

MONTEREY COUNTY



BOOK ONE

NOTICE TO CONTRACTORS AND PROJECT SPECIFICATIONS

**TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870
PROJECT NO. 9600-50
BID NO. NMC-1009**



COVER SHEET

BOOK ONE

**NOTICE TO CONTRACTORS
AND
PROJECT SPECIFICATIONS**

TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870

**PROJECT NO. 9600-50
BID NO. NMC-1009**

APPROVED AS TO FORM:

ANNIE BRAUER
Deputy County Counsel

APPROVED AS TO FISCAL TERMS:

GARY GIBONEY
Chief Deputy Auditor Controller

TITLE SHEET

BOARD OF SUPERVISORS
COUNTY OF MONTEREY
STATE OF CALIFORNIA

Fernando Armenta, Chair
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Simon Salinas
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**NOTICE TO CONTRACTORS AND PROJECT SPECIFICATIONS
TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870**

PROJECT NO. 9600-50 BID NO. NMC-1009

IN

MONTEREY COUNTY

FOR USE IN CONNECTION WITH THE CURRENT LABOR SURCHARGE EQUIPMENT RENTAL RATES, OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, BUSINESS AND TRANSPORTATION AGENCY. THE CURRENT GENERAL PREVAILING WAGE DETERMINED BY THE DIRECTOR OF INDUSTRIAL RELATIONS IS ON FILE WITH RMA-PUBLIC WORKS.

168 West Alisal Street, 2nd Floor
Salinas CA 93901-2438
(831) 755-4800

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COUNTY OF MONTEREY
NATIVIDAD MEDICAL CENTER
PROJECT NO. 9600-50 BID NO. NMC-1009
TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870

NOTICE TO CONTRACTORS

Sealed bids will be received at the OFFICE OF THE CLERK OF THE BOARD OF SUPERVISORS, COUNTY OF MONTEREY, 168 W. ALISAL ST. FL1, SALINAS, CA 93901 (MAILING ADDRESS: P O BOX 1728, SALINAS CA 93902-1728) until 2:00 p.m. on JULY 22, 2013 for the above project as shown on the plans, at which time they will be publicly opened and read in the Board of Supervisors' Conference Room 1032.

Scope for Base Bid, in general, consists of improvements at Modular building 5, 840 and 870. The tenant improvement consists of a new interior walls and gypsum board soffit, a new exterior ramp, electrical, sewer and water, patching ceiling, lighting and replacement of mechanical units at existing buildings. Work to be done for an additive alternate bid would consist of removing the entire T-bar ceiling and replace with new in Modular 5 only. The lowest responsible and responsive bidder will be determined for the project on the BASE BID CONTRACT PLUS ADDITIVE ALTERNATE. Engineer's Estimate for construction of base bid elements is **\$724,000**. Work is scheduled to begin in August 30, 2013, with completion anticipated by November 25, 2013.

A MANDATORY BIDDERS' MEETING with NMC Project Manager is scheduled for JULY 11, 2013, at 10AM, at Natividad Medical Center/Building 900/1441 Constitution Blvd/Salinas CA 93906.

The Bidder shall possess a valid Class B Contractor's license, at the time of bid submission. Security in an amount equal to at least ten percent of the total amount of the bid in the form of cash, cashier's check or certified check payable to the County, or a bidder's bond issued executed by an admitted corporate surety company, must accompany the bid. A blank Bidder's Bond form is attached to the proposal. Successful bidder shall furnish a payment bond and a performance bond each in the amount of 100 percent of the Contract.

Contract Documents are available ELECTRONICALLY and can be downloaded for free at the following Monterey County website: <http://www.co.monterey.ca.us/publicworks/bids.htm>. Interested bidders must register to view or download the documents. Files on compact-disc (CD) is also available at MONTEREY COUNTY NMC ENGINEERING DEPARTMENT, 1441 CONSTITUTION BLVD SALINAS CA. 93906 for a nonrefundable fee of \$5. Electronic files can be used to print the project plans, specifications, and other such documents at various printing companies.

Pursuant to Section 5.08.120 of the Monterey County Code, all contractors and subcontractors providing work, laborers, or material men on the project shall make a good-faith effort to employ qualified individuals who are, and have been for at least one (1) year out of the past three (3) years prior to the opening of bids, residents of the Monterey Bay Area in sufficient numbers so

that no less than fifty percent (50%) of the contractor's total construction work force, on the project, including any subcontractor work force (with exception of specialty subcontractor items identified in the bid items) measured in labor work hours is comprised of Monterey Bay Area residents.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations and are available at the RMA-Public Works, 168 W. Alisal St. Fl2, Salinas CA 93901, and available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>.

Pursuant to Public Contract Code section 22300, the Contractor may substitute securities for any monies withheld by the County to ensure performance under the contract.

Monterey County reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding. No bidder may withdraw his bid for a period of sixty days after the opening of bids without the written consent of County.

Date: June 18, 2013

BOARD OF SUPERVISORS
COUNTY OF MONTEREY

Publication dates:

July 1st, 2013

July 8th, 2013

INFORMATION FOR BIDDERS

Division 00200

**COUNTY OF MONTEREY
NATIVIDAD MEDICAL CENTER
PROJECT NO. 9600-50 BID PACKAGE NO. NMC-1009
TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870
1441 CONSTITUTION BLVD, SALINAS CA 93906**

1. Invitation to Submit Bids

The County of Monterey (County) invites bids to be submitted at such time and place stated in the Notice to Contractors. This "Information to Bidders" is intended to assist bidders in the preparation of their bids. If there is any inconsistency between the terms herein and any of the other contract documents, the terms in the other contract documents shall prevail.

2. Examination of Site, Bidding and Contract Documents

The project specifications, drawings, and other contract documents may be examined at Natividad Medical Center's Facilities Office/1441 Constitution Blvd Bldg 900/Salinas CA 93906 (831)755-4220. Also, Project documents may be viewed, downloaded, and printed **for free** directly from the Monterey County website project page:

<http://www.co.monterey.ca.us/publicworks/bids.htm>. Interested parties must register to view or download documents. Alternately, interested parties may engage a printing service of their choosing to download and print documents from the County project page. Project documents may also be available to view at builders' exchanges listed on the same project page or members of Ebidboard can access materials directly from its website.

Each bidder shall visit the site of the proposed work and become fully acquainted with the conditions relating to the construction and labor in order to understand fully the facilities, difficulties, and restrictions attending the execution of the work under the contract. Bidders shall thoroughly examine and become familiar with the plans, specifications, working details, and existing conditions. The failure or omission of any bidder to receive or examine any contract documents, form, instrument, addendum, or other document, or to visit the site and become acquainted with conditions there existing shall in no way relieve such bidder from obligations with respect to such bid or to the contract. Submission of a bid shall be taken as prima facie evidence of compliance with this section.

3. Mandatory Bidder's Meeting

If a mandatory bidders' meeting is required in the Notice to Contractors, then a qualified representative of the bidder's firm must attend at the stated time and place. Failure to attend will be cause for rejection of the bid. Any bid received from a bidder who did not fully attend the mandatory bidders' meeting at the stated time and place will be returned unopened.

A MANDATORY BIDDERS' MEETING with NMC Project Manager is scheduled for JULY 11, 2013 AT 10AM at NMC Bldg 900, 1441 Constitution Blvd, Salinas, CA 93906.

4. Contractor's License

Each bidder must be licensed to perform the project in accordance with the provisions of the Contractors' State Licensing Law, Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code, and in accordance with the Notice to Contractors. The Contractor's license number and expiration date of the license shall appear on the bid. The classification of the Contractor's License required for this project is "B."

5. Preparation of Bid Form

All bids must be submitted on the prescribed form. All blanks in the bid form must be appropriately filled in, and all prices must be stated in both words and figures, with the lump sum for which the bid is made. All bids must be submitted in sealed envelopes bearing on the outside the bidder's name and address, the name of the project, the bid date and time, and the bid package number for which the bid is submitted. It is the sole responsibility of the bidder to see that the bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.

6. Erasures

The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the bid, in the named person's own handwriting.

7. Modifications

Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the contract documents may result in the County's rejection of the bid as not being responsive to the invitation to bid. No oral or telephonic modification of any bid submitted will be considered. A telegraphic or telefax modification may be considered.

8. Signature

The bid must be signed in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid. An original signature is required.

9. Interpretation of Plans and Documents

If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the plans, specifications, or other contract documents, or finds discrepancies in or omissions from the plans and specifications, he may submit to the County a written request for an interpretation or correction thereof. The person submitting the request shall be responsible for its prompt delivery. Any interpretation or correction of the contract documents will be made only by official project Q&A (questions/answers) or addendum duly issued, and a copy of such will be posted on the County website, RMA-Public Works' project page [www.co.monterey.ca.us/publicworks]. No oral interpretation of any provision in the contract documents will be made.

10. Bidding Questions

All questions regarding the project during the bidding process must be made in writing to the

attention of the designated project bidding coordinator via E-mail, postal mail, or via facsimile (831)755-4268. Ebidboard members can also post their questions directly on the project page through Ebidboard.com. Contact information is listed on the County website, RMA-Public Works' project page [www.co.monterey.ca.us/publicworks]. No telephone or verbal questions will be accepted. ***QUESTIONS RECEIVED AFTER JULY 16, 2013, 2:00 p.m. WILL NOT BE ACCEPTED.*** Answers to all questions and any addendum regarding the project will be posted on the County website, RMA-Public Works' project page [www.co.monterey.ca.us/publicworks/bids.htm, *select bid openings then project name*].

11. Bid Security

Each bid shall be accompanied by bidder's security in the form of cash, a certified or cashier's check payable to the County, or a satisfactory bid bond in the form included in this bid book (Division 00440) in favor of the County executed by the bidder as principal and a satisfactory corporate surety authorized to do business in the State of California as an admitted surety insurer,

in an amount not less than ten percent (10%) of the total bid amount. The security shall be given as a guarantee that, if the contract is awarded to the bidder, the bidder will execute the contract, provide any required insurance certificates, and provide any payment and performance bonds required by the contract within ten (10) workdays after the bidder receives the Notice of Intent to Award letter. After ten (10) workdays, if the proper bond and insurance documents are not submitted by the lowest responsive bidder, the County has the right to determine that bid non-responsive and contact the second lowest responsive bidder.

12. Listing Subcontractors

Each bidder shall submit with the sealed bid a list of the proposed subcontractors for the project as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code section 4100, et seq.). Forms for this purpose are furnished with the contract and bid documents. This includes all subcontractors performing work in an amount in excess of one-half of one percent of the prime contractor's total bid.

13. Prevailing Wage

The Director of the Department of Industrial Relations has determined the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft or type of worker needed to execute the contract. Copies of the prevailing rate of per diem wages are on file and shall be made available to any interested party on request in the Resource Management Agency–Public Works' office located at 168 W. Alisal St. FL2, Salinas CA 93901. It shall be mandatory upon the Contractor to whom the contract is awarded, and upon any subcontractor under him, to pay not less than said specified rates to all workers employed by them in the execution of the contract.

14. Workers' Compensation Certificate.

In accordance with the provisions of Section 3700 of the Labor Code, Contractor shall secure the payment of workers' compensation to their employees. The following certificate, which such form is included as part of the contract documents, shall accompany each bid:

I am aware of the provisions of Section 3700 of the Labor Code, which require 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.

15. Good-Faith Effort to Employ Residents of Monterey Bay Area:

In accordance with Section 5.08.120 of the Monterey County Code, all contractors and subcontractors providing work, laborers, or materialmen on the project shall make a good-faith effort to employ qualified individuals who are, and have been for at least one (1) year out of the past three (3) years prior to the opening of bids, residents of the Monterey Bay Area in sufficient numbers so that no less than fifty percent (50%) of the contractor's total construction work force, on the project, including any subcontractor work force (with exception of specialty subcontractor items identified in the bid items) measured in labor work hours is comprised of Monterey Bay Area residents. A certification form relating to compliance with Section 5.08.120 is furnished with the bid documents. Bidder must complete the certification form and submit the certification form with the sealed bid. The Monterey County Board of Supervisors may deem your bid non-responsive for failure to abide by the good-faith local hiring provisions of Section 5.08.120.

If any contractor submitting a bid for a contract for public works of improvement fails to abide by the good-faith local employment provisions of this Section, the contractor may be declared by the Board to be a non-responsive bidder for purposes of this Chapter. If a contractor lists in his or her bid a subcontractor who is currently disqualified under the terms of this Section, the Board may declare said contractor to be a non-responsive bidder for purposes of this Chapter. If the Board finds that a contractor to whom a contract for public works of improvement has been awarded has failed to comply with the good-faith employment provisions of this Section during the performance of the contract, the Board may disqualify the contractor from bidding on any County contract for public works of improvement for a period of one (1) year from the date of the Board's disqualification. A subsequent violation of this Section by a contractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification.

"Resident of Monterey Bay Area" means a person who resides within the boundaries of Monterey County, Santa Cruz County, or San Benito County.

A "good-faith effort" means the contractor will take the following or similar actions to recruit and maintain Monterey Bay Area residents as part of the construction workforce:

- Contact local recruitment sources, including local hiring halls, to identify qualified individuals who are Monterey Bay Area residents;
- Advertise for qualified Monterey Bay Area residents in trade papers, electronic/"on-line" sources, and newspapers of general circulation in the Monterey Bay Area, unless time limits imposed by the County do not permit such advertising.
- If portions of the work are to be performed by subcontractors, identify qualified subcontractors whose work force includes Monterey Bay Area residents; and
- If current workforce does not exceed the fifty (50) percent local Employ requirement, develop a written plan to recruit Monterey Bay Area residents as part of the construction workforce.

The Contractor shall keep an accurate record on a standardized form showing the name, place of residence (not post office box), trade classifications, hours worked, proof of journeyman or apprenticeship status, per diem wages and benefits of each person employed by the contractor, the contractor's subcontractors on the project, including full-time, part-time, permanent, and temporary employees, make sure records are available to the County with submission of final certified payroll records prior to final payment.

The Contractor shall keep, and provide to the County, on forms acceptable to the County, an accurate record documenting compliance with this provision. Said records shall include; a listing by name and business address of all local recruitment sources contacted by the contractor, the date of the local recruitment contact and the identity and business address of the person contacted, the trade and classification and number of Employ referrals requested, the number of local Employ made as a result of the contract, and the residence address of the person(s) Employd pursuant to the contact.

At the conclusion of the project, and at other intervals as may be deemed appropriate by the Project Manager, the Contractor shall provide a summary report of the percentage of actual labor work hours performed by Monterey Bay Area residents on the project.

Contractors and subcontractors are referred to the provisions of Section 5.08.120 of the Monterey County Code and the rules, regulations, and procedures adopted to implement Section 5.08.120, which are online at <http://library.municode.com/index.aspx?clientId=16111>.

16. Bidders Interested in More Than One Bid

No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a sub-proposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders or making a prime proposal.

17. Withdrawal of Bids

Any bidder may withdraw their bid either personally, by written request, or by telefaxed request at any time prior to the scheduled closing time for receipt of bids.

18. Evidence of Responsibility

Upon request of the County, a bidder whose bid is under consideration for the award of the contract shall submit promptly to the County satisfactory evidence showing the bidder's financial resources, construction experience, and organization available for the performance of the contract, and upon written request, shall furnish the County a complete copy of its estimate and all appropriate backup information and supporting documents. The County may utilize this information as a basis for determining that a contractor is not responsible and, therefore, award the contract to the next lowest responsible and responsive bidder.

19. Early Completion of Project

If, as an express or implied condition of their bid, a bidder plans to complete the project before

the completion date specified in the contract documents and the amounts bid for the work called for are dependent upon such early completion, the bidder must submit with his bid a preliminary work progress schedule in sufficient detail to permit the County or its Architect to determine that the bidder's preliminary schedule presents a reasonable and practicable plan for performance.

- 1) Preliminary schedule shall be the bidder's proposed working schedule to plan, organize, and execute the work, record and report actual performance and progress, and show how general contractor plans to complete all remaining work as of the end of each progress report period.
- 2) The preliminary schedule shall be in the form of an activity on arrow- oriented (*I-J format*) network diagram (Critical Path Method) and the principles and definition of the terms used shall be as set forth in the Associated General Contractors of America (AGC) publication.
- 3) Failure to include a detailed preliminary work progress schedule with the bidder's bid shall be conclusively deemed to constitute acceptance of the County's completion date as specified in the contract documents, and the bidder shall not thereafter be entitled to damages for any delays based on an early completion date proposed by the bidder.
- 4) Bidder who submits with his bid a preliminary work progress schedule which either (a) lacks sufficient detail to permit the County to determine that the bidder's preliminary schedule presents a reasonable and practicable plan for performance or (b) is determined by the County or its Architect not to be a reasonable and practicable plan for performance shall be deemed non-responsive to the call for bids and his bid shall be rejected.

20. Award of Base Bid only Contract

The NATIVIDAD MEDICAL CENTER reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding. The award of the contract, if made by the NMC, will be to the lowest responsible and responsive bidder. The lowest bidder will be determined for the project by LOWEST BASE BID.

21. Award of Base with Alternate Bids

If alternate bids are called for, the contract will be awarded to the lowest responsible and responsive bidder, who shall be the lowest bid price on the LOWEST BASE BID CONTRACT PLUS ADDITIVE ALTERNATES.

22. Documents required upon receipt of Notice of Intent to Award

Within ten (10) days after the bidder receives notice the Notice of Intent to Award letter, the successful bidder shall, in conformity with the contract documents, submit the following documents, including the number of originals required in the Special Conditions:

- Executed Agreement (Division 00500);
- A performance bond and a payment bond, each in an amount equal to one hundred percent of the contract sum, issued and executed by an admitted surety insurer, authorized to transact surety insurance in California (Division 00600 and 00610);
- Insurance certificates showing that the successful bidder has obtained all required insurance coverage including endorsements; and
- Such other documents as may be required by the contract documents.

23. Bid Security Return

The bid security shall be returned to the bidders promptly after a decision is made whether to

accept a bid or reject all bids, except that if a contract award is to be made, the bid security of three or more of the lowest bidders (the number being at the discretion of the County) will be held for sixty (60) workdays after notice of award is received by the successful bidder or until the successful bidder returns the executed Agreement and posts the required bonds and certificates of insurance, whichever occurs first. If the successful bidder returns the required documents on time, all the remaining bid security will be returned.

24. Forfeiture for Failure to Execute Contract

If the bidder to whom a Notice of Intent to Award is made fails or refuses to execute the contract and post the required bonds and insurance certificates within ten (10) days from the date of receiving the Notice of Intent to Award letter, the County may declare the bidder's bid security forfeited as liquidated damages caused by the failure of the bidder to enter into the contract, and may award the work to the next lowest responsible and responsive bidder or may call for new bids. If the work is awarded to the next bidder, the County shall retain the remaining bid securities until such time as a new award is completed with the execution of the Agreement and the posting of bonds and certificates. If new bids are called for, all remaining bid securities will be promptly returned.

25. Progress Payments and Substitution of Security

Progress payments to the Contractor will be made each calendar month on the basis of ninety-five percent (95%) of the value of the work performed. The final payment will be withheld for 35 days after completion of the project. Completion as used herein is defined as the date of acceptance of the Work by the County of Monterey Board of Supervisors. Upon the Contractor's request and agreement to substitute securities for the withheld funds, monies withheld from progress payments by the County to ensure performance under the contract may be released in accordance with Public Contract Code section 22300 and the contract documents.

26. Non-Discrimination

It is the policy of the County that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, physical disability, mental disability, medical condition (cancer related), sex, sexual orientation, age (over 40), or marital status. The Contractor agrees to comply with all applicable federal, state, and local laws and/or regulations including, but not limited to, the California Fair Employment and Housing Act, Government Code Secs. 12900 et seq., Labor Code Sec. 1735, and Monterey County Code, Title 2, Chapter 2.80. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by the Contractor.

27. Bid Protests

Who can file a protest?

Any Bidder or directly affected party who is aggrieved in connection with the solicitation or award of contract (ex. Subcontractor), representatives of the above (ex. Unions) may file a bid protest.

Requirements for Filing a Protest

Bidders who wish to lodge a protest as to the award of the bid must do so before 5 p.m. of the fifth business day following the notice of intent to award the contract. Failure to timely file a written protest shall constitute a waiver of right to protest. Untimely protests will not be accepted or considered. Bid protests must be submitted, in writing, to: NATIVIDAD MEDICAL CENTER FACILITIES OFFICE OF THE PROJECT MANAGER/ 1414 CONSTITUTION BLVD. BUILDING 900, SALINAS, CA 93906. Protests may be hand-delivered or sent via facsimile [(831)755-4268], certified postal mail, or E-mailed to the attention of the Project Manager at griffinb@natividad.com. Bid protests must include the project name and bid number; a complete statement describing the basis for the bid protest, including a detailed statement of all legal and factual grounds for the protest; any documentation supporting the protestor's grounds for the protest; and the form of relief requested and legal basis for such relief. The party lodging the protest must also include their contact information including mailing address, telephone number, and E-mail address.

If a valid protest is timely filed, Natividad Medical Center shall investigate the bid protest. The protested party shall have three (3) business days to respond to any requests to provide additional information from Public Works.

County Response to Protests Received

Natividad Medical Center shall respond to the protesting party, in writing, stating its findings. The Director of Facilities and Construction at Natividad Medical Center shall submit a summary of bid protests received and make a recommendation to the Board of Supervisors regarding the bid protest(s).

BID FORM
Division 00300

MONTEREY COUNTY BOARD OF SUPERVISORS

MAILING ADDRESS	P O BOX 1728 SALINAS CA 93902
PHYSICAL ADDRESS	168 W. ALISAL ST 1 ST FLR SALINAS CA 93901

**TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870
BID PACKAGE NO. 9600-50
PROJECT NO. NMC-1009**

NAME OF BIDDER: _____

BUSINESS ADDRESS: _____

TELEPHONE NUMBER: _____

PLACE OF RESIDENCE: _____

BID FORM
TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870

BID PACKAGE NO. 9600-50
PROJECT NO. NMC-1009

TO: MONTEREY COUNTY BOARD OF SUPERVISORS

1. Pursuant to and in compliance with your Notice to Contractors inviting formal bids and with the other documents relating thereto, the undersigned bidder, having become familiar with the terms of the contract, the local conditions affecting the performance of the contract, the cost of the work at the place where the work is to be done, the project plans and specifications, and the other contract documents, hereby proposes and agrees to perform within the time stipulated and to provide and furnish any and all labor, materials, equipment, transportation, utilities, and services necessary to perform the contract and complete in a workmanlike manner all of the work required in connection with the above project, all in strict conformity with the drawings and specifications and other contract documents, including addenda nos. ____, ____, ____, ____, and ____, for the sum hereinafter stated (in the event of a discrepancy between the words and figures, the amount in words will govern):

BASE BID: _____ :

_____ Dollars

(\$ _____)

ADDITIVE ALTERNATE #1: REPLACEMENT OF T-BAR CEILING :

_____ Dollars

(\$ _____)

TABLE OF UNIT COSTS

<i>Item</i>	<i>Description</i>	<i>Unit</i>	<i>Cost</i>
1			\$
2			\$

2. **Determination of lowest responsible bidder** – Determination of lowest bidder will be based upon LOWEST BASE BID CONTRACT PLUS ADDITIVE ALTERNATE. The contract will then be awarded to the Bidder submitting the lowest amount so calculated, or else all bids will be rejected. Unit pricing provided by the bidder, if any, shall be incorporated in the Agreement and shall be the basis for calculating any costs involving changes to the work. The County of Monterey (County) may contract with the successful bidder for all, some, or none of the alternates.

3. The undersigned has checked all above figures carefully and understands that the County will not be responsible for any errors and omissions on the part of the undersigned in making this bid.

4. It is understood that the County reserves the right to reject any and all bids or waive any informalities or irregularities in any bids or in the bidding.

5. This bid shall remain valid and will not be withdrawn by the undersigned bidder for a period of sixty (60) days from the date prescribed for opening of this bid without the written consent of the County.

6. Attached hereto are the following:

- a) List of Proposed Subcontractors;
- b) Non-Collusion Affidavit;
- c) Workers' Compensation Certificate;
- d) Affidavit Concerning Employment of Undocumented Aliens
- e) Contractor's Certification of Good-Faith Effort to Employ Monterey Bay Area Residents;
- f) Written Plan to Recruit Monterey Bay Area Residents, when applicable;
- g) Required bidder's security in an amount not less than 10 percent of the base bid amount;
- h) Detailed preliminary work schedule if the bidder plans to complete the project before the completion date specified in the contract documents; and
- i) Acknowledgment of Addenda, if any.

7. If this bid is accepted by the County, then the undersigned shall, within ten (10) workdays after receipt of the Notice of Intent to Award letter, execute and deliver to the County (a) a contract in the form set forth in the contract documents on which this bid is based, (b) a payment

bond for public works, as required by the contract documents, and (c) a performance bond, as similarly required, and (d) an Insurance Certificate, as similarly required. The undersigned will thereafter commence and complete the work within the time required by the contract documents.

8. Notice of acceptance and any requests for additional information shall be addressed to the undersigned at the following address:

PROJECT MANAGER: BRIAN GRIFFIN
NATIVIDAD MEDICAL CENTER
1414 CONSTITUTION BLVD. FACILITIES OFFICES
SALINAS CA 93906
TELEPHONE: (831) 283-2605

9. The names of all persons interested in the foregoing proposal as principals are as follows:

_____	_____
Name	Title
_____	_____
Name	Title
_____	_____
Name	Title

(IMPORTANT NOTICE: If the bidder or other interested person is a corporation, state the legal name of the corporation, and the names of the president, secretary, treasurer, and manager thereof; if a partnership, state the name of the firm and the names of all the individual partners composing the firm; if the bidder or other interested person is an individual, state the first and last names in full and give all fictitious names under which the individual does business.)

10. By execution of this bid, the undersigned bidder declares that he or she is a contractor licensed in accordance with the Contractors' State License Law, as follows:

Classification: _____
License number: _____
Expiration date: _____

11. In the event the bidder to whom Notice of Intent to Award Contract is given fails or refuses to post the required bonds and insurance and return the executed copies of the agreement form within ten (10) working days from the date of receiving the Notice of Intent to Award letter Contract, the County may declare the bidder's security forfeited as damages and contract with the second lowest bidder.

12. Pursuant to section 7103.5(b) of the Public Contract Code, in submitting a bid to the County, the bidder offers and agrees that if the bid is accepted, it will assign to the County all rights, title,

and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

Dated _____

Bidder's Business Name _____

By _____

Principal Signature _____

Principal Name (Print) _____

Principal Title (Print) _____

By _____

Principal Signature _____

Principal Name (Print) _____

Principal Title (Print) _____

(Corporate Seal) _____

NOTE: If bidder is a corporation, the full legal name of the corporation shall be set forth above together with the signatures of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the full 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 partnership; and if bidder is an individual, his signature shall be placed above.

LIST OF SUBCONTRACTORS

Division 00350

PROJECT NO. 9600-50 BID PACKAGE NO. NMC-1009

In compliance with the Subletting and Subcontracting Fair Practices Act (Chapter 4 [commencing with section 4100], Part 1, Division 2 of the Public Contract Code) and any amendments thereto, each bidder shall set forth below: (a) the name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement to be performed under this contract or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent of the prime contractor's total bid, and (b) the portion of the work which will be done by each subcontractor under this Act. The prime contractor shall list only one subcontractor for each such portion as is defined by the prime contractor in this bid. The term "portion of work" refers to the type of work.

If a prime contractor fails to specify a subcontractor or if a prime contractor specifies more than one subcontractor for the same portion of the work to be performed under the contract in excess of one-half of one percent of the prime contractor's total bid, he shall be deemed to have agreed that he is fully qualified to perform that portion himself, and that he shall perform that portion himself.

No prime contractor whose bid is accepted shall: (a) substitute any subcontractor, (b) permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by any one other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which his original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act. Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the authority awarding this contract setting forth the facts constituting the emergency or necessity.

Bidder's Business Name: _____

By: _____

Print Name: _____

Print Title: _____

Date: _____

Check this box if no subcontractors are required to be listed for work or labor to be performed or services to be rendered. Otherwise provide all requested information below.

Portion of Work (Type)	Subcontractor Name, License Number & Expiration Date	Subcontractor's Place of Business Include Full Mailing Address/ Telephone Number/E-mail Address	(\$) Amount of Bid

(This form may be duplicated as necessary)

NONCOLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
(Public Contract Code Section 7106)
Division 00400

The undersigned declares:

I am the _____ of _____ the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. 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. All statements contained in the bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date],
at _____ [city], _____ [state].

Signature: _____

Print Name: _____

CONTRACTOR'S CERTIFICATE AS TO WORKERS' COMPENSATION

(Labor Code section 1861)

Division 00410

Labor Code section 3700 provides, in relevant part:

"Every employer except the state shall secure the payment of compensation in one or more of the following ways:

(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this state.

(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees."

I certify that I am aware of the provisions of Section 3700 of the Labor Code which require 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.

Dated: _____

Bidder's Business Name: _____

By: _____

Print Name: _____

Print Title: _____

AFFIDAVIT CONCERNING EMPLOYMENT OF UNDOCUMENTED ALIENS
TO BE SUBMITTED WITH BID

Division 00420

(Public Contract Code section 6101)

State of California)
) §
County of _____)

Public Contract Code section 6101 provides that,

No state agency or department, as defined in [Public Contract Code] Section 10335.7, that is subject to this code, shall award a public works or purchase contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a public works or purchase contract, who has, in the preceding five years, been convicted of violating a state or federal law respecting the employment of undocumented aliens.

_____, being first duly sworn, deposes and says (1) that he or she is the _____ of _____, the party making the foregoing bid; and (2) that the party making the foregoing bid has not, within the preceding five years, been convicted of violating a state or federal law respecting the employment of undocumented aliens.

Dated: _____

Bidder's Business Name: _____

By: _____

Print Name: _____

Print Title: _____

Subscribed and sworn to me this _____ day of _____ 2013.

Notary Public in and for the County of

State of California

My Commission expires on: _____ [Notary Stamp]

CONTRACTOR'S CERTIFICATION OF GOOD-FAITH EFFORT TO EMPLOY

MONTEREY BAY AREA RESIDENTS

(Monterey County Code section 5.08.120)

Division 00430

I CERTIFY THAT I am aware of the provision of Monterey County Code Section 5.08.120.

Monterey County Code Section 5.08.120 provides, in relevant part:

A. General Provisions. All County contracts for public works of improvement shall contain provisions pursuant to which the contractor shall make a good-faith effort to employ qualified individuals who are, and have been for at least one (1) year out of the past three (3) years prior to the opening of bids, residents of the Monterey Bay Area in sufficient numbers so that no less than fifty percent (50%) of the contractor's total construction work force, on that particular contract, including any subcontractor work force (with exception of specialty subcontractor items identified in bid items) measured in labor work hours, is comprised of Monterey Bay Area residents.

B. Non-responsive Bidder Declaration: Enforcement. If any contractor submitting a bid for a contract for public works of improvement fails to abide by the good-faith local employment provisions of this Section, the contractor may be declared by the Board to be a non-responsive bidder for purposes of this Chapter. If a contractor lists in his or her bid a subcontractor who is currently disqualified under the terms of this Section, the Board may declare said contractor to be a non-responsive bidder for purposes of this Chapter. If the Board finds that a contractor to whom a contract for public works of improvement has been awarded has failed to comply with the good-faith employment provisions of this Section during the performance of the contract, the Board may disqualify the contractor from bidding on any County contract for public works of improvement for a period of one (1) year from the date of the Board's disqualification. A subsequent violation of this Section by a contractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification.

C. Binding on Subcontractors. Every contractor entering into a contract for public works of improvement subject to the provisions of this Section shall include in each and every subcontract for work, laborers, or materialmen relating to the project the requirement that the subcontractor shall make a good-faith effort to employ qualified individuals who are, and have been for at least one (1) year out of the past three (3) years prior to the opening of bids, residents of the Monterey Bay Area. If the Board finds that any subcontractor has failed during the performance of the subcontract to comply with this Section, the Board may disqualify said subcontractor from submitting or being listed in any bid for any County contract for public works of improvement for a period of one (1) year from the date of the Board's disqualification. A subsequent violation by a subcontractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification."

I FURTHER CERTIFY AS FOLLOWS (check the box that applies):

I CERTIFY that at least fifty percent (50%) of the total construction work force on the project, including any subcontractor work force, measured in labor work hours, will be comprised of qualified individuals who to the best of my knowledge are, and have been for at least one (1) year out of the past three (3) years prior to the effective date of the opening of bids, residents of the Monterey Bay Area. Evidence that I will comply with this requirement is as follows (please use additional pages to provide supporting evidence and/or documentation, as necessary):

I CERTIFY that I shall make a good-faith effort to employ qualified individuals who, to the best of my knowledge, are, and have been for at least one (1) year out of the past three (3) years prior to the effective date of the opening of bids, residents of the Monterey Bay Area in sufficient numbers such that no less than fifty percent (50%) of the total construction work force on the project, including any subcontractor work force (with the exception of specialty subcontractor items identified in the bid items) measured in labor work hours, will be comprised of Monterey Bay Area residents. **Attached is my written plan to recruit Monterey Bay Area residents as part of the construction workforce.**

I CERTIFY that I do not comply with and am unable to make a good-faith effort to comply with the good-faith local employment provisions set forth in Monterey County Code Section 5.08.120. Explanation to why I am not able to comply is as follows (please use additional pages to provide supporting evidence and/or documentation, as necessary):

I declare under penalty of perjury under the laws of the State of California that the foregoing certification is true and correct. Executed on (date) _____
at (city/state) _____.

Bidder's Business Name: _____

By: _____

Print Name: _____

Print Title:

BID BOND
Division 00440

(Public Contract Code Section 20129)

WHEREAS the Principal has submitted the accompanying bid dated _____, to the County of Monterey, for the following project: **TIs FOR MODULAR 5 AND BLDGS 840 & 870, 1441 CONSTITUTION BLVD. SALINAS, CA 93906, Project No. 9600-50, Bid No. NMC-1009**; and

WHEREAS, Principal, as bidder, is required to furnish a bond executed by an admitted surety in connection with said bid, to secure the timely execution of the contract and delivery of bonds and insurance certificates, in the event that the contract is awarded to the Principal.

NOW, THEREFORE, we _____
as Principal, and _____

as Surety, are held and firmly bound unto the County of Monterey, a political subdivision of the State of California (hereinafter called "County"), in the penal sum of

_____ Dollars
(\$ _____), which sum is not less than ten percent (10%) of the base bid amount including all alternates of the Principal submitted to the said County for the above-described project, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If the Principal is awarded the contract and, within the time and manner required under the contract documents for the above-described project, after the prescribed forms are presented to him for signature, (1) enters into a written contract in the prescribed form, in accordance with the bid, (2) files such insurance certificates with the County as may be required by said contract documents, and (3) files a performance bond and a payment bond with the County, in conformity with said contract documents, then this obligation shall be null and void; otherwise, it shall remain in full force.

Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed there under, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said contract or the call for bids, or to the work, or to the specifications.

If the County brings suit upon this bond and judgment is recovered, the Surety shall pay all litigation expenses incurred by the County in such suit, including attorneys' fees, court costs, expert witness fees and investigation expenses.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

Principal
By: _____
Title: _____

(Corporate Seal)

Surety
By: _____
Title: _____

Attach: 1) A Copy of authorization for signature for Principal, and 2) An original or certified copy of unrevoked appointment, Power of Attorney, Attorney-in-Fact Certificate bylaws or other instrument entitling or authorizing person executing bond on behalf of Surety to do so.

AGREEMENT

Division 00500

THIS AGREEMENT is made by and between the COUNTY OF MONTEREY, a political subdivision of the State of California, hereinafter called "COUNTY," and _____, hereinafter called "CONTRACTOR." For reference purposes, the date of this Agreement is _____.

THE COUNTY AND THE CONTRACTOR hereby agree as follows:

ARTICLE 1. SCOPE OF WORK.

The CONTRACTOR shall, within the time stipulated, perform the contract as herein defined and shall furnish all work, labor, equipment, transportation, material, and services to construct and complete in a good, expeditious, workmanlike, and substantial manner, the project:

TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870, PROJECT NO. 9600-50, BID NO. NMC-1009.

All work shall be completed in strict conformance with the plans, specifications, and working details prepared by WR&D ARCHITECTS, and the provisions of the documents listed in Article 6 below, and to the satisfaction of COUNTY.

ARTICLE 2. TIME FOR START AND COMPLETION.

CONTRACTOR shall commence the work on the starting date established in the Notice to Proceed and shall complete the bid work within the overall project duration of **SEVENTY (70) CALENDAR DAYS** as it pertains to CONTRACTOR's scope of work as defined by the contract documents. Additionally, CONTRACTOR shall coordinate their work with all other contractors whose work is affected by the scope of work defined in this Agreement. CONTRACTOR expressly agrees to provide appropriate labor, materials, and equipment in response to adjustments in the Project Schedule made by the Natividad Medical Center, Project Manager or his/her designee during the course of the project in order to maintain the required progress.

ARTICLE 3. CONTRACT PRICE.

The COUNTY shall pay CONTRACTOR as full consideration for the performance of the contract, subject to any additions or deductions as provided in the contract documents, the contract sum of _____, (\$_____).

ARTICLE 4. LIQUIDATED DAMAGES.

THE PARTIES AGREE THAT IN CASE ALL THE WORK CALLED FOR UNDER THE CONTRACT IN ALL PARTS AND REQUIREMENTS IS NOT COMPLETED WITHIN THE TIME SPECIFIED IN THE CONTRACT DOCUMENTS, DAMAGE WILL BE SUSTAINED BY THE COUNTY, AND THAT IT IS AND WILL BE IMPRACTICABLE AND EXTREMELY DIFFICULT TO DETERMINE THE ACTUAL DAMAGE WHICH THE

COUNTY WILL THEREBY SUSTAIN. THE PARTIES THEREFORE AGREE THAT THE CONTRACTOR WILL PAY TO THE COUNTY THE SUM SET FORTH IN THE **SPECIAL CONDITIONS**, IF ANY, FOR EACH CALENDAR DAY OF DELAY UNTIL THE WORK IS COMPLETED AND ACCEPTED. CONTRACTOR AND HIS SURETY SHALL BE LIABLE FOR THE TOTAL AMOUNT THEREOF. CONTRACTOR AGREES TO PAY SAID LIQUIDATED DAMAGES ESTABLISHED HEREIN, AND FURTHER AGREES THAT THE COUNTY MAY DEDUCT THE AMOUNT THEREOF FROM ANY MONIES DUE OR THAT MAY BECOME DUE THE CONTRACTOR UNDER THE CONTRACT.

ARTICLE 5. NOTIFICATION OF THIRD-PARTY CLAIMS.

COUNTY shall notify CONTRACTOR of the receipt of any third-party claim relating to the contract and is entitled to recover its reasonable costs incurred in providing the notification as provided in Public Contract Code Section 9201.

ARTICLE 6. COMPONENT PARTS OF THIS CONTRACT.

The contract entered into by this Agreement consists of the following documents, all of which are component parts of the contract as if herein set out in full or attached hereto:

- Notice to Contractors
- Information for Bidders
- Bid, as accepted
- List of Subcontractors
- Noncollusion Affidavit
- Workers' Compensation Certificate
- Affidavit Concerning Employment of Undocumented Aliens
- Contractor's Certification of Good Faith Effort to Employ Monterey Bay Area Residents
- Written Plan to Recruit Monterey Bay Area Residents, when applicable
- Bid Bond or Bidder's Security
- Agreement
- Performance Bond
- Payment Bond
- Insurance Certificate
- Division 00710 General Conditions, Bid No. NMC-1009
- Division 00730 Special Conditions, Bid No. NMC-1009
- Technical Specifications, Plans and Working Details as Prepared by WR&D ARCHITECTS.
- Exhibits:
- As issued, Project Addenda Nos:

All of the above-named contract documents are intended to be complementary. Work required by one of the above-named contract documents and not by others shall be done as if required by all.

IN WITNESS WHEREOF, the parties have duly executed four (4) identical counterparts of this instrument, each of which shall be for all purposes deemed an original thereof, on the dates set forth below.

CONTRACTOR:

(Name of Company)

By: _____
Signature of Chair, President, or Vice-President

Printed Name and Title

Date: _____

By: _____
Signature of Secretary, Asst. Secretary, CFO,
Treasurer or Asst. Treasurer*

Printed Name and Title

Date: _____

COUNTY OF MONTEREY:

APPROVE AS TO FISCAL TERMS

By: _____

Name: Harry Weis

Title: Natividad Medical Center CEO

Dated: _____

By: _____

Name: Gary Giboney

Title: Chief Deputy Auditor-Controller

Date: _____

APPROVE AS TO FORM

APPROVE AS TO FORM & LEGALITY

By: _____

Name: _____

Title: NMC Purchasing Manager

Date: _____

By: _____

Name: Anne Brauer

Title: Deputy County Counsel

Date: _____

PERFORMANCE BOND
(Public Contract Code Section 20129)
Division 00600

WHEREAS, the County of Monterey has awarded to Principal,

as Contractor, for the following project:

TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870, PROJECT NO. 9600-50, BID NO. NMC-1009; and

WHEREAS, Principal, as Contractor, is required to furnish a bond in connection with said contract, to secure the faithful performance of said contract.

NOW, THEREFORE, we _____

as Principal, and _____

as Surety, are held and firmly bound unto the County of Monterey, a political subdivision of the State of California (hereinafter called "County"), in the penal sum of

_____ Dollars
(\$_____00), for the payment of which sum in lawful money of the United States, well

and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If the Principal, as Contractor, or Principal's heirs, executors, administrators, successors, or assigns, (1) shall in all things stand to and abide by and well and truly keep and perform the covenants, conditions, and agreements in said contract and any alteration thereof made as therein provided, on Principal's 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 (2) shall indemnify, defend, and save harmless the County, the members of its board of supervisors, and its officers, agents, and employees as therein stipulated, then this obligation shall become null and void; otherwise, it shall be and remain in full force and virtue.

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

terms of said contract or the call for bids, or to the work, or to the specifications.

Whenever the Principal, as Contractor, is in default, and is declared in default, under the Contract by the County of Monterey, the County of Monterey having performed its obligation under the contract, Surety may promptly remedy the default, or shall promptly:

1. Complete the contract in accordance with its terms or conditions, or
2. Obtain a bid or bids for submission to County of Monterey for completing the Contract in accordance with its terms or conditions, and upon determination by the County of Monterey and Surety of the lowest responsible and responsive bidder, arrange for a contract between such bidder and the County of Monterey, and make available as work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price.

If suit is brought upon this bond by the County and judgment is recovered, the Surety shall pay all litigation expenses incurred by the County in such suit, including attorneys' fees, court costs, expert witness fees, and investigation expenses.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals this ____ day of _____, 2013, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) _____
Principal

By: _____

Title: _____

(Corporate Seal) _____
Surety

By: _____

Title: _____

Attach: 1) Copy of authorization for signature for Principal, and 2) original or certified copy of unrevoked appointment, Power of Attorney, Attorney-in-Fact Certificate bylaws or other instrument entitling or authorizing person executing bond on behalf of Surety to do so.

PAYMENT BOND
(Civil Code section 9550)
Division 00610

WHEREAS, the County of Monterey has awarded to Principal,

as Contractor, a contract for the following project:

TENANT IMPROVEMENT FOR MODULAR 5 AND BLDGS 840 & 870 PROJECT NO. 9600-50, BID PACKAGE NO. NMC-1009; and

WHEREAS, Principal, as Contractor, is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materialmen, and other persons furnishing labor and materials on the project, as provided by law.

NOW, THEREFORE, we _____

as Principal, and _____

as Surety, are held and firmly bound unto the County of Monterey, a political subdivision of the State of California (hereinafter called "County"), and to the persons named in California Civil Code section 9100 in the penal sum of _____ Dollars (\$_____.__), for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

If Principal or any of Principal's heirs, executors, administrators, successors, assigns, or subcontractors (1) fails to pay in full all of the persons named in Civil Code Section 9100 with respect to any labor or materials furnished by said persons on the project described above, or (2) fails to pay in full all amounts due under the California Unemployment Insurance Code with respect to work or labor performed under the contract on the project described above, or (3) fails to pay for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and subcontractors pursuant to Unemployment Insurance Code section 13020 with respect to such work and labor, then the Surety shall pay for the same.

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

If the County brings suit upon this bond and judgment is recovered, the Surety shall pay all litigation expenses incurred by the County in such suit, including attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond inures to the benefit of any of the persons named in Civil Code section 9100, and such persons or their assigns shall have a right of action in any suit brought upon this bond, subject to any limitations set forth in Civil Code sections 9550 et seq. (Civil Code, Division 4, Part 6, Title 3, Chapter 5: Payment Bond for Public Works).

IN WITNESS WHEREOF the above-bounden parties have executed this instrument under their several seals this ____ day of _____, 2013, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal) _____
Principal

By: _____

Title: _____

(Corporate Seal) _____
Surety

By: _____

Title: _____

Attach: 1) Copy of authorization for signature for Principal, and 2) original or certified copy of unrevoked appointment, Power of Attorney, Attorney-in-Fact Certificate bylaws or other instrument entitling or authorizing person executing bond on behalf of Surety to do so.

GENERAL CONDITIONS

Division 00710

PART I. INTRODUCTION

ARTICLE 1. DEFINITIONS.

1.01. Architect. The "Architect" is the person or organization identified in the Agreement as the Architect, or their authorized representative, or the replacement designated in writing by County. All references to the "Architect" in the Special Conditions and General Conditions for this project shall be a reference to WR&D Architects.

1.02. Change Order. "Change Order" means a written modification of the Contract between the County and Contractor, signed by the County, the Contractor, and the Architect/Engineer.

1.03. Change Order Proposal. "Change Order Proposal" means a Contractor-generated document in response to a Change Order Request (COR).

1.04. Change Order Request. "Change Order Request" (COR) means a document which informs the Contractor of a proposed change in the Work, and appropriately describes or otherwise documents such change.

1.05. Close-Out Documents. "Close-Out Documents" means the product brochures, product/equipment maintenance and operations instructions, manuals, and other documents/warranties, as-built record documents, affidavit of payment, release of lien and claim, and as may be further defined, identified, and required by the Contract Documents.

1.06. Construction Project Manger. "Construction Project Manger" is the person designated by Natividad Medical Center responsible for the management of the construction component of the project.

1.07 Contract. "Contract" means the entire agreement between County and Contractor, including all of the Contract Documents.

1.08 Contract Date. "Contract Date" is the date when the agreement between the County and the Contractor becomes effective.

1.09. Contract Sum. The "Contract Sum" is stated in the Agreement and is the total amount payable by the County to the Contractor for the performance of the work under the contract.

1.10. Contract Time. "Contract Time" means the period between the Start Date identified in the Notice to Proceed with Construction and the Substantial Completion Date identified in the Notice to Proceed or as subsequently amended by Change Order.

1.11. Contractor. The "Contractor" means the individual, corporation, company, partnership, firm, or other entity contracted to perform the Work and identified as such in the Agreement, or

their authorized representative, regardless of the type of construction contract used, so that the term as used herein includes a Construction Manager-at-Risk or a Design-Build firm as well as a General or Prime Contractor. The contract documents refer to Contractor as if singular in number.

1.12. County. The "County" is the County of Monterey, the Owner of the project and identified as such in the Agreement, or its authorized representative.

1.13. Date of Commencement. "Date of Commencement" means the date designated in the Notice to Proceed for the Contractor to commence the Work.

1.14. Final Completion. "Final Completion" means the date determined and certified by the Architect/Engineer and County on which the Work is fully and satisfactorily complete in accordance with the Contract.

1.15. Owner. "Owner" means the County of Monterey.

1.16. Owner's Designated Representative. "Owner's Designated Representative" (ODR) means the individual assigned by the County (Owner) to act on its behalf, and to undertake certain activities as specifically outlined in the Contract. The ODR is the only party authorized to direct changes to the scope, cost, or time of the contract.

1.17. Project. "Project" means all activities necessary for realization of the Work. This includes design, contract award(s), execution of the Work itself, and fulfillment of all contract and warranty obligations. The work performed under this contract is directed towards completion of all or a part of the project.

1.18. Project Manager. The "Project Manager" (PM) is the person designated by the Natividad Medical Center responsible for the management of the project.

1.19. Samples. "Samples" are representative physical examples of materials, equipment, or workmanship, used to confirm compliance with requirements and/or to establish standards for use in execution of Work.

1.20. Schedule of Values. "Schedule of Values" means the detailed breakdown of the cost of the materials, labor, and equipment necessary to accomplish the Work as described in the Contract Documents, submitted by Contractor for approval by County and Architect/Engineer.

1.21. Shop Drawings. "Shop Drawings" means the drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data prepared by the Contractor or any subcontractor, manufacturer, supplier, distributor, or agents, and which detail some portion of the work for fabrication and installation.

1.22. Site. The "Site" is the geographical area of the location of Work.

1.23. Subcontractor. "Subcontractor" is a person or organization who has a direct contract with

the Contractor to perform any of the work at the site or to furnish material worked to a special design according to plans and specifications of this work. The term "subcontractor" also includes sub-subcontractors performing work at the site or furnishing specially designed material for the work, who have only an indirect relationship to the Contractor.

1.24. Substantial Completion. "Substantial Completion" means the date determined and certified by the Contractor, Architect/Engineer, and County when the Work or a designated portion thereof is sufficiently complete, in accordance with the Contract, so as to be operational and fit for the use intended.

1.25. Work. The "Work" includes all labor necessary to produce the construction required by the contract documents, and all materials and equipment incorporated or to be incorporated in such construction.

ARTICLE 2. CONTRACT INTERPRETATION.

2.01. Counting time. When any provision in the contract documents calls for computation of time in terms of days, the period so counted shall include all calendar days within the period, including usual workdays as well as weekends and holidays. Business Days and Workdays refer to Monday through Friday, eight-hour duration.

2.02. Gender and number. References to one gender include the other; references to either singular or plural include the other.

2.03. Headings. Article and paragraph headings are for convenience only, and shall not be used to interpret the provisions of this contract.

2.04. Express and implied work requirements. This contract requires the performance of all elements of work expressly mentioned herein, together with all elements of work that are reasonably inferable from the express terms of this contract as being necessary for the proper completion of the work.

2.05. Technical or trade meanings. Words which have well-known technical or trade meanings are used herein in accordance with such recognized meanings.

2.06. Interpretations by Architect. Written interpretations necessary for the proper execution or progress of the work, in the form of drawings or otherwise, will be issued with reasonable promptness by the Architect and in accordance with any schedule agreed upon. Contractor shall make written request to the Architect for such interpretations. Such interpretations shall be consistent with, and reasonably inferable from the contract documents, and may be made by field orders issued pursuant to Article 15.

2.07. Conflicts among contract documents - priorities. If there is any conflict between any of the contract documents, the conflict shall be resolved by giving effect to the provisions in the documents having higher priority and by disregarding conflicting provisions in documents having lower priority, as follows: first priority, any modifications, with the most recent having

priority over earlier modifications; second priority, the Agreement; third priority, any addenda, with the most recent having priority over earlier addenda; fourth priority, the Special Conditions; and fifth priority, the General Conditions.

2.08. Conflicts and interpretation problems involving plans, specifications, or working details. If a conflict or other problem of interpretation involves plans, specifications, or working details, the problem shall be resolved as follows: Dimensions take precedence over scale at all times. Figured dimensions on plans shall govern, but work not dimensioned shall be as directed. Work not particularly shown or specified shall be the same as similar parts that are shown or specified. Large-scale details shall take precedence over smaller-scale details as to shape and details of construction. Specifications shall govern as to materials, workmanship, and installation procedures. Plans, specifications, and working details are intended to be fully cooperative and to agree. However, if Contractor observes that plans, specifications, and/or working details are in conflict, he shall promptly notify the Architect with a copy to the Director of Public Works/Designee in writing and any necessary changes shall be adjusted as provided elsewhere in the contract documents for changes in work. The Architect shall resolve all conflicts involving plans, specifications, or working details wherever the foregoing principles do not apply, or where, if applied, they lead to results that appear unreasonable.

ARTICLE 3. CONTRACT DOCUMENTS.

3.01. Contract Documents. The contract documents consist of all component parts of the contract as specified in the Agreement, including the Notice to Contractors, Information for Bidders, Bid as accepted, List of Subcontractors, Non-Collusion Affidavit, Contractor's Certificate as to Workers' Compensation, Affidavit Concerning Employment of Undocumented Aliens, Contractor's Certification of Good-Faith Effort to Employ Monterey Bay Area Residents, Bid Bond or Bidder's Security, Agreement, Performance Bond, Payment Bond for Public Works, Insurance Certificate, General Conditions and Special Conditions, Project Manual, Specifications, Plans, Working Details, all addenda issued prior to execution of the contract, and all modifications.

3.02. Contract. The contract documents form the contract. The contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral, including the bidding documents. The contract may be amended or modified only by a modification as defined in paragraph 3.03.

3.03. Modification. A modification is (1) a written amendment to the contract signed by both parties (2) a change order (3) a written interpretation issued by the Architect or (4) a written order for a minor change in the work issued by the Architect pursuant to Article 15. A modification may be made only after execution of the contract.

3.04. Execution in quadruplicate. Unless otherwise specified in the Agreement, the contract documents shall be signed in not less than quadruplicate by the County and Contractor.

3.05. Familiarity with site and local conditions. Prior to submitting a bid, and prior to executing this contract, the Contractor shall visit the work site, familiarize himself with the local conditions

under which the work is to be performed, and correlate his observations with the requirements of this contract. By executing the contract, the Contractor represents that he has done so. Based on such visits and investigations, Contractor shall notify the County in writing of any discrepancies between the local conditions and the requirements of the contract. Contractor's failure to notify County prior to submitting its bid shall be deemed an acknowledgment of and acceptance of any such discrepancies, and a waiver of any claims for extra work, which may result therefrom.

3.06. Contract documents furnished to Contractor. Unless otherwise provided in the contract documents, the Contractor will be furnished, one full size set and one half-size set of all the contract documents, including the plans, specifications, and working details to facilitate the execution of the work. Additional copies of the contract documents may be obtained at cost of reproduction.

3.07. Ownership of documents. All plans, specifications, working details, and copies thereof furnished by the Architect are and shall remain the property of the County. Such documents shall not be used on any other project and shall be returned to the County on request at the completion of the work.

3.08. Organization of contract documents not controlling. The organization of the specifications into divisions, sections, and articles, and the arrangement of the plans or working details shall not control the Contractor in dividing the work among subcontractors or in establishing the extent of work to be performed by any trade.

3.09. Contract documents on-site. Contractor will at all times maintain at least one complete, up-to-date set of the contract documents, showing approval by the State Fire Marshal (including the original documents as well as all change orders and other supplemental and additional documents) on the site, to be available to the County, Architect, and their representatives.

ARTICLE 4. SUBCONTRACTORS.

4.01. No contractual relationship between County and subcontractors. Nothing contained in the contract documents shall create any contractual relation between the County or Architect and any subcontractor.

4.02. Work performed by subcontractors; substitutions. Subcontracted work shall be performed only by the subcontractors identified in Contractor's bid documents, as provided by Public Contract Code sections 4100, et seq. Substitution of subcontractors may be made only in conformity with the Subletting and Subcontracting Fair Practices Act, Public Contract Code sections 4100, et seq.

4.03. Contracts with subcontractors. All work performed for the Contractor by a subcontractor shall be pursuant to a written agreement between the Contractor and the subcontractor (and where appropriate, between subcontractors and sub-subcontractors). All such agreements shall require performance by the subcontractors in conformity with the terms of this contract, and shall include all the terms of this contract, which are applicable to subcontractors.

4.04. Payments to subcontractors.

(a) The Contractor shall pay each subcontractor, upon receipt of payment from the County, any amount equal to the percentage of completion allowed to the Contractor on account of such subcontractor's work, less the percentage retained from payments to the Contractor. The Contractor shall also require each subcontractor to make similar payments to his subcontractors. County shall have the right, but not the obligation, to issue payment by joint checks payable to the order of Contractor and any of its subcontractors.

(b) If the Project Manager fails to issue a certificate for payment for any cause which is the fault of the Contractor and not the fault of a particular subcontractor, the Contractor shall pay the subcontractor on demand, made at any time after the certificate for payment should otherwise have been issued, for his work to the extent completed, less the retained percentage.

(c) Neither the County nor the Project Manager shall have any obligation to pay or to see to the payment of any monies to any subcontractor except as may otherwise be required by law. All monies paid to Contractor hereunder shall immediately become and constitute a trust fund and shall be applied by Contractor for the benefit of all persons supplying labor, materials, or equipment in connection with the work and shall not be diverted to any other purpose until the claims of such persons have been discharged.

4.05. Information provided to subcontractors. The County's Project Manager and the Architect may, on request, and at their discretion, furnish to any subcontractor, if practicable, information regarding percentages of completion certified to the Contractor on account of work done by such subcontractors.

4.06. Contractor's responsibility for work of subcontractors. Contractor shall be as fully responsible to County for the acts and omissions of any subcontractor and of persons either directly or indirectly employed by the subcontractors, as he is for acts and omissions of persons directly employed by him.

PART II. CONDUCT OF WORK.

ARTICLE 5. CONTRACT ADMINISTRATION BY ARCHITECT.

5.01. No contractual relationship between Architect, Project Manager, and Contractor. Nothing contained in the contract documents shall create any contractual relationship between the Architect, Project Manager, and the Contractor or any subcontractor.

5.02. County's representative. The Project Manager will be the County's representative during construction and until final payment as provided in this Agreement. The Project Manager will have authority to act on behalf of the County to the extent provided in the contract documents, unless otherwise modified by written instrument which will be shown to the Contractor. The Project Manager will advise and consult with the County, and all of the County's instructions to the Contractor shall be issued through the Project Manager. As the County's representative, the

Project Manager will provide general administration of the contract, including performance of the functions hereinafter described. In addition, the Project Manager will be the County's Representative for management of construction in the field. The Project Manager is responsible for managing the project schedule, budget, and has the authority to act on behalf of the County as relating to the management of these items.

5.03. Instructions issued through Project Manager. The County shall issue instructions to the Contractor through the Project Manager, provided that the County shall have the right, but not the obligation, to itself or through other project representatives issue change orders, require additional work and/or direct the omission of work previously ordered by written instructions directly to Contractor, provided such project representative and instructions have been prior approved in writing by the County.

5.04. Project Manager's and Architect's access to work. The Project Manager and Architect shall at all times have access to the work wherever it is in preparation and progress. The Contractor shall provide facilities for such access so the Project Manager and Architect may perform their functions under the contract.

5.05. Inspections. The Architect will make periodic visits to the site to familiarize themselves generally with the progress and quality of the work and to determine, in general, if the work is proceeding in accordance with the contract documents. On the basis of their on-site observations, they will keep the County informed of the progress of the work, and will endeavor to guard the County against defects and deficiencies in the work of the Contractor. The Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. They will not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the work, and they will not be responsible for the Contractor's failure to carry out the work in accordance with the contract documents, except to the extent such failure is due to Architect's breach of agreement with the County or is otherwise due to the negligence or willful misconduct of Architect.

5.06. Determination of payments to Contractor. Based on such observations and the Contractor's applications for payment, the Architect and Project Manager will determine the amounts owing to the Contractor and will issue certificates for payment in such amounts, as provided in Articles 18-21.

5.07. Decisions on artistic effect. The Architect's decisions in matters relating to artistic effect will be final if consistent with the intent of the contract documents.

5.08. Authority to reject work or to require special inspection or testing. The Project Manager and Architect may reject work, which does not conform to the contract documents. Whenever, in their reasonable opinion, they consider it necessary or advisable to ensure the proper implementation of this contract, they may require special inspection or testing of the work in accordance with Article 11, whether or not such work is then fabricated, installed, or completed. However, the Project Manager's authority to act under this paragraph, nor any decision made by them in good faith either to exercise or not to exercise such authority, shall not give rise to any

duty or responsibility of the Project Manager to the Contractor, any subcontractor, any of their agents or employees, or any other person performing any of the work.

5.09. Review of shop drawings and samples. The Architect will review shop drawings and samples as provided in Article 9.

5.10. Change orders prepared by Project Manager. The Project Manager will prepare change orders and may order minor changes in the work in accordance with Article 15.

5.11. Inspections and document review. The Project Manager will: conduct inspections of the work (including a final inspection); receive and review written guarantees and related documents required by the contract and assembled by the Contractor; and issue a final certificate for payment.

5.12. Termination of Architect's employment; substitution of new Architect. In case of the termination of the employment of the Architect, the County shall appoint an Architect to replace the former Architect, who shall insofar as Contractor is concerned, succeed and be entitled to all the rights and benefits of the prior Architect.

ARTICLE 6. SERVICES PROVIDED BY COUNTY.

6.01. Easements obtained by County. The County shall secure and pay for all easements, rights-of-way, and fee interests in land necessary to enable Contractor to complete the work.

6.02. Surveys provided by County. The County shall furnish all surveys describing the existing physical characteristics, legal limits, and utility locations for the site of the project. Unless specifically provided for in the plans and specifications, the County shall not provide field engineering or construction staking.

6.03. Information and services provided by County. Information or services under the County's control shall be furnished by the County with reasonable promptness to avoid delay in the orderly progress of the work.

ARTICLE 7. CONTRACTOR'S ADMINISTRATIVE DUTIES.

7.01. Review of contract documents for errors. The Contractor shall carefully study and compare the contract documents and shall, at once, report in writing to the Architect, with a copy to the Project Manager, any error, inconsistency, or omission he may discover. The Contractor shall not be liable to the County or the Architect for any damage resulting from any such errors, inconsistencies, or omissions in the contract document which were reported, in writing, by Contractor to the Architect, with a copy of the correspondence to the Project Manager; provided no provisions herein shall relieve the Contractor from liability for errors, inconsistencies, or omissions which were known or reasonably should have been known to Contractor, which were not disclosed in writing to the Architect, with a copy of the correspondence to the Project Manager.

7.02. Taxes. Contractor shall pay all sales, consumer, use, and other similar taxes required by law.

7.03. Transportation and utility service. Contractor shall pay for all transportation and utility service not later than the 20th day of the calendar month following that in which such services are rendered.

7.04. Materials and equipment. Contractor shall pay for all materials, tools, and other expendable equipment to the extent of 90 percent of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the project site and the balance thereof not later than the 30th day following completion of that part of the work in or on which such materials, tools, and equipment are incorporated or used.

7.05. Contractor's superintendent. The Contractor shall employ a competent, qualified superintendent who shall provide full time, on-site supervision of all aspects of the work. Full time means any and all times that contractor, its agents, employees, or subcontractors are performing any and all work. The superintendent shall be satisfactory to the County, and shall not be changed except with the consent of the County. The County may request at any time that a Contractor remove its superintendent from the project and provide an alternate superintendent as approved by the County. The superintendent shall represent the Contractor and all communications given to the superintendent shall be as binding as if given to the Contractor. Important communications will be confirmed in writing. Other communications will be so confirmed on written request in each case.

7.05.01 Contractor's project manager. The Contractor shall employ a competent, qualified project manager to manage the entire project and the superintendent. The Contractor shall provide the County's representative with the project manager's resume. The County's Project Manager and the Architect must approve the project manager. The County reserves the right to interview the project manager at any time. The County at any time during the course of construction may require the Contractor to substitute the project manager based on poor performance, lack of experience, product knowledge, project management skills, or the ability to prosecute the work in a workmanlike manner.

If checked, Due to the scope of this project, the Contractor, with County's consent, may assume the role of Project Manager.

7.06. Contractor's responsibility for agents and employees. The Contractor shall be responsible to the County for the acts and omissions of all his employees and all subcontractors, their agents, and employees, and all other persons performing any of the work under a contract with the Contractor.

7.07. Communication through Project Manager. The Contractor shall forward all communications to the County through the Project Manager.

ARTICLE 8. GENERAL PROVISIONS REGARDING CONDUCT OF WORK.

8.01. No work without construction documents. The Contractor shall do no work without current plans, specifications, working details, etc.

8.02. Supervision and construction procedures. The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the work under the contract.

8.03. Contractor's responsibility for labor, materials, and equipment. Unless otherwise specifically noted, the Contractor shall provide and pay for all labor, materials, equipment, and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the work.

8.04. Conduct and skill of employees. The Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the task assigned to him. Any person in the employ of the Contractor whom the County may deem incompetent or unfit shall be dismissed from the work and shall not again be employed on it except with the written consent of the County.

8.05. Progress schedule. The Contractor, immediately after being awarded the contract, shall prepare and submit for the Project Manager's approval, an estimated progress schedule for the work. The progress schedule shall be related to the entire project to the extent required by the contract documents. This schedule shall indicate the dates for the starting and completion of the various stages of construction and shall be revised weekly, subject to the Architect's approval.

8.06. Plans and specifications at site. The Contractor shall maintain at the site for the County one copy of all approved shop drawings, plans, specifications, working details, addenda, change orders, and other modifications, in good order and marked to record all changes made during construction. These shall be available to the Project Manager. A reproducible set of plans and working details, marked to record all changes made during construction, shall be delivered to the Project Manager for the County upon completion of the work and prior to release of final payment.

8.07. Dimensions to be checked. All dimensions shall be carefully checked by the various artisans. Each Contractor shall be held responsible for the accuracy of the dimensions of its own work. Dimensions shown on plans shall be adhered to insofar as it is possible, and no deviation from such dimensions shall be made except with the consent of the Architect. Where the work of one Contractor comes in contact with the work of another Contractor, each Contractor shall carefully check all dimensions which affect its own work. Wherever possible, dimensions shall be taken at the building, but no work shall be delayed or held up waiting for building dimensions, when by the exercise of foresight and proper cooperation, the dimensions may be established in advance of construction. The Contractor shall verify all dimensions at the site and shall be solely responsible for same or deviations from same.

8.08. Cutting and patching. The Contractor shall be responsible for any cutting, fitting, and patching that may be required to complete his work, except as otherwise specifically provided in the contract documents. The Contractor shall not endanger any work of any other contractors by cutting, excavating, or otherwise altering any work and shall not cut or alter the work of any other contractor except with the written consent of the Project Manager.

8.09. Revision of operations. When, in the judgment of the County, it becomes necessary to accelerate the work, the Contractor when so ordered shall concentrate his forces at such points as directed and execute such portions of the work as may be required.

8.10. Damage to work and property on-site. All damage or loss to any property on or near the site caused in whole or in part by the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, shall be remedied by the Contractor, at his expense, except damage or loss attributable to faulty specifications or working details, or to the acts or omissions of the County or Architect or anyone employed by either of them or for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor.

ARTICLE 9. SHOP DRAWINGS AND SAMPLES.

9.01. Submittal of shop drawings and samples. The Contractor shall review, stamp with his approval, and submit, with reasonable promptness and in orderly sequence so as to cause no delay in the work or in the work of any other contractor, all shop drawings and samples required by the contract documents or subsequently by the Architect as covered by modifications. Shop drawings and samples shall be properly identified as specified, or as the Architect may require. At the time of submission, the Contractor shall inform the Architect in writing of any deviation in the shop drawings or samples from the requirements of the contract documents.

9.02. Warranties concerning shop drawings and samples. By approving and submitting shop drawings and samples, the Contractor thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers, and similar data, or will do so, and that he has checked and coordinated each Shop Drawing and Sample with the requirements of the work and of the contract documents.

9.03. Architect's review and approval. The Architect will review and approve shop drawings and samples with reasonable promptness so as to cause no delay, but only for conformance with the design concept of the project and with the information given in the contract documents. The Architect's approval of a separate item shall not indicate approval of an assembly in which the item functions.

9.04. Corrections. The Contractor shall make any corrections required by the Architect and shall resubmit the required number of corrected copies of shop drawings or new samples until approved. The Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections requested by the Architect on previous submissions.

9.05. Contractor's responsibility. The Architect's approval of shop drawings or samples shall not relieve the Contractor of responsibility for any deviation at the time of submission, nor shall

the Architect's approval relieve the Contractor from responsibility for errors or omission in the shop drawings or samples.

9.06. Completion of work in accordance with shop drawings and samples. No portion of the work requiring a Shop Drawing or Sample submission shall be commenced until the Architect has approved the submission. All such portions of the work shall be in accordance with approved shop drawings and samples.

ARTICLE 10. SEPARATE CONTRACTS ON SAME PROJECT.

10.01. County's right to award separate contracts. The County reserves the right to award other contracts in connection with other portions of the project.

10.02. Coordination among contractors. Contractor shall ascertain to his own satisfaction the scope of the project and the nature of any other contracts that have been or may be awarded by County in prosecution of the project, to the end that Contractor may perform this contract in light of such other contracts, if any. Nothing herein shall be interpreted as granting to Contractor exclusive occupancy at the site. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the project. If simultaneous execution of any contract for the project is likely to cause interference with the performance of some other contract or contracts, the County shall decide which contractor shall cease work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously. County shall not be responsible for any damages suffered or extra costs incurred by Contractor resulting directly or indirectly from the award or performance or attempted performance of any other contract or contracts on the project, or caused by any decision or omission of County respecting the order of precedence in performance of the contracts. Any delay in the progress of the work as a result of such priorities shall not give rise to any adjustments in the Contract Price and Contractor agrees that its sole right and remedy therefore shall be an extension of time.

10.03. Responsibility to other contractors. The Contractor shall afford other contractors on the same project reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall properly connect and coordinate his work with theirs.

10.04. Duty to inspect other contractor's work. If any part of the Contractor's work depends for proper execution or results upon the work of any other separate contractor, the Contractor shall inspect and promptly report to the Project Manager any apparent discrepancies or defects in such work that render it unsuitable for such proper execution and results. Failure of the Contractor so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper to receive his work, except as to defects which may develop in the other separate contractor's work after the execution of the Contractor's work. Any work exhibiting unacceptable quality as defined by the contract documents will result in Contractor's payment (or a portion thereof) being withheld until the unacceptable work is corrected to meet the required quality standards, per Article 19 herein.

10.05. Damage to other contractor's work. Should the Contractor cause damage to the work or property of any separate contractor on the project, the Contractor shall, upon due notice settle with such other contractor by agreement or arbitration, if he will so settle. If such separate contractor sues the County or initiates an arbitration proceeding on account of any damage alleged to have been so sustained, the County shall notify the Contractor who shall defend such proceedings and indemnify and hold harmless County.

10.06. Responsibility for costs caused by one contractor to another. Any costs to one contractor or his subcontractors on the project caused by defective or ill-timed work by another contractor or his sub-contractors on the project shall be borne by the party responsible for such defective or ill-timed work.

10.07. County's right to settle disputes over cleanup. If a dispute arises between the separate contractors as to their responsibility for cleaning up under paragraph 13.05, the County may clean up and charge the cost thereof to the several contractors, as the County shall determine to be just.

ARTICLE 11. TESTS.

11.01. Contractor's responsibility for required tests. If the contract documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any work to be inspected, tested, or approved, the Contractor shall give the Project Manager timely notice of its readiness and of the date arranged so the Project Manager may observe such inspection, testing, or approval. The County shall bear all costs of such inspections, tests, and approval, unless otherwise provided.

11.02. Responsibility for tests not anticipated in contract. If after the commencement of the work, the Project Manager determines that any work requires special inspection, testing, or approval which paragraph 11.01 does not include, he will, upon written authorization from the County, instruct the Contractor to order such special inspection, testing, or approval, and the Contractor shall give notice as in paragraph 11.01. If such special inspection or testing reveals a failure of the work to comply (1) with the requirements of the contract documents or (2) with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, then the Contractor shall bear all costs thereof, including the Project Manager's additional services made necessary by such failure; otherwise the County shall bear such costs, and an appropriate change order shall be issued.

11.03. Certificates of inspection. Required certificates of inspection, testing, or approval shall be secured by the Contractor and promptly delivered by him to the Project Manager.

11.04. Observation by Project Manager. If the Project Manager wishes to observe the inspections, tests, or approvals required by this Article 11, he will do so promptly and, where practicable, at the source of supply.

11.05. No waiver of Contractor's responsibility. Neither the observations of the Project Manager in their administration of the construction contract, nor inspections, tests, or approvals

by persons other than the Contractor shall relieve the Contractor from his obligations to perform the work in accordance with the contract documents.

ARTICLE 12. TIME FOR PERFORMANCE AND LIQUIDATED DAMAGES.

12.01. Time is of the essence. All time limits stated in the contract documents are of the essence of the contract.

12.02. Commencement and completion of work. Contractor shall commence the work on the starting date established in the Notice to Proceed and shall complete the work thereafter within the time limit established in the Project Schedule as defined in Special Conditions, Section 1. If there is no Notice to Proceed, Contractor shall commence the work on the starting date established in the Special Conditions and shall complete the work thereafter within the time limit established in the Special Conditions. If there is no Notice to Proceed and if the Special Conditions do not establish a starting or completion date, Contractor shall commence the work promptly after the Agreement is executed by all parties and shall prosecute the work regularly and diligently so as to complete the work within a reasonable time thereafter.

12.03. Prosecution of work. Contractor shall prosecute the work diligently and expeditiously with adequate forces and shall complete it within the time specified in the contract documents.

12.04. Date of final completion. When the Contractor believes that his work is completed, he shall request that the Architect and the County inspect the work and certify its completion. The Architect and the County will respond promptly to such a request. The date of final completion of the work or any designated portion thereof is the date on which, after the Architect and the County certifies that construction has been completed in accordance with the contract documents, the County Board of Supervisors accepts the work.

12.05. Grounds for extension of time. The time for completion of the work shall be extended by change order for such reasonable time as the Architect or County may determine, if an extension of time is reasonably necessary due to a delay caused to the Contractor by any of the following circumstances:

- (a) Sole act or sole negligence of the County, the Architect, any employee of either, or any separate contractor employed by the County;
- (b) Any change ordered in the work, which change is requested by County or Architect or which is not due to the act or negligence of Contractor.
- (c) Any labor disputes, fire, unusual delay in transportation, unavoidable casualties, or causes beyond the Contractor's control and which Contractor could not reasonably have foreseen or made reasonable provisions for, and which are not caused by or the continuance of which is not due to, any act or failure to act on behalf of Contractor; or
- (d) Any other cause which the Architect or Project Manager determines may justify the delay.

12.06. Extensions of time due to failure to furnish interpretation. No extension of time shall be allowed for delay caused by the Project Manager's failure to promptly provide an interpretation of the contract, except in the following circumstances:

- (a) The Project Manager failed to provide the interpretation for over fifteen days after demand

was made for such interpretation, and it would be reasonable to extend time due to such failure;
or

(b) The parties have agreed upon a schedule for the provision of interpretations, the Project Manager failed to comply with that schedule, and it would be reasonable to extend time due to such failure.

12.07. Claims for extension of time. Notwithstanding the provisions of Section 12.05 and 12.06 above, none of the causes of delay described therein shall be deemed a valid excuse for Contractor's failure to start, perform, or complete the work, or any portion thereof, on time unless Contractor has notified the Project Manager, in writing, of the alleged cause of delay within ten (10) days after commencement of the cause of the delay. Should the Architect and the County disagree with Contractor that the alleged delay warrants an extension of time for the performance of any act required hereunder, the Contractor shall notify the County, in writing, as provided in Article 30; provided that the Contractor shall proceed with the work during the period that the Architect and Contractor seek to resolve the matter.

12.08. Liquidated damages. THE PARTIES AGREE THAT IN CASE ALL THE WORK CALLED FOR UNDER THE CONTRACT IN ALL PARTS AND REQUIREMENTS IS NOT COMPLETED WITHIN THE TIME SPECIFIED IN THE CONTRACT DOCUMENTS, DAMAGE WILL BE SUSTAINED BY THE COUNTY, AND THAT IT IS AND WILL BE IMPRACTICABLE AND EXTREMELY DIFFICULT TO DETERMINE THE ACTUAL DAMAGE WHICH THE COUNTY WILL THEREBY SUSTAIN. THE PARTIES THEREFORE AGREE THAT THE CONTRACTOR WILL PAY TO THE COUNTY THE SUM SET FORTH IN THE SPECIAL CONDITIONS, IF ANY, FOR EACH CALENDAR DAY OF DELAY UNTIL THE WORK IS COMPLETED AND ACCEPTED. CONTRACTOR AND HIS SURETY SHALL BE LIABLE FOR THE TOTAL AMOUNT THEREOF. THE CONTRACTOR AGREES TO PAY SAID LIQUIDATED DAMAGES ESTABLISHED HEREIN, AND FURTHER AGREES THAT THE COUNTY MAY DEDUCT THE AMOUNT THEREOF FROM ANY MONIES DUE OR THAT MAY BECOME DUE THE CONTRACTOR UNDER THE CONTRACT.

12.09. Removal or relocation of main or trunk line utility facilities. The Contractor shall not be assessed for liquidated damages for delay in completion of the project, when such delay was caused by the failure of the County or a utility company to provide for removal or relocation of existing main or trunk line utility facilities; however, when the Contractor is aware that removal or relocation of an existing utility has not been arranged, Contractor shall promptly notify the County and the utility company in writing, so that provision for such removal or relocation may be made to avoid and minimize any delay which might be caused by the failure to remove or relocate the main or trunk line utility facilities, or to provide for their removal or relocation. In accordance with Government Code section 4215, if the Contractor while performing the contract discovers any existing main or trunk line utility facilities not identified by the County in the contract plans or specifications, he shall immediately notify the Project Manager and utility in writing. The utility, where it is the owner of the facilities, shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price. The Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy and for equipment on the project necessarily idled during such work. Such

compensation shall be in accordance with the extra work provisions set forth elsewhere in the contract documents. Conversely, Contractor shall not be compensated for the costs of locating, repairing damage and removing or relocating such utility facilities which is due to the failure of the Contractor to exercise reasonable care. In such an event, Contractor shall not be credited for nor given an extension of time for equipment on the project necessarily idled during such work necessitated by Contractor's failure to exercise reasonable care.

ARTICLE 13. USE OF SITE.

13.01. Limit of operations. The Contractor shall confine his apparatus, the storage of materials, and the operations of his workers to limits indicated on the plans, or by law, ordinances, permits, or directions of the Project Manager and shall not unreasonably occupy the premises with his materials. Insofar as possible, the Contractor shall arrange his work and its progress to prevent any interference with the operations of the existing facilities. All utilities must be protected and connections made to utilities so as not to interrupt service.

13.02. Utilities. Unless otherwise noted, all utilities, including, but not limited to, electricity, water, gas, and telephone, used on the work shall be furnished and paid for by Natividad Medical Center.

13.03. Metering devices. For the purpose of providing utility service to the project, Contractor may install or cause to be installed metering devices or other equipment of utility companies or of political subdivisions, title to which is commonly retained by the utility company or political subdivision. If any such metering device or equipment is installed, contractor shall advise County as to the owner of such device or equipment.

13.04. Sanitary facilities. Contractor shall provide sanitary toilet facilities for the use of all workers and subcontractors. The building shall be properly stocked and maintained in a sanitary condition at all times and shall be left at the site until removal is directed by the Project Manager. Use of the toilet facilities in the Work under construction shall not be permitted.

13.05. Field Office. *If box is checked, requirement is deleted for this project.*
Contractor shall provide for the exclusive use of Architect and Project Manager a temporary, private office of not less than 150 square feet of floor area to be located as directed by the County's Project Manager and to be maintained until removal is authorized by the County. The office shall be of substantial waterproof construction with adequate natural light and ventilation by means of stock-design windows. The door shall have a key-type lock or padlock hasp. A table satisfactory for study of plans and two chairs shall be provided by Contractor. Contractor shall provide and pay for adequate lights, heat, and air conditioning for the field office until authorized removal.

13.06. Telephone/Internet Access. *If box is checked, requirement is deleted for this project.*
Contractor shall install a working telephone and provide internet access in the Architect and Project Manager's office and shall maintain the same until the final completion of the contract and the acceptance of work. Architect and Project Manager shall have free, unrestricted use of

this telephone and internet access for purposes connected with the Work. The cost of the installation and all charges for the use of the telephone and internet access shall be paid by the Contractor.

13.07. Cleaning up during and after work. The Contractor, at all times, shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of the work, he shall remove all his waste materials and rubbish from and about the project as well as all his tools, construction equipment, machinery, and surplus materials. If the Contractor fails to clean up, the County may do so and the cost thereof shall be charged to the Contractor as provided in paragraph 31.02.

ARTICLE 14. MATERIALS.

14.01. Materials provided by Contractor. Except as otherwise expressly stated in this contract, Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, superintendence, temporary constructions of every nature, and all other services and facilities of every nature whatsoever necessary to execute and complete this contract within the specified time.

14.02. Quality of materials. Unless otherwise specified, all materials shall be new and both workmanship and materials shall be of good quality.

14.03. Provision and storage of materials. Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of work and shall be stored properly and protected as required. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or work under this contract. All stored items shall be inventoried, specified by identification numbers (if applicable), released to County by sureties of the Contractor, and, if stored offsite, stored only in a reputable bonded warehouse.

14.04. Substitution of materials. Whenever in the specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name or by the name of the manufacturer, such specification shall be deemed to be used for the purpose of facilitating the description of the material, process, or article desired and shall be deemed to be followed by the words "or equal," and Contractor may, unless otherwise stated, offer any material, process, or article which shall in every respect be substantially equal to or better than that specified. The burden of proof as to equality of any material, process, or article shall rest with Contractor. Contractor shall submit any request for substitution, together with any substantiating data, within (35) thirty-five days after the award of this contract. These provisions authorizing submission of "or equal" justification data shall not in any way authorize an extension of time for performance of this contract. In the event Contractor-furnished material, processes, or articles that are more expensive than those specified, the difference in cost so furnished shall be borne by Contractor. Requests for substitution of products, materials, or processes other than those specified must be accompanied by evidence whether or not the proposed substitution: (1) is equal in quality and serviceability to the specified item; (2) will entail changes in detail and construction of related work; (3) will be acceptable in consideration of the required design and artistic effect; (4) will not provide a cost disadvantage to Architect or County. Contractor shall promptly provide, upon

request, any other information that may be required of it to assist Architect and County in determining whether the proposed substitution is acceptable. The final decision shall be that of the Architect and the County. County's and Architect's approval shall be in writing, shall follow the procedure for change orders, and shall be required for the use of a proposed substitute material. County may condition its approval of the substitution upon delivery to County of an extended warranty or other assurances of adequate performance of the substitution.

ARTICLE 15. CHANGES IN THE WORK.

15.01. Change orders. The County, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions, or other revisions. The contract sum and the time for performance of the work shall be adjusted accordingly. All such changes in the work shall be authorized by change order, and shall be executed under the applicable conditions of the contract documents. The contract sum and the time for performance of the work may be changed only by change order.

The amount to be paid to the Contractor pursuant to the Contract Documents shall, where applicable, be increased or decreased in the manner hereinafter set forth; provided however, that if the Contractor should proceed with a Change in the Work upon an oral order, by whomsoever given, it shall constitute a waiver by the Contractor of any claim for an increase in the Contract Sum on account thereof. Upon receipt of said written Change Order or Written Directive, the Contractor shall promptly proceed with the Change in the Work, even though the amount of any resultant increase or decrease in the contract sum has not yet been determined. All Changes in the Work shall be performed in accordance with the Contract Documents.

15.02. Method to calculate adjustments in contract price. Determination of the method to be used to calculate adjustments in the Contract Price shall be at the sole discretion of the County. The use by the Contractor of the Total Cost Method (calculating the total sum of expenses incurred on the project, less amounts paid, marked up by overhead and profit) of pricing changes and claims is expressly prohibited (provided however, the County may use a "make whole" analysis to determine the reasonableness of the Contractor's claim). One of the following methods shall be used:

(a) Unit Price Method:

1. Whenever County or its representative authorizes Contractor to perform on a Unit Price basis, County's authorization shall clearly state the:

- a. Scope of Work to be performed;
- b. Applicable Unit Price; and
- c. Not to exceed amount of reimbursement as established by the County.

2. The applicable unit price shall include reimbursement for all direct and indirect costs of the Work, including overhead and profit.

3. Contractor shall only be paid under this method for the actual quantity of materials incorporated in or removed from the Work and such quantities must be supported by field measurement statements verified by County.

(b) Firm Fixed Price Method:

1. The Contractor and County may mutually agree on a fixed amount as the total compensation for the performance of changed work.
2. Any adjustments to the Contract Price using the Firm Fixed Price Method shall include, when appropriate, all reasonable costs for labor, equipment, material, overhead and profit. Such overhead and profit shall be calculated in accordance with provision 15.04(b)(4)F.
3. Whenever the County authorizes Contractor to perform changed work on a Firm Fixed Price Method, the County's authorization shall clearly state:
 - a. Scope of Work to be performed
 - b. Total Fixed Price payment for performing such work

(c) Time and Materials Method:

1. Whenever the County authorizes the Contractor to perform Work on a Time and Material basis, County's authorization shall clearly state:
 - a. Scope of Work to be performed;
 - b. A not to exceed amount of reimbursement as established by the County.
2. Contractor shall:
 - a. Cooperate with County and assist in monitoring the Work being performed;
 - b. The Contractor's and subcontractors' labor hours, materials, and equipment charged to work under the Time and Materials Method shall be substantiated by detailed time cards or logs completed on a daily basis before the close of business each workday. The Contractor shall initial each time card and/or log at the close of each workday. Records of the Contractor and Subcontractors pertaining to work paid for on a Time and Materials method shall be maintained and available for inspection as requested by the County or its representatives;
 - c. Perform all work in accordance with this provision as efficiently as possible; and
 - d. Not exceed any cost limit(s) without County's prior written approval.
3. Contractor shall submit costs and any additional information requested by the County to support Contractor's requested price adjustment.

No change in the Contract Price shall be allowed to the extent (1) Contractor's changed cost of performance is due to the fault, acts, or omissions of Contractor, or anyone for whose acts or omissions Contractor is responsible; (2) the change is concurrently caused by Contractor and County; or (3) the change is caused by an act of *Force Majeure*.

The County shall not be responsible for, and the Contractor shall not be entitled to, unallowable costs. Unallowable costs include, but are not limited to, (1) interest or attorney's fees of any type other than those mandated by California statutes, (2) claim preparation or filing costs, (3) the cost of preparing or reviewing Change Proposals or Requests for Change Orders, (4) lost profits, lost income or earnings, (5) rescheduling costs, (6) costs for idle equipment when such equipment is not at the Site, has not been employed in the Work and is not scheduled to be used at the Site, (7) lost earnings or interest on unpaid retention, (8) claims consulting costs, (9) the costs of corporate officers or staff visiting the Site or participating in meetings with the County, (10) any compensation due to the fluctuation of foreign currency conversions or exchange rates, (11) loss of other business, and (12) any other special, consequential, or incidental damages incurred by the Contractor or subcontractors.

15.03. Signatures on change orders. A change order shall be in writing and shall be signed by the County's Project Manager and the Architect. Alternatively, the change order may be signed by the Architect alone, provided he has written authority from the County for such procedure and that a copy of such written authority is furnished to the Contractor if he agrees to the adjustment in the contract sum or the contract time. Except as otherwise provided herein, the change order shall also be signed by the Contractor in order to be effective, indicating the Contractor's consent to the changes made.

15.04. Determining cost or credit for change order.

(a) The cost or credit to the County resulting from a Change in the work shall be determined in one or more of the following ways:

1. by mutual acceptance of a lump sum for work and materials properly itemized;
2. by unit prices stated in the contract documents or subsequently agreed upon; or
3. as provided in subsection B.

(b) All parties to the agreement shall observe the following procedures for all change proposals and shall require all subcontractors to follow the same procedures:

1. Each change proposal will carry a unique identifying number, such as C-001, A-001 or O-001 which identifies the originator, i.e. C = Contractor, A = Architect, O = Owner and a chronological serial number. All correspondence referring to that change order, no matter who originates the correspondence, shall refer to the same identifying number. Any change proposal without such number shall be returned to the originator.
2. The items of Work involved shall be identified by specific reference to drawing and detail number and specification section if possible.
3. The quantities of material or other Work involved will be identified along with the costs thereof. The items of Work shall be arrayed in a manner that is consistent with the Construction Specifications Institute (CSI) (48) forty-eight division uniform system for classifying construction activities used for the schedule of values for each project component.
4. The total cost of a change proposal shall be limited to the following elements of cost, overhead, and profit:
 - a. Labor - For all labor, including foreman supervision, but excluding general superintendents, as may be necessary, the Contractor shall be reimbursed for labor costs as provided herein. The labor cost of a change in the work shall be calculated as the sum of the following.
 - i. Wages of labor on the Contractor's payroll, including foreman, directly engaged in the Work; hourly rates for each classification of worker shall be identified;
 - ii. Engineering and drafting performed;
 - iii. Fringe benefits established by the governing trade organizations;
 - iv. Federal Insurance Contributions Act costs and Federal and State Unemployment Taxes;
 - v. Net actual premium change for Commercial Liability, Workers' Compensation, Property Damage, and any other forms of Insurance.

b. Materials – The cost of materials resulting from a change in the Work shall be

calculated in one or more of the following methods, at the County's election:

i. Invoice Cost – The Contractor may be paid the actual invoice cost of materials including actual freight and express charges and applicable taxes less all available discounts, rebates, and back charges, notwithstanding the fact that they may not have been taken by the Contractor. This method shall be considered only to the extent the Contractor's invoice costs are reasonable and the Contractor provides copies of vendor invoices, freight and express bills, and other evidence of cost accounting and payment satisfactory to the County. As to materials furnished from the Contractor's stocks for which an invoice is not available, the Contractor shall furnish an affidavit certifying its actual cost of such materials and such other information as the County may reasonably require;

ii. Wholesale Price – The Contractor may be paid the lowest current wholesale price for which the materials are available in the quantities required, including customary costs of delivery and all applicable taxes less all available discounts, rebates, and back charges; or,

iii. County-Furnished Materials – The County reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no Claim for costs, overhead, or profit on such materials.

c. Equipment – The additional cost, if any, of machine-power tools and equipment usage shall be calculated in accordance with the following:

i. Equipment Rates – The Contractor's own charge rates may be used if verified and approved by the County and based on the Contractor's actual ownership and operating cost experience. Rental rates contained in published rate guides may be used if their cost formulas and rate factors are identifiable, reflect the Contractor's historical acquisition cost, utilization and useful life, and do not include replacement cost, escalation contingency reserves, general and administrative expense, or profit. Rates shall be based on the Contractor's actual allowable costs incurred or the rates established according to the Rental Rate Blue Book for Construction Equipment, published by Machinery Information Division of PRIMEDIA, whichever is less. The Rental Rate Blue Book established rate shall be the monthly rate for the equipment plus the monthly rate for required attachments, divided by 176, plus the hourly operating cost, multiplied by the appropriate area adjustment factor if appropriate. The rates shall apply for actual equipment usage up to eight hours per day. For all hours in excess of eight hours per day or 176 hours per month, the established monthly rate shall be divided by 352, plus the hourly operating cost, multiplied by the area adjustment factor, if appropriate.

ii. Transportation – If necessary equipment is not already at the Site and it is not anticipated that it would be required for the performance of other work under the terms of the Contract, the calculation shall include a reasonable amount for the costs of the necessary transportation of such equipment.

iii. Standby – The Contractor shall only be entitled to standby equipment costs if (a) the equipment is ready, able, and available to do the Work at a moment's notice; (b) Contractor is required to have equipment standby because of an event or condition solely caused by the County; and (c) the Contractor can demonstrate that it could have and intended to use the equipment on other projects or jobs. The

Contractor shall be compensated at 50 percent (50%) of the adjusted hourly rate identified in the Rental Rate Blue Book for Construction Equipment, published by Machinery Information Division of K-111 Directory Corp. Standby shall not be paid during periods of Contractor-caused delay, concurrent delay, unusually severe weather conditions, during any seasonal shutdown, routine maintenance, downtime or occurrence specified in the Contract Documents. No payment shall be made for a 24-hour period. Standby costs shall not be paid for weekends, holidays, and any time the equipment was not intended to be used on the project as demonstrated by the Project Schedule.

d. Subcontractors' Cost – The Subcontractor's cost of Work shall be calculated and itemized in the same manner as prescribed herein for Contractor.

e. Bonds - Itemized statement of changes in costs of bonds.

f. Markup – The allowed markup for change order work shall not exceed the following two items:

- i. 10 percent (10%) combined overhead and profit markup for the Contractor performing the actual change order work and,
- ii. 5 percent (5%) combined overhead and profit markup on the direct costs for the Contractor's markup of subcontractor work. In no event shall the total combined overhead and profit markup for the Contractor and all intermediate tier subcontractors and suppliers exceed 15 percent (15%) of the direct cost to perform the Change Order Work. Direct costs shall include Labor (as defined in provision 15.04(b)(4)A, Materials (as defined in provision 15.04(b)(4)B, Equipment (as defined in provision 15.04(b)(4)C, Subcontractor Costs (as defined in provision 15.04(b)(4)D, Bond (as defined in provision 15.04(b)(4)E. All other costs shall be deemed overhead costs. Profit markup shall be allowed on delay, acceleration, unabsorbed overhead, or any other asserted impact costs.

g. Taxes - Taxes required to be paid by the Contractor, but not included above.

(c) Invoices or quotes shall accompany Change Proposals from vendors. Change proposals shall be sent to the Architect and Project Manager in duplicate, who shall maintain a database of all proposals which can readily determine the location and status of the change request. Change proposals shall include all cost backup, including breakdown of hours expended by jobsite personnel per task with or without overall execution of the work. Lump sum change proposals lacking necessary backup, as determined by County, will not be accepted or approved.

(d) All change proposals shall be checked by the Architect and Project Manager for accuracy and fairness. Should contractor utilize SMACNA or NECA cost-estimating standards, they will use 70 percent (70%) of the most favorable labor productivity rates.

(e) When the final costs are agreed upon by the County, the Contractor, and the Architect, a change order will be prepared by the County for signature by the County, Contractor, and Architect. The Change Order shall be the record document defining the costs and time

extensions, if any, of the required and agreed-to change in the Work. A Change Order calculated in accordance with the provisions of this Agreement shall be full and complete compensation and final settlement of all changes and claims for all (a) time; (b) direct, indirect, and overhead costs; (c) profit; and (d) any and all costs or damages associated with delay, inconvenience, disruption of schedule, impact, ripple effect, loss of efficiency or productivity, acceleration of work, lost profits, and/or any other costs or damages related to any work either covered or affected by the changed work, or related to the events giving rise to the change.

(f) The Contractor shall keep and present, in the American Institute of Architects' format, an itemized accounting together with appropriate supporting data. Pending final determination of cost to County, payments on account shall be made on the Contractor's certificate for payment. The amount of credit to be allowed by the Contractor to the County for any deletion or change which results in a net decrease in cost will be the amount of the actual net decrease as confirmed by the Architect and Project Manager. When both additions and credits are involved in any one change, the allowance for overhead and profit shall be figured on the basis of net increase, if any.

(g) If no agreement can be reached on changes in the work or costs, or the Contractor refuses to accept a Change Order, the County may issue the Change Order unilaterally. The Contractor shall comply with the requirements of the Change Order. The County shall provide for an equitable adjustment to the Contract Price and compensate Contractor accordingly. If the Contractor does not agree that the adjustment is equitable, it may submit a claim in accordance with Article 30. If Contractor refuses to comply with the Change Order, County may have the work done by another contractor or its own forces.

15.05. Changes requiring an increase in contract sum.

(a) If the County elects to have the Change in the Work performed on a lump sum basis, its election shall be based on a lump sum proposal which shall be submitted by the Contractor to the County within five (5) workdays of the County's request therefore, but the County's request for a lump sum proposal shall not be deemed an election by the County to have the Change in the Work performed on a lump-sum basis.

(b) If the County elects to have the Change in the work performed on a unit-cost basis, its election shall be based on a unit price proposal which shall be submitted by the Contractor to the County within five (5) workdays of the County's request therefore, but the County's request for a unit price proposal shall not be deemed an election by the County to have the Change in the work performed on a unit-price basis.

(c) If the County elects to have the Change in the work performed on a time and materials basis, the same shall be performed, its election shall be based on a time and materials price proposal which shall be submitted by the Contractor within five (5) workdays of the County's request therefor, but the County's request for a time and materials price proposal shall not be deemed an election by the County to have the Change in the work performed on a time and materials basis.

(d) Nothing herein contained shall preclude the County from requesting a lump sum proposal, a unit price proposal, and a time and materials price proposal, or any two of those, with respect to

the same Change in the Work, in which event, the Contractor shall submit all proposals requested.

(e) Until such time as the County makes its election under this paragraph, the Contractor shall submit daily time and material tickets to the County as required under subparagraph (c) and section 15.04(b), which shall be subject to authentication as therein provided. At such time as the County makes its election under this paragraph, an appropriate Change Order will be issued; provided however, that until such time, the County shall pay to the Contractor up to the County's reasonable estimated value of the Change in the Work.

(f) The Contractor's proposal shall be in compliance with sections 15.02, 15.03, and 15.04 of the General Conditions.

15.06. Changes requiring a decrease in contract sum. If the Change in the Work will result in a decrease in the contract sum, the County may request a quotation by the Contractor of the amount of such decrease for use in preparing a Change Order. The Contractor's quotation shall be forwarded to the County within five (5) days of the County's request and, if acceptable to the County, shall be incorporated in the Change Order. If not acceptable, the parties shall make every reasonable effort to agree as to the amount of such decrease, which may be based on a lump sum properly itemized, on unit prices stated in the Contract Documents and/or on such other basis as the parties may mutually determine. If the parties are unable to so agree, the amount of such decrease shall be the total of the estimated reduction in actual cost of the work, as determined by the County in its reasonable judgment, plus ten percent (10%) thereof as overhead and profit. The Contractor's proposal shall be in compliance with sections 15.02, 15.03, and 15.04 of the General Conditions.

15.07. Changes affecting contract time. If the Change in the Work will result in an extension or contraction of the contract time, and the parties are unable to agree as to the number of days by which the contract time will be extended or contracted, the County shall not be required to make its determination until the work has been completed, at which time its determination shall be based on a review of the Contractor's books and records relating to the time involved in performing the Change in the Work and on the County's judgment as to whether the Contractor diligently performed the same.

15.08. Disputes regarding changes. If any dispute should arise between the parties with respect to an increase or decrease in the Contract Sum or an expansion or contraction in the contract time as a result of a Change in the Work, the Contractor shall not suspend performance of a Change in the Work or the Work itself unless otherwise so ordered by the County in writing. The County shall, however, pay to the Contractor up to the County's reasonable estimate of the value of the Change in the Work, regardless of the dispute, if said Change in the Work results in an increase in the Contract Sum; and the County shall have the right to decrease the Contract Sum to the County's reasonable estimated value of the Change in the Work, regardless of the dispute, if said Change in the Work results in a decrease in the contract sum.

15.09. Adjustment of unit prices. If unit prices are stated in the contract documents or subsequently agreed upon, and if the quantities originally contemplated are so changed in a

proposed change order that application of the agreed unit prices to the quantities of work proposed will create a hardship on the County or the Contractor, the applicable unit prices shall be equitably adjusted to prevent such hardship.

15.10. Concealed conditions. If concealed conditions encountered in the performance of the work below the surface of the ground are at variance with the conditions indicated by the contract documents, or if previously unknown physical conditions encountered below the surface of the ground are of an unusual nature, differing materially from those generally recognized as inherent in work of the character and in the location provided for in this contract, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated in the contract documents or be of an unusual nature, at variance with those ordinarily encountered and generally inherent in the work to be performed, then the contract sum shall be equitably adjusted by change order upon claim by either party made within twenty (20) days after first observing the conditions.

15.11. Claims for additional cost. All claims for additional compensation or for an increase in the contract sum shall be made as provided in Article 30. Any change in the contract sum resulting from such claim shall be authorized by change order.

15.12. Minor changes in the work. Subject to approval by the County, the Architect or Project Manager may order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents. Such changes may be made by field order or by other written order. Such changes shall be binding on the County and the Contractor.

15.13. Field orders. Subject to approval by the County, the Architect may issue written Field Orders, which interpret the contract documents or order minor changes in the work without change in contract sum or contract time. The Contractor shall carry out such Field Orders promptly.

15.14. Limitations. Except as expressly provided by this Section, there shall be no change whatsoever in the plans and specifications and in the work. Contractor shall not vary the work, the contract documents, or change, add to, or omit any element, component part, or portion of the work without the express written consent of County's Project Manger or the Architect contained in an executed change order or field order as herein provided. County shall not be liable for the cost for any extra work or any substitutions, changes, additions, omissions, or deviations from the plans and specifications unless the same have been authorized by and the cost thereof approved in writing by change order. No extension of time for performance of the work shall be allowed hereunder unless claim for such extension shall be made at the time changes in the work are ordered and such duly adjusted in writing by County and Architect. Contractor recognizes and acknowledges that timely completion of the work is paramount and that its duty is to proceed with the work in accordance with the contract documents, notwithstanding any request for change in the work, to the extent that proceeding is reasonable and feasible under the circumstances.

15.15. Review of Contract Documents. The Contractor shall carefully study and compare the

Contract Documents including, but not limited to, the Agreement, general conditions, drawings, specifications, addenda, and modifications, and shall at once report to the Architect and Project Manager any error, inconsistency, or omission it may discover. The Contractor shall not work without proper drawings and specifications or interpretations. If the Contractor performs any construction activity knowing it involves a recognized error, inconsistency or omission in the Contract Documents without such notice to the Architect and Project Manager, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the costs attributable for correction.

15.16. Requests for Information. The Contractor shall review any Request for Information (RFI), or other Contractor or subcontractor-initiated request for information prior to submission to the Architect and Project Manager to ensure that the information requested in such RFI is not already provided in the Contract Documents. RFI submittals shall come only from the Contractor (not from any subcontractors). The Contractor shall prepare the RFI in an RFI form approved by the Architect, which shall include a detailed description of the conditions, cause, and/or reason for the request. The RFI shall also include a proposed resolution. Each RFI shall reference the applicable Construction Documents. A transmittal letter over a subcontractor's RFI does not constitute an approved form.

ARTICLE 16. UNCOVERING AND CORRECTION OF WORK.

16.01. Uncovering of work.

(a) If any work is covered contrary to the request of the Architect, it must, at the request of the Project Manager, be uncovered for his observation and replaced at the Contractor's expense.

(b) The Project Manager may ask to see any other work that has been covered prior to its inspection by the Project Manager, and the Contractor shall uncover the work. If such work is found to be in accordance with the contract documents, the cost of uncovering and replacement shall, by appropriate change order, be charged to the County. If such work is found not to be in accordance with the contract documents, the Contractor shall pay such costs unless it is found that a separate contractor caused this condition, and, in that event, the County shall be responsible for the payment of such costs.

16.02. Correction of work.

(a) The Contractor shall promptly correct all work rejected by the Project Manager as defective or as failing to conform to the contract documents whether observed before or after substantial completion and whether or not fabricated, installed, or completed. The Contractor shall bear all cost of correcting such rejected work, including the cost of the Project Manager's additional services made necessary thereby.

(b) All such defective or non-conforming work shall be removed from the site if necessary, and the work shall be corrected to comply with the contract documents without cost to the County.

(c) The Contractor shall bear the cost of making good all work of separate contractors destroyed

or damaged by such removal or correction.

16.03. Contractor's failure to remove defective work. If the Contractor does not remove such defective or non-conforming work within a reasonable time fixed by written notice from the Project Manager, the County may remove it and may store the materials or equipment at the expense of the Contractor. If the Contractor does not pay the cost of such removal and storage within ten (10) days thereafter, the County may upon ten (10) additional days' written notice sell such work at auction or a private sale and shall account for the net proceeds thereof, after deducting all the costs that should have been borne by the Contractor, including compensation for additional architectural services. If such proceeds of sale do not cover all costs, which the Contractor should have borne, the difference shall be charged to the Contractor and an appropriate change order shall be issued. Such change order shall not require the Contractor's consent to be effective. Said amount may be deducted from any payment thereafter due to the Contractor under this or any other contract with County. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County.

16.04. Contractor's failure to correct defective work. If the Contractor fails to correct such defective or non-conforming work, the County may correct it in accordance with paragraph 31.02.

16.05. Acceptance of defective or non-conforming work. If the County prefers to accept defective or non-conforming work, it may do so instead of requiring its removal and correction, in which case a change order will be issued to reflect an appropriate reduction in the contract sum, or, if the amount is determined after final payment, it shall be paid by the Contractor. The issuance of the final certificate, final payment, or any provisions in the contract documents shall not relieve Contractor of responsibility for faulty materials, equipment, or workmanship. Contractor shall remedy any defects due to, and pay for any damage to, other work in accordance with the applicable guaranty or warranty provisions of the Contract Documents.

16.06. Emergency corrective action by County. If, in the opinion of the County, defective work creates a dangerous condition or requires immediate correction or attention to prevent further loss to the County or third parties or to prevent interruption of operations of the County or third parties, the County will attempt to give notice to Contractor. If Contractor cannot be contacted promptly or does not comply with the County's request for correction within a reasonable time as determined by the County, the County may, notwithstanding the provisions of this contract, proceed to make such correction or provide such attention, and the costs of such correction or attention shall be charged against the Contractor. Such action by the County shall not relieve Contractor of any warranty obligations provided in this contract.

PART III. SAFETY.

ARTICLE 17. PROTECTION OF PERSONS AND PROPERTY.

17.01. Contractor's responsibility for safety. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work.

The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to:

- (a) all employees on the work and all other persons who may be affected thereby;
- (b) all the work and all materials and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody, or control of the Contractor or any subcontractor; and
- (c) other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

17.02. Compliance with safety requirements. The Contractor shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. He shall erect and maintain, as required by existing conditions and progress of the work, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent utilities.

17.03. Trench safety. For all trenches to be made in connection with the work, the contractor shall submit a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trenches. If such plan varies from the shoring system standards, a registered civil or structural engineer shall prepare the plan. The plan shall be reviewed, and must receive approval as adequate to protect worker safety, by the County or by a registered civil or structural engineer employed by the County, in advance of excavation. The shoring, sloping, or protective system must be at least as effective as that required by the Construction Safety Orders. See Labor Code section 6705.

17.04. Hazardous substance. The term "hazardous substance" means any substance on the list of hazardous substances established by the Director of Industrial Relations pursuant to the Labor Code section 6382, which includes asbestos, lead, toxic chemicals, contaminants, any substance designated by the Environmental Protection Agency as a hazardous substance, and other pollutants and contaminants.

- (a) If Contractor encounters on the property any substance reasonably believed to be a Hazardous Substance that has not been rendered harmless, i.e., not potentially hazardous to human health, Contractor shall immediately stop work in the area affected and report the condition to the County Project Manager and Architect in writing.
- (b) Neither the Contractor nor any subcontractor shall cause or permit any Hazardous Substance to be brought upon the property or used in the work without the prior written consent of the County. Contractor and each subcontractor shall comply with all laws regarding the handling, treatment, presence, removal, storage, decontamination, cleanup, transportation, or disposal of Hazardous Substances brought onto the property by Contractor, its Subcontractors, and/or their personnel.

(c) Any handling, treatment, removal, decontamination, cleanup, transportation, disposal, or disturbance in any of Hazardous Substances shall only be performed by the Contractor or any subcontractor licensed and certified to perform the work. Any hazardous substance abatement or remediation work will be performed in such a way that is legally consistent with the recommendations of the certified County agent, appropriate governmental agencies, and all applicable laws.

(d) If there is a Hazardous Substance on the property, Contractor shall protect adjoining property and shall provide barricades, temporary fences, and covered walkways required to protect the health and safety of passersby as required by this Agreement, prudent construction practices, and all applicable laws.

17.05. Contractor's safety monitor. The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the County.

17.06. Unsafe loading. The Contractor shall not load or permit any part of the work to be loaded so as to endanger its safety.

17.07. Emergencies. In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damage, injury, or loss. Any additional compensation or extension of time claimed by the Contractor on account of emergency work shall be determined as provided in Article 15 for changes in the work.

17.08. Accidents. Contractor shall promptly report in writing to the Architect and County all accidents whatsoever arising out of, or in connection with the performance of the work, whether on or off the site, which caused death, personal injury, or property damage, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, Contractor shall report the accident immediately to the Project Manager by telephone or messenger. Contractor shall thereafter promptly report the facts in writing to the Architect and County giving full details of the accident.

PART IV. PAYMENTS.

ARTICLE 18. PROGRESS PAYMENTS.

18.01. Monthly progress payments. Monthly progress payments shall be made to the Contractor, as provided in this Article.

18.02. Schedule of values. Before Contractor submits any application for payment, the Contractor shall submit to the Project Manager a schedule of values of the various portions of the work, to be used to enable the County to estimate the timing and amounts of the successive progress payments. If required by the Project Manager, the schedule shall include quantities aggregating the total contract sum, divided so as to show the Contractor's anticipated payments

to subcontractors. The schedule shall be prepared in such form as may be specified in the contract documents or by the Project Manager, or as may be agreed upon by the Project Manager and the Contractor. The schedule shall include such data as the Project Manager may require substantiating its correctness. Each item in the schedule shall include its proper share of overhead and profit. This schedule, when approved by the Project Manager, shall be used only for preparing and reviewing the Contractor's applications for payment, and will not be considered as fixing a basis for additions to or deductions from the contract sum.

18.03. Application for payment. On or before the fifth day of each month, the Contractor shall submit to the Project Manager an application for payment including a schedule of values, requesting payment for the work completed up to the end of that same month, using the standard AIA form for requesting progress payments or such other form as may be prescribed by County. The application shall be itemized by task and shall be supported by such data substantiating the Contractor's right to payment as the County or the Project Manager may require.

18.04. Payment for stored materials and equipment. If payments are to be made on account of materials or equipment not incorporated in the work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedures satisfactory to the County to establish the County's title to such materials or equipment or otherwise protect the County's interest including applicable insurance and transportation to the site.

18.05. Certificates for payment. If the Contractor has made application for payment as above, the Project Manager will, with reasonable promptness but not more than ten (10) days after the receipt of the application, issue a certificate for payment to the County, with a copy to the Contractor, for such amount as he determines to be properly due, or state in writing his reasons for withholding a certificate as provided in paragraph 19.01. A payment request determined not to be a proper payment request suitable for payment will be returned to the Contractor within seven (7) days with a statement setting forth the reasons why the payment request is not proper. The final payment, if unencumbered, or any part thereof unencumbered, shall be made not later than 60 days after completion of the work and submission of all completion documents. Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the Project Manager, stating the work for which payment is demanded has been performed in accordance with the terms of the contract. Contractor is entitled to interest pursuant to Public Contract Code Section 20104.50 if County fails to make the progress payment within 30 days after receipt of an undisputed properly submitted payment request.

18.06. Findings to issue certificate of payment. In determining to issue a certificate of payment, the Project Manager must make the following findings, based on his observations at the site, the schedule of values, and the data included in the application for payment:

- (a) that the work has progressed to the point indicated;
- (b) that, to the best of his knowledge, information, and belief, the quality of the work is in accordance with the contract documents (subject to an evaluation of the work for conformance with the contract documents upon substantial completion, to the results of any subsequent tests required by the contract documents, to minor deviations from the contract documents correctable

prior to completion, and to any specific qualifications stated in his certificate); and
(c) that the Contractor is entitled to payment in the amount certified.

18.07. Amount of progress payment. The amount of each progress payment shall equal ninety-five percent of the estimated value of work performed up through the last day of the previous month, less the aggregate of all previous payments. The amount of the progress payment may be further reduced by any withholdings or deductions that may be taken from the payment pursuant to other provisions of this contract. For the purpose of determining the amount of any particular progress payment, the value of work completed is only an estimate; such value or estimate shall be used for no other purpose in connection with this contract and shall not be binding on County or Project Manager for any other purpose or any other payment, and County and Project Manager shall have the right to correct any error in such value or estimate for later payments.

18.08. Payment by County. Promptly after the Project Manager has issued a certificate for payment, the County shall submit the appropriate documentation to the Monterey County Auditor, who shall make payment to Contractor within 30 days thereafter. All materials and work covered by payments made shall thereupon become the sole property of County, and this provision shall not be construed as relieving Contractor from the continuing responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of any right of County to require the fulfillment of all terms of this Agreement. Title to all work completed in the course of construction and to all materials, including the specifications and other documents prepared by the Project Manager and/or the Contractor on account of which payment has been made shall be vested in County.

18.09. Limited effect of issuance of certificate or progress payment. By issuing a certificate for payment, the Project Manager shall not thereby be deemed to represent that he has made exhaustive or continuous on-site inspections to check the quality or quantity of the work or that he has reviewed the construction means, methods, techniques, sequences, or procedures, or that he has made any examination to ascertain how or for what purpose the Contractor has used the monies previously paid on account of the contract sum. Further, no certificate for a progress payment, nor any progress payment, nor any partial or entire use or occupancy of the project by the County, shall constitute an acceptance of any work not in accordance with the contract documents.

ARTICLE 19. WITHHOLDING PAYMENTS.

19.01. Grounds for withholding payment. The Project Manager may decline to approve an application for payment and may withhold his certificate as to all or part of the payment amount requested, to the extent reasonably necessary to protect the County, if in his opinion he is not able to make the findings set forth in paragraph 18.06. The Project Manager may also decline to approve payment, in whole or in part, and, based on subsequently discovered evidence or subsequent inspections, he may nullify the whole or any part of any certificate for payment previously issued, to such extent as may be necessary in his opinion to protect the County. Such withholding of the certificate or of any amounts requested by Contractor in connection with the certificate, may be based on any of the following grounds:

- (a) defective work not remedied;
- (b) third-party claims filed or reasonable evidence indicating probable filing of such claim;
- (c) failure of the Contractor to make payments properly to subcontractors or for labor, materials, or equipment;
- (d) reasonable doubt that the work can be completed for the unpaid balance of the contract sum;
- (e) damage to another contractor;
- (f) reasonable indication that the work will not be completed within the contract time;
- (g) unsatisfactory prosecution of the work by the Contractor;
- (h) stop notices filed for any portion of the work;
- (i) failure or refusal of the Contractor to fully comply with the contract requirements; or
- (j) Contractor's failure to comply within a reasonable time with Article 17 of these conditions.

19.02. Application of withheld amounts. County may apply any such withheld amounts to payment of such claims or obligations, in County's sole discretion. In so doing, County shall be deemed the agent of Contractor and any payment so made by County shall be considered as a payment made under contract by County to Contractor. County shall not be liable to Contractor for any such payments made in good faith. Such payments may be made without prior judicial determination of such claim or obligation. County will render to Contractor a proper accounting of any funds so disbursed on behalf of Contractor.

19.03. Payment when grounds removed. When the above grounds for withholding payment are removed by Contractor or by County, payment of the withheld amounts or the remaining balance thereof shall be made to Contractor.

ARTICLE 20. COMPLETION AND FINAL PAYMENT.

20.01. Application for final payment. When the work is complete, the Contractor shall submit to the Project Manager the following documents:

- (a) a written notice that the work is ready for final inspection;
- (b) an application for final payment;
- (c) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work for which the County might in any way be responsible, have been paid or otherwise satisfied;

(d) the consent of the sureties, if any, to final payment; and

(e) if required by the County, other proof (such as receipts, releases, and waivers of liens) establishing payment or satisfaction of all obligations arising out of the contract, to the extent and in such form as may be designated by the County.

20.02. Bond for outstanding claims or liens. If any person refuses to furnish a release or waiver required by the County, the Contractor may furnish a bond satisfactory to the County to indemnify and defend the County against any claim that might be made against the County or any lien that might be placed against the work on account of such person. If any such claim or lien remains unsatisfied after all payments are made, the Contractor or the surety shall pay to the County all monies that the County may be compelled to pay in discharging such claim or lien, including all costs and reasonable attorneys' fees.

20.03. Inspection and final certificate. Upon receipt of the above documents, the Project Manager will promptly inspect the work. The Architect and Project Manager shall issue a certificate for final payment, with copies to both County and Contractor, if he makes the following findings:

(a) that the work is acceptable under the contract documents;

(b) that the contract has been fully performed;

(c) that to the best of his knowledge, information, and belief, and on the basis of his observations and inspections, the work has been completed in accordance with the terms and conditions of the contract documents;

(d) that all potential liens or claims for subcontractors' services and for labor, equipment, and materials on the work have been satisfied or adequately secured;

(e) that the balance noted in the final certificate is due and payable; and

(f) that all necessary approvals of applicable federal, state, or local agencies and/or authorities have been issued.

20.04. Determination not to issue certificate for final payment. If the Project Manager determines that the necessary findings cannot be made to issue a final certificate, the Project Manager shall promptly notify the Contractor, in writing, of the reasons for such determination. Contractor shall promptly thereafter take appropriate steps to remove the grounds for denial of the final certificate.

20.05. Acceptance by Board of Supervisors. Promptly after the Project Manager issues the certificate for final payment, the matter will be submitted to the County Board of Supervisors for final acceptance of the work. Work on the contract shall be deemed complete when the Board of Supervisors accepts the work. Not later than fifteen (15) days after such acceptance, County shall record its notice of completion.

20.06. Effect of final payment as to County. The making of the final payment by the County to Contractor hereunder shall not constitute a waiver of any claims which County may now or hereafter have against Contractor by reason of this Agreement or any other matter related to the work.

20.07. Effect of final payment as to Contractor. The acceptance of final payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and still unsettled.

ARTICLE 21. ALTERNATIVE PAYMENT OF WITHHELD FUNDS.

21.01. Alternatives to withholding. This contract requires a five percent (5%) withholding from progress payments. Progress payments shall not be made in excess of 95 percent of the actual work completed plus a like percentage of the value of material delivered on the ground or stored subject to, or under the control of, the County, and unused. County shall withhold five (5) percent from the progress payments until final completion and acceptance of the project by the Board of Supervisors. At the Contractor's request, the County shall make payment of these funds withheld from progress payments through the use of the escrow procedures provided in this paragraph and either paragraph 21.02 or 21.03. As a prerequisite to compliance with paragraph 21.02 or 21.03, the Contractor shall select an escrow agent, who shall be the County Auditor-Controller or any state or federally chartered bank in California; the parties shall enter into an escrow agreement meeting the requirements of Public Contract Code Section 22300; and the parties shall deposit with the escrow agent the escrow agreement, the withheld portions of the progress payments that have accrued before opening of the escrow, all future withheld portions as they accrue, and all other deposits required below. The Contractor shall pay all expenses incurred in implementing the procedures set forth herein.

21.02. Alternative one: substitution of securities for withheld funds. At the Contractor's request, eligible securities provided by the Contractor, equivalent to the amount withheld, shall be deposited with the escrow agent, who shall then pay the withheld monies to the Contractor. After the initial deposits and disbursements, the County shall deposit all additional amounts to be withheld with the escrow agent as they accrue, and if the Contractor desires their release, the Contractor shall increase the amount of the securities on deposit, if necessary, in order that the value of the securities on deposit shall equal or exceed the total of all amounts currently and previously authorized to be withheld under the contract without the substitution of securities. Upon satisfaction of that condition, the escrow agent shall immediately pay the additional withheld amounts to the Contractor. Upon satisfactory completion of the contract, the securities shall be returned to the Contractor.

21.03. Alternative two: investment of withheld funds. Alternatively, the Contractor may direct that the withheld funds deposited in the escrow be invested in eligible securities. Upon satisfactory completion of the contract, the Contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the County. The Contractor shall pay to each subcontractor, not later than 20 days after receipt of the payment, the respective amount of interest earned, net of costs attributed to retention withheld from each subcontractor,

on the amount of retention withheld to ensure the performance of the Contractor.

21.04. Eligible securities: interest. Securities eligible to be used under the above paragraphs shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and the County. The parties must agree upon the value of the securities, as a condition of their deposit in the escrow. The Contractor shall be the beneficial owner of any securities deposited pursuant to this Article 21 and shall receive any interest thereon. The Contractor may withdraw interest earned on securities held in escrow at any time, without notice to the County.

21.05. Inapplicability of Article 21 to certain contracts. The provisions of this Article 21 shall not apply to contracts in which there will be financing provided by the Farmers Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 U.S.C. Sec. 1921 et seq.) and where federal regulations or policies, or both, do not allow the substitution of securities.

PART V. EMPLOYMENT PRACTICES.

ARTICLE 22. APPRENTICES.

22.01. Compliance with Labor Code apprenticeship requirements. Contractor and all subcontractors shall comply with the provisions of Labor Code sections 1777.5, 1777.6, and 1777.7, when applicable, pertaining to apprentices, and with all applicable regulations there under (Title 8, Calif. Code of Regulations, sections 200 et seq., especially sections 227 et seq.), including, but not limited to, provisions relating to required or permitted ratios of apprentices to experienced workers. When any question exists concerning these requirements, Contractor and/or any subcontractor concerned should contact the Division of Apprenticeship Standards, 525 Golden Gate Avenue, San Francisco, CA, or one of its branch offices, prior to commencement of work. The prime contractor is responsible for ensuring compliance with this section.

22.02. State policy. It is State policy to encourage the employment and training of apprentices on public works contracts in conformity with standards set by law.

ARTICLE 23. NON-DISCRIMINATION PROVISIONS.

23.01. Non-discrimination in employment practices. Contractor shall ensure that the evaluation and treatment of its employees and applicants for employment and all persons receiving and requesting services are free of such discrimination. Contractor and any subcontractor shall, in the performance of this Agreement, fully comply with all federal, state, and local laws and regulations which prohibit discrimination. The provision of services primarily or exclusively to such target population as may be designated in this Agreement shall not be deemed to be prohibited discrimination.

23.02. "Discrimination" defined. As used in this contract, the term "discrimination" includes, but is not limited to, the illegal denial of equal employment opportunity, harassment (including sexual harassment and violent harassment), disparate treatment, favoritism, subjection to unfair or unequal working conditions, and/or any other prohibited discriminatory practice. The term also includes any act or retaliation.

23.03. Application of Monterey County Code, Chapter 2.80. The provisions of Monterey County Code, Title 2, Chapter 2.80, apply to activities conducted pursuant to this contract. Contractor and its officers and employees, in their actions under this contract, are agents of the Owner within the meaning of Chapter 2.80, and are responsible for ensuring that their workplace and the services that they provide are free from discrimination, as required by Chapter 2.80. Complaints of discrimination made by Contractor, subcontractor(s), or any of their employees or agents against the Owner may be investigated and resolved using the procedures established by Chapter 2.80. Contractor shall establish and follow its own written procedures for the prompt and fair resolution of discrimination complaints made against Contractor by its own employees, agents and third parties, and shall provide a copy of such procedures to County upon demand by County.

23.04. Compliance with laws. During the performance of this agreement, Contractor shall comply with all applicable federal, state, and local laws and regulations, which prohibit discrimination, including, but not limited to, the following:

(a) California Labor Code section 1735;

(b) California Fair Employment and Housing Act, Government Code sections 12900 et seq., and the administrative regulations issued thereunder, Title 2 California Code of Regulations, sections 7285.0 et seq. (Division 4 - Fair Employment and Housing Commission);

(c) California Government Code sections 11135 - 11139.5 (Title 2, Div. 3, Part 1, Chap.1, Art. 9.5) and any applicable administrative regulations issued thereunder;

(d) Federal Civil Rights Acts of 1964 and 1991 (see especially Title VII, 42 USC sections 2000d et seq.), as amended, and all administrative rules and regulations issued thereunder (see especially 45 CFR Part 84); and all guidelines and interpretations issued pursuant thereto;

(e) The Rehabilitation Act of 1973, sections 503 and 504 (29 USC sections 793 and 794), as amended; all requirements imposed by the applicable HHS regulations (45 CFR Part 84); and all guidelines and interpretations issued pursuant thereto;

(f) Americans With Disabilities Act of 1990 (P.L. 101- 336), as amended, 42 USC sections 12101 et seq., and 47 USC sections 225 and 611, and any federal regulations issued pursuant thereto (see 24 CFR Chapter 1; 28 CFR Parts 35 and 36; 29 CFR Parts 1602, 1627 and 1630; and 36 CFR Part 1191;

(g) Unruh Civil Rights Act, California Civil Code sections 51 et seq.; and

(h) Monterey County Code, Title 2, Chapter 2.80, as amended and procedures issued pursuant thereto.

23.05. Written assurances. Upon request by County, Contractor will give any written assurances of compliance with the Civil Rights Acts of 1964 and 1991, as amended, the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990, as amended, and/or Executive Order 11246, as may be required by the federal government in connection with this contract, pursuant to 45 CFR Sec. 80.4 or 45 CFR Sec. 84.5 or other applicable state or federal regulations.

23.06. Written non-discrimination policy. Contractor shall maintain a written statement of its non-discrimination policies, which shall be consistent with the terms of this agreement. Such statement shall be available to Contractor's employees, the Owner, Owner's officers and employees, and members of the public, upon request.

23.07. Notice to labor unions. Contractor shall give written notice of its obligations under paragraphs 23.01 - 23.09 to labor organizations with which it has a collective bargaining or other agreement.

23.08. Access to records by government agencies. Contractor shall permit access by Owner and by representatives of the California Department of Fair Employment and Housing and the U.S. Equal Employment Opportunity Commission, and any federal and/or state agency providing funds for this contract upon reasonable notice at any time during normal business hours, but in no case on less than 24-hour notice, to such of its books, records, accounts, facilities, and other sources of information as the inspecting party may deem appropriate to ascertain compliance with these non-discrimination provisions.

23.09. Binding on subcontractors. The provisions of paragraphs 23.01 - 23.09 shall also apply to all of Contractor's subcontractors. Contractor shall include the non-discrimination and compliance provisions of these paragraphs in all subcontracts to perform work or provide services under this agreement.

ARTICLE 24. HOURS OF WORK.

24.01. Eight-hour day; 40-hour week. No work shall be performed by employees of Contractors in excess of eight (8) hours per day or 40 hours during any one week, unless such employees are compensated for all such excess hours at not less than one-and-one-half times the basic rate of pay, as provided in Labor Code Sec. 1815. Holiday work when permitted by law shall also be compensated at not less than one-and-one-half times the basic rate of pay.

24.02. Penalties. Pursuant to Labor Code Sec. 1813, the Contractor shall forfeit, as a penalty to the County, \$25 for each worker employed in the execution of the contract by the Contractor or any subcontractor under him for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code sections 1810-1815.

24.03. Approvals. Contractor will not be entitled to additional compensation for work performed outside of regular working hours, except to the extent such compensation is approved in advance, in writing, by Project Manager. If so approved, such compensation shall in such event cover only the direct cost of the premium portion of the time involved, when permitted, and be without any overhead or profit.

ARTICLE 25. PREVAILING WAGES.

25.01. Prevailing wage rates determined. The Director of the California Department of Industrial Relations has determined the general prevailing rate of per diem wages in the locality in which said public work is to be performed for each craft, classification, or type of worker needed to execute the contract in accordance with Labor Code sections 1770-75. Copies of the prevailing rate of per diem wages are on file and shall be made available to any interested party on request in the RMA-Public Works' office located at 168 West Alisal Street FL2, Salinas CA 93901. Current prevailing wage rate schedules can also be found at the California Department of Industrial Relations website located at <http://www.dir.ca.gov/DLSR/PWD/>.

25.02. Payment of prevailing wage rates required. Contractor and all subcontractors performing work under this contract shall pay wages to their workers employed on such work at not less than the general prevailing rate of per diem wages for such work, as required by Labor Code Sec. 1771.

25.03. Penalties. Failure to pay such prevailing wages shall subject the employer to the penalties set forth in Labor Code Sec. 1775.

ARTICLE 26. PAYROLL RECORDS.

26.01. Compliance with Labor Code Sec. 1776. Contractor and all subcontractors shall comply with Labor Code Sec. 1776, the requirements of which are set forth in this article. The Contractor shall be responsible for compliance with these provisions by his subcontractors.

26.02. Accurate payroll records required. Contractor and each subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice worker, or other employee employed by him or her in connection with the public work.

26.03. Certification and inspection of payroll records. The payroll records enumerated under paragraph 26.02 shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor or subcontractor on the following basis:

(a) A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his or her authorized representative on request.

(b) A certified copy of all payroll records enumerated in paragraph 26.02 shall be made available for inspection, or furnished upon request, to a representative of County, the Division of

Labor Standards Enforcement, or the Division of Apprenticeship Standards of the Department of Industrial Relations.

(c) A certified copy of all payroll records enumerated in paragraph 26.02 shall be made available upon request to the public for inspection or copies thereof made; provided however, that a request by the public shall be made through the County, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. The public shall not be given access to such records at the principal offices of the Contractor.

26.04. Filing of records. The Contractor and each subcontractor shall file a certified copy of the records enumerated in paragraph 26.02 with the entity that requested such records within ten (10) days after receipt of a written request.

26.05. Elimination of personal identification. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the County, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor or subcontractor awarded the contract or performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the Federal Labor Management Cooperation Act of 1978 (29USC 175a) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number.

26.06. Notice to County concerning location of records. The Contractor and each subcontractor shall inform the County as to the location of the records enumerated under paragraph 26.02, including the street address, city, and county, and shall within five (5) workdays, provide a notice of any change of location and address.

26.07. Notice of non-compliance; penalties. In the event of non-compliance with the requirements of this section, the Contractor or subcontractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects such Contractor or subcontractor must comply with this section. Should non-compliance still be evident after such 10-day period, the Contractor or subcontractor shall, as a penalty to the County, forfeit \$25 for each calendar day, or portion thereof, for each worker, until strict compliance is effected. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.

PART VI. LEGAL RELATIONS.

ARTICLE 27. COMPLIANCE WITH LAWS.

27.01. Compliance with laws. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations, and orders of any public authority bearing on the performance of the work. If the Contractor observes that any of the contract documents are at variance therewith in any respect, he shall promptly notify the Project Manager, in writing, and any necessary

changes shall be adjusted by appropriate modification. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to the Project Manager, he shall assume full responsibility therefore, and shall bear all costs attributable thereto. Without limitation of any other provision hereof, if Contractor performs any work which is contrary to such laws, ordinances, codes, rules and regulations, Contractor shall without additional reimbursement or extension of time make all changes and bear all costs as required to comply.

27.02. Rules of governing agencies. All work and materials shall be in full accordance with the Rules and Regulations of the State Fire Marshall, the Safety Orders of the Division of Industrial Safety, and all other applicable codes and regulations.

27.03. Compliance with uniform codes. All work and materials shall comply with the current editions of the California Building Code, the National Electric Code, the Uniform Plumbing Code, the Uniform Mechanical Code, and the Uniform Administrative Code, as adopted and amended by the local jurisdiction in which the construction project takes place.

27.04. Statutory regulation of public works. This contract is subject to all statutes of the State of California regulating the performance of work by a public agency or political subdivision of such state, and particularly the following:

Public Contract Code sections 4100-4114 (Subletting and Subcontracting Fair Practices Act).

Labor Code sections 1720-1743 (Public Works, Scope and Operation).

Labor Code sections 1770-1781 (Public Works, Wages).

Labor Code sections 1810-1815(Public Works, Working Hours).

All work performed under this contract, whether by Contractor or by any subcontractor, shall comply with all such statutes.

27.05. Compliance with Clean Air and Clean Water Acts. Contractor and all subcontractors shall comply with the federal Clean Air Act (42 USC sections 1857 et seq. and sections 7401 et seq.) and with the federal Clean Water Act (33 USC sections 1251 et seq.) and all other applicable federal air and water pollution control rules and regulations.

27.06. Federally funded contracts. If the project for which the work under this contract is to be performed is funded in whole or in part by grants or loans from the federal government, the Contractor and all subcontractors shall comply with regulations adopted by the U.S. Secretary of Labor pursuant to 40 USC section 276c and with all other statutes, rules, and regulations that are applicable because of such federal funding.

27.07. Kickbacks and illegal withholdings of pay. Contractor and all subcontractors shall comply with the provisions of Labor Code sections 221 and 222, which prohibit kickbacks and withholdings from employee wages.

27.08. Illegal fees. Contractor and all subcontractors shall comply with the provisions of Labor

Code sections 1778, 1779, and 1780, which prohibit the taking of any portion of the wages of workers employed on public works projects and the collection of certain fees from workers employed on public works projects and from applicants for such employment.

27.09. Provisions required by law deemed inserted. Each and every provision required by law to be inserted in this contract shall be deemed to be inserted herein, and the contract shall be read and enforced as though it were included herein. If through mistake or otherwise any such provision is not set forth word for word in the contract documents, or is not correctly set forth, then upon the application of either party, the contract shall forthwith be physically amended to make such insertion or correction.

27.10. Good-faith effort to Employ Monterey Bay Area residents. For all provisions of the Good-faith effort to Employ Monterey Bay area residents, see Information for Bidders, Division 00200, number 15, and Contractor's Certification of Good-Faith Effort to Employ Monterey Bay Area Residents.

ARTICLE 28. PERFORMANCE AND PAYMENT BONDS.

28.01 Required bonds and amounts. The Contractor shall furnish a surety bond in an amount equal to one hundred percent (100%) of the contract sum as security for faithful performance of this contract ("Performance Bond") and shall furnish a separate surety bond in an amount at least equal to one hundred percent (100%) of the contract sum as security for the payment of all persons performing labor and furnishing materials in connection with the contract ("Payment Bond"). Both the Performance Bond and the Payment Bond must be executed by an admitted surety insurer. The form of these bonds shall be as set forth in these contract documents. Upon request of the contractor, the County will consider and accept multiple sureties on such bonds.

ARTICLE 29. INDEMNIFICATION AND INSURANCE.

29.01. Indemnification. Contractor shall indemnify, defend, and hold harmless the County, its officers, agents, and employees, from and against any and all claims, liabilities, and losses whatsoever (including damages to property and injuries to or death of persons, court costs, and reasonable attorneys' fees) occurring or resulting to any and all persons, firms, or corporations furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims, liabilities, and losses occurring or resulting to any person, firm, or corporation for damage, injury, or death arising out of or connected with the Contractor's performance of this Agreement, unless such claims, liabilities, or losses arise out of the sole negligence or willful misconduct of the County. "Contractor's performance" includes Contractor's action or inaction and the action or inaction of Contractor's officers, employees, agents, and subcontractors.

29.02. Evidence of Coverage. Prior to commencement of this Agreement, The Contractor shall provide a "Certificate of Insurance" certifying that coverage as required herein has been obtained. Individual endorsements executed by the insurance carrier shall accompany the certificate. In addition a certified copy of the policy or policies shall be provided by the Contractor upon request.

This verification of coverage shall be sent to the County Contracts/Purchasing division, with a copy provided to the RMA-Public Works, unless otherwise directed. The Contractor shall not receive a “Notice to Proceed” with the work under this Agreement until it has obtained all insurance required and such, insurance has been approved by the County. This approval of insurance shall neither relieve nor decrease the liability of the Contractor.

29.03. Qualifying Insurers. All Coverages except surety, shall be issued by companies which hold a current policyholder’s alphabetic and financial size category rating of not less than A-VII, according to the current Best Key Rating Guide or a company of equal financial stability that is approved by the County Contracts/Purchasing Manager.

29.04. General insurance requirements. Without limiting Contractor’s duty to indemnify, Contractor shall maintain in effect throughout the term of this Agreement a policy or policies of insurance with the following minimum limits of liability:

1. Commercial general liability insurance, including, but not limited to, premises and operations, including coverage for Bodily Injury and Property Damage, Personal Injury, Contractual Liability, Broadform Property Damage, Independent Contractors, Products and Completed Operations, with a combined single limit for Bodily Injury and Property Damage of not less than \$1 Million (\$1,000,000) per occurrence.
2. Property insurance, covering the entire work at the Site to the full insurable value thereof. This insurance shall include the interests of the County, the Contractor, and all subcontractors in the work and shall insure against the perils of fire, extended coverage, builder’s risk, vandalism, and malicious mischief.
3. Business automobile liability insurance, covering all motor vehicles, including owned, leased, non-owned, and Employd vehicles, used in providing services under this Agreement, with a combined single limit for Bodily Injury and Property Damage of not less than \$1 Million (\$1,000,000) per occurrence.
4. Workers’ Compensation Insurance, if Contractor employs others in the performance of this Agreement, in accordance with California Labor Code section 3700 and with Employer’s Liability limits not less than \$1 Million (\$1,000,000) each person, \$1 Million (\$1,000,000) each accident, and \$1 Million (\$1,000,000) each disease.
5. Professional liability insurance, if required for the professional services being provided, (e.g., those persons authorized by a license to engage in a business or profession regulated by the California Business and Professions Code), in the amount of not less than \$1 Million (\$1,000,000) per claim and \$2 Million (\$2,000,000) in the aggregate, to cover liability for malpractice or errors or omissions made in the course of rendering professional services. If professional liability insurance is written on a “claims-made” basis rather than an occurrence basis, the Contractor shall, upon the expiration or earlier termination of this Agreement, obtain extended reporting coverage (“tail coverage”) with the same liability limits. Any such tail coverage shall continue for at least three (3) years following the expiration or earlier

termination of this Agreement.

29.05. Other insurance requirements. All insurance required by this Agreement shall be with a company acceptable to the County and issued and executed by an admitted insurer authorized to transact Insurance business in the State of California. Unless otherwise specified by this Agreement, all such insurance shall be written on an occurrence basis, or, if the policy is not written on an occurrence basis, such policy with the coverage required herein shall continue in effect for a period of three (3) years following the date Contractor completes its performance of services under this Agreement.

Each liability policy shall provide that the County shall be given notice, in writing, at least thirty (30) days in advance of any endorsed reduction in coverage or limit, cancellation, or intended non-renewal thereof. Each policy shall provide coverage for Contractor and additional insureds with respect to claims arising from each subcontractor, if any, performing work under this Agreement, or be accompanied by a certificate of insurance from each subcontractor showing each subcontractor has identical insurance coverage to the above requirements.

Commercial general liability and automobile liability policies shall provide an endorsement naming the County of Monterey, its officers, agents, and employees as Additional Insureds with respect to liability arising out of the Contractor's work, including ongoing and completed operations, and shall further provide that such insurance is primary insurance to any insurance or self-insurance maintained by the County and that the insurance of the Additional Insureds shall not be called upon to contribute to a loss covered by the Contractor's insurance. The required endorsement form for Commercial General Liability Additional Insured is ISO Form CG 20 10 11-85 or CG 20 10 10 01 in tandem with CG 20 37 10 01 (2000). The required endorsement form for Automobile Additional Insured endorsement is ISO Form CA 20 48 02 99.

Prior to the execution of this Agreement by the County, Contractor shall file certificates of insurance with the County's contract administrator and County Contracts/Purchasing Division, showing that the Contractor has in effect the insurance required by this Agreement. The Contractor shall file a new or amended certificate of insurance within five (5) calendar days after any change is made in any insurance policy which would alter the information on the certificate then on file. Additionally, Contractor shall provide certificates for subcontractors of any tier in compliance with these provisions. Acceptance or approval of insurance shall in no way modify or change the indemnification clause in this Agreement, which shall continue in full force and effect.

Contractor shall at all times during the term of this Agreement maintain in force the insurance coverage required under this Agreement and shall send, without demand by County, annual certificates to County's Contract Administrator and County Contracts/Purchasing Division. If the certificate is not received by the expiration date, County shall notify Contractor and Contractor shall have five (5) calendar days to send in the certificate, evidencing no lapse in coverage during the interim. Failure by Contractor to maintain such insurance is a default of this Agreement which entitles County, at its sole discretion, to terminate this Agreement immediately.

29.06. Acknowledgment of workers' compensation requirements. As required by Labor Code section 1861, the Contractor and each subcontractor shall, before commencing work on the project, sign and file with the County, the following certificate:

"I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and I will comply with such provisions before commencing the performance of the work of this contract."

29.07. Compliance. In the event of the failure of Contractor to furnish and maintain any insurance required by this Section, County or Architect shall have the right to take out and maintain such insurance for and in the name of the Contractor. Contractor shall pay the cost thereof and shall furnish all information necessary to obtain and maintain such insurance for the account of Contractor. County and Architect each shall also have the right to set-off the costs of obtaining and maintaining such insurance against any amounts due Contractor under the Contract Documents. Compliance by Contractor with the requirement to carry insurance and furnish certificates or policies evidencing the same contained in this Article 29 shall not relieve Contractor from liability assumed under any provision of the Contract Documents, including, without limitation, the obligation to defend and indemnify each of the Indemnities.

29.08. Application of Insurance Proceeds.

(a) In the event of any damage to or destruction of the work from any cause insured against by the insurance required under this Article 29, or any other insurance obtained by Contractor or any other source, County may, in its sole discretion, either (i) require Contractor to repair any such damage or destruction and reconstruct the work in accordance with the contract documents, and Contractor agrees to perform any such requirement of Architect, or (ii) terminate the Contract and Contractor shall have no claim arising out of such termination. In the event the work is repaired or reconstructed, appropriate adjustments, if any, in the amount of the contract price or for the time of completion of the work shall be made by change order. County shall be given credit against any amount due Contractor under the contract documents for the amount of any insurance proceeds collected by Contractor to the extent such proceeds cover costs otherwise payable by County under the contract documents. In the event that County decides not to restore or reconstruct the work and terminates the contract, Contractor shall receive from the insurance proceeds all amounts due Contractor under the Contract for that portion of the work completed as of the date of the event of damage or destruction.

(b) In the event of any damage to or destruction of the work (i) not due to or arising out of the fault or neglect of Contractor or any subcontractor and (ii) from a cause not insured against by the insurance required under this Article 29, County may, in its sole discretion, either (i) require Contractor to repair any such damage or destruction and reconstruct the work in accordance with the Contract Documents, and Contractor agrees to perform any such requirements of Architect, or (ii) terminate the Contract. In the event County decides not to restore or reconstruct the work in accordance with the Contract Documents and cause termination of the Contract, Contractor shall have no claim arising out of such termination. In the event that work is repaired or

reconstructed, appropriate adjustments, if any, in the amount of the contract price and for the time of completion of the work shall be made by change order. County shall be given credit against any amount due Contractor under the contract documents to the extent insurance proceeds payable to Contractor cover costs otherwise payable by County under the contract documents. In the event that County decides not to restore or reconstruct the work and causes termination of the contract, County shall pay Contractor, as its sole compensation, all amounts due under the Contract Documents for the portion of the work completed as of the date of the event of damage or destruction. Contractor shall be solely responsible for and shall, without cost or expense to County, promptly and with all due diligence, restore and reconstruct any uninsured loss or damage to the work which occurs as a result of any fault or neglect of the Contractor or any subcontractor. This obligation is in addition to County's remedies under the Contract Documents or by law.

ARTICLE 30. CLAIMS AND DISPUTE RESOLUTION.

30.01. Prompt resolution of differences required. It is the intention of this Article that differences between the parties arising under and by virtue of the contract be brought to the attention of the Project Manager at the earliest possible time in order that such matters may be promptly settled, if possible, or other appropriate action may be taken promptly.

30.02. Contract interpretations, performance judging, and decisions by Architect and PM.

(a) All claims may be presented informally first to the Project Manager. To the extent that resolution of the claim does not involve an extension of time or additional payments, the Project Manager may resolve, in writing, or otherwise, claims that have been presented informally.

(b) The Project Manager will be, in the first instance, the interpreter of the requirements of the contract documents and the judge of the performance thereunder by both the County and Contractor. The Project Manager will, within a reasonable time, render such interpretations, as he may deem necessary for the proper execution or progress of the work. Claims, disputes and other matters in question between the Contractor and the County relating to the execution or progress of the work or the interpretation of the contract documents shall be referred initially to the Project Manager for decision which he will render, in writing, within a reasonable time. In his capacity as interpreter and judge, he will exercise his best efforts to ensure faithful performance by both the County and the Contractor and will not show partiality to either. All interpretations and decisions of the Project Manager shall be consistent with the intent of the contract documents.

(c) See Section 2.06 and 2.08 for the role of the Architect.

30.03. Written notice to Project Manager. Any claim for additional compensation or for an extension of time shall be resolved as hereinafter provided. The Contractor shall not be entitled to the payment of any additional compensation for any occurrence or matter relating to this contract and will not be granted any extension of time for performance under this contract, unless the Contractor first gives written notice of such claim to the Project Manager.

30.04. Contents of notice of claim. The written notice of claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, the reasons for any extension of time, and, insofar as possible, the amount of the claim and the amount of any time extension requested.

30.05. Time for giving notice. The notice of claim must be given to the Project Manager as follows:

(a) If the claim is for an increase in the contract sum, he shall give the Project Manager written notice thereof within ten (10) days after the occurrence of the event giving rise to such claim; in addition, this notice shall be given by the Contractor before proceeding to execute the portion of the work to which the claim relates, except in an emergency endangering life or property, and except where the Contractor could not reasonably have discovered the facts giving rise to the claim prior to commencement of that portion of the work.

(b) All claims for extension of time shall be made, in writing, to the Project Manager no more than ten (10) days after the occurrence of the delay; otherwise they shall be waived. In the case of a continuing cause of delay, only one claim is necessary.

(c) In all other cases, notice shall be given within ten (10) days after the happening of the event, thing, or occurrence giving rise to the claim.

30.06. Response by County - claims for under \$50,000 and for extensions of time. For claims of less than \$50,000 and for claims for extension of time, County shall respond, in writing, to any written claim within 45 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 the claimant. If further information is thereafter required, it shall be requested and provided pursuant to Public Contract Code Section 20104.2(b)(2). The County's response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

30.07. Response by County - claims of \$50,000 or more and less than or equal to \$375,000. For claims of \$50,000 or more and less than or equal to \$375,000, and for all claims not covered by paragraph 30.04, County shall respond, in writing, to any written claim 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 the claimant. If further information is thereafter required, it shall be requested and provided pursuant to Public Contract Code Section 20104.2(c)(2). The County's response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

30.08. Prompt response when needed. Whenever it appears that a prompt response is

essential, County will respond to claims sooner than the limits prescribed above.

30.09. County's response disputed or not made. If the claimant disputes the County's written response, or if the County fails to respond within the time prescribed, the claimant may so notify the County, in writing, either within 15 days of receipt of the County's response or within 15 days of the County's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the County shall schedule a meet-and-confer conference within 30 days for settlement of the dispute.

30.10. Filing of Government Code claims. If the claimant still remains unsatisfied and desires to preserve his right to pursue the matter further, he must then file a claim with the County, pursuant to Government Code sections 900 et seq. or sections 910 et seq.

30.11. Civil action. If the Government Code claim is denied, the claimant may file an action in court. Such action shall be subject to Public Contract Code section 20104.4. This paragraph applies only to claims subject to Public Contract Code section 20104. If a claim is not subject to Public Contract Code section 20104, the claimant's right to file a civil action shall be as otherwise provided by law.

30.12. Claims for damages. Should either party to the contract suffer injury or damage to person or property because of any act or omission of the other party or of any of his employees, agents, or others for whose acts he is legally liable, claim shall be made, in writing, to such other party within a reasonable time after the first observance of such injury or damage, provided that in no case may such a claim be filed after expiration of any applicable statute of limitations for filing such a claim. Claims against County that are subject to this paragraph shall comply with all procedures set forth in the California Government Code concerning claims against public entities.

30.13. Consistency with Public Contract Code sections 20104 et seq. If any claim arising under this contract is subject to the provisions of Public Contract Code sections 20104 et seq. (Div. 2, Part 3, Chapter 1, Article 1.5), and if the provisions of that Article require a procedure or procedural element different from that established in this contract, then the provisions of that Article shall apply in place of the conflicting procedure or procedural element established herein.

ARTICLE 31. DEFAULT AND TERMINATION OF THE CONTRACT.

31.01. County's right to stop work. If the Contractor fails to correct defective work or fails to supply materials or equipment in accordance with the contract documents, the County may order the Contractor to stop the work, or any portion thereof, until the cause for such order has been eliminated.

31.02. County's rights on Contractor's default. If the Contractor fails to prosecute the work diligently or fails to perform any provision of the contract, the County may, after seven (7) days' written notice to the Contractor and without prejudice to any other remedy he may have,

make good such deficiencies. In such case, any appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor, the cost of correcting such deficiencies, including the cost of the Architect's and other County Contractors' additional services made necessary by such default. Such change order shall not require the consent of the Contractor to be effective. The Project Manager must approve both such action and the amount charged to the Contractor. If the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County.

31.03. Termination by County.

(a) The County may terminate the performance of the Contractor under this contract, without prejudice to any other right or remedy the County may have, in the manner hereinafter provided, upon certification by the Project Manager that the following circumstances have arisen:

1. the Contractor is adjudged bankrupt, or makes a general assignment for the benefit of his creditors, or a receiver is appointed on account of his insolvency (except as provided in (e) below);
2. the Contractor refuses or fails, except in cases for which an extension of time is provided, to supply enough properly skilled workers or proper materials;
3. the Contractor fails to make prompt payment to subcontractors, to suppliers of materials or equipment, or to employees;
4. the Contractor disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction; or
5. the Contractor otherwise is guilty of a substantial violation of the contract.

(b) To terminate the performance of the Contractor, County shall first give ten days' written notice to Contractor and his surety, if any, stating County's intent to terminate the performance of the Contractor unless within ten days the grounds for such termination have been removed, and giving his reasons therefor.

(c) If within ten days the grounds for termination are not removed, County may immediately terminate the performance of the Contractor and shall promptly serve notice of termination on the Contractor and the surety. The surety shall have the right to take over and perform the contract, provided that, within fifteen days after service upon it of said notice of termination, the surety must first give written notice to County that it intends to take over and perform the contract, and within thirty days after service upon it of said notice of termination, the surety must commence performance of the contract. If surety fails to take either of these steps in a timely manner, County may immediately take possession of the Site and of all materials, equipment, tools, construction equipment, and machinery thereon owned by the Contractor and may finish the work by whatever method it may deem expedient.

(d) If within ten (10) days of County's notice of intent to terminate, the grounds for termination are not removed, the Contractor shall not be entitled to receive any further payment until the work is finished. If, upon completion of the work by County, the unpaid balance of the contract sum exceeds the costs of finishing the work (including compensation

for additional architectural, managerial, and administrative services), such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor or his surety shall pay the difference to the County. The costs incurred by the County as herein provided shall be certified by the Project Manager.

(e) Notwithstanding the foregoing, performance of the Contractor under this contract may not be terminated, and the contract may not be modified, where a trustee in bankruptcy has assumed the contract pursuant to 11 U.S.C. Sec. 365.

31.04. Termination by Contractor.

(a) The Contractor may, upon seven days' written notice to the County and the Project Manager, terminate the contract if the work is stopped for a period of forty-five days under an order of any court or other public authority having jurisdiction, or as a result of an act of government, such as a declaration of a national emergency making materials unavailable, through no act or fault of the Contractor or a subcontractor or their agents or employees or any other person performing any of the work under a contract with the Contractor.

(b) To terminate the contract, the Contractor must give written notice to County of such termination, stating the reasons therefor.

(c) The Contractor may then recover from the County payment for all work executed, for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, for lost profits, and for all other damages suffered by the Contractor on account of such stoppage of work.

31.05. Termination for Convenience of the County.

(a) The performance of work under this contract may be terminated by County in accordance with the section in whole, or from time-to-time in part, whenever the County shall determine that termination is in the best interest of the County. Any such termination shall be effected by delivery to Contractor of a Notice of Termination specifying the extent to which performance of work under the contract is terminated, and the date upon which such termination becomes effective.

(b) After receipt of a Notice of Termination, and except as otherwise directed by the County, Contractor shall:

1. stop work under the contract on the date and to the extent specified in the Notice of Termination;
2. place no further orders or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the contract as is not terminated;
3. terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination;
4. assign to County all the right, title, and interests of Contractor under the orders and

subcontracts so terminated, in which case Contractor shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontractors if so directed by County;

5. settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, subject to the approval of the County;

6. complete performance of such part of the work as shall not have been terminated by the Notice of Termination; and

7. take such action as may be necessary, or as County may direct, for the protection and preservation of the property related to this contract which is in the possession of the Contractor and in which County has, or may acquire, an interest.

(c) After receipt of a Notice of Termination, the Contractor shall submit to County a verified termination claim. Such claim shall be submitted promptly, but in no event later than 30 days from the effective date of termination, unless one or more extensions, in writing, are granted by the County upon request of Contractor made, in writing, within such period or authorized extension of the period.

(d) Contractor and County may agree upon the whole or any part of the amount or amounts to be paid to Contractor by reason of the total or partial termination of work pursuant to this article, which amount or amounts may include a reasonable allowance for profit on work done; provided that the total contract price as reduced by the amount of payments otherwise made and as further reduced by the contract price of work not terminated does not exceed the contract sum.

ARTICLE 32. WARRANTIES.

32.01. Warranty as to all work. The Contractor shall guarantee all work performed under this contract against defective materials or workmanship for a period of one year from the date of final acceptance by the County, or for such longer time period as may be prescribed by law or by the terms of any applicable special guarantee required by the contract. The Contractor shall remedy any defects appearing within that time period and pay for any damage resulting therefrom.

32.02. Repair of defective work. Contractor shall, within a reasonable time but in no case longer than fifteen (15) days after receipt of written notice thereof, repair and/or replace any defects in materials or workmanship which may develop during said one-year period and any damage resulting from the repairing or replacing of such defects at his own expense and without cost to County. In the event Contractor fails to remedy any such defect within such reasonable time, County may proceed to have such defects remedied at Contractor's expense, and Contractor shall pay the costs and charges incurred thereby and any other damages of County. Nothing contained in this paragraph shall operate to relieve Contractor from responsibility after one year from the date of final acceptance of the completed work by County as regards damages resulting from defects, both latent and patent, departures from the requirements of the contract, fraud, or such other gross mistakes as amount to fraud, and Contractor shall indemnify, defend, and save County harmless from and against liability, loss, or damage arising by reason of any and all such matters. Contractor shall transfer to County

all guarantees and warranties on equipment included within the project which Contractor receives from material persons and subcontractors. Neither acceptance nor payment nor any provision in these documents shall be deemed a waiver by County nor relieve Contractor of any responsibility under the contract. Notwithstanding the above, failure by the Contractor to take corrective action within 24 hours after personal or telephonic notice by the County on items affecting use of facility, safety, or the preservation of property, will result in the County taking whatever correction action it deems necessary. All costs resulting from such action by the County will be claimed against Contractor or, if necessary, the Contractor's performance bond.

32.03. Title free of liens at time of each progress payment. The Contractor warrants and guarantees that title to all work, materials, and equipment covered by an application for payment, whether incorporated in the project or not, will pass to the County upon the receipt of such payment by the Contractor, free and clear of all liens, claims, security interests, or encumbrances.

32.04. Warranty as to liens. No materials, supplies, or equipment for work under this contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by seller or supplier. Contractor warrants good title to all materials, supplies, and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to County free from claims, liens, or charges. Contractor further agrees that neither he nor any person, firm, or corporation furnishing any materials or labor for any work covered by this contract shall have any right to any lien upon the premises or any improvement or appurtenance thereon. Nothing contained in this article, however, shall defeat or impair the right of persons furnishing material or labor under any bond given the Contractor for their protection or any rights under any law permitting such persons to look to funds due Contractor in the hands of the County, and this provision shall be inserted in all subcontracts and material contracts and notice of its provisions shall be given to all persons furnishing material for work when no formal contract is entered into for such material.

32.05. Other Warranties. In addition to the warranties in the Contract Documents, Contractor shall assign to County through Architect all assignable warranties it obtains from manufacturers or suppliers with respect to any materials, equipment, or fixtures incorporated into the work, but the assignment shall not relieve Contractor of any of its warranties or obligations. Contractor's warranties and the Contract Documents shall not act as a bar to Contractor's liability for any third-party claim against Contractor, and are in addition to, not exclusive of, Contractor's other obligations under the Contract Documents, including, without limitation, Contractor's obligation to indemnify and defend County and Architect.

32.6. No Limitations. Nothing in this Article 32 shall be construed to establish a period of limitation with respect to any latent or patent defects in the work or claims or liabilities arising therefrom. The establishment of time periods relates only to the specific obligation of Contractor to correct or cause correction of the work, and has no relationship to the time within which its obligation to comply with the contract documents may be sought to be

enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to its obligations under the contract documents or in connection with the work.

PART VII. MISCELLANEOUS.

ARTICLE 33. MISCELLANEOUS PROVISIONS.

33.01. State audits. If this contract involves the expenditure of public funds in excess of \$10,000, the contracting parties shall be subject to the examination and audit of the State Auditor of the State of California for a period of three (3) years after final payment under the contract, as required by Government Code Sec. 8546.7. The examination and audit shall be confined to those matters connected with the performance of the contract, including, but not limited to, the costs of administering the contract.

33.02. Governing law. The contract shall be governed by the law of the State of California.

33.03. No assignment. Neither party to the contract shall assign the contract without the written consent of the other, nor shall the Contractor assign any monies due or to become due to him hereunder, without the previous written consent of the County. Should any money due or to become due under this contract be assigned, it shall be subject to a prior lien for services rendered or material supplied for performance of work under this contract in favor of all persons, firms, or corporations rendering such services or supplying such materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure, and/or the Government Code.

33.04. Binding on successors and assigns. The County and Contractor each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto and to the partners, successors, assigns, and legal representatives of such other party in respect to all covenants, agreements, and obligations contained in the contract documents.

33.05. Notices. All notices required or permitted to be given under this contract shall be in writing and shall be deemed to have been duly served (a) when delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or (b) 48 hours after the notice is placed in the U.S. mail, properly addressed to the party to whom the notice is to be delivered, for mailing by registered or certified mail, with postage thereon fully prepaid. The proper address shall be that previously specified in writing by the proposed recipient as the address for mailing notice, or, if none, then the last business address for the recipient known to the person giving the notice.

33.06. Contractual rights and remedies not exclusive. The duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies, otherwise imposed or available by law, except as otherwise specified herein.

33.07. Assignment of anti-trust causes of action. The Contractor and all subcontractors are

bound by Public Contract Code section 7103.5, which provides as follows: "In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 USC section 15) or under the Cartwright Act (Chapter 2, commencing with section 16700, of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties."

33.08. Royalties and patents. The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the County harmless from loss on account thereof, except that the County shall be responsible for all such loss when a particular design, process, or the product of a particular manufacturer or manufacturers is specified, but if the Contractor has reason to believe that the design, process, or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Architect.

33.09. Prohibited interests. 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, inspection, construction or material supply contract or any subcontract in connection with the project, shall become directly or indirectly interested financially 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 to exercise any executive supervisory or other similar functions in connection with construction of the project shall become directly or indirectly interested financially in this contract or in any part thereof.

33.10. No continuing waiver. A waiver of rights by County or Contractor in one instance hereunder does not constitute a waiver of rights in any similar instance thereafter.

33.11. Taxable possessory interest. The terms of this document may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to this document, the private party may be subjected to the payment of personal property taxes levied on such interest.

SPECIAL CONDITIONS

(Division 00730)

The special conditions below are included as part of the contract for the project.

1. Starting and completion date. Under Article 12 of the General Conditions, the Contractor shall commence and complete work within the following time limits:

The duration to execute the scope of work for the above project is **SEVENTY (70) CALENDAR DAYS** as it pertains to Contractor's Scope of Work for base bid and alternates defined by the contract documents. Additionally, Contractor shall coordinate their work with all other Contractors whose work is affected by the Scope of Work defined in this Agreement. Contractor expressly agrees to provide appropriate labor, material, and equipment in response to adjustments in the Project Schedule made by the Architect during the course of the project in order to maintain the required progress.

2. Hours of work. Work will not commence earlier than 6 a.m. without written consent of the Project Manager. Powder actuated equipment, concrete sawing shall happen before the hours of 6 a.m. or after 5 p.m. only with written consent of the Project Manager

3. Site Access. N/A.

4. Site Cleanup. All construction materials, equipment and debris shall be removed from the staging area at the close of each business day. Equipment and tools are to be properly and securely stored where the work is underway or taken away at the end of each business day. All existing equipment that must remain due to size is to be covered for the evening and the covering removed prior to the opening of the next business day. All debris will be picked up and properly disposed of at the end of each business day. No debris will be stored in the building. All debris containers will be covered to prevent the wind and/or vandals from scattering refuse.

5. Site Restoration. All lawn, landscaping, pavement, and trees are to be protected from construction equipment and/or vehicles. Any compaction, gouging, tearing, removal, or dislocation of the existing lawn or trees that occurs during the staging and construction process is to be restored to pre-construction quality. Contractor's lay down area shall be restored back to original condition at completion of work activities.

6. Utilities, Disruption of Service. Contractor shall notify the Project Manager, in writing, five (5) workdays in advance of any disruption of service, e.g., fire suppression, electrical, water, and the Contractor shall not proceed with the work without written authorization from the Project Manager.

7. Contractor Parking. The Contractor will be designated by the Project Manager which can be used for delivery of materials and construction vehicles. Barricades must be placed showing the Contractor's name to reserve the spaces when the Contractor's vehicles are not at the site either during the day or over night for the next morning.

8. Liquidated damages. Pursuant to the Agreement and Article 12 of the General Conditions, the amount of liquidated damages shall be Eight Hundred Dollars (\$800) per day.

10. Agreement and bonds. Contractor will provide specified number of originals for each of the following:

<u>4</u> Executed Agreements	<u>1</u> Performance Bond
<u>1</u> Payment Bond	<u>1</u> Certificate of Liability Insurance with endorsements

11. Contract documents furnished to Contractor. The number of original of the contract documents to be provided under Article 3 of the General Conditions is as follows:

<u>1</u> fully executed Agreement
<u>1</u> each Addendum
<u>1</u> Plans and Specifications

12. Supervision. Section 7.05 of the General Conditions require that Contractor employ a competent, qualified superintendent to provide full time, on-site supervision of all aspects of the work and further require that such superintendent and project manager be satisfactory to the County. If Contractor fails to have such superintendent on-site at any time during the progress of the work, a penalty of One Thousand Dollars (\$1,000.00) per day shall be deducted from the compensation otherwise due to Contractor for each day on which such failure occurs. Such penalty shall not apply to temporary absences approved in advance by the Architect or County.

13. Owner's Representative. Article 5 and 7. All coordination must be made with the Project Manager. All communication with the Project Manager must be made by the Contractor's Superintendent or Project Manager to maintain control and to prevent misunderstandings. All communication with the Contractor and the County will be in writing.

14. County's Use of Premises. Construction work to accommodate the Owner's continued access to and use of the premises during the construction period; coordinate the construction schedule and operations with the Architect.

15. Determining cost for change orders. Section 15.04 of the General Conditions designates the maximum markups allowed by the County.

16. Material Safety Data Sheets (MSDS). Article 14 and 17. MSDS sheets are required on-site for all materials used in the job.

17. Audit rights. With respect to any Change in the Work, other than one based on an agreed lump sum price, resulting in an increase in the contract sum or extension of the contract time, the Contractor shall cause its subcontractors and sub-subcontractors to afford access to the County at all reasonable times to any books, correspondence, instructions, receipts, vouchers, memoranda, and records of any kind relating thereto, all of which each of them shall maintain for a period of at least three (3) years from and after the date the County makes payment on account of such Change in the Work. The Contractor and its subcontractors and sub-

subcontractors shall make the same available within three (3) calendar days following notification to the Contractor of the County's intent to audit, failing which the Contractor's claim for an increase in the contract sum and/or extension of the contract time, as applicable, shall be disallowed, and the Contractor shall have no recourse on account of such disallowance. The Contractor authorizes the County, and shall cause its subcontractors and sub-subcontractors to authorize the County, to check directly with any suppliers of labor and material with respect to any item chargeable to the County under this article, to confirm balances due and to obtain sworn statements and waivers of lien, all if the County so elects.

18. As-built drawings. Per General Conditions Article 8.06 Contractor will be required to maintain a current set of as-built drawings throughout the duration of the project. Upon final completion of the project as outlined in Article 20 of the General Conditions, Contractor will be responsible to provide the close-out documents to the County Project Manager as follows:

- 1 Half-size, complete as-built drawing set showing all information from the Contractor, Subcontractor(s), and Sub-Subcontractor(s)
- 2 CD's with complete as-built drawings, Operations & Maintenance Manual, and Warranty Certifications (with required contact names, addresses, and telephone numbers) in pdf format
- 2 Printed Operation & Maintenance Manuals for all installed materials and equipment
- 2 Printed Warranty Certifications as noted in the Project Manual with required contact names, addresses and phone numbers

19. Partnering. This contract imposes an obligation of good faith and fair dealing in its performance and enforcement. The County intends to encourage the foundation of a cohesive partnership with the Contractor and its principal subcontractors and suppliers. The objectives are effective and efficient contract performance and completion within budget, on schedule, and in accordance with the contract documents.

20. Allowance Work: Include in Base Bid All Allowances

All allowance work shall be at the sole direction/approval of the Project Manager and will be reimbursed on a direct cost basis for actual materials and equipment and labor hours expended plus ten percent (10%) of that amount of that amount for overhead and profit. Contractor must notify the County's representative prior to use of any allowance funds, and all allowances shall be indicated as separate budget line items on the billing Schedule of Values. Contractor shall not be permitted to draw from these line item values without prior authorization, and will not be reimbursed without satisfactory documentation of expenditures. The County's Representative reserves the right to direct the Contractor to complete other Work outside of the Work specifically included under this Scope of Work. Remainder of the allowance shall be returned to County at the completion of Work

A. In addition to the base contract requirements, Contractor shall include the cost of the

work the following allowance work:

- 1) Allow \$20,000 for hazardous materials removal if any, as specified in the Hazardous Materials inspection report provided to the contractor or discovered materials during construction. Owner to contract with third party inspector to verify removal.

Contractor will include in its schedule of values a discrete line item of cost for each allowance with their monthly billing.

B. Cost Not To Be Reimbursed Under Allowance Work:

- 1) Base contract work.
- 2) Cost including, but not limited to, the correction of defective or nonconforming Work, disposal of materials and equipment wrongly supplied, or making good any damages to property or third party claims, due to the fault of Contractor, any Contractor under their direction, or anyone directly or indirectly employed by any of them. Contractor shall be liable for these costs.

Accounting Records: Prior to monthly invoicing of the work, Contractor shall meet with the County's Representative and reconcile the cost of the Work for inclusion into his monthly invoice. Contractor shall develop a log to track the hours used and materials purchased. This log along with invoices and time sheets approved by the County's Representative will be attached to the monthly progress billing. Contractor's Schedule of Values shall carry the Allowance Work as a separate and discrete line item. At the end of the project, any portion of allowance that is unused shall be credited back to the County at the full amount that is unused.

21. Prevailing Wages – Payment and Posting Requirements. The Department of Industrial Relations has determined the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which this work is to be performed for each craft or type of worker needed to execute the contract. It shall be mandatory upon the General Contractor, and upon any subcontractor under him, to pay not less than said specified rates to all workers employed by them in the execution of the contract. The General Contractor is also required to post a copy of the determination of the director of the prevailing rate of per diem wages at the job site (Cal Lab Code 1773.2).

22. Meetings. Contractor will be responsible for attending brief weekly meetings during this contract. The meetings shall be attended by the Contractor's project superintendent and/or project manager and will be located on-site at the project. The Contractor shall bear the administrative costs of their attendance.

23. Submittal Schedule. Upon receipt of the Intent to Award, the Contractor will begin to organize a submittal schedule which will be due to the Architect and County Project Manager no later than the County's projected Notice to Proceed date as listed in the County's overall Project Schedule.

24. Permits. All required permits to start this project will be obtained by the Contractor, but paid for directly by the County.

25. Time Extension. No extension of time will be allowed for a schedule delay caused by the Contractor's failure or neglect to construct and maintain all weather approaches. No extension of time will be allowed for "normal" weather conditions for the particular time of the year.

26. Codes and Standards. This project shall conform to applicable requirements prescribed by governmental bodies having jurisdiction and in accordance with those listed on the drawings produced by Wald Ruhnke and Dost Architects for this project. Should any part of the design fail to comply with such requirements, the discrepancy shall be called to the attention of the Architect and County Project Manager as quickly as possible. Should there be any direct conflict between the drawings and/or specifications and the above rules and regulations, the rules and regulations shall take precedence. However, when the indicated materials, workmanship, arrangement, or construction is of a superior quality or capacity to that required by the listed rules and regulations, the drawings and/or specifications shall take precedence. The rulings and interpretations of enforcing agencies shall be considered as part of the regulations.

27. Special Healthcare Requirements. The Contractor will be required to comply with the following prior to commencing work:

1. Infection Control Protocol and Practices for Healthcare Settings. The Contractor shall provide a plan for Infection Control Measures.
2. Contractor shall provide a current Tuberculosis Skin Test (PPD Test) for all his employees and all subcontractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.
3. Contractor shall provide a current Drug Screening Test for all his employees and all subcontractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.
4. Contractor shall provide a pre-construction risk assessment to determine if Interim Life Safety Measures (ILSM) must be implemented to temporarily compensate for hazards posed by construction activities, in or adjacent to construction areas. The ILSM apply to all personnel, and will be implemented upon project development and continuously enforced through project completion.

PROJECT MANUAL

**Tenant Improvements for:
MODULAR 5, AND BUILDING 840 & 870
At
Natividad Medical Center
1441 Constitution Blvd.
Salinas, California 93906**

ISSUE DATE: July 1, 2013

WALD, RUHNKE & DOST ARCHITECTS, LLP

2340 Garden Road, Suite 100
Monterey, California 93940
p. 831.649.4642
f. 831.649.3530

**PROJECT NO. - 9600-50
BID SET - NMC-1009**

SECTION 000110

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**SECTION 024119
SELECTIVE DEMOLITION**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected portions of building or structure.
 - 2. Demolition and removal of selected site elements.
 - 3. Salvage of existing items to be reused or recycled.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.

1.5 SUBMITTALS

- A. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Use of elevator and stairs.
 - 5. Locations of proposed dust- and noise-control temporary partitions and means of egress.
 - 6. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.
 - 7. Means of protection for items to remain and items in path of waste removal from building.
- B. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.

- C. Predemolition: Photographs. Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by selective demolition operations.

1.6 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.

1.7 PROJECT CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
 - 1. Comply with requirements specified in Division 01 Section "Summary."
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- E. Storage or sale of removed items or materials on-site is not permitted.
- F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.8 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.

- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.
 - 1. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.
- F. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
 - 1. Comply with requirements for existing services/systems interruptions
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material.
 - c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 - e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
 - f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
 - g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material.

3.3 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
 - 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Division 01 Section "Temporary Facilities and Controls."
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize disturbance of adjacent surfaces. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain adequate ventilation when using cutting torches.
 - 6. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 7. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.

8. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

B. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete: Demolish in small sections. Cut concrete to a depth of at least 3/4 inch at junctures with construction to remain, using power-driven saw. Dislodge concrete from reinforcement at perimeter of areas being demolished, cut reinforcement, and then remove remainder of concrete indicated for selective demolition. Neatly trim openings to dimensions indicated.

B. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, then break up and remove.

C. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, then remove masonry between saw cuts.

D. Roofing: Remove no more existing roofing than can be covered in one day by new roofing and so that building interior remains watertight and weathertight.

1. Remove existing roof membrane, flashings, copings, and roof accessories.
2. Remove existing roofing system down to substrate.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

A. General: remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.7 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

**SECTION 024120
CUTTING AND PATCHING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
 - 1. Division 02 Section "Selective Demolition" for demolition of selected portions of the building.
 - 2. Divisions 02 through 33 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 DEFINITIONS

- A. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 5 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
 - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
 - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
 - 3. Products: List products to be used and firms or entities that will perform the Work.
 - 4. Dates: Indicate when cutting and patching will be performed.
 - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
 - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.
 - 7. Architect's Approval: Obtain approval of cutting and patching proposal before cutting and patching. Approval does not waive right to later require removal and replacement of unsatisfactory work.

- B. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- C. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- D. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
 - 1. Water, moisture, or vapor barriers.
 - 2. Membranes and flashings.
 - 3. Equipment supports.
 - 4. Piping, conduits, and equipment.
- E. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
 - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
 - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
 - 1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
 - 1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Concrete: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
 - 4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
 - 5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
 - 6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
 - 1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
 - 2. Exposed Finishes: 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.
 - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
 - b. Restore damaged pipe covering to its original condition.

3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
 - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.
 4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
 5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 017329

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Steel pipe and tube railings.
 - 2. Stainless-steel pipe and tube railings.

1.3 COORDINATION

- A. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by any means that do not satisfy structural performance requirements.

1.4 SUBMITTALS

- A. Product Data: For the following:
 - 1. Manufacturer's product lines of mechanically connected railings.
 - 2. Grout and anchoring cement products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: For each type of exposed finish required.
 - 1. Sections of each distinctly different linear railing member, including top rails and posts.
- D. Qualification Data: For testing agency.
- E. Welding certificates.
- F. Mill Certificates: Signed by manufacturers of stainless-steel products certifying that products furnished comply with requirements.

- G. Product Test Reports: For pipe and tube railings, for tests performed by a qualified testing agency, according to ASTM E 894 and ASTM E 935.
- H. Evaluation Reports: For post-installed anchors , from ICC-ES.

1.5 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code - Steel."
 - 2. AWS D1.6/D1.6M, "Structural Welding Code - Stainless Steel."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

1.7 FIELD CONDITIONS

- A. Field Measurements: Verify actual locations of walls and other construction contiguous with metal fabrications by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Steel Pipe and Tube Railings:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Wagner, R & B, Inc.
 - b. Other approved equal.
- B. Stainless-Steel Pipe and Tube Railings:
 - 1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - a. Paragon Aquatics.
 - b. Approved equal.
- C. Source Limitations: Obtain each type of railing from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Railings, including attachment to building construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails and Top Rails of Guards:
 - a. Uniform load of 50 lbf/ ft. (0.73 kN/m) applied in any direction.
 - b. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.
 - 2. Infill of Guards:
 - a. Concentrated load of 50 lbf (0.22 kN) applied horizontally on an area of 1 sq. ft. (0.093 sq. m).
 - b. Infill load and other loads need not be assumed to act concurrently.
- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C, material surfaces).

2.3 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.4 GALVANIZED STEEL

- A. Tubing: ASTM A 500 (cold formed) or ASTM A 513, Type 5 (mandrel drawn).
- B. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Standard Weight (Schedule 40), unless another grade and weight are required by structural loads.
 - 1. Provide galvanized finish for exterior installations and where indicated.
- C. Plates, Shapes, and Bars: ASTM A 36/A 36M.

2.5 STAINLESS STEEL

- A. Tubing: ASTM A 554, minimum .065 wall thickness.
- B. Pipe: ASTM A 312/A 312M, minimum .065 wall thickness.
- C. Finish: T304 stainless steel polished and buffed to a 320 grit finish.

2.6 FASTENERS

- A. General: Provide the following:
 - 1. Hot-Dip Galvanized Railings: Type 304 stainless-steel or hot-dip zinc-coated steel fasteners complying with ASTM A 153/A 153M or ASTM F 2329 for zinc coating.
 - 2. Stainless-Steel Railings: Stainless-steel fasteners.
 - 3. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.
- B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated.
- C. Fasteners for Interconnecting Railing Components:
 - 1. Provide concealed fasteners for interconnecting railing components and for attaching them to other work, unless exposed fasteners are unavoidable or are the standard fastening method for railings indicated.
- D. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors capable of sustaining, without failure, a load equal to 6 times the load imposed when installed in unit masonry and 4 times the load imposed when installed in concrete, as determined by testing according to ASTM E 488/E 488M, conducted by a qualified independent testing agency.
 - 1. Material for Exterior Locations and Where Stainless Steel Is Indicated: Stainless-steel bolts, ASTM F 593 (ASTM F 738M), and nuts, ASTM F 594 (ASTM F 836M).

2.7 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
 - 1. For railings, provide type and alloy as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.
- B. Etching Cleaner for Galvanized Metal: Complying with MPI#25.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- D. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
- E. Anchoring Cement: Factory-packaged, nonshrink, nonstaining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound.
 - 1. Water-Resistant Product: Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

2.8 FABRICATION

- A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage.
- B. Shop assemble railings to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch (1 mm) unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form work true to line and level with accurate angles and surfaces.
- E. Fabricate connections that are exposed to weather in a manner that excludes water. Provide weep holes where water may accumulate.
- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- G. Connections: Fabricate railings with welded connections unless otherwise indicated.
- H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including at fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - 2. Obtain fusion without undercut or overlap.
 - 3. Remove flux immediately.
 - 4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- I. Form Changes in Direction as Follows:
 - 1. As detailed or by bending.
- J. For changes in direction made by bending, use jigs to produce uniform curvature for each repetitive configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- K. Close exposed ends of railing members with prefabricated end fittings.
- L. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch (6 mm) or less.
- M. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.
 - 1. At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.

- N. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.
- O. For railing posts set in concrete, provide stainless-steel sleeves not less than 6 inches (150 mm) long with inside dimensions not less than 1/2 inch (13 mm) greater than outside dimensions of post, with metal plate forming bottom closure.
- P. Toe Boards: Where indicated, provide toe boards at railings around openings and at edge of open-sided floors and platforms. Fabricate to dimensions and details indicated.

2.9 GALVANIZED STEEL FINISHES

- A. Galvanized Railings:
 - 1. Hot-dip galvanize steel railings, including hardware, after fabrication.
 - 2. Comply with ASTM A 123/A 123M for hot-dip galvanized railings.
 - 3. Comply with ASTM A 153/A 153M for hot-dip galvanized hardware.
 - 4. Do not quench or apply post galvanizing treatments that might interfere with paint adhesion.
 - 5. Fill vent and drain holes that are exposed in the finished Work, unless indicated to remain as weep holes, by plugging with zinc solder and filing off smooth.
- B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.

2.10 STAINLESS-STEEL FINISHES

- A. Remove tool and die marks and stretch lines, or blend into finish.
- B. Grind and polish surfaces to produce uniform, directionally textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.
- C. 320-Grit Polished Finish: Oil-ground, uniform, fine, directionally textured finish.
- D. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine plaster and gypsum board assemblies, where reinforced to receive anchors, to verify that locations of concealed reinforcements are clearly marked for Installer. Locate reinforcements and mark locations if not already done.

3.2 INSTALLATION, GENERAL

- A. Fit exposed connections together to form tight, hairline joints.
- B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
 - 1. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 - 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet (2 mm in 1 m).
 - 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet (6 mm in 3.5 m).
- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
- D. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- E. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.3 RAILING CONNECTIONS

- A. Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.
- B. Expansion Joints: Install expansion joints at locations required to accommodate thermal movement. Provide slip-joint internal sleeve extending 2 inches (50 mm) beyond joint on either side, fasten internal sleeve securely to one side, and locate joint within 6 inches (150 mm) of post.

3.4 ANCHORING POSTS

- A. Use metal sleeves preset and anchored into concrete for installing posts. After posts are inserted into sleeves, fill annular space between post and sleeve with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.
- B. Form or core-drill holes not less than 5 inches (125 mm) deep and 3/4 inch (20 mm) larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout or anchoring cement, mixed and placed to comply with anchoring material manufacturer's written instructions.
- C. Cover anchorage joint with flange of same metal as post.
- D. Leave anchorage joint exposed with 1/8-inch (3-mm) buildup, sloped away from post.

- E. Anchor posts to metal surfaces with oval flanges, angle type, or floor type as required by conditions, connected to posts and to metal supporting members as follows:
 - 1. For stainless-steel pipe railings, weld flanges to post and bolt to supporting surfaces.
 - 2. For steel pipe railings, weld flanges to post and bolt to metal supporting surfaces.
- F. Install removable railing sections, where indicated, in slip-fit metal sockets cast in concrete.

3.5 ADJUSTING AND CLEANING

- A. Clean stainless steel by washing thoroughly with clean water and soap and rinsing with clean water.
- B. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas, and repair galvanizing to comply with ASTM A 780/A 780M.

3.6 PROTECTION

- A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

END OF SECTION 055213

**SECTION 061000
ROUGH CARPENTRY**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. Comply with 2010 California Building Code 2303, 2304 and NDS 2005.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Framing with dimension lumber.
 - 2. Wood blocking, cants, and nailers.
 - 3. Wood furring and grounds.
 - 4. Plywood backing panels.

1.3 DEFINITIONS

- A. Rough Carpentry: Carpentry work not specified in other Sections and not exposed, unless otherwise indicated.

1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
- B. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project:
 - 1. Preservation-treated wood.
 - 2. Powder-actuated fasteners.
 - 3. Expansion anchors.
 - 4. Metal framing anchors.
 - 5. Building wrap.

1.5 QUALITY ASSURANCE

- A. Source Limitations for Engineered Wood Products: Obtain each type of engineered wood product through one source from a single manufacturer.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

- A. Lumber: DOC PS 20 and applicable rules of lumber grading agencies certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.
 - 1. Factory mark each piece of lumber with grade stamp of grading agency.
 - 2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
 - 3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
 - 4. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Wood Structural Panels:
 - 1. Plywood: DOC PS 1
 - 2. Thickness: As needed to comply with requirements specified but not less than thickness indicated.
 - 3. Factory mark panels according to indicated standard.

2.2 DIMENSION LUMBER FRAMING

- A. General: Provide dimension lumber of grades indicated according to the American Lumber Standards Committee National Grading rule provisions of the grading agency indicated.
- B. Species and Grade: Douglas fir-larch, Douglas, No. 1 Grade unless noted otherwise: WCLIB.
- C. Additional Restrictions: Free of heart centers.
- D. Maximum Moisture Content: 19 percent at the time of delivery to the job site and 15 percent where noted as kiln dried.

2.3 MISCELLANEOUS LUMBER

- A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:
 - 1. Blocking.
 - 2. Nailers.
 - 3. Cants.
 - 4. Furring.
 - 5. Grounds.
- B. For items of dimension lumber size, provide Douglas Fir No. 1 grade lumber with 19 percent maximum moisture content.

2.4 SHEATHING

- A. Plywood Sheathing: 5-Ply Exposure 1, Structural I sheathing with exterior glue unless otherwise noted. See Drawings.

2.5 PLYWOOD BACKING PANELS

- A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.

2.6 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
 - 1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated lumber, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153 and ASTM B695 (CBC 2304.9.1.1).
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.
- E. Lag Bolts: ASME B18.2.1.
- F. Bolts: Steel bolts complying with ASTM A 307, Grade A ; with ASTM A 563 hex nuts and, where indicated, flat washers.
- G. Expansion Anchors: Anchor bolt and sleeve assembly of material indicated below with capability to sustain, without failure, a load equal to 6 times the load imposed when installed in unit masonry assemblies and equal to 4 times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 - 1. Material: Carbon-steel components, zinc plated to comply with ASTM B 633, Class Fe/Zn 5.

2.7 METAL FRAMING ANCHORS

- A. General: Provide framing anchors made from metal indicated, of structural capacity, type, and size indicated, and as follows:
 - 1. Research/Evaluation Reports: Provide products acceptable to authorities having jurisdiction and for which model code research/evaluation reports exist that show compliance of metal framing anchors, for application indicated, with building code in effect for Project.
 - 2. Allowable Design Loads: Provide products with allowable design loads of 80 % of ICBO/ICC values.
- B. Galvanized Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653, G60 (Z180) coating designation.
- C. Types and Sizes: See Drawings.

2.8 MISCELLANEOUS MATERIALS

- A. Building Paper: Asphalt-saturated organic felt complying with ASTM D 226, Type I (No. 15 asphalt felt), unperforated.
- B. Building Wrap: Air-retarder sheeting made from polyolefins; cross-laminated films and complying with ASTM E 1677, Type I.
 - 1. Product: Tyvek "Commercial Wrap" or equal.
 - 2. Flame-Spread Index: 25 or less per ASTM E 84.
- C. Building Wrap Tape: Pressure-sensitive plastic tape recommended by building wrap manufacturer for sealing joints and penetrations in building wrap.
- D. Additional Materials: See Drawings.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.
- B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.
- C. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.
- D. Do not splice structural members between supports, unless otherwise indicated.
- E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
- G. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 23A-II-B-1, "Nailing Schedule," and Table 23A-II-B-2, "Wood Structural Panel Roof Sheathing Nailing Schedule," in California Building Code, 2001 Edition (Title 24).
- H. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads, unless otherwise indicated.
- I. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.
 - 1. Use finishing nails, unless otherwise indicated.

3.2 WOOD GROUND, BLOCKING, AND NAILER INSTALLATION

- A. Install where indicated and where required for attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.
- B. Attach items to substrates to support applied loading. Recess bolts and nuts flush with surfaces, unless otherwise indicated.
- C. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

3.3 WOOD FURRING INSTALLATION

- A. Install level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.

3.4 WALL AND PARTITION FRAMING INSTALLATION

- A. General: Provide single bottom plate and double top plates using members of 2-inch nominal thickness whose widths equal that of studs, except single top plate may be used for non-load-bearing partitions. Fasten plates to supporting construction, unless otherwise indicated.
- B. Construct corners and intersections with three or more studs.
- C. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs. Support headers on jamb studs.

3.5 CEILING JOIST AND RAFTER FRAMING INSTALLATION

- A. Ceiling Joists: Install ceiling joists with crown edge up and complying with requirements specified above for floor joists. Face nail to ends of parallel rafters.
- B. Rafters: Notch to fit exterior wall plates. Double rafters to form headers and trimmers at openings in roof framing, if any, and support with metal hangers.
- C. Provide special framing as indicated for eaves, overhangs, dormers, and similar conditions, if any.

3.6 PROTECTION

- A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.
- B. Protect rough carpentry from weather. If, despite protection, rough carpentry becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

**SECTION 061600
SHEATHING**

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Roof sheathing.
 - 2. Building paper.
 - 3. Building wrap.
- B. Related Sections include the following:
 - 1. Division 06 Section "Rough Carpentry" for plywood backing panels.

1.3 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
- B. Research/Evaluation Reports: For the following, showing compliance with building code in effect for Project: C.B.C. 2010 & NDS 2005.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Stack plywood and other panels flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PANEL PRODUCTS, GENERAL

- A. Plywood: Either DOC PS 1 or DOC PS 2, unless otherwise indicated.
- B. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
- C. Factory mark panels to indicate compliance with applicable standard.

2.2 ROOF SHEATHING

- A. Plywood Roof Sheathing: Exposure 1, Structural I sheathing.
 - 1. Span Rating: Not less than 48/24.
 - 2. Nominal Thickness: As indicated on drawings.

2.3 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this Article for material and manufacture.
 - 1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M & ASTM B695.
- B. Nails, Brads, and Staples: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272.
- D. Wood Screws: ASME B18.6.1.

2.4 WEATHER-RESISTANT SHEATHING PAPER

- A. Building Paper: UBC Standard 14-1, Grade D (water-vapor-permeable, kraft building paper), except that water resistance shall be not less than 1 hour and water-vapor transmission shall be not less than 75 g/sq. m x 24 h.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - 2. Products: Subject to compliance with requirements, provide one of the following:
 - a. Dow Chemical Company (The); Styrofoam Weathermate Plus Brand Housewrap.
 - b. DuPont (E. I. du Pont de Nemours and Company); Tyvek CommercialWrap.
 - c. Ludlow Coated Products; Barricade Building Wrap.
 - d. Raven Industries Inc.; Rufco-Wrap.
 - e. Reemay, Inc.; Typar HouseWrap.
 - 3. Water-Vapor Permeance: Not less than 152 g through 1 sq. m of surface in 24 hours per ASTM E 96, Desiccant Method (Procedure A).
 - 4. Allowable UV Exposure Time: Not less than three months.
- B. Building-Wrap Tape: Pressure-sensitive plastic tape recommended by building-wrap manufacturer for sealing joints and penetrations in building wrap.

2.5 MISCELLANEOUS MATERIALS

- A. Adhesives for Field Gluing Panels to Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.
- B. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than 0.030 inch (0.8 mm).

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Carlisle Coatings & Waterproofing; CCW-705-TWF Thru-Wall Flashing.
 - b. Grace Construction Products, a unit of W. R. Grace & Co. - Conn.; Vycor Plus Self-Adhered Flashing Vycor V40 Weather Barrier Strips.
 - c. MFM Building Products Corp.; Window Wrap.
 - d. Polyguard Products, Inc.; Polyguard 300.
- C. Primer for Flexible Flashing: Product recommended by manufacturer of flexible flashing for substrate.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction, unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
 1. NES NER-272 for power-driven fasteners.
 2. Table 23A-II-B-1, "Nailing Schedule," and Table 23A-II-B-2, "Wood Structural Panel Roof Sheathing Nailing Schedule," in "California Building Code, 2010 Edition, Title 24."
- D. Use common wire nails, unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate wall and roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

3.2 WOOD STRUCTURAL PANEL INSTALLATION

- A. General: Comply with applicable recommendations in APA Form No. E30S, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.
- B. Fastening Methods: Fasten panels as indicated below:
 1. Wall and Roof Sheathing:
 - a. Nail to wood framing.
 - b. Space panels 1/8 inch (3 mm) apart at edges and ends.

3.3 WEATHER-RESISTANT SHEATHING-PAPER INSTALLATION

- A. General: Cover sheathing with weather-resistant sheathing paper as follows:
 - 1. Cut back barrier 1/2 inch (13 mm) on each side of the break in supporting members at expansion- or control-joint locations.
 - 2. Apply barrier to cover vertical flashing with a minimum 4-inch (100-mm) overlap, unless otherwise indicated.
- B. Building Paper: Apply horizontally with a 2-inch (50-mm) overlap and a 6-inch (150-mm) end lap; fasten to sheathing with galvanized staples or roofing nails.

3.4 FLEXIBLE FLASHING INSTALLATION

- A. Apply flexible flashing where indicated to comply with manufacturers written instructions.
 - 1. Prime substrates as recommended by flashing manufacturer.
 - 2. Lap seams and junctures with other materials at least 4 inches (100 mm), except that at flashing flanges of other construction, laps need not exceed flange width.
 - 3. Lap flashing over weather-resistant building paper at bottom and sides of openings.
 - 4. Lap weather-resistant building paper over flashing at heads of openings.
 - 5. After flashing has been applied, roll surfaces with a hard rubber or metal roller to ensure that flashing is completely adhered to substrates.

END OF SECTION 061600

SECTION 076200
SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Manufactured Products:

- a. Manufactured reglets.

2. Formed Products:

- a. Formed roof drainage sheet metal fabrications.
- b. Formed steep-slope roof sheet metal fabrications.
- c. Formed wall sheet metal fabrications.

B. Related Sections:

- 1. Division 06 Section "Rough Carpentry" for wood nailers, curbs, and blocking.
- 2. Division 07 Section "Asphalt Shingles" for installing sheet metal flashing and trim integral with roofing.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Sheet metal flashing and trim assemblies as indicated shall withstand wind loads, structural movement, thermally induced movement, and exposure to weather without failure due to defective manufacture, fabrication, installation, or other defects in construction. Completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each manufactured product and accessory.
- B. Shop Drawings: Show fabrication and installation layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Distinguish between shop- and field-assembled work. Include the following:

1. Identification of material, thickness, weight, and finish for each item and location in Project.
2. Details for forming sheet metal flashing and trim, including profiles, shapes, seams, and dimensions.
3. Details for joining, supporting, and securing sheet metal flashing and trim, including layout of fasteners, cleats, clips, and other attachments. Include pattern of seams.
4. Details of termination points and assemblies, including fixed points.
5. Details of expansion joints and expansion-joint covers, including showing direction of expansion and contraction.
6. Details of edge conditions, including eaves, ridges, valleys, rakes, crickets, and counterflashings as applicable.
7. Details of special conditions.
8. Details of connections to adjoining work.
9. Detail formed flashing and trim at a scale of not less than 1-1/2 inches per 12 inches (1:10).

C. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below:

1. Sheet Metal Flashing: 12 inches (300 mm) long by actual width of unit, including finished seam and in required profile. Include fasteners, cleats, clips, closures, and other attachments.
2. Trim, Metal Closures, Expansion Joints, Joint Intersections, and Miscellaneous Fabrications: 12 inches (300 mm) long and in required profile. Include fasteners and other exposed accessories.
3. Accessories and Miscellaneous Materials: Full-size Sample.

D. Qualification Data: For qualified fabricator.

E. Maintenance Data: For sheet metal flashing, trim, and accessories to include in maintenance manuals.

F. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate sheet metal flashing and trim similar to that required for this Project and whose products have a record of successful in-service performance.
- B. Sheet Metal Flashing and Trim Standard: Comply with SMACNA "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Do not store sheet metal flashing and trim materials in contact with other materials that might cause staining, denting, or other surface damage. Store sheet metal flashing and trim materials away from uncured concrete and masonry.
- B. Protect strippable protective covering on sheet metal flashing and trim from exposure to sunlight and high humidity, except to the extent necessary for the period of sheet metal flashing and trim installation.

PART 2 - PRODUCTS

2.1 SHEET METALS

- A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.
- B. Metallic-Coated Steel Sheet: Provide zinc-coated (galvanized) steel sheet according to ASTM A 653/A 653M.
 - 1. Non-Patinated Exposed Finish: Mill.

2.2 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal or manufactured item unless otherwise indicated.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads and recommended by manufacturer of primary sheet metal or manufactured item.
 - 1. General: Blind fasteners or self-drilling screws, gasketed, with hex-washer head.
 - a. Exposed Fasteners: Heads matching color of sheet metal using plastic caps or factory-applied coating.
 - b. Blind Fasteners: High-strength aluminum or stainless-steel rivets suitable for metal being fastened.
 - c. Spikes and Ferrules: Same material as gutter; with spike with ferrule matching internal gutter width.
 - 2. Fasteners for Zinc-Coated (Galvanized) Steel Sheet: Hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329 or Series 300 stainless steel.
- C. Solder:
 - 1. For Zinc-Coated (Galvanized) Steel: ASTM B 32, Grade Sn50, 50 percent tin and 50 percent lead or Grade Sn60, 60 percent tin and 40 percent lead.
- D. Sealant Tape: Pressure-sensitive, 100 percent solids, gray polyisobutylene compound sealant tape with release-paper backing. Provide permanently elastic, non-sag, nontoxic, non-staining tape 1/2 inch (13 mm) wide and 1/8 inch (3 mm) thick.
- E. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- F. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant; polyisobutylene plasticized; heavy bodied for hooked-type expansion joints with limited movement.
- G. Bituminous Coating: Cold-applied asphalt emulsion complying with ASTM D 1187.

- H. Asphalt Roofing Cement: ASTM D 4586, asbestos free, of consistency required for application.

2.3 MANUFACTURED SHEET METAL FLASHING AND TRIM

- A. Reglets: Units of type, material, and profile indicated, formed to provide secure interlocking of separate reglet and counterflashing pieces, and compatible with flashing indicated with interlocking counterflashing on exterior face, of same metal as reglet.
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Cheney Flashing Company.
 - b. Fry Reglet Corporation.
 - c. Heckmann Building Products Inc.
 - d. Hickman, W. P. Company.
 - e. Hohmann & Barnard, Inc.; STF Sawtooth Flashing.
 - f. National Sheet Metal Systems, Inc.
 - 2. Material: Galvanized steel, 0.022 inch (0.56 mm) thick].
 - 3. Accessories:
 - a. Counterflashing Wind-Restraint Clips: Provide clips to be installed before counterflashing to prevent wind uplift of counterflashing lower edge.
 - 4. Finish: Mill.

2.4 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.
 - 1. Fabricate sheet metal flashing and trim in thickness or weight needed to comply with performance requirements, but not less than that specified for each application and metal.
 - 2. Obtain field measurements for accurate fit before shop fabrication.
 - 3. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
 - 4. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.
- B. Fabrication Tolerances: Fabricate sheet metal flashing and trim that is capable of installation to a tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.
- C. Sealed Joints: Form non-expansion but movable joints in metal to accommodate elastomeric sealant.

- D. Expansion Provisions: Where lapped expansion provisions cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with butyl sealant concealed within joints.
- E. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, non-corrosive metal.
- F. Fabricate cleats and attachment devices of sizes as recommended by SMACNA "Architectural Sheet Metal Manual" for application, but not less than thickness of metal being secured.
- G. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- H. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints where necessary for strength.
- I. Do not use graphite pencils to mark metal surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, to verify actual locations, dimensions and other conditions affecting performance of the Work.
 - 1. Verify compliance with requirements for installation tolerances of substrates.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and securely anchored.
- B. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
 - 1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.
 - 2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
 - 3. Space cleats not more than 12 inches (300 mm) apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.

4. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
 5. Install sealant tape where indicated.
 6. Torch cutting of sheet metal flashing and trim is not permitted.
 7. Do not use graphite pencils to mark metal surfaces.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by SMACNA.
1. Coat back side of uncoated aluminum sheet metal flashing and trim with bituminous coating where flashing and trim will contact wood, ferrous metal, or cementitious construction.
 2. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or install a course of polyethylene sheet.
- C. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet (3 m) with no joints allowed within 24 inches (600 mm) of corner or intersection. Where lapped expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch (25 mm) deep, filled with sealant concealed within joints.
- D. Fastener Sizes: Use fasteners of sizes that will penetrate wood sheathing not less than 1-1/4 inches (32 mm) for nails and not less than 3/4 inch (19 mm) for wood screws.
- E. Seal joints as shown and as required for watertight construction.
1. Where sealant-filled joints are used, embed hooked flanges of joint members not less than 1 inch (25 mm) into sealant. Form joints to completely conceal sealant. When ambient temperature at time of installation is moderate, between 40 and 70 deg F (4 and 21 deg C), set joint members for 50 percent movement each way. Adjust setting proportionately for installation at higher ambient temperatures. Do not install sealant-type joints at temperatures below 40 deg F (4 deg C).
 2. Prepare joints and apply sealants to comply with requirements in Division 07 Section "Joint Sealants."
- F. Soldered Joints: Clean surfaces to be soldered, removing oils and foreign matter. Pre-tin edges of sheets to be soldered to a width of 1-1/2 inches (38 mm), except reduce pre-tinning where pre-tinned surface would show in completed Work.
1. Do not solder metallic-coated steel and aluminum sheet.
 2. Do not use torches for soldering. Heat surfaces to receive solder and flow solder into joint. Fill joint completely. Completely remove flux and spatter from exposed surfaces.
- G. Rivets: Rivet joints in uncoated aluminum where indicated and where necessary for strength.

3.3 ROOF FLASHING INSTALLATION

- A. General: Install sheet metal flashing and trim to comply with performance requirements, sheet metal manufacturer's written installation instructions, and SMACNA "Architectural Sheet Metal Manual." Provide concealed fasteners where possible, set units true to line, and level as indicated. Install work with laps, joints, and seams that will be permanently watertight and weather resistant.
- B. Roof Edge Flashing: Anchor to resist uplift and outward forces according to recommendations in SMACNA "Architectural Sheet Metal Manual" and as indicated. Interlock bottom edge of roof edge flashing with continuous cleat anchored to substrate at staggered 3-inch (75-mm) centers.
- C. Pipe or Post Counterflashing: Install counterflashing umbrella with close-fitting collar with top edge flared for elastomeric sealant, extending a minimum of 4 inches (100 mm) over base flashing. Install stainless-steel draw band and tighten.
- D. Counterflashing: Coordinate installation of counterflashing with installation of base flashing. Insert counterflashing in reglets or receivers and fit tightly to base flashing. Extend counterflashing 4 inches (100 mm) over base flashing. Lap counterflashing joints a minimum of 4 inches (100 mm) and bed with sealant. Secure in a waterproof manner by means of interlocking folded seam or blind rivets and sealant.
- E. Roof-Penetration Flashing: Coordinate installation of roof-penetration flashing with installation of roofing and other items penetrating roof. Seal with elastomeric sealant and clamp flashing to pipes that penetrate roof.

3.4 WALL FLASHING INSTALLATION

- A. General: Install sheet metal wall flashing to intercept and exclude penetrating moisture according to SMACNA recommendations and as indicated. Coordinate installation of wall flashing with installation of wall-opening components such as windows, doors, and louvers.
- B. Opening Flashings in Frame Construction: Install continuous head, sill, and similar flashings to extend 4 inches (100 mm) beyond wall openings.

3.5 ERECTION TOLERANCES

- A. Installation Tolerances: Shim and align sheet metal flashing and trim within installed tolerance of 1/4 inch in 20 feet (6 mm in 6 m) on slope and location lines as indicated and within 1/8-inch (3-mm) offset of adjoining faces and of alignment of matching profiles.

3.6 CLEANING AND PROTECTION

- A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.
- B. Clean and neutralize flux materials. Clean off excess solder.
- C. Clean off excess sealants.

- D. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions. On completion of installation, remove unused materials and clean finished surfaces. Maintain in a clean condition during construction.
- E. Replace sheet metal flashing and trim that have been damaged or that have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 076200

**SECTION 081743
INTERIOR DOORS**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fiberglass reinforced polyester (FRP) flush doors with aluminum retrofit insert frames.

1.2 RELATED SECTIONS

- A. Section 087100 "Door Hardware".

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide door assemblies that have been designed and fabricated to comply with specified performance requirements, as demonstrated by testing manufacturer's corresponding standard systems.
- B. Air Infiltration: For a single door 3'-0" x 7'-0", test specimen shall be tested in accordance with ASTM E 283 at pressure differential of 6.24 psf. Door shall not exceed 0.90 cfm per linear foot of perimeter crack.
- C. Water Resistance: For a single door 3'-0" x 7'-0", test specimen shall be tested in accordance with ASTM E 331 at pressure differential of 7.50 psf. Door shall not have water leakage.
- D. Indoor air quality testing per ASTM D 6670-01: GREENGUARD Environmental Institute Certified including GREENGUARD for Children and Schools Certification.
- E. Hurricane Test Standards, Single Door with Single-Point Latching:
 - 1. Uniform Static Load, ASTM E 330: Plus or minus 75 pounds per square foot.
 - 2. Forced Entry Test, 300 Pound Load Applied, SFBC 3603.2 (b)(5): Passed.
 - 3. Cyclic Load Test, SFBC PA 203: Plus or minus 53 pounds per square foot.
 - 4. Large Missile Impact Test, SFBC PA 201: Passed.
- F. Swinging Door Cycle Test, Doors and Frames, ANSI A250.4: Minimum of 25,000,000 cycles.
- G. Cycle Slam Test Method, NWWDA T.M. 7-90: Minimum 5,000,000 Cycles.
- H. Swinging Security Door Assembly, Doors and Frames, ASTM F 476: Grade 40.
- I. Salt Spray, Exterior Doors and Frames, ASTM B 117: Minimum of 500 hours.
- J. Sound Transmission, Exterior Doors, STC, ASTM E 90: Minimum of 25.
- K. Thermal Transmission, Exterior Doors, U-Value, AAMA 1503-98: Maximum of 0.29 BTU/hr x sf x degrees F. Minimum of 55 CRF value.
- L. Surface Burning Characteristics, Class C Faces of FRP Exterior Panels, ASTM E 84:
 - 1. Flame Spread: Maximum of 200.

- 2. Smoke Developed: Maximum of 450.
- M. Surface Burning Characteristics, Class A Faces of FRP Interior Panels, ASTM E 84:
 - 1. Flame Spread: Maximum of 25.
 - 2. Smoke Developed: Maximum of 450.
- N. Impact Strength, FRP Doors and Panels, Nominal Value, ASTM D 256: 15.0 foot-pounds per inch of notch.
- O. Tensile Strength, FRP Doors and Panels, Nominal Value, ASTM D 638: 14,000 psi.
- P. Flexural Strength, FRP Doors and Panels, Nominal Value, ASTM D 790: 21,000 psi.
- Q. Water Absorption, FRP Doors and Panels, Nominal Value, ASTM D 570: 0.20 percent after 24 hours.
- O. Indentation Hardness, FRP Doors and Panels, Nominal Value, ASTM D 2583: 55.
- P. Gardner Impact Strength, FRP Doors and Panels, Nominal Value, ASTM D 5420: 120 in-lb.
- T. Abrasion Resistance, Face Sheet, Taber Abrasion Test, 25 Cycles at 1,000 Gram Weight with CS-17 Wheel: Maximum of 0.029 average weight loss percentage.
- U. Stain Resistance, ASTM D 1308: Face sheet unaffected after exposure to red cabbage, tea, and tomato acid. Stain removed easily with mild abrasive or FRP cleaner when exposed to crayon and crankcase oil.
- V. Chemical Resistance, ASTM D 543. Excellent rating.
 - 1. Acetic acid, Concentrated.
 - 2. Ammonium Hydroxide, Concentrated.
 - 3. Citric Acid, 10%.
 - 4. Formaldehyde.
 - 5. Hydrochloric Acid, 10%
 - 6. Sodium hypochlorite, 4 to 6 percent solution.

1.4 SUBMITTALS

- A. Comply with Section 013300 "Submittal Procedures".
- B. Product Data: Submit manufacturer's product data, including description of materials, components, fabrication, finishes, and installation.
- C. Shop Drawings: Submit manufacturer's shop drawings, including elevations, sections, and details, indicating dimensions, tolerances, materials, components and fabrication.
- D. Samples:
 - 1. Door: Submit manufacturer's sample of door showing face sheets, core, framing, and finish.
 - 2. Color: Submit manufacturer's samples of standard colors of doors and frames.
- E. Test Reports: Submit certified test reports from qualified independent testing agency indicating doors comply with specified performance requirements.

- F. Manufacturer's Project References: Submit list of successfully completed projects including project name and location, name of architect, and type and quantity of doors manufactured.
- G. Maintenance Manual: Submit manufacturer's maintenance and cleaning instructions for doors, including maintenance and operating instructions for hardware.
- H. Warranty: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
 - 1. Continuously engaged in manufacturing of doors of similar type to that specified, with a minimum of 25 years successful experience.
 - 2. Door and frame components from same manufacturer.
 - 3. Evidence of a compliant documented quality management system.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying opening door mark and manufacturer.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials and finish from damage during handling and installation.

1.7 WARRANTY

- A. Warrant doors, frames, and factory hardware against failure in materials and workmanship, including excessive deflection, faulty operation, defects in hardware installation, and deterioration of finish or construction in excess of normal weathering.
- B. Warranty Period: Ten years starting on date of shipment. In addition, a limited warranty covering: failure of corner joinery, core deterioration, delamination or bubbling of door skin.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Commercial Door Systems, (215) 244-9080; www.commercialdoorsystems.com.
- B. Special-Lite, Inc., (800) 821-6531; www.special-lite.com.
- C. Or Approved Equal

2.2 FRP FLUSH DOORS

- A. Model: SL-17 Flush Doors with SpecLite3 fiberglass reinforced polyester (FRP) face sheets.
- B. Door Opening Size: As indicated on the Drawings.

C. Construction:

1. Door Thickness: 1-3/4 inches.
2. Stiles and Rails: Aluminum Alloy 6063-T5, minimum of 2-5/16-inch depth.
3. Corners: Mitered.
4. Provide joinery of 3/8-inch diameter full-width tie rods through extruded splines top and bottom integral to standard tubular shaped stiles and rails reinforced to accept hardware as specified.
5. Securing Internal Door Extrusions: 3/16-inch angle blocks and locking hex nuts for joinery. Welds, glue, or other methods are not acceptable.
6. Furnish extruded stiles and rails with integral reglets to accept face sheets. Lock face sheets into place to permit flush appearance.
7. Rail caps or other face sheet capture methods are not acceptable.
8. Extrude top and bottom rail legs for interlocking continuous weather bar.
9. Meeting Stiles: Pile brush weatherseals. Extrude meeting stile to include integral pocket to accept pile brush weatherseals.
10. Bottom of Door: Install bottom weather bar with nylon brush weatherstripping into extruded interlocking edge of bottom rail.
11. Glue: Use of glue to bond sheet to core or extrusions is not acceptable.

D. Face Sheet:

1. Material: SpecLite3 FRP, 0.120-inch thickness, finish color throughout.
2. Protective coating: Abuse-resistant engineered surface. Provide FRP with SpecLite3 protective coating, or equal.
3. Texture: Pebble.
4. Color: As selected by Architect from Manufacturer's complete range.
5. Adhesion: The use of glue to bond face sheet to foam core is prohibited.

E. Core:

1. Material: Poured-in-place polyurethane foam.
2. Density: Minimum of 5 pounds per cubic foot.
3. R-Value: Minimum of 9.

F. Cutouts:

1. Manufacture doors with cutouts for required vision lites.
2. Factory install vision lites.

G. Hardware:

1. Premachine doors in accordance with templates from specified hardware manufacturers and hardware schedule.

2.3 MATERIALS

A. Aluminum Members:

1. Extrusions: ASTM B 221.
2. Sheet and Plate: ASTM B 209.
3. Alloy and Temper: As required by manufacturer for strength, corrosion resistance, application of required finish, and control of color.

B. Components: Door and frame components from same manufacturer.

- C. Fasteners:
 - 1. Material: Aluminum, 18-8 stainless steel, or other noncorrosive metal.
 - 2. Compatibility: Compatible with items to be fastened.
 - 3. Exposed Fasteners: Screws with finish matching items to be fastened.

2.4 FABRICATION

- A. Sizes and Profiles: Required sizes for door and frame units, and profile requirements shall be as indicated on the Drawings.
- B. Coordination of Fabrication: Field measure before fabrication and show recorded measurements on shop drawings.
- C. Assembly:
 - 1. Complete cutting, fitting, forming, drilling, and grinding of metal before assembly.
 - 2. Remove burrs from cut edges.
- D. Welding: Welding of doors or frames is not acceptable.
- E. Fit:
 - 1. Maintain continuity of line and accurate relation of planes and angles.
 - 2. Secure attachments and support at mechanical joints with hairline fit at contacting members.

2.5 ALUMINUM DOOR RETRO INSERT FRAMING SYSTEMS

- A. Insert Framing System:
 - 1. Model: SL-1030 Series, SL-10-32.
 - 2. Insert frame as indicated on the Drawings, using integral stop fitted with weatherstripping.
 - 3. Corner joints of miter design, secure with furnished aluminum clips, and screw into place.
 - 4. Hardware:
 - a. Premachine and reinforce insert frame members for hardware in accordance with manufacturer's standards and hardware schedule.
 - b. Factory install hardware.
 - 5. Anchors:
 - a. Imbed ¼" x 20 machine screws at least 1-1/2" into solid wall framing.
 - b. Door Jamb and Header Mounting Holes: Maximum of 16-inch centers.

2.7 HARDWARE

- A. Pre-machine doors in accordance with templates from specified hardware manufacturers and hardware schedule.
- B. Factory install hardware listed in this section.
- C. Hardware Schedule: As specified in Section 087100, unless noted here.
 - 1. Hinges: SL-24 HD continuous hinges by Select Products Limited.
 - 2. Seals: Provided by Door Manufacturer.
 - 3. Door Bottom Seal: Provided by Door Manufacturer.

D. Finish: Clear for items listed in this section, others as specified in Section 087100.

2.9 ALUMINUM FINISHES

A. Anodized Finish: Class I finish, 0.7 mils thick.

1. Clear 215 R1, AA-M10C12C22A41, Class I, 0.7 mils thick.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas to receive doors. Notify Architect of conditions that would adversely affect installation or subsequent use. Do not proceed with installation until unsatisfactory conditions are corrected.

3.2 PREPARATION

A. Ensure openings to receive frames are plumb, level, square, and in tolerance.

3.3 INSTALLATION

A. Install doors in accordance with manufacturer's instructions.

B. Install doors plumb, level, square, true to line, and without warp or rack.

C. Anchor frames securely in place.

D. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect.

E. Set thresholds in bed of mastic and backseal.

F. Install exterior doors to be weathertight in closed position.

G. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.

H. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

3.4 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Manufacturer's representative shall provide technical assistance and guidance for installation of doors.

3.5 ADJUSTING

A. Adjust doors, hinges, and locksets for smooth operation without binding.

3.6 CLEANING

A. Clean doors promptly after installation in accordance with manufacturer's instructions.

INTERIOR DOORS

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B. Do not use harsh cleaning materials or methods that would damage finish.

3.7 PROTECTION

A. Protect installed doors to ensure that, except for normal weathering, doors will be without damage or deterioration at time of substantial completion.

END OF SECTION 081743

**SECTION 087100
DOOR HARDWARE**

PART 1 – GENERAL

1.1 SECTION INCLUDES:

- A. Furnish all necessary Architectural finish hardware to complete the project except those items specifically mentioned to be furnished elsewhere. All hardware shall meet the requirements of CBC 1133B.2.1, 1133B.5.4.4, 1133B.7.5 and 1003.3.1.

1.2 QUALITY ASSURANCE:

- A. Finish hardware supplier shall have in his employment a member of the American Society of Architectural Hardware Consultants (AHC) who shall be made available for consultation during construction.
- B. Means of Egress Doors: Latches do not require more than 15 lbf to release the latch. Locks do not require use of a key, tool, or special knowledge for operation.
- C. Accessibility Requirements: For door hardware on doors in an accessible route, comply with ICC/ANSI A117.1.
 - 1. Provide operating devices that do not require tight grasping, pinching or twisting of the wrist and that operate with a force of not more than 5 lbf.

1.3 SUBMITTALS:

- A. Hardware Schedule. Prepare complete schedule of finish hardware and submit to the Architect/Engineer for review. Reference items clearly to groups specified, door-type designations shown, location and other pertinent data. List manufacturer's names or suitable abbreviation to facilitate reviewing, opposite each item scheduled.
- B. Do not deliver hardware until schedule has been accepted. Acceptance is not to be construed as certifying each item scheduled.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver keys and permanent cores to Owner by registered mail or overnight package service.

1.5 GUARANTEE:

- A. Guarantee door hardware against mechanical failure as follows:
 - 1. Locksets seven (7) years.
 - 2. Door closers ten (10) years.
 - 3. Panic or Exit Hardware three (3) years.
 - 4. All other hardware two (2) years.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

	<u>Item</u>	<u>Manufacturer</u>	<u>Acceptable Substitutes</u>
A.	Hinges	Select	Ives, Hager, Stanley
B.	Locks, Latches & Cylinders	Schlage	District standard, no substitute
C.	Exit Devices & Removable Mullions	Von Duprin	District standard, no substitute
D.	Closers	LCN	Dorma
E.	Kick Plates	Ives	Trimco, Quality, BBW
F.	Stops	Ives	Trimco, Quality, BBW
G.	Thresholds	National Guard	Pemko, Zero
H.	Seals & Bottoms	Special-Lite	Pemko, National Guard, Zero

2.2 MATERIALS

- A. Hinges: Continuous hinges by Select Products or Ives.
- B. Heavy Duty Cylindrical Locks and Latches: Schlage "ND" Series. Fastened with through-bolts and threaded chassis hubs. Lever Design shall be "Rhodes" (RHO).
1. Locksets to comply with ANSI A156.2, Series 4000, Grade 1; tested to exceed 3,000,000 cycles. Locksets shall meet ANSI A117.1, Accessible Code.
 2. Chassis: One piece modular assembly and multi-functional allowing function interchange without disassembly of lockset.
 3. Spindle shall be deep-draw manufactured not stamped. Spindle and spring cage to be one-piece integrated assembly.
 4. Anti-rotation plate to be interlocking to the lock chassis. Lock design utilizing bit-tabs are not acceptable.
 5. Lever Trim: Accessible design, bi-directional, independent assemblies.
 6. Locks shall be of such construction that when locked, the door may be opened from within by using lever and without the use of a key or special knowledge.
 7. Thru-bolts to secure anti-rotation plate without sheer line. Fully threaded thru-bolts are not acceptable.
 8. Spring cage to have double compression springs. Manufacturers utilizing torsion springs are not acceptable.
 9. Latchbolt to be steel with minimum 1/2" throw deadlatch on keyed and exterior functions; 3/4" throw anti-friction latchbolt on pairs of doors.
 10. Strikes: ANSI curved lip, 1-1/4" x 4-7/8", with 1" deep dust box (K510-066). Lips shall be of sufficient length to clear trim and protect clothing.
- C. Exit devices: Von Duprin as scheduled.
1. Provide certificate by independent testing laboratory that device has completed over 1,000,000 cycles and can still meet ANSI/BHMA A156.3 - 2001 standards.
 2. All internal parts shall be of cold-rolled steel with zinc dichromate coating.
 3. Mechanism case shall have an average thickness of .140".

4. Compression spring engineering.
 5. Non-handed basic device design with center case interchangeable with all functions.
 6. All devices shall have quiet return fluid dampeners.
 7. All latchbolts shall be deadlocking with ¾" throw and have a self-lubricating coating to reduce friction and wear.
 8. Device shall bear UL label for fire and or panic as may be required.
 9. All surface strikes shall be roller type and utilize a plate underneath to prevent movement.
 10. Lever Trim: "Breakaway" design, forged brass or bronze escutcheon with a minimum of .130" thickness, match lockset lever design.
 11. Removable Mullions: Removable with single turn of building key. Securely reinstalled without need for key.
 12. Furnish glass bead kits for vision lites where required.
 13. All Exit Devices to be sex-bolted to the doors.
 14. Panic Hardware shall comply with CBC Section 1008.1.8.2 and 1008.1.9 and shall be mounted between 34" and 48" above the finished floor surface. The unlatching force shall not exceed 15 lbs. applied in the direction of travel.
- D. Closers: All door closers shall be of one manufacturer to provide for proper installation and servicing after installation. All closers shall be inspected after installation by a representative to ensure proper adjustment and operation. Closers shall carry a manufacturer's ten year warranty against manufacturing defects and workmanship.
1. All closers shall be non-sized to provide a full range of Size I through V closing power for all door sizes according to BHMA Product Standards (ANSI 156.4-1986 Table I) and shall be listed in the BHMA Certified Products Directory and tested by an independent testing laboratory to provide minimum closing force required to properly latch the doors, to overcome potential friction and resistance from movement of air or latching and hinging hardware. The closer spring power shall be adjustable to the proper tension by a simple winding action.
 2. Maximum effort to operate closers shall not exceed 5 lbs., such pull or push effort being applied at right angles to hinged doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the closer may be increased but shall not exceed 15 lbs. when specifically approved by fire marshal. All closers shall be adjusted to operate with the minimum amount of opening force and still close and latch the door. These forces do not apply to the force required to retract latch bolts or disengage other devices that hold the door in a closed position. Door shall take at least 3 seconds to move from an open position of 70 degrees to a point of 3 inches from the latch jamb. Reference CBC Sections 1133B.2.1, 1133B.2.5, 1133B2.5.1 & 1008.1.8.
 3. The closing cycle for all closers shall comply with ADA requirements in 4.13.10.
- E. Kick Plates: Fabricate kick plates with four beveled edges. Provide kick plates 10" high by 2" LDW. Furnish with machine or wood screws of bronze or stainless to match other hardware.
- F.. Door Stops:
1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.

2. Overhead stops shall be made of stainless steel and non-plastic mechanisms and finished metal end caps. Field-changeable hold-open, friction and stop-only functions.
 3. Floor Stops shall not be located in the path of travel and at a maximum of 4" from walls.
- G. Lock Protectors: Lock astragals shall be provided with internally threaded fasteners for flat head machine screws. No hex head or carriage bolt fasteners will be permitted. Must be through bolted to door.
- H. Thresholds: As Scheduled and per details.
1. Thresholds shall not exceed 1/2" in height, with a beveled surface of 1:2 maximum slope.
 2. Set thresholds in a full bed of butyl-rubber or polyisobutylene mastic sealant.
 3. Use ¼" fasteners, red-head flat-head sleeve anchors (SS/FHSL).
 4. Thresholds shall comply with CBC Section 1133B.2.
- I. Miscellaneous hardware items shall be as listed. All fasteners for all finish hardware shall harmonize with hardware material and finish.

2.3 KEYING

- A. All exterior cylinders will be provided by the Contractor. The Contractor will provide Schlage "Primus" cylinders. The interior cylinders shall be provided in this section and be "E" section keyway, interchangeable (IC) cores. The District will perform their own master keying.
- B. Provide a means of construction keying for doors requiring locking during the construction period. Provide temporary cylinders at exterior doors and interior doors requiring locking as required. Temporary cylinders to be returned to supplier.
- C. Supply 3 blank keys per lock and cylinder. Furnish 1 control key.

2.4 FINISHES

- A. Generally to be satin or dull chrome US26D (626 on brass or bronze base metal and 652 on steel base metal) unless otherwise noted.
- B. Push, Pull and Kick Plates shall be dull stainless steel US32D (630).
- C. Door closers shall be powder-coated (689) to match other hardware, unless otherwise noted.
- D. Aluminum items to be finished clear anodized 628, except thresholds which can be furnished as standard mill finish.

PART 3 – EXECUTION

3.1 INSTALLATION / EXAMINATION

- A. Examine doors, frames and related items for conditions that would prevent the proper application of finish hardware. Do not proceed until all defects are corrected.

- B. Contractor shall inspect and direct the method of application and adjustment of all finished hardware required to be installed under work of other Sections. Work of this Section shall include technical assistance provided upon request by the supplier.
- C. All mounting heights shall be coordinated with local, state and federal codes unless otherwise indicated. All operating or hand activated hardware shall be mounted between 30" and 44" AFF per CBC Section 1133B.2.5.2.
- D. All Thresholds will be set in a bed of sealant to ensure against any water penetration.

3.2 PROTECTION / ADJUSTMENT

- A. All finish hardware shall be protected from damage during and after application and until Substantial Completion of building.
- B. Shortages of items and/or incorrect items (based on Drawings and Specifications in effect at time of bidding) shall be furnished and/or replaced with correct material. Unit prices and credits shall be furnished for approval prior to delivery of these goods.
- C. Adjustments and inspection:
 - 1. During the installation of hardware, a periodic inspection, in company with the Inspector, will be made by the Architectural Hardware Supplier, or his Agent.
 - 2. Any hardware improperly installed shall be removed and reinstalled at the Contractor's expense.
 - 3. At the completion of the work, a final inspection shall be made by the Architectural Hardware Supplier, or his Agent.
- D. Protect all finish hardware during field finishing. Clean and restore all finish hardware to original factory condition. Replace all damaged items, as result of finishing processes, for final acceptance by Architect / Owner.

3.3 HARDWARE SCHEDULE

Refer to Drawings for a Schedule of Hardware to be furnished for this work. The material listed shall conform throughout to the requirements of the foregoing Specifications.

Manufacturers Abbreviations (Mfr.)

IVE	=	Ives	Kick Plates, Door Stops & Silencers
LCN	=	LCN	Door Closers
NG	=	National Guard	Thresholds
SCH	=	Schlage Lock Company	Locks, Latches & Cylinders
SEL	=	Select Products Ltd.	Hinges
VON	=	Von Duprin	Exit Devices & Removable Mullions

END OF SECTION

SECTION 093000
TILING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Porcelain tile.
2. Ceramic liner bar tile.
3. Crack-suppression membrane for thin-set tile installations.
4. Metal edge strips installed as part of tile installations.

B. Related Sections:

1. Division 03 Section "Cast-in-Place Concrete" for monolithic slab finishes specified for tile substrates.
2. Division 07 Section "Joint Sealants" for sealing of expansion, contraction, control, and isolation joints in tile surfaces.

1.2 DEFINITIONS

- A. Basis-of-Design Product: Product selected, for Contractor's information, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics, for purposes of evaluating like products proposed by Contractor.

1.3 PERFORMANCE REQUIREMENTS

- A. Static Coefficient of Friction: For tile installed on walkway surfaces, provide products with the following values as determined by testing identical products per (ASTM International) [ASTM C 1028](#):

1. Level Surfaces: Minimum 0.6.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples:

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1. Assembled samples with grouted joints for each type and composition of tile and for each color and finish required, mounted on rigid panel. Use grout of type and in color or colors approved for completed work.
 - a. Sample Panel Size Requirements:
 - 1) Tiles 12 inches or more in each dimension: 36 inches square.
 - 2) Tiles less than 12 inches in each dimension: 24 inches square.

1.5 QUALITY ASSURANCE

- A. Source Limitations for Tile: Obtain tile of same type and color or finish from one source or producer.
 1. Obtain tile from same production run and of consistent quality in appearance and physical properties for each contiguous area.
- B. Source Limitations for Setting and Grouting Materials: Obtain ingredients of a uniform quality for each mortar, adhesive, and grout component from a single manufacturer and each aggregate from one source or producer.
- C. Source Limitations for Other Products: Obtain each of the following through one source from a single manufacturer for each product:
 1. Joint sealants.
 2. Metal edge strips.
- D. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store packaged materials in original containers with seals unbroken and labels intact until time of use. Comply with requirement in (American National Standards Institute) ANSI A137.1 for labeling sealed tile packages.
- B. Store tile and cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Store liquid latexes and emulsion adhesives in unopened containers and protected from freezing.

- E. Handle tile that has temporary protective coating on exposed surfaces to prevent coated surfaces from contacting backs or edges of other units. If coating does contact bonding surfaces of tile, remove coating from bonding surfaces before setting tile.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install tile until construction in spaces is complete and ambient temperature and humidity conditions are maintained at the levels indicated in referenced standards and manufacturer's written instructions.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Tile and Trim Units: Furnish quantity of full-size units equal to 3 percent of amount installed, for each type, composition, color, pattern, and size indicated.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Use interior (i.e. inside the exterior moisture barrier of the building) adhesives, sealants and sealant primers that comply with (South Coast Air Quality Management District) SCAQMD [Rule 1168](#) Adhesive and Sealant Applications."
- B. ANSI Ceramic Tile Standard: Provide tile that complies with [ANSI A137.1](#), "Specifications for Ceramic Tile," for types, compositions, and other characteristics indicated.
 - 1. Provide tile complying with Standard grade requirements, unless otherwise indicated.
- C. ANSI Standards for Tile Installation Materials: Provide materials complying with [ANSI A108/A118/A136.1](#) "Specifications for the Installation of Ceramic Tile."
- D. Colors, Textures, and Patterns: Where manufacturer's standard products are indicated for tile, grout, and other products requiring selection of colors, surface textures, patterns, and other appearance characteristics, provide specific products or materials complying with the following requirements:
 - 1. As selected by Interior Designer from manufacturer's full range, unless indicated otherwise.

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- E. Factory Blending: For tile exhibiting color variations within ranges selected during Sample submittals, blend tile in factory and package so tile units taken from one package show same range in colors as those taken from other packages and match approved Samples.

2.2 TILE PRODUCTS

- A. Basis-of-Design Products: Provide products indicated on Interior Finish Drawings or comparable products acceptable to Interior Designer.
- B. Tile Trim:
 - 1. Provide bullnose units at outside corners and perimeter edges of tile fields.
 - a. Manufactured Trim Units: Use unless otherwise indicated.
 - b. Fabricated Units: Use for full-body tile when manufactured trim units are not available.
 - c. Metal Trim: Use for glazed tile when manufactured trim units are not available.
 - 2. Liner Bars: Basis-of-Design products as indicated on Interior Design Drawings.
 - a. Manufactured glazed ceramic units, and custom units fabricated from product standard field-tiles.

2.3 CRACK ISOLATION MEMBRANES

- A. Provide product that complies with ANSI A118.12 for standard performance and is recommended by the manufacturer for the application indicated. Include reinforcement and accessories recommended by manufacturer.
- B. Corrugated-Polyethylene Product: Corrugated polyethylene with dovetail-shaped corrugations for adhering to latex-portland cement mortar and with anchoring webbing on the underside; 39 inches wide by 3/16-inch nominal thickness.
 - 1. Basis-of-Design Product: Provide [Schluter Systems L.P.](#); DITRA, or comparable product acceptable to Interior Designer.

2.4 SETTING AND GROUTING MATERIALS

- A. Latex-Portland Cement Mortar (Thin Set): ANSI A118.4, consisting of the following:
 - 1. Prepackaged dry-mortar mix containing dry, redispersible, ethylene vinyl acetate additive to which only water must be added at Project site.

- B. Chemical-Resistant, Water-Cleanable, Tile-Grouting Epoxy: ANSI A118.3.
 - 1. Provide product capable of withstanding continuous and intermittent exposure to temperatures of up to 140 deg F and 212 deg F, respectively, and certified by manufacturer for intended use.
 - a. Basis-of-Design Product: Provide the product indicated on Drawings, or comparable product by the manufacturers listed below.
- C. Polymer-Modified Tile Grout: ANSI A118.7, color as indicated.
 - 1. Polymer Type: Ethylene vinyl acetate, in dry, redispersible form, prepackaged with other dry ingredients.
- D. Provide setting and grouting materials by:
 - 1. [Atlas Minerals & Chemicals, Inc.](#)
 - 2. [Boiardi Products Corporation.](#)
 - 3. [Bostik, Inc.](#)
 - 4. [C-Cure.](#)
 - 5. [Custom Building Products.](#)
 - 6. [Jamo Inc.](#)
 - 7. [Laticrete International Inc.](#)
 - 8. [MAPEI Corporation.](#)
 - 9. [Pro Spec.](#)
 - 10. [Summitville Tiles, Inc.](#)
 - 11. [TEC Specialty Products Inc.](#)

2.5 ELASTOMERIC SEALANTS

- A. General: Provide manufacturer's standard chemically curing, elastomeric sealants of base polymer and characteristics indicated that comply with applicable requirements in Division 07 Section "Joint Sealants."
- B. Colors: Provide colors of exposed sealants to match colors of grout in tile adjoining sealed joints, unless otherwise indicated.

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- C. One-Part, Mildew-Resistant Silicone Sealant: As specified in Division 07 Section "Joint Sealants."
- D. One-Part, Pourable Urethane Sealant for Use T: As specified in Division 07 Section "Joint Sealants."

2.6 MISCELLANEOUS MATERIALS

- A. Trowelable Underlayments and Patching Compounds: Latex-modified, portland cement-based formulation provided or approved by manufacturer of tile-setting materials for installations indicated.
- B. Metal Edge Strips: Angle or L-shape, height to match tile and setting-bed thickness, metallic or combination of metal and PVC or neoprene base, designed specifically for flooring applications; stainless steel, [ASTM A 666](#), 300 Series exposed-edge material.
- C. Temporary Protective Coating: Product formulated to protect exposed surfaces of tile against adherence of mortar and grout; compatible with tile, mortar, and grout products; and easily removable after grouting is completed without damaging grout or tile.
- D. Tile Cleaner: A neutral cleaner capable of removing soil and residue without harming tile and grout surfaces, specifically approved for materials and installations indicated by tile and grout manufacturers.
- E. Grout Sealer: Manufacturer's standard product for sealing grout joints that does not change color or appearance of grout.
 - 1. Provide grout sealers by:
 - a. [C-Cure](#).
 - b. [Jamo Inc.](#)
 - c. [MAPEI Corporation](#).
 - d. [Pro Spec](#).
 - e. [Summitville Tiles, Inc.](#)
 - f. [TEC Specialty Products Inc.](#)

2.7 MIXING MORTARS AND GROUT

- A. Mix mortars and grouts to comply with referenced standards and mortar and grout manufacturers' written instructions.
- B. Add materials, water, and additives in accurate proportions.

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- C. Obtain and use type of mixing equipment, mixer speeds, mixing containers, mixing time, and other procedures to produce mortars and grouts of uniform quality with optimum performance characteristics for installations indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions where tile will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of installed tile.
 - 1. Verify that substrates for setting tile are firm; dry; clean; free of oil, waxy films, and curing compounds; and within flatness tolerances required by referenced ANSI A108 "Specifications for Installation of Ceramic Tile," Series of tile installation standards for installations indicated.
 - 2. Verify that installation of grounds, anchors, recessed frames, electrical and mechanical units of work, and similar items located in or behind tile has been completed before installing tile.
 - 3. Verify that joints and cracks in tile substrates are coordinated with tile joint locations; if not coordinated, adjust joint locations in consultation with Interior Designer.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Remove coatings, including curing compounds and other substances that contain soap, wax, oil, or silicone, that are incompatible with tile-setting materials.
- B. Provide concrete substrates for tile floors installed with thin-set mortar that comply with flatness tolerances specified in referenced ANSI A108 Series of tile installation standards.
 - 1. Fill cracks, holes, and depressions with trowelable leveling and patching compound according to tile-setting material manufacturer's written instructions. Use product specifically recommended by tile-setting material manufacturer.
 - 2. Remove protrusions, bumps, and ridges by sanding or grinding.
- C. Blending: For tile exhibiting color variations within ranges selected during Sample submittals, verify that tile has been factory blended and packaged so tile units taken from one package show same range of colors as those taken from

other packages and match approved Samples. If not factory blended, either return to manufacturer or blend tiles at Project site before installing.

- D. Field-Applied Temporary Protective Coating: Precoat exposed tile surfaces with continuous film of temporary protective coating, taking care not to coat unexposed tile surfaces, when necessary to prevent grout from staining or adhering to exposed tile surfaces.

3.3 INSTALLATION, GENERAL

- A. ANSI Tile Installation Standards: Comply with parts of ANSI A108 Series that apply to types of setting and grouting materials and to methods indicated in ceramic tile installation schedules.
- B. (Tile Council of North America) TCNA Installation Guidelines: TCNA's "[Handbook for Ceramic Tile Installation](#)." Comply with TCNA installation methods indicated in ceramic tile installation schedules.
- C. Extend tile work into recesses and under or behind equipment and fixtures to form complete covering without interruptions, unless otherwise indicated. Terminate work neatly at obstructions, edges, and corners without disrupting pattern or joint alignments.
- D. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Carefully grind cut edges of tile abutting trim, finish, or built-in items for straight aligned joints. Fit tile closely to electrical outlets, piping, fixtures, and other penetrations so plates, collars, or covers overlap tile.
- E. Jointing Pattern: Lay tile in grid pattern, unless otherwise indicated. Align joints when adjoining tiles on floor, base, walls, and trim are same size. Lay out tile work and center tile fields in both directions in each space or on each wall area. Adjust to minimize tile cutting. Provide uniform joint widths, unless otherwise indicated.
 - 1. For tile mounted in sheets, make joints between tile sheets same width as joints within tile sheets so joints between sheets are not apparent in finished work.
- F. Expansion Joints: Locate expansion joints and other sealant-filled joints, including control, contraction, and isolation joints, as specified below, and where indicated during installation of setting materials, mortar beds, and tile. Do not saw-cut joints after installing tiles.
 - 1. Locate joints where horizontal tile surface abut vertical surfaces.
 - 2. Locate joints in tile surfaces directly above joints in concrete substrates.
 - 3. Prepare joints and apply sealants to comply with requirements in Division 07 Section "Joint Sealants."

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- G. Grout tile to comply with requirements of the following tile installation standards:
 - 1. For latex-portland cement grouts, comply with ANSI A108.10.
 - 2. For chemical-resistant epoxy grouts, comply with ANSI A108.6.

3.4 CRACK-SUPPRESSION MEMBRANE INSTALLATION

- A. Install crack-suppression membrane to comply with manufacturer's written instructions , bonded securely to substrate.

3.5 FLOOR TILE INSTALLATION

- A. Install tile to comply with TCNA installation method F131 and ANSI A108 Series of tile installation standards.
- B. Joint Widths: As recommended by tile manufacturer.
- C. Stone Thresholds: Install stone thresholds at locations indicated; set in same type of setting bed as abutting field tile, unless otherwise indicated.
 - 1. Set thresholds in latex-Portland cement mortar for locations where mortar bed would otherwise be exposed above adjacent non-tile floor finish.
- D. Metal Edge Strips: Install at locations indicated or where exposed edge of tile flooring meets carpet, wood, or other flooring that finishes flush with top of tile.
- E. Grout Sealer: Apply grout sealer to cementitious grout joints according to grout-sealer manufacturer's written instructions. As soon as grout sealer has penetrated grout joints, remove excess sealer and sealer that has gotten on tile faces by wiping with soft cloth.

3.6 WALL TILE INSTALLATION

- A. Install types of tile designated for wall installations to comply with TCNA installation method W245 and ANSI setting-bed standards.
- B. Joint Widths: As recommended by tile manufacturer.

3.7 CLEANING AND PROTECTING

- A. Cleaning: On completion of placement and grouting, clean all ceramic tile surfaces so they are free of foreign matter.
 - 1. Remove epoxy and latex-Portland cement grout residue from tile as soon as possible.
 - 2. Clean grout smears and haze from tile according to tile and grout manufacturer's written instructions, but no sooner than 10 days after

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installation. Use only cleaners recommended by tile and grout manufacturers and only after determining that cleaners are safe to use by testing on samples of tile and other surfaces to be cleaned. Protect metal surfaces and plumbing fixtures from effects of cleaning. Flush surfaces with clean water before and after cleaning.

3. Remove temporary protective coating by method recommended by coating manufacturer that is acceptable to tile and grout manufacturer. Trap and remove coating to prevent it from clogging drains.
- B. When recommended by tile manufacturer, apply coat of neutral protective cleaner to completed tile walls and floors. Protect installed tile work with kraft paper or other heavy covering during construction period to prevent staining, damage, and wear.
 - C. Prohibit foot and wheel traffic from tiled floors for at least seven days after grouting is completed.
 - D. Before final inspection, remove protective coverings and rinse neutral cleaner from tile surfaces.

END OF SECTION

SECTION 095113
ACOUSTICAL PANEL CEILINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes acoustical panels and exposed suspension systems for ceilings.
- B. Products furnished, but not installed under this Section, include anchors, clips, and other ceiling attachment devices to be cast in concrete for ceilings.

1.2 DEFINITIONS

- A. Basis-of-Design Product: Product selected, for Contractor's information, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics, for purposes of evaluating like products proposed by Contractor.
- B. CAC: Ceiling Attenuation Class.
- C. LR: Light Reflectance Coefficient.
- D. NRC: Noise Reduction Coefficient.

1.3 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Acoustical ceiling shall withstand the effects of earthquake motions determined according to American Society of Civil Engineers/Structural Engineering Institute) [ASCE/SEI 7](#).

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each component indicated and for each exposed finish required, prepared on Samples of size indicated below.
 - 1. Acoustical Panel: Set of 6 inch square Samples of each type, color, pattern, and texture.

1.5 QUALITY ASSURANCE

- A. Source Limitations:
 - 1. Acoustical Ceiling Panel: Obtain each type through one source from a single manufacturer.

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2. Suspension System: Obtain each type through one source from a single manufacturer.
- B. Fire-Test-Response Characteristics: Provide acoustical panel ceilings that comply with the following requirements:
1. Fire-Resistance Characteristics: Where indicated, provide acoustical panel ceilings identical to those of assemblies tested for fire resistance per (ASTM International) [ASTM E 119](#) by an independent testing agency.
 - a. Fire-Resistance Ratings: Indicated by design designations from (Underwriters Laboratory) UL's "Fire Resistance Directory" or from the listings of another testing and inspecting agency.
 - b. Identify materials with appropriate markings of applicable testing and inspecting agency.
 2. Surface-Burning Characteristics: Provide acoustical panels with the following surface-burning characteristics complying with ASTM E 1264 for Class A materials as determined by testing identical products per [ASTM E 84](#):
 - a. Smoke-Developed Index: 450 or less.
- C. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical panels, suspension system components, and accessories to Project site in original, unopened packages and store them in a fully enclosed, conditioned space where they will be protected against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical panels, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical panels carefully to avoid chipping edges or damaging units in any way.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install acoustical panel ceilings until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

1.8 COORDINATION

- A. Coordinate layout and installation of acoustical panels and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and partition assemblies.

1.9 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Acoustical Ceiling Panels: Full-size panels equal to 2.0 percent of quantity installed.
 - 2. Suspension System Components: Quantity of each exposed component equal to 2.0 percent of quantity installed.

PART 2 - PRODUCTS

2.1 ACOUSTICAL PANELS

- A. Acoustical Panel Standard: Provide manufacturer's standard panels of configuration indicated that comply with [ASTM E 1264](#) classifications as designated by types, patterns, acoustical ratings, and light reflectances, unless otherwise indicated.
 - 1. Mounting Method for Measuring NRC: Type E-400; plenum mounting in which face of test specimen is 15-3/4 inches away from test surface per [ASTM E 795](#).
- B. Broad Spectrum Antimicrobial Fungicide and Bactericide Treatment: Provide acoustical panels treated with manufacturer's standard antimicrobial formulation that inhibits fungus, mold, mildew, and gram-positive and gram-negative bacteria and showing no mold, mildew, or bacterial growth when tested according to [ASTM D 3273](#) and evaluated according to [ASTM D 3274](#) or [ASTM G 21](#).
- C. Acoustical Panels SAT1:
 - 1. Type and Form: Type XII, glass-fiber base with membrane-faced overlay; Form 2, cloth.
 - 2. Pattern: E (lightly textured).
 - 3. Color: White.
 - 4. LR: Not less than 0.90.

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5. NRC: Not less than 0.95.
6. AC: Not less than 190.
7. Edge/Joint Detail: Reveal sized to fit flange of exposed suspension system members.
8. Thickness: 1 inch.
9. Modular Size: 24 by 24 inches.
10. Basis-of-Design Product: Provide [Armstrong](#); Optima Open Plan, or comparable product by:
 - a. [CertainTeed Corporation](#).
 - b. [USG Corporation](#).

D. Acoustical Panels SAT2:

1. Type and Form: Type IV, mineral base with membrane-faced overlay; Form 2, water felted; with vinyl overlay on face.
2. Pattern: E (lightly textured).
3. Color: White.
4. LR: Not less than 0.90.
5. NRC: Not less than 0.70.
6. CAC: Not less than 35.
7. Edge/Joint Detail: Square.
8. Thickness: 3/4 inch.
9. Modular Size: 24 by 24 inches.
10. Basis-of-Design Product: Provide [Armstrong](#); Ultima, or comparable product by:
 - a. [CertainTeed Corporation](#).
 - b. [USG Corporation](#).

E. Acoustical Panels SAT3:

1. Type and Form: Type IV, mineral base with membrane-faced overlay; Form 2, water felted; with vinyl overlay on face.

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2. Pattern: E (lightly textured).
3. Color: White.
4. LR: Not less than 0.90.
5. NRC: Not less than 0.70.
6. CAC: Not less than 35.
7. Edge/Joint Detail: Square.
8. Thickness: 3/4 inch.
9. Modular Size: 24 by 24 inches.
10. Basis-of-Design Product: Provide [Armstrong](#); Ultima Health Zone, or comparable product by:
 - a. [CertainTeed Corporation](#).
 - b. [USG Corporation](#).

F. Acoustical Panels SAT4:

1. Type and Form: Type XII, glass-fiber base with membrane-faced overlay; Form 2, cloth.
2. Pattern: E (lightly textured).
3. Color: White.
4. LR: Not less than 0.90.
5. NRC: Not less than 0.95.
6. AC: Not less than 190.
7. Edge/Joint Detail: Reveal sized to fit flange of exposed suspension system members.
8. Thickness: 1 inch.
9. Modular Size: 24 by 60 inches.
10. Basis-of-Design Product: Provide [Armstrong](#); Optima Open Plan - Plank, or comparable product by:
 - a. [CertainTeed Corporation](#).

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- b. [USG Corporation](#).

2.2 METAL SUSPENSION SYSTEMS

- A. Metal Suspension System Standard: Provide manufacturer's standard direct-hung metal suspension systems of types, structural classifications, and finishes indicated that comply with applicable requirements in [ASTM C 635](#).
- B. Finishes and Colors, General: Comply with (National Association of Architectural Metal Manufacturers) [NAAMM](#)'s "Metal Finishes Manual for Architectural and Metal Products" [AMP 500-06](#) for recommendations for applying and designating finishes. Provide manufacturer's standard factory-applied finish for type of system indicated.
- C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.
 - 1. Anchors in Concrete: Anchors of type and material indicated below, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing per [ASTM E 488](#) or [ASTM E 1512](#), as applicable, conducted by a qualified testing and inspecting agency.
 - a. Type: Cast-in-place or postinstalled bonded anchors.
 - b. Corrosion Protection: Carbon-steel components zinc plated to comply with [ASTM B 633](#), Class Fe/Zn 5 (0.005 mm) for Class SC 1 service condition.
- D. Wire Hangers, Braces, and Ties: Provide wires complying with the following requirements:
 - 1. Zinc-Coated, Carbon-Steel Wire: [ASTM A 641](#), Class 1 zinc coating, soft temper.
 - 2. Size: Select wire diameter so its stress at 3 times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.106 inch diameter (12 gage) wire.
- E. Hanger Rods and Flat Hangers: Mild steel, zinc coated or protected with rust-inhibitive paint.
- F. Angle Hangers: Angles with legs not less than 7/8 inch wide; formed with 0.04-inch-thick, galvanized-steel sheet complying with ASTM A 653/A 653M, G90 coating designation; with bolted connections and 5/16-inch-diameter bolts.
- G. Seismic Stabilizer Bars: Manufacturer's standard perimeter stabilizers designed to accommodate seismic forces.

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- H. Seismic Struts: Manufacturer's standard compression struts designed to accommodate seismic forces.
- I. Seismic Clips: Manufacturer's standard seismic clips designed and spaced to secure acoustical panels in place.
- J. Wide-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, prepainted, electrolytically zinc coated, or hot-dip galvanized according to [ASTM A 653](#), not less than G30 coating designation, with prefinished 15/16 inch wide metal caps on flanges.
 - 1. Structural Classification: Intermediate-duty system.
 - 2. End Condition of Cross Runners: Override (stepped) or butt-edge type.
 - 3. Face Design: Flat, flush.
 - 4. Cap Material: Steel cold-rolled sheet.
 - 5. Cap Finish: Painted white.
 - 6. Basis-of-Design Product: Provide [Armstrong](#); Prelude XL or comparable product by:
 - a. [CertainTeed Corporation](#).
 - b. [USG Corporation](#).
- K. Narrow-Face, Capped, Double-Web, Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, prepainted, electrolytically zinc coated, or hot-dip galvanized according to [ASTM A 653](#), not less than G30 coating designation, with prefinished 9/16 inch wide metal caps on flanges.
 - 1. Structural Classification: Intermediate-duty system.
 - 2. End Condition of Cross Runners: Override (stepped) or butt-edge type.
 - 3. Face Design: Flat, flush.
 - 4. Cap Material: Steel cold-rolled sheet.
 - 5. Cap Finish: Painted white.
 - 6. Basis-of-Design Product: Provide [Armstrong](#); Suprafine XL or comparable product by one of the following:
 - a. [CertainTeed Corporation](#).
 - b. [USG Corporation](#).

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2.3 METAL EDGE MOLDINGS AND TRIM

- A. Roll-Formed, Sheet-Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.
1. Provide manufacturer's standard edge moldings that fit acoustical panel edge details and suspension systems indicated and that match width and configuration of exposed runners, unless otherwise indicated.
 2. For lay-in panels with reveal edge details, provide stepped edge molding that forms reveal of same depth and width as that formed between edge of panel and flange at exposed suspension member.
- B. Extruded-Aluminum Edge Moldings and Trim: Alloy and temper with not less than the strength and durability properties of [ASTM B 221](#), Alloy 6063-T5.
1. Perimeter Pocket and Floating-Edge Trim: Where indicated, provide extruded-aluminum edge moldings and trim of profile indicated or referenced by manufacturer's designations, including splice plates, corner pieces, and attachment and other clips.
 - a. Finish: Manufacturer's standard; color as selected by Architect from manufacturer's full-range.
 2. Edge and Transition Trim: Where indicated, provide extruded accessories of profiles and dimensions indicated.
 - a. Basis-of-Design Product: Provide aluminum trim by [Fry Reglet Corp.](#) or comparable product by:
 - 1) [Gordon, Inc.](#)
 - 2) [Pittcon Industries.](#)
 - b. Finish: Manufacturer's standard; color as selected by Architect from manufacturer's full-range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, including structural framing to which acoustical panel ceilings attach or abut, with Installer present, for compliance with requirements specified in this and other Sections that affect ceiling installation and anchorage and with requirements for installation tolerances and other conditions affecting performance of acoustical panel ceilings.

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1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders, and comply with layout shown on reflected ceiling plans.

3.3 INSTALLATION

- A. Install acoustical panel ceilings to comply with [ASTM C 636](#), per manufacturer's written instructions and (Ceilings & Interior Systems Construction Association) [CISCA's "Ceiling Systems Handbook."](#)
- B. Suspend ceiling hangers from building's structural members and as follows:
 1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structure or of ceiling suspension system.
 2. Splay hangers only where required to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
 3. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers at spacings required to support standard suspension system members, install supplemental suspension members and hangers in form of trapezes or equivalent devices.
 4. Secure wire hangers to ceiling suspension members and to supports above with a minimum of three tight turns. Connect hangers directly either to structures or to inserts, eye screws, or other devices that are secure and appropriate for substrate and that will not deteriorate or otherwise fail due to age, corrosion, or elevated temperatures.
 5. Secure flat, angle, channel, and rod hangers to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices that are secure and appropriate for both the structure to which hangers are attached and the type of hanger involved. Install hangers in a manner that will not cause them to deteriorate or fail due to age, corrosion, or elevated temperatures.
 6. Do not support ceilings directly from permanent metal forms or floor deck. Fasten hangers to cast-in-place hanger inserts, postinstalled mechanical or adhesive anchors that extend through forms into concrete.

7. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
 8. Do not attach hangers to steel deck tabs.
 9. Do not attach hangers to steel roof deck. Attach hangers to structural members.
 10. Space hangers not more than 48 inches o.c. along each member supported directly from hangers, unless otherwise indicated; provide hangers not more than 8 inches from ends of each member.
 11. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced standards and publications.
- C. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
1. Do not use exposed fasteners, including pop rivets, on moldings and trim.
- D. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- E. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders, penetrations, and where fixtures are surface-mounted, to provide a neat, precise fit.
1. For square-edged panels, install panels with edges fully hidden from view by flanges of suspension system runners and moldings.
 2. For reveal-edged panels on suspension system runners, install panels with bottom of reveal in firm contact with top surface of runner flanges.
 - a. Paint cut edges of panels remaining exposed after installation; match color of exposed panel surfaces using coating recommended in writing for this purpose by acoustical panel manufacturer.

3.4 CLEANING

- A. Clean exposed surfaces of acoustical panel ceilings, including trim, edge moldings, and suspension system members. Comply with manufacturer's written instructions for cleaning and touchup of minor finish damage. Remove and replace ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

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SECTION 096513.13 RESILIENT BASE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes:
 - 1. Resilient base.
 - 2. Resilient molding accessories.
- B. Related Sections:
 - 1. Division 09 Section "Resilient Sheet Flooring" for resilient sheet floor coverings.
 - 2. Division 09 Section "Linoleum Flooring" for linoleum floor coverings.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of product indicated, in manufacturer's standard-size Samples but not less than 12 inches long, of each resilient product color, texture, and pattern required.

1.4 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics: As determined by testing identical products according to (ASTM International) [ASTM E 648](#) or (National Fire Protection Association) [NFPA 253](#), by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store resilient products and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F.

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1.6 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive resilient products during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Install resilient products after other finishing operations, including painting, have been completed.

1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, of each type, color, pattern, and size of resilient product installed.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Use interior (i.e. inside the exterior moisture barrier of the building) adhesives, sealants and sealant primers that comply with (South Coast Air Quality Management District) SCAQMD [Rule 1168](#) "Adhesive and Sealant Applications."

2.2 RESILIENT BASE

- A. Provide resilient base that complies with [ASTM F 1861](#).
 - 1. Material: Type TS (rubber, vulcanized thermoset) or Type TP (rubber, thermoplastic).
 - 2. Manufacturing Method: Group I (solid, homogeneous).
 - a. Style: Cove (base with toe).
 - b. Thickness: 0.125 inch.

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3. Height: 6 inches.
 4. Lengths: Cut lengths 48 inches long or coils in manufacturer's standard length.
 5. Outside Corners: Job formed.
 6. Inside Corners: Job formed.
 7. Colors and Patterns: As selected by Interior Designer from full range of industry colors.
- B. Provide the product indicated on Interior Finish Drawings, or comparable product by:
1. [Burke Flooring](#).
 2. [Flexco](#).
 3. [Johnsonite](#).
 4. [Roppe Corporation, USA](#).

2.3 RESILIENT MOLDING ACCESSORIES

- A. Provide rubber resilient molding accessories, unless profile is manufactured only of vinyl.
1. Colors: As selected by Interior Designer from full range of industry colors.
- B. Profiles:
1. Carpet edge for glue-down applications.
 2. Reducer strip for resilient floor covering.
 3. Joiner for resilient flooring and carpet.
- C. Provide resilient molding accessories by:
1. [Burke Flooring](#).
 2. [Flexco](#).
 3. [Johnsonite](#).
 4. [Roppe Corporation, USA](#).

2.4 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit resilient products and substrate conditions indicated.
- C. Stair-Tread-Nose Filler: Two-part epoxy compound recommended by resilient tread manufacturer to fill nosing substrates that do not conform to tread contours.
- D. Floor Polish: Provide protective liquid floor polish products as recommended by resilient stair tread manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of resilient products.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.
- B. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- C. Do not install resilient products until they are same temperature as the space where they are to be installed.
 - 1. Move resilient products and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- D. Sweep and vacuum clean substrates to be covered by resilient products immediately before installation.

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3.3 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Layout base to provide minimum number of joints, with no strip less than 24 inches in length (for wall segments longer than 24 inches).
 - 1. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.
 - 2. Locate joints as remote from corners as the material lengths or wall configuration will permit.
- C. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Job-Formed Corners:
 - 1. Outside Corners: Use straight pieces of maximum lengths possible. Form without producing discoloration (whitening) at bends.
 - 2. Inside Corners: Use straight pieces of maximum lengths possible.

3.4 RESILIENT ACCESSORY INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient accessories.
- B. Resilient Molding Accessories: Butt to adjacent materials and tightly adhere to substrates throughout length of each piece. Install reducer strips at edges of carpet and resilient floor covering that would otherwise be exposed.

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of resilient products.
- B. Perform the following operations immediately after completing resilient product installation:

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1. Remove adhesive and other blemishes from exposed surfaces.
 2. Sweep and vacuum surfaces thoroughly.
 3. Damp-mop surfaces to remove marks and soil.
- C. Protect resilient products from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Cover resilient products until Substantial Completion.

3.6 CONSTRUCTION WASTE MANAGEMENT

- A. Manage construction waste in accordance with provisions of Division 01 Section "Construction Waste Management and Disposal."

END OF SECTION

SECTION 096516
RESILIENT SHEET FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Vinyl sheet floor covering, with backing.

B. Related Sections:

1. Division 09 Section "Resilient Base and Accessories" for resilient base, reducer strips, and other accessories installed with resilient floor coverings.
2. Division 09 Section "Linoleum Flooring" for linoleum sheet floor coverings.

1.2 DEFINITIONS

- A. Basis-of-Design Product: Product selected, for Contractor's information, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics, for purposes of evaluating like products proposed by Contractor.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: For each type of floor covering. Include floor covering layouts, locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

1. Show details of special patterns.

- C. Samples: In manufacturer's standard size, but not less than 6-by-9-inch sections of each different color and pattern of floor covering required.

1. For heat-welding bead, manufacturer's standard-size Samples, but not less than 9 inches long, of each color required.

- D. Seam Samples: For seamless-installation technique indicated and for each floor covering product, color, and pattern required; with seam running lengthwise and in center of 6-by-9-inch Sample applied to a rigid backing and prepared by Installer for this Project.

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1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor covering installation and seaming method indicated.
 - 1. Engage an installer who employs workers for this Project who are trained or certified by floor covering manufacturer for installation techniques required.
- B. Fire-Test-Response Characteristics: As determined by testing identical products according to (ASTM International) [ASTM E 648](#) or (National Fire Protection Association) [NFPA 253](#) by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
 - 2. Floor covering shall have a smoke developed rating of less than 450 when tested in accordance with [ASTM C662](#).
 - 3. Conform to (California Code of Regulations) [CCR, Title 24](#), Part 9, Appendix IV-A for Class 1 floor finish flammability requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store floor coverings and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store rolls upright.

1.6 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 85 deg F, in spaces to receive floor coverings during the following time periods:
 - 1. 48 hours before installation.
 - 2. During installation.
 - 3. 48 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 48 hours after floor covering installation.

- E. Install floor coverings after other finishing operations, including painting, have been completed.

1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Floor Covering: Furnish quantity not less than 10 linear feet for every 500 linear feet or fraction thereof, in roll form and in full roll width for each color, pattern, and type of floor covering installed.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Use interior (i.e. inside the exterior moisture barrier of the building) adhesives, sealants and sealant primers that comply with (South Coast Air Quality Management District) SCAQMD [Rule 1168](#) "Adhesive and Sealant Applications."

2.2 VINYL SHEET FLOOR COVERING

- A. Provide vinyl sheet floor covering with backing that complies with [ASTM F 1303](#).
 - 1. Type (Binder Content): Type I, minimum binder content of 90 percent.
 - 2. Wear-Layer Thickness: Grade 1.
 - 3. Overall Thickness: 2 mm.
 - 4. Interlayer Material: Fiberglass.
 - 5. Backing Class: Class B (nonfoamed plastic).
 - 6. Wearing Surface: Embossed.
 - 7. Sheet Width: As standard with manufacturer .
 - 8. Seaming Method: Heat welded.
 - 9. Colors and Patterns: As indicated on Interior Design Drawings.
 - 10. Basis-of-Design Product: Provide the product indicated on Interior Finish Drawings, or comparable product acceptable to Interior Designer.

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit floor covering and substrate conditions indicated.
- C. Seamless-Installation Accessories:
 - 1. Heat-Welding Bead: Manufacturer's solid-strand product for heat welding seams.
 - a. Color: Match floor covering.
- D. Floor Polish: Provide protective liquid floor polish products as recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor coverings.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of floor coverings.
- B. Concrete Substrates: Prepare according to [ASTM F 710](#).
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.

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3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, [ASTM F 1869](#). Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform relative humidity test using in situ probes, [ASTM F 2170](#). Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install floor coverings until they are same temperature as space where they are to be installed.
 1. Move floor coverings and installation materials into spaces where they will be installed at least 48 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by floor coverings immediately before installation.

3.3 FLOOR COVERING INSTALLATION

- A. Comply with manufacturer's written instructions for installing floor coverings.
- B. Unroll floor coverings and allow them to stabilize before cutting and fitting.
- C. Lay out floor coverings as follows:
 1. Maintain uniformity of floor covering direction.
 2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in floor covering substrates.
 3. Match edges of floor coverings for color shading at seams.
 4. Avoid cross seams.
- D. Scribe and cut floor coverings to butt neatly and tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, and door frames.

- E. Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
- F. Maintain reference markers, holes, or openings that are in place or marked for future cutting by repeating on floor coverings as marked on substrates. Use chalk or other nonpermanent marking device.
- G. Install floor coverings on covers for telephone and electrical ducts and similar items in installation areas. Maintain overall continuity of color and pattern between pieces of floor coverings installed on covers and adjoining floor covering. Tightly adhere floor covering edges to substrates that abut covers and to cover perimeters.
- H. Adhere floor coverings to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.
- I. Seamless Installation:
 - 1. Heat-Welded Seams: Comply with ASTM F 1516 "Standard Practice for Sealing Seams of Resilient Flooring Products by the Heat Weld Method (when Recommended)." Rout joints and use welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.

3.4 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of floor coverings.
- B. Perform the following operations immediately after completing floor covering installation:
 - 1. Remove adhesive and other blemishes from floor covering surfaces.
 - 2. Sweep and vacuum floor coverings thoroughly.
 - 3. Damp-mop floor coverings to remove marks and soil.
- C. Protect floor coverings from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, visible adhesive, and surface blemishes from floor covering before applying liquid floor polish.
 - 1. Apply three coats.

E. Cover floor coverings until Substantial Completion.

END OF SECTION

SECTION 096517
LINOLEUM FLOORING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:

1. Linoleum sheet flooring.

B. Related Sections:

1. Division 09 Section "Resilient Base and Accessories" for reducer strips, and other accessories installed with linoleum floor covering.

1.2 DEFINITIONS

- A. Basis-of-Design Product: Product selected, for Contractor's information, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics, for purposes of evaluating like products proposed by Contractor.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.

- B. Shop Drawings: For each type of floor covering. Include floor covering layouts, locations of seams, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

1. Show details of special patterns.

- C. Samples: In manufacturer's standard size, but not less than 6-by-9-inch sections of each color and pattern of floor covering required.

1. Heat-Welding Bead: Include manufacturer's standard-size Samples, but not less than 9 inches long, of each color required.

- a. Heat-Welded Seam Samples: For each floor covering product and welding bead color and pattern combination required; with seam running lengthwise and in center of 6-by-9-inch Sample applied to rigid backing and prepared by Installer for this Project.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs workers for this Project who are competent in techniques required by manufacturer for floor covering installation.

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1. Engage an installer who employs workers for this Project who are trained or certified by manufacturer for installation techniques required.
- B. Fire-Test-Response Characteristics: As determined by testing identical products according to (ASTM International) [ASTM E 648](#) or (National Fire Protection Association) [NFPA 253](#) by a qualified testing agency.
 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
 2. Floor covering shall have a smoke developed rating of less than 450 when tested in accordance with [ASTM C662](#).
 3. Conform to (California Code of Regulations) [CCR, Title 24](#), Part 9, Appendix IV-A for Class 1 floor finish flammability requirements.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store floor coverings and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 65 deg F or more than 90 deg F.
 1. Floor Tile: Store on flat surfaces.
 2. Sheet Flooring: Store rolls upright.

1.6 PROJECT CONDITIONS

- A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor coverings during the following time periods:
 1. 72 hours before installation.
 2. During installation.
 3. 72 hours after installation.
- B. Until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.
- C. Close spaces to traffic during floor covering installation.
- D. Close spaces to traffic for 72 hours after floor covering installation.
- E. Install floor coverings after other finishing operations, including painting, have been completed.

1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Sheet Flooring: Furnish not less than 10 linear feet for every 500 linear feet or fraction thereof, in roll form and in full roll width for each color, pattern, and type of sheet flooring installed.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Use interior (i.e. inside the exterior moisture barrier of the building) adhesives, sealants and sealant primers that comply with (South Coast Air Quality Management District) SCAQMD [Rule 1168](#) "Adhesive and Sealant Applications."

2.2 LINOLEUM FLOOR COVERING

- A. Sheet Flooring: [ASTM F 2034](#), Type I, linoleum sheet with backing.
 - 1. Roll Size: In manufacturer's standard length by not less than 78 inches wide.
 - 2. Thickness: 0.10 inch.
 - 3. Colors and Patterns: As selected by Interior Designer from full range of industry colors.
 - 4. Seaming Method: Heat welded.
 - 5. Basis-of-Design Product: Provide products indicated on Interior Finish Drawings or comparable product by:
 - a. [Armstrong](#).
 - b. [Forbo Flooring, Inc.](#)
 - c. [Johnsonite](#).

2.3 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by manufacturer for applications indicated.
- B. Adhesives: Water-resistant type recommended by manufacturer to suit products and substrate conditions indicated.

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- C. Heat-Welding Bead: Solid-strand product of linoleum floor covering manufacturer.
 - 1. Match linoleum floor covering.
- D. Integral-Flash-Cove-Base Accessories:
 - 1. Cove Strip: 1-inch radius provided or approved by manufacturer.
 - 2. Cap Strip: Square metal cap provided or approved by manufacturer.
- E. Floor Polish: Provide protective liquid floor polish products as recommended by manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor coverings.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of floor coverings.
- B. Concrete Substrates: Prepare according to [ASTM F 710](#).
 - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
 - 2. Remove substrate coatings and other substances that are incompatible with floor covering adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by manufacturer. Do not use solvents.
 - 3. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.

4. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, [ASTM F 1869](#). Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - b. Perform relative humidity test using in situ probes, [ASTM F 2170](#). Proceed with installation only after substrates have maximum 75 percent relative humidity level measurement.
- C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound and remove bumps and ridges to produce a uniform and smooth substrate.
- D. Do not install floor coverings until they are same temperature as space where they are to be installed.
 1. Move floor coverings and installation materials into spaces where they will be installed at least 72 hours in advance of installation.
- E. Sweep and vacuum clean substrates to be covered by floor coverings immediately before installation.

3.3 INSTALLATION, GENERAL

- A. Comply with manufacturer's written instructions for installing floor coverings.
- B. Scribe and cut floor coverings to butt neatly and tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings.
- C. Extend floor coverings into toe spaces, door reveals, closets, and similar openings.
- D. Maintain reference markers, holes, or openings that are in place or marked for future cutting by repeating on floor coverings as marked on subfloor. Use chalk or other nonpermanent marking device.
- E. Install floor coverings on covers for telephone and electrical ducts and similar items in finished floor areas. Maintain overall continuity of color and pattern between pieces of floor covering installed on covers and adjoining floor covering. Tightly adhere floor covering edges to substrates that abut covers and to cover perimeters.
- F. Adhere floor coverings to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

- G. Heat-Welded Seams: Comply with [ASTM F 1516](#). Rout joints and use welding bead to permanently fuse sections into a seamless floor covering. Prepare, weld, and finish seams to produce surfaces flush with adjoining floor covering surfaces.

3.4 LINOLEUM SHEET FLOORING INSTALLATION

- A. Unroll sheet floorings and allow them to stabilize before cutting and fitting.
- B. Lay out sheet floorings as follows:
 - 1. Maintain uniformity of floor covering direction.
 - 2. Minimize number of seams; place seams in inconspicuous and low-traffic areas, at least 6 inches away from parallel joints in floor covering substrates.
 - 3. Match edges of floor coverings for color shading at seams.
 - 4. Avoid cross seams.
 - 5. Eliminate deformations that result from hanging method used during drying process (stove bar marks).
- C. Integral-Flash-Cove Base: Cove linoleum floor covering 6 inches up vertical surfaces. Support floor covering at horizontal and vertical junction with cove strip. Butt at top against cap strip.

3.5 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protection of floor coverings.
- B. Perform the following operations immediately after completing floor covering installation:
 - 1. Remove adhesive and other blemishes from exposed surfaces.
 - 2. Sweep and vacuum surfaces thoroughly.
 - 3. Damp-mop surfaces to remove marks and soil.
- C. Protect floor coverings from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.
- D. Floor Polish: Remove soil, visible adhesive, and surface blemishes from floor coverings before applying liquid floor polish.
 - 1. Apply three coats.

- E. After allowing drying room film (yellow film caused by linseed oil oxidation) to disappear, cover floor coverings until Substantial Completion.

END OF SECTION

SECTION 096813
TILE CARPETING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes modular carpet tile.
- B. Related Sections:
 - 1. Division 09 Section "Resilient Base and Accessories" for resilient wall base and accessories installed with carpet tile.

1.2 DEFINITIONS

- A. Basis-of-Design Product: Product selected, for Contractor's information, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics, for purposes of evaluating like products proposed by Contractor.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's written data on physical characteristics, durability, and fade resistance. Include installation recommendations for each type of substrate.
- B. Shop Drawings: Show the following:
 - 1. Columns, doorways, enclosing walls or partitions, built-in cabinets, and locations where cutouts are required in carpet tiles.
 - 2. Carpet tile type, color, and dye lot.
 - 3. Pattern of installation.
 - 4. Pattern type, location, and direction.
 - 5. Pile direction.
 - 6. Type, color, and location of edge, transition, and other accessory strips.
 - 7. Transition details to other flooring materials.
- C. Samples: Full-size carpet tiles, for each type, color, and texture required. Label each Sample with manufacturer's name, material description, color, pattern, and designation indicated on Drawings and in schedules.

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1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced Installer who is certified by the (International Certified Floorcovering Installers Association) [CFI](#) at the Commercial II certification level.
 - 1. Installation Standard: (Carpet and Rug Institute) CRI [Carpet Installation Standard](#).
- B. Fire-Test-Response Characteristics: As determined by testing identical products according to (ASTM International) [ASTM E 648](#) or (National Fire Protection Association) [NFPA 253](#), by a qualified testing agency.
 - 1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.
 - 2. Floor covering shall have a smoke developed rating of less than 450 when tested in accordance with [ASTM C662](#).
 - 3. Conform to (California Code of Regulations) [CCR, Title 24](#), Part 9, Appendix IV-A for Class 1 floor finish flammability requirements.
- C. Mockups: Before installing carpet tile, build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 - 1. Approved mockups may become part of the completed Work if undamaged at time of Substantial Completion.
- D. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to carpet tile installation including, but not limited to, the following:
 - 1. Review delivery, storage, and handling procedures.
 - 2. Review ambient conditions and ventilation procedures.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with CRI Carpet Installation Standard, Section 5, "Storage and Handling."

1.6 PROJECT CONDITIONS

- A. Comply with Carpet Installation Standard, Section 7.2, "Site Conditions; Temperature and Humidity" and Section 7.12, "Ventilation."
- B. Environmental Limitations: Do not install carpet tiles until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

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- C. Do not install carpet tiles over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have pH range recommended by carpet tile manufacturer.

1.7 WARRANTY

- A. Special Warranty for Carpet Tiles: Manufacturer's standard form in which manufacturer agrees to repair or replace components of carpet tile installation that fail in materials or workmanship within specified warranty period.
 - 1. Warranty does not include deterioration or failure of carpet tile due to unusual traffic, failure of substrate, vandalism, or abuse.
 - 2. Failures include, but are not limited to, more than 10 percent loss of face fiber, edge raveling, snags, runs, loss of tuft bind strength, dimensional stability, excess static discharge, and delamination.
 - 3. Warranty Period: Lifetime of installation.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below, before installation begins, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Carpet Tile: Full-size units equal to 5 percent of amount installed for each type indicated, but not less than 10 sq. yd.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Use interior (i.e. inside the exterior moisture barrier of the building) adhesives, sealants and sealant primers that comply with (South Coast Air Quality Management District) SCAQMD [Rule 1168](#) "Adhesive and Sealant Applications."

2.2 CARPET TILE

- A. Basis-of-Design Product: Provide product indicated on Interior Design Drawings, or comparable product acceptable to Interior Designer.
- B. Backing System: Manufacturer's standard backing system.
- C. Applied Soil-Resistance Treatment: Manufacturer's standard material.
- D. Antimicrobial Treatment: Manufacturer's standard material.

2.3 INSTALLATION ACCESSORIES

- A. Trowelable Leveling and Patching Compounds: Latex-modified, hydraulic-cement-based formulation provided or recommended by carpet tile manufacturer.
- B. Adhesives: Water-resistant, mildew-resistant, nonstaining, pressure-sensitive type to suit products and subfloor conditions indicated, that complies with flammability requirements for installed carpet tile and is recommended by carpet tile manufacturer for releasable installation.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for maximum moisture content, alkalinity range, installation tolerances, and other conditions affecting carpet tile performance. Examine carpet tile for type, color, pattern, and potential defects.
- B. Concrete Subfloors: Verify that concrete slabs comply with [ASTM F 710](#) and the following:
 - 1. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by carpet manufacturer.
 - 2. Subfloor finishes comply with requirements specified in Division 03 Section "Cast-in-Place Concrete" for slabs receiving carpet.
 - 3. Subfloors are free of cracks, ridges, depressions, scale, and foreign deposits.
 - 4. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.
 - 5. Moisture Testing: Perform tests recommended by manufacturer and as follows. Proceed with installation only after substrates pass testing.
 - a. Perform anhydrous calcium chloride test, [ASTM F 1869](#). Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
 - 6. Perform relative humidity test using in situ probes, [ASTM F 2170](#). Proceed with installation only after substrates have maximum 75 percent relative humidity level measurement.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

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3.2 PREPARATION

- A. General: Comply with Carpet Installation Standard, Section 6.2, "Site Conditions; Floor Preparation," and with carpet tile manufacturer's written installation instructions for preparing substrates indicated to receive carpet tile installation.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider and protrusions more than 1/32 inch, unless more stringent requirements are required by manufacturer's written instructions.
- C. Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by carpet tile manufacturer.
- D. Broom and vacuum clean substrates to be covered immediately before installing carpet tile.

3.3 INSTALLATION

- A. General: Comply with Carpet Installation Standard, Section 14, "Carpet Modules," and with carpet tile manufacturer's written installation instructions.
- B. Installation Method: Glue down; install every tile with full-spread, releasable, pressure-sensitive adhesive.
- C. Maintain dye lot integrity. Do not mix dye lots in same area.
- D. Cut and fit carpet tile to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet tile manufacturer.
- E. Extend carpet tile into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.
- F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on finish flooring as marked on subfloor. Use nonpermanent, nonstaining marking device.
- G. Install pattern parallel to walls and borders.
 - 1. Installation Pattern: Monolithic.

3.4 CLEANING AND PROTECTION

- A. Perform the following operations immediately after installing carpet tile:

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1. Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet tile manufacturer.
 2. Remove yarns that protrude from carpet tile surface.
 3. Vacuum carpet tile using commercial machine with face-beater element.
- B. Protect installed carpet tile to comply with Carpet Installation Standard, Section 16, "Protection of Indoor Installations."
1. Verify appearance of carpet is acceptable to Interior Designer prior to installation of protective materials.
- C. Protect carpet tile against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet tile manufacturer.

END OF SECTION

SECTION 099100 PAINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section is general in nature. Paint systems are specified for various substrates that may or may not be encountered in the Work.
- B. Section includes surface preparation and the application of paint systems on the following interior substrates:
 - 1. Concrete.
 - 2. Concrete masonry units (CMU).
 - 3. Steel.
 - 4. Galvanized metal.
 - 5. Aluminum (not anodized or otherwise coated).
 - 6. Wood.
 - 7. Gypsum board.
 - 8. Plaster.
- C. Related Sections:
 - 1. Division 05 Sections for shop priming of metal substrates with primers specified in this Section.
 - 2. Division 09 Section "Painting" for surface preparation and the application of paint systems on exterior substrates.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Paint interior surfaces as indicated on Drawings.
- B. Paint shop-primed and galvanized steel and iron surfaces specified in Division 05 Metals Sections that are exposed in normally occupied areas.

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- C. Paint shop-primed and galvanized steel and iron surfaces specified in Division 08 Section " Standard Steel Doors and Frames."
- D. Mechanical and Electrical Work: Paint surfaces of items exposed in normally occupied areas and in equipment rooms including, but not limited to:
 - 1. Mechanical and Plumbing Work:
 - a. Visible portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets (paint with a flat, nonspecular black paint).
 - b. Uninsulated metal piping.
 - c. Tanks that do not have factory-applied final finishes.
 - d. Equipment supplied with factory-primed finish for field painting.
 - 2. Electrical Work:
 - a. Conduits, boxes and raceways.
 - b. Disconnect switches and panelboards.
 - c. Equipment supplied with factory-primed finish for field painting.
 - 3. Do not paint:
 - a. Moving parts.
 - b. Equipment nameplates and other means of identification.
 - c. Performance rating data.
 - d. Code-required labels.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples: For each type of paint system and in each color and gloss of topcoat indicated.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.

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- C. Product List: For each product indicated, include the following:
1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 2. Printout of current "MPI Approved Products List" for each product category specified in Part 2, with the proposed product highlighted.

1.5 QUALITY ASSURANCE

- A. (Master Painter's Institute) [MPI](#) Standards:
1. Products: Complying with MPI standards indicated and listed in "[MPI Approved Products List](#)."
 2. Preparation and Workmanship: Comply with requirements in "[MPI Architectural Painting Specification Manual](#)" for products and paint systems indicated.
- B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
1. Interior Designer will select one surface to represent surfaces and conditions for application of each paint system specified in Part 3.
 - a. Wall and Ceiling Surfaces: Provide samples of at least 100 sq. ft.
 - b. Other Items: Interior Designer will designate items or areas required.
 2. Apply benchmark samples after permanent lighting and other environmental services have been activated.
 3. Final approval of color selections will be based on benchmark samples.
 - a. If preliminary color selections are not approved, apply additional benchmark samples of additional colors selected by Interior Designer at no added cost to Owner.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
1. Maintain containers in clean condition, free of foreign materials and residue.
 2. Remove rags and waste from storage areas daily.

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1.7 PROJECT CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that are from same production run (batch mix) as materials applied and that are packaged for storage and identified with labels describing contents.
 - 1. Quantity: Furnish an additional 5 percent, but not less than 1 gallon of each material and color applied.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- B. Colors: As indicated on Interior Finish Drawings.

2.2 BLOCK FILLERS

- A. Interior/Exterior Latex Block Filler: [MPI #4](#).

2.3 PRIMERS/SEALERS

- A. Interior Latex Primer/Sealer: [MPI #50](#).
- B. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for use in paint systems indicated.

2.4 METAL PRIMERS

- A. Alkyd Anticorrosive Metal Primer: [MPI #79](#).
- B. Epoxy Primer, Anti-Corrosive: [MPI #101](#).

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C. Waterborne Galvanized-Metal Primer: [MPI #134](#).

D. Quick-Drying Primer for Aluminum: [MPI #95](#).

2.5 WOOD PRIMERS

A. Interior Latex-Based Wood Primer: [MPI #39](#).

2.6 LATEX PAINTS

A. Interior Latex (Eggshell): [MPI #52](#) (Gloss Level 3).

B. Interior Latex (Satin): [MPI #43](#) (Gloss Level 4).

C. Interior Latex (Semigloss): [MPI #54](#) (Gloss Level 5).

2.7 ALKYD PAINTS

A. Interior Alkyd (Gloss): [MPI #48](#) (Gloss Level 6).

2.8 EPOXY PAINTS

A. Interior Epoxy (Gloss): [MPI #77](#)

B. Interior Epoxy-Modified Latex: [MPI #215](#) (Gloss Level 5).

2.9 FLOOR COATINGS

A. Interior/Exterior Clear Concrete Floor Sealer (Water Based): [MPI #99](#).

2.10 MANUFACTURERS

A. Provide interior paint by:

1. [Benjamin Moore & Co.](#)

2. [Cloverdale Paint.](#)

3. [Diamond Vogel Paints.](#)

4. [Frazee Paint.](#)

5. [Glidden Professional.](#)

6. [Kelly-Moore Paints.](#)

7. [MicroBlend Technologies.](#)

8. [PPG Architectural Finishes, Inc.](#)

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9. [Sherwin-Williams Company](#).

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
 - 1. Concrete: 12 percent.
 - 2. Masonry (Clay and CMU): 12 percent.
 - 3. Wood: 15 percent.
 - 4. Gypsum Board: 12 percent.
 - 5. Plaster: 12 percent.
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.
 - 1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.
- B. Remove plates, machined surfaces, and similar items already in place that are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
 - 2. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.

- C. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Concrete Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust and loose mill scale. Clean using methods recommended in writing by paint manufacturer.
- G. Galvanized-Metal Substrates: Remove grease and oil residue from galvanized sheet metal fabricated from coil stock by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.
- H. Aluminum Substrates: Remove surface oxidation.
- I. Wood Substrates:
 - 1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
 - 2. Sand surfaces that will be exposed to view, and dust off.
 - 3. Prime edges, ends, faces, undersides, and backsides of wood.
 - 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
- J. Gypsum Board Substrates: Do not begin paint application until finishing compound is dry and sanded smooth.
- K. Plaster Substrates: Do not begin paint application until plaster is fully cured and dry.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions.
 - 1. Use applicators and techniques suited for paint and substrate indicated.

2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 4. Paint backsides of access panels and removable or hinged covers to match exposed surfaces.
 5. Factory-Finished Objects: When directed by Interior Designer, paint factory-finished objects such as grilles, louvers, switch-plates, etc. that do not match the color of surfaces in which they are located.
 6. Apply additional coats of primer to joints in gypsum board assemblies as necessary to preclude joint "read-through."
- B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure at any time and as often as Owner deems necessary during the period when paints are being applied:
1. Owner will engage the services of a qualified testing agency to sample paint materials being used. Samples of material delivered to Project site will be taken, identified, sealed, and certified in presence of Contractor.
 2. Testing agency will perform tests for compliance with product requirements.
 3. Owner may direct Contractor to stop applying paints if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying-paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

3.5 CLEANING AND PROTECTION

- A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Interior Designer, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

- A. Concrete Substrates, Nontraffic Surfaces:
 - 1. High-Performance Architectural Latex System: MPI INT 3.1C, G4.
 - a. Prime Coat: MPI #50 Interior latex primer/sealer.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #43 High-performance architectural latex (satin).
 - 2. Epoxy- Modified Latex System: MPI INT 3.1G, G5. Use for toilet rooms, custodial closets, and similar spaces.
 - a. Prime Coat: MPI #115 Epoxy-modified latex.
 - b. Intermediate Coat: Epoxy-modified latex matching topcoat.
 - c. Topcoat: MPI #115 Epoxy-modified latex (semi-gloss).
- B. Concrete Substrates, Traffic Surfaces:
 - 1. Water-Based Clear Sealer System: MPI INT 3.2G.
 - a. First Coat: MPI #99 Interior/exterior clear concrete floor sealer (water based).
 - b. Topcoat: MPI #99 Interior/exterior clear concrete floor sealer (water based).
- C. CMU Substrates:
 - 1. High-Performance Architectural Latex System: MPI INT 4.2D, G4.
 - a. Prime Coat: MPI #4 Interior/exterior latex block filler.

- b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #43 High-performance architectural latex (satin).
 - 2. Epoxy System: MPI INT 4.2F. Use for toilet rooms, custodial closets, and similar spaces.
 - a. Prime Coat: MPI #4 Interior/exterior latex block filler.
 - b. Intermediate Coat: Epoxy matching topcoat.
 - c. Topcoat: MPI #77 Epoxy.
- D. Steel Substrates:
 - 1. Alkyd System: MPI INT 5.1E, G6. Use for handrails and guardrails.
 - a. Prime Coat: MPI #79 Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: Interior alkyd matching topcoat.
 - c. Topcoat: MPI #48 Interior alkyd (gloss).
 - 2. High-Performance Architectural Latex System: MPI INT 5.1R, G5. Use for steel substrates unless otherwise indicated.
 - a. Prime Coat: MPI #79 Alkyd anticorrosive metal primer.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #54 High-performance architectural latex (semigloss).
 - 3. Epoxy System: MPI INT 5.1L. Use for toilet rooms, custodial closets, and similar spaces.
 - a. Prime Coat: MPI #101 Epoxy primer.
 - b. Intermediate Coat: Epoxy matching topcoat.
 - c. Topcoat: MPI #77 Epoxy.
- E. Galvanized-Metal Substrates:
 - 1. High-Performance Architectural Latex System: MPI INT 5.3M, G5. Use for galvanized metal substrates unless otherwise indicated.
 - a. Prime Coat: MPI #134 Waterborne galvanized-metal primer.

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- b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #54 High-performance architectural latex (semigloss).
- F. Aluminum (Not Anodized or Otherwise Coated) Substrates:
- 1. High-Performance Architectural Latex System: MPI INT 5.4F, G5.
 - a. Prime Coat: MPI #95 Quick-drying primer for aluminum.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #54 High-performance architectural latex (semigloss).
- G. Wood Substrates:
- 1. High-Performance Architectural Latex System: MPI INT 6.3A, G5.
 - a. Prime Coat: MPI #39 Interior latex-based wood primer.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #54 High-performance architectural latex (semigloss).
- H. Gypsum Board Substrates:
- 1. High-Performance Architectural Latex System: MPI INT 9.2B, G3.
 - a. Prime Coat: MPI #50 Interior latex primer/sealer.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #52 High-performance architectural latex (eggshell).
 - 2. Epoxy System: MPI INT 9.2E. Use for toilet rooms, custodial closets, and similar spaces.
 - a. Prime Coat: MPI #50 Interior latex primer/sealer.
 - b. Intermediate Coat: Epoxy matching topcoat.
 - c. Topcoat: MPI #77 Epoxy.

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I. Plaster Substrates:

1. High-Performance Architectural Latex System: MPI INT 9.2B, G3.
 - a. Prime Coat: MPI #50 Interior latex primer/sealer.
 - b. Intermediate Coat: High-performance architectural latex matching topcoat.
 - c. Topcoat: MPI #52 High-performance architectural latex (eggshell).
2. Epoxy System: MPI INT 9.2E. Use for toilet rooms, custodial closets, and similar spaces.
 - a. Prime Coat: MPI #50 Interior latex primer/sealer.
 - b. Intermediate Coat: Epoxy matching topcoat.
 - c. Topcoat: MPI #77 Epoxy.

END OF SECTION

SECTION 122123
ROLL-DOWN BLINDS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes roller shades.

1.2 DEFINITIONS

- A. Basis-of-Design Product: Product selected, for Contractor's information, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics, for purposes of evaluating like products proposed by Contractor.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include styles, material descriptions, construction details, dimensions of individual components and profiles, features, finishes, and operating instructions.
- B. Shop Drawings: Show location and extent of roller shades. Include elevations, sections, details, and dimensions not shown in Product Data. Show installation details, mountings, attachments to other work, operational clearances, and relationship to adjoining work.
 - 1. Provide details of each distinct mounting condition. Indicate mounting substrate, fasteners and fastening method, blocking to be provided by others where required, and mounting configuration.
- C. Samples:
 - 1. Shade Material: Not less than 12-inch- square section of fabric, from dye lot used for the Work, with specified treatments applied. Show complete pattern repeat. Mark top and face of material.
- D. Window Treatment Schedule: For roller shades. Use same designations indicated on Drawings.
 - 1. Include mounting condition for each shade.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
- B. Source Limitations: Obtain roller shades through one source from a single manufacturer.

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- C. Fire-Test-Response Characteristics: Provide roller shade band materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
 - 1. Flame-Resistance Ratings: Passes (National Fire Protection Association) [NFPA 701](#).
- D. Product Standard: Provide roller shades complying with (American National Standards Institute/Window Covering Manufacturers Association) [ANSI/WCMA A100.1](#).

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver shades in factory packages, marked with manufacturer and product name, and location of installation using same designations indicated on Drawings and in a window treatment schedule.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Do not install roller shades until construction and wet and dirty finish work in spaces, including painting, is complete and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
- B. Field Measurements: Where roller shades are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication and indicate measurements on Shop Drawings. Allow clearances for operable glazed units' operation hardware throughout the entire operating range. Notify Interior Designer of discrepancies. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

PART 2 - PRODUCTS

2.1 ROLLER SHADES

- A. Shade Band Material:
 - 1. Basis-of-Design Product: Provide the product indicated on Drawings, or comparable product acceptable to Interior Designer:
 - 2. Bottom Hem: Straight.
- B. Rollers: Electrogalvanized or epoxy primed steel or extruded-aluminum tube of diameter and wall thickness required to support and fit internal components of operating system and the weight and width of shade band material without sagging; designed to be easily removable from support brackets; with manufacturer's standard method for attaching shade material. Provide capacity necessary for height of openings.

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1. Provide units which accommodate two rollers for translucent and room darkening shade bands where indicated.
- C. Direction of Roll: Regular, from back of roller.
- D. Mounting Brackets: Galvanized or zinc-plated steel.
- E. Bottom Bar: Steel or extruded aluminum, with plastic or metal capped ends. Provide concealed, by pocket of shade material, internal-type bottom bar with concealed weight bar as required for smooth, properly balanced shade operation.
- F. Mounting: Configuration permitting easy removal and replacement without damaging roller shade or adjacent surfaces and finishes.
- G. Shade Operation: Manual.
1. Manual Shade Operation: Continuous-loop bead-chain, clutch, and cord tensioner and bracket lift operator.
 - a. Position of Clutch Operator: Right side of roller, as determined by hand of user facing shade from inside, unless otherwise indicated.
 - b. Clutch: Capacity to lift size and weight of shade; sized to fit roller or provide adaptor.
 - c. Lift-Assist Mechanism: Manufacturer's standard spring assist for balancing roller shade weight and lifting heavy roller shades.
 - d. Loop Length: Length required to make operation convenient from floor level.
 - e. Bead Chain: Nickel-plated metal.
 - f. Cord Tensioner Mounting: Wall.
 - g. Operating Function: Stop and hold shade at any position in ascending or descending travel.
- H. Basis-of-Design Products: Provide [MechoShade Systems, Inc.](#); Mecho5, or comparable product by:
1. [Draper Inc.](#)
 2. [Hunter Douglas, Inc.](#)
 3. [Insolroll, Inc.](#)
 4. [Nysan Shading Systems Ltd.](#)

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5. [Silent Gliss USA, Inc.](#)
6. [Spring Window Fashions, Bali Contract.](#)

2.2 ROLLER SHADE FABRICATION

- A. Product Description: Roller shade consisting of a roller, a means of supporting the roller, a flexible sheet or band of material carried by the roller, a means of attaching the material to the roller, a bottom bar, and an operating mechanism that lifts and lowers the shade.
- B. Concealed Components: Noncorrodible or corrosion-resistant-coated materials.
 1. Lifting Mechanism: With permanently lubricated moving parts.
- C. Unit Sizes: Obtain units fabricated in sizes to fill window and other openings as follows, measured at 74 deg F:
 1. Shade Units Installed between (Inside) Jambs: Edge of shade not more than 1/4 inch from face of jamb. Length equal to head to sill dimension of opening in which each shade is installed.
 2. Shade Units Installed Outside Jambs: Width and length as indicated, with terminations between shades of end-to-end installations at centerlines of mullion or other defined vertical separations between openings.
- D. Installation Brackets: Designed for easy removal and reinstallation of shade, for supporting roller, and operating hardware and for hardware position and shade mounting method indicated.
- E. Installation Fasteners: No fewer than two fasteners per bracket, fabricated from metal noncorrosive to shade hardware and adjoining construction; type designed for securing to supporting substrate; and supporting shades and accessories under conditions of normal use.
- F. Color-Coated Finish: For metal components exposed to view, apply manufacturer's standard baked finish complying with manufacturer's written instructions for surface preparation including pretreatment, application, baking, and minimum dry film thickness.
- G. Colors of Metal and Plastic Components Exposed to View: As selected by Interior Designer from manufacturer's full range, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, operational clearances, accurate

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locations of connections to building electrical system, and other conditions affecting performance.

1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 ROLLER SHADE INSTALLATION

- A. Install roller shades level, plumb, and aligned with adjacent units according to manufacturer's written instructions, and located so shade band is not closer than 2 inches to interior face of glass. Allow clearances for window operation hardware.
- B. Connections: Connect motorized operators to building electrical system.

3.3 ADJUSTING

- A. Adjust and balance roller shades to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

3.4 CLEANING AND PROTECTION

- A. Clean roller shade surfaces after installation, according to manufacturer's written instructions.
- B. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure that roller shades are without damage or deterioration at time of Substantial Completion.
- C. Replace damaged roller shades that cannot be repaired, in a manner approved by Interior Designer, before time of Substantial Completion.

END OF SECTION