

**HMC ARCHITECTS  
3546 Concours Street  
Ontario, California 91764**

November 6, 2009

Group 6

Modernization Projects

Anderson School, and Del Rosa, Monterey, Wilson Elementary Schools

San Bernardino City Unified School District

HMC # 3137123      3137107      3137115      3137122

DSA # 04-106225    04-106232    04-106151    04-106219

DSA # 04-110175

**ADDENDUM NO. 2**

The following changes, additions, deletions or corrections shall become a part of the Contract Documents for the project named above and all other conditions shall remain the same. The bidders shall be responsible for transmitting this information to all affected subcontractors and suppliers prior to the closing of bids.

**BID FORM**

**3137123, 3137107, 3137115, 3137122**

Item No. AD-2.1:                      Reference Bid Form (Addendum No. 1)

- A. Delete Bid Form issued in Addendum No. 1. Substitute therefore Revised Bid Form hereby issued.

Item No. AD-2.2:                      Reference Attachment No. 7 to Bid Form - Supplemental Bid Information (Addendum No. 1)

- A. Delete this Attachment in its entirety. The District has determined this Attachment is not required for submission with the Bid Form as indicated in the Information For Bidders Section.

**SUPPLEMENTARY GENERAL CONDITIONS**

Item No. AD-2.3:                      Reference Section 00800 (Addendum No. 1)

- A. Add the following amendment to the first sentence of ARTICLE 3.3.1 **FULL-TIME SUPERINTENDENT** of the General Conditions, Section 00700 to Section 00800 as follows:

"During progress of the Work, CONTRACTOR shall keep on each active work site a competent full-time Superintendent satisfactory to DISTRICT."

ADDENDUM NO. 2 - 1

- B. Add the following to ARTICLE 3.3.2, **STAFF**:

"All Employees of the General Contractor and Subcontractors shall wear, at a minimum, the following at all times while on the site: 1) Hard Hats, 2) Proper long pants and shirts with sleeves, and 3) Work boots, with steel toes if necessary, for the work being performed."

- C. Add the following Amendment to ARTICLE 4.3.4 **INSPECTOR'S FACILITIES** of the General Conditions Section 00700 to Section 00800 as follows:

**"4.3.4 INSPECTOR'S FACILITIES**

Within seven (7) calendar days after notice to proceed, the CONTRACTOR shall provide the inspector with the temporary facilities as required under Division 1 of the Specifications."

**ATTACHMENTS**

Item No. AD-2.4:                      Reference Calendars

- A. 2009-2010 Traditional School Year Calendars are hereby issued.

**SPECIFICATIONS FOR ALL SITES**

Item No. AD-2.5:                      Reference Revised Sections

- A. The following Revised Specification Section is hereby issued:

Section 01 52 00, Construction Facilities

Item No. AD-2.6:                      Reference New Sections

- A. The following New Specification Section is hereby issued:

Section 16720, Integrated Fire Alarm / Security System

Item No. AD-2.7:                      Reference Section 01 11 00, Summary of Work

- A. Paragraph 1.06.A, refer to the attached School District Calendars previously referenced in Addendum No. 1 that were not included at the end of this Section. This information is to be utilized by the General Contractor in the preparation of the project logistics plan for each campus. General Contractor to consult with District to determine which calendar is applicable to each campus.

Item No. AD-2.8:

Reference Section 01 11 14, Work Sequence and Phasing  
(Issued in Addendum No. 1)

- A. Add the following new paragraph:

"1.04.E. Student testing will be taking place on all sites in the months of April and May. 10 work days per month are to be placed in the Construction Progress Schedule where no work during hours that will conflict with the campus testing activities by the Contractors will be allowed to occur for a total of 20 work days. Contractor to refer to attached School Calendars for identification of testing days."

Item No. AD-2.9:

Reference Section 01 11 14, Work Sequence and Phasing  
(Addendum No. 1)

- A. Paragraph 1.05.A, Delete the verbiage as shown in its entirety. Substitute therefore:

"A. CONTRACTOR shall prepare the Construction Progress Schedule including phased Milestones broken down by site."

- B. In the Proposed Staging and Phasing Plan Strategy sections previously referenced in Addendum No. 1 for each campus, revise the first sentence shown under the heading Staging Area to read as follows:

"Staging Area: A staging area has been outlined on the Monterey Elementary School Site Plan Exhibit in Section 01 11 00, and will serve as the staging area serving all of the campuses."

- C. In the Proposed Staging and Phasing Plan Strategy sections previously referenced in Addendum No. 1, revise the chain link fence height reference in the fourth sentence shown under the heading Staging Area from 8 feet high to 6 feet high.

Item No. AD-2.10:

Reference Section 01 26 13, Contractor's Request for Information  
(RFI's)

- A. Revise Paragraph 1.03.I to read as follows:

"I. Contractor shall prepare, input and maintain the District's web-based log of RFI's utilizing the District's Construction Management software programs, and at any time requested by District or Architect, Contractor shall furnish copies of log showing outstanding RFI's. Contractor shall note unanswered RFI's in log. District shall furnish General Contractor with password - encrypted access to this software program and training to the General Contractor's staff who will be entering data into this system at no cost to the Contractor."

B. Add Paragraph 1.03.H. to read as follows:

H. Contractor shall notify the Architect and the District of any cost impacts to the project within five (5) calendar days of receiving a response to an RFI. Failure to furnish such notification within the specified time frame will result in the Contractor's forfeiture of submitting subsequent claims for additional time or costs related to those RFI responses.

Item No. AD-2.11:                    Reference Section 01 32 16, Construction Progress Schedule

A. In Paragraph 1.06.B.2, revise first sentence to read as follows:

"Construction activity durations shall be limited to no more than 14 working days, with exception of fabrication and procurement activities, unless approved otherwise by District."

Item No. AD-2.12:                    Reference Section 04820, Reinforced Unit Masonry System

A. In Paragraph 2.02.A, Delete information indicated within brackets.

Item No. AD-2.13:                    Reference Section 11130, Projection Screens

A. Delete Paragraph 1.07.

B. In Paragraph 2.02.A.4, Delete the words: "[ High Power ]".

C. In Paragraph 3.01.D, Delete brackets.

Item No. AD-2.14:                    Reference Section 11131, Projector Mounts

A. In Paragraph 2.02 COMPONENTS, revise verbiage as follows:

2.02 COMPONENTS

A. Product: Bretford Model TPMA1-BK, pipe mounted for suspended ceilings, or TPMA1-BK, at ceiling flush mounted conditions.

1. Operation: Fixed mounted.
2. Mounting Accessories: Ceiling-Flange TVCM-BK for treaded pipe ceiling flush mounted, installation.
3. Threaded pipe and ceiling mounted, 1-1/2" NPS TV18-BK (18" pipe), escutcheon ring TMER-BK, TVCPLR-BK (coupler).
4. Threaded rod, 1/4" diameter, TVAC-BK couplers.

B. Product: Bretford Universal Adjustable Data Projector Mounts: TPMUN14

1. Operation: Fixed mounted.
2. Aluminum construction, finish in neutral color.
3. For LCD projectors max 25 lbs.
4. Extension arm/Tube: Adjust from 23" to 46".

5. Quick Release Mechanism for easy removal of projector.
6. Include accessories.
7. Ceiling Mounting Plate: Model TPM8 Plate for suspended ceilings."

### **SPECIFICATIONS FOR ANDERSON SCHOOL**

Item No. AD-2.15:                    Reference Deleted Sections

- A. The following section is hereby deleted:

16721, FIRE ALARM SYSTEM

Item No. AD-2.16:                    Reference New Sections

- A. The following New section is hereby issued:

16720, INTEGRATED FIRE ALARM/SECURITY SYSTEM

### **SPECIFICATIONS FOR DEL ROSA ELEMENTARY**

Item No. AD-2.17:                    Reference Deleted Sections

- A. The following section is hereby deleted:

16722, FIRE ALARM

Item No. AD-2.18:                    Reference New Sections

- A. The following New section is hereby issued:

16720, INTEGRATED FIRE ALARM/SECURITY SYSTEM

### **SPECIFICATIONS FOR MONTEREY ELEMENTARY**

Item No. AD-2.19:                    Reference Deleted Sections

- A. The following section is hereby deleted:

16722, FIRE ALARM

Item No. AD-2.20:                    Reference New Sections

- A. The following New section is hereby issued:

16720, INTEGRATED FIRE ALARM/SECURITY SYSTEM

## **DRAWINGS FOR ALL SITES**

Item No. AD-2.21:                      Reference Drawing A1.1, Site Plans

- A.     The Path of Travel Upgrades Work Scope depicted as Alternates 1 and 2 shall be bid as a part of the Base Bid.
- B.     At paving areas designated to receive path of travel upgrades, Contractors shall provide transition slopes between the edges of new upgraded paving areas and existing unaffected paving areas. These flared transition slopes shall extend beyond the areas of upgrades indicated in the plans and have slopes that do not exceed 5% (in the direction of travel).
- C.     At paving areas designated to receive path of travel upgrades, the new paving materials shall match the type of the existing paving materials.

## **DRAWINGS FOR ANDERSON SCHOOL - 3137123**

Item No. AD-2.22:                      Reference Drawing A6.1G, Reflected Ceiling Plan

- A.     Add General Notes applicable to the ceiling plan as noted:

“Notes:

- 1.     REMOVE (E) LIGHT FIXTURES IN EVERY ROOM THROUGHOUT THE BUILDING.
- 2.     (E) CEILINGS TO REMAIN U.N.O. PATCH AND REPAIR (E) CEILINGS AS REQUIRED TO MATCH EXISTING OR REPLACE AS SCHEDULED.
- 3.     NEW LIGHT FIXTURES IN EVERY ROOM THROUGHOUT THE BUILDING, SEE ELEC. DRAWINGS.
- 4.     (E) MECHANICAL DUCTS, DIFFUSERS AND RETURN AIR VENTS TO BE REUSED AND REPOSITIONED ACCORDING TO NEW LIGHT FIXTURE LAYOUT. PROPOSED DIFFUSER LAYOUT TO BE FURNISHED TO MECHANICAL ENGINEER AS A SHOP DRAWING FOR REVIEW AND APPROVAL PRIOR TO ANY REINSTALLATION WORK EFFORTS.

Item No. AD-2.23:                      Reference Drawing A9.8

- A.     On Detail E14, Mechanical Equipment Curb Detail at Plywood Deck, modify as follows:

“A.     Existing roof material shall be removed and replaced with new roofing material of similar composition a minimum distance of 30” from each side of the new equipment curb.”

Item No. AD-2.24:                      Reference Drawings EA-2.1 and EG-2.1

- A.     Delete boxed note indicating that “Electrical lighting to be an Add Alternate. For additional information refer to Architectural Drawings and Specifications.” Contractor shall provide new electrical lighting as a part of the Base Bid.

ADDENDUM NO. 2 - 6

## **DRAWINGS FOR ANDERSON SCHOOL - INTERIM HOUSING PORTABLES- 3137123**

Item No. AD-2.25:                    Reference Drawings C100, Grading Plan and A1.1, Site Plan

- A. Contractor to protect in place the freestanding existing pad mounted transformer situated south of the location of the T1 Interim Housing Relocatable Structure.

Item No. AD-2.26:                    Reference Drawing A2.1, Proposed Enlarged Site Plan

- A. Reverse Relocatable Unit Identification references shown so that Unit T1 becomes T2 and Unit T2 becomes T1 (to coordinate with unit identification references shown on other drawings sheets).
- B. Contractor to provide a 6 foot high chain link fence enclosure around the existing pad mounted transformer situated south of the T1 relocatable unit. Distance of fencing separation from transformer to maintain minimum required distances per utility purveyor requirements. Furnish one pair of 4 foot wide swinging gates along one side of chain link enclosure per access requirements of utility purveyor.
- C. At the Pre and Post-Construction Site Plan, it shall be herein clarified that the utilities infrastructure indicated on the plans shall be installed underground and the existing paving removed for the excavation of trenches replaced to be flush with existing adjacent paving materials.
- D. At the Enlarged Ramp Details A1 and A7, it shall be herein clarified that the asphaltic concrete landing and sloped transitions to existing adjacent grades at the bottom of the access ramps shall be furnished and installed by the General Contractor, and also removed during post-construction (unit removal) activities by the General Contractor.

## **DRAWINGS FOR DEL ROSE ELEMENTARY SCHOOL - 3137107**

Item No. AD-2.27:                    Reference Drawing A2.2B, A2.1C, A2.2D, 2.2E and 2.2F, Remodel Floor Plans

- A. Revise Note 1) to read as follows:
  - "1) FOR (N) 2' x 2' PROJECTOR MOUNTING PLATE IN T-BAR CEILING, REFER TO DETAIL E11/A9.4. PROVIDE NEW POWER AND DATA ABOVE CEILING TO PROJECTOR FOR COMPLETE AND OPERATIONAL INSTALLATION."

ADDENDUM NO. 2 - 7

Item No. AD-2.28:                      Reference Drawing A9.5

- A.     On Detail A17, Mechanical Equipment Curb Detail at Plywood Deck, modify as follows:
- “A.     Existing roof material shall be removed and replaced with new roofing material of similar composition a minimum distance of 30” from each side of the new equipment curb.”

**DRAWINGS FOR MONTEREY ELEMENTARY SCHOOL - 3137115**

Item No. AD-2.29:                      Reference New Drawings

- A.     The following New Drawings are hereby issued:
- P2.1  
      P2.2  
      P3.1  
      P3.2  
      P3.3  
      E0.2  
      E0.5

Item No. AD-2.30:                      Reference Drawing A1.1, Site Plan

- A.     Site Note No. 17 to be revised to read as follows:
- “17.     REPLACE EXISTING WOOD COLUMNS WITH NEW 3” DIAMETER STEEL TUBE COLUMNS ALONG THE EXTENTS OF BUILDING C, BUILDING A AND THE NORTH/SOUTH CONNECTING WALKWAY AS DEPICTED ON THE SITE PLAN. REFER TO DETAILS N14, J14 AND D14 ON SHEET A9.4.”

Item No. AD-2.31:                      Reference Drawings A3.1, A3.2 and A3.3, Remodel Floor Plans

- A.     Revise Note 1) to read as follows:
- “1)     FOR (N) 2’ x 2’ PROJECTOR MOUNTING PLATE IN T-BAR CEILING, REFER TO DETAIL E11/A9.4. PROVIDE NEW POWER AND DATA ABOVE CEILING TO PROJECTOR FOR COMPLETE AND OPERATIONAL INSTALLATION.”

## RESPONSES TO BIDDER'S QUESTIONS

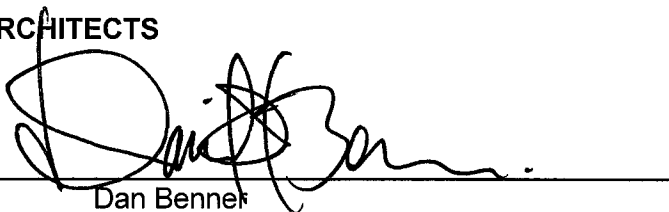
Item No. AD-2.32:

Reference Request for Bid Information

- Q. Will the District allow Subcontractors to bid on only 1, 2, or 3 schools instead of all 4? The Prime would "List" the subs for each of the 4 separate sites. This would increase bid competition and lower the bids, and would allow more subs to participate.
- A. All prime Contractors and listed subcontractors shall fully comply with all pertinent sections of the California Public Contract Code (Sections 4100 to 4114) and applicable Articles within the District's General Conditions Section 00700 and Supplementary Conditions Section 00800 for the requirements of awarding and listing of work to subcontractors.
- Q. Reference Spec Section 16760, Part 1(2.)(B.). Is the Communications Contractor to install their own pathway or does the Electrical install as in 16721 and 16715?
- A. Section 16760: Delete Article 1.02.B in its entirety. It is the Contractor's responsibility to provide a complete and operable Integrated Communications System including conduits, boxes, cabinets, cables, devices and electronics as described in the Project Manual and as shown on the Drawings.

**HMC ARCHITECTS**

By \_\_\_\_\_



Dan Benner

**PROJECT NAME:** Modernization, Anderson School, and Del Rosa, Monterey, Wilson ES  
**BID NUMBER** F08-08

**BID FORM**  
**REVISED - 11/06/09**

**TO:** **SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT**, acting by and through its Governing Board, herein called the "DISTRICT."

**FROM:** \_\_\_\_\_  
(Proper Name of Bidder)

1. Pursuant to and in compliance with your Notice Inviting Bids and the other documents relating thereto, the undersigned Bidder, having familiarized himself/herself with the terms of the Contract and the Contract Documents, the local conditions affecting the performance of the Contract and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated, the Work of the Contract, including all of its component parts, and the furnishing of all materials and equipment required to be incorporated in and form a permanent part of the work; the furnishing of tools, equipment, supplies, transportation, utilities, facilities, labor, superintendence and services required to perform and complete the work; bonds, insurance and submittals; and including the assumption of all obligations, duties and responsibilities necessary to the successful completion of the Contract, including its acceptance by the DISTRICT, for the following Project:

**PROJECT NAME: Group 6 Modernization Projects, Anderson School, and Del Rosa, Monterey, Wilson Elementary Schools (Bid #F08-08)**

2. ADDENDA

The undersigned has thoroughly examined any and all Addenda (if any) issued during the bid period and is thoroughly familiar with all contents thereof and acknowledges receipt of the following Addenda: *(Bidder to list all addenda)*

**Anderson School, and Del Rosa, Monterey, Wilson Elementary School Modernizations**

ADDENDUM NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_ DATE RECEIVED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_ DATE RECEIVED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_ DATE RECEIVED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATE ISSUED \_\_\_\_\_ DATE RECEIVED \_\_\_\_\_

3. ALLOWANCES:

**A1 Unforeseen Site Conditions \$100,000**

Additional effort, over and above contract work, due to existing soil conditions or obstructions encountered during trenching which are not readily discernable prior to excavation.

**A2 Unforeseen Structural Repairs \$60,000**

Additional effort, over and above contract work, due to existing conditions, observable only after demolition, which require immediate repair, i.e. termite damage, dry rot, damaged bracing, Repairs will be forwarded to DSA, via Field Change Directive, to document the repairs.

**A3 Unforeseen Access Compliance Repairs \$40,000**

Additional effort, over and above contract work, due to existing conditions, observable only after demolition, which require immediate repair prior to installation of Access Compliance components. Repairs will be forwarded to DSA, via Field Change Directive, to document the repairs.

**A4 Unforeseen Fire Alarm and Electrical \$30,000**

Additional effort, over and above contract work, due to existing conditions, observable only after demolition, which require immediate repair on order to install new fire alarm and electrical items. Repairs will be forwarded to DSA, via Field Change Directive, to document the repairs.

**A5 Restore Contractor Laydown Area \$20,000**

All work associated with bringing existing lawn area, at east end of Monterey campus, back to current conditions upon completion of trailer demobilization.

4. **COMBINED BASE BIDS FOR ANDERSON SCHOOL, AND DEL ROSA, MONTEREY, WILSON ELEMENTARY SCHOOLS**

A) Base Bid for all four Schools: \$ \_\_\_\_\_

B) Allowances A1 through A5 \$250,000

C) Total Combined Base Bid Price (A + B)  
(Numerical Value) \$ \_\_\_\_\_

**TOTAL COMBINED BASE BID PRICE OF ALLOWANCES, MODERNIZATION AND INTERIM HOUSING PROJECTS AT ANDERSON SCHOOL, AND DEL ROSA, MONTEREY, AND WILSON ELEMENTARY SCHOOLS:**

(Item C written out)

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

5. TIME FOR COMPLETION: The aggregate sum total work of the Contractor comprises the entire "Project" and shall be commenced and completed in conformance with the Project Construction Schedule. The entire Project shall be completed within **three hundred five (305) consecutive calendar days**. Bidder acknowledges liability for liquidated damages in the amount as stipulated herein for each calendar day of delay.
6. DISTRICT'S RIGHT TO REJECT: It is understood that the DISTRICT reserves the right to reject this bid and that the bid shall remain open to acceptance and is irrevocable for a period of **One hundred and Twenty Days (120)**.
7. BID SECURITY: The required bid security in the amount of not less than ten percent (10%) of the bid is attached hereto.
8. PROPOSED SUBCONTRACTORS: The required list of proposed subcontractors is attached hereto. Bidder understands and acknowledges that all subcontractors providing goods and services in excess of \$100,000.00 must be bonded in accordance with the Subletting and Subcontracting Fair Practices Act. (Refer to Notice Inviting Bids.)
9. NONCOLLUSION AFFIDAVIT: The required notarized Bidder's Noncollusion Affidavit is attached hereto.
10. SITE VISIT CERTIFICATION: The required Site Visit Certification is attached hereto.
11. DVBE CERTIFICATION: The required Certification of Compliance with DVBE Policy is attached hereto.
12. CRIMINAL BACKGROUND CHECK CERTIFICATION: The required Criminal Background Check Certification will be submitted prior to Contractor commencing work on the project in accordance with the Notice Inviting Bids.
13. FAITHFUL PERFORMANCE AND PAYMENT BOND: It is understood and agreed that if written notice of the acceptance of this bid is mailed, FAXED, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the DISTRICT a fully executed Form of Agreement (Contract) in the form attached hereto in accordance with the bid as accepted, and that it will also furnish and deliver to the DISTRICT six (6) executed copies of a Faithful Performance Bond and a separate Payment Bond as specified, and Certificates of Insurance, all within ten (10) calendar days after receipt of notification of the acceptance. Bidder further agrees that the work under the Contract will be commenced by the Bidder, if awarded the Contract, on the date to be stated in the DISTRICT's "Notice to Proceed" and will be completed within the time specified in the Contract documents.
14. PROPER ADDRESS: Notice of Award of Contract or other correspondence should be addressed to the undersigned at the address stated below.

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15. NAME(S) OF PRINCIPALS: Principals of the Bidder's company are::

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(IMPORTANT NOTICE: If Bidder is a corporation, state legal name of corporation, as well as names of the president, secretary treasurer, and general manager thereof; if a partnership, state true name of firm, also names of all individual partners composing firm; if an individual, state full name.)

16. The undersigned bidder declares that the bidder is licensed in the State of California as required by the Business and Professional Code in accordance with the act providing for registration of Contractors and the documentation of licensure is as follows:

	License No.	Classification	Expiration Date
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____
4.	_____	_____	_____
5.	_____	_____	_____

If the bidder is a joint venture, each member of the joint venture must include the above information.

Bidder certifies that the above-mentioned license(s) entitle(s) Bidder to provide the work required by the Contract, that such license will be in full force and effect throughout the duration of work under this Contract, and that any and all subcontractors to be employed for the work will have appropriate licenses.

17. FORFEITURE OF SECURITY: In the event the Bidder to whom the Notice of Award of Contract is given fails or refuses to post the required bonds and return executed copies of the Form of Agreement with all required attachments within ten (10) calendar days from the date of the Notice of Award, the DISTRICT may declare the Bidder's bid deposit or bond forfeited as liquidated damages

18. ASSIGNMENT OF RIGHTS, TITLE AND INTEREST IN CAUSES OF ACTION: Pursuant to Section 4552 of the Government code, in submitting a bid to the DISTRICT, the bidder offers and agrees that if the bid is accepted, it will assign to DISTRICT 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.
  
19. IRCA: The bidder hereby certifies that it is, and at all times during the performance of work hereunder will be, in full compliance with the provisions of the Immigration Reform and Control Act of 1986 ("IRCA") in the hiring of its employees and the bidder shall indemnify, hold harmless and defend the DISTRICT against any and all actions, proceedings, penalties or claims arising out of the bidder's failure to comply strictly with the IRCA.
  
20. FINANCIAL STATEMENTS: It is understood and agreed that if requested by the DISTRICT, the Bidder will furnish a notarized financial statement, references and other information required by the DISTRICT sufficiently comprehensive to permit an appraisal of bidder's ability to perform the work of the Contract.
  
21. LIQUIDATED DAMAGES: The undersigned hereby warrants that all work shall be completed as soon as practicable but not later than **three hundred five (305) consecutive calendar days** from the date specified on the Notice to Proceed issued by the DISTRICT. Time is of the essence. The undersigned agrees that failure to complete the work or any scheduled activity within the time set forth herein will result in the imposition of liquidated damages for each consecutive calendar day of delay in the amount of **ONE THOUSAND DOLLARS (\$ 1,000.00)**.
  
22. CHANGE ORDER REQUESTS: Bidder understands and agrees that all change order requests must be submitted in the form set forth in the Contract Documents. The amount of allowable charges submitted pursuant to a change order shall be limited to the charges allowed by the Conditions of the Contract. Indirect costs, consequential and incidental costs, project management costs, extended home office and field office overhead, administrative costs and profit and other charges not specifically authorized by the Contract Conditions will not be allowed.

The undersigned declares and certifies under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

\_\_\_\_\_  
 Name of Corporation, Joint Venture, Partnership or Sole Proprietorship

\_\_\_\_\_  
 Address

Telephone: \_\_\_\_\_  
 \_\_\_\_\_

Proper Names of Bidder Empowered to Sign On Behalf of the Corporation, Joint Venture, Partnership or Sole Proprietorship

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Signature of Bidder

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Signature of Bidder (If more than one is required)

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, his or her name and signature shall be placed above. If the bidder is a Joint Venture all individuals empowered by the Joint Venture Agreement must sign.

**ATTACHMENTS TO BE COMPLETED AND SUBMITTED BY BIDDER:**

***To be submitted with Bid Form. Refer to Notice Inviting Bids.***

1. Bidder's Noncollusion Affidavit
2. Site Visit Certification
3. Certification of Compliance with DVBE Policy
4. Proposed Subcontractors
5. Bid Bond
6. Bidder References and Responsibility Information

***To be Submitted with Executed Contract (Agreement) by Successful Bidder.***

1. Certificate Regarding Worker's Compensation
2. Drug-Free Work Place Certification
3. Statement of Intent to Meet DVBE Participation Goal
4. Faithful Performance Bond Form
5. Payment Bond Form
6. Vendor Tax Information
7. Certification of Non-Utilization of Asbestos Material
8. General Contractor Information
9. Contractor Prevailing Wage Compliance Certification
10. Guarantee
11. Criminal Records Checks Certification Forms

## SECTION 01 52 00

### CONSTRUCTION FACILITIES

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Furnishing and installing temporary facilities as indicated, specified or required for proper performance of the Work.

##### 1.02 RELATED SECTIONS

- A. Temporary. Storm Water Pollution Control
- B. Temporary Controls
- C. Construction Waste Management and Disposal

##### 1.03 GENERAL

- A. CONTRACTOR shall provide, maintain, relocate, and remove temporary facilities, including buildings, field office, toilets, utilities, storage units, fencing, barricades, chutes, elevators, hoists, scaffolds, railings and other facilities or services as required. CONTRACTOR shall be responsible for all use charges for the items provided as specified herein.
- B. CONTRACTOR shall furnish, install, maintain and pay for all necessary permits, inspections, temporary lines and connections and metering devices, use charges, move-ins/outs, connection fees, service, extension and distribution, deliveries/pickups, rentals, storage, transportation, taxes, labor, insurance, bonds, materials, equipment and all other required miscellaneous items for the temporary utilities systems required for completion of the work, and, upon substantial completion of the Work, remove all such temporary utilities systems and appurtenances.

##### 1.04 REGULATORY REQUIREMENTS

- A. Comply with governing ordinances, regulations and utility company requirements and recommendations.
- B. Comply with pollution and environmental protection codes and regulations for use of water and energy, for discharge of waste and storm drainage from the project site, and for control of dust, air pollution and noise.
- C. Temporary construction shall conform to requirements of State, County and local authorities and insurance requirements which pertain to operation, health, safety and fire hazard. Provide items necessary to comply with such requirements, whether or not specifically indicated or specified in the Contract Documents.

1.05 TEMPORARY WATER

- A. CONTRACTOR shall provide and maintain temporary potable water service, including water distribution piping and outlet devices of the size and required flow rates in order to provide service to all areas of the Project site at all times.

1.06 TEMPORARY SANITARY FACILITIES

- A. CONTRACTOR shall provide portable chemical toilet facilities, in quantities based on total number of workers and shall be in accordance with CAL/OSHA standards.
- B. Portable chemical toilet facilities shall be maintained with adequate supplies and in a clean and sanitary condition and shall be removed from the Project site upon Substantial Completion of the Work.
- C. CONTRACTOR employees shall not use school toilet facilities.
- D. CONTRACTOR will define appropriate areas for break and lunch periods and will provide suitable containers for placement of trash in those areas. Areas shall be maintained clean and orderly.

1.07 TEMPORARY TELEPHONE SERVICE

- A. CONTRACTOR shall provide temporary telephone and data service for temporary facilities.

1.08 TEMPORARY ELECTRICAL POWER

- A. CONTRACTOR shall provide temporary electrical service for construction, temporary facilities, and connections for construction equipment requiring power or lighting, at all points required for the Work, for inspection and safety.
- B. CONTRACTOR shall ensure that welding equipment is supplied by electrical generators, not by the utility-furnished electrical power.

1.09 TEMPORARY LIGHTING

- A. CONTRACTOR shall provide and maintain all temporary lighting as necessary to provide safe access, performance and inspection of the work.
- B. Light levels provided shall be a minimum of 20 foot candles inside buildings and 5 foot candles outside for inspection, safety and security.

1.10 TEMPORARY HEATING, VENTILATION AND AIR CONDITIONING (HVAC)

- A. CONTRACTOR shall provide temporary heating, ventilating, cooling and filtration required for satisfactory completion of the Work.
- B. CONTRACTOR shall ventilate enclosed areas to assist cure of materials, dissipate humidity, and to prevent accumulation of dust, fumes, vapors, gases, or other irritants.
- C. CONTRACTOR shall maintain manufacturer-required levels of room and/or space temperature, humidity and ventilation necessary to install products, materials and/or systems of the Work.
- D. Utilization of the HVAC system for temporary construction use does not constitute DISTRICT acceptance of the system.

1.11 TEMPORARY GAS

- A. CONTRACTOR shall provide temporary gas service for construction and temporary facilities, at all points required for the Work.

1.12 CONSTRUCTION EQUIPMENT AND FACILITIES

- A. CONTRACTOR shall erect, equip, and maintain construction equipment in strict accordance with applicable statues, laws, ordinances and regulations of authority having jurisdiction.
- B. CONTRACTOR shall provide, maintain and remove upon completion of the Work all temporary rigging, scaffolding, hoisting equipment, rubbish chutes, ramps, stairs, runways, platforms, ladders, railings and other temporary construction as required for all work hereunder.

1.13 FIELD OFFICES

- A. CONTRACTOR shall provide a temporary field office for his own use. It shall be weather-tight with lighting, electrical outlets, electronic communications capabilities, HVAC, and otherwise equipped to adequately conduct construction operations. Provide a conference room adequate for project meetings.
- B. In addition to the CONTRACTOR's field office, CONTRACTOR shall provide and maintain a minimum of one similarly equipped 300 sf temporary field office building on the Project site for use by the DISTRICT for the duration of the Work. The office shall be accessible by the DISTRICT, ARCHITECT and/or the IOR on a 7 day a week 24-hour basis. Office shall be provided with code-required ADA accessibility:
  - 1. Office building shall include a conference room with a conference table and adequate seating for twelve.

2. Office building shall have one separate private office; together with an open office space.
3. Office shall be furnished with two (2) exterior entrance doors with one located in a separate office. Each door shall be furnished with both a dead bolt and cylinder lock with 6 keys.
4. Exterior doors and windows shall be provided with exterior mounted burglar bars. Windows shall be provided with operable window shades. Security of office and contents is a continuous obligation of CONTRACTOR.
5. Office shall have ample headroom and shall be properly lighted, heated, ventilated, and air-conditioned, and shall have an electric drinking fountain or potable refrigerated bottled water service.
6. The separate private offices shall each be approximately 100 sq. ft. in size and shall be provided with a minimum of four 120 volt single phase convenience outlets. Each separate office shall be furnished with one five-drawer desk, one rolling office chair, two visitors' chairs, and one five-shelf bookcase of approximately 67" H x 32" W x 14" D.
7. The conference room shall be approximately 200 sq. ft. in size and shall be furnished with a minimum of four single phase convenience outlets. It shall be furnished with a conference table capable of seating twelve, and shall have a 4' x 8' whiteboard on one of the long walls.
8. The open office shall be furnished with
  - a. One three-foot deep by eight-foot wide plan counter,
  - b. Two utility tables of approximately 26" H x 30" W x 18"D.
  - c. Two wall-mounted 42 " wide plan racks with 36 individual plan holders.
9. Provide phone, data transmission lines, related appurtenances, services, and equipment for use by DISTRICT as specified below:
  - a. Provide LAN and phone connectivity to each desk and to conference room, from the point of connection(POC) to appropriately located wall outlets.
  - b. Two separate phone lines, one dedicated fax line, and one phone instrument, each with speakerphone, conference call, and voice mail.
  - c. Provide high-speed internet access via business class DSL with minimum 192 kbps, or, if DSL is not available, provide a comparable internet connection such as point-to-point T1.

- d. Provide, install, & maintain any related equipment necessary to provide continuous internet access from each location.
  - e. Provide, install, configure & maintain for network connectivity one network laser printer with the following features and accessories:
    - 1. Network capable
    - 2. 3 paper trays;
  - f. Provide one Fax machine with the following features and accessories:
    - 1. 250 sheet paper tray.
    - 2. 132 number auto-dial.
- C. CONTRACTOR shall be responsible for maintaining all electrical distribution lines, equipment and related devices. If equipment and/or transmission equipment becomes inoperable and downtime exceeds two (2) days, CONTRACTOR shall replace and/or provide equivalent interim equipment.
- D. Office, furniture, equipment, and related ancillary devices shall remain property of CONTRACTOR. CONTRACTOR shall remove such property upon Final Completion of Work or as otherwise determined by the DISTRICT.
- E. At CONTRACTOR expense and without limitation, remove and/or relocate temporary office(s) and related facilities as rapidly as required in order to provide for progress of the Work.
- F. FIELD OFFICE SUPPLIES
- 1. CONTRACTOR shall provide the initial supply of field office supplies to the DISTRICT in the quantities listed as set forth below in Table A. If specified in the Section – Allowances, CONTRACTOR shall provide additional supplies as specified.
  - 2. CONTRACTOR may utilize different suppliers as the specified information is only to establish the required quantities and levels of quality.

TABLE A				
ITEM	DESCRIPTION	UNIT	QUANTITY	SUPPLIER/ITEM #
Wastebasket	N/A	Each	1	Staples / 125039-54
Surge Suppressors	N/A	Each	1	Staples / 481841-64
First Aid Kit	N/A	Each	1	Staples / 503979-54
Stapler	818	Each	1	Staples / 395059-54
3 Pocket Wall File	N/A	Each	1	Staples / 730523-54
Heavy Duty Stapler	415	Each	1	Staples / 386312-54
Heavy Duty Staples	SW1-35312	Each	1	Staples / 504191-54
Broom	N/A	Each	1	Staples / 428881-54
Fire Extinguisher	First Alert	Each	1	Staples / 238774-54

#### 1.14 STORAGE AND STAGING

- A. Operations of the CONTRACTOR, including storage of materials, shall be confined to areas approved by DISTRICT. CONTRACTOR shall be liable for damage caused by him during such use of property of the DISTRICT or other parties.
- B. Storage facilities shall provide protection of products from excessive cold, heat, moisture, humidity or physical abuse as specified in the respective sections for the products stored.
- C. CONTRACTOR shall save the DISTRICT, along with its respective officers, employees and agents, and the ARCHITECT and his employees, free and harmless from liability of any nature or kind arising from any use, trespass or damage occasioned by his operations on assigned premises of third parties.

#### 1.15 FENCES AND BARRICADES

- A. CONTRACTOR shall install temporary Project site security fence(s) and/or barricade(s), as specified herein or indicated on Drawings, or as required for safety and security. New or used material may be furnished. Security of Project site and contents is a continuous obligation of CONTRACTOR.
- B. Unless otherwise indicated or specified, a site security fence shall be constructed of 6'-0" high chain link fencing with a 6'-0" high windscreen. Space posts not to exceed 10'-0" on centers. Posts shall be of following nominal pipe dimensions: terminal, corner, and gatepost 2-1/2", line posts 2". Chain link fence shall be not less than #13 gage, 2" mesh, and in one width. Posts, fence and accessories shall be galvanized and as follows:
  - 1. Posts shall be set in the earth a depth of 30" with soil firmly compacted around post, unless required otherwise in writing by DISTRICT.
  - 2. Fence fabric shall be attached to posts with #14 gage tie wire at 16" on centers. A #6 gage steel tension wire with turnbuckles shall be installed at top and bottom of barricade fencing. Wire tie fabric to tension wires at 18" centers.
  - 3. Windscreen shall be attached to fence fabric and steel tension wires at 18" centers with a minimum of #14 gage tie wire. Windscreen shall be maintained and all rips, tears, missing sections shall be corrected as soon as detected.
  - 4. Chain link fencing shall be free from barbs, icicles or other projections resulting from galvanizing process. Fence having such defects will be replaced even if it has been installed.

5. Gates shall be fabricated of steel pipe with welded corners, and bracing as required. Fence and fabric to be attached to frame at 12" centers. Provide all gate hardware of a strength and quality to perform satisfactorily until barricade is removed upon Substantial Completion of the Work. Each gate shall have a chain and padlock. Provide two (2) gate keys to DISTRICT. At Substantial Completion of the Work, remove barricade from Project site, backfill and compact fence footing holes. Existing surface paving that is cut into or removed shall be patched and sealed to match surrounding areas.
6. At CONTRACTOR expense and without limitation, remove and/or relocate fencing, fabric and barricades or other security and protection facilities as rapidly as required in order to provide for progress of the Work.

#### C. Other Temporary Enclosures & Barricades

1. Provide fences and barricades to prevent unauthorized entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations.
2. Provide lockable, temporary weather-tight enclosures at openings in exterior walls to create acceptable working conditions, to allow for temporary heating and for security.
3. Provide protective barriers around trees, plants and other improvements designated to remain. Replace any damaged materials as directed by the ARCHITECT
4. Temporary partitions shall be installed at all openings where additions connect to existing buildings, and where necessary to protect areas, spaces, property, personnel, students and faculty and to separate and control dust, debris, noise, access, sight, fire areas, safety and security. Temporary partitions shall be as designated on the Drawings or as specified by ARCHITECT. At CONTRACTOR expense and without limitation, remove and/or relocate enclosures, barriers and temporary partitions as rapidly as required in order to provide for progress of the Work.
5. Since the Work of this Project may be immediately adjacent to existing occupied structures and vehicular and pedestrian right of ways, CONTRACTOR shall, in his sole judgment and in accordance with applicable safety standards, provide all temporary facilities, additional barricades, protection and care to protect existing structures, occupants, property, pedestrians and vehicular traffic. CONTRACTOR is responsible for any damage, which may occur to the property and occupants of the property of DISTRICT or adjacent private or public properties which in any way results from the acts or neglect of CONTRACTOR.

6. Fences and barricades must completely separate construction activities and personnel from school operations, staff, students and the public. Construction workers shall not interact or communicate with students or staff except in emergency or safety related situations.
7. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing buildings.
8. Protect vehicles, stored materials, site and structures from damage.

1.16 TEMPORARY DE-WATERING FACILITIES & DRAINAGE:

- A. For temporary drainage and de-watering facilities and operations not directly associated with construction activities included under individual sections, comply with de-watering requirements of applicable Division 01 sections or of sound practice. CONTRACTOR shall maintain the Work, Project site and related areas free of water.
- B. For temporary drainage and de-watering facilities and operations directly associated with new buildings, additions or other construction activities, comply with Division 01 & 02 Sections. CONTRACTOR shall be responsible for de-watering of excavations, trenches & below grade areas of buildings, structures, the Project site and related areas.

1.17 TEMPORARY PROTECTION FACILITIES:

- A. CONTRACTOR shall not change over from using temporary facilities and controls to permanent facilities until Substantial Completion, except as permitted by DISTRICT.
- B. CONTRACTOR shall provide fire protection during construction in accordance with CFC, Article 87
- C. Until permanent fire protection needs are supplied and approved by authorities having jurisdiction, CONTRACTOR shall provide, install and maintain temporary fire protection facilities of the types needed in order to adequately protect against fire loss. CONTRACTOR shall adequately supervise welding operations, combustion type temporary heating and similar sources of fire ignition.
- D. CONTRACTOR shall provide, install and maintain substantial temporary enclosures of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security. Where materials, tools and equipment are stored within the Work area, CONTRACTOR shall provide secure lock up to protect against vandalism, theft and similar violations of security. DISTRICT accepts no financial responsibility for loss, damage, vandalism or theft.

- E. CONTRACTOR operations shall not block, hinder, impede or otherwise inhibit the use of required exits and/or emergency exits to the public way, except as approved by the DISTRICT. CONTRACTOR shall maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for fire fighting equipment and/or personnel.
- F. With approval of DISTRICT and at the earliest feasible date in each area of the Work, complete installation of the permanent fire protection facilities including connected services and place into operation and use. Instruct DISTRICT personnel in use of permanent fire protection facilities.
- G. In the event of an emergency drill or an actual emergency, designated by the sounding of the fire alarm and/or other sounding device, all construction activities must cease. CONTRACTOR shall evacuate the Work area and remain outside the Work area until permitted to return. No Work shall be conducted during the evacuation of a building or during an emergency.

1.18 TEMPORARY SECURITY AND SAFETY MEASURES:

- A. During performance of the Work in existing facilities CONTRACTOR shall provide, install and maintain substantial temporary barriers and/or partitions separating all Work areas from areas occupied by students, faculty and/or administrative staff.
- B. During performance of the Work in existing facilities and/or on a Project site occupied by students and where temporary barriers and/or partitions are not physically feasible, CONTRACTOR shall provide an employee meeting the requirements of Education Code Section 45125.2.(2) to continually supervise and monitor all employees of the CONTRACTOR and Subcontractor. For the purposes of this Section, CONTRACTOR employee shall be someone whom the Department of Justice has ascertained has not been convicted of a violent or serious felony as listed in Penal Code Section 667.5(c) and/or Penal Code Section 1192.7(c). To comply with this Section, CONTRACTOR shall have his employee submit his or her fingerprints to the Department of Justice pursuant to Education Code Section 45125.1(a).
- C. Penal Code Sections 290 and 290.4, commonly known as "Megan's Law," require, among other things, individuals convicted of sexually oriented crimes, to register with the chief of police where the convicted individual resides or with a county sheriff or other law enforcement officials. The CONTRACTOR shall check its own employees and require each Subcontractor to check its employees and report to the CONTRACTOR if any such employees are registered sex offenders. The CONTRACTOR shall check monthly during the life of the Contract to ascertain this information and report same to DISTRICT. Before starting the Work, and monthly thereafter during the life of Contract, CONTRACTOR shall notify the DISTRICT in writing if any of its employees and/or if any Subcontractor's employees is a registered sex offender. If so, CONTRACTOR shall proceed in accordance with the previous paragraph.

1.19 TEMPORARY ACCESS ROADS AND PARKING:

- A. Due to the limited amount of on and off Project site space for the parking of staff, students and school visitors' vehicles, there will be no parking of CONTRACTOR vehicles in areas designated for school use only. CONTRACTOR shall provide legal access to and maintain CONTRACTOR designated areas for the legal parking, loading, off-loading & delivery of all vehicles associated with the Work. CONTRACTOR shall be solely responsible for providing and maintaining these requirements whether on or off the Project site.
- B. Contractor's onsite parking shall be in areas shown on the Logistics Site Plan or as otherwise designated by the DISTRICT.
- C. Temporary access roads are to be installed and maintained by CONTRACTOR to all areas of the Project site.
- D. CONTRACTOR will be permitted to utilize existing on-site roads as designated by DISTRICT. CONTRACTOR shall only utilize those entrances and exits as designated by DISTRICT, and CONTRACTOR shall observe all traffic regulations of DISTRICT.
- E. Provide and maintain access to fire hydrants, free of obstructions.
- F. Do not park or drive on concrete walks or in the new buildings at any time.
- G. CONTRACTOR shall maintain roads and walkways in a clean condition including removal of debris and/or other deleterious material on a daily basis.

1.20 TRENCHES

- A. CONTRACTOR shall comply with all applicable statutes, codes & regulations regarding trenching and trenching operations. Open trenches for installation of utility lines (water, gas, electrical and similar utilities) and open pits outside barricaded working areas shall be barricaded at all times in a legal manner determined by CONTRACTOR.
- B. Open trenches deeper than 3'-6", and not located within a public street access, shall be enclosed within an 8'-0" high chain-link fence.
- C. Trenches shall be backfilled and patch-paved within twenty-four (24) hours after approval of installation by authorities having jurisdiction or shall have "trench plates" installed.
- D. Required access to buildings shall be provided and maintained.

## 1.21 PROJECT SIGNAGE

- A. CONTRACTOR shall furnish and install a Project sign on the Project site at a location established by ARCHITECT and DISTRICT. A graphical layout of the proposed sign shall be submitted to ARCHITECT and DISTRICT for review before fabrication.
- B. Sign construction shall be 10'-0" wide by 6'-0" high with 6" x 6" posts and 1" exterior grade plywood, bolted to posts.
- C. Sign lettering shall be painted white with exhibit lettering by a professional sign painter, in accordance with preliminary mock-up details reviewed by ARCHITECT and DISTRICT. The following shall be listed on sign:
  - 1. DISTRICT – San Bernardino City Unified School District, and graphic image of District logo.
  - 2. Name of School.
  - 3. Names of the Architect/Engineer and Consultants.
  - 4. Name of Prime Contractor.
  - 5. Names of School Board members from District and current positions on the Board.
  - 6. Names of District Superintendent and Assistant/Deputy Superintendents.
  - 7. Name of Facilities Department Director and Project Manager.
- D. Except as otherwise specified herein, no other signs shall be displayed without approval of DISTRICT. At CONTRACTOR expense and without limitation remove and/or relocate Project signage and related facilities as rapidly as required in order to provide for progress of the Work.
- E. CONTRACTOR shall remove Project signage at Substantial Completion of the Work.
- F. CONTRACTOR shall provide and install signage to provide directional, identification, and contact information to construction personnel and visitors as follows and as approved by DISTRICT.
  - 1. For construction traffic control/flow at entrances/exits, and as designated by DISTRICT.
  - 2. To direct visitors.
  - 3. For construction parking.
  - 4. To direct deliveries.
  - 5. For Warning Signs as required.
  - 6. Per CAL/OSHA standards as necessary.
  - 7. For office identification and Project site address.
  - 8. For "No Smoking" safe work site at designated locations.

9. Emergency contact information and phone number of CONTRACTOR.
10. Emergency contact information and phone number of local police, fire, and emergency personnel.

1.22. CLOSE OUT

- A. Remove all temporary facilities at the completion of construction, and restore the site and facilities to conditions acceptable to the ARCHITECT, DISTRICT and to local authorities. Allowance A5 is available regarding restoration of laydown area.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

**END OF SECTION**

## SECTION 16720

### INTEGRATED FIRE ALARM /SECURITY SYSTEM

#### PART 1.0 GENERAL

##### 1.01 SCOPE & RELATED DOCUMENTS

- A. The work covered by this section of the specifications include the furnishing of all labor, equipment, materials and performance of all operations associated with the installation of replacement and reworking of Fire/Security Alarm Systems as outlined. Contractor shall maintain existing fire alarm and security systems in first class operating conditions for the entire duration of modernization activities at each site. Contractor shall be responsible for providing continuous fire and security watch during any period in which a portion of the fire alarm or security systems are not operating. The District shall be the sole arbiter of any dispute concerning what is considered non-operation of any system. Prior to commencing any work on the site Contractor shall test all devices on fire and security system for faults and shall indicate to the district in written report form all fault locations and defective devices, annunciators, control panels and other equipment. Scope includes reuse of all conduit wire, door contacts, motion detectors and other existing Silent Knight security system equipment and all programming, design, agency approvals, shop drawings, specifications, labor materials and equipment necessary to connect the existing Silent Knight security systems at each site to the new Integrated Fire Alarm/Security System. When complete the existing security system shall be capable of being completely monitored and be completely communicating with the existing G. E. Fire Works Central Monitoring System located at school police headquarters. All items required to complete the installation whether detailed here in the specification or on the drawings shall be included in this contract. Contractor at their option may at their own risk reuse existing underground, exterior, and or interior fire alarm system conduits which meet referenced code provisions and are currently installed to all applicable codes and industry standards. Contractor shall be responsible for replacement of any damaged existing conduit in the fire alarm system and shall be responsible for replacement of any defective or damaged wiring in the existing Silent Knight security systems. Record Drawings of the Silent Knight Security Systems installed at each site are available for review by bidders at the District printing vendor.
- Scope of work also consists of powering down (subject to provisions above), completely disconnecting and removing existing Silent Knight Security/Intrusion Control Panels at each school site. All removed equipment shall be turned over to the District in "as found condition". The Contractor shall then rework the existing security/intrusion system wiring/cabling to accommodate and make final terminations of all existing security/ intrusion system wiring/cabling to the new G.E. EST-3 or District approved equal Fire/Security Alarm Panel utilizing the "Synergy" technology of the GE/EST-3 or District approved equal panel.
- B. The requirements of the conditions of the Contract, Supplementary Conditions, and General Requirements apply to the work specified in this section.
- C. Related work in other sections or divisions:
- 1.) Waterflow switches.
  - 2.) Sprinkler valve supervisory switches.
  - 3.) HVAC Systems Controls.
  - 4.) Elevator monitor/control panel.
  - 5.) Electrical (Section 16000).
- D. The entire installation, including materials and equipment shall meet or exceed the minimum standards and requirements of the following:
- 1.) Underwriters Laboratory Inc.
  - 2.) 2001 Building Standards Administrative Code, Part 1, Title 24 C.C.R.

- 3.) 2001 California Building Code (CBC), Part 2, Title 24 (1997 UBC Volumes 1-3 and 2001 California Amendments).
- 4.) 2004 California Electrical Code (CEC), Part 3, Title 24 C.C.R. (2002 NEC and 2004 California Amendments).
- 5.) 2001 California Fire Code (CFC), Part 9, Title 24 C.C.R. (2000 UFC and 2001 California Amendments).
- 6.) 2001 California Mechanical Code (CMC), Part 3, Title 24 C.C.R. (2002 UMC and 2001 Amendments).
- 7.) 2001 California Referenced Standards Code, Part 12, Title 24, C.C.R. Title 19, C.C.R. Public Safety, State Fire Marshall Regulations.
- 8.) 2002 NFPA 72, with California Amendments.
- 9.) Manufacturers Specifications.

## 1.02 SUBMITTALS (ADDITIONAL REQUIREMENTS)

- A. The plans for this project have already been approved by DSA-FLS. The Contractor shall prepare eight (8) sets of blue-line drawings, eight (8) sets of submittal booklets, for submittal to the Engineer for approval.
- B. The following shall be included on all drawings:
  - 1.) Building floor plan of each building drawn to 1/8" scale minimum. Building floor plan shall show location of all devices, conduit and interconnecting wires. Device symbols shall be the same as on the original bid set of drawings. Show all fire rated corridors, occupancy separations and area separation walls. Show all Room Identification Numbers/Use.
  - 2.) Site plan showing all buildings, conduit and interconnecting wires.
  - 3.) Complete symbol legend (same symbols as bid set), showing all symbols, wire, manufacturer, model number, back-box, mounting height and CSFM Listing Number.
  - 4.) Typical mounting height details.
  - 5.) Voltage drop using point to point or OHMS Law calculations. Voltage drop shall not exceed 10% per circuit.
  - 6.) Battery calculations with batteries used:  
Normal - 100% for applicable equipment and devices for a period of 24 Hours.  
Alarm - 100% for applicable equipment and devices for a period of 5 Minutes.
  - 7.) Codes as used in the design of this project.
  - 8.) DSA Application Number and District File Number.
  - 9.) Classification per building. Ex: Manual, Automatic, etc.
  - 10.) Typical fire penetration detail showing methods and codes used.
  - 11.) Wiring riser diagram including but not limited to, devices, wiring, zoning, EOL'S, etc.
  - 12.) Sequence of operations schedule.
  - 13.) General notes pertaining to this project.
- C. The following shall be included in the submittal book:
  - 1.) Cover Sheet: Project Name, Project Location, Architect/Engineer of record, System Supplier/System Installer with C-10 License Number, UL Listing Number with Expiration Dates.
  - 2.) Table of Contents: Page numbers of all specification sheets and CSFM Listing Numbers.
  - 3.) Specification Sheets for each piece of equipment.
  - 4.) CSFM Listing Sheets.

## 1.03 EQUIPMENT QUALIFICATION

- A. The specification is based upon equipment manufactured by GE Security (formerly Edwards Systems Technology) as approved by the District. The equipment specified is a District Standard, is established, in order to communicate with the **EXISTING Fireworks Central Monitoring System** at the District School Police Headquarters (GE Security EST Fireworks was provided under separate contract and is not part of this contract).

The GE Security EST-3 control panel shall communicate with the **EXISTING Fireworks** via District's LAN network. Coordinate with District's IT department for configuring LAN network to communicate with GE Security Fireworks. The system supplied shall be a microprocessor-based direct wired, multi-priority peer-to-peer networked system. The system shall utilize independently addressed, microprocessor-based Fire Alarm and Security Detectors, Devices and Modules as described in this specification. It shall be complete with all necessary hardware, software and memory specifically tailored for this installation.

- B. All equipment shall conform to all applicable codes and ordinances, and shall be listed by Underwriters Laboratories and the California State Fire Marshall.
- C. Should Contractor elect to submit a different system than specified, Contractor is to, at his/her sole expense, within 30 days of contract award provide and install a complete mock-up of the system at a school site selected by the District for review and approval by the District as a part of the substitution request process. Said mock up shall demonstrate to the sole satisfaction of the District complete compatibility and communication compatibility between the proposed fire/security system and the existing Fireworks Central Monitoring System. In the alternative, but not preferred by the District, Contractor may propose a separate Integrated Fire Alarm/Security system with its own independent Central Monitoring Station at School Police Headquarters. However, if this alternative is proposed Contractor shall be responsible for changing over all the existing fire alarm and security systems throughout the District (except those currently monitored by the Fireworks system) to be monitored at the proposed Central Monitoring Station. Existing fire alarm and security systems include Notifier, Simplex, Radionics, Bosch, Gamewell, FCI, and others. This alternative may not be deemed an equal product acceptable to the District due to the required redundant monitoring system.
- D. Mock-up and the EST-3 or District approved equal system as installed and operational, to perform per specifications herein, and be fully integrated; whereby the fire alarm system shall not be overridden by any other system including the security systems. Fire alarm shall always have priority over security system. To the extent permitted by all applicable codes, other than fire alarm system having priority in the event of a simultaneous alarm, fault, failure and/or defect, fire alarm system shall not override security system.
- E. Contractor is responsible for engineering and Division of the State Architect approval associated with substitution; and fees borne therefrom. Fire alarm and security systems shall be separately wired and there shall be two separate data loops, one for each system
- F. A pre-approved equipment supplier, installation and service organization for the equipment specified is Enko Systems 909-885-7771.

#### 1.04 QUALIFICATION OF BIDDERS

- A. To qualify as an acceptable bidder, whether the bid is submitted to the Owner, his agent, a general contractor or a sub-contractor, the system bidder or contractor shall be a qualified U.L. Listed Fire Alarm contractor (at time of bid) and shall hold a valid C-10 License issued by the Contractors State License Board of California. The system bidder or installing contractor shall herein be referred to as the Contractor. The Contractor shall also hold a State of California Consumer Affairs License - Bureau of Collection and Investigative Services. The Contractor shall also have on staff, a minimum of Three Nicet Certified Technologists (at time of bid). This is to insure that licensed installers familiar with this type of installation will be used on this project. The Contractor shall be the factory authorized distributor (at time of bid), for the brand of equipment being installed.  
The Contractor shall have been in the business of supplying, installing and servicing Addressable Fire Alarm Systems for the past 15 years, in the State of California. The Contractor shall be able to refer to at least 20 projects of this nature rendering satisfactory service with contact persons, phone numbers and addresses. The Contractor shall maintain a fully equipped service organization capable of furnishing adequate repair service to the equipment. The Contractor shall maintain an inventory of all major components in stock at all times.

The Contractor's Office shall be located within 50 miles of the job-site. This will insure an adequate service response, in a timely matter. The Contractor shall maintain on staff for the duration of the project a minimum of two EST-3 and Fire Works Certified Installers. Contractors not pre-approved in writing 21 days prior to bid hour and date will not be considered for this project. Contractors named in 1.03F above, are considered to be pre approved for this project, and will be able to satisfy warranties already in place, when adding onto the Fire Works Central Monitoring System Program.

- B. The responsibility of the installing Contractor is to provide all drawings, submittals, wire, devices, equipment, installation to conduit system furnished and installed under Division 16 Electrical Specification Sections, programming, final test out and certification. All specialty Fire Alarm Back-boxes for the conduit system installation provided under Division 16 Electrical Specification Sections, shall be provided under this section. Terminal cabinets, pull boxes, etc. shall be furnished and installed under Division 16 Electrical Specification Sections.

## **PART 2 SYSTEM LAYOUT**

### **2.01 SYSTEM DESCRIPTION**

- A. The Fire/Security Alarm System as outlined on the drawings, shall be a Life Safety, Security System as manufactured by GE Security. It shall be complete with all necessary hardware, software and memory specifically tailored for this project.
- B. Provide a new Network System, Remote Panels, Remote Annunciators, Printers, Devices, etc. in accordance with specifications and drawings. Counts for fire alarm devices to be in accordance with engineers drawings. Counts for existing security systems shall be as shown on Record drawings for security systems installed about 1998 Record drawings are available for review on the Planwell website and are incorporating herein by reference as if fully set forth.
- C. All equipment needed for a complete operable system, (whether specifically indicated or not) shall be included in this section. It shall be the Installing Contractors responsibility for a COMPLETE AND OPERABLE SYSTEM upon completion of this project.

### **2.02 AUTOMATIC ALARM OPERATIONS**

- A. The fire alarm system operation subsequent to the alarm initiation via pull station, smoke detector, heat detector, sprinkler flow switch, etc., shall be as follows:
  - 1.) All audible alarm indicating devices shall sound the Temporal Signal Code in synchronization with each other, until silenced at the control panel or at the remote annunciator.
  - 2.) All visual alarm indicating devices shall flash per NFPA requirements in synchronization with each other, until reset at the control panel or at the remote annunciator.
  - 3.) Alarm audible devices and alarm visual devices shall operate on the same circuit.
  - 4.) The alarm signals shall be inhibited from being silenced for a period of at least 1 minute after commencing operation. This rate is to be field programmable for actual AHJ requirements.
  - 5.) Display type and location of alarm per point on the Main Control Panel LCD display.
  - 6.) Display type and location of alarm per point on Remote LCD Annunciator.
  - 7.) List on printer the time, date, type and user defined message for each event printed.
  - 8.) Graphically display on the Fire Works Station, school diagram showing whole school, with graphic scrolling thru system prompts, down to point of alarm activation.
  - 8.) Subsequent alarms are to report to the Main Control Panel and Fire Works, shall indicate to the operator that a subsequent alarm is present, and also indicate the number of subsequent alarms.
  - 9.) Shut down all associated air handlers in Alarm Zone.
  - 10.) De-energize door holders to release fire doors in Alarm Zone.
  - 11.) Recall elevators as required.

- B. The security alarm system operation subsequent to the alarm initiation via motion detector, door contact, tamper switch, etc., shall be as follows:
  - 1.) Individual device in alarm shall display on partition keypad, in which zone device is located.
  - 2.) Display type and location of alarm per point on the Main Control Panel.
  - 3.) Display type and location of alarm per point on Remote LCD Annunciator.
  - 4.) List on printer the time, date, type and user defined message for each event printed.
  - 5.) Graphically display on the Fire Works Station, school diagram showing whole school, with graphic scrolling thru system prompts, down to point of alarm activation.
  - 6.) Subsequent alarms are to report to the Keypad, Control Panel, and Fire Works and indicate to the operator that a subsequent alarm is present, and also indicate the number of subsequent alarms.

### **2.03 AUTOMATIC SUPERVISORY OPERATION**

- A. All data, initiating, indicating and supervisory lines shall be constantly monitored for integrity. Indicate opens, shorts, grounds, at Main Control Panel, Remote Annunciator and Fire Works Station.

### **2.04 OPERATION**

- A. During the normal state, the NORMAL LED (green) shall flash. The first line of the LCD shall display the time in (HH:MM:SS) as well as the number of active points (AP) and the number of disabled points (DP) in the system.
- B. When the control panel goes into alarm condition, the NORMAL LED(green) extinguishes and the ALARM LED (red) shall light, the buzzer pulsates and the LCD indicates the time, the number of messages waiting, the type of alarm, the point ID number of device, and the time that the alarm occurred. The second line is dedicated to the user specified message.
- C. To silence the panel buzzer, the operator shall press the LOCAL SILENCE button and the buzzer will silence.
- D. To silence the audible devices, the operator shall press the ALARM SILENCE button. A new alarm shall cause the audibles to resound.
- E. During the TROUBLE condition, the amber TROUBLE LED shall light, the NORMAL LED shall go out, and the buzzer shall pulsate. The display shall indicate the point ID number of the device, the time the event occurred and up to a 40 character custom user description.
- F. During the MONITOR or SUPERVISORY condition, the appropriate LED shall light, the NORMAL LED shall go out, and the buzzer shall pulsate. The display shall indicate the point ID number of the device, the time the event occurred and up to a 40 character custom user description.

## **PART 3 MATERIALS**

### **3.01 MAIN or REMOTE CONTROL PANEL EST-3 W/CAB7/CAB14/CAB21**

- A. Control Panel construction shall be modular with solid state, micro - processor based electronics. It shall display only those primary controls and displays essential to operation during an alarm condition.
- B. A local audible device shall sound during Alarm, Trouble, Monitor or Supervisory conditions. This audible device shall sound differently at each condition, to distinguish one condition from another without having to view the panel.

- C. Primary Keys, LED's, LCD Display
- 1.) The following primary controls shall be visible through a front access panel:
    - 8 Line by 21 Character LCD display
    - Individual System ALARM LED and Switch
    - Individual SUPERVISORY LED and Switch
    - Individual TROUBLE LED and Switch
    - Individual MONITOR LED and Switch
    - Individual RESET LED and Switch
    - Individual ALARM SILENCE LED and Switch
    - Individual PANEL SILENCE LED and Switch
    - Individual DRILL LED and Switch
    - Individual LED'S For Power, Test, CPU Fail, Gnd Fault, Disable
    - NEXT/BACK Switch Per Condition
- D. The Master Controller shall be capable of supporting up to 64 supervised system nodes per single line network without any change in hardware. Each controller shall contain a RS-232 Printer /Programming Port for programming locally via an IBM PC.
- E. Each controller shall support up to 10 Intelligent Loop Cards (SDCs). Each card shall support (125) Intelligent Sensors and (125) Intelligent Modules. Each sensor shall respond to a panel poll for information with an analog representation of measured fire related phenomena (smoke density, particles of combustion, temperature). Such response proves end to end sensor response including the operation of the sensor electronics. Systems which only monitor the presence of a conventional detector in an addressable base shall not be acceptable.
- F. The Master Controller shall have the following additional features without any changes in hardware or firmware:
- 1.) Auto Programming and Electronic Addressing of Field Devices.
  - 2.) Logic Statements.
  - 3.) Time Controls.
  - 4.) Sequences.
  - 5.) Actions.
  - 6.) Analog Value Reporting of all analog sensors and traditional zones.
  - 7.) Maintenance Reporting by Intelligent Sensor.
  - 8.) Sensitivity Setting by Sensor (Within UL Limits).
  - 9.) Sensitivity Setting changed by time (Day/Night Mode).
  - 10.) Alarm Verification by point or zone. (0-60 Seconds).
  - 11.) Print a history of Sensors Activating the Verification Cycle.
  - 12.) On demand system condition printouts (status).
  - 13.) Enabling and Disabling of any system device or function.
  - 14.) Ground Fault Detection by Panel, by Signature Data Circuit, and by Device Module.
  - 15.) Normal and Silent One Man Test.
  - 16.) Windows Based Programming.
  - 17.) Network Response Time Under 3 Seconds.
  - 18.) Loop Response Time Under 750 Milliseconds.
  - 19.) Device Mapping Feature for As-Builts.
  - 20.) Up to 1750 History Events
  - 21.) Remote Systems Diagnostic via Phone Line

### **3.02 REMOTE ANNUNCIATOR - 3- LCDANN**

- A. Remote Annunciator to accommodate all buildings for the Fire/Security/Access Alarm System. Annunciator zoning shall have the following displays as a minimum:
  - 1.) Point ID number of each device.
  - 2.) Custom annunciation of each device.
  - 3.) Common Controls Features.
  
- B. The remote annunciator shall contain the following:
  - 1.) 8 Line by 21 Character LCD Display.
  - 2.) Individual System ALARM LED and Switch.
  - 3.) Individual SUPERVISORY LED and Switch.
  - 4.) Individual TROUBLE LED and Switch.
  - 5.) Individual MONITOR LED and Switch.
  - 6.) Individual RESET LED and Switch.
  - 7.) Individual ALARM LED and Switch.
  - 8.) Individual TROUBLE LED and Switch.
  - 9.) Individual DRILL LED and Switch.
  - 10.) Individual LED'S For Power, Test, CPU Fail, Gnd Fault, Disable.

### **3.03 KEYPADS – KPDISP**

- A. Reprogram all existing keypads at each site. Provide new keypads at Contractor's option and at each defective keypad location, as indicated on the Security System Record drawings included herein by reference.
  - 1.) Keypads to be backlit 128 x 64 dot matrix LCD Display.
  - 2.) Units to support bilingual operation.
  - 3.) Keypad shall be electronic addressing. Jumpers or dip switch addressing shall not be considered equivalent. Each Keypad shall support up to 200 users, with unique PIN numbers.

### **3.04 PRINTER - PT-1S**

- A. Provide printer for the life safety system, as below indicated.
  
- B. The event and status printer shall be a 9 pin, impact, dot matrix printer with a minimum print speed of 232 characters per second. Printer parameters shall be set up with a menu drive program in the printer. The printer shall be capable of serial or parallel communications protocol.
  
- C. The communications speed for RS-232 communications protocol shall be adjustable from 300 - 9600 Baud. The serial cable shall be supervised.
  
- D. The printer shall list the time, date, type and user defined message for each event printed.

### **SIGNATURE SERIES DEVICES - GENERAL**

- 1. Each remote device shall have a microprocessor with non-volatile memory to support its function and serviceability. Each device shall store as required for its functionality the following data: device serial number, device address, device type, personality code, date of manufacture, hours in use, number of alarms and troubles, time and date of last alarm, amount of environmental compensation left/used, last maintenance date, job/project number, current detector sensitivity values, diagnostic information (trouble codes) and algorithms required to process sensor data and perform communications with the loop controller.

2. Dependent on its functionality, each device shall be capable of monitoring up to 32 diagnostic codes. This data shall be stored at the device and available for system maintenance.
3. Each device shall be capable of performing its intended function dependent of the control panel, to lower loop data traffic. Each device shall immediately alert the loop controller of a status change to achieve a loop response time of less than 750ms.
4. Each device shall be capable of electronic addressing, either automatically or application program designed, to support physical/electrical mapping and supervision by location. Setting a device's address by physical means shall not be necessary. Each device shall be individually annunciated at the Main Control Panel and Remote Annunciator.

### **3.05 ANALOG PULL STATIONS - SIGA-278**

- A. Provide pull stations as indicated on the drawings.
- B. Pull station shall be double action with terminals for field wiring. Pull station shall be constructed of Red Lexan with White Letters, Key resettable with break glass rod.
- C. Station shall be equipped with a STI 1100 Protective Cover w/horn, if indicated on drawings.
- D. For flush mounting applications - Use 4S 2-1/8" box with 1/2" Single Gang Ring. (Furnished and Installed under Division 16 Electrical Specification Sections).
- E. For surface mounting applications - Use 276B-RSB Backbox With STI-3100 Conduit Spacer. (Furnished under this section, Installed under Division 16 Electrical Specification Sections).

### **3.06 ANALOG SMOKE DETECTORS - SIGA-IPHS W/SIGA-SB BASE**

- A. Provide Intelligent Multi-Sensor Detector where indicated on the drawings.
- B. Units shall incorporate three (3) sensing technologies. It shall process and analyze information from each technology (ion/photo/heat) separately using dynamic filters, then apply a sophisticated algorithm for optimum detection accuracy. If alternate equipment is proposed, contractor shall install additional devices as required, to accomplish ALL of the above operations. ALL additional costs shall be borne by contractor.
- C. Each sensing element self-compensates for changes in the detectors installed environment to maintain the sensitivity setting and prevent unwanted alarms. The detector reports when it cannot compensate any further.
- D. Units shall incorporate twin status LED's . Flashing green shows normal; flashing red shows alarm state; steady red and steady green show alarm state in stand alone mode, visible from any direction.
- E. Units shall incorporate a stand alone operation mode. The detector makes decisions and inputs an alarm even if the loop controller fails. The detector reverts to an intelligent "conventional" detector when polling interrogation stops.
- F. Units shall mount to the SIGA-SB, SIGA-RB or SIGA-IB bases as required.
- G. Base shall mount to a 4S 2-1/8" box with 3-0 1/2" ring. (Furnished and Installed under Division 16 Electrical Specification Sections).

### **3.07 DUCT SMOKE DETECTORS - SIGA-SD (SUPER DUCT W/INTELLIGENT SENSOR)**

- A. Provide Duct Smoke Detectors where indicated on the drawings.

- B. Duct Housing shall be constructed of a plastic housing. Units shall incorporate the SIGA-PS sensor, base as required and sampling tubes as required for duct width.
- C. Each air handling unit shall be controlled from the built in relay, for shut down of that particular unit.
- D. Duct Housings, Detectors, and Sampling Tubes are to be supplied by this section.
- E. Duct Housings and Sampling Tubes are to be installed as part of the conduit system in Division 16 Electrical Specification Sections. Contractor to provide and install weatherproof housings for above, if applicable to this project.

**3.08 HEAT DETECTORS - SIGA-HFS or SIGA-HRS W/SIGA-SB BASE**

- A. Provide Heat Sensors where indicated on the drawings.
- B. Detectors shall gather analog information from their fixed temperature and/or rate-of-rise heat sensing elements and convert it into digital signals. The detectors on board microprocessor measures and analyzes these signals. It compares the information to historical readings and time patterns to make an alarm decision. Digital filters remove signal patterns that are not typical of fires.
- C. Units shall incorporate twin status LED's. Flashing green shows normal; flashing red shows alarm state; steady red and steady green show alarm state in stand alone mode, visible from any direction.
- D. Units shall mount to the SIGA-SB, SIGA-RB or SIGA-IB bases as required.
- E. Base shall mount to a 4S 2-1/8" box with 3-0 Ring. (Furnished and Installed under Division 16 Electrical Specification Sections).

**3.09 ATTIC HEAT DETECTORS - 284B-PL W/SIGA-CT1**

- A. Provide Heat Detectors where indicated on the drawings.
- B. Units shall incorporate single pole, normally open contacts and a SIGA-CT1 Monitor Module.
- C. Fixed Temperature Rating shall be 194 Degrees Fahrenheit.
- D. Units shall mount to a 4S 2-1/8" box with 3-0 Ring (Furnished and Installed under Division 16 Electrical Specification Sections).
- E. Monitor modules shall mount to a 4-S 2-1/8" box with 1-Gang Ring (Furnished and Installed under Division 16 Electrical Specification Sections).

**3.10 STROBES – GENESIS G1RF-VM (Wall)**

- A. Provide Strobes as indicated on the drawings.
- B. Strobes shall be Multi Candela rated 15cd, 30cd, 75cd or 110cd. Strobes shall be capable of being on same circuit as audibles, be synchronized and flash per NFPA requirements. Units not capable of this feature shall install separate audible and visual circuits, conductors, synchronization modules, etc. All additional costs to be borne by contractor. Strobes shall be listed for indoor applications. Units shall be rated for 24VDC polarized operation.
- C. For flush mount applications - Use 4S 2-1/8" boxes with 1 Gang Ring. (Furnished and Installed under Division 16 Electrical Specification Sections).

- D. For surface mount applications - Use One Gang Wiremold Box V5748 (Furnished and installed under Division 16 Electrical Specification Sections).

### **3.11 STROBES – GENESIS GCF-VM (Ceiling)**

- A. Provide Strobes as indicated on the drawings.
- B. Strobes shall be Multi Candela rated 15cd, 30cd, 75cd or 95cd. Strobes shall be capable of being on same circuit as audibles, be synchronized and flash per NFPA requirements. Units not capable of this feature shall install separate audible and visual circuits, conductors, synchronization modules, etc. All additional costs to be borne by contractor. Strobes shall be listed for indoor applications. Units shall be rated for 24VDC polarized operation.
- C. For flush mount applications - Use 4S 2-1/8" boxes with 4-S Extensions Ring. (Furnished and Installed under Division 16 Electrical Specification Sections).
- D. For surface mount applications - Use Wiremold Box V5753 (Furnished and installed under Division 16 Electrical Specification Sections).

### **3.12 HORNS - 757-1A-T**

- A. Provide Horns as indicated on the drawings.
- B. Horns shall be rated at 94dBA - low and 98dBA - high. Units shall incorporate a high and low setting position. Units shall be rated for 24VDC polarized operation. Units shall have screw terminals for input/output wiring, be red in color and be suitable for indoor or outdoor applications. Units shall be capable of being installed on the same circuit as visual devices and shall sound the Temporal Code in synchronization with all units. Units not capable of this feature shall install separate audible and visual circuits, conductors, synchronization modules, etc. All additional costs to be borne by contractor.
- C. For flush mount applications indoor - Use 4S 2-1/8" boxes with 2-Gang Ring (Furnished and Installed under Division 16 Electrical Specification Sections).
- D. For surface mount applications indoor - Use 757A-SB Back-box (Furnished under this section, Installed under Division 16 Electrical Specification Sections).
- E. For surface mount applications outdoor - Use 757A-WB Back-box (Furnished under this section, Installed under Division 16 Electrical Specification Sections).

### **3.13 HORN/STROBES – G1RF-HDVM (Wall)**

- A. Provide Horn/Strobes as indicated on the drawings.
- B. HORN/(Strobes) to be rated at 92.5dBA - low and 97.6dBA - high. Units shall incorporate a high and low horn setting position. (Horn)/STROBE to be Multi Candela Rated at 15cd, 30cd, 75cd or 110cd. Units shall have screw terminals for input/output wiring and be suitable for indoor applications. Units shall be capable of being installed on the same indicating circuit. Units shall sound the Temporal Code in synchronization and strobes shall flash in synchronization per NFPA requirements. Units not capable of this feature shall install separate audible and visual circuits, conductors, synchronization modules, etc. All additional costs to be borne by contractor. Units to be rated for 24VDC polarized operation.
- C. For flush mount applications - Use 4S 2-1/8" boxes with 1-Gang Ring (Furnished and Installed under Division 16 Electrical Specification Sections).

- D. For surface mount applications - Use Wiremold Box V5748 (Furnished under this section, Installed under Division 16 Electrical Specification Sections).

**3.14 HORN/STROBES – GCF-VM (Ceiling)**

- A. Provide Horn/Strobes as indicated on the drawings.
- B. HORN/(Strobes) to be rated at 92.4dBA - low and 96.6BA - high. Units shall incorporate a high and low horn setting position. (Horn)/STROBE to be Multi Candela Rated at 15cd, 30cd, 75cd or 95cd. Units shall have screw terminals for input/output wiring and be suitable for indoor applications. Units shall be capable of being installed on the same indicating circuit. Units shall sound the Temporal Code in synchronization and strobes shall flash in synchronization per NFPA requirements. Units not capable of this feature shall install separate audible and visual circuits, conductors, synchronization modules, etc. All additional costs to be borne by contractor. Units to rated for 24VDC polarized operation.
- C. For flush mount applications - Use 4S 2-1/8" boxes with 4-S Extension Ring (Furnished and Installed under Division 16 Electrical Specification Sections).
- D. For surface mount applications - Use Wiremold Box V5753 (Furnished under this section, Installed under Division 16 Electrical Specification Sections).

**3.15 MODULES - SIGA-CC1S/SIGA-CT1/SIGA-CT2/SIGA-CR/SIGA-MM1/SIGA-WTM**

- A. Provide modules as indicated on the drawings.
- B. Units shall permanently store serial number, type of device, and job number. Each module shall be capable of having its own personality code. Use respected module for particular application. Modules shall use electronic addressing. Use of switches to set address will be prohibited.
- C. Module for flush or surface mountings - Use 4S 2-1/8" Boxes One or Two Gang Ring as required, (Furnished and Installed under Division 16 Electrical Specification Sections).

**3.16 SECURITY MODULE – SIGA-SEC2**

- A. Provide modules as indicated on the drawings.
- B. The Dual Input Module shall provide two (2) input circuits, each capable of a minimum of 6 personalities, each with a distinct operation.

**3.17 SECURITY MOTION DETECTORS – SIGA-MDS**

- A. Reuse existing motion detectors where shown on the Record Drawings for the Silent Knight Security system or supply new motion detectors (if any) as indicated on the modernization drawings. Contractor shall completely disconnect and remove each existing motion detector and monitor module, provide and install a new GE/EST or District approved equal monitor module and re-install existing motion detector (unless defective or damaged) in same location.
- B. The passive infrared motion detector shall utilize adaptive signal processing with gliding focus mirror optics to analyze the size, speed and shape to determine the alarm threshold.
- C. The unit shall be configurable for up to seven different curtain patterns, have a range of up to 34 ft. and a 90 degree field of view.

### **3.18 DOOR DETECTORS**

- A. Door detectors shall be reused unless damaged, defective, and/or not in accordance with all referenced codes. Reuse existing door detectors where shown on Record drawings for Silent Knight Security System. Replacement or added detectors (for any and all new exterior doors) shall be as manufactured or supplied by GE Security. Detectors shall be removed and new GE/EST monitor module installed if required to render existing door contacts compatible with GE/EST or district approved equal system.

### **3.19 OTHER EQUIPMENT**

- A. Provide all other materials equipment and parts as required for a complete first class operating fire alarm and integrated security system.

## **PART 4 EXECUTION**

### **4.01 INSTALLATION**

- A. Wiring shall be installed in conduit as specified under the Division 16 electrical sections of the specification.
- B. The sum of the cross-sectional areas of individual conductors shall not exceed 40% of the interior cross sectional area of the conduit. Minimum conduit size shall be 3/4 inch trade size.
- C. Wiring shall be identified at terminal and junction locations to prevent unintentional interference with the circuits during testing and servicing.
- D. Junction, pull and terminal boxes/cabinets shall be labeled. Labels shall be permanently affixed to covers/doors. Labeling to be Furnished and Installed under Division 16 Electrical Specification Sections.
- E. Wiring color code shall be consistent throughout the system and shall allow for easy identification of initiating, indicating and auxiliary control circuits.
- F. Wiring at building terminal cabinets shall be terminated to screw barrier strips, with circuits identified.
- G. Wiring in control, terminal and junction cabinets shall be neatly arranged and bundled.
- H. Wiring shall test free of earth grounds or shorts between conductors.
- I. The contractor shall be responsible and assure the use of adequate numbers of skilled workmen, who are thoroughly trained and experienced, and completely familiar with the specified equipment and code requirements.
- J. The contractor shall be responsible for assuring that conduit size, wire type and color coding meets the specification, manufacturers and code requirements.
- k. Upon completion Contractor shall provide all required programming to make final terminations to school police headquarters Fire Works central monitoring station. System shall then be tested for on site security/intrusion system and off site reporting as required by the District, for a complete and fully operable integrated fire alarm/security system.

#### **4.02 SYSTEM VERIFICATION**

- A. Upon completion of the installation, the fire alarm contractor shall place into operation and test all operational features, functions and devices. Each security and fire alarm device shall be field tested in the presence of the District Representative. Any device which fails to adequately communicate with the FACP, FAAP and/or Fire Works or District approved equal Central Monitoring System shall be replaced at no cost to the District.
- B. Upon completion of testing, and after the system has been in operation for a minimum of 5 days without failure, the fire alarm contractor shall schedule with the Authority Having Jurisdiction (DSA INSPECTOR), Architect and Engineer, a demonstration and field acceptance test.
- C. Field acceptance and approval of the fire alarm system shall be evidenced in writing by the Authority Having Jurisdiction.
- D. Prior to scheduling field acceptance, the fire alarm system contractor shall certify in writing, and record the method of testing, the results of all tests and certify that the system has been in operation a minimum of 5 days.
- E. All testing shall be conducted in accordance with NFPA-72, contract documents, manufacturer's instructions and per the requirements of the Authority Having Jurisdiction.

#### **4.03 GUARANTEE AND SERVICE**

- A. Fire alarm system contractor shall provide written guarantees for all fire alarm equipment and devices used on this project for a period of THREE (3) YEARS from the date of final acceptance.
- B. During the guarantee period the contractor shall repair or replace any defective material at no additional cost to the Owner.

#### **4.04 IN SERVICE TRAINING**

- A. The fire alarm contractor shall provide factory trained representatives to demonstrate the operation of the fire alarm system to the Owner's personnel. The representative shall have a thorough knowledge of the equipment and operation of the system. The contractor shall provide one (1) 4 hour in-service training session.
- B. The fire alarm contractor shall provide to the Authority Having Jurisdiction a demonstration of system operation. Session shall consist of one (1) 4 hour in-service training.

#### **4.05 OPERATION MAINTENANCE MANUALS**

- A. The fire alarm contractor shall provide to the Engineer, three (3) weeks after the field acceptance test, two (2) sets of operating/maintenance manuals and one(1) set of as-built drawings.
- B. As-built drawings shall indicate the location of all devices, appliances, coding, zoning, wiring sequences, wiring methods, color coding, identification, labeling and connections of the components of the fire alarm system as installed. The as-builts shall include a mapping sequence as generated by the Fire Alarm Control Panel and connected computer. Systems not capable of this feature shall generate TRUE Device mapping sequences as-builts on Auto Cad 2008. These as-builts shall show the physical layout of all addressable devices as they were actually installed on the loop.

**END OF SECTION**

# 2009-2010 Traditional School Year Calendar

JULY 2009							AUGUST 2009							SEPTEMBER 2009							OCTOBER 2009						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
18	19	20	21	22	23	24	25	26	27	28	29	30	31														
26	27	28	29	30	31																						

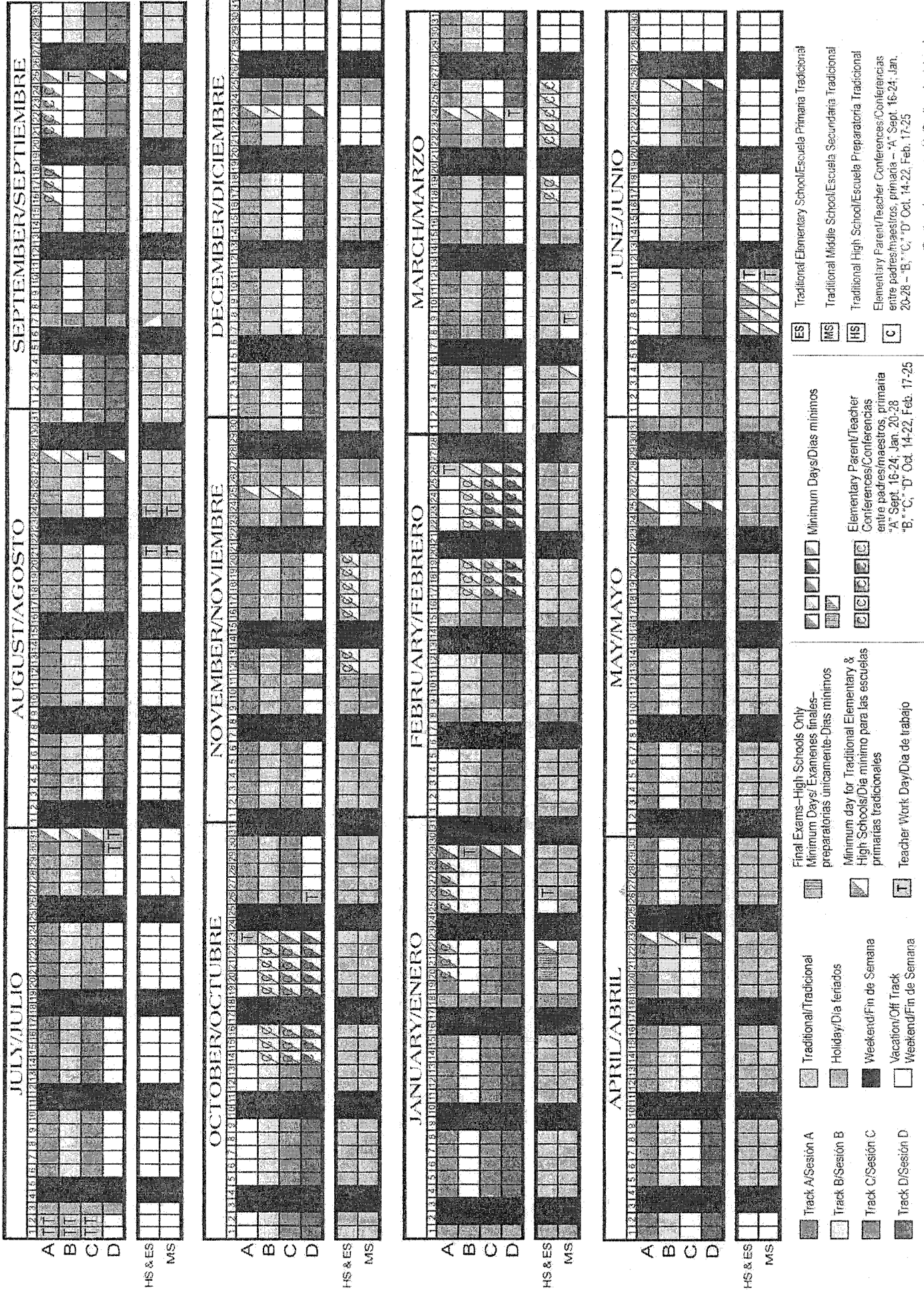
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SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
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18	19	20	21	22	23	24	25	26	27	28	29	30	31														
26	27	28	29	30	31																						

MARCH 2010							APRIL 2010							MAY 2010							JUNE 2010						
SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT	SUN	MON	TUE	WED	THU	FRI	SAT
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12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
18	19	20	21	22	23	24	25	26	27	28	29	30	31														
26	27	28	29	30	31																						

- School Holiday — No School
- End of School Month
- HS & ES Semester Break
- MS Trimester Break

# SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

2009-2010 Continuous Year-Round & Traditional School Calendars/Calendario continuo de año redondo y tradicional 2009-2010



(Continued on reverse side/Continuado al dorso)

San Bernardino City Unified School District  
 777 North F Street  
 San Bernardino, CA 92410  
 (909) 381-1100

**Continuous Year-Round Calendar  
 Calendario de año continuo**

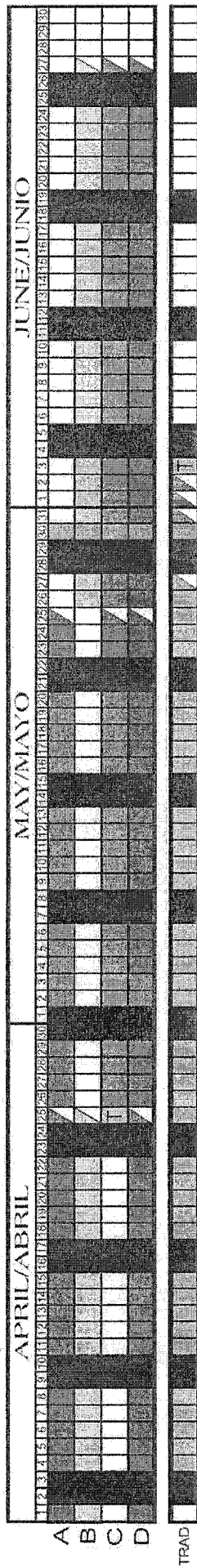
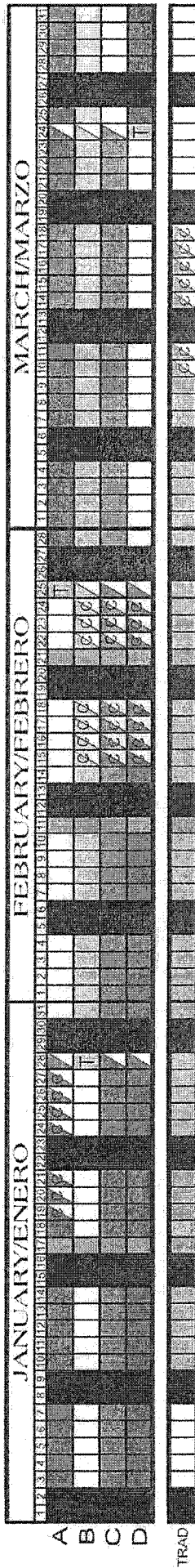
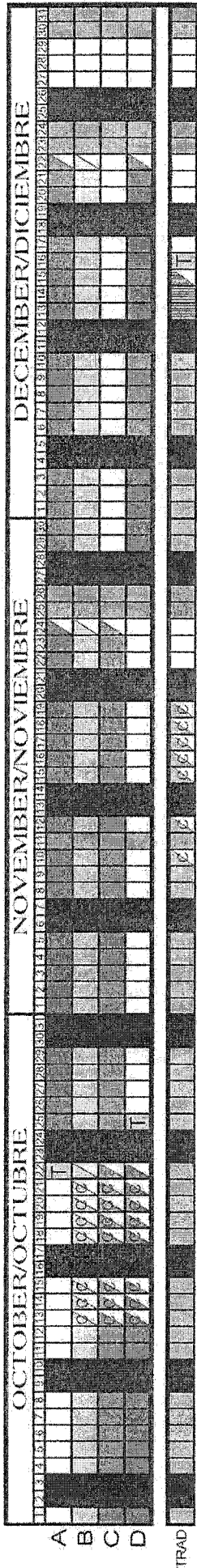
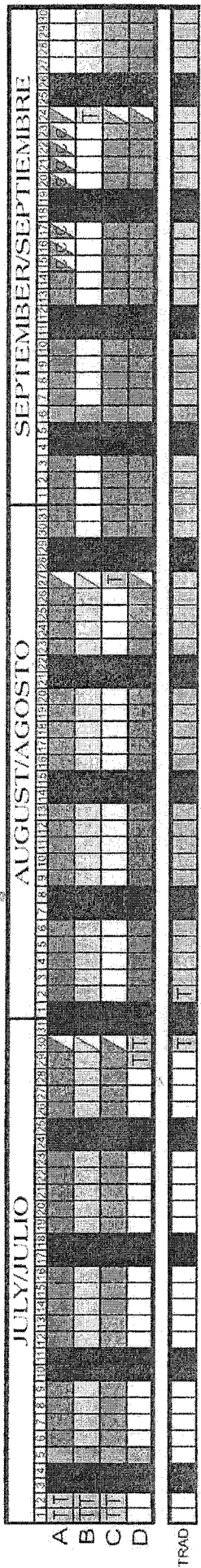
**Traditional Year Calendar  
 Calendario de año tradicional**

7/3/09.....Independence Day (Observed)/Día de la Independencia  
 9/7/09.....Labor Day/Día del Trabajador  
 11/11/09.....Veterans Day (Observed) /Día de los Veteranos de Guerra  
 11/26/09 - 11/27/09.....Thanksgiving Holiday/Día de Acción de Gracias  
 12/24/09 - 1/1/10.....Christmas/Winter Recess/Navidad/Receso invernal  
 1/18/10.....Dr. Martin Luther King Jr. Day/Día del Dr. Martin Luther King  
 2/8/10.....Abraham Lincoln's Birthday (Observed)  
 Cumpleaños de Abraham Lincoln (observado)  
 2/15/10.....George Washington's Birthday (Observed)  
 Cumpleaños de George Washington (observado)  
 5/31/10.....Memorial Day/Día del Soldado Caído en Guerra

9/7/09.....Labor Day/Día del Trabajador  
 11/11/09.....Veterans Day (Observed)/Día de los Veteranos de Guerra  
 11/23/09 - 11/27/09.....Thanksgiving Recess/Receso del Día de Acción de Gracias  
 12/21/09 - 1/1/10.....Christmas/Winter Recess/Navidad/Receso Invernal  
 1/18/10.....Dr. Martin Luther King Jr. Day/Día del Dr. Martin Luther King  
 1/25/10 - 1/26/10.....Semester Break--(Teacher Workday -  
 High Schools & Elementary Schools only)  
 Receso entre semestres (Día de trabajo para maestros-  
 escuelas preparatorias y primarias únicamente)  
 2/8/10.....Abraham Lincoln's Birthday (Observed)  
 Cumpleaños de Abraham Lincoln (observado)  
 2/15/10.....George Washington's Birthday (Observed)  
 Cumpleaños de George Washington (observado)  
 3/6/10 - 3/9/10.....Second Trimester Break--(Teacher  
 Workday - Middle Schools Only)  
 Receso del segundo trimestre - (Día de trabajo para maestros-  
 escuelas secundarias únicamente)  
 3/29/10 - 4/2/10.....Spring Recess/Receso primavera  
 5/31/10.....Memorial Day/Día del Soldado Caído en Guerra  
 6/10/10.....Last Day of School (Graduation)/Último día de clases (Graduación)

# SAN BERNARDINO CITY UNIFIED SCHOOL DISTRICT

2010/2011 Continuous Year-Round & Traditional School Calendars/Calendario continuo de año redondo y tradicional 2010/2011



	Track A/Sesión A		Traditional/Tradicional		Final Exams--High Schools Only Minimum Days/ Exámenes finales-- preparatorias únicamente-Días mínimos		Minimum Days/Días mínimos		Elementary Parent/Teacher Conferences/Conferencias entre padres/maestros, primaria
	Track B/Sesión B		Holiday/Día feriado		Minimum day for Traditional Schools/Día mínimo para las escuelas tradicionales		TRAD		Traditional Schools/Escuelas Tradicionales
	Track C/Sesión C		Weekend/Fin de Semana		Teacher Work Day/Día de trabajo				
	Track D/Sesión D		Vacation/Off Track Vacaciones/fuera de sesión						

(Continued on reverse side/Continuado al verso)

San Bernardino City Unified School District  
 777 North F Street  
 San Bernardino, CA 92410  
 (909) 381-1100

**Continuous Year-Round Calendar**  
**Calendario de año continuo**

7/5/10 ..... Independence Day (Observed)  
 Día de la Independencia (observado)

9/6/10 ..... Labor Day (Observed)  
 Día del Trabajador (observado)

11/11/10 ..... Veterans Day  
 Día de los Veteranos de Guerra

11/25/10 - 11/26/10 ..... Thanksgiving Holiday/Día de Acción de Gracias

12/23/10 - 1/2/11 ..... Christmas/Winter Recess/Navidad/Receso invernal

1/17/11 ..... Dr. Martin Luther King Jr. Day/Día del Dr. Martin Luther King

2/11/11 ..... Abraham Lincoln's Birthday (Observed)  
 Cumpleaños de Abraham Lincoln (observado)

2/21/11 ..... George Washington's Birthday (Observed)  
 Cumpleaños de George Washington (observado)

5/30/11 ..... Memorial Day/Día del Soldado Caído en Guerra

**Traditional Year Calendar**  
**Calendario de año tradicional**

9/6/10 ..... Labor Day (Observed)  
 Día del Trabajador (observado)

11/11/10 ..... Veterans Day/Día de los Veteranos de Guerra

11/22/10 - 11/26/10 ..... Thanksgiving Recess/Receso del Día de Acción de Gracias

12/16/10 - 1/7/11 ..... Christmas/Winter Recess/Navidad/Receso Invernal

1/17/11 ..... Dr. Martin Luther King Jr. Day/Día del Dr. Martin Luther King

2/11/11 ..... Abraham Lincoln's Birthday (Observed)  
 Cumpleaños de Abraham Lincoln (observado)

2/21/11 ..... George Washington's Birthday (Observed)  
 Cumpleaños de George Washington (observado)

3/21/11 - 4/17/11 ..... Spring Recess/Receso primaveral

5/30/11 ..... Memorial Day/Día del Soldado Caído en Guerra

6/21/11 ..... Last Day of School (Graduation)/Último día de clases (Graduación)