic distortion and intermodulation distortion shall be no greater than 5 percent measured through all signal paths. Measure THD at standard signal levels at all frequencies from 100 kHz to 5 kHz.
  - 5. Frequency response shall be  $\pm 6$  dB or better, measured from 300 Hz to 5 kHz, for intercom and public address systems.
  - 6. Automatic gain control (AGC) shall be 20 dB or better, measured at standard operating level.

3.3 SPARE PARTS

- A. In addition to the quantities shown or required elsewhere in the drawings and specifications, provide the following spare parts of the same type and manufacturer as used for installation. Quantities given as percentages indicate the percent of installed units that shall be provided as spare parts. Provide a minimum quantity of one.

Quantity Description

2 Remote Intercom Stations, interior

END OF SECTION 17550

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SECTION 17600 – VIDEO SURVEILLANCE SYSTEM

PART 1 - GENERAL

1.1 SUMMARY OF WORK INCLUDED

- A. The work of this Section includes, but is not limited to, the work described in this summary.
- B. Provide, Install and/or Furnish:
  - 1. Upgrade and increase the video storage capacity of the existing digital storage system associated with the existing facility video surveillance system.
  - 2. Add additional cameras as shown on the plans to improve PREA support and security in the facility.
  - 3. Using the audio from the existing Harding DXL intercom stations and from added microphones in the booking area, add audio to the recordings of selected video images as shown on the plans.
  - 4. Two new large screen industrial monitors and the needed supporting hardware and software to display up to 25 additional images each. These shall be located above the windows in central control as shown on the plans.
  - 5. Upgrade the video management system (VMS) software and the individual video system equipment software to permit fully featured video surveillance system operation including but not limited to the video recording hardware and the video workstations.
  - 6. Add video editing software to the video workstation at the administrative sergeant's position to permit masking of the image areas on video being recorded on the workstation DVD drive.
  - 7. Clean the lenses and housings on all existing video surveillance cameras.
  - 8. Refocus the lenses on all existing video surveillance cameras.
- C. Related Work Specified Elsewhere:
  - 1. Other Sections of Division 17 - other electronics systems.
- D. Division 1 and Section 17000 - Electronics and Communications General Requirements, apply to this Section, except as otherwise specified in this Section.

1.2 SYSTEM UPGRADE DESCRIPTION

- A. Replace the existing Vicon digital storage system with an upgraded and expanded storage system to provide digital video storage for up to 180 cameras for a period of at least one year.
- B. The existing cameras, monitors, and supporting equipment shall be reused if practical and shall be integrated via updated video management software with the new video storage system.
- C. Maintain all existing associations between the Security Control System and the Video Surveillance system images called up by selection of doors and locations on the existing HMI terminals. Cameras shall be associated with given doors and switched to the appropriate system monitor by the control

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electronics. In some cases, a camera or cameras shall serve more than one door and shall therefore be capable of being called up on different monitors, depending on which door is selected.

- D. Configure and program the added large monitors in Central Control to display 25 images each as selected by the Sheriffs representative at the time of installation. Provide a means and training for facility staff to update these selections at any time.

PART 2 - PRODUCTS

2.1 SYSTEM EQUIPMENT SUMMARY

A. Required Products Include:

- 1. Interior Fixed Cameras
- 2. Exterior Fixed Camera
- 3. LED Video monitors and associated video workstation
- 4. Digital Video Recording System
- 5. Control and power wiring
- 6. Mounting hardware
- 7. Power supplies

2.2 EQUIPMENT

A. Interior Fixed Camera

- 1. Description:
  - a. Vandal Resistant Mini Dome IP type color Camera
  - b. 0.5 Megapixel resolution
- 2. Specifications:
  - a. Provide Dual Streaming Video
  - b. Provide with vari-focus lens 3.3 to 12 mm
  - c. Operating temperature: -10° to +50° C, minimum.
  - d. Minimum light level for full color operation: 0.12 fc.
  - h. Resolution: 640 x 480 at 30 fps
  - i. Power input: PoE.
  - j. UL listed.
  - k. Where required provide with audio monitoring capability for recording (see camera schedule.
- 3. Manufacturer: Vicon, Pelco, Bosch, or approved equal.

B. Exterior Fixed Camera

- 1. Description:
  - a. Vandal Resistant Mini Dome IP type color Camera
  - b. 0.5 Megapixel resolution



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2. Specifications:
    - a. Provide Dual Streaming Video
    - b. Provide with vari-focus lens 3.3 to 12 mm
    - c. Operating temperature: -30° to +50° C, minimum.
    - d. Minimum light level for full color operation: 0.12 fc.
    - l. Resolution: 640 x 480 at 30 fps
    - m. Power input: PoE.
    - n. UL listed.
    - o. Environmental housing
  3. Manufacturer: Vicon, Pelco, Bosch, or approved equal.
- C. Microphones
1. Description:
    - a. Vandal-proof microphones suitable for location in inmate-occupied spaces.
    - b. Designed for use as a remote video surveillance camera microphone.
    - c. Compatible with video surveillance cameras
    - d. Enclosed in protective cover such as that used to protect smoke detectors in inmate cells.
    - e. Microphone wiring enclosed in conduit or other approved protective enclosure.
- D. Large Screen LCD/LED Video Displays
1. Description:
    - a. 50-inch (diagonal) class
    - b. 4K (3480 x 2160) video resolution
    - c. 4:4:4 color rendition
  2. Specifications:
    - a. LCD/LED technology
    - b. HDMI or Display Port video signal interface
    - c. Rated for 24/7/365 operation
    - d. Maximum Brightness: 450 cc/m2
    - e. Contrast ratio: 4000:1 minimum
    - f. 60Hz refresh rate
    - g. Standard VESA mounting
    - h. Power input: 120-volt AC.
    - d. UL listed.
  3. Manufacturer: Samsung, LG, Panasonic, Sharp, or approved equal.
- E. Large Screen LCD/LED Display Mount
2. Description:
    - a. Commercial grade large screen mount for up to 70-inch displays
    - b. Designed for long term service under 24/7/365 conditions in an essential services facility

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- c. Display Tilt capability
    - d. Install to meet applicable essential services facility requirements
    - e. UL listed
  2. Specifications:
    - a. VESA universal display mounting pattern
    - b. Lateral shift capability 12” minimum
    - c. Manual height adjustment 1” minimum
    - d. Minimum depth 2”
    - e. Forward Tilt 12 degrees minimum
    - f. Weight capacity 175 pounds minimum
  3. Manufacturer: Chief Industries LTM1U, Peerless ST-660, or approved equal.
- F. Video Workstation
  1. General Description
    - a. Video workstation (terminal) suitable for connection to video network to permit matrixed display of up to 25 camera images on each of the two added large screen displays in Central Control.
    - b. PC Tower style physical configuration.
    - c. Compatible and fully operational with selected video management system.
  2. Specifications
    - a. Windows 10 64-bit operating system
    - b. Intel Core i7 processor
    - c. RAM: 8 GB minimum
    - d. HDD: 1 TB minimum
    - e. Video outputs: 2
    - f. Total Video display capacity: 68 cameras @ 4CIF and 15FPS
  3. Manufacturer
    - a. Vicon VMDC-2V8-A Virtual Matrix Display Controller or approved equal
- G. Digital Video Recording System:
  1. General Description
    - a. The existing video network, workstations and digital recording system is composed of the following equipment:
      1. 9 – Vicon VN-NVR-13TBV6-R5 Network video recorders
      2. 1 – Vicon VN-NUC-System-R Nucleus Management Server
      3. 1 – Vicon VN-VMDC-4 Video Matrix Display Controller
      4. 7 – Vicon VN-WS-PCV6-R PC work stations w/software
      5. Assorted Cisco Switches and POE injectors to create an operational system.

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- b. The Replacement DVR/NVR shall be capable of integration with as much of the existing video system equipment as possible. The existing full system integration with the security control system shall not be compromised.
- c. The needed video storage capacity shall be provided by a “packaged” DVRs or an NVR based recording system for video and selected audio using an associated storage array of adequate capacity to provide the needed storage duration.
- d. Audio shall be recorded for selected cameras in the Booking area. See camera schedule.

2. Specifications

- a. The video storage shall be sized to be capable of recording and storing a minimum of 180 surveillance camera images at 4 CIF at a rate of 7.5 frames per second (FPS) for a duration of 1 year minimum.
- b. Each camera recording shall be capable of variable recording rates based on external alarms or motion detection in the video image.
- c. All recorded images shall be maintained in online storage and be directly accessible for a minimum 1 year.
- d. Selected video segments shall be capable of being copied to CD or DVD directly at the DVR, or at an authorized viewing terminal location.

3. Manufacturer: Vicon, Pelco, Bosch, or other approved equal

4. Alternate Bid: An alternate bid shall be provided for an upgraded video storage system that is capable of recording and storing a minimum of 180 surveillance camera images at 4 CIF at a rate of 15 frames per second (FPS) for a duration of 1 year minimum.

H. Video Network Equipment Upgrades

1. General Description

- d. The existing video system network includes POE power injectors for powering the IP cameras. These injectors have exhibited poor service reliability and shall all be replaced.
- e. With the added video system cameras, the 1 Gb port capacity of the “core” IP video switch in electrical room A will be near its useful limit. This switch shall be replaced with a 10 Gb unit. (The existing companion “edge” switch in electrical room A serving cameras shall remain in service).

2. Power Injector Specifications

- a. 24 port capacity
- b. IEEE 802.3af compatible
- c. Aggregate Power: 400 watts minimum
- d. 1RU height
- e. Manufacturer : Microsemi PD-6524G, ONV PSE31024, Planet POE-2400G or approved equal.

2. IP Switch Specifications

- a. 16 – 10 Gb ports
- b. Height: 1 RU

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- c. Power supplies – dual (redundant) units
- d. Provide compatible fiber transceivers as needed.
- e. Front-to-Back airflow
- f. Manufacturer: Cisco Catalyst 4500-X or approved equal

I. Video Workstation Upgrades

1. General Description

- a. All existing video workstation operating software shall be updated to the latest version.

J. Video Editing Software

1. General Description

- a. The video workstation located at the administrative sergeant's position is used to produce DVD copies of selected video excerpts from the video surveillance recording system.
- b. On occasion selected areas of the video needs to be masked to preclude identification of persons in the video image.
- c. This workstation shall be equipped with video editing software to permit such masking.

2. Products

- a. Corel Video Studio Ultimate, Cyberlink Power Director, Pinnacle Studio Ultimate, Majix Movie Edit Pro, or approved equal.

K. Video Management Software:

1. Description:

- a. Video system management software associated with the IP based Video network switching and storage system

2. Specifications:

- a. All major video control software components shall be from a single manufacturer.
- b. Mixing and matching of multiple vendors' software and hardware shall not be acceptable unless approved and demonstrated as a complete system.
- c. All software licenses shall be registered in the name of Nevada County as directed by the purchasing department.
- d. Project-specific code and documentation for the video management system developed for this project shall be turned over to the County at the end of the project along with all supporting software needed to write, modify and/or reinstall the custom or proprietary items. Ownership by the County of these tools and programming results shall be included in the contractor's bid.
- e. As a part of the submittal process the contractor shall provide documentation identifying any software that will require customization for use in this system.

3. Manufacturer: Vicon, Pelco, Bosch, Genetec, or other approved equal

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PART 3 - EXECUTION

3.1 SYSTEM PERFORMANCE REQUIREMENTS

- A. The overall video system shall provide video images of 4 CIF resolution for display and recording. Displays shall operate real time at 30 FPS with a latency of less than 100ms. System recording capability shall be a minimum of 15 FPS for all system cameras simultaneously.

3.2 PERFORMANCE TESTS

- A. System Tests:
1. Conduct tests to determine the performance level of the systems as supplied and installed. Observational tests shall be conducted to determine if the system, as supplied and installed, meet the requirements of these specifications.
  2. Video storage usage shall be measured over a 30-day period to confirm that the required storage duration can be provided by the installed system. If not, the contractor shall provide any needed additional storage to meet these requirements.

3.3 SPARE PARTS

- A. In addition to the quantities shown or required elsewhere in the drawings and specifications, provide the following spare parts of the same type and manufacturer as used for installation.

<u>Quantity</u>	<u>Description</u>
2	Interior Fixed Cameras

3.4 SCHEDULES

The attached facility camera schedule has been updated to add the new cameras to be installed under this project. They are all identified by the label "NEW CAMERA" in the Comments column and highlighted. The balance of the schedule shows the original contact direction for the security system replacement project in 2011. Those cameras and locations requiring the addition of microphones are also identified in the camera schedule.

- A. CCTV Camera Schedule

1. Definition of Columns:

<b>CAM NO</b>	Camera Number assigned by the design engineer. Numbers may be changed after contract award by the owner.
<b>SHT NO</b>	Sheet Number. Drawing on which device(s) can be found.

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**ENCL** Enclosure type: CLNG - Ceiling mount; CRNR - Corner mount; ENV/W – Environmental wall mount, ENV/P – Environmental pole/post mount, ENV/C – Environmental ceiling mount, PORT – Portable (Tripod), Post – Support column mount, TRUSS – Roof truss mount, DOME – Wall of ceiling mounted dome for PTZ cameras.

**COMMENTS** Other requirements or information pertaining to this camera

2. Schedule: see attached Security Electronics CCTV Camera Schedule.

END OF SECTION 17600

## SURVEILLANCE CAMERA SCHEDULE

<u>CAM NO</u>	<u>SHT NO</u>	<u>RM NO</u>	<u>ENCL</u>	<u>COMMENTS</u>
001	SS2.2	MULTI PURPOSE A	INTERIOR	EXISTING CAMERA
002	SS2.2	MULTI PURPOSE B	INTERIOR	EXISTING CAMERA
003	SS2.2	DAY ROOM A	INTERIOR	EXISTING CAMERA
004	SS2.2	DAY ROOM A	INTERIOR	EXISTING CAMERA
005	SS2.2	DAY ROOM A	INTERIOR	EXISTING CAMERA
006	SS2.2	HALL	INTERIOR	EXISTING CAMERA
007	SS2.2	DAY ROOM A	INTERIOR	EXISTING CAMERA
008	SS2.2	DAY ROOM B	INTERIOR	EXISTING CAMERA
009	SS2.2	POD A	INTERIOR	EXISTING CAMERA
010	SS2.2	REC YARD A	INTERIOR	EXISTING CAMERA
011	SS2.2	DAY ROOM B	INTERIOR	EXISTING CAMERA
012	SS2.2	HALL	INTERIOR	EXISTING CAMERA
013	SS2.2	REC YARD A	INTERIOR	EXISTING CAMERA
014	SS2.2	HALL	INTERIOR	EXISTING CAMERA
015	SS2.2	HALL	INTERIOR	EXISTING CAMERA
016	SS2.2	PUBLIC VISIT	INTERIOR	EXISTING CAMERA
017	SS2.2	PUBLIC VISIT	INTERIOR	EXISTING CAMERA
018	SS2.2	PUBLIC VISIT	INTERIOR	EXISTING CAMERA
019	SS2.2	PUBLIC VISIT	INTERIOR	EXISTING CAMERA
020	SS2.2	PUBLIC VISIT	INTERIOR	EXISTING CAMERA
021	SS2.2	HALL	INTERIOR	EXISTING CAMERA
022	SS2.2	DAY ROOM C	INTERIOR	EXISTING CAMERA
023	SS2.2	POD B	INTERIOR	EXISTING CAMERA
024	SS2.2	DAY ROOM C	INTERIOR	EXISTING CAMERA
025	SS2.2	REC YARD B	INTERIOR	EXISTING CAMERA
026	SS2.2	DAY ROOM D	INTERIOR	EXISTING CAMERA
027	SS2.2	REC YARD B	INTERIOR	EXISTING CAMERA
028	SS2.2	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
029	SS2.2	DAY ROOM E	INTERIOR	EXISTING CAMERA
030	SS2.2	DAY ROOM F	INTERIOR	EXISTING CAMERA
031	SS2.2	DAY ROOM G	INTERIOR	EXISTING CAMERA
032	SS2.2	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
033	SS2.2	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
034	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
035	SS2.1	LOBBY	INTERIOR	EXISTING CAMERA

## SURVEILLANCE CAMERA SCHEDULE

<u>CAM NO</u>	<u>SHT NO</u>	<u>RM NO</u>	<u>ENCL</u>	<u>COMMENTS</u>
036	SS2.2	INFIRMARY	INTERIOR	EXISTING CAMERA
037	SS2.2	INFIRMARY	INTERIOR	EXISTING CAMERA
038	SS2.1	INFIRMARY	INTERIOR	EXISTING CAMERA
039	SS2.1	MEDICAL	INTERIOR	EXISTING CAMERA
040	SS2.1	MEDICAL	INTERIOR	EXISTING CAMERA
041	SS2.1	HALL	INTERIOR	EXISTING CAMERA
042	SS2.1	HALL	INTERIOR	EXISTING CAMERA
043	SS2.2	INFIRMARY	INTERIOR	EXISTING CAMERA
044	SS2.2	INFIRMARY	INTERIOR	EXISTING CAMERA
045	SS2.1	SALLY PORT	INTERIOR	EXISTING CAMERA
046	SS2.1	SALLY PORT	INTERIOR	EXISTING CAMERA
047	SS2.2	INFIRMARY	INTERIOR	EXISTING CAMERA
048	SS2.1	SALLY PORT	INTERIOR	EXISTING CAMERA
049	SS2.1	SALLY PORT	INTERIOR	EXISTING CAMERA
050	SS2.1	SALLY PORT	INTERIOR	EXISTING CAMERA, ADD AUDIO RECORDING
051	SS2.1	HALL	INTERIOR	EXISTING CAMERA
052	SS2.1	HALL	INTERIOR	EXISTING CAMERA
053	SS2.1	BOOKING	INTERIOR	EXISTING CAMERA, ADD AUDIO RECORDING
054	SS2.1	BOOKING	INTERIOR	EXISTING CAMERA, ADD AUDIO RECORDING
055	SS2.1	HOLDING CELL	CORNER	EXISTING CAMERA
056	SS2.1	HOLDING CELL	CORNER	EXISTING CAMERA
057	SS2.1	HOLDING CELL	CORNER	EXISTING CAMERA
058	SS2.1	HOLDING CELL	CORN	EXISTING CAMERA
059	SS2.1	HOLDING CELL	CORNER	EXISTING CAMERA
060	SS2.1	HOLDING CELL	CORNER	EXISTING CAMERA
061	SS2.1	BOOKING	INTERIOR	EXISTING CAMERA
62	SS2.1	BOOKING	INTERIOR	EXISTING CAMERA, ADD AUDIO RECORDING
063	SS2.1	HALL	INTERIOR	EXISTING CAMERA
064	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
065	SS2.1	PUBLIC VISIT	INTERIOR	EXISTING CAMERA
066	SS2.1	BOOKING	INTERIOR	EXISTING CAMERA
067	SS2.1	BOOKING	INTERIOR	EXISTING CAMERA



## SURVEILLANCE CAMERA SCHEDULE

<u>CAM NO</u>	<u>SHT NO</u>	<u>RM NO</u>	<u>ENCL</u>	<u>COMMENTS</u>
068	SS2.1	HALL	INTERIOR	EXISTING CAMERA
069	SS2.1	HALL	INTERIOR	EXISTING CAMERA
070	SS2.1	HALL	INTERIOR	EXISTING CAMERA
071	SS2.1	HALL	INTERIOR	EXISTING CAMERA
072	SS2.1	HALL	INTERIOR	EXISTING CAMERA
073	SS2.1	HALL	INTERIOR	EXISTING CAMERA
074	SS2.1	KITCHEN	INTERIOR	EXISTING CAMERA
075	SS2.1	KITCHEN	INTERIOR	EXISTING CAMERA
076	SS2.1	KITCHEN	INTERIOR	EXISTING CAMERA
077	SS2.1	HALL	INTERIOR	EXISTING CAMERA
078	SS2.1	KITCHEN	INTERIOR	EXISTING CAMERA
079	SS2.3	RECYCLING	INTERIOR	EXISTING CAMERA
080	SS2.3	RECYCLING	INTERIOR	EXISTING CAMERA
081	SS2.1	LAUNDRY	INTERIOR	EXISTING CAMERA
082	SS2.1	LAUNDRY	INTERIOR	EXISTING CAMERA
083	SS2.3	LIBRARY	INTERIOR	EXISTING CAMERA
084	SS2.3	LIBRARY	INTERIOR	EXISTING CAMERA
085	SS2.3	REC YARD N	INTERIOR	EXISTING CAMERA
086	SS2.3	REC YARD N	INTERIOR	EXISTING CAMERA
087	SS2.3	DAY ROOM N	INTERIOR	EXISTING CAMERA
088	SS2.3	DORM	INTERIOR	EXISTING CAMERA
089	SS2.3	DORM	INTERIOR	EXISTING CAMERA
090	SS2.3	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
091	SS2.3	212SF	INTERIOR	EXISTING CAMERA
092	SS2.3	REC YARD N	INTERIOR	EXISTING CAMERA
093	SS2.3	DAY ROOM N	INTERIOR	EXISTING CAMERA
094	SS2.3	REC YARD N	INTERIOR	EXISTING CAMERA
095	SS2.3	DAY ROOM N	INTERIOR	EXISTING CAMERA
096	SS2.3	DAY ROOM N	INTERIOR	EXISTING CAMERA
097	SS2.3	OUTSIDE	INTERIOR	EXISTING CAMERA
098	SS2.3	MULTI PURPOSE N	INTERIOR	EXISTING CAMERA
099	SS2.3	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
100	SS2.3	MULTI PURPOSE N	INTERIOR	EXISTING CAMERA
101	SS2.3	MULTI PURPOSE N	INTERIOR	EXISTING CAMERA
102	SS2.3	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA

## SURVEILLANCE CAMERA SCHEDULE

<u>CAM NO</u>	<u>SHT NO</u>	<u>RM NO</u>	<u>ENCL</u>	<u>COMMENTS</u>
103	SS2.3	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
104	SS2.3	DORM	INTERIOR	EXISTING CAMERA
105	SS2.3	DORM	INTERIOR	EXISTING CAMERA
106	SS2.3	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
107	SS2.3	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
108	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
109	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
110	SS2.1	OUTSIDE	ENVIRONMENTAL	NEW CAMERA
111	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
112	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
113	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
114	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
115	SS2.1	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
116	SS2.2	OUTSIDE	ENVIRONMENTAL	EXISTING CAMERA
117	SS1.1	ROOF	ENVIRONMENTAL	EXISTING CAMERA
118	SS1.1	ROOF	ENVIRONMENTAL	EXISTING CAMERA
119	SS1.1	ROOF	ENVIRONMENTAL	EXISTING CAMERA
120	SS2.3	DORM	INTERIOR	EXISTING CAMERA
121	SS2.3	DORM	INTERIOR	EXISTING CAMERA
122	SS2.3	DORM	INTERIOR	EXISTING CAMERA
123	SS2.3	DORM	INTERIOR	EXISTING CAMERA
124	SS2.5	DORM	INTERIOR	EXISTING CAMERA
125	SS2.5	DORM	INTERIOR	EXISTING CAMERA
126	SS2.5	DORM	INTERIOR	EXISTING CAMERA
127	SS2.5	DORM	INTERIOR	EXISTING CAMERA
128	SS2.5	DORM	INTERIOR	EXISTING CAMERA
129	SS2.5	DORM	INTERIOR	EXISTING CAMERA
130	SS2.5	DORM	INTERIOR	EXISTING CAMERA
131	SS2.5	DORM	INTERIOR	EXISTING CAMERA
132	SS2.1	PROPERTY STORAGE	INTERIOR	NEW CAMERA
140	SS2.1	BOOKING	INTERIOR	NEW CAMERA
143	SS2.1	KITCHEN	INTERIOR	NEW CAMERA
144	SS2.1	KITCHEN	INTERIOR	NEW CAMERA
145	SS2.1	BOOKING	INTERIOR	NEW CAMERA
146	SS2.2	DAYROOM D	INTERIOR	NEW CAMERA

## SURVEILLANCE CAMERA SCHEDULE

<u>CAM NO</u>	<u>SHT NO</u>	<u>RM NO</u>	<u>ENCL</u>	<u>COMMENTS</u>
147	SS2.2	DAYROOM E	INTERIOR	NEW CAMERA
148	SS2.2	DAYROOM F	INTERIOR	NEW CAMERA
149	SS2.2	DAYROOM G	INTERIOR	NEW CAMERA
150	SS2.3	LIBRARY	INTERIOR	NEW CAMERA
151	SS2.3	LIBRARY	INTERIOR	NEW CAMERA
152	SS2.3	PUBLIC VISIT	INTERIOR	NEW CAMERA
153	SS2.3	PUBLIC VISIT	INTERIOR	NEW CAMERA
154	SS2.3	HALL	INTERIOR	NEW CAMERA
155	SS2.4	DAYROOM A	INTERIOR	NEW CAMERA
156	SS2.4	DAYROOM B	INTERIOR	NEW CAMERA
157	SS2.4	DAYROOM C	INTERIOR	NEW CAMERA
160	SS2.5	CLASSROOM	INTERIOR	NEW CAMERA
161	SS2.1	HOLDING CELL	CORNER	NEW CAMERA

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SECTION 17800: CONTROL ELECTRONICS

PART 1 - GENERAL

1.1 SUMMARY OF WORK INCLUDED

- A. The work of this Section includes, but is not limited to, the work described in this summary.
- B. Provide, Install and Document:
  - 1. Door lock status indicators for the inmate side of the visitor's booths. (See control segment BC.1)
  - 2. Needed additional programming for minor expansion if the security controls to support recently installed field devices as well as those added as a part of this work.
  - 3. Upgrading the HMI terminal operating system to Windows 10.
  - 4. Upgrading the HMI application software to the latest version.
  - 5. Physical clean up of the recent maintenance work performed by others.
- C. Related Work Specified Elsewhere:
  - 1. Other Sections of Division 17 - other electronics systems.
- D. Division 1 and Section 17000 - Electronics and Communications General Requirements apply to this Section, except as otherwise specified in this Section.

1.2 EXISTING SYSTEM DESCRIPTION

- A. The existing Security control system utilize programmable logic controllers from Modicon (the M340 series) for all electronically controlled functions. All HMI (Vijeo Citect by Schnieder Electric) touchscreen control-panel functions are routed through the programmable logic controllers (PLCs). No functions shall be hard-wired, except where explicitly shown as hard-wired in the one-line diagrams on the drawings.
- B. Two control positions have been provided in the Central Control Room and single control positions at the control points for POD A and Pod B, Booking, Medical, and Minimum Control. The control positions allow to control and monitor all jail security electronics functions independently and concurrently. Each control position consists of a flat panel, touch screen display panel and a flat panel monitor for video if required.
- D. Maximum response time for all control action shall be 0.25 seconds (one quarter of one second) as measured from the time a touch screen icon is actuated, or a switch is turned or

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pushed, until the output device (PLC output module or relay or touch screen icon) changes state.

- I. Refer to Sections 17000 and 17600. The PLC(s) and/or HMI system control the video surveillance system switching function for the cameras and new monitors.

1.3 FUNCTIONAL REQUIREMENTS - SYSTEM SOFTWARE AND OPERATING SEQUENCES

- A. The system functions shall remain as currently programmed to monitor and control the operation of doors, intercom systems, closed circuit television systems and other devices as described in this Specification Section and in the drawings. The two touch screen HMIs in the Central Control Room shall be capable of controlling and monitoring all functions described independently and concurrently.

1.4 TOUCH SCREEN AND CENTRAL CONTROL SEGMENT DESCRIPTIONS

This section provides the original operational descriptions from the replacement project specifications for reference as to the original contract direction for the system operation. The only expansion to these descriptions for addition as work included in this project are incorporated as **underlined and bold text**. These only occur in the segment BC.1 description.

A “segment: as used in this specification is defined as a group of icons and field devices that together form a sub-unit for a specific security control function. Individual segments will be grouped into areas on the touchscreen graphics to provide the specified facility security system operations.

When any “icon” in any touchscreen segment is touched an audible signal shall be generated. This “beep” shall be a type 13 D tone with a 1/4 second duration.

Segment Index

Panel Functions

AA.1.	Touchscreen Test Icon
AB.1	Alarm Silence and Reset
AC.1	Enable
AD.1	Interlock Override
AE	Local Intercom
AF	Closed Circuit Television
AG	Emergency Shut-Down Switch
AH	Power Shutdown/Restore
AK	Group Release
AL.1	Emergency Group Release
AM	Tone Generator
AP.1	Next Call

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Door Functions

BA.1	Door Status Alarm
BC.1	Visitation Door
BD.1	Movement Door Swing
BE.1	Movement Door, Slide
BG.1	Vehicle Gate, Slide
BJ.1	Emergency Lockdown
BP.1	Emergency Exit Only Door Release

Other Functions

CA.1	CCTV Select
CB.1	Intercom/Paging Select
CD.1	Duress Alarm
U.1	Lighting Control
T.1	Visitation Phone Control

1.7 SEGMENT DESCRIPTIONS

AA.1. SEGMENT AA.1 - TOUCHSCREEN TEST ICON

1. This segment shall include the following operational elements:

- a. Touchscreen
- b. TEST icon (Green)

2. Description of Operation (Test Icon)

When the operator touches and holds the Icon it shall change color . All LEDs and indicators on an associated control panel shall illuminate. The audible annunciators for the touchscreen and panel shall sequentially sound off. Each tone type shall sound for a period of one second in the sequence. The sequence shall continue until the icon is released. The test icon shall then return to its original color.

AB. SEGMENT AB - ALARM SILENCE AND RESET

1. This segment shall include the following operational elements:

- a. Console
  - 1) Silence touch switch (momentary action)

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- 2) Reset touch switch (momentary action)

AB.1. SEGMENT AB.1 - ALARM SILENCE AND RESET

1. This segment shall include the following operational elements:
  - a. Console
    - 1) Silence icon (color)
    - 2) Reset icon (color)
  2. Description of Operation (Silence)
    - a. Initial Conditions
      - 1) Tone sounding an alarm condition
      - 2) Alarm indicator flashing
    - b. touching the silence icon shall silence all tones associated with alarms displayed on the current screen and change flashing indicators to steady. Tone shall be silenced in accordance with the requirements for that alarm type.
    - c. Subsequent alarms cannot be silenced before they occur. All alarms shall initially flash and sound alarm tones. Another touch of the silence icon shall be required to silence the new alarms as in b above.
  3. Description of Operation (Reset)
    - a. Initial Conditions
      - 1) One or more visual annunciators flashing or steadily illuminated
    - b. If, and only if, the original conditions which caused the alarm has been corrected and the alarm has been previously acknowledged by touching the silence icon, touching the reset icon shall turn off the visual indicators associated with the displayed alarm(s), as well as reset control circuits in preparation for the next alarm in accordance with the requirements for that alarm. For alarms that have not been silenced or for which the original cause of the alarm has not been cleared no action shall occur when the reset icon is touched.
    - c. All current alarms displayed on the current screen that meet both of the above conditions shall be reset by one touch of the reset icon.

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AC.1. SEGMENT AC.1 - ENABLE

1. This segment shall include the following operational elements:
  - a. Console
    - 1) Enable icon (color)
2. Description of Operation
  - a. This segment shall be used as described in other segments to enable their operation.
    - 1) To activate the desired function, the enable icon must be touched.
    - 2) The enabled control icons will change color to indicate that they can now be operated.
    - 3) The enable function shall be cleared by any of the following actions.
      - a) Touching of the enabled control function's icon.
      - b) A period of more than 5 seconds without any touches on the screen.
      - c) Activation of an alarm on the touchscreen.
    - 4) Once a enabled function has been started will continue to follow its specified operation until completed.

AD.1. SEGMENT AD.1 - INTERLOCK OVERRIDE

1. This segment shall include the following operational elements:
  - a. Console
    - 1) Interlock override icon (yellow).
2. Description of Operation
  - a. When the operator touches the interlock override icon the icon shall change to (color) and flash and a Type 13D tone shall sound. Any displayed door control icons in active interlock groups shall have their icons change color to indicate their current status. The operator can then unlock the desired door using the door control icons.
  - b. The interlock override function shall be cleared by any of the following actions.

Touching of a door control icon.



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A period of more than 5 seconds without any touches on the screen.  
Activation of an alarm on the touchscreen.

- c. When the interlock is not overridden, it shall be impossible to open any interlocked door electrically if any other door of the interlocked group is unsecure. It shall also be impossible to open more than one door at a time by simultaneous operation of the door control icons.

AE. SEGMENT AE - LOCAL INTERCOM

- 1. This segment shall include the following operational elements:

- a. Console

- 1) Speaker
- 2) Microphone
- 3) Volume control (listen only)  
Push-to-talk switch (momentary action).

- 2. Description of Operation

- a. Initial Conditions

- 1) Station(s) selected by movement door segment or intercom select segment on the touchscreen.
- 2) Multiple stations can be selected for simultaneous listening and talking if desired.

- c. Operation

- 1) With the station(s) selected the operator will be listening to the selected location(s). Listen Volume can be adjusted by using the volume control on the panel.
- 2) The operator can momentarily press the push-to-talk switch to reverse the communications link. While the push-to-talk switch is held, the loudspeaker of the remote station(s) selected shall reproduce the sound picked up by the panel microphone.
- 3) The talk volume shall not be adjustable at the control panel. It shall only be adjusted at the equipment rack by service personnel.
- 4) When the talk/listen switch is released, the system shall return to the listen mode.
- 5) When the talk/listen switch is either pressed or released there shall be no audible pops or clicks.

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AF. SEGMENT AF - CLOSED CIRCUIT TELEVISION

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Video cameras
  - b. Console
    - 1) Video monitors
2. Description of Operation
  - a. As described in Section 17600 – Video Surveillance System, and as integrated into the other segment descriptions.

AG. SEGMENT AG - EMERGENCY SHUT-DOWN

1. This segment shall include the following operational elements:
  - a. Console
    - 1) Emergency shutdown icon
2. Description of Operations
  - a. Initial Conditions
    - 1) Touchscreen active
  - b. Touching the shutdown icon shall remove control from all touchscreens associated with the local control point and transmit an alarm to the central Control touchscreens. Operation of the shutdown icon shall function identically to logging off the touchscreen except that control can only be reactivated from Central Control through the Power Shutdown/Restore function, Segment AH.
  - c. All door control functions associated with the panel in shutdown shall be transferred to the next higher level of control in accordance with the following priority list.
    - 1) Central Control
    - 2) All other Control Points

AH. SEGMENT AH - POWER SHUTDOWN/RESTORE

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1. This segment shall include the following operational elements:
  - a. Console
    - 1) Local Control Shutdown icon
    - 2) Local Control Restore icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Shutdown icon Violet and not flashing
    - 2) Restore icon Violet
    - 3) Remote panel logon enabled
  - b. Power Shutdown Without Alarm
    - 1) Operation of the Shutdown Function will require the use of the Enable function (Segment AC). When enabled the icon shall turn from violet to green. The operator shall then touch the Shutdown icon and control shall be removed from the touchscreens at the associated remote control point. The icon shall turn red. Control shall be removed from all panels associated with the remote control point.
    - 2) To restore local control, the Local Control Restore icon shall be used. To use the Local Control Restore icon it must first be enabled by the segment AC enable function. Once enabled (the icon will change from violet to green) the local control restore icon can be touched. The Local control Shutdown icon shall turn green to indicate that control has been restored to the control point. After five seconds the icon shall return to the enable required state and turn violet.
    - 3) This will cause the local touchscreen to display the logon screen for this control point. No operations shall be allowed to occur until the control point operator has logged back on to the system.
  - c. Control Shutdown With Alarm
    - 1) The shutdown icon (Segment AG) is touched at the local control point as described for the emergency shutdown function. The Local Control shutdown icon starts flashing red, a Type 13C tone sounds, and the touchscreen(s) at the local control point turn off as described for power shutdown without an alarm.

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- 2) The operator shall touch the silence icon to silence the tone and cause the alarmed icon to stop flashing but remain red as described for power shutdown without an alarm.
- 3) To restore power, the power restore icon shall be used as described above under shutdown without alarm.

AK SEGMENT AK - GROUP RELEASE

1. This segment shall include the following operational elements:
  - a. Console
    - 1) Group Release Icon (gray)
2. Description of Operations
  - a. Initial Conditions
    - 1) Panel active
    - 2) Group Release icon inactive (gray)
  - b. The group release segment shall allow all cell doors in the associated group to be opened in rapid succession. This function shall be subject to individual lockout functions as described in Segment BH.
  - c. Door Operation
    - 1) To use the group Release icon it must first be enabled by the segment AC enable function. When enabled the icon shall turn orange. Touching the group release icon shall cause the sequence to begin by unlocking the first cell door in the group. The group release icon shall turn red.
    - 2) The remaining doors shall sequentially unlock, rapidly succeeding one another, until all the associated doors are unlocked (except those which are locked out).
    - 3) Cell doors shall be able to relock when the door is opened and closed.
    - 4) The group release icon shall remain red only when the locks of all doors in the group have been secured.
    - 5) Touching the enable function again will turn the icon orange and allow the unlock sequence to be repeated.

AL.1 SEGMENT AL.1 - EMERGENCY GROUP RELEASE

1. This segment shall include the following operational elements.

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- a. Console
  - 1) Emergency Group Release icon(s)
- 2. Description of Operations
  - a. Initial Conditions
    - 1) Screen for pod showing doors to be released selected.
    - 2) Door(s) closed and secure
    - 3) Emergency Group Release Icon(s) violet
  - b. Activation of the Emergency Group Release function shall release all of the cell doors in the associated housing wing and level.
    - 1) Operation of the Emergency Group Release Function will require the use of the Enable function (Segment AC). When enabled the icon shall turn from violet to orange. The operator shall then touch the emergency Group Release icon and all of the cell doors in that associated housing dayroom shall be sequentially unlocked. The Emergency Group Release icon shall turn red and flash. This function shall override any lockout functions set on the local control panel. All locks shall be operated to the 1/2 cycle position so that the doors cannot be relocked until the emergency group release function is cleared. When all of the cell doors have been opened the Emergency Group Release icon shall turn steady red.
    - 2) To return the doors to normal operation the Emergency group release function must be again activated. After the function is enabled touching the icon shall cause all of the associated cell door locks to complete the full cycle operation that will allow them to be locked when closed. After all of the door locks have completed the full cycle operation the Emergency Group Release icon shall return to the violet color.

AM. SEGMENT AM, TONE GENERATOR

- 1. This segment shall include the following operational elements.
  - a. Console
    - 1) Tone speaker (behind panel)
    - 2) Tone volume control (behind panel)
    - 3) Tone generator (in equipment room)
- 2. Description of Operation

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- a. Individual tones shall be activated as described in the other segment descriptions.
- b. Silencing and reset shall occur as described in Segment AB.

AP.1 SEGMENT AP.1 - NEXT CALL

- 1. This segment shall include the following operational elements:
  - a. Console
    - 1) Next Call icon (color)
- 2. Description of Operation
  - a. This segment shall be used to select the next intercom call from the touchscreen(s).
    - 1) When a call is received from any intercom station the next call icon shall flash on the screens and the description of the calling location shall be displayed in the incoming call window on the touchscreen(s).
    - 2) Touching the next call icon shall cause the following operations to occur.
      - a) The intercom call at the top of the queue shall be selected on the activating touchscreen.
      - b) The associated graphic for the area of the call shall be displayed on the screen with the active intercom selected and the audio path to the location shall be opened.
      - c) Any associated video images shall also be displayed on the video monitors assigned to that touchscreen.
      - d) The selected intercom shall be removed from the queue on any other touchscreen in Central Control so that two or more touchscreens cannot select the same intercom station.
    - 3) From this point communications and door operations will proceed as described in the other segment descriptions.
    - 4) Touching the next call icon again shall clear and reset all functions established by the previous touch and shall select and initiate the next call in from the queue.
    - 5) If no calls remain in the queue, touching the next call icon shall reset the system as above, close the audio channel and blank the video monitors.

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BA.1 SEGMENT BA.1 - DOOR STATUS ALARM

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Door position indicator switch
    - 2) Lock keeper switch (where provided)
  - b. Console
    - 1) Door Status Icon
2. Description of Operations
  - a. Initial Conditions
    - 1) Door closed and secure
    - 2) Door Status Icon invisible
    - 3) Tone silent
  - b. Status Operation
    - 1) If a monitored door is opened or unlocked (with keeper switch), the door status icon shall flash red and Type 13C tone shall sound.
    - 2) Touching the silence icon (refer to Segment AB) shall silence the tone and change the flashing icon to steady red.
    - 3) When the door is again closed and locked, touching the reset icon shall turn the door status icon invisible and shall reset the alarm.
    - 4) Touching reset shall have no effect while the door remains open or unlocked.
    - 5) If a door is opened and then closed before the silence icon is touched, the door status icon shall continue to flash and the tone sound until the silence icon is touched.
3. Special Conditions
  - a. If a monitored door is also controlled by another panel or segment then no alarm shall sound when the monitored door is opened from that control point. When the door is opened in this manner the icon shall change to a yellow indication to show that the door is not secure but no tone shall sound. When the door is again secure the status icon shall automatically return to the secure indication.
  - b. The alarm shall sound if the door is manually opened with a key or forced open.

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- c. The alarm shall also sound if the door is remotely opened and then held open for a field adjustable period of 30 seconds to 5 minutes.
- d. Once a door has gone into alarm due to b or c above, the alarm can only be reset as described under status operation.

BC.1 SEGMENT BC.1 – VISITATION DOOR

- 1. This segment shall include the following operational elements:
  - a. Field
    - 1) Call button(s)
    - 2) Magnetic Door Lock with status
    - 3) **“Unlocked” Status lights**
  - b. Console
    - Station select icon
    - Door control icon
- 2. Description of Operation
  - a. Initial Conditions
    - 1) Door closed and locked, **Unlocked status lights off**
    - 2) Station Select Icon off
    - 3) Door icon green
    - 4) Tone silent
  - b. Door Operation
    - 1) Step #1: Depressing the call button at the door shall start the station Select Icon flashing and sound a Type 13A tone.
    - 2) Step #2: The operator can answer the call by touching the station select icon, which shall change the icon from flashing to steady, stop the tone, and enable the door control switch
    - 3) Step #3: The door can then be unlocked by touching the door control icon, unlocking the door. **The door Unlocked indicators shall also be illuminated as long as the magnetic lock is unpowered.** The door control icon shall turn red and remain red as long as the door is unsecure. When the door is again secure, the icon shall turn green. This action shall also reset the call in so that when the door is closed the system is returned to the initial conditions.



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BC.1-1 SEGMENT BC.1-1 – BOOKING RESTROOM DOOR

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Intercom Station
    - 2) Magnetic Door Lock with status
  - b. Console  
  
Station select icon  
Door control icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Door closed and locked
    - 2) Station Select Icon off
    - 3) Door icon green
    - 4) Tone silent
  - b. Door Operation
    - 1) Step #1: Depressing the call button on the intercom at the door shall start the station Select Icon flashing and sound a Type 13A tone.
    - 2) Step #2: The operator can answer the call by touching the station select icon, which shall change the icon from flashing to steady, stop the tone, enable the intercom and enable the door control switch
    - 3) Step #3: The door can then be unlocked by touching the door control icon, unlocking the door. The door control icon shall turn red and remain red as long as the door is unsecure. When the door is again secure, the icon shall turn green. This action shall also reset the call in so that when the door is closed the system is returned to the initial conditions.

BD.1 SEGMENT BD.1 - MOVEMENT DOOR, SWING

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Call button(s)

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- 2) Speaker/microphone(s)
  - 3) Door position indicator switch
  - 4) Door solenoid lock
  - 5) Surveillance CCTV camera (where shown)
- b. Console
- Station select icon  
Door control icon
2. Description of Operation
- a. Initial Conditions
- 1) Door closed and locked
  - 2) Station Select Icon off
  - 3) Door icon green
  - 4) Tone silent
- b. Door Operation
- 1) Step #1: Depressing the call button at the door shall start the station Select Icon flashing and sound a Type 13A tone.
  - 2) Step #2: The operator can answer the call by touching the station select icon, which shall change the icon from flashing to steady, stop the tone, enable the door control switch, cause all associated CCTV cameras to appear on the specified monitors, and establish the communications link to the intercom station associated with the door. The operator can then speak to the caller by pressing and holding the push-to-talk switch (refer to Segment AE).
  - 3) Step #3: If no other door in the sallyport is unsecure the door can then be unlocked by touching the door control icon, unlocking the door. The door control icon shall turn red and remain red as long as the door is unsecure. When the door is again secure, the icon shall turn green.
  - 4) Step #4: When the door is secure, the station select icon can be released by touching the icon a second time, which shall turn off the intercom and deselect the CCTV cameras. Alternatively, the operator can touch the next call icon (Segment AN) which will release the current call and select the next call from the queue
  - 5) If a door is already unsecure in the sallyport, all secure door icons shall be yellow. None of the other door may be opened unless the interlock override function (Segment AD) has been activated. If multiple doors are attempted to be operated simultaneously, without the override being active, no doors shall become unsecure.

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BE.1 SEGMENT BE.1 - MOVEMENT DOOR, SLIDE

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Call-in button(s)
    - 2) Speaker/microphones
    - 3) Video surveillance cameras
    - 4) Door motor controller
    - 5) Door position switches
  - b. Console
    - 1) Station select icon
    - 2) Door control icons
      - a) Door Open Icon
      - b) Door Close Icon
      - c) Door Stop Icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Gate closed and locked
    - 2) Door Open Icon green
    - 3) Station Select Icon off
    - 4) Tone silent
  - b. Sliding Door Operation
    - 1) Step #1: Depressing the call button at the door shall start the station Select Icon flashing and sound a Type 13A tone (see Segment AM).
    - 2) Step #2: The operator can answer the call by touching the station select icon, which shall change the icon from flashing to steady, stop the tone, enable the door control icons, cause all associated CCTV cameras to appear on the specified monitors, and establish the communications link to the intercom station associated with the door. The operator can then speak to the caller by pressing and holding the push-to-talk switch (refer to Segment AE).

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- 3) Step #3: If the door is part of an interlock group, and no other door in the group is unsecure, the door can then be opened by touching the door open icon. This will unlock the door and start the opening function for the motor operator. The door open icon shall turn red and remain red as long as the door is unsecure. The door shall continue to open until it is fully opened at which point the controller shall stop the motor and hold the door open.
- 4) Step #4: The door can be closed at any time by touching the door close icon. If the door is opening when this icon is touched the door shall stop, and after a mechanical delay shall start to close. When the door is again closed and locked the door open icon shall turn green.
- 5) When the door is being opened or closed it may be stopped at its current position by touching the stop icon. From the stopped position the door can be either opened or closed by touching the proper icon.
- 6) When the door is secure, the station select icon can be released by touching the icon a second time, which shall turn off the intercom and deselect the video cameras. Alternatively, the operator can touch the next call icon (Segment AR) which will release the current call and select the next call from the queue.
- 7) If a door is already unsecure in the interlock group, all secure door icons shall be yellow. None of the other doors may be opened unless the interlock override function (Segment AD) has been activated. If multiple doors are attempted to be operated simultaneously, without the override being active, no doors shall become unsecure.
- 8) When multiple doors are open in an interlock group the override function shall not be required to activate the close operation for any door.

BG.1 SEGMENT BG.1 - VEHICLE GATE, SLIDE

1. This segment shall include the following operational elements:
  - a. Field (all devices shall be weatherproof)
    - 1) Call-in button(s)
    - 2) Speaker/microphones
    - 3) Vehicle detectors
    - 4) Video surveillance cameras
    - 5) Gate motor controller
    - 6) Gate position switches
  - b. Console
    - 1) Station select icon

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2) Gate control icons

Gate Open Icon  
Gate Close Icon  
Gate Stop Icon

2. Description of Operation

a. Initial Conditions

- 1) Gate closed and locked
- 2) Gate Open Icon green
- 3) Station Select Icon off
- 4) Tone silent

b. Gate Operation

- 1) Step #1: Depressing the call button at the gate or moving a vehicle onto the detector loop shall start the station Select Icon flashing and sound a Type 13A tone (see Segment AM).
- 2) Step #2: The operator can answer the call by touching the station select icon, which shall change the icon from flashing to steady, stop the tone, enable the gate control icons, cause all associated video cameras to appear on the specified monitors, and establish the communications link to the intercom station associated with the gate. The operator can then speak to the caller by pressing and holding the push-to-talk switch (refer to Segment AE).
- 3) Step #3: If no other gate in the interlock group is unsecure, the gate can then be opened by touching the gate open icon. This will unlock the gate and start the opening function for the motor operator. The gate open icon shall turn red and remain red as long as the gate is unsecure. The gate shall continue to open until it is fully opened at which point the controller shall stop the motor and hold the gate open.
- 4) Step #4: The gate can be closed at any time by touching gate close icon. If the gate is opening when this icon is touched the gate shall stop, and after a mechanical delay shall start to close. When the gate is again closed and locked the gate open icon shall turn green.
- 5) When the gate is being opened or closed it may be stopped at its current position by touching the stop icon. From the stopped position the gate can be either opened or closed by touching the proper icon.

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- 6) When the gate is secure, the station select icon can be released by touching the icon a second time, which shall turn off the intercom and deselect the CCTV cameras. Alternatively, the operator can touch the next call icon (Segment AR) which will release the current call and select the next call from the queue.
- 7) If a gate is already unsecure in the interlock group, all secure gate open icons shall be yellow. None of the other gates or doors in the sallyport may be opened unless the interlock override function (Segment AD) has been activated. If multiple Gates and doors are attempted to be operated simultaneously, without the override being active, no gates or doors shall become unsecure.
- 6) When multiple gates or doors are open in an interlock the override function shall not be required to activate the close operation for any gate or door.

BP.1 SEGMENT BP.1 TOUCHSCREEN EMERGENCY EXIT ONLY DOOR RELEASE

1. This segment shall include the following operational elements:

- a. Field

- 1) Door motor or solenoid lock
- 2) Door position switch

- b. Console

- 1) Emergency Unlock Icon
- 2) Door Icon

2. Description of Operation

If a situation arises in the facility that requires that emergency exit doors be unlocked and held in that condition (fire evacuation, etc.) the operator can cause any of these doors to open and remain unlocked by activation of the emergency unlock icon at the bottom of the screen.

- a. Initial Conditions

- 1) Door locked
- 2) Door icons invisible

- b. Touching the Emergency Unlock icon shall cause the emergency exit door icons to become visible.

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- 1) Touching a door icon within 5 seconds after touching the Emergency Unlock icon shall cause the door to open to the unlocked position (half cycle position for motor locks, apply unlock power to solenoid locks with mechanical latchback, or apply power and maintain the power to solenoid locks without mechanical latchback). Touching the emergency unlock icon shall also override any interlock associated with the controlled door. When a door has been unlocked in this manner the door control icon shall flash. Additionally, the emergency unlock icon, which is always displayed at the bottom of the screen, shall flash as long as any door remains unlocked by the emergency unlock function.
- 2) A door that has been opened with the emergency unlock function can be restored to normal operation by again touching the door control icon (except solenoid locks with mechanical latchback which must be relocked with a key). This shall cause the lock to complete the full cycle operation (remove power for solenoid locks without mechanical latchback) and allow the door to be closed and locked. Once the door has been restored to normal operation the door icon shall become invisible again.

CA.1 SEGMENT CA.1 – VIDEO CAMERA SELECT

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Video Camera
  - b. Console
    - 1) Camera select icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Camera Select icon clear
  - b. Select Operation
    - 1) Touching the select icon on the touchscreen shall cause the selected camera image to appear on the assigned monitor and shall turn the Camera Select icon green.

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- 2) Selection of a second camera shall cause the selected images to sequence on the assigned monitor.
- 3) Touching a select icon a second time shall remove the associated video image from the monitor and shall return the Camera Select icon to the clear indication.
- 4) When there are no images selected for display on a monitor the display shall be black.
- 5) When a camera image is called up by one of the door control functions, any video camera images called up shall have the icons for the selected cameras turn green. This action shall be completely separate from the manual call-up described above. Automatic selection of a camera by a door control action will not cancel a previously established manual camera call-up.

CB.1. SEGMENT CB.1 - INTERCOM/PAGING SELECT

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Call button
    - 2) Speaker/microphone(s)
    - 3) Paging Zone
  - b. Console  
Station select icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Station Select icon clear
  - b. Intercom Operation
    - 1) Step #1: Depressing the call button at the intercom station shall start the station select icon flashing and sound a Type 13A tone.
    - 2) Step #2: The operator can select an intercom remote with or without a call in from that station by touching the station select icon. The Station Select icon shall turn on steady and the tone, if active, will be stopped. The communications link to the intercom station shall be established. The operator can then speak to the caller by depressing and holding the push-to-talk switch (refer to segment AE).



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- 3) Step #3: When the conversation is finished, the station select icon can be touched a second time which shall turn off the system.
  - 4) Touching the next call icon (Segment AN) will cancel the call as above and automatically connect to the next intercom call in the queue.
- c. Paging Operation
- 1) Step #1: The operator can initiate a page by touching the station select icon which shall turn on steady, and establish connection to the paging system. The operator can then page in the zone by depressing and holding the push-to-talk switch (refer to Segment AE).
  - 2) Step #2: When the page is finished, the station select icon can be touched a second time, which shall turn off the system.
  - 3) Touching the next call icon (Segment AN) will cancel the page connection as above and automatically connect to the next intercom call in the queue.

CD.1. SEGMENT CD.1 – DURESS ALARM

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Duress button
  - b. Console  
  
Duress Alarm icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Duress icon clear
  - b. Duress Operation
    - 1) Step #1: Depressing the duress button in the field shall start the duress icon flashing red and sound a Type 13C tone.
    - 2) Step #2: The operator can acknowledge the duress call by selecting the duress alarm from the queue or touching the icon on the screen. The Duress icon shall turn on steady and the tone, if active, will be stopped. Associated video images shall be displayed to the operator.
    - 3) Step #3: When the Duress condition has been cleared. the operator shall press the reset icon, which shall clear the alarm and reset the system.

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U.1 SEGMENT U.1 – LIGHTING CONTROL

1. This segment shall include the following operational elements:
  - a. Field
    - 1) Division 16 Relay panel
  - b. Console
    - 1) Lights select icon
2. Description of Operation
  - a. Initial Conditions
    - 1) Lights Select icon, Clear
  - b. Select Operation
    - 1) Depressing the Lights select icon at the console shall cause the selected Relay(s) at the Division 16 relay panel to turn on and shall turn the Lights select icon green.
    - 2) Depressing the Lights select switch a second time shall cause the selected Relay(s) at the Division 16 relay panel to turn off and shall turn the Lights select icon clear.

T.1 SEGMENT T.1 – VISITATION PHONE CONTROL

2. This segment shall include the following operational elements:
  - c. Field
    - 3) Relay for telephone cutoff
  - d. Console
    - 1) Telephone on/off icon
2. Description of Operation
  - a. Initial Conditions

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- 1) Telephone icon, Clear
  - 2) Relay Open, phone pair off
- b. Select Operation
- 1) Touching the Telephone icon at the console shall cause the selected Relay to turn on and shall turn the Telephone icon green.
  - 4) Touching the Telephone icon a second time shall cause the selected Relay to turn off and shall turn the telephone icon clear.

PART 2 - PRODUCTS

2.1 EQUIPMENT SUMMARY

A. Description:

1. Little or no additional security electronic control hardware shall be required for the changes anticipated for this project. While a few additional security devices shall be installed, there is currently adequate additional installed I/O on the PLC to support these added devices.
2. Any hardware needed shall match the existing types and qualities to be installed.

2.2 PRODUCT DESCRIPTIONS

A. Door Un-locked Indicators at Visiting Booths

1. General Description
  - a. Each un-locked indicator shall be mounted on a single gang stainless steel faceplate on an approved location in the visitation booth.
  - b. Un-locked indicator assemblies shall be mounted on a suitable (inmate resistant) single gang backbox with conduit extending to a convenient adjacent wireway.
2. Specifications
  - a. The faceplate plate shall be made from 11 gage stainless steel.
  - b. The indicator shall be rated for installation in a detention environment.
  - c. LED indicator shall be red and shall be rated for 24 volts DC operation.
3. Manufacturer: Visual Communications Co, Dialight, or approved equal

B. Magnetic Door Lock

1. General Description

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- a. Magnetic locks shall be mounted to the door frame where the restriction of the opening is minimized.
  - b. Locks shall be UL listed
  - c. Lock housing shall be aluminum and all steel parts shall be plated.
2. Mechanical Specifications
    - a. Locks shall provide a minimum holding force of 1200 pounds.
    - b. Magnet size shall be 10-1/2"L x 2-7/8"H x 1-1/2"W
    - c. Armature shall be 7-3/8"L x 2-2/8"H x 9/16"W
  3. Electrical Specifications:
    - a. Lock shall operate on 24 volts DC, maximum current shall be 200 MA
    - b. Lock power shall be sourced from the UPS system serving the facility area where the lock is located.
  4. Manufacturer: Locknetics: MagForce, Securitron: Magnalock, or approved equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. All installation work shall be accomplished in a manner similar to the existing work as to both workmanship and materials.
- B. As -built documentation shall be updated to indicate all of the additions and revisions to the project.
- C. Field Wiring and Devices (existing and new):
  1. Provide all electrical work required to support any added security electronic devices.
  2. Ascertain the power requirements and wiring configuration of the controlled devices. Power requirements shall include the initial power surge, its duration, the power necessary to maintain that condition, and the minimum time allowed between surges. Provide suitable wiring and control power.
  3. Ascertain the wiring configuration, positions and power capacities of all new switches and contacts to be monitored. Wire to the required configuration and provide suitable monitoring power.
  4. The wiring from the control electronics to door locks and operators shall be considered NEC Class 1. Power sources for this purpose shall comply with NEC Class 1 requirements.

3.2 TESTS

- A. Functional Tests:

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1. Test all functions, both control and monitor, for all added devices, including all control-panel components and all field devices, for operation identical to, and consistent with, the functional requirements of this Section.
3. Field-test all functions for proper operation, consistent with the requirements of the individual Section for that particular system.
4. Test all the permutations of the operating sequences, under normal and special cases, to ensure proper operational sequence, imposition of restrictions and alarm indications, as described by the functional requirements of this Section and other Sections of Division 17.
5. Document all functional test results on forms approved by the County and submit results as required in Section 17000.

B. Performance Tests:

1. Verify unaltered storage capability of nonvolatile memories, when subjected to magnetic fields experienced under worst-case conditions, in the actual electrical rooms where the equipment will be located.
2. Verify unhindered operation of the security-control electronics during power loss and transfer to UPS system and emergency back-up generator(s).
3. Document all performance test results on forms approved by the County and submit results as required in Section 17000.

3.3 SPECIAL TRAINING REQUIREMENTS

Following system acceptance tests, provide on-site training two electronics technicians in the programming and maintenance of the modified control system. Training shall include programming and modification of ladder logic and graphic displays, troubleshooting of the system, and system expansion.

3.4 SPARE PARTS

Provide two spare door un-lock indicator assemblies

3.5 SCHEDULES

A. Control Schedules:

The attached schedule identifies (with highlighting) four doors where magnetic door lock and their associated door security sensors are required to be added. These are also listed on control schedule sheets SS2.1 and SS2.3. For information purposes, the balance of the schedule shows the result of the replacement project in 2011.

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B. Additionally, the lock for the recently added swing gate (N11) in the N module is also listed.

C. Definitions of Columns:

**SHEET NO.** Sheet Number. Drawing on which device(s) can be found.

**DOOR NO.** Door numbers identify original door numbers where available. Design engineer assigned door numbers for some other doors. The County may revise these numbers after the Contract is awarded.

**ROOM NAME** Room function

**INTERCOM  
LOCATION**

Both - Both Sides of the door  
Single - Only on one side of the door

**PRI PNL** Primary Panel 1 - Main control point for this device. Multiple control panels may control a door. The panel initiating action first takes control of the door.

**PRI SEG** Primary Segment – Function Sequence and control group identifier on the main control panel(s).

**SEC PNL** Secondary Panel – Panel which has secondary control of the door, as during takeover mode. When the secondary panel functions are activated, the primary panel functions are disabled.

**SEC SEG** Secondary Segment – Function Sequence and control group identifier on the secondary control panel.

**ASSOCIATED  
CAMERAS** Identification of the primary and secondary cameras associated with the door intercom

**INTERLOCKED  
WITH** Identifies all doors interlocked with this door.

END OF SECTION 17800

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS1.1	P12	ROOF	BOTH	CC	BD.1			118		
SS2.1	H01		SINGLE	CC	BD.1			52		
SS2.1	H03		BOTH	CC	BD.1			51	41	Q4
SS2.1	H04		BOTH	CC	BD.1			51	53	
SS2.1	H07		BOTH	CC	BD.1			41	54	
SS2.1	H08	ATTN VISIT		CC	CD.1					DURESS
SS2.1	H11	ATTN VISIT		CC	CD.1					DURESS
SS2.1	H12	INMATE RR	SINGLE	BOOKING	BC.1-1	CC	BC.1-1			
SS2.1	H14		BOTH	BOOK	BD.1	CC	BD.1	67		H15
SS2.1	H15		SINGLE	CC	BD.1			65		H14
SS2.1	H17		NONE	BOOK	BD.1	CC	BD.1	65		
SS2.1	H23		SINGLE	BOOK	BE.1	CC	BE.1	63	66	Q3
SS2.1	H24		SINGLE	BOOK	BD.1	CC	BD.1	63	62	
SS2.1	H27	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61	60	
SS2.1	H29	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61	59	
SS2.1	H30	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61	57	
SS2.1	H31	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61	56	
SS2.1	H33	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61	55	
SS2.1	H35	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61		
SS2.1	H36	HOLD. CELL	SINGLE	BOOK	CB.1	CC	CB.1	61	58	
SS2.1	J01		NONE	RECP				69		Local Card Only
SS2.1	J07		NONE	RECP				73		Local Card Only
SS2.1	J13		BOTH	CC	BD.1			70		S20, S22, AND S23
SS2.1	J14	LAUNDRY	SINGLE	CC	BD.1			72	82	NEW MAG LOCK
SS2.1	K07	KITCHEN		CC	CD.1			74		DURESS
SS2.1	K09	KITCHEN	BOTH	CC	BD.1			74	79	K10, K12, K13
SS2.1	M10	MEDICAL	SINGLE	MED	BD.1	CC	BD.1	40	38	DURESS
SS2.1	M12	MEDICAL	BOTH	CC	BD.1			39	42	
SS2.1	M15	EXAM		CC	CD.1			40		DURESS

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.1	M16	EXAM		CC	CD.1			40		DURESS
SS2.1	M17	MEDICAL	NONE	MED	BD.1	CC	BD.1	40		
SS2.1	M18	MEDICAL	NONE	CC	BD.1			40		
SS2.1	P01	LOBBY	SINGLE	CC	CB.1			34	35	
SS2.1	Q01	SALLY PORT	SINGLE	CC	BG.1			45	112	Q02 Q03 AND Q04
SS2.1	Q02	SALLY PORT	NONE	CC	BG.1			46	110	Q01 Q03 Q04 AND Q05
SS2.1	Q03	SALLY PORT	BOTH	CC	BE.1			50	63	Q01 Q02 Q04 Q05 H23
SS2.1	Q04	SALLY PORT	BOTH	CC	BE.1			49	52	Q01 Q02 Q03 Q05 H3
SS2.1	Q05	SALLY PORT	BOTH	CC	BD.1			48	112	Q02 Q03 AND Q04
SS2.1	Q06	SALLY PORT	SINGLE	CC	BD.1			48	49	DISPATCH OFFICE
SS2.1	S20		SINGLE	CC	BD.1			68		S22, S23, AND J13
SS2.1	S21	CC	NONE	CC	BA.1					
SS2.1	S22	CC	NONE	CC	BD.1					S20, S23, AND J13
SS2.1	S23		SINGLE	CC	BD.1			71		S20, S22, AND J13
SS2.2	A01	DAY ROOM A	SINGLE	POD A	BD.1	CC	BD.1	3	7	
SS2.2	A02	DAY ROOM A	NONE	POD A	BD.1	CC	BD.1	3	10	
SS2.2	A03	CELL A03	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A05	CELL A05	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A06	CELL A06	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A08	CELL A08	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A09	CELL A09	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A12	CELL A12	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A14	CELL A14	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A15	CELL A15	SINGLE	POD A	BD.1	CC	BD.1	3	4	
SS2.2	A17	CELL A17	SINGLE	POD A	BD.1	CC	BD.1	3	7	
SS2.2	A18	CELL A18	SINGLE	POD A	BD.1	CC	BD.1	3	7	
SS2.2	A20	CELL A20	SINGLE	POD A	BD.1	CC	BD.1	5	7	
SS2.2	A21	CELL A21	SINGLE	POD A	BD.1	CC	BD.1	5	7	
SS2.2	A23	CELL A23	SINGLE	POD A	BD.1	CC	BD.1	5	7	



## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.2	A26	CELL A26	SINGLE	POD A	BD.1	CC	BD.1	5	7	
SS2.2	A28	CELL A28	SINGLE	POD A	BD.1	CC	BD.1	5	7	
SS2.2	A29	CELL A29	SINGLE	POD A	BD.1	CC	BD.1	5	7	
SS2.2	A31	CELL A31	SINGLE	POD A	BD.1	CC	BD.1	5	7	
SS2.2	A32	DAY RM. A/B	NONE	POD A	BD.1	CC	BD.1	5	8	
SS2.2	B01	DAY ROOM B	SINGLE	POD A	BD.1	CC	BD.1	11		
SS2.2	B02	CELL B02	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B04	CELL B04	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B05	CELL B05	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B07	CELL B07	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B08	CELL B08	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B10	CELL B10	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B11	CELL B11	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B13	CELL B13	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.2	B17	REC YARD A	NONE	POD A	BD.1	CC	BD.1	10	13	
SS2.2	B18	MULT PODA		CC	CD.1			12		DURESS
SS2.2	B19	DAY ROOM B	NONE	POD A	BD.1	CC	BD.1	11		
SS2.2	B20	REC YARD A	SINGLE	POD A	BD.1	CC	BD.1	13		
SS2.2	B21	REC YARD A	NONE	CC	BD.1			10	13	
SS2.2	B22		NONE	CC	BA.1			113		
SS2.2	C01	DAY ROOM C	SINGLE	POD B	BD.1	CC	BD.1	22		
SS2.2	C02	CELL C02	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.2	C04	CELL C04	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.2	C05	CELL C05	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.2	C07	CELL C07	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.2	C08	CELL C08	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.2	C10	CELL C10	SINGLE	POD B	BD.1			22	24	
SS2.2	C11	CELL C11	SINGLE	POD B	BD.1			22	24	
SS2.2	C13	CELL C13	SINGLE	POD B	BD.1			22	24	

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.2	C16	MULT PODB		CC	CD.1			21		DURESS
SS2.2	C18	DAY ROOM C	NONE	POD B	BD.1	CC	BD.1	22		
SS2.2	C19	REC YARD B	SINGLE	POD B	BD.1	CC	BD.1	27		
SS2.2	C20	EMRGY EXIT	NONE	CC	BD.1			25	27	
SS2.2	D01	DAY ROOM D	SINGLE	POD B	BD.1	CC	BD.1	26		
SS2.2	D02	DAY RM. C/D	NONE	POD B	BD.1	CC	BD.1	22	26	
SS2.2	D03	CELL D03	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.2	D05	CELL D05	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.2	D06	CELL D06	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.2	D08	CELL D08	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.2	D10	DAY RM. D/E	NONE	POD B	BD.1	CC	BD.1	26	29	
SS2.2	E01	DAY ROOM E	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.2	E02	DAY RM. E/F	NONE	POD B	BD.1	CC	BD.1	29	30	
SS2.2	E03	CELL E03	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.2	E05	CELL E05	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.2	E06	CELL E06	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.2	E08	CELL E08	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.2	F01	DAY ROOM F	SINGLE	POD B	BD.1	CC	BD.1	30		
SS2.2	F02	CELL F02	SINGLE	POD B	BD.1	CC	BD.1	30		
SS2.2	F04	CELL F04	SINGLE	POD B	BD.1	CC	BD.1	30		
SS2.2	F05	CELL F05	SINGLE	POD B	BD.1	CC	BD.1	30		
SS2.2	F07	CELL F07	SINGLE	POD B	BD.1	CC	BD.1	30		
SS2.2	F09	DAY RM. F/G	NONE	POD B	BD.1	CC	BD.1	30	31	
SS2.2	G01	DAY ROOM G	SINGLE	POD B	BD.1	CC	BD.1	31		
SS2.2	G02	REC YARD B	NONE	POD B	BD.1	CC	BD.1	25	27	
SS2.2	G03	CELL G03	SINGLE	POD B	BD.1	CC	BD.1	31		
SS2.2	G05	CELL G05	SINGLE	POD B	BD.1	CC	BD.1	31		
SS2.2	G06	CELL G06	SINGLE	POD B	BD.1	CC	BD.1	31		
SS2.2	G08	CELL G08	SINGLE	POD B	BD.1	CC	BD.1	31		

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.2	M01	INFIRMARY	NONE	CC	BD.1			37	42	
SS2.2	M02	INFIRMARY	SINGLE	MED	BD.1	CC	BD.1	37		
SS2.2	M03	INFIRMARY	SINGLE	MED	BD.1	CC	BD.1	36	38	
SS2.2	M05	INFIRMARY	SINGLE	MED	BD.1	CC	BD.1	43	38	
SS2.2	M06	INFIRMARY	SINGLE	MED	BD.1	CC	BD.1	44	38	
SS2.2	M08	INFIRMARY	SINGLE	MED	BD.1	CC	BD.1	47	38	
SS2.2	P02	YARD	NONE	CC	BD.1			90	97	
SS2.2	P06	PUBLIC VISIT	NONE	RECP	BD.1	CC	BD.1	20		
SS2.2	P09	RF. ACCESS	BOTH	CC	BD.1			18		
SS2.2	P10	PUBLIC VISIT	NONE	CC	BD.1			16		
SS2.2	S01	EXPANSION	BOTH	CC	BD.1			15		
SS2.2	S02	PODA ENTRY	BOTH	CC	BD.1			12	15	
SS2.2	S03	PODB ENTRY	BOTH	CC	BD.1			15	21	
SS2.2	S10	ATTN VISIT		CC	CD.1			15		DURESS
SS2.2	V01	PUBLIC VISIT		CC	BC.1			42		INMATE CALL PUSH BTN
SS2.2	V02	PUBLIC VISIT		CC	BC.1			42		INMATE CALL PUSH BTN
SS2.2	V03	PUBLIC VISIT		CC	BC.1			42		INMATE CALL PUSH BTN
SS2.2	V04	PUBLIC VISIT		CC	BC.1			42		INMATE CALL PUSH BTN
SS2.2	V05	PUBLIC VISIT		CC	BC.1			42		INMATE CALL PUSH BTN
SS2.2	V06	PUBLIC VISIT		CC	BC.1			42		INMATE CALL PUSH BTN
SS2.2	V07	POD B		POD B	BC.1	CC	BC.1	6	21	INMATE CALL PUSH BTN
SS2.2	V08	POD B		POD B	BC.1	CC	BC.1	6	21	INMATE CALL PUSH BTN
SS2.2	V09	POD B		POD B	BC.1	CC	BC.1	6	21	INMATE CALL PUSH BTN
SS2.2	V10	POD B		POD B	BC.1	CC	BC.1	6	21	INMATE CALL PUSH BTN
SS2.2	V11	POD B		POD B	BC.1	CC	BC.1	6	21	INMATE CALL PUSH BTN
SS2.3	J15	LIBRARY		CC	CB.1			84		
SS2.3	K10		BOTH	CC	BD.1			72	79	K9, K12, K13
SS2.3	K12	RECEIVING MAN	BOTH	CC	BD.1			80	107	K9, K10
SS2.3	K13	RECEIVING ROLL	NONE	CC	BG.1			80	107	K9, K10 NO ASSOCIATED IC

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.3	N01	EMERG EXIT	NONE	CC	BD.1			90	97	
SS2.3	N04		BOTH	CC	BD.1			91		N06
SS2.3	N05	ATTN VISIT		CC	CD.1			93		DURESS
SS2.3	N06		SINGLE	MIN	BD.1	CC	BD.1	93		N04
SS2.3	N10	REC YARD N	SINGLE	MIN	BD.1	CC	BD.1	85	95	
SS2.3	N11	DAY ROOM N	SINGLE	CC	BD.1			72	87	
SS2.3	N15	DORM	SINGLE	MIN	BD.1	CC	BD.1	122	95	
SS2.3	N16	DORM	SINGLE	MIN	BD.1	CC	BD.1	95	89	
SS2.3	N20	EXIT ONLY	NONE	CC	BD.1			97		
SS2.3	N22	MEDICAL	SINGLE	MIN	CB.1	CC	CB.1	96	101	
SS2.3	N23	REC YARD N	SINGLE	MIN	BD.1	CC	BD.1	96	92	
SS2.3	N24	MULT PODN		CC	CD.1			100	101	DURESS
SS2.3	N24	PROGRAM RM	SINGLE	POD N	BC.1	CC	BC.1	96	98	NEW MAG LOCK, NEW IC STATION
SS2.3	N26	DORM	SINGLE	MIN	BD.1	CC	BD.1	96	105	
SS2.3	N27	DORM	SINGLE	MIN	BD.1	CC	BD.1	96	123	
SS2.3		LIBRARY	SINGLE	CC	BD.1			72	83	NEW MAG LOCK
SS2.3		OFFICE	SINGLE	CC	BD.1			72	151	NEW MAG LOCK, NEW IC STATION
SS2.4	A29	CELL A29	SINGLE	A POD	BD.1bd.1	CC	BD.1			
SS2.4	A33	CELL A33	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A35	CELL A35	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A36	CELL A36	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A38	CELL A38	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A39	CELL A39	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A42	CELL A42	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A44	CELL A44	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A45	CELL A45	SINGLE	POD A	BD.1	CC	BD.1	4		
SS2.4	A47	CELL A47	SINGLE	POD A	BD.1	CC	BD.1	3	7	
SS2.4	A48	CELL A48	SINGLE	POD A	BD.1	CC	BD.1	3	7	
SS2.4	A50	CELL A50	SINGLE	POD A	BD.1	CC	BD.1	5		

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.4	A51	CELL A51	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A53	CELL A53	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A55	CELL A55	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A56	CELL A56	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A58	CELL A58	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A59	CELL A59	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A61	CELL A61	SINGLE	POD A	BD.1	CC	BD.1	5		
SS2.4	A62	DAY RM. A/B	NONE	POD A	BD.1	CC	BD.1	5	8	
SS2.4	B23	CELL B23	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B25	CELL B25	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B26	CELL B26	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B28	CELL B28	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B29	CELL B29	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B31	CELL B31	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B32	CELL B32	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	B34	CELL B34	SINGLE	POD A	BD.1	CC	BD.1	8	11	
SS2.4	C21	CELL C21	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C23	CELL C23	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C24	CELL C24	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C26	CELL C26	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C27	CELL C27	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C29	CELL C29	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C30	CELL C30	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	C32	CELL C32	SINGLE	POD B	BD.1	CC	BD.1	22	24	
SS2.4	D11	DAY RM. C/D	NONE	POD B	BD.1	CC	BD.1	24	26	
SS2.4	D12	CELL D12	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.4	D14	CELL D14	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.4	D15	CELL D15	SINGLE	POD B	BE.1	CC	BE.1	26		
SS2.4	D17	CELL D17	SINGLE	POD B	BE.1	CC	BE.1	26		

## CONTROL SCHEDULE

Sheet No.	Door No.	Room Name	Intercom Location	Primary		Secondary		Associated Cameras	Interlocked With	Comments
				Control Panel	Control Segment	Control Panel	Control Segment			
SS2.4	D18	CELL D18	SINGLE	PODB	BE.1	CC	BE.1	26		
SS2.4	D19	DAY RM. D/E	NONE	POD B	BD.1	CC	BD.1	26	29	
SS2.4	E11	CELL E11	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.4	E13	CELL E13	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.4	E14	CELL E14	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.4	E16	CELL E16	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.4	E17	CELL E17	SINGLE	POD B	BD.1	CC	BD.1	29		
SS2.5	N17	MI;TOPURP.		MIN	CD.1	CC	CD.1	95		DURESS
SS2.5	N17	MULTI PURP.	SINGLE	MIN	BD.1	CC	BD.1		95	
SS2.5	N18	DORM	SINGLE	MIN	BD.1	CC	BD.1	128	95	
SS2.5	N19	DORM	SINGLE	MIN	BD.1	CC	BD.1	129	95	
SS2.5	N28	DORM	SINGLE	MIN	BD.1	CC	BD.1	96	130	
SS2.5	N29	DORM	SINGLE	MIN	BD.1	CC	BD.1	96	131	