

BID DOCUMENTS



Downey Unified SCHOOL DISTRICT

Agreement Number: 202122-419

**Rio San Gabriel Elementary School
Window Glazing Project**

February 1, 2022

NOTICE INVITING INFORMAL BIDS

Notice is hereby given that the governing board ("Board") of the Downey Unified School District ("District") will receive sealed bids for the following project, **Rio San Gabriel Elementary School Window Glazing Project, Agreement No. 202122-419** ("Project" or "Contract"). To bid on this Project, the Bidder is required to be registered as a public works contractor with the Department of Industrial Relations and to possess an A, B, and/or C-17 State of California Contractor License. The Bidder's license(s) must remain active and in good standing throughout the term of the Contract.

Documents are available as of February 1, 2022 for review if requested via email from Kay Domingo at kdomingo@dusd.net or may be downloaded from the District's Bids/RFP website, <https://web.dusd.net/purchasing/#bids>.

Sealed Bids will be received until 10:00 a.m., February 9, 2022 at the District's Facilities Planning and Development Office, 11627 Brookshire Ave., Attn: Kay Domingo, Downey, CA 90241 at or after which time the bids will be opened and publicly read aloud. All bids shall be on the form provided by the District and must be responsive.

A mandatory pre-bid conference and site visit will be held on February 1, 2022 at 2 p.m. at Rio San Gabriel Elementary School, 9338 Gotham St., Downey, California 90241 outside of the front office ("Site Visit"). All participants are required to sign-in. Failure to attend or tardiness may render bid ineligible. The Site Visit Certification will be provided at the end of the Site Visit and must be submitted with the Bid.

The successful Bidder shall be required to furnish a 100% Performance Bond and a 100% Payment Bond if it is awarded the contract for the Work. The successful Bidder may substitute securities for any monies withheld by the District to ensure performance under the Contract, in accordance with the provisions of section 22300 of the Public Contract Code.

The successful Bidder shall comply with all requirements of Division 2, Part 7, Chapter 1, of the Labor Code and Title 8 of the California Code of Regulations. For all work performed pursuant to this Contract, the Contractor and all subcontractors shall pay all workers not less than the general prevailing rate of per diem wages and for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, ("DIR") for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Prevailing wage rates are also available from the District or the DIR website at: <http://www.dir.ca.gov>. This Project is subject to labor compliance monitoring and enforcement by the DIR.

The Board reserves the right to reject any and all bids and/or waive any irregularity in any bid received. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

END OF DOCUMENT

INSTRUCTIONS TO BIDDERS

Contractors shall follow the instructions in this document, and shall submit all documents, forms, and information required for consideration of a Bid.

Downey Unified School District ("District") will evaluate information submitted by the apparent low Bidder and, if incomplete or unsatisfactory to District, Bidder's bid may be rejected at the sole discretion of District.

1. Bids are requested for a general construction contract, or work described in general, ("Work") for the following project:

Rio San Gabriel Elementary School Window Glazing Project ("Project").
2. District will receive sealed Bids from Bidders as stipulated in the Notice to Bidders.
3. District will receive sealed bids from bidders as stipulated in the Notice to Bidders.
 - a. All bids must be sealed in an envelope, marked with the name and address of the Bidder, name of the Project, the Project Number and/or bid number, and time of bid opening.
 - b. Bids must be submitted to the District Office by date and time shown in the Notice to Bidders.
 - c. Bids must contain all documents as required herein.
4. Bidders are advised that on the date that bids are opened, telephones will not be available at the District Offices for use by bidders or their representatives.
5. Bids will be opened at or after the time indicated for receipt of bids.
6. Bidders must submit Bids on the documents titled Bid Form and Proposal and must submit all other required District forms. Bids not submitted on the District's required forms shall be deemed nonresponsive and shall not be considered. Additional sheets required to fully respond to requested information are permissible.
7. Bidders shall not modify the Bid Form and Proposal or qualify their bids. Bidders shall not submit to the District a re-formatted, re-typed, altered, modified, or otherwise recreated version of the Bid Form and Proposal or other District-provided document.
8. Bids shall be clearly written and without erasure or deletions. District reserves the right to reject any bid containing erasures, deletions, or illegible contents.
9. Bidders must supply all information required by each Bid Document. Bids must be full and complete. District reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders must complete and submit all of the following documents with the Bid Form and Proposal:
 - a. Bid Bond on the District's form, or other security.

- b. Designated Subcontractors List.
 - c. Site Visit Certification, if a site visit was required.
 - d. Non-Collusion Declaration.
10. Bidders must submit with their Bids a cashier's check or a certified check payable to District, or a bid bond by an admitted surety insurer of not less than ten percent (10%) of amount of base Bid, plus all additive alternates ("Bid Bond"). If Bidder chooses to provide a Bid Bond as security, Bidder must use the required form of corporate surety provided by District. The Surety on Bidder's Bid Bond must be an insurer admitted in the State of California and authorized to issue surety bonds in the State of California. Bids submitted without necessary bid security will be deemed non-responsive and will not be considered.
11. If Bidder to whom a contract is awarded ("Contract" or "Agreement") fails or neglects to enter into Contract and submit required bonds, insurance certificates, and all other required documents, within **SEVEN (7)** calendar days after the date of the Notice of Award, District may deposit Bid Bond, cash, cashier's check, or certified check for collection, and proceeds thereof may be retained by District as liquidated damages for failure of Bidder to enter into Contract, in the sole discretion of District. It is agreed that calculation of damages District may suffer as a result of Bidder's failure to enter into the Contract would be extremely difficult and impractical to determine and that the amount of the Bidder's required bid security shall be the agreed and conclusively presumed amount of damages.
12. Bidders must submit with the Bid the Designated Subcontractors List for those subcontractors who will perform any portion of the Project, ("Subcontractor") including labor, rendering of service, or specially fabricating and installing a portion of the Work or improvement according to detailed drawings contained in the plans and specifications, in excess of one half of one percent (0.5%) of the total Bid. Failure to submit this list when required by law shall result in bid being deemed nonresponsive and the bid will not be considered.
13. All of the listed subcontractors are required to be registered as a public works contractor with the Department of Industrial Relations pursuant to the Labor Code.
- a. An inadvertent error in listing the California contractor license number on the Designated Subcontractors List shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
 - b. An inadvertent error listing an unregistered subcontractor shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
 - (1) The subcontractor is registered prior to the bid opening.
 - (2) The subcontractor is registered and has paid the penalty registration fee within 24 hours after the bid opening.

- (3) The subcontractor is replaced by another registered subcontractor pursuant to Public Contract Code section 4107.
14. If a mandatory pre-bid conference and site visit ("Site Visit") is required as referenced in the Notice to Bidders, then Bidders must submit the Site Visit Certification with their Bid. District will transmit to all prospective Bidders of record such Addenda as District in its discretion considers necessary in response to questions arising at the Site Visit. Oral statements shall not be relied upon and will not be binding or legally effective. Addenda issued by the District as a result of the Site Visit, if any, shall constitute the sole and exclusive record and statement of the results of the Site Visit.
15. Bidders shall submit the Non-Collusion Declaration with their Bids. Bids submitted without the Non-Collusion Declaration shall be deemed non-responsive and will not be considered.
16. The Contractor and all Subcontractors under the Contractor shall pay all workers on all work performed pursuant to this Contract not less than the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work as determined by the Director of the Department of Industrial Relations, State of California, for the type of work performed and the locality in which the work is to be performed within the boundaries of the District, pursuant to sections 1770 et seq. of the California Labor Code. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the Department of Industrial Relations, are available upon request at the District's principal office. Prevailing wage rates are also available on the internet at <http://www.dir.ca.gov>.
17. Submission of Bid signifies careful examination of the District's proposed Contract Documents for the Project and complete understanding of the nature, extent, and location of Work to be performed. Bidders must complete the tasks listed below as a condition to bidding, and submission of a Bid shall constitute the Bidder's express representation to District that Bidder has fully completed the following:
- a. Bidder has visited the Site, if required, and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Project and Work sites, locality, actual conditions, as-built conditions, and all local conditions and federal, state and local laws, and regulations that in any manner may affect cost, progress, performance, or furnishing of Work or that relate to any aspect of the means, methods, techniques, sequences, or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto;
 - b. Bidder has conducted or obtained and has understood all examinations, investigations, explorations, tests, reports, and studies that pertain to the subsurface conditions, as-built conditions, underground facilities, and all other physical conditions at or contiguous to the Work Site or otherwise that may affect the cost, progress, performance, or furnishing of Work, as Bidder considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time, and in accordance with the other terms and conditions of Contract Documents, including specifically the provisions of the General Conditions; and no additional examinations, investigations,

explorations, tests, reports, studies, or similar information or data are or will be required by Bidder for such purposes;

- c. Bidder has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports, and studies with the terms and conditions of the Contract Documents;
- d. Bidder has given the District prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and the actual conditions, and the written resolution(s) thereof by the District is/are acceptable to Bidder;
- e. Bidder has made a complete disclosure in writing to the District of all facts bearing upon any possible interest, direct or indirect, that Bidder believes any representative of the District or other officer or employee of the District presently has or will have in this Contract or in the performance thereof or in any portion of the profits thereof;
- f. Bidder must, prior to bidding, perform the work, investigations, research, and analysis required by this document and that Bidder represented in its Bid Form and Proposal and the Contract that it performed prior to bidding. Contractor under this Contract is charged with all information and knowledge that a reasonable bidder would ascertain from having performed this required work, investigation, research, and analysis. Bid prices must include entire cost of all work "incidental" to completion of the Work.
- g. Conditions Shown on the Contract Documents: Information as to underground conditions, as-built conditions, or other conditions or obstructions, indicated in the Contract Documents, e.g., on Drawings or in Specifications, has been obtained with reasonable care, and has been recorded in good faith. However, District only warrants, and Contractor may only rely, on the accuracy of limited types of information.
 - (1) As to above-ground conditions or as-built conditions shown or indicated in the Contract Documents, there is no warranty, express or implied, or any representation express or implied, that such information is correctly shown or indicated. This information is verifiable by independent investigation and Contractor is required to make such verification as a condition to bidding. In submitting its Bid, Contractor shall rely on the results of its own independent investigation. In submitting its Bid, Contractor shall not rely on District-supplied information regarding above-ground conditions or as-built conditions.
 - (2) As to any subsurface condition shown or indicated in the Contract Documents, Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated. District is not responsible for the completeness of such information for bidding or construction; nor is District responsible in any way for any conclusions or opinions that the Contractor has drawn from such information; nor is the District responsible for subsurface conditions that are not specifically shown

(for example, District is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown).

- h. Conditions Shown in Reports and Drawings Supplied for Informational Purposes: Reference is made to the document entitled Geotechnical Data, and the document entitled Existing Conditions, for identification of:
- (1) Subsurface Conditions: Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that have been utilized by Architect in preparing the Contract Documents; and
 - (2) Physical Conditions: Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that has been utilized by Architect in preparing the Contract Documents.
 - (3) These reports and drawings are **not** Contract Documents and, except for any "technical" data regarding subsurface conditions specifically identified in Geotechnical Data and Existing Conditions, and underground facilities data, Contractor may not in any manner rely on the information in these reports and drawings. Subject to the foregoing, Contractor must make its own independent investigation of all conditions affecting the Work and must not rely on information provided by District.
18. Bids shall be based on products and systems specified in Contract Documents or listed by name in Addenda. Whenever in the Specifications any materials, process, or article is indicated or specified by grade, patent, or proprietary name, or by name of manufacturer, that Specification shall be deemed to be followed by the words "or equal." Bidder may, unless otherwise stated, offer any material, process, or article that shall be substantially equal or better in every respect to that so indicated or specified. The District is not responsible and/or liable in any way for a Contractor's damages and/or claims related, in any way, to that Contractor's basing its bid on any requested substitution that the District has not approved in advance and in writing. Contractors and materials suppliers who submit requests for substitutions prior to the award of the Contract must do so in writing and in compliance with Public Contract Code section 3400. All requests must comply with the following:
- a. District must receive any notice of request for substitution of a specified item a minimum of **TEN (10)** calendar days prior to bid opening. The Successful Bidder will not be allowed to substitute specified items unless properly noticed.
 - b. Within 35 days after the date of the Notice of Award, the Successful Bidder shall submit data substantiating the request(s) for all substitution(s) containing sufficient information to assess acceptability of product or system and impact on Project, including, without limitation, the requirements specified in the Special Conditions and the Specifications. Insufficient information shall be grounds for rejection of substitution.
 - c. Approved substitutions, if any, shall be listed in Addenda. District reserves the right not to act upon submittals of substitutions until after bid opening.

- d. Substitutions may be requested after Contract has been awarded only if indicated in and in accordance with requirements specified in the Special Conditions and the Specifications.
- 19. Bidders may examine any available "as-built" drawings of previous work by giving District reasonable advance notice. District will not be responsible for accuracy of "as-built" drawings. The document entitled Existing Conditions applies to all supplied "as-built" drawings.
 - 20. All questions about the meaning or intent of the Contract Documents are to be directed via email to the District to Vince Madsen at vmadsen@dusd.net. Interpretations or clarifications considered necessary by the District in response to such questions will be issued in writing by Addenda and emailed, faxed, mailed, or delivered to all parties recorded by the District as having received the Contract Documents or posted on the District's website at <https://web.dusd.net/bids-rfps/>. Questions received less than **three (3)** calendar days prior to the date for opening Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
 - 21. Addenda may also be issued to modify other parts of the Contract Documents, as deemed advisable by the District.
 - 22. Each Bidder must acknowledge each Addendum in its Bid Form and Proposal by number or its Bid shall be considered non-responsive. Each Addendum shall be part of the Contract Documents. A complete listing of Addenda may be obtained from the District.
 - 23. The Contract may include alternates. Alternates are defined as alternate products, materials, equipment, systems, methods, or major elements of the construction that may, at the District's option and under terms established in the Contract and pursuant to section 20103.8 of the Public Contract Code, be selected for the Work.
 - 24. The District shall award the Contract, if it awards it at all, to the lowest responsive responsible bidder based on the criteria as indicated in the Notice to Bidders. In the event two or more responsible bidders submit identical bids, the District shall select the Bidder to whom to award the Contract by lot. In the event all Bids exceed the informal bid threshold of \$200,000, the District's Governing Board may elect to pass a resolution to award the Contract at \$212,500 or less to the lowest responsible Bidder, in accordance with Public Contract Code section 22034(d).
 - 25. Time for Completion: District may issue a Notice to Proceed within **NINETY (90) days** from the date of the Notice of Award. Once Contractor has received the Notice to Proceed, Contractor shall complete the Work within the period of time indicated in the Contract Documents.
 - a. In the event that the District desires to postpone issuing the Notice to Proceed beyond this 90-day period, it is expressly understood that with reasonable notice to the Contractor, the District may postpone issuing the Notice to Proceed.
 - b. It is further expressly understood by Contractor that Contractor shall not be entitled to any claim of additional compensation as a result of the

postponement of the issuance of the Notice to Proceed beyond a 90-day period. If the Contractor believes that a postponement of issuance of the Notice to Proceed will cause a hardship to the Contractor, the Contractor may terminate the Contract. Contractor's termination due to a postponement beyond this 90-day period shall be by written notice to District within **TEN (10)** calendar days after receipt by Contractor of District's notice of postponement.

- c. It is further understood by the Contractor that in the event that Contractor terminates the Contract as a result of postponement by the District, the District shall only be obligated to pay Contractor for the Work that Contractor had performed at the time of notification of postponement and which the District had in writing authorized Contractor to perform prior to issuing a Notice to Proceed.
 - d. Should the Contractor terminate the Contract as a result of a notice of postponement, District shall have the authority to award the Contract to the next lowest responsive responsible Bidder.
26. The Bidder to whom a Contract is awarded shall execute and submit the following documents by 5:00 p.m. of the **SEVENTH (7th)** calendar day following the date of the Notice of Award. Failure to properly and timely submit these documents entitles District to reject the bid as non-responsive.
- a. Agreement: To be executed by successful Bidder. Submit three (3) copies, each bearing an original signature.
 - b. Performance Bond (100% of Contract Price): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - c. Payment Bond (100%) (Contractor's Labor and Material Bond): On the form provided in the Contract Documents and fully executed as indicated on the form.
 - d. Insurance Certificates and Endorsements, as required.
 - e. Workers' Compensation Certification.
 - f. Prevailing Wage and Related Labor Requirements Certification.
 - g. Drug-Free Workplace Certification.
 - h. Tobacco-Free Environment Certification.
 - i. Hazardous Materials Certification.
 - j. Lead-Based Materials Certification.
 - k. Imported Materials Certification.
 - l. Criminal Background Investigation/Fingerprinting Certification.

- m. Registered Subcontractors List: Must include Department of Industrial Relations (DIR) registration number of each subcontractor for all tiers.
27. Any Bid protest by any Bidder regarding any other Bid must be submitted in writing to the District, before 5:00 p.m. of the **THIRD (3rd)** business day following Bid opening.
- a. Only a Bidder who has actually submitted a Bid, and who could be awarded the Contract if the bid protest is upheld, is eligible to submit a Bid protest. Subcontractors are not eligible to submit Bid protests. A Bidder may not rely on the bid protest submitted by another Bidder.
 - b. A Bid protest must contain a complete statement of any and all bases for the protest and all supporting documentation. Materials submitted after the Bid protest deadline will not be considered.
 - c. The protest must refer to the specific portions of all documents that form the basis for the protest.
 - (1) Without limitation to any other basis for protest, an inadvertent error in listing the California contractor's license number on the Designated Subcontractors List shall not be grounds for filing a Bid protest or grounds for considering the Bid nonresponsive if the correct contractor's license number is submitted to the District within 24 hours after the bid opening and the corrected number corresponds with the submitted name and location for that subcontractor.
 - (2) Without limitation to any other basis for protest, an inadvertent error listing an unregistered subcontractor shall not be grounds for filing a Bid protest or grounds for considering the bid nonresponsive provided that any of the following apply:
 - (i) The Subcontractor is registered prior to the Bid opening.
 - (ii) The Subcontractor is registered and has paid the penalty registration fee within 24 hours after the Bid opening.
 - (iii) The subcontractor is replaced by another registered Subcontractor pursuant to Public Contract Code section 4107.
 - d. The protest must include the name, address and telephone number of the person representing the protesting party.
 - e. The party filing the protest must concurrently transmit a copy of the protest and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders or proposers who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
 - f. The procedure and time limits set forth in this paragraph are mandatory and are each Bidder's sole and exclusive remedy in the event of Bid protest. Failure to comply with these procedures shall constitute a waiver of any right

to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.

28. District reserves the right to reject any or all Bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, to re-bid, and to reject the Bid of any Bidder if District believes that it would not be in the best interest of the District to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by District. District also reserves the right to waive any inconsequential deviations or irregularities in any bid. For purposes of this paragraph, an "unbalanced bid" is one having nominal prices for some work items and/or enhanced prices for other work items.
29. Discrepancies between written words and figures, or words and numerals, will be resolved in favor of figures or numerals.
30. It is the policy of the District that no qualified person shall be excluded from participating in, be denied the benefits of, or otherwise be subjected to discrimination in any consideration leading to the award of contract, based on race, color, gender, sexual orientation, political affiliation, age, ancestry, religion, marital status, national origin, medical condition or disability. The Successful Bidder and its subcontractors shall comply with applicable federal and state laws, including, but not limited to the California Fair Employment and Housing Act, beginning with Government Code section 12900, and Labor Code section 1735.
31. Prior to the award of Contract, District reserves the right to consider the responsibility of the Bidder. District may conduct investigations as District deems necessary to assist in the evaluation of any bid and to establish the responsibility, including, without limitation, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to District's satisfaction within the prescribed time.

END OF DOCUMENT

BID FORM AND PROPOSAL

To: Governing Board of Downey Unified School District ("District" or "Owner")

From: _____
 (Proper Name of Bidder)

The undersigned declares that the Contract Documents, including, without limitation, the Notice to Bidders and the Instructions to Bidders, have been read, and agrees and proposes to furnish all necessary labor, materials, and equipment to perform and furnish all work in accordance with the terms and conditions of the Contract Documents, including, without limitation, the Drawings and Specifications of Bid No. _____ ("Work") for the following project known as:

_____ ("Project") and will accept in full payment for that Work the following total lump sum amount, all taxes included:

_____ dollars	\$ _____
<i>BASE BID</i>	

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Additional Detail Regarding Calculation of Base Bid

1. The undersigned has reviewed the Work outlined in the Contract Documents and fully understands the scope of Work required in this Proposal, understands the construction and project management function(s) as described in the Contract Documents, and that each Bidder who is awarded a contract shall be in fact a prime contractor, not a subcontractor, to the District, and agrees that its Proposal, if accepted by the District, will be the basis for the Bidder to enter into a contract with the District in accordance with the intent of the Contract Documents.
2. The undersigned has notified the District in writing of any discrepancies or omissions or of any doubt, questions, or ambiguities about the meaning of any of the Contract Documents, and has contacted the Construction Manager or other official point of contact for the District before Bid date to verify the issuance of any clarifying Addenda.
3. The undersigned agrees to commence work under this Contract on the date established in the Contract Documents and to complete all Work within the time specified in the Contract Documents.
4. **The liquidated damages clause of the Agreement is hereby acknowledged.**
5. 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 ninety (90) days.
6. The following documents are attached with this Bid Form and Proposal:
 - Bid Bond on the District's form or other security
 - Registered Subcontractors List
 - Site Visit Certification
 - Non-Collusion Declaration
7. Receipt and acceptance of the following Addenda is hereby acknowledged:

No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____
No. _____, Dated _____	No. _____, Dated _____

8. Bidder acknowledges that the license required for performance of the Work is a _____ license.
9. Bidder hereby certifies that Bidder is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.
10. Bidder specifically acknowledges and understands that if it is awarded the Contract, that it shall perform the Work of the Project while complying with all requirements of the Department of Industrial Relations.

11. Bidder hereby certifies that its bid includes sufficient funds to permit Bidder to comply with all local, state or federal labor laws or regulations during the Project, including payment of prevailing wage, and that Bidder will comply with the provisions of Labor Code section 2810(d) if awarded the Contract.
12. Bidder represents that it is competent, knowledgeable, and has special skills with respect to the nature, extent, and inherent conditions of the Work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the Work that may create, during the Work, unusual or peculiar unsafe conditions hazardous to persons and property.
13. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the Work with respect to such hazards.
14. Bidder expressly acknowledges that it is aware that if a false claim is knowingly submitted (as the terms "claim" and "knowingly" are defined in the California False Claims Act, Gov. Code, § 12650 et seq.), the District will be entitled to civil remedies set forth in the California False Claim Act. It may also be considered fraud and the Contractor may be subject to criminal prosecution.
15. The undersigned Bidder certifies that it is, at the time of bidding, and shall be throughout the period of the contract, licensed by the State of California to do the type of work required under the terms of the Contract Documents and registered as a public works contractor with the Department of Industrial Relations. Bidder further certifies that it is regularly engaged in the general class and type of work called for in the Contract Documents.

Furthermore, Bidder hereby certifies to the District that all representations, certifications, and statements made by Bidder, as set forth in this bid form, are true and correct and are made under penalty of perjury.

Dated this _____ day of _____ 20 ____

Name of Bidder _____

Type of Organization _____

Signed by _____

Title of Signer _____

Address of Bidder _____

Taxpayer's Identification No. of Bidder _____

Telephone Number _____

Fax Number _____

E-mail _____ Web page _____

Contractor's License No(s): No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class: _____ Expiration Date: _____

No.: _____ Class: _____ Expiration Date: _____

Public Works Contractor Registration No.: _____

END OF DOCUMENT

BID BOND

(Note: If Bidder is providing a bid bond as its bid security, Bidder must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

That the undersigned, _____, as Principal ("Principal"),

and _____, as
Surety ("Surety"), a corporation organized and existing under and by virtue of the laws of the
State of California and authorized to do business as a surety in the State of California, are held
and firmly bound unto the Downey Unified School District ("District") of Los Angeles County,
State of California, as Oblige, in an amount equal to ten percent (10%) of the Base Bid plus
alternates, in the sum of

_____ Dollars (\$ _____)

lawful money of the United States of America, for the payment of which sum well and truly to
be made, we, and each of us, bind ourselves, our heirs, executors, administrators, successors,
and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted a bid
to the District for all Work specifically described in the accompanying bid for the following
project: _____ ("Project" or "Contract").

NOW, THEREFORE, if the Principal is awarded the Contract and, within the time and manner
required under the Contract Documents, after the prescribed forms are presented to Principal
for signature, enters into a written contract, in the prescribed form in accordance with the bid,
and files two bonds, one guaranteeing faithful performance and the other guaranteeing
payment for labor and materials as required by law, and meets all other conditions to the
Contract between the Principal and the Oblige becoming effective, or if the Principal shall fully
reimburse and save harmless the Oblige from any damage sustained by the Oblige through
failure of the Principal to enter into the written contract and to file the required performance
and labor and material bonds, and to meet all other conditions to the Contract between the
Principal and the Oblige becoming effective, then this obligation shall be null and void;
otherwise, it shall be and remain in full force and effect. The full payment of the sum stated
above shall be due immediately if Principal fails to execute the Contract within seven (7) days
of the date of the District's Notice of Award to Principal.

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

In the event suit is brought upon this bond by the Oblige and judgment is recovered, the
Surety shall pay all costs incurred by the Oblige in such suit, including a reasonable attorneys'
fee to be fixed by the Court.

If the District awards the bid, the security of unsuccessful bidder(s) shall be returned within sixty (60) days from the time the award is made. Unless otherwise required by law, no bidder may withdraw its bid for ninety (90) days after the date of the bid opening.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the _____ day of _____, 20____.

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone Number of California Agent of Surety

Bidder must attach Power of Attorney and Certificate of Authority for Surety and a Notarial Acknowledgment for all Surety's signatures. The California Department of Insurance must authorize the Surety to be an admitted Surety Insurer.

END OF DOCUMENT

DESIGNATED SUBCONTRACTORS LIST
(Public Contact Code Sections 4100-4114)

Bidder acknowledges and agrees that it must clearly set forth below the name, location and California contractor license number of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or who will specially fabricate and install a portion of the Work according to detailed drawings contained in the plans and specifications in an amount in excess of one-half of one percent (0.5%) of Bidder's total Base Bid and the kind of Work that each will perform. Vendors or suppliers of materials only do not need to be listed.

Bidder acknowledges and agrees that, if Bidder fails to list as to any portion of Work, or if Bidder lists more than one subcontractor to perform the same portion of Work, Bidder must perform that portion itself or be subjected to penalty under applicable law. In case more than one subcontractor is named for the same kind of Work, state the portion of the kind of Work that each subcontractor will perform.

If alternate bid(s) is/are called for and Bidder intends to use subcontractors different from or in addition to those subcontractors listed for work under the Base Bid, Bidder must list subcontractors that will perform Work in an amount in excess of one half of one percent (0.5%) of Bidder's total Base Bid plus alternate(s).

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Subcontractor Name: _____

CA Cont. Lic. #: _____ Location: _____

Portion of Work: _____

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

SITE VISIT CERTIFICATION

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
IF SITE VISIT WAS MANDATORY

PROJECT: _____

Check option that applies:

_____ I certify that I visited the Site of the proposed Work, received the attached ____ pages of information, and became fully acquainted with the conditions relating to construction and labor. I fully understand the facilities, difficulties, and restrictions attending the execution of the Work under contract.

_____ I certify that _____ (Bidder's representative) visited the Site of the proposed Work, received the attached _____ pages of information, and became fully acquainted with the conditions relating to construction and labor. The Bidder's representative fully understood the facilities, difficulties, and restrictions attending the execution of the Work under contract.

Bidder fully indemnifies the Downey Unified School District, its Architect, its Engineers, its Construction Manager, and all of their respective officers, agents, employees, and consultants from any damage, or omissions, related to conditions that could have been identified during my visit and/or the Bidder's representative's visit to the Site.

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

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

ATTACHMENTS:

- 1.
- 2.
- 3.

END OF DOCUMENT

NON-COLLUSION DECLARATION
To Be Executed By Bidder And Submitted With Bid
Public Contract Code Section 7106

The undersigned declares:

I am the____ of _____, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any person or entity for such purpose.

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

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

Date: _____

Proper Name of Bidder: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

AGREEMENT FOR CONSTRUCTION SERVICES (SMALL PROJECTS)

AGREEMENT NUMBER 202122-419

THIS AGREEMENT is made and entered into this _____ day of _____, 20____, by and between _____ ("Contractor") and Downey Unified School District ("District") ("Contract" or "Agreement").

1. The Contractor shall furnish to the District for a total price of _____ Dollars (\$ _____) ("Contract Price"), the following services ("Services" or "Work"):

Demo glazing and provide new glazing per specifications.

2. Contractor shall perform the Work at Rio San Gabriel Elementary School, 9338 Gotham St., Downey, California 90241 ("Site"). The Project is the scope of Work performed at the Site.
3. Work shall be completed within sixty (60) consecutive calendar days ("Contract Time") from the date specified in the District's Notice to Proceed.

It is understood and agreed that the Work shall be performed and completed as required in the Contract Documents (as defined herein) including, without limitation, the Drawings and Specifications and submission of all documents required to secure funding or by the Division of the State Architect ("DSA") for close-out of the Project, under the direction and supervision of, and subject to the approval of, the District or its authorized representative.

4. Contractor agrees that if the Work is not completed within the Contract Time and/or pursuant to the completion schedule, construction schedule, or project milestones developed pursuant to provisions of the Contract, it is understood, acknowledged, and agreed that the District will suffer damage which is not capable of being calculated. Pursuant to Government Code section 53069.85, Contractor shall pay to the District, as fixed and liquidated damages for these incalculable damages, the sum of three hundred Dollars (\$ 300.00) per day for each and every calendar day of delay beyond the Contract Time or beyond any completion schedule, construction schedule, or project milestones established pursuant to the Contract.
5. This Contract incorporates by this reference the Terms and Conditions attached hereto. Contractor, by executing this Contract, agrees to comply with all the Terms and Conditions.

[REMAINDER OF PAGE INTENTIONALLY BLANK]

6. This Contract incorporates by this reference the Contract Documents attached hereto. Contractor, by executing this Contract, agrees to comply with all obligations set forth in the Contract Documents. The Contract Documents include only the following documents, as indicated:

<input checked="" type="checkbox"/> Notice to Bidders	<input checked="" type="checkbox"/> Hazardous Materials Certification
<input checked="" type="checkbox"/> Instructions to Bidders	<input checked="" type="checkbox"/> Lead-Product(s) Certification
<input checked="" type="checkbox"/> Bid Form and Proposal	<input type="checkbox"/> Imported Materials Certification
<input checked="" type="checkbox"/> Bid Bond	<input type="checkbox"/> Buy American Certification
<input checked="" type="checkbox"/> Noncollusion Declaration	<input checked="" type="checkbox"/> Insurance Certificates and Endorsements
<input checked="" type="checkbox"/> Registered Subcontractors List	<input checked="" type="checkbox"/> Performance Bond
<input type="checkbox"/> Notice to Proceed	<input checked="" type="checkbox"/> Payment Bond
<input checked="" type="checkbox"/> Prevailing Wage Certification	<input type="checkbox"/> Specifications
<input checked="" type="checkbox"/> Workers' Compensation Certification	<input type="checkbox"/> Plans
<input checked="" type="checkbox"/> Criminal Background Investigation Certification	<input type="checkbox"/> Special Conditions
<input checked="" type="checkbox"/> Drug-Free Workplace Certification	<input type="checkbox"/> _____ [Other]
<input checked="" type="checkbox"/> Tobacco-Free Environment Certification	<input type="checkbox"/> _____ [Other]

7. Contractor shall not commence the Work under this Contract until the Contractor has submitted and the District has approved the performance bond, payment (labor and material) bond, the certificate(s) and affidavit(s), and the endorsement(s) of insurance required under the Terms and Conditions and the District has issued a Notice to Proceed.
8. Payment for the Work shall be made in accordance with the Terms and Conditions.
9. The architect for the Project is Annie Aung ("Architect"), the project manager on the Project is Annie Aung ("Project Manager"), and the project inspector on the Project is Annie Aung ("Project Inspector"). Contractor hereby acknowledges that the Architect, the Project Manager, the Project Inspector, and the Division of the State Architect have authority to approve and/or suspend Work if the Contractor's Work does not comply with the requirements of the Contract Documents, Title 24 of the California Code of Regulations, and all applicable laws. No work shall be carried on except with the knowledge and under the inspection of said Project Inspector. Project Inspector shall have free access to any or all parts of work at any time. Contractor shall furnish Project Inspector reasonable opportunities for obtaining such information as may be necessary to keep Project Inspector fully informed respecting progress, manner of work, and character of materials. The Contractor shall be liable for any delay caused by its non-compliant Work, its failure to provide proper notification for inspection, or where such delay could have been avoided or mitigated by Contractor's reasonable diligence.
10. Inspection and acceptance of the Work shall be performed by Annie Aung of the Facilities Planning and Development Department of the District.
11. Any notice required or permitted to be given under this Contract shall be deemed to have been given, served, and received if given in writing and either personally delivered or deposited in the United States mail, registered or certified mail, postage prepaid, return receipt required, or sent by overnight delivery service, or facsimile or email,

addressed as follows:

District

Downey Unified School District
ATTN: Darren Purseglove
11627 Brookshire Ave.
Downey, CA 90241
[FAX] (562) 469-6536
EMAIL: dpurseglove@dusd.net

Contractor

Name: _____
ATTN: _____
[ADDRESS]
[FAX]
[EMAIL]

Any notice personally given or sent by facsimile or email shall be effective upon receipt. Any notice sent by overnight delivery service shall be effective the business day next following delivery to the overnight delivery service. Any notice given by mail shall be effective three (3) days after deposit in the United States mail.

12. Contractor shall guarantee all labor and material used in the performance of this Contract for a period of one (1) year from the date of the District's written approval of the Work.
13. Each party has the full power and authority to enter into and perform this Contract, and the person signing this Contract on behalf of each party has been properly authority and empowered to enter into this Contract.
14. By signing this Contract, Contractor certifies, under penalty of perjury, that all the information provided in the Contract Documents is true, complete, and correct.

ACCEPTED AND AGREED on the date indicated below:

Dated: _____, 20____

DOWNEY UNIFIED SCHOOL DISTRICT

Signature: _____

Print Name: Christina Aragon

Print Title: Associate Superintendent

Address: 11627 Brookshire Avenue

Downey, CA 90241

Telephone: (562) 469-6533

Facsimile: (562) 469-6536

E-Mail: djimenez@dusd.net

Dated: _____, 20____

Contractor: _____

Signature: _____

Print Name: _____

Print Title: _____

License No.: _____

Registration No.: _____

Address: _____

Telephone: _____

Facsimile: _____

E-Mail: _____

[REMAINDER OF PAGE INTENTIONALLY BLANK; INFORMATION REGARDING CONTRACTOR
FOLLOWS]

Information regarding Contractor:

Type of Business Entity:

- ☐ Individual
☐ Sole Proprietorship
☐ Partnership
☐ Limited Partnership
☐ Corporation, State: _____
☐ Limited Liability Company
☐ Other: _____

Employer Identification and/or
Social Security Number

NOTE: Section 6041 of the Internal Revenue Code (26 U.S.C. 6041) and Section 1.6041-1 of Title 26 of the Code of Federal Regulations (26 C.F.R. 1.6041-1) requires the recipients of \$600.00 or more to furnish their taxpayer information to the payer. In order to comply with these requirements, the District requires the Contractor to furnish the information requested in this section.

[REMAINDER OF PAGE INTENTIONALLY BLANK; TERMS AND CONDITIONS FOLLOW]

TERMS AND CONDITIONS TO AGREEMENT

1. **NOTICE TO PROCEED:** District shall provide a Notice to Proceed to Contractor pursuant to the Contract at which time Contractor shall proceed with the Work.
2. **STANDARD OF CARE:** Contractor shall perform, diligently prosecute and complete the Work in a good and workmanlike manner within the Contract Time, and in strict conformity with all Contract Documents.
3. **SITE EXAMINATION:** Contractor has examined the Site and certifies that it accepts all measurements, specifications and conditions affecting the Work to be performed at the Site. By submitting its quote, Contractor warrants that it has made all Site examination(s) that it deems necessary as to the condition of the Site, its accessibility for materials, workers and utilities, and Contractor's ability to protect existing surface and subsurface improvements. No claim for allowance of time or money will be allowed as to any other undiscovered condition on the Site.
4. **PERMITS, LICENSES AND REGISTRATION:** Contractor and all of its employees, agents, and subcontractors shall secure and maintain in force, at Contractor's sole cost and expense, all licenses, registration and permits as are required by law, in connection with the furnishing of materials, supplies, or services herein listed.
5. **PROJECT INSPECTION CARD:** Contractor shall verify that forms DSA 152 Project Inspection Card (or current version) are issued for the Project prior to commencement of construction.
6. **NOTIFICATION:** Contractor shall notify the Architect and Project Inspector, in writing, of the commencement and completion of construction of each and every aspect of the work at least 48 hours in advance by submitting form DSA 156 (or current version) to the Project Inspector. Forms are available on the DSA's website at: <http://www.dgs.ca.gov/dsa/Forms.aspx>.
7. **LABOR, MATERIALS AND EQUIPMENT:** Contractor shall furnish all tools, equipment, apparatus, facilities, transportation, labor, and material necessary to furnish the services herein described, the services to be performed at such times and places as directed by and subject to the approval of the authorized District representative indicated in the Work specifications attached hereto. Unless otherwise specified, all materials shall be new and previously unused, and of the manufacturer's latest model or the best of their respective kinds and grades as noted or specified, and workmanship shall be of good quality.
8. **SUBSTITUTIONS:** No substitutions of material from those specified in the Work Specifications shall be made without the prior written approval of the District. Contractor shall be responsible for any re-design costs occasioned by District's acceptance and/or approval of any substitute, as well as any costs that the District incurs for professional services, including DSA fees. District may deduct those costs from any amounts owing to Contractor for the review of the request for substitution, even if the request for substitution is not approved. Contractor shall, in the event that a substitute is less costly than that specified, credit the District with one-hundred percent (100%) of the net difference between the substitute and the originally specified material.
9. **INDEPENDENT CONTRACTOR STATUS:** While engaged in carrying out the Services of this Contract, the Contractor is an independent contractor, and not an officer, employee, agent, partner, or joint venture of the District. Contractor shall be solely responsible for its own Workers' Compensation insurance, taxes, and other similar charges or obligations. Contractor shall be liable for its own actions, including its negligence or gross negligence, and shall be liable for the acts, omissions, or errors of its agents or employees.
10. **CONTRACTOR SUPERVISION:** Contractor shall provide competent supervision of personnel employed on the job Site, use of equipment, and quality of workmanship.
11. **WORKERS:** Contractor shall at all times enforce strict discipline and good order among its employees and the employees of its subcontractors and shall not employ or work any unfit person or anyone not skilled in work assigned to him or her. Any person in the employ of the Contractor or a subcontractor whom the District may deem incompetent or unfit shall be dismissed from the Site and shall not again be employed at Site without written consent from the District.
12. **SUBCONTRACTORS:** Subcontractors, if any, engaged by the Contractor for any Service or Work under this Contract shall be subject to the approval of the District. Contractor agrees to bind every subcontractor by the terms of the Contract as far as such terms are applicable to

subcontractor's work, including, without limitation, all registration, indemnification, insurance, bond, and warranty requirements. If Contractor shall subcontract any part of this Contract, Contractor shall be fully responsible to the District for acts and omissions of its subcontractor and of persons either directly or indirectly employed by itself. Nothing contained in the Contract Documents shall create any contractual relations between any subcontractor and the District.

13. **SAFETY AND SECURITY:** Contractor is responsible for maintaining safety in the performance of this Contract. Contractor shall be responsible to ascertain from the District the rules and regulations pertaining to safety, security, and driving on school grounds, particularly when children are present.
14. **TRENCH SHORING:** If this Contract is in excess of \$25,000 and is for the excavation of any trench deeper than five (5) feet, Contractor must submit and obtain District acceptance, in advance of excavation, of a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If the plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.
15. **EXCAVATIONS OVER FOUR FEET:** If this Contract includes excavations over four (4) feet, Contractor shall promptly, and before the following conditions are disturbed, notify the District, in writing, of any: (1) Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; (2) Subsurface or latent physical conditions at the site differing from those indicated; or (3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract. The District shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work shall issue a change order under the procedures described in the Contract. In the event that a dispute arises between the District and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all Work to be performed under the contract. The Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.
16. **LEAD-BASED PAINT:** Pursuant to the Lead-Safe Schools Protection Act (Education Code section 32240 et seq.) and other applicable law, no lead-based paint, lead plumbing and solders, or other potential sources of lead contamination shall be utilized on this Project, and only trained and state-certified contractors, inspectors and workers shall undertake any action to abate existing risk factors for lead. Pursuant to the Renovation, Repair and Painting Rule (title 40 of the Code of Federal Regulations part 745 (40 CFR 745)), all contractors who disturb lead-based paint in a six-square-foot area or greater indoors or a 20-square-foot area or greater outdoors must be trained by an EPA-accredited provider and certified by the EPA. Contractor must execute the Lead-Based Paint Certification, if applicable.
17. **STORM WATER PERMIT FOR CONSTRUCTION ACTIVITY:** Contractor shall comply with any Storm Water Pollution Prevention Plan ("SWPPP") that is approved by the District and applicable to the Project, at no additional cost to the District.
18. **CLEAN UP:** Debris shall be removed from the Site. The Site shall be in order at all times when work is not actually being performed and shall be maintained in a reasonably clean condition.
19. **PROTECTION OF WORK AND PROPERTY:** Contractor shall erect and properly maintain at all times, as required by conditions and progress of the Work, all necessary safeguards, signs, barriers, lights, and security persons for protection of workers and the public, and shall post danger signs warning against hazards created by the Work. In an emergency affecting life and safety of life or of Work or of adjoining property, Contractor, without special instruction or authorization from District, is permitted to act at his discretion to prevent such threatened loss or injury.
20. **FORCE MAJEURE:** The Contractor shall be excused from performance hereunder during the time and to the extent that it is prevented from obtaining delivery, or performing by act of God, fire,

strike, loss, or shortage of transportation facilities, lock-out, commandeering of materials, products, plants, or facilities by the government, when satisfactory evidence thereof is presented to the District, provided that it is satisfactorily established that the non-performance is not due to the fault or neglect of the Contractor.

21. **CORRECTION OF ERRORS:** Contractor shall perform, at its own cost and expense and without reimbursement from the District, any work necessary to correct errors or omissions which are caused by the Contractor's failure to comply with the standard of care required herein.
22. **DISTRICT'S RIGHT TO PERFORM WORK:** If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of this Contract, the District, after **FORTY-EIGHT (48)** hours' written notice to the Contractor, may make good such deficiencies, without prejudice to any other remedy it may have, including but not limited to the District hiring its own forces or another contractor to replace the Contractor's nonconforming Work, in which case the District shall either issue a deductive Change Order, a Construction Change Directive, or invoice the Contractor for the cost of that work. Contractor shall pay any invoices within thirty (30) days of receipt of same or District may withhold those amounts from payment(s) to Contractor.
23. **ACCESS TO WORK:** District representatives, Architect, and Project Inspector shall at all times have access to the Work wherever it is in preparation or in progress. Contractor shall provide safe and proper facilities for such access.
24. **OCCUPANCY:** District reserves the right to occupy buildings at any time before formal Contract completion and such occupancy shall not constitute final acceptance or approval of any part of the Work covered by this Contract, nor shall such occupancy extend the date specified for completion of the Work.
25. **PAYMENT:** On a monthly basis, Contractor shall submit an application for payment based upon the estimated value for materials delivered or services performed under the Contract as of the date of submission ("Application for Payment"). Within thirty (30) days after District's approval of the Application for Payment, Contractor shall be paid a sum equal to ninety-five percent (95%) of the value of the Work performed (as verified by Architect and Inspector and certified by Contractor) up to the last day of the previous month, less the aggregate of previous payments and amount to be withheld. The District may withhold or deduct from any payment an amount necessary to protect the District from loss because of: (1) liquidated damages which have accrued as of the date of the application for payment; (2) any sums expended by the District in performing any of Contractor's obligations under the Contract which Contractor has failed to perform or has performed inadequately; (3) defective Work not remedied; (4) stop payment notices as allowed by state law; (5) reasonable doubt that the Work can be completed for the unpaid balance of the Total Contract price or by the scheduled completion date; (6) unsatisfactory prosecution of the Work by Contractor; (7) unauthorized deviations from the Contract; (8) failure of the Contractor to maintain or submit on a timely basis proper and sufficient documentation as required by the Contract or by District during the prosecution of the Work; (9) erroneous or false estimates by the Contractor of the value of the Work performed; (10) any sums representing expenses, losses, or damages, as determined by the District, incurred by the District for which Contractor is liable under the Contract; and (11) any other sums which the District is entitled to recover from Contractor under the terms of the Contract or pursuant to state law, including section 1727 of the California Labor Code. The failure by the District to deduct any of these sums from a progress payment shall not constitute a waiver of the District's right to such sums. The District shall retain five percent (5%) from all amounts owing as retention. Retention shall be paid pursuant to Public Contract Code sections 7107, 7200 and 7201.
26. **CHANGE IN SCOPE OF WORK:** Any change in the scope of the Work, method of performance, nature of materials or price thereof, or any other matter materially affecting the performance or nature of the Work shall not be paid for or accepted unless such change, addition, or deletion is approved in advance and in writing by a valid change order executed by the District. Contractor specifically understands, acknowledges, and agrees that the District shall have the right to request any alterations, deviations, reductions, or additions to the Project or Work, and the cost thereof shall be added to or deducted from the amount of the Contract Price by fair and reasonable valuations. Contractor also agrees to provide the District with all information requested to substantiate the cost of the change order and to inform the District whether the Work will be done by the Contractor or a subcontractor. In addition to any other information requested, Contractor shall submit, prior to approval of the change order, its request for a time extension (if any), as

well as all information necessary to substantiate its belief that such change will delay the completion of the Work. If Contractor fails to submit its request for a time extension or the necessary supporting information, it shall be deemed to have waived its right to request such extension.

27. INDEMNIFICATION:

- 27.1 To the furthest extent permitted by California law, Contractor shall indemnify and hold harmless the District, its agents, representatives, officers, consultants, employees, and volunteers (the "Indemnified Parties") from any and all demands, losses, liabilities, claims, suits, injury, expenses, and actions (the "Claims") of any kind, nature, and description, including, but not limited to, attorneys' fees and costs, directly or indirectly arising from, arising out of, connected with, or resulting from, in whole or in part, the performance of this Contract. However, the Contractor's indemnification and hold harmless obligation shall be reduced by the proportion of the Indemnified Parties' liability to the extent the Claims are caused by the sole or active negligence or willful misconduct of the Indemnified Parties, as found by a court or arbitrator of competent jurisdiction.
- 27.2 To the furthest extent permitted by California law, Contractor shall also defend the Indemnified Parties at Contractor's own expense, including attorneys' fees and costs, from any and all Claims directly or indirectly arising from, arising out of, connected with, or resulting from the performance of this Contract. However, the Contractor's defense obligation shall be reduced by the proportion of the Indemnified Parties' liability to the extent the Claims are caused by the sole or active negligence or willful misconduct of the Indemnified Parties, as found by a court or arbitrator of competent jurisdiction. The District shall have the right to accept or reject any legal representation that Contractor proposes to defend the District.
- 27.3 Pursuant to Public Contract Code section 9201, the District shall provide timely notification to Contractor of the receipt of any third-party claim relating to this Contract. The District shall be entitled to recover its reasonable costs incurred in providing said notification.
- 27.4 The District may retain so much of the moneys due the Contractor as shall be considered necessary, until disposition of any such suit, claims until the District has received written agreement from the Contractor that it will unconditionally defend the Indemnified Parties, and pay any damages due by reason of settlement or judgment.
- 27.5 The Contractor's defense and indemnification obligations hereunder shall survive the completion of Work, the warranty/guarantee period, and the termination of the Contract.

28. PAYMENT BOND AND PERFORMANCE BOND: Contractor shall not commence the Work until it has provided to the District, in a form acceptable to the District, a Payment (Labor and Material) Bond and a Performance Bond, each in an amount equivalent to one hundred percent (100%) of the Contract Price issued by a surety admitted to issue bonds in the State of California and otherwise acceptable to the District.

29. CONTRACTOR'S INSURANCE:

- 29.1 The Contractor shall procure and maintain at all times it performs any portion of the Services the following insurance with minimum limits equal to the amount indicated below.

Type of Coverage	Minimum Requirement
Commercial General Liability Insurance , including Bodily Injury, Personal Injury, Property Damage, Advertising Injury, and Medical Payments	
Each Occurrence	\$ 2,000,000
General Aggregate	\$ 4,000,000
Automobile Liability Insurance - Any Auto	
Combined Single Limit	\$ 1,000,000
Workers' Compensation	Statutory Limits
Employer's Liability	\$ 1,000,000

- 29.2 **Commercial General Liability and Automobile Liability Insurance.** Commercial General Liability Insurance and Automobile Liability Insurance (covering owned, non-owned, and hired automobiles) that shall protect the Contractor, the District, and the State from all claims of bodily injury, property damage, personal injury, death, advertising injury, and medical payments arising performing any portion of the Services. (Form CG 0001 and CA 0001, or forms substantially similar, if approved by the District.)
- 29.3 **Workers' Compensation and Employers' Liability Insurance.** Workers' Compensation Insurance and Employers' Liability Insurance for all of its employees performing any portion of the Services. In accordance with provisions of section 3700 of the California Labor Code, the Contractor shall be required to secure workers' compensation coverage for its employees. If any class of employee or employees engaged in performing any portion of the Services under this Contract are not protected under the Workers' Compensation Statute, adequate insurance coverage for the protection of any employee(s) not otherwise protected must be obtained before any of those employee(s) commence performing any portion of the Services.
- 29.4 **Proof of Insurance.** The Contractor shall not commence performing any portion of the Services until all required insurance has been obtained and certificates indicating the required coverage have been delivered in duplicate to the District and approved by the District. Certificates and insurance policies shall include the following:
- 29.4.1 A clause stating the following, or other language acceptable to the District: "This policy shall not be canceled until notice has been mailed to the District, stating date of cancellation. Date of cancellation shall not be less than thirty (30) days after date of mailing notice."
- 29.4.2 Language stating in particular those insured, extent of insurance, location and operation to which insurance applies, expiration date, to whom cancellation notice will be sent, and length of notice period.
- 29.4.3 An endorsement stating that the District and its Governing Board, agents, representatives, employees, trustees, officers, consultants, and volunteers are named additional insured under all policies except Workers' Compensation Insurance, and Employers' Liability Insurance. An endorsement shall also state that Contractor's insurance policies shall be primary to any insurance or self-insurance maintained by District. An endorsement shall also state that there shall be a waiver of any subrogation.
- 29.4.4 All policies except the Workers' Compensation Insurance, and Employers' Liability Insurance Policies shall be written on an occurrence form.
- 29.5 **Acceptability of Insurers.** Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the District.
30. **WARRANTY/QUALITY:** Unless a longer warranty is called for elsewhere in the Contract Documents, the Contractor, manufacturer, or their assigned agents shall guarantee the workmanship, product or service performed against defective workmanship, defects or failures of materials for a minimum period of one (1) year from filing the Notice of Completion with the county in which the Site is located. All workmanship and merchandise must be warranted to be in compliance with applicable California energy, conservation, environmental, and educational standards.
31. **CONFIDENTIALITY:** The Contractor shall maintain the confidentiality of all information, documents, programs, procedures, and all other items that Contractor encounters while performing the Contractor's Work to the extent allowed by law. This requirement shall be ongoing and shall survive the expiration or termination of this Contract and specifically includes all student, parent, and disciplinary information.
32. **LIMITATION OF DISTRICT LIABILITY:** District's financial obligations under this Contract shall be limited to the payment of the compensation provided in this Contract. Notwithstanding any other provision of this Contract, in no event shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect or incidental damages,

including, but not limited to, lost profits or revenue, arising out of or in connection with this Contract for the services performed in connection with this Contract.

33. **COMPLIANCE WITH LAWS:** Contractor shall give all notices and comply with all laws, ordinance, rules and regulations bearing on conduct of the Work as indicated or specified. If Contractor observes that any of the Work required by this Contract is at variance with any such laws, ordinance, rules or regulations, Contractor shall notify the District, in writing, and, at the sole option of the District, any necessary changes to the scope of the Work shall be made and this Contract shall be appropriately amended in writing, or this Contract shall be terminated effective upon Contractor's receipt of a written termination notice from the District. If Contractor performs any work that is in violation of any laws, ordinances, rules or regulations, without first notifying the District of the violation, Contractor shall bear all costs arising therefrom.
34. **LABOR CODE REQUIREMENTS:** The Contractor shall comply with all applicable provisions of the California Labor Code, Division 3, Part 7, Chapter 1, Articles 1 – 5, including, without limitation, the payment of the general prevailing per diem wage rates for public work projects of more than one thousand dollars (\$1,000). Copies of the prevailing rate of per diem wages are on file with the District or available online at <http://www.dir.ca.gov/>. In addition, the Contractor and each subcontractor shall comply with Chapter 1 of Division 2, Part 7 of the California Labor Code, beginning with Section 1720, and including Section 1735, 1777.5 and 1777.6, forbidding discrimination, and Sections 1776, 1777.5 and 1777.6 concerning the employment of apprentices by Contractor or subcontractors. Willful failure to comply may result in penalties, including loss of the right to bid on or receive public works contracts.
- 34.1 **Registration:** Contractor and its subcontractor(s) shall be registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 and in accordance with Labor Code section 1771.1.
- 34.1.1 **Registered Subcontractor List:** Within 30 days of the award of contract or prior to commencing the Work under this Contract, whichever occurs first, Contractor shall provide District all information required by Labor Code section 1773.3, as amended by Stats. 2017, Ch. 28, Sec. 21, for Company and all tiers of Subcontractors to enable District to provide notice to the Department of Industrial Relations (DIR) of the Contract (PWC-100 form). Contractor shall submit and maintain an updated Registered Subcontractor List including all Subcontractors of any tier furnishing labor, material, or equipment to the Project.
- 34.2 **Certified Payroll Records:** Contractor and its subcontractor(s) shall upload certified payroll records ("CPR") electronically using California Department of Industrial Relations' (DIR) eCPR System by uploading the CPRs by electronic XML file or entering each record manually using the DIR's iform (or current form) online on a weekly basis and within ten (10) days of any request by the District or Labor Commissioner at <http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html> or current application and URL, showing the name, address, social security number, work classification, straight time, and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by the Contractor and/or each subcontractor in connection with the Work.
- 34.3 **Labor Compliance:** Contractor shall perform the Work of the Project while complying with all the applicable regulations, including section 16000, et seq., of Title 8 of the California Code of Regulations and is subject to labor compliance monitoring and enforcement by the Department of Industrial Relations.
35. **ANTI-DISCRIMINATION:** It is the policy of the District that in connection with all work performed under Contracts there be no discrimination against any employee engaged in the work because of race, color, ancestry, national origin, religious creed, physical disability, medical condition, marital status, sexual orientation, gender, or age and therefore the Contractor agrees to comply with applicable Federal and California laws including, but not limited to the California Fair Employment Practice Act beginning with Government Code Section 12900 and Labor Code Section 1735. In addition, the Contractor agrees to require like compliance by all its subcontractor(s).
36. **ANTI-TRUST CLAIM:** Contractor and its subcontractor(s) agree to assign to the District all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act

(15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or a subcontract. This assignment shall be made and become effective at the time the District tenders final payment to the Contractor, without further acknowledgment by the parties.

37. **CONTRACTOR CLAIMS:** In the event of any demand by Contractor for (A) a time extension, including, without limitation, for relief from damages or penalties for delay assessed by the District under the Contract, (B) payment by the District of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or to which Contractor is not otherwise entitled to, or (C) an amount of payment disputed by the District, the parties shall attempt to resolve the dispute by those procedures set forth in Public Contract Code section 9204 and/or Article 1.5 (commencing with section 20104) of Chapter 1, Part, 3, Division 2, of the Public Contract Code, if applicable, the provisions of which are each attached hereto and incorporated herein by this reference. If a claim, or any portion thereof, remains in dispute upon satisfaction of all applicable dispute resolution requirements, the Contractor shall comply with all claims presentation requirements as provided in Chapter 1 (commencing with section 900) and Chapter 2 (commencing with section 910) of Part 3 of Division 3.6 of Title 1 of Government Code as a condition precedent to the Contractor's right to bring a civil action against the District. For purposes of those provisions, the running of the time within which a claim must be presented to the District shall be tolled from the time the Contractor submits its written claim until the time the claim is denied, including any time utilized by any applicable meet and confer process. Pending resolution of the dispute, Contractor and its subcontractors shall continue to perform the Work under the Contract and shall not cause a delay of the Work during any dispute, claim, negotiation, mediation, or arbitration proceeding, except by written agreement of the District.
38. **ATTORNEY FEES/COSTS:** Should litigation be necessary to enforce any terms or provisions of this Contract, then each party shall bear its own litigation and collection expenses, witness fees, court costs and attorney's fees.
39. **TERMINATION:** If Contractor fails to perform the Services and Contractor's duties to the satisfaction of the District, or if Contractor fails to fulfill in a timely and professional manner Contractor's obligations under this Contract, or if Contractor violates any of the terms or provisions of this Contract, District shall have the right to terminate this Contract effective immediately upon the District giving written notice thereof to the Contractor. The Contractor and its performance bond surety, if any, shall be liable for all damages caused to the District by reason of the Contractor's failure to perform and complete the Contract. District shall also have the right in its sole discretion to terminate the Contract for its own convenience upon District giving three (3) days' written notice thereof to the Contractor. In case of a termination for convenience, Contractor shall be paid for the actual cost for labor, materials, and services performed that is unpaid and can be documented through timesheets, invoices, receipts, or otherwise, and five percent (5%) of the total cost of Work performed as of the date of termination, or five percent (5%) of the value of the Work yet to be performed, whichever is less. This five percent (5%) shall be full compensation for all of Contractor's and its subcontractor(s)' mobilization and/or demobilization costs and any anticipated loss profits resulting from termination of the Contractor for convenience. Termination shall have no effect upon any of the rights and obligations of the parties arising out of any transaction occurring prior to the effective date of termination.
40. **ASSIGNMENT OF CONTRACT:** Contractor shall not assign or transfer in any way any or all of its rights, burdens, duties, or obligations under this Contract without the prior written consent of the District.
41. **TIME IS OF THE ESSENCE:** Time is of the essence in the performance of and compliance with each of the provisions and conditions of this Contract.
42. **CALCULATION OF TIME:** For the purposes of this Contract, "days" refers to calendar days unless otherwise specified.
43. **GOVERNING LAW:** This Contract shall be governed by and construed in accordance with the laws of the State of California with venue of any action in a County in which the District administration office is located.

44. **BINDING CONTRACT:** This Contract shall be binding upon the parties hereto and upon their successors and assigns, and shall inure to the benefit of said parties and their successors and assigns.
45. **DISTRICT WAIVER:** District's waiver of any term, condition, covenant or waiver of a breach of any term, condition or covenant shall not constitute the waiver of any other term, condition or covenant or the waiver of a breach of any other term, condition or covenant.
46. **CAPTIONS AND INTERPRETATIONS:** Paragraph headings in this Contract are used solely for convenience, and shall be wholly disregarded in the construction of this Contract. No provision of this Contract shall be interpreted for or against a party because that party or its legal representative drafted such provision, and this Contract shall be construed as if jointly prepared by the parties.
47. **INVALID TERM:** If any provision of this Contract is declared or determined by any court of competent jurisdiction to be illegal, invalid or unenforceable, the legality, validity or enforceability of the remaining parts, terms and provisions shall not be affected thereby, and said illegal, unenforceable or invalid part, term or provision will be deemed not to be a part of this Contract.
48. **PROVISIONS REQUIRED BY LAW DEEMED INSERTED:** Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein and this Contract shall be read and enforced as though it were included therein.
49. **ENTIRE CONTRACT:** This Contract sets forth the entire agreement between the parties hereto and fully supersedes any and all prior agreements, understandings, written or oral, between the parties hereto pertaining to the subject matter thereof.
50. **NO ORAL MODIFICATIONS:** No oral agreement or conversation with any officer, agent, or employee of District, either before or after execution of Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising the Contract.

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Public Contract Code section 9204

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

(iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.

(iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.

(v) The Military Department as to any project under the jurisdiction of that department.

(vi) The Department of General Services as to all other projects.

(vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d) (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the

public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2020, deletes or extends that date.

Public Contract Code sections 20104 – 20104.6

§ 20104.

(a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and a local agency.

(2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

(b) (1) "Public work" means "public works contract" as defined in Section 1101 but does not include any work or improvement contracted for by the state or the Regents of the University of California.

(2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

(c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.

(d) This article applies only to contracts entered into on or after January 1, 1991.

§ 20104.2.

For any claim subject to this article, the following requirements apply:

(a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

(b) (1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.

(c) (1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.

(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

(d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

(f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

§ 20104.4.

The following procedures are established for all civil actions filed to resolve claims subject to this article:

(a) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.

(b) (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(c) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

§ 20104.6.

(a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

(b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

END OF DOCUMENT

PERFORMANCE BOND
(100% OF CONTRACT PRICE)

(Note: Contractor must use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Downey Unified School District ("District") and _____ ("Principal") have entered into a contract ("Agreement") for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

_____ (Project Name)

("Project") which Agreement dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Agreement, are hereby referred to and made a part hereof; and

WHEREAS, said Principal is required under the terms of the Agreement to furnish a bond for the faithful performance of the Agreement.

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto the Board of the District in the penal sum of _____

_____ Dollars (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents, to:

- Perform all the work required to complete the Project; and
- Pay to the District all damages the District incurs as a result of the Principal's failure to perform all the Work required to complete the Project.

The condition of the obligation is such that, if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Agreement and any alteration thereof made as therein provided, on his or its part to be kept and performed at the time and in the intent and meaning, including all contractual guarantees and warranties of materials and workmanship, and shall indemnify and save harmless the District, its trustees, officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise it shall be and remain in full force and virtue.

Surety expressly agrees that the District may reject any contractor or subcontractor proposed by Surety to fulfill its obligations in the event of default by the Principal. Surety shall not utilize Principal in completing the Work nor shall Surety accept a Bid from Principal for completion of the Work if the District declares the Principal to be in default and notifies Surety of the District's objection to Principal's further participation in the completion of the Work.

As a condition precedent to the satisfactory completion of the Agreement, the above obligation shall hold good for a period equal to the warranty and/or guarantee period of the Agreement, during which time Surety's obligation shall continue if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the District from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the District's rights or the Contractor or Surety's obligations under the Agreement, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

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

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20____.

(Affix Corporate Seal)

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone No. of California Agent of Surety

Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

PAYMENT BOND

Contractor's Labor & Material Bond
(100% Of Contract Price)

(Note: Contractor MUST use this form, NOT a surety company form.)

KNOW ALL PERSONS BY THESE PRESENTS:

WHEREAS, the governing board ("Board") of the Downey Unified School District (or "District") and _____, ("Principal") have entered into a contract ("Agreement") for the furnishing of all materials and labor, services and transportation, necessary, convenient, and proper to perform the following project:

_____ (Project Name)
("Project") which Agreement dated _____, 20____, and all of the Contract Documents attached to or forming a part of the Agreement, are hereby referred to and made a part hereof; and

WHEREAS, pursuant to law and the Contract, the Principal is required, before entering upon the performance of the Work, to file a good and sufficient bond with the body by which the Agreement is awarded in an amount equal to one hundred percent (100%) of the Contract price, to secure the claims to which reference is made in sections 9000 through 9510 and 9550 through 9566 of the Civil Code, and division 2, part 7, of the Labor Code.

NOW, THEREFORE, the Principal and _____ ("Surety") are held and firmly bound unto all laborers, material men, and other persons referred to in said statutes in the sum of _____ Dollars (\$_____), lawful money of the United States, being a sum not less than the total amount payable by the terms of Contract, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, or assigns, jointly and severally, by these presents.

The condition of this obligation is that if the Principal or any of his or its subcontractors, of the heirs, executors, administrators, successors, or assigns of any, all, or either of them shall fail to pay for any labor, materials, provisions, provender, or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal or any of his or its subcontractors of any tier under Section 13020 of the Unemployment Insurance Code with respect to such work or labor, that the Surety will pay the same in an amount not exceeding the amount herein above set forth, and also in case suit is brought upon this bond, will pay a reasonable attorney's fee to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under section 9100 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

DOWNEY UNIFIED SCHOOL DISTRICT

RIO SAN GABRIEL ES WINDOW GLAZING PROJECT

PAYMENT BOND – 1

Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise it shall be and remain in full force and affect.

And the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of Agreement or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two (2) identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the _____ day of _____, 20____.

(Affix Corporate Seal)

Principal

By

Surety

By

Name of California Agent of Surety

Address of California Agent of Surety

Telephone No. of California Agent of Surety

Contractor must attach a Notarial Acknowledgment for all Surety's signatures and a Power of Attorney and Certificate of Authority for Surety. The California Department of Insurance must authorize the Surety to be an admitted surety insurer.

END OF DOCUMENT

SPECIAL CONDITIONS COVER PAGE

1. Mitigation Measures
2. Modernization Projects
3. Badge Policy for Contractors
4. Substitution for Specified Items
5. Weather Days
6. As-Builts and Record Drawings
7. Federal Funds
8. Certifications

END OF DOCUMENT

SPECIAL CONDITIONS

1. Mitigation Measures

1.1. Contractor shall comply with all applicable mitigation measures, if any, adopted by any public agency with respect to this Project pursuant to the California Environmental Quality Act. (See Public Resources Code section 21000 *et seq.*) **Modernization Projects Access.** Access to the school buildings and entry to buildings, classrooms, restrooms, mechanical rooms, electrical rooms, or other rooms, for construction purposes, must be coordinated with District and onsite District personnel before Work is to start. Unless agreed to otherwise in writing, only a school custodian will be allowed to unlock and lock doors in existing building(s). The custodian will be available only while school is in session. If a custodian is required to arrive before 7:00 a.m. or leave after 3:30 p.m. to accommodate Contractor's Work, the overtime wages for the custodian will be paid by the Contractor, unless at the discretion of the District, other arrangements are made in advance.

1.2. Master Key. Upon request, the District may, at its own discretion, provide a master key to the school site for the convenience of the Contractor. The Contractor agrees to pay all expenses to re-key the entire school site and all other affected District buildings if the master key is lost or stolen, or if any unauthorized party obtains a copy of the key or access to the school.

1.3. Maintaining Services. The Contractor is advised that Work is to be performed in spaces regularly scheduled for instruction. Interruption and/or periods of shutdown of public access, electrical service, water service, lighting, or other utilities shall be only as arranged in advance with the District. Contractor shall provide temporary services to all facilities interrupted by Contractor's Work.

1.4. Maintaining Utilities. The Contractor shall maintain in operation during duration of Contract, drainage lines, storm drains, sewers, water, gas, electrical, steam, and other utility service lines within working area.

1.5. Confidentiality. Contractor shall maintain the confidentiality of all information, documents, programs, procedures and all other items that Contractor encounters while performing the Work. This requirement shall be ongoing and shall survive the expiration or termination of this Agreement and specifically includes, without limitation, all student, parent, and employee disciplinary information and health information.

1.6. Work During Instructional Time. By submitting its bid, Contractor affirms that Work may be performed during ongoing instruction in existing facilities. If so, Contractor agrees to cooperate to the best of its ability to minimize any disruption to school operations and any use of school facilities by the public up to, and including, rescheduling specific work activities, at no additional cost to District.

1.7. No Work During Student Testing. Contractor shall, at no additional cost to the District and at the District's request, coordinate its Work to not disturb District students including, without limitation, not performing any Work when students at the Site are taking State or Federally-required tests.

3. Badge Policy For Contractors

3.1. All Contractors doing work for the District will provide their workers with identification badges. These badges will be worn by all members of the Contractor's staff who are working in a District facility. Badges must be filled out in full and contain the following information:

- Name of Contractor
- Name of Employee
- Contractor's address and phone number

3.2. Badges are to be worn when the Contractor or his/her employees are on site and must be visible at all times. Contractors must inform their employees that they are required to allow District employees, the Architect, the Construction Manager, the Program Manager, or the Project Inspector to review the information on the badges upon request.

3.3. Continued failure to display identification badges as required by this policy may result in the individual being removed from the Project or assessment of fines against the Contractor.

4. Weather Days

Adverse Weather conditions are those wherein the weather satisfies all of the following conditions: (1) unusually severe precipitation, sleet, snow, hail, heat, or cold conditions in excess of the norm for the location and time of year it occurred, (2) unanticipated, and (3) at the Project. Delays due to Adverse Weather will only be permitted in compliance with any applicable provisions in the Agreement and only if the number of days of Adverse Weather exceeds the following parameters and Contractor can verify that the excess days of Adverse Weather caused delays:

January	6	July	0
February	7	August	0
March	5	September	1
April	3	October	2
May	2	November	2
June	1	December	4

5. Permits, Certificates, Licenses, Fees, Approvals

5.1. Payment for Permits, Certificates, Licenses, Approvals and Fees. Contractor shall secure and pay for all permits, licenses, approvals, and certificates necessary for the prosecution of the Work except for the following:

With respect to the above listed items, Contractor shall be responsible for securing such items; however, District will be responsible for payment of these charges or fees. Contractor shall notify the District of the amount due with respect to such items and to whom the amount is payable. Contractor shall provide the District with an invoice and receipt with respect to such charges or fees.

5.2. General Permit For Storm Water Discharges Associated With Construction and Land Disturbance Activities

Contractor acknowledges that all California school districts are obligated to develop and implement the following requirements for the discharge of storm water to

surface waters from its construction and land disturbance activities (storm water requirements), without limitation:

- Municipal Separate Storm Sewer System (MS4) is a system of conveyances used to collect and/or convey storm water, including, without limitation, catch basins, curbs, gutters, ditches, man-made channels, and storm drains.
- Storm Water Pollution Prevention Plan ("SWPPP") contains specific best management practices ("BMPs") and establishes numeric effluent limitations at:
 - Sites where the District engages in maintenance (e.g., fueling, cleaning, repairing) for transportation activities.
 - Construction sites where:
 - One (1) or more acres of soil will be disturbed, or
 - The project is part of a larger common plan of development that disturbs more than one (1) acre of soil.

Contractor shall comply with any District storm water requirements that are approved by the District and applicable to the Project, at no additional cost to the District.

At no additional cost to the District, Contractor shall provide a Qualified Storm Water Practitioner who shall be onsite and implement and monitor any and all SWPPP requirements applicable to the Project, including but not limited to:

- At least forty eight (48) hours prior to a forecasted rain event, implementing the Rain Event Action Plan (REAP) for any rain event requiring implementation of the REAP, including any erosion and sediment control measures needed to protect all exposed portions of the site; and
- Monitoring any Numeric Action Levels (NALs), if applicable.

6. As-Builts and Record Drawings

6.1. Contractor shall submit Record Drawings pursuant to the Contract Documents consisting of one set of computer-aided design and drafting ("CADD") files in the following format PDF.

27. FEDERAL LABOR, WAGE & HOUR, APPRENTICE, AND RELATED PROVISIONS

27.1. Minimum Wages

The Davis-Bacon Act and 29 CFR parts 1 through 7 shall apply if the Project is financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution.

All laborers and mechanics employed or working upon the Site of the Work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the Project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account, except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3) , the full amount of wages and bona fide fringe benefits, or cash equivalents thereof, due at time of payment computed at rates not less than those contained in the applicable wage determination of the Secretary of Labor regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of this section, including but not limited to paragraph 27.1.7; also, regular contributions made or costs incurred for more than a weekly period, but not less often than quarterly, under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of Work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing Work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which Work is performed. The wage determination including any additional classification and wage rates conformed under this section, including but not limited to paragraph 27.1.6 and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its Subcontractors at the Site of the Work in a prominent and accessible place where it can be easily seen by the workers.

Any class of laborers or mechanics, including helpers, and which is to be employed under the Contract which is not listed in the wage determination shall be classified in conformance with the wage determination. An additional classification and wage rate and fringe benefits will not be approved unless when the following criteria have been met:

27.1.1.1. The Work to be performed by the classification requested is not performed by a classification in the wage determination; and
The classification is utilized in the area by the construction industry; and

The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the District agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contractor to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210.

In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the District do not agree on the proposed

classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contractor shall provide the questions, including the views of all interested parties and the recommendation of the District, to the District for the District's review and referral to the Administrator for determination.

The wage rate (including fringe benefits where appropriate) determined pursuant to this section, shall be paid to all workers performing Work in the classification under this Contract from the first day on which Work is performed in the classification.

Whenever the minimum wage rate prescribed in any applicable wage determination for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

If the Contractor does not make payments to a trustee or other third person, the Contractor may consider, as part of the wages of any laborer or mechanic, the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. If the Secretary of Labor so requires, the Contractor to shall aside in a separate account sufficient assets to meet obligations under the plan or program.

Withholding.

District may, upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this Contract or any other Federal contract with the same Contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any Subcontractor the full amount of wages required by the Contract. In the event of Contractor's or any Subcontractors' failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the Site of the Work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the Contract, the District may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as it deems necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

Payrolls and basic records.

Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the Work and preserved for a period of three years thereafter for all laborers and mechanics working at the Site of the Work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section

1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

The Contractor shall submit weekly for each week in which any Contract Work is performed a copy of all payrolls to the District. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information shall be submitted on a form acceptable to the District. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. Contractor is responsible for the submission of copies of payrolls by all Subcontractors. Contractor and Subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the District, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. Contractor may require a Subcontractor to provide addresses and social security numbers to the Contractor for its own records, without weekly submission to the District or other government agency

Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or Subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5,

That the appropriate information is being maintained under 29 CFR 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and

That such information is correct and complete;

That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and

That no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of Work performed, as specified in the applicable wage determination incorporated into or applicable to the Contract.

The weekly submission of a properly executed certification in the form set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 27.3.3 of this section.

The falsification of any of the above certifications may subject the Contractor or one or more Subcontractors to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

The Contractor or Subcontractor shall make the records required under this section available for inspection, copying, or transcription by authorized representatives of the District or the federal Department of Labor, and shall permit representatives to interview employees during working hours on the job. If the Contractor or Subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

Apprentices and trainees

Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the Work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first ninety (90) days of probationary employment as an apprentice in an eligible apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job Site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of Work actually performed. In addition, any apprentice performing Work on the job Site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the Work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or Subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the

provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the Work performed until an acceptable program is approved.

Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to Work at less than the predetermined rate for the Work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job Site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of Work actually performed. In addition, any trainee performing Work on the job Site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the Work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the Work performed until an acceptable program is approved.

Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

Compliance with Copeland Act requirements. Contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this Contract.

Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal agency may by appropriate instructions require, and also a clause requiring the Subcontractors to include these clauses in any lower tier subcontracts. The Contractor shall be responsible for the compliance by any Subcontractor or lower tier Subcontractor with all the Contract clauses in 29 CFR 5.5.

Contract termination: debarment. A breach of the Contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract, and for debarment as a Contractor and a Subcontractor as provided in 29 CFR 5.12.

Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this Contract.

Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its Subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

Certification of eligibility.

By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

No part of this Contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

Contractor shall be subject to the penalty for making false statements prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

Clauses Mandated by Contract Work Hours and Safety Standards Act.

As used in the following paragraphs, the terms laborers and mechanics include watchmen and guards.

Overtime requirements. No Contractor or Subcontractor contracting for any part of the Contract Work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such Work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in the foregoing paragraph the Contractor and any Subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such Contractor and Subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the foregoing paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to Work in excess of the standard workweek of forty hours without payment of the overtime wages required by the foregoing paragraph.

Withholding for unpaid wages and liquidated damages. The District may upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of Work performed by the Contractor or Subcontractor under the Contract or any other Federal contract with the same Contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or Subcontractor for unpaid wages and liquidated damages as provided in the forgoing paragraph .

Subcontracts. The Contractor or Subcontractor shall insert in any subcontracts the foregoing paragraphs concerning Overtime Requirements and Violation: Liability for Unpaid Wages and Liquidated Damages and also a clause requiring each Subcontractor to include these clauses in any lower tier subcontracts. Contractor shall be responsible for compliance by any Subcontractor or lower tier Subcontractor with the clauses set forth in paragraphs 27.11.1 through 27.11.4 of this section.

END OF DOCUMENT

WORKERS' COMPENSATION CERTIFICATION

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

Labor Code section 3700, in relevant part, provides:

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

- a. By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state; and/or
- b. By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

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

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

(In accordance with Labor Code sections 1860 and 1861, the above certificate must be signed and filed with the awarding body prior to performing any Work under this Contract.)

END OF DOCUMENT

**PREVAILING WAGE AND
RELATED LABOR REQUIREMENTS CERTIFICATION**

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

I hereby certify that I will conform to the State of California Public Works Contract requirements regarding prevailing wages, benefits, on-site audits with 48-hours' notice, payroll records, and apprentice and trainee employment requirements, for all Work on the above Project including, without limitation, labor compliance monitoring and enforcement by the Department of Industrial Relations.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DRUG-FREE WORKPLACE CERTIFICATION

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

This Drug-Free Workplace Certification form is required from the successful Bidder pursuant to Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990. The Drug-Free Workplace Act of 1990 requires that every person or organization awarded a contract or grant for the procurement of any property or service from any state agency must certify that it will provide a drug-free workplace by doing certain specified acts. In addition, the Act provides that each contract or grant awarded by a state agency may be subject to suspension of payments or termination of the contract or grant, and the contractor or grantee may be subject to debarment from future contracting, if the contracting agency determines that specified acts have occurred.

The District is not a "state agency" as defined in the applicable section(s) of the Government Code, but the District is a local agency and public school district under California law and requires all contractors on District projects to comply with the provisions and requirements of Government Code section 8350 et seq., the Drug-Free Workplace Act of 1990.

Contractor must also comply with the provisions of Health & Safety Code section 11362.3 which prohibits the consumption or possession of cannabis or cannabis products in any public place, including school grounds, and specifically on school grounds while children are present.

Contractor shall certify that it will provide a drug-free workplace by doing all of the following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's or organization's workplace and specifying actions which will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
 - (1) The dangers of drug abuse in the workplace.
 - (2) The person's or organization's policy of maintaining a drug-free workplace.
 - (3) The availability of drug counseling, rehabilitation, and employee-assistance programs.
 - (4) The penalties that may be imposed upon employees for drug abuse violations.
- c. Requiring that each employee engaged in the performance of the contract or grant be given a copy of the statement required above, and that, as a condition of employment on the contract or grant, the employee agrees to abide by the terms of the statement.

I, the undersigned, agree to fulfill the terms and requirements of Government Code section 8355 listed above and will publish a statement notifying employees concerning (a) the

prohibition of controlled substance at the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by section 8355(a), and requiring that the employee agree to abide by the terms of that statement.

I also understand that if the District determines that I have either (a) made a false certification herein, or (b) violated this certification by failing to carry out the requirements of section 8355, that the Contract awarded herein is subject to termination, suspension of payments, or both. I further understand that, should I violate the terms of the Drug-Free Workplace Act of 1990, I may be subject to debarment in accordance with the requirements of the aforementioned Act.

I acknowledge that I am aware of the provisions of Government Code section 8350 et seq. and hereby certify that I will adhere to the requirements of the Drug-Free Workplace Act of 1990 and Health and Safety Code section 11362.3.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

TOBACCO-FREE ENVIRONMENT CERTIFICATION

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

This Tobacco-Free Environment Certification form is required from the successful Bidder.

Pursuant to, without limitation, 20 U.S.C. section 6083, Labor Code section 6400 et seq., Health & Safety Code section 104350 et seq., Business and Professions Code section 22950 et seq. and District Board Policies, all District sites, including the Project site, are tobacco-free environments. Smoking and the use of tobacco products by all persons is prohibited on or in District property. District property includes school buildings, school grounds, school owned vehicles and vehicles owned by others while on District property. The prohibition on smoking includes the use of any electronic smoking device that creates an aerosol or vapor, in any manner or in any form, and the use of any oral smoking device for the purpose of circumventing the prohibition of tobacco smoking. Further, Health & Safety Code section 11362.3 prohibits the smoking or use of cannabis or cannabis products in any place where smoking tobacco is prohibited.

I acknowledge that I am aware of the District's policy regarding tobacco-free environments at District sites, including the Project site and hereby certify that I will adhere to the requirements of that policy and not permit any of my firm's employees, agents, subcontractors, or my firm's subcontractors' employees or agents to use tobacco and/or smoke on the Project site.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

HAZARDOUS MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

- 1.** Contractor hereby certifies that no Asbestos, or Asbestos-Containing Materials, polychlorinated biphenyl (PCB), or any material listed by the federal or state Environmental Protection Agency or federal or state health agencies as a hazardous material, or any other material defined as being hazardous under federal or state laws, rules, or regulations ("New Hazardous Material"), shall be furnished, installed, or incorporated in any way into the Project or in any tools, devices, clothing, or equipment used to affect any portion of Contractor's work on the Project for District.
- 2.** Contractor further certifies that it has instructed its employees with respect to the above-mentioned standards, hazards, risks, and liabilities.
- 3.** Asbestos and/or asbestos-containing material shall be defined as all items containing but not limited to chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite. Any or all material containing greater than one-tenth of one percent (0.1%) asbestos shall be defined as asbestos-containing material.
- 4.** Any disputes involving the question of whether or not material is New Hazardous Material shall be settled by electron microscopy or other appropriate and recognized testing procedure, at the District's determination. The costs of any such tests shall be paid by Contractor if the material is found to be New Hazardous Material.
- 5.** All Work or materials found to be New Hazardous Material or Work or material installed with equipment containing "New Hazardous Material" will be immediately rejected and this Work will be removed at Contractor's expense at no additional cost to the District.
- 6.** Contractor has read and understood the document Hazardous Materials Procedures & Requirements, and shall comply with all the provisions outlined therein.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

LEAD-BASED MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

This certification provides notice to the Contractor that:

- (1) Contractor's work may disturb lead-containing building materials.
- (2) Contractor shall notify the District if any work may result in the disturbance of lead-containing building materials.
- (3) Contractor shall comply with the Renovation, Repair and Painting Rule, if lead-based paint is disturbed in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors.

1. Lead as a Health Hazard

Lead poisoning is recognized as a serious environmental health hazard facing children today. Even at low levels of exposure, much lower than previously believed, lead can impair the development of a child's central nervous system, causing learning disabilities, and leading to serious behavioral problems. Lead enters the environment as tiny lead particles and lead dust disburse when paint chips, chalks, peels, wears away over time, or is otherwise disturbed. Ingestion of lead dust is the most common pathway of childhood poisoning; lead dust gets on a child's hands and toys and then into a child's mouth through common hand-to-mouth activity. Exposures may result from construction or remodeling activities that disturb lead paint, from ordinary wear and tear of windows and doors, or from friction on other surfaces.

Ordinary construction and renovation or repainting activities carried out without lead-safe work practices can disturb lead-based paint and create significant hazards. Improper removal practices, such as dry scraping, sanding, or water blasting painted surfaces, are likely to generate high volumes of lead dust.

Because the Contractor and its employees will be providing services for the District, and because the Contractor's work may disturb lead-containing building materials, CONTRACTOR IS HEREBY NOTIFIED of the potential presence of lead-containing materials located within certain buildings utilized by the District. All school buildings built prior to 1978 are presumed to contain some lead-based paint until sampling proves otherwise.

2. Overview of California Law

Education Code section 32240 et seq. is known as the Lead-Safe Schools Protection Act. Under this act, the Department of Health Services is to conduct a sample survey of schools in the State of California for the purpose of developing risk factors to predict lead contamination in public schools. (Ed. Code, § 32241.)

[REMAINDER OF PAGE INTENTIONALLY BLANK]

Any school that undertakes any action to abate existing risk factors for lead is required to utilize trained and state-certified contractors, inspectors, and workers. (Ed. Code, § 32243, subd. (b).) Moreover, lead-based paint, lead plumbing, and solders, or other potential sources of lead contamination, shall not be utilized in the construction of any new school facility or the modernization or renovation of any existing school facility. (Ed. Code, § 32244.)

Both the Federal Occupational Safety and Health Administration ("Fed/OSHA") and the California Division of Occupational Safety and Health ("Cal/OSHA") have implemented safety orders applicable to all construction work where a contractor's employee may be occupationally exposed to lead.

The OSHA Regulations apply to all construction work where a contractor's employee may be occupationally exposed to lead. The OSHA Regulations contain specific and detailed requirements imposed on contractors subject to that regulation. The OSHA Regulations define construction work as work for construction, alteration, and/or repair, including painting and decorating. It includes, but is not limited to, the following:

- a. Demolition or salvage of structures where lead or materials containing lead are present;
- b. Removal or encapsulation of materials containing lead;
- c. New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;
- d. Installation of products containing lead;
- e. Lead contamination/emergency cleanup;
- f. Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed; and
- g. Maintenance operations associated with the construction activities described in the subsection.

Because it is assumed by the District that all painted surfaces (interior as well as exterior) within the District contain some level of lead, it is imperative that the Contractor, its workers and subcontractors fully and adequately comply with all applicable laws, rules and regulations governing lead-based materials (including title 8, California Code of Regulations, section 1532.1).

[REMAINDER OF PAGE INTENTIONALLY BLANK]

Contractor shall notify the District if any Work may result in the disturbance of lead-containing building materials. Any and all Work that may result in the disturbance of lead-containing building materials shall be coordinated through the District. A signed copy of this Certification shall be on file prior to beginning Work on the Project, along with all current insurance certificates.

3. Renovation, Repair and Painting Rule, Section 402(c)(3) of the Toxic Substances Control Act

The EPA requires lead safe work practices to reduce exposure to lead hazards created by renovation, repair and painting activities that disturb lead-based paint. Pursuant to the Renovation, Repair and Painting Rule (RRP), renovations in homes, childcare facilities, and schools built prior to 1978 must be conducted by certified renovations firms, using renovators with training by a EPA-accredited training provider, and fully and adequately complying with all applicable laws, rules and regulations governing lead-based materials, including those rules and regulations appearing within title 40 of the Code of Federal Regulations as part 745 (40 CFR 745).

The RRP requirements apply to all contractors who disturb lead-based paint in a six-square-foot or greater area indoors or a 20-square-foot or greater area outdoors. If a DPH-certified inspector or risk assessor determines that a home constructed before 1978 is lead-free, the federal certification is not required for anyone working on that particular building.

4. Contractor's Liability

If the Contractor fails to comply with any applicable laws, rules, or regulations, and that failure results in a site or worker contamination, the Contractor will be held solely responsible for all costs involved in any required corrective actions, and shall defend, indemnify, and hold harmless the District, pursuant to the indemnification provisions of the Contract, for all damages and other claims arising therefrom.

If lead disturbance is anticipated in the Work, only persons with appropriate accreditation, registrations, licenses, and training shall conduct this Work.

It shall be the responsibility of the Contractor to properly dispose of any and all waste products, including, but not limited to, paint chips, any collected residue, or any other visual material that may occur from the prepping of any painted surface. It will be the responsibility of the Contractor to provide the proper disposal of any hazardous waste by a certified hazardous waste hauler. This company shall be registered with the Department of Transportation (DOT) and shall be able to issue a current manifest number upon transporting any hazardous material from any school site within the District.

The Contractor shall provide the District with any sample results prior to beginning Work, during the Work, and after the completion of the Work. The District may request to examine, prior to the commencement of the Work, the lead training records of each employee of the Contractor.

THE CONTRACTOR HEREBY ACKNOWLEDGES, UNDER PENALTY OF PERJURY, THAT IT:

1. HAS RECEIVED NOTIFICATION OF POTENTIAL LEAD-BASED MATERIALS ON THE OWNER'S PROPERTY;

2. IS KNOWLEDGEABLE REGARDING AND WILL COMPLY WITH ALL APPLICABLE LAWS, RULES, AND REGULATIONS GOVERNING WORK WITH, AND DISPOSAL, OF LEAD.

THE UNDERSIGNED WARRANTS THAT HE/SHE HAS THE AUTHORITY TO SIGN ON BEHALF OF AND BIND THE CONTRACTOR. THE DISTRICT MAY REQUIRE PROOF OF SUCH AUTHORITY.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

IMPORTED MATERIALS CERTIFICATION

PROJECT/CONTRACT NO.: _____ between Downey Unified School District ("District") and _____ ("Contractor" or "Bidder") ("Contract" or "Project").

This form shall be executed by all entities that, in any way, provide or deliver and/or supply any soils, aggregate, or related materials ("Fill") to the Project Site. All Fill shall satisfy all requirements of any environmental review of the Project performed pursuant to the statutes and guidelines of the California Environmental Quality Act, section 21000 et seq. of the Public Resources Code ("CEQA"), and all requirements of section 17210 et seq. of the Education Code, including requirements for a Phase I environmental assessment acceptable to the State of California Department of Education and Department of Toxic Substances Control.

Certification of: ☐ Delivery Firm/Transporter ☐ Supplier ☐ Manufacturer
 ☐ Wholesaler ☐ Broker ☐ Retailer
 ☐ Distributor ☐ Other _____

Type of Entity ☐ Corporation ☐ General Partnership
 ☐ Limited Partnership ☐ Limited Liability Company
 ☐ Sole Proprietorship ☐ Other _____

Name of firm ("Firm"): _____

Mailing address: _____

Addresses of branch office used for this Project: _____

If subsidiary, name and address of parent company: _____

By my signature below, I hereby certify that I am aware of section 25260 of the Health and Safety Code and the sections referenced therein regarding the definition of hazardous material. I further certify on behalf of the Firm that all soils, aggregates, or related materials provided, delivered, and/or supplied or that will be provided, delivered, and/or supplied by this Firm to the Project Site are free of any and all hazardous material as defined in section 25260 of the Health and Safety Code. I further certify that I am authorized to make this certification on behalf of the Firm.

Date: _____

Proper Name of Firm: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

DOWNEY UNIFIED SCHOOL DISTRICT

RIO SAN GABRIEL ES WINDOW GLAZING PROJECT
IMPORTED MATERIALS CERTIFICATION

CRIMINAL BACKGROUND
INVESTIGATION/ FINGERPRINTING CERTIFICATION

PROJECT/CONTRACT NO.: _____ between the Downey Unified School District ("District") and _____ ("Contractor"); Agreement dated, _____, 20__ ("Agreement").

The undersigned does hereby certify to the governing board of the District as follows:

That I am a representative of the Contractor currently under contract with the District; that I am familiar with the facts herein certified; and that I am authorized and qualified to execute this certificate on behalf of Contractor. Contractor certifies that it has taken at least one of the following actions with respect to the work that is the subject of the Agreement ("Work") (check all that applies):

Contractor certifies that it has taken at least one of the following actions with respect to the construction Project that is the subject of the Contract (check all that apply):

- ☒ The Contractor is a sole proprietor and intends to comply with the fingerprinting requirements of Education Code section 45125.1(k) with respect to all Contractor's employees who may have contact with District pupils in the course of providing services pursuant to the Contract, and hereby agrees to the District's preparation and submission of fingerprints such that the California Department of Justice may determine that none of those employees has been convicted of a felony, as that term is defined in Education Code section 45122.1. No work shall commence until such determination by DOJ has been made.

As an authorized District official, I am familiar with the facts herein certified, and am authorized to execute this certificate on behalf of the District and undertake to prepare and submit Contractor's fingerprints as if he or she was an employee of the District.

Date: _____

District Representative's Name and Title: _____

District Representative's Signature: _____

- ☐ The Contractor, who is not a sole proprietor, has complied with the fingerprinting requirements of Education Code section 45125.1 with respect to all Contractor's employees and all of its Subcontractors' employees who may have contact with District pupils in the course of providing services pursuant to the Contract, and the California Department of Justice has determined that none of those employees has been convicted of a felony, as that term is defined in Education Code section 45122.1. A complete and accurate list of Contractor's employees and of all of its subcontractors' employees who may come in contact with District pupils during the course and scope of the Contract is attached hereto; and/or
- ☐ Pursuant to Education Code section 45125.2, Contractor has installed or will install, prior to commencement of Work, a physical barrier at the Work Site, that will limit contact between Contractor's employees and District pupils at all times; and/or
- ☐ Pursuant to Education Code section 45125.2, Contractor certifies that all employees will be under the continual supervision of, and monitored by, an employee of the Contractor who the California Department of Justice has ascertained, or as described below, will ascertain, has not been convicted

of a violent or serious felony. The name and title of the employee who will be supervising Contractor's and its subcontractors' employees is:

Name: _____

Title: _____

NOTE: If the Contractor is a sole proprietor, and elects the above option, Contractor must have the above-named employee's fingerprints prepared and submitted by the District, in accordance with Education Code section 45125.1(k). No work shall commence until such determination by DOJ has been made.

As an authorized District official, I am familiar with the facts herein certified, and am authorized to execute this certificate on behalf of the District and undertake to prepare and submit Contractor's fingerprints as if he or she was an employee of the District.

Date: _____

District Representative's Name and Title: _____

District Representative's Signature: _____

- ☐ The Work on the Contract is either (i) at an unoccupied school site and no employee and/or subcontractor or supplier of any tier of the Contract shall come in contact with the District pupils or (ii) Contractor's employees or any subcontractor or supplier of any tier of the Contract will have only limited contact, if any, with District pupils and the District will take appropriate steps to protect the safety of any pupils that may come in contact with Consultant's employees, subcontractors or suppliers so that the fingerprinting and criminal background investigation requirements of Education Code section 45125.1 shall not apply to Contractor under the Contract.

As an authorized District official, I am familiar with the facts herein certified, and am authorized to execute this certificate on behalf of the District.

Date: _____

District Representative's Name and Title: _____

District Representative's Signature: _____

Contractor's responsibility for background clearance extends to all of its employees, Subcontractors, and employees of Subcontractors coming into contact with District pupils regardless of whether they are designated as employees or acting as independent contractors of the Contractor.

Date: _____

Proper Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

REGISTERED SUBCONTRACTORS LIST
(Labor Code Section 1771.1)

PROJECT: _____

Date Submitted (for Updates): _____

Contractor acknowledges and agrees that it must clearly set forth below the name and Department of Industrial Relations (DIR) registration number of each subcontractor **for all tiers** who will perform work or labor or render service to Contractor or its subcontractors in or about the construction of the Work **at least two (2) weeks before the subcontractor is scheduled to perform work**. This document is to be updated as all tiers of subcontractors are identified.

Contractor acknowledges and agrees that, if Contractor fails to list as to any subcontractor of any tier who performs any portion of Work, the Contract is subject to cancellation and the Contractor will be subjected to penalty under applicable law.

If further space is required for the list of proposed subcontractors, attach additional copies of page 2 showing the required information, as indicated below.

Subcontractor Name: _____
DIR Registration #: _____
Portion of Work: _____

Subcontractor Name: _____
DIR Registration #: _____
Portion of Work: _____

Subcontractor Name: _____
DIR Registration #: _____
Portion of Work: _____

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DIR Registration #: _____
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Subcontractor Name: _____
DIR Registration #: _____
Portion of Work: _____

Subcontractor Name: _____
DIR Registration #: _____
Portion of Work: _____

Date: _____

Name of Contractor: _____

Signature: _____

Print Name: _____

Title: _____

END OF DOCUMENT

Supplementary Conditions

Work schedule:

Monday through Friday	7 AM – 4 PM
Saturday	7 AM – 4 PM
Sunday	Pre-approval by Facilities Department

Contractor is responsible to remove and haul off debris.



Project Name: Rio San Gabriel Elementary School Window Glazing Project

Agreement Number: 202122-419

Date: 2/1/2022

Document: Project Specifications

SECTION 01 7329 – CUTTING AND PATCHING

SECTION 08 8000 – GLASS AND GLAZING

SECTION 09-9000 – PAINTS AND COATINGS

SECTION 13280 – HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS

SECTION 01 7329
CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. This Section specifies procedural requirements for cutting and patching.

1.02 RELATED REQUIREMENTS

- A. Section 01 2973 - Schedule of Values.
- B. Section 01 3113 - Project Coordination.
- C. Section 01 3119 - Project Meetings.
- D. Section 01 3216 - Construction Schedule.
- E. Section 01 3300 - Submittal Procedures.
- F. Section 01 7123 - Field Engineering.
- G. Section 01 7836 - Warranties.

1.03 SUBMITTALS

- A. The word "cutting" as used in the Contract Documents includes, but is not limited to, cutting, drilling, chopping, and other similar operations and the word "patching" includes, but is not limited to, patching, rebuilding, reinforcing, repairing, refurbishing, restoring, replacing, or other similar operations.
- B. Cutting and Patching Proposal: CONTRACTOR shall submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Contract Documents requires approval of these procedures before proceeding. Include the following information, as applicable, in the proposal:
 - 1. Describe the extent of cutting and patching required. Denote how it will be performed and indicate why it cannot be avoided.
 - 2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance or other significant visual elements.
 - 3. List products to be used and firms or entities that will perform this Work.
 - 4. Indicate dates when cutting and patching will be performed.
 - 5. Utilities: List utilities that cutting and patching operations will disturb or affect. List utilities to be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.

6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.
7. Review by ARCHITECT and DSA prior to proceeding with cutting and patching does not waive ARCHITECT right to later require complete removal and replacement of defective Work.

1.04 QUALITY ASSURANCE

- A. Requirements for structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.
 1. Obtain approval from ARCHITECT and DSA of the cutting and patching proposal before cutting and patching the following structural elements:
 - a. Foundation construction.
 - b. Bearing and retaining walls.
 - c. Structural concrete.
 - d. Structural steel.
 - e. Lintels.
 - f. Timber and primary wood framing.
 - g. Structural decking.
 - h. Miscellaneous structural metals.
 - i. Equipment supports.
 - j. Piping, ductwork, vessels, and equipment.
 - m. Structural systems of special construction in Division 13 Sections.
- B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.
 1. Obtain review of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:
 - a. Primary operational systems and equipment.
 - b. Air or smoke barriers.
 - c. Water, moisture, or vapor barriers.
 - d. Membranes and flashings.
 - e. Fire protection systems.

- f. Noise and vibration control elements and systems.
- g. Control systems.
- h. Communication and/or data systems.
- i. Conveying systems.
- j. Electrical wiring systems.
- k. Operating systems of special construction in Division 13 Sections.

C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the opinion of ARCHITECT, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

- 1. If possible, retain the original installer or fabricator to cut and patch the exposed Work listed below. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.
 - a. Firestopping.
 - b. Acoustical ceilings.
 - c. Acoustical panels.
 - d. Finished wood flooring.
 - e. Carpeting.
 - f. HVAC enclosures, cabinets, or covers.
 - g. Ceramic and quarry tile.
 - h. Gypsum board.
 - i. Masonry (exterior and interior where exposed).
 - j. Tack boards.
 - k. Casework.
 - l. Finish carpentry.

1.05 WARRANTY

- A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.
 - 1. Before proceeding, meet at the Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.02 PREPARATION

- A. Temporary support: Provide adequate temporary support of existing improvements or Work to be cut.
- B. Protection: Protect existing improvements and Work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of existing improvements or Work that might be exposed during cutting and patching operations.
- C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Where the Work requires sandblasting of existing surfaces in order to receive new materials secured by cementitious, adhesive or chemical bond, completely remove existing finishes, stains, oil, grease, bitumen, mastic and adhesives or other substances deleterious to the new bonding or fastening of new Work. Utilize wet sand blasting for interior surfaces and for exterior surfaces where necessary to prevent objectionable production of dust.

3.03 PERFORMANCE

- A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Carefully remove existing Work to be salvaged and/or reinstalled. Protect and store for reuse into the Work. Verify compatibility and suitability of existing substrates before starting the Work.
- B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining Work. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.
 - 1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
 - 2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
 - 3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill. Saw cut reinforcing bars and paint ends with bituminous paint except where bonded into new concrete or masonry.

4. Comply with requirements of applicable Sections of Divisions 31, 32, and 33 where cutting and patching requires excavating, backfill, and recompaction.
 5. Woodwork: Cut and or remove to a panel or joint line.
 6. Sheet Metal: Remove back to joint, lap, or connection. Secure loose or unfastened ends or edges and seal watertight.
 7. Glass: Remove cracked, broken, or damaged glass and clean rebates and stops of setting materials.
 8. Plaster: Cut back to sound plaster on straight lines, and back bevel edges of remaining plaster. Trim existing lath and prepare for new lath.
 9. Gypsum Wallboard: Cut back on straight lines to undamaged surfaces with at least two opposite cut edges centered on supports.
 10. Acoustical ceilings: Remove hanger wires and related appurtenances where ceilings are not scheduled to be installed.
 11. Tile: Cut back to sound tile and backing on joint lines.
 12. Flooring: Completely remove flooring and clean backing of prior adhesive. Carefully remove wood flooring for patching and repairing of existing wood flooring scheduled to remain.
- C. Patching: Patch with durable seams that are as invisible as possible. Comply with required tolerances.
1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation. Verify conditions of existing substrates prior to executing Work.
 2. Restore exposed finishes of patched areas and extend finish restoration into retaining adjoining construction in a manner that will eliminate all evidence of patching and refinishing.
 3. Concrete: Maintain cut edges in a moist condition for twenty four hours prior to the placement of new concrete. In lieu of this an epoxy adhesive may be provided. Finish placed concrete to match existing unless noted otherwise. Concrete shall have a compressive strength of 3,000 psi where installed to repair and match existing improvements, unless noted otherwise.
 4. Metal Fabrications: Items to remain exposed shall have their edges cut and ground smooth and rounded.
 5. Sheet Metal: Replace removed or damaged sheet metal items for new Work.
 6. Glass: Install matching glass and re-seal exterior window assemblies.
 7. Lath and Plaster: Install new lath materials to match existing and fasten to supports at 6-inch centers. Provide a 6-inch lap where new lath to adjoins existing lath. Fasten new lath as required for new Work. Restore paper backings as required. Apply a bonding agent on cut edges of existing plaster. Apply three coat plaster of the type, thickness, finish, texture, and color to match existing.

8. Gypsum Wallboard: Fasten cut edges of wallboard. Install patches with at least two opposite edges centered on supports and secure at 6-inch centers. Tape and finish joints and fastener heads. Patching shall be non-apparent when painted or finished.
9. Acoustical Ceilings: Comply with the requirements for new Work specified in related sections of the Contract Documents.
10. Resilient Flooring: Completely remove flooring and prepare substrate for new material.
11. Painting: Prepare areas to be patched, patch and paint as specified under related sections of the Contract Documents.

3.04

CLEANING

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

END OF SECTION

SECTION 08 8000

GLASS AND GLAZING

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of the General and Supplementary Conditions and Division 01 apply to this section.
- B. Section Includes:
 - 1. Glass and glazing as indicated.

1.02 SUBMITTALS

- A. Product Data: Submit manufacturer's descriptive literature and installation recommendations for glass, glazing and accessories.
- B. Material Samples: Submit 6-inch square units of each type of glass specified.

1.03 QUALITY ASSURANCE

- A. Labeling: Label each piece of glass and glazing and mirrors with manufacturer's name, and the grade or quality of the material. Labels shall be intact before and after installation.
- B. Comply with the following as a minimum requirement:
 - 1. ASTM C 1036 - Standard Specification For Flat Glass.
 - 2. CPSC 16 CFR 1201 - Safety Standards for Architectural Glazing Materials issued by the Consumer Products Safety Commission.
 - 3. GANA - Glazing Manual.
 - 4. CBC 2013 Chapter 24
- C. Qualifications of Installer: Minimum 10 years experience installing glass in projects of similar scope and complexity.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver glass and glazing materials with manufacturer's labels intact.
- B. Do not remove labels until glass has been installed and inspected by IOR.
- C. Protect glass from staining, marking or damage.
- D. Putty and glazing compound shall be delivered to the Project site in manufacturer's original unbroken containers labeled to identify contents.

1.05 PROJECT CONDITIONS

- A. Perform glazing when ambient temperature is above 40 degrees F.
- B. Perform glazing on clean, dry surfaces only.

1.06 WARRANTY

- A. Warrant system to be watertight and free from distortion or harmonics for a period of 10 years. Warrant coatings and thermally or acoustically rated insulation units against deterioration in acoustic or thermal rating for a period of 20 years.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS AND FABRICATORS

- A. To maximum extent possible, provide domestically manufactured and fabricated glass, and provide glass from one manufacturer.
- B. Types of glass specified or indicated shall be manufactured or fabricated by one of the following:
 - 1. Vitro Architectural Glass
 - 2. Pilkington LOF.
 - 3. PPG Glass Technology.
 - 4. Visteon Float Glass Operations.
 - 5. Oldcastle Building Envelope
 - 6. Truelite Glass and Aluminum Solutions

2.02 FLAT GLASS MATERIALS

- A. Clear Glass: ASTM C 1036, Type 1, Class 1, Quality q5-Glazing B.
- B. FT Glass: Fully Tempered, ASTM C 1048, FT, Type 1, Class 1 or 2, Quality q5-Glazing B, CPSC 16 CFR Part 1201, Safety Standard for Architectural Glazing Materials.
- C. HS Glass: Heat Strengthened, ASTM C 1048, HS, Type 1, Class 1 or 2, Quality q5-Glazing B.
- D. General Identification Requirements For Glass.
 - 1. Identification. Each pane shall bear the manufacturer's mark designating the type and thickness of the glass or glazing material.
 - 2. The identification shall not be omitted unless approved and an affidavit is furnished by the glazing contractor certifying that each light is glazed in accordance with approved construction documents that comply with the provisions of CBC.
 - 3. Each pane of tempered glass, except tempered spandrel glass, shall be permanently identified by the manufacturer. The identification mark shall be acid etched, sandblasted, ceramic fired, laser etched, embossed or of a type that, once applied, cannot be removed without being destroyed.
 - 4. Tempered spandrel glass shall be provided with a removable paper marking by the Manufacturer.

5. Safety glazing shall be identified as specified elsewhere in this section.

2.03 SAFETY GLAZING

- A. Individual glazed areas, including glass mirrors, in hazardous locations as defined in CBC shall comply with impact test requirements.
- B. Impact test. Where required by CBC glazing shall be tested in accordance with CPSC 16CFR 1201. Glazing shall comply with the test criteria for Category I or II as listed in CBC.
- C. Identification of Safety Glazing.
 - 1. Each pane of safety glazing installed in hazardous locations shall be identified by a manufacturer's designation specifying who applied the designation, the manufacturer or installer and the safety glazing standard with which it complies, as well as the information specified for general glass.
 - 2. The designation shall be acid etched, sand blasted, ceramic fired, laser etched, embossed or of a type that once applied, cannot be removed without being destroyed.

2.04 GLASS TYPES

- A. General: Conform to ASTM C 1036, ASTM C 1048 and to ANSI Z97.1. Label factory cut panes.
- B. TYPE G-1: Tinted glass, reflective coating.

¼" Vitro Solarcool on Solargray 6mm (2)

Visible Light Transmittance	17%
U Value	1.03 BTU.
Solar Heat Gain Coefficient	0.44

2.05 GLASS SETTING MATERIALS

- A. Glazing Compound for Metal Sash: "DAP 1012 Glazing Compound" by DAP Inc., or approved equal. Conform to ASTM C 669.
- B. Provide all glazing accessories required to supplement those accessories which accompany items to be glazed, and as needed to provide a complete installation, including glazing points, clips, shims, angles, beads, setting blocks, and spacer strips. Use ferrous metal which will be exposed in finished work, with a finish that will not corrode or stain while in service.
- C. Setting Blocks: ASTM C 864, channel shape; having 1/4 inch internal depth, Shore A hardness of 80 to 90 Durometer. Blocks shall be a minimum 2 inch long. Block width shall be approximately 1/16 inch less than the full width of the rabbet. Block thickness shall be at least 3/16 inch, sized for rabbet depth as required.
- D. Spacers: ASTM C 864, channel shape, with 1/4 inch internal depth, 3/32 inch flanges, web, 1/8 inch thick, one to 3 inches long. Spacers shall provide Shore A hardness of 40 to 50 Durometer.
- E. Vinyl Glazing Channels: Profile compatible with framing system and designed to accommodate glass of specified thickness, light gray in color. Provide for dry glazing aluminum frames where indicated or permitted.

- F. Glazing Tape: Poly-isobutylene based sealant tape, conforming to AAMA 804.1, with adhesive one side protected by temporary paper cover, Extru-Seal manufactured by Pecora Corp., No. 303 by Protective Treatments, Inc., or equal.
- G. Spring Steel Spacers: Galvanized steel wire or strip designed to position glazing in channel or rabbet sash with stops.
- H. Glazing Clips: Galvanized steel spring wire designed to hold glass in position in rabbet sash without stops.
- I. Glazing Points (Sprigs): Pure zinc stock, thin, flat, triangular or diamond-shaped pieces, 1/4 inch minimum size.

PART 3 - EXECUTION

3.01 TOLERANCES

- A. Thickness indicated or specified are nominal within standard tolerances. Maximum size of vertical panes shall not exceed following:

Glass Thickness Double Strength:	1/8 inch	3/16 inch	1/4 inch
Maximum Areas in Square Feet:	12	16	20

3.02 PREPARATION

- A. Remove all old glass and glazing compound from sash. Surface should be clean, dry and free of frost.
- B. Glazing tapes or sealants shall be installed wherever glass contacts wood or metal surfaces. Width of strips shall be as required.
- C. Glazing compound shall be neatly and cleanly installed in straight lines, even with inside edge of sash members. Thumb puttying is not permitted.

3.03 INSTALLATION OF GLASS

- A. Conform to requirements of GANA Glazing Manual.
- B. Provide edge blocking to comply with requirements of referenced glazing standard, except where otherwise required by glass unit manufacturer.
- C. Apply glazing compound to metal sash to provide back-bedding for the glass. Use spacer shims at quarter points to maintain 1/8" minimum bedding thickness. There should be no metal to glass contact.
- D. If windowpane size is over 24" in horizontal dimension, use setting blocks at quarter points on bottom rail.
- E. For clear glass maintain 1/4" minimum contact area between glass and compound.
- F. For heat absorbing glass, 3/8" minimum contact area is required.

- G. Apply clips at quarter points of windowpane, spacing them no more than 18" apart. For inside glazed sash, space clips no more than 12" apart.
- H. Press glazing onto sash filling height and width of L-shaped recess completely.
- I. Smooth glazing to an angle that sheds water and glaze corners to a rounded finish.

3.04 PROTECTION AND CLEANING

- A. Protect exterior glass from breakage by furnishing crossed streamers attached to framing and away from glass surface. Do not directly install markers to glass surfaces. Remove non-permanent labels and clean surfaces.
- B. Protect glass from contact with contaminating substances resulting from construction operations. If, despite such protection, contaminating substances do come into contact with glass, remove immediately by method recommended by glass manufacturer.
- C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less often than once a month, for build-up of dirt, scum, alkali deposits or staining. When examination reveals presence of these forms of residue, remove by method recommended by glass manufacturer.
- D. Remove and replace glass, which is broken, chipped, cracked, abraded, or damaged during construction.
- E. Remove protective covering from thermoplastic not more than 4 days before Substantial Completion, and immediately before cleaning. Methods of final cleaning and finishing shall be as prescribed by thermoplastic glazing publications referenced above.
- F. Wash glass on both faces not more than 4 days before Substantial Completion. Wash glass by method recommended by glass manufacturer. Do not furnish harsh cleaning agents, caustics, abrasives, or acids for cleaning. Polish glass both sides and leave free of soil, streaks, and labels.

3.05 CLEAN UP

- A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

3.06 PROTECTION

- A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 09 9000

PAINTS AND COATINGS

PART 1 - GENERAL

1.01 SUMMARY

- A. Provisions of the General and Supplementary Conditions and Division 1 - General Requirements apply to this section.
- B. Section Includes:
 - 1. Interior painting.
- C. Related Sections:
 - 1 Section 09 2900: Gypsum Board
- D. Following items shall not be painted:
 - 1. Brass valves, chromium or nickel-plated piping and fittings.
 - 2. Boiler control panels and control systems.
 - 3. Fabric connections to fans.
 - 4. Flexible conduit connections to equipment, miscellaneous name plates, stamping and instruction labels and manufacturer's data.
 - 5. Mechanical and electrical utility lines, piping and heating and ventilation ductwork in tunnels, under-floor excavated areas or crawl spaces, enclosed attic spaces and enclosed utility spaces.
 - 6. Flag, floodlight, parking light poles and loudspeaker poles, metal stairs, handrails and chain-link fence with a galvanized finish, unless otherwise noted.
 - 7. Structural and miscellaneous steel, open web steel joists and metal floor decking, which will not be exposed in final construction, shall have no finish other than one coat of shop primer.
 - 8. Galvanized structural steel, miscellaneous steel, fences, guardrails and handrails which will be exposed in the final construction at the exterior only.
 - 9. Brass, bronze, aluminum (except for structural sections at the exterior), lead, stainless steel and chrome or nickel-plated surfaces.
 - 10. Non-metallic walking surfaces unless specifically shown or specified to be painted.

1.02 SYSTEM DESCRIPTION

- A. Regulatory Requirements:

1. Paint materials shall comply with the Food and Drug Administration's (F.D.A.) Lead Law and the current rules and regulations of local, state and federal agencies governing the use of paint materials including Section 5.504.4.3 of the 2013 California Green Building Standards Code.

1.03 SUBMITTALS

- A. List of Materials: Before submittal of Samples, submit a complete list of proposed paint materials, identifying each material by distributor's name, manufacturer's name, product name and number, including primers, thinners, and coloring agents, together with manufacturers' catalog data fully describing each material as to contents, recommended installation, and preparation methods. Identify surfaces to receive various paint materials.
- B. Material Samples: Submit manufacturer's standard colors Samples for each type of paint specified. Once colors have been selected, submit Samples of each color selected for each type of paint accordingly:
 1. Samples of Paint and Enamel must be submitted on standard 8 ½" x 11" Leneta Opacity-Display Charts. Each display chart shall have the color in full coverage. The Sample shall be prepared from the material to be installed on the Work. Identify the school on which the paint is to be installed, the batch number, the color number, the type of material, and the name of the manufacturer.
 2. All materials and color Samples shall be reviewed before starting any painting.
- C. For transparent and stained finishes, prepare Samples on same species and quality of wood to be installed in the Work, with written description of system used.
- D. Provide manufacture's specifications for VOC content of paints used on the building's interior, compliance with California's Prop 65 and VOC emissions testing per CDPH Standards Practice specifications. In addition, products shall have been tested and evaluated for emission of VOCs of concern following the specifications of the California Department of Public Health Standard Practice.

1.04 QUALITY ASSURANCE

- A. Certification of Materials: With every delivery of paint materials, the manufacturer shall provide written certification the materials comply with the requirements of this section.
- B. Coats: The number of coats specified is the minimum number. If full coverage is not obtained with the specified number of coats, install additional coats as required to provide the required finish.
- C. Install coats and undercoats for all types of finishes in strict accordance with the recommendations of the paint manufacturer as reviewed by the Facilities Department.
- D. Paint materials shall comply with the following as a minimum requirement:
 1. Materials shall be delivered to Project site in original unbroken containers bearing manufacturer's name, brand number and batch number.
 2. Open and mix ingredients on premises in presence of the IOR.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Storage and Mixing of Materials: Store materials and mix only in spaces suitable for such purposes. Maintain spaces clean and provide necessary precautions to prevent fire. Store paint containers so the manufacturer's labels are clearly displayed.

1.06 SITE CONDITIONS

- A. Temperature: Do not install exterior paint in damp, rainy weather or until surface has thoroughly dried from effects of such weather. Do not install paint, interior, or exterior, when temperature is below 50 degrees F, or above 90 degrees F, or dust conditions are unfavorable for installation.

1.07 WARRANTY

- A. Provide a 3-year material and labor warranty.
- B. Provide unconditional 2-year installation warranty commencing on the recorded date of the Notice of Completion in accordance with Section 21 of the Construction Services Agreement.
- C. Conduct an end of warranty site walk with the District designated personnel to review the condition of the paint.

1.08 MAINTENANCE

- A. Provide at least one gallon of each type, color and sheen of paint coating installed. Label containers with color designation indicated on Drawings.
- B. Submit final schedule of colors with formulas for each paint as part of the Owners Maintenance Manuals.

PART 2 - PRODUCTS

2.01 PAINT MATERIALS

- A. Furnish the products of only one paint manufacturer unless otherwise specified or required. Primers, intermediate and finish coats of each painting system must all be the products of the same manufacturer, including thinners and coloring agents, except for materials furnished with shop prime coat by other trades.
- B. Factory mix paint materials to correct color, gloss, and consistency for installation to the maximum extent feasible.
- D. All paint materials to be minimum "Architectural Grade".
- E. Gloss degree standards shall be as follows:

HIGH GLOSS	70 and above	EGGSHELL	30 to 47
SEMI-GLOSS	48 to 69	SATIN	15 to 29

2.02 MANUFACTURERS

- A. Acceptable manufacturers, unless otherwise noted:

1. Dunn-Edwards Corporation Paint

PART 3 - EXECUTION

3.01 PREPARATION

- A. Examine surfaces to receive paint finish. Surfaces which are not properly prepared and cleaned or which are not in condition to receive the finish specified shall be corrected before prime coat is installed.
- B. New woodwork shall be thoroughly cleaned, hand sandpapered, and dusted off. Nail holes, cracks or defects in Work shall be filled. On stained woodwork, fill shall be colored to match stain. Filling shall be performed after the first coat of paint, shellac or varnish has been installed.
- C. Plaster surfaces except veneer plaster shall be allowed to dry at least 3 weeks before painting. Veneer plaster shall be allowed to dry sufficiently to receive paint as determined by moisture meter tests.
- D. Metal surfaces to be painted shall be thoroughly cleaned of rust, corrosion, oil, foreign materials, blisters, and loose paint.
- E. Do not install painting materials to wet, damp, dusty, dirty, finger marked, rough, unfinished or defective surfaces.
- F. Concrete surfaces shall be dry, cleaned of dirt and foreign materials and in proper condition to receive paint. Neutralize spots demonstrating effects of alkali.
- G. All stucco buildings including all stucco walls, planters, and pillars. Any broken, chipped, or damaged stucco shall be repaired to match surrounding surfaces prior to receiving paint.
- H. Prepare surfaces in a skillful manner to produce finish work of first-class appearance and durability.
- I. Stucco (plaster): Water blast, cleaning all dirt, dust, and contaminants. Remove mildew with a solution of chlorine bleach, TSP, and water. Rinse the treated areas thoroughly. Allow the treated areas to dry completely, leaving an uncontaminated, clean surface for paint.
- J. Crack and stucco repair: Use VIP Patch and Caulking Compounds. Float surface so surface is concurrent with surrounding areas. For damaged stucco areas, remove all loose stucco, refloat color coat and allow at least seventy-two (72) hours to dry prior to painting.
- K. Metal: Clean surfaces from dirt, contaminants, rust, or oxides. Scrape and sand all surfaces smooth for paint. Primer all bare metals immediately upon completion of surface prep.
- L. Wood: Clean all surfaces from dirt, contaminants, and loose peeling paint. Scrape and sand smooth all areas to receive paint, sanding all remaining paint material to a feather edge. Remove mildew with a solution of chlorine bleach, TSP, and water. Caulk all areas adjacent to plaster and spackle all areas.
- M. Concrete: Water blast or steam clean as required. Etch questionable surfaces with a solution of 20% muriatic acid and water. Rinse thoroughly with water and allow drying before painting.

- N. Concrete Block: Remove all loose and flaking paint by water blasting and wire brush. If a lime condition exists, wash with a solution of 20% muriatic acid and water and rinse thoroughly. If moisture penetration is obviously a problem, apply one coat of UGL Latex Base DRYLOK® Masonry Water-proofer or equal for waterproofing to all exposed surfaces.
- O. Preparation shall be inspected by the District/Inspector prior to the application of paint finishes. Rework surfaces not properly prepared to receive paint finishes to the satisfaction of the District/Inspector.
- P. Mask off areas where necessary.

3.02 APPLICATION

- A. Backpainting: Immediately upon delivery to the Project site, finish lumber and millwork shall be backpainted on surfaces that will be concealed after installation. Items to be painted shall be backpainted with priming coat specified under "Priming".
- B. Priming: New wood and metal surfaces specified to receive paint finish shall be primed. Surfaces of miscellaneous metal and steel not embedded in concrete, and surfaces of unprimed plain sheet metal Work shall be primed immediately upon delivery to the Project site. Galvanized metal Work and interior and exterior woodwork shall be primed immediately after installation. Priming of surfaces and priming coat shall be as follows:
 - 1. Knots, Pitch and Sap Pockets: Shellac before priming.
 - 2. Interior Woodwork: Where indicated to be painted, prime with one coat of waterborne wood primer.
 - 3. Stain: Woodwork indicated to receive a stain and varnish finish shall be stained to an even color with water borne stain. On open-grained hardwood, mix stain with paste filler and completely fill pores in wood.
 - 4. Galvanized Metal Work: Clean oil, grease and other foreign materials from surfaces. Install vinyl wash pretreatment coating. Follow manufacturer's instructions for drying time, and then prime with one coat of metal primer.
 - 5. Unprimed Iron, Steel, and Other Uncoated Metals: Where specified to be painted, prime with one coat of metal primer.
 - 6. Shop Primed Metal Items: Touch up bare and abraded areas with metal primer before installation of second and third coats.
 - 7. Coats shall be installed evenly and with full coverage. Finished surfaces shall be free of sags, runs and other imperfections.
- C. Allow at least 24 hours between coats of paint.
- D. Rollers shall not be used on wood surfaces.
- E. Each coat of painted woodwork and metal, except last coat, shall be sandpapered smooth when dry. Texture-coated gypsum board shall be sanded lightly to remove surface imperfections after first coat of paint has been installed.

- F. Each coat of paint or enamel shall be a slightly different tint as required. Each coat of paint, enamel, stain, shellac, and varnish will be examined by the **IOR** before next coat is applied. Notify the **IOR** that such Work is ready for inspection.

1. Tinting Guideline: The first coat, primer/undercoat(s) to be untinted or tinted up to 50% lighter or darker (at the discretion of the installer) than the finish coat. The second coat (or third coat if a seal coat and undercoat have been specified) is to be factory tinted in the range of 10% to 15% lighter or darker (at the discretion of the installer) than the finish coat. The final coat is to be factory tinted to the required color selected. These tinting guidelines shall be provided on all surfaces receiving paint..

- G. Do not "paint-out" UL labels, fusible links and identification stamps.

3.03 CLEANING

- A. Remove rubbish, waste and surplus material and clean woodwork, hardware, floors and other adjacent Work.
- B. Remove paint, varnish and brush marks from glazing material and, upon completion of painting Work, wash and polish glazing material both sides. Glazing material, which is damaged, shall be removed and replaced with new material.
- B. Clean hardware and other unpainted metal surfaces with recommended cleaner. Do not furnish abrasives or edged tools.

3.04 SCHEDULE

- A. Interior:
1. Woodwork, Painted: 3 coats.
 - a. First Coat: Primer - IKPR00 Interkote
 - b. Second and Third Coats: Interior Enamel, Semi-gloss - SWLL 50 Spartawall Semi-Gloss.
 2. Woodwork, Stained and Varnished: 4 coats.
 - a. First Coat: Old Masters Wiping Stain (Color as directed) Finish
 - b. Second, Third and Fourth Coats: Varnish or Water Based Polyurethane, Semi-gloss. - Old Masters Semi-Gloss Interior Polyurethane.
 3. Gypsum Board: 3 coats.
 - a. First Coat: Drywall sealer - Primer VNSL00 Vinylastic Select Finish.
 - b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50.
 4. Concrete: 3 coats.
 - a. First Coat: Concrete sealer - ESPR00 Eff Stop Primer Finish.

- b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50.
- 5. Concrete Block: 3 coats.
 - a. First Coat: Concrete block filler - ESPR00 Eff Stop Primer Finish.
 - b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50.
- 6. Metals (Ferrous): Shall be cleaned, pre-treated and painted with 3 coats. Items to be painted include, but are not limited to: exposed structural and miscellaneous steel, metal doors and frames, ladders, table and bench legs.
 - a. First Coat: Metal primer – EnduraPrime rust preventative acrylic metal primer.
 - b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50, except metal columns and railings which shall be EnduraCoat Gloss ENCT60.
- 7. Metals (Galvanized): Shall be cleaned, pre-treated and painted with 3 coats. Items to be painted include, but are not limited to: exposed structural and miscellaneous steel, metal doors and frames, ladders, table and bench legs.
 - a. Pretreatment - Etch First – SCME-01 Pretreatment.
 - b. First Coat: ULGM00 Ultrashield Galvanized Metal Primer.
 - c. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50, except metal columns and railings which shall be EnduraCoat Gloss ENCT60.
- B. Exterior:
 - 1. Woodwork, Painted: 3 coats.
 - a. First Coat: Primer - IKPR00 Interkote
 - b. Second and Third Coats: Interior Enamel, Semi-gloss - SWLL 50 Spartawall Semi-Gloss.
 - 2. Exterior Plaster: 3 coats.
 - a. First Coat: ESPR00 Eff Stop Primer Finish.
 - b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50.
 - 4. Concrete: 3 coats.
 - a. First Coat: Concrete sealer - ESPR00 Eff Stop Primer Finish.

- b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50.
- 5. Concrete Block: 3 coats.
 - a. First Coat: Concrete block filler - ESPR00 Eff Stop Primer Finish.
 - b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50.
- 6. Metals (Ferrous): Shall be cleaned, pre-treated and painted with 3 coats. Items to be painted include, but are not limited to: exposed structural and miscellaneous steel, metal doors and frames, ladders, table and bench legs.
 - a. First Coat: Metal primer – EnduraPrime rust preventative acrylic metal primer.
 - b. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50, except metal columns and railings which shall be EnduraCoat Gloss ENCT60.
- 7. Metals (Galvanized): Shall be cleaned, pre-treated and painted with 3 coats. Items to be painted include, but are not limited to: exposed structural and miscellaneous steel, metal doors and frames, ladders, table and bench legs.
 - a. Pretreatment - Etch First – SCME-01 Pretreatment.
 - b. First Coat: ULGM00 Ultrashield Galvanized Metal Primer.
 - c. Second and Third Coats: 100% Acrylic Semi-gloss, Spartashield SSHLL50, except metal columns and railings which shall be EnduraCoat Gloss ENCT60.

C. Mechanical and Electrical Work:

- 1. Except where interior mechanical and electrical Work to be painted is specified to receive another paint finish, Work occurring in finished rooms and spaces shall be cleaned, pre-treated and painted with 3 coats. Items to be painted include, but are not limited to: steel and copper piping, pipes, vents, fittings, ducts, plenums, miscellaneous supports and hangers, electrical conduit, fittings, pull boxes, outlet boxes, unfinished surfaces of plumbing fixtures, miscellaneous metal cabinets, panels, and access doors and panels.
 - a. First Coat: As specified in this section under Metals.
 - b. Second and Third Coats: Interior enamel, semi-gloss.
- 2. Insulation and Taping on Pipes and Ducts: 3 coats.
 - a. Finished Rooms:
 - First Coat: Interior waterborne primer.

- Second and Third Coats: Interior semi-gloss.
- b. Building Exterior:
 - First Coat: Exterior Waterborne primer.
 - Second and Third Coats: Exterior gloss enamel.
- 3. Inside surfaces of ducts, vents, dampers and louvers as far back as visible from room in which they open shall be painted with 2 coats of flat black paint.

3.05 PROTECTION

- A. Protect the Work of this section until Final Completion.

3.06 CLEANUP

- A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION



Technical Bulletin

Revised: 11/18/04

DAP® '1012'® Window Glazing

- For face glazing metal window frames
- Forms an airtight, watertight seal
- Resists sagging and cracking
- Allows for expansion and contraction
- Meets ASTM C 669 specification
- Needs no painting

Company Identification:

Marketed by: CRL

Order Information: 800-421-6144

Also, visit the CRL website at www.crlaurence.com.

Product Description:

DAP® '1012'® Glazing is a professional quality glazing compound that may be used for face glazing interior or exterior aluminum, primed steel, stainless steel and bonderized galvanized steel. It handles and smoothes with a minimum of effort and provides a durable seal that resists weathering, vibration, expansion and contraction. Meets the requirements of ASTM C 669.

Suggested Uses:

Ideal for face glazing metal window frames.

NOTE: Do not use DAP® '1012'® Glazing for windowpanes over 48 inches in any dimension. Do not use DAP® '1012'® Glazing for glazing wood sashes, porcelainized steel insulating panels, insulated glass units with organic seals, composite or composition panels, plastic windowpanes, channel glazing or for stained/leaded glass projects.

Performance Characteristics

Meets ASTM Specification C 669 for glazing compounds for back-bedding and face glazing of metal sashes. (This specification replaces the discontinued TT-G410E and CID AA-373A specifications).

SURFACE PREPARATION & APPLICATION

1. Surface should be clean, dry and free of frost.

2. Sash corners must be sealed. Sash must be adjusted prior to glazing and sufficiently rigid to permit normal operation without excessive bending or flexing. Adjustment of freshly glazed sash will rupture the adhesive bond of the glazing material to the glass and sash.
3. When reglazing, remove all old glazing compound from glass and sash.
4. Mix entire contents of container to ensure uniform consistency. If the compound is too stiff, the addition of a minimum amount of VM and P Naphtha Spirits (not to exceed 1-1/2oz. for each one gallon of compound) will reduce the thickness. Do not add any type of oil or pigment to the compound.
5. Bring compound to room temperature prior to use for best workability.
6. Apply DAP® '1012'® Glazing to metal sash to provide back-bedding for the glass. Use spacer shims at quarter points to maintain 1/8" minimum bedding thickness. There should be no metal to glass contact. If windowpane size is over 24" in horizontal dimension, use setting blocks at quarter points on bottom rail. Press glass firmly into place.
7. For clear glass maintain 1/4" minimum contact area between glass and compound.
8. For heat absorbing glass, 3/8" minimum contact area is required.
9. Apply clips at quarter points of windowpane, spacing them no more than 18" apart. For inside glazed sash, space clips no more than 12" apart.
10. Press glazing onto sash filling height and width of L-shaped recess completely.
11. Smooth glazing to an angle that sheds water and glaze corners to a rounded finish.

Additional Application Guidelines:

- Do not apply DAP® '1012'® Glazing when air or sash temperatures are below 40°F or above 90°F or during damp, rainy weather. When ambient temperature is expected to be higher than 90°F, apply glazing after temperature starts falling.
- Always back-bed with DAP® '1012'® Glazing.
- Remove excess glazing with mineral spirits before it sets. After setting, excess glazing must be cut or scraped away.
- Under most conditions, a firm set will be attained in 7-21 days. The drying time is approximately three weeks, depending on temperature, humidity, air movement, sunlight and fill volume. The compound will not suffer damage from casual fingering at this stage. However, the sash should be operated carefully to avoid possible adhesion loss. Full adhesion will develop within two to four months, depending on the job conditions.
- Does not require painting. If painting is desired, glazing may be painted with oil or latex-based paint after it has skinned over and attained a firm set (7-21 days depending on temperature, humidity and volume of fill). Prime first with oil-based primer if using latex-based paint. When painting is being done, the paint line should overlap onto the glass on the face portion, as well as the bedding area of the sash and glass.

Physical & Chemical Characteristics:

Consistency:	Knife Grade
Vehicle:	Blend of vegetable oils and plasticizer
Volatile:	Mineral Spirits
Filler:	Inorganic Fillers and Color Pigments
Odor:	Mild, pleasant
Weight/Gallon:	17.4 ± .2 pounds/per gallon
Solids:	Over 98% by weight
Shelf Life:	1 Year Minimum
Temperature Service Range:	-20°F to 160°F
Application Temperature Range:	40°F to 90°F
Drying Time:	Two to three weeks depending on temperature and relative humidity

Painting:

Painting is not necessary. However, it may be painted after it has skinned over and attained a firm set. Takes either oil or latex-base paint (primewith oil-based primer before painting with latex paint).

Color	Container
Gray	Qt. Can
Gray	Gal. Can
Gray	3.5 Gal. Can

Clean Up:

Clean tools immediately after use with mineral spirits. Be sure container lid is closed and tightly sealed. Store in a cool, dry place.

Safety:

See product label and Material Safety Data Sheet for safety information. You can request an MSDS sheet by visiting our website at www.crlaurence.com.



THE #1 CHOICE OF
PAINTING PROFESSIONALS®

ENDURAPRIME™

Interior / Exterior
Acrylic Rust Preventative Metal Primer
ENPR00



DESCRIPTION

ENDURAPRIME™ Rust Preventative Acrylic Metal Primer is a high performance, interior/exterior, ultra-low VOC, single component, water-based acrylic primer. It offers excellent corrosion resistance and adhesion on ferrous metals. It is formulated to provide excellent early flash rust resistance for quicker return to service times.

PRODUCT DATA

SOLVENT TYPE: Waterborne

RESIN TYPE: Acrylic

COLORS: Gray

VISCOSITY@77°F/25°C (ASTM D 562): 100–110 KU

MAXIMUM VOC CONTENT: 50 g/L

MAXIMUM RAVOC (Reactivity-Adjusted VOC): 30 g/L

SOLIDS BY VOLUME (ASTM D 2697): 40.0% ± 2%

SOLIDS BY WEIGHT: 53.0% ± 2%

WEIGHT PER GALLON (ASTM D 1475): 10.68 lbs.

COMPOSITION BY WEIGHT

Pigment–29.6%

Vehicle–70.4%

*Prime pigments 14.1 Resins 18.9
Reinforcing pigments 15.5 Water & additives 51.5

**Prime pigments include titanium dioxide (TiO₂), plus all other pigments directly adding to the hiding power of this paint.*

RECOMMENDED FILM THICKNESS PER COAT

Wet: 5 mils

Dry: 2 mils

PRACTICAL COVERAGE PER COAT AT RECOMMENDED DRY FILM THICKNESS

Approximately 250–300 sq. ft. per gallon, depending on surface conditions and application techniques.

THINNING RECOMMENDATION: This coating is intended to be applied without thinning or diluting under normal application conditions. If necessary to maintain good workability, add up to 1/8 pint (2 fl. oz.) of clean water per gallon of coating.

AVERAGE DRY TIME@77°F/25°C (ASTM D 1640)

To touch: 30–60 minutes

Recoat: 1–2 hours

Dry times and recoat times are temperature, humidity and film thickness dependent.

PACKAGING: One-gallon

STORAGE: Store in a dry area. Protect from freezing. Protect from temperatures above 110°F for extended periods of time. Extreme temperatures may cause paint to become unusable. See *Paint Storage Best Practices* Technical Bulletin at dunnedwards.com for more information.

CLEANUP: Warm, soapy water

DISPOSAL: For information on local options to dispose of unwanted leftover paint, call Dunn-Edwards Customer Service at 1-888-DEPAINT or visit www.dunnedwards.com. **Do not mix with other products.**

SAFETY DATA SHEET: Available at dunnedwards.com

APPLICATION

TEMPERATURE: 50°F minimum, 90°F maximum (air, surface and material). Surface temperature must be at least 5°F above dew point.

RELATIVE HUMIDITY: 90% maximum

AIRLESS SPRAY	BRUSH	ROLLER
PRESSURE: 2000–2500 psi	Polyester/Nylon	3/8" nap
TIP: 0.13–0.15		

CONFORMS TO

ARB 2007 SCM & CALGreen 2016; LEED 2009 IEQ Credit 4.2; Submitted for MPI Category #107

ASTM TEST METHODS

ADHESION (Aluminum & CRS)

METHOD: ASTM-D3359

RESULT: Excellent (5B)

CORROSION (504 hours)

METHOD: ASTM-G-85 annex 5

RESULT: Pass (7)

PENDULUM HARDNESS

METHOD: ASTM-4366

RESULT: >20 counts

IMPACT RESISTANCE (Direct)

METHOD: ASTM-D2794

RESULT: 80in-#

SURFACE PREPARATION

All surfaces must be cured, clean, dry, and free from dirt, dust, rust, stains, grease, oil, mildew, wax, efflorescence, bond-breakers, and other contaminants. Remove all loose, peeling, or chalky paint by sanding, scraping, or other appropriate methods. Repair all cracks, holes, and other surface imperfections with a suitable patching material. Repaired surfaces should then be sanded smooth and dusted clean. Glossy surfaces should be dulled to provide a roughened surface for good adhesion.

FERROUS METALS (Iron & Steel)

Remove all oil and grease from surfaces per SSPC-SP1. Minimum surface preparation is Hand Tool Clean per SSPC-SP2. For better performance, use Commercial Blast Cleaning per SSPC-SP6. Primers are recommended for maximum performance.

PREVIOUSLY PAINTED SURFACES

If substrates are in sound condition, clean the surface of all contaminants. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test area, allowing paint to dry one week before testing adhesion. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Retest surface for adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

SPECIAL INSTRUCTIONS

- **CAUTION:** Scraping or sanding surfaces of older buildings (especially pre-1978) may release dust containing lead or asbestos. EXPOSURE TO LEAD OR ASBESTOS CAN BE VERY HAZARDOUS TO YOUR HEALTH. Always wear appropriate personal protective equipment during surface preparation, and finish cleanup of any residues by water-washing all surfaces. For more information, see Dunn-Edwards brochure on "Surface Preparation Safety" or call EPA's National Lead Information Hotline at 1-800-424-LEAD, or visit www.epa.gov/lead or [/asbestos](http://www.epa.gov/asbestos), or contact your state or local Health Department.
- This product can neither cause nor prevent or cure the growth of mold, mildew, or other forms of fungus. Excessive moisture and inadequate ventilation are the main conditions that promote their growth. Correct any such conditions before painting.
- Do not apply at air or surface temperatures below 50°F.

PRIMERS

METAL

Ferrous:

**BLOC-RUST® Premium (BRPR00), or
ENDURAPRIME™ Metal Primer (ENPR00)**



THE #1 CHOICE OF
PAINTING PROFESSIONALS®

ENDURA-COAT®

Interior/Exterior Semi-Gloss
Industrial Maintenance Coating
ENCT50



DESCRIPTION

ENDURA-COAT® is a high performance, interior/exterior, low VOC, direct to metal, water-based acrylic Industrial Maintenance Coating with excellent adhesion and corrosion resistance. It can be used on properly prepared primed wood, masonry, plaster or drywall. ENDURA-COAT can be used as a direct-to-metal coating on properly cleaned and prepared metal substrates. For maximum protection, use of a substrate specific primer is always recommended.

For Professional Use Only. Not for residential use.
(See **SPECIAL INSTRUCTIONS** re: Within SCAQMD.)

PRODUCT DATA

SOLVENT TYPE: Waterborne

FINISH: Semi-Gloss: 40-50% on a 60° meter

RESIN TYPE: Acrylic

COLORS: Stock Colors: Black, Safety Red, Safety Yellow. Other colors can be special ordered or store mixed.

TINT BASES: L Tintable White, M Medium, U Ultra Deep

VISCOSITY@77°F/25°C (ASTM D 562): 94-100 KU

MAXIMUM VOC CONTENT: 100 g/L

MAXIMUM RAVOC (Reactivity-Adjusted VOC): 55 g/L

SOLIDS BY VOLUME (ASTM D 2697): 40.5% ± 2%

SOLIDS BY WEIGHT: 53.6% ± 2%

WEIGHT PER GALLON (ASTM D 1475): 10.62 lbs.

COMPOSITION BY WEIGHT

Pigment-25.9%	Vehicle-74.1%
*Prime pigments 25.0	Resins 24.1
Reinforcing pigments 0.9	Water & additives 50.0

*Prime pigments include titanium dioxide (TiO₂), plus all other pigments directly adding to the hiding power of this paint.

RECOMMENDED FILM THICKNESS PER COAT

Wet: 3.7 mils Dry: 1.5 mils

PRACTICAL COVERAGE PER COAT AT RECOMMENDED DRY FILM THICKNESS

Approximately 375-425 sq. ft. per gallon, depending on surface conditions and application techniques.

THINNING RECOMMENDATION: This coating is intended to be applied without thinning or diluting under normal environmental and application conditions. If necessary to maintain good workability, add up to 1/4 pint (4 fl. oz.) of clean water per gallon of coating.

AVERAGE DRY TIME@77°F/25°C (ASTM D 1640)

To touch: 1-2 hours

Recoat: 2-4 hours

Dry times and recoat times are temperature, humidity and film thickness dependent.

PACKAGING: One gallon containers

STORAGE: Store in a dry area. Protect from freezing. Protect from temperatures above 110°F for extended periods of time. Extreme temperatures may cause paint to become unusable. See *Paint Storage Best Practices* Technical Bulletin at dunnedwards.com for more information.

CLEANUP: Warm, soapy water

DISPOSAL: For information on local options to dispose of unwanted leftover paint, call Dunn-Edwards Customer Service at 1-888-DEPAINT or visit www.dunnedwards.com. **Do not mix with other products.**

SAFETY DATA SHEET: Available at dunnedwards.com

APPLICATION

TEMPERATURE: 50°F minimum, 90°F maximum (air, surface and material). Surface temperature must be at least 5°F above dew point.

RELATIVE HUMIDITY: 85% maximum

AIRLESS SPRAY	BRUSH	ROLLER
PRESSURE: 1800-2500psi	Polyester/Nylon	1/4" - 3/8" nap
TIP: .013"-.017"		

CONFORMS TO

ARB 2007 SCM & CALGreen 2016; LEED 2009 IEQ Credit 4.2; MPI Approved Product #153,163

ASTM TEST METHODS

ADHESION (to properly primed surfaces)

METHOD: ASTM-D3359

RESULT: Excellent (4B)

ACCELERATED WEATHERING

METHOD: ASTM-D4587, 2000 hours

RESULT: Gloss Retention: Excellent (100%)

Color Retention: $\Delta E < 0.88$

CORROSION RESISTANCE (1 prime coat + 1 topcoat)

METHOD: ASTM-G- 85. A5, 504 Hours

RESULT: Pass

PENDULUM HARDNESS

METHOD: ASTM-D4366, 7 days cure, >25 counts

RESULT: Excellent

ASTM TEST METHODS (cont)

FLEXIBILITY

METHOD: ASTM-D522, 180° bend, 1/8" mandrel

RESULT: Pass

PENCIL HARDNESS

METHOD: ASTM-D3363

RESULT: Excellent (4H)

CHEMICAL RESISTANCE

METHOD: ASTM-D1308

RESULTS: WD-40 = Pass
Windex = Pass
409 = Pass
Fantastik = Pass
Chlorox Bleach = Pass
IPA (99%) = Pass
Sulfuric Acid (50%) = Pass
Motor Oil = Pass

SURFACE PREPARATION

All surfaces must be cured, clean, dry, and free from dirt, dust, rust, stains, grease, oil, mildew, wax, efflorescence, bond-breakers, and other contaminants. Remove all loose, peeling, or chalky paint by sanding, scraping, or other appropriate methods. Repair all cracks, holes, and other surface imperfections with a suitable patching material. Repaired surfaces should then be sanded smooth and dusted clean. Glossy surfaces should be dulled to provide a roughened surface for good adhesion.

FERROUS METALS

Remove all oil and grease from surfaces per SSPC-SP1. Minimum surface preparation is Hand Tool Clean per SSPC-SP2. For better performance, use Commercial Blast Cleaning per SSPC-SP6. Primers are recommended for maximum performance.

ALUMINUM

Remove all oil, grease, dirt, oxide and other foreign material per SSPC-SP1. Apply appropriate bonding primer for maximum performance.

GALVANIZED METAL

Allow to weather a minimum of six months prior to coating. Solvent Clean per SSPC-SP1. When weathering is not possible, or the surface has been treated with chromates or silicates, first clean per SSPC-SP1 and apply a test patch of the appropriate galvanized metal primer. Allow patch to dry at least one week before testing adhesion. If adhesion is poor, further cleaning or brush blasting per SSPC-SP7 may be necessary to remove these treatments. Rusty galvanizing requires a minimum of Hand Tool Cleaning per SSPC-SP2, prime the area the same day as cleaned.

CONCRETE & MASONRY

For surface preparation, refer to SSPC-SP13/NACE 6. Surfaces should be thoroughly cleaned and dry. Surface temperature must be at least 55°F before filling. If required for a smoother finish, use the recommended filler/surfacer. The filler/surfacer must be thoroughly dry before topcoating per manufacturer's recommendations. Weathered masonry and soft or porous

cement board must be brush blasted or power tool cleaned to remove loosely adhering contamination and to get to a hard, firm surface. Apply appropriate primer/sealer to promote adhesion.

DRYWALL

Fill cracks and holes with patching paste/spackle and sand smooth. Joint compounds must be cured and sanded smooth. Remove all sanding dust. Apply appropriate primer/sealer.

WOOD

Sand any exposed wood to a fresh surface. Patch all holes and imperfections with a wood filler or putty and sand smooth. Apply appropriate primer/sealer.

PREVIOUSLY PAINTED SURFACES

If substrates are in sound condition, clean the surface of all contaminants per SSPC-SP1. Smooth, hard or glossy coatings and surfaces should be dulled by abrading the surface. Apply a test patch, allowing paint to dry one week before testing adhesion. If adhesion is poor, additional abrasion of the surface and/or removal of the previous coating may be necessary. Apply appropriate primer/sealer to promote adhesion. If paint is peeling or badly weathered, clean surface to sound substrate and treat as a new surface as above.

SPECIAL INSTRUCTIONS

- **CAUTION:** Scraping or sanding surfaces of older buildings (especially pre-1978) may release dust containing lead or asbestos. **EXPOSURE TO LEAD OR ASBESTOS CAN BE VERY HAZARDOUS TO YOUR HEALTH.** Always wear appropriate personal protective equipment during surface preparation, and finish cleanup of any residues by water-washing all surfaces. For more information, see Dunn-Edwards brochure on "Surface Preparation Safety" or call EPA's National Lead Information Hotline at 1-800-424-LEAD, or visit www.epa.gov/lead or /asbestos, or contact your state or local Health Department.
- This product can neither cause nor prevent or cure the growth of mold, mildew, or other forms of fungus. Excessive moisture and inadequate ventilation are the main conditions that promote their growth. Correct any such conditions before painting.
- Do not apply at air or surface temperatures below 50°F.
- Within SCAQMD: No person shall apply or solicit the application within the District of any industrial maintenance coatings, for residential use or for use in areas such as office space and meeting rooms of industrial, commercial or institutional facilities not exposed to such extreme environmental conditions described in the definition of industrial maintenance coatings.

PRIMERS

DRYWALL

Textured: **VINYLASTIC® Premium (VNPR00)**
Untextured: **VINYLASTIC® Premium (VNPR00)**
Skim-coated: **VINYLASTIC® Plus (VNPL00)**

MASONRY

Plaster: } **SUPER-LOC® Premium (SLPR00),**
Stucco: } **EFF-STOP® Premium (ESPR00),**
Tilt-up concrete: } **EFF-STOP® Select (ESSL00) or**
Poured-in-place: } **FLEX-PRIME® Select (FPSL00)**
Brick:
Concrete block: **Smooth BLOCFIL Premium (SBPR00) or**
Smooth BLOCFIL Select (SBSL00)

Smooth trowel: **SUPER-LOC® Premium (SLPR00)**

WOOD

Trim, sash: **SUPER-LOC® Premium (SLPR00) or**
ULTRA-GRIP® Premium (UGPR00)

SYNTHETIC WOOD

Masonite: } **SUPER-LOC® Premium (SLPR00) or**
Hardboard: } **ULTRA-GRIP® Premium (UGPR00)**
MDO siding:

METAL

Ferrous: } **BLOC-RUST® Premium (BRPR00),**
} **ENDURAPRIME™ Metal Primer (ENPR00)**

Non-Ferrous: } **ULTRASHIELD® Galvanized Metal Primer**
} **(ULGM00) or**
} **SUPER-LOC® Premium (SLPR00)**

**HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS
Rio San Gabriel Elementary School
Buildings A, B1-B2, C1-C2, D1-D2, E
Window Replacement Project
9338 Gotham Street, Downey, California 90241**

Prepared for:

Downey Unified School District
11627 Brookshire Avenue
Downey, California 90241

Prepared By:



B2 ENVIRONMENTAL

B2 Environmental
1773 W. San Bernardino Road, Suite B28
West Covina, CA 91790

January 2022
Project No. 40193.0001

**ASBESTOS ABATEMENT SPECIFICATION
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ATTACHMENT 1

SCOPE OF WORK - ASBESTOS AND LEAD-BASED/ LEAD CONTAINING MATERIALS

SECTION 13280 - ASBESTOS ABATEMENT

PART 1 GENERAL

- 1.1 DESCRIPTION OF WORK:** The Contractor shall furnish all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements, waste transport and disposal necessary to perform the work required for removal of asbestos-containing materials (ACM) for the Rio San Gabriel Elementary School Window Replacement Project located at 9338 Gotham Street, Downey, California. Asbestos removal shall be conducted in accordance with the South Coast Air Quality Management District (SCAQMD), California Occupational Safety and Health Administration (Cal/OSHA), and any other applicable federal, state and local government regulations. Whenever there is a conflict or overlap of the above references, the most stringent provisions are applicable.
- 1.2 RELATED WORK:** This technical specification is to be utilized in conjunction with all federal, state and local regulations as stated above. This specification is to be utilized in conjunction with the formal architectural drawings entitled as issued by the Owner, when available. The Contractor shall perform the work and provide the services listed below:
- A. Asbestos removal work shall be performed using a full and/or modified containment, or within a non-containment regulated area, with HEPA-filtered exhaust ventilation and decontamination facilities as described in Section 3. At least one (1) airless sprayer, for each containment or regulated work area, shall be present and in good operating condition to conduct wet removal and misting of the air. Hudson sprayers may be utilized with some containment areas with the approval of the Consultant/Resident Hygienist.
 - B. Perform all necessary pre-cleaning of building areas prior to prep work and subsequent removal. Perform wet removal and HEPA-vacuuming of all visible debris and dust in affected areas prior to, during and after performing removal work.
 - C. Properly remove, package, label (as contaminated waste), and store all asbestos-containing materials (ACM) including all polyethylene sheeting, rags, filters, etc. used in the asbestos abatement process. Provide proper waste bins/dumpsters for the hazardous and/or non-hazardous asbestos-containing materials removed from the project site.
 - D. Properly remove, package, store, transport and dispose of all asbestos-containing construction materials (ACCM) including all polyethylene sheeting, rags, filters, etc. used in the asbestos abatement process and as directed by the Consultant/Resident Hygienist. Provide proper waste bins/dumpsters for the non-hazardous asbestos-containing construction materials removed from the project site.
 - E. Thoroughly clean the work area(s) and obtain receipt of final approval from the Consultant/Resident Hygienist (including "clean air" tests by Phase Contrast Microscopy (PCM), or Transmission Electron Microscopy (TEM), if applicable. TEM air clearance samples shall be analyzed on a 24-hour turnaround. Costs for turnaround times less than 24 hours shall be borne by the Contractor.
 - F. Normal working hours will be at least eight (8) hours a day and no more than 40 hours a week. The Owner's representative will establish actual shift hours. Work shall be completed within the hours and time line established by the Owner's representative. Consultant/Resident Hygienist's fees for overtime hours (over 8 hours per shift or 40 hours per week) will be borne by the Contractor unless agreed upon by the Owner's representative.
 - G. The Contractor is responsible for verifying all locations, conditions and quantities of ACM, ACCM, and lead-based paint/lead components. Listed quantities are for budgetary information and are not to be used for bidding purposes. The abatement contractor has the sole responsibility for confirming the location, quantity, and degree of difficulty in removing the identified materials.

- H. The Contractor shall conduct abatement activities in no more than two (2) areas at one time unless otherwise permitted by the Consultant/Resident Hygienist.
- I. The Contractor is responsible for providing rigid barriers to protect adjacent building areas from damage during abatement, demolition/renovation activities.
- J. The Contractor shall provide all scaffolding, rigging, and hoisting necessary for the completion of work.
- K. The Contractor is responsible for performing abatement work in the Phases established by the Owner's representative.
- L. The Contractor shall coordinate all power and water supply requirements with the Owner's representative.
- M. The Contractor shall coordinate the on-site storage and location of waste storage bins at the project site with the Owner's representative.
- N. The Owner's representative(s) may make existing toilet facilities available to the Contractor where possible. Where not possible, the Contractor shall provide and properly maintain portable services.
- O. This Asbestos specification is general in scope to cover conditions that most often occur. However, the Contractor is bound only by the applicable portions of the specification. Additional or specific instructions to the Contractor may be added as part of the Scope of Work of a contract. In such cases, the Contractor is bound by those special provisions or requirements.
- P. Lead-based and lead paint/component abatement/removal in accordance with "INORGANIC LEAD ABATEMENT GUIDE SPECIFICATION" section of this specification.

1.3 **SCOPE OF WORK - Asbestos (See Attachments)**

Any material not addressed within the Scope of Work for a particular project which is encountered during the removal activities and for which there is a question regarding its asbestos content, can be removed by the Contractor as asbestos-containing material or can be tested in order to determine its asbestos content. All bulk sample analysis shall be performed by a laboratory recognized by the National Voluntary Laboratory Accreditation Program (NVLAP) for satisfactory compliance with criteria for asbestos bulk sample analysis. No additional removal work for which the Contractor expects additional compensation shall be performed without a written Contract Modification (change order) authorized by the Owner's representative.

1.4 **AUTHORITY TO STOP WORK:** The Consultant/Resident Hygienist, acting as agent for the Owner, has the authority to stop the abatement work any time he/she determines that conditions are not within applicable regulations. The stoppage of work shall continue until conditions have been corrected and corrective steps have been taken to the satisfaction of the Consultant/Resident Hygienist. Standby time required to resolve violations shall be at the Contractor's expense.

1.4.1 Stop Work Orders may be issued for, but shall not be limited to the following:

- A. Excessive airborne fibers inside and/or outside work area(s).
- B. Breaks in critical barriers.
- C. Loss of negative air pressure.
- D. Any other situation where the Consultant/Resident Hygienist establishes that the following limits have been exceeded:

Work Area Limits: 0.10 f/cc ("Permissible Exposure Level")

Non-Work Area Limits: 0.05 f/cc

(If "PEL" is reached, stop work and cleanup procedures shall be initiated to reduce asbestos levels to below 0.05 f/cc in non-work areas. This action would happen in the event of contamination from work area.)

- E. Consultant/Resident Hygienist, on behalf of the Owner, has the authority to remove an employee from the job for probable cause.
- F. For exterior abatement activities if winds exceed 20 mph and/or the Consultant deems the high winds, or other inclement weather to be unfavorable, unsafe working conditions.
- G. Lack of appropriate equipment or equipment failure.
- H. Lack of proper execution of the work plan. Lack of adherence to safe work practices.

1.5 JOB SUPERVISION / TRAINING: For the purposes of this section the term "Contractor" shall be divided into "General Contractor" and "Abatement Contractor".

- A. Pursuant to CCR Title 8 1529 Subchapter 4 Article 4 (d) Multi-employer worksites (5) All General Contractors on a construction project which includes work covered by the Cal-OSHA standard shall be deemed to exercise general supervisory authority over the work covered by the standard, even though the general contractor is not qualified to serve as the "asbestos competent person" as defined by CCR Title 8 1529 paragraph (b). As supervisor of the entire project, the general contractor shall ascertain whether the asbestos contractor is in compliance with the Cal-OSHA standard and shall require such contractor to come into compliance with the standard when necessary. The General Contractor / Abatement Contractor in accordance with CAL-OSHA CCR Title 8 1529, 1532.1 and 5194 shall notify employees and subcontractors that asbestos-containing materials (ACM), lead-based paint (LBP) and/or lead containing paint (LCP) and/or other site-specific hazardous materials exist in the buildings and specifically the areas scheduled for renovation or demolition.
- B. The General Contractor is required to have on site a "Competent Person" as defined in CCR Title 8 1504. The General Contractor shall be responsible for developing and implementing a viable site specific plan for the notification, communication, training, and reporting of known and/or newly discovered hazardous conditions to their employees and/or subcontractors and the Owners representative(s). The General Contractor shall instruct and train employees in accordance with applicable State and Federal regulations who are required to work with hazardous materials.
- C. In the event suspect hazardous asbestos, lead materials or other suspect hazardous materials or conditions are encountered the General Contractor / Abatement Contractor shall immediately stop work and is responsible for contacting the Owner's representative and Consultant/Resident Hygienist for verification and/or testing prior to proceeding with any work that may disturb the suspect hazardous materials.
- D. The General and Abatement Contractor shall provide on-site an English-speaking Supervisor and at least one Foreman for each work area at all times while work is in progress. The Abatement Contractor Supervisor and Foreman shall be a "Competent Person" as defined by CCR Title 8 1529 and must be experienced in asbestos removal work, knowledgeable of all EPA, OSHA, and local regulations, and capable of skillfully executing all work promptly, efficiently and in compliance with all requirements of this Specification.
- E. Before work begins and continuously during the job, a competent person who is capable of identifying asbestos and all other hazards in the workplace and selecting the appropriate control strategy for such hazards, and who has the authority to take prompt corrective measures to eliminate such hazards, shall always be on site and shall conduct inspections of the worksite.
- F. Proof of qualifications and asbestos removal job references will be required, upon request, for both the Abatement Contractor Supervisor and Foreman.

- G. The Owner's representative or Consultant/Resident Hygienist reserves the right to have any supervisory personnel removed if they do not demonstrate the requisite experience or skills to safely direct the work, and adequately protect their own employees, including other personnel occupying the building.
- H. The Abatement Contractor shall instruct, train, and provide required protective devices, all workers of other trades who must enter any work area before it is certified clean. The instruction shall include, at a minimum, proper use and fitting of respiratory protective devices and protective clothing, entry and exit procedures for all work areas, hazards of asbestos and/or lead exposure, work procedures, and other safety requirements contained in the Specification. Proof of such instructions for all Subcontractor workers, and workers of other trades employed by the Abatement Contractor, shall be supplied prior to being allowed into the work area(s).

1.5.1 TRAINING:

The Contractor shall ensure that all employees who are required to work with hazardous materials are properly trained in accordance with applicable federal, state and local regulations. All employees working with or around asbestos-containing materials (ACM), asbestos-containing construction materials (ACCM), lead-containing paint/materials (LCP) and/or other hazards shall be trained in accordance with Cal/OSHA and SCAQMD at a minimum as follows:

1. Workers performing Cal/OSHA asbestos Class I and II abatement work shall be required to have training as required by CCR Title 8 1529 and SCAQMD Rule 1403. Employees performing asbestos Class III work shall be required to have a minimum of 16-hours training as required by CCR Title 8 1529. Supervisors shall have a minimum of 40 hour training as required by CCR Title 8 1529 and SCAQMD Rule 1403.
2. Employees performing lead-related construction work, at a minimum, shall be required to have lead training in accordance with CCR Title 8 1532.1. See Lead Specification.
3. Employees performing mold related renovation, removal, an/or construction work shall be required to be trained in regards to the hazards of microbial exposure in accordance with CAL OSHA's Hazard Communication Standard.
4. Employees performing renovation, removal, and/or construction work that may impact or disturb other hazardous materials such as, but not limited to, polychlorinated biphenyls, elemental mercury, radioactive materials shall be required to be trained in regards to the hazards of each substance and related exposure in accordance with CAL/OSHA's Hazard Communication Standard and for radioactive materials the Nuclear Regulatory Commission (NRC) and the California Department of Public Health under the Radiologic Health Branch.

1.5.2 AVAILABILITY OF TRAINED PERSONNEL: An OSHA "Competent Person" shall be on-site from start to completion of the project. There shall be a sufficient number of trained and qualified workers, foremen and superintendents to accomplish the work within the required schedule. It is imperative that a sufficient number of trained personnel be engaged throughout the abatement process. No untrained nor fully qualified and pre-approved person shall be employed to speed up completion of the abatement work. All training shall be in accordance with CCR Title 8 1529.

1.6 NOTIFICATIONS, INSURANCE, PERMITS, WARNING SIGNS, LABELS, AND POSTERS:

- A. The Contractor shall provide the required written pre-notifications to CAL OSHA, EPA/SCAQMD, and any other regional, state, and local authority having jurisdiction on the project. Copies of the required permits must be delivered to the Consultant before any work begins.
- B. Erect Cal/OSHA-specified warning signs around the regulated areas and at every point of potential entry from the outside including the entrance to the Decontamination Facility's Clean Room.
- C. The Contractor shall also provide Cal/OSHA, EPA/SCAQMD and DOT-required labels for all plastic bags and drums utilized to transport contaminated material from the project site to the

disposal landfill.

- D. Provide any other signs, labels, warnings, and posted instructions that are necessary to protect, inform, and warn workers and visitors of the hazard from asbestos exposure.

1.6.1 INSURANCE REQUIREMENTS

- A. **Contractor and all subcontractors shall maintain, at a minimum, workers compensation insurance at the statutory limits required. This shall, at a minimum, include the limits necessary to maintain their DOSH Asbestos Certification in good standing.**
- B. **Contractor shall maintain general liability insurance with a minimum rating of A RATING, with a limit of \$2 million per occurrence and \$1 million aggregate coverage.**
- C. **Contractor shall maintain pollution and environmental liability insurance with the same limits and rating requirements as the general liability insurance requirements in Item 1.6.1B, above.**
- D. **Contractor and all subcontractors shall maintain, at a minimum, auto insurance with a minimum rating of A RATING, and a limit of \$2 million per occurrence and \$2 million aggregate coverage**

1.6.2 BONDING REQUIREMENTS

- . **Please refer to Downey Unified School District's General Conditions and Requirements from Purchasing.**

1.7 PROTECTION OF PERSONS AND PROPERTY

GENERAL SAFETY REQUIREMENTS

- A. The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with his Work. The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to (1) all employees on the Work Site and other persons who may be affected thereby, (2) all the Work and all materials and equipment to be incorporated therein, and (3) other property at the Work Site and adjacent thereto. The Contractor shall give all notices and comply with all applicable laws, ordinances, rules, regulations and orders of any public authority bearing on the safety of persons and property and their protection from damage, injury or loss. The Contractor shall promptly remedy all damage or loss to any property caused in whole or in part by the Contractor, any Subcontractor, any Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable, except damage or loss attributable to the acts or omissions of the Owner or Consultant, or any directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The Contractor shall be responsible for the protection of any finished work from damage or defacement by his operation.
- B. Life Safety Systems: The Contractor shall assess and control the real or potential impact of his actions upon the Owner's life safety systems (e.g., smoke detectors, sprinkler systems, etc.). Coordination must be established prior to any action on the part of the Contractor and is subject to modification by the Owner at any time based on the Owner's assessment of risks to the function of the life safety systems associated with the Contractor's actions.

- 1.7.1** The Contractor shall establish an effective safety program in accordance with the requirements set forth in OSHA 29 CFR Part 1926 - Safety and Health Regulations for Construction; Subparts A through Z and Cal-OSHA CCR Title 8 Construction Safety Orders 1500-1938 (as applicable).

- 1.7.2** A "Pre-construction Safety Conference" shall be held prior to commencing work at the convenience of the Owner's representative. The purpose of this meeting will be to discuss and evaluate the Contractor's proposed safety program.

1.8 ELECTRICAL: Safety Requirements

- A. Extension cords shall be the 3-wire type, shall be protected from damage, and shall not be fastened with staples, hung from nails, or suspended from wires. Splices shall have soldered wire connections with insulation equal to the cable. Worn or frayed cords shall not be used. GFI cords are required.
- B. Safe lighting equipment shall be provided with a preference for floodlights rather than indiscriminate use of unprotected lamps strung on temporary wiring. Exposed bulbs shall be guarded to prevent accidental contact.
- C. Receptacles for attachment plugs shall be approved, concealed contact type. Where different voltages, frequencies, or types of current are supplies, receptacles shall be of such design that attachment plugs are not interchangeable.
- D. The Contractor shall coordinate all power requirements including Ground Fault interrupted (GFI) panel design and extension cord requirements, with the Owner's representative.

1.9 SITE SECURITY

- A. Requirements: Proper security for the abatement project site(s) shall be the responsibility of the Contractor and is to be coordinated with the Owner's representative. Proper security includes, but is not limited to, installation of lockable chain linked fencing and / or other secured barriers to ensure work areas are not accessible to unauthorized persons.

1.10 SCAFFOLDING, RIGGING AND HOISTING

- A. Unless otherwise specified, the Work shall include providing all scaffolding, rigging, hoisting, and services necessary for accomplishing the removal and reinstallation work specified herein. The Contractor shall remove all equipment from the premises when no longer required.

1.11 EMERGENCY PRECAUTIONS

- A. The Contractor shall establish emergency and fire exits from the work areas for the workers and building occupants. All emergency exits which must pass through a regulated work area shall be equipped with two (2) full sets of protective clothing and PAPR respirators continuously charged, at all times.
- B. Contractor shall notify only the Owner's representative(s) and parties that are required by law to be notified. The Owner's representative and Consultant shall determine if any agencies other than those required by law shall be notified.
- C. The Contractor shall be prepared to administer appropriate first aid to injured personnel at the site after decontamination. Seriously injured personnel shall be treated immediately in the work area or evacuated without performing decontamination. When an injury occurs, the Contractor shall stop work and implement fiber reduction techniques (e.g., water spraying) until the injured person has been removed from the work area.
- D. Before the Contractor starts actual removal of asbestos materials, he shall notify the Owner's representative(s) as to the danger of entering the work area(s), and they shall also be invited to attend an informal training program to be conducted by the Contractor to provide information regarding abatement activities.
- E. Permits. The Contractor shall obtain any permit(s) necessary from the applicable department(s) of the municipality, including, but not limited to, the Local Fire Department. The permit shall be

obtained prior to storage or installation of Contractor's materials on the Owner's property.

- F. Smoke Alarms. Smoke detection systems consisting of above-ceiling smoke detectors wired to a central junction panel may be found in the work area(s). The systems will remain in operation throughout the removal project. The Contractor shall seal the system as follows:

1. Notify the Building Security Department at least 24 hours in advance on contact with any component of the system.
2. Once the detectors are exposed by removal of the suspended ceiling, wipe each detector with damp cloth and seal watertight in plastic sheet or bag.
3. Seal the junction panel watertight in plastic sheeting.
4. Contractor shall not utilize the system's wiring for support of equipment such as lights, and shall decontaminate all system components as specified.

G. Fire Protection

1. Adequate temporary fire protection shall be provided. Ample multi-purpose dry chemical portable fire extinguishers, having an extinguishing rating of at least 4A: 60BC, shall be distributed throughout the premises. Pressurized water extinguisher of 2-1/2 gallon capacity shall supplement the multi-purpose dry chemical extinguisher where welding and cutting operations are conducted. Small rubber-lined hose, with adjustable shut-off nozzles, shall be available as soon as hydrants or standpipes are ready and shall be connected to outlets in areas where construction is in progress. Fire fighting equipment shall be conspicuously located and readily accessible at all times, and be maintained in operating condition.
2. The Contractor shall be responsible for training his workers in the safe and proper use of portable fire extinguishers. A fire-fighting program is to be followed throughout all phases of construction and demolition work involved.
3. Inform all personnel as the location and use of telephones. Post the emergency phone number of the local fire department near all telephones.
4. Access for the fire department shall be provided and shall be maintained readily accessible at all times.

H. Fire Prevention

1. Flammable and Combustible Liquids

- a. Only approved containers and portable tanks shall be used for storage and handling of flammable or combustible liquids. All containers and tanks shall be Underwriter's Laboratories Listed; Safety cans shall be equipped with flame arresters.
- b. Flammable and combustible liquids shall be kept in closed containers when not actually in use.
- c. No more than one day's working supply shall be allowed inside the building at one time. Flammable or combustible liquids shall be stored in approved flammable liquids storage cabinet with no more than 60 gallons of such liquid stored in any one cabinet. No more than three storage cabinets are to be located in a single storage area.
- d. Conspicuous and legible signs prohibiting smoking or use of open flames shall be posted in areas where the liquids are being dispensed, used, or stored.

2. Hazardous Operations

- a. Hazardous operations shall not be performed until the necessary special fire protection (e.g., proper grounding, portable fire extinguisher, small hose and proper confined space equipment and personnel) is in service and in place.
 - b. Cutting and welding operations shall conform to the requirements of the local fire prevention code. A permit system shall be used for cutting and welding operations on the job site under the supervision of a person having a Certificate of Competency issued by the Fire Department. A permit shall not be issued until (1) it has been determined cutting and welding can be safely conducted at the desired location, (2) combustibles have been moved away or safely covered, and (3) a fire watchman with extinguisher is posted for the duration of the work, and for 30 minutes thereafter, to see that sparks or drops of hot metal do not start fires. Additional fire watchmen shall be provided during welding or cutting operations where sparks or molten metal may drop several floors. Monitoring of the air shall be conducted prior to the start of any spark producing devices being used to verify that there are no explosive gases present.
3. Housekeeping
- a. Combustible waste material and rubbish shall not be stored or allowed to accumulate within the building or in the immediate vicinity and shall be removed from the premises as rapidly as practical, i.e., at least once a day and more frequently if conditions indicate the need.
 - b. Materials subjected to spontaneous ignition such as oily waste and paint rags shall be placed in approved self-closing waste containers after use and disposed each day.
 - c. Combustible materials shall be kept at a minimum by implementing a carefully scheduled plan for delivery of such material.
 - d. If crating and packing materials holding supplies and equipment are combustible, the equipment shall be un-crated and unpacked as soon as possible after arrival at the site. Combustible packing and crating shall be safely disposed.
4. Tarpaulins
- a. Only tarpaulins and materials with fire retardant characteristics as permitted by the local fire department shall be used.

1.12 RESPIRATORY PROTECTION SYSTEMS:

- A. The Contractor shall provide all workers, foremen, superintendents, authorized visitors, and inspectors personally-issued and marked respiratory protective equipment approved by NIOSH and OSHA. When respirators with disposable filters are employed, the Contractor shall provide sufficient filters for replacement after each exit from work areas as necessary to the worker or authorized visitor.
- B. During work area preparation, but prior to actual removal of ACM, half-mask air purifying respirators may be used. At a minimum, the Contractor must provide half-mask air purifying respirators for all removal areas and for waste removal and encapsulation activities. Controlled fiber counts must be maintained at less than 1.0 f/cc.
- C. Unless otherwise permitted, respiratory protection as specified herein shall be worn at all times, including preparation of the work areas, loading and unloading of waste containers in the work area or at the transport truck, and cleaning of work area.
- D. Where chemical solvents are used during abatement activities respirators must be equipped with the proper dual HEPA/Organic vapor filters.

1.13 PROTECTIVE CLOTHING: Provide to all workers, foremen, superintendents and authorized visitors and inspectors protective disposable clothing consisting of full body coveralls, head covers, gloves, 18-

inch high boot-type covers or reusable footwear in accordance with CCR Title 8 1529.

- 1.14 ENCLOSURES AND SHOWERS (DECONTAMINATION FACILITIES):** For asbestos removal work a three-stage Decontamination Facility shall be installed adjacent and connected to the regulated area(s) for the decontamination of employees, tools and equipment and waste containers. A two-stage (wet) or one-stage (equipment room) may be installed adjacent and connected to the regulated area(s), as approved by the Consultant/Resident Hygienist, for the abatement work involving less than 500 square feet of non-friable materials and/or the removal of less than 10 square feet or 25 linear feet of TSI or Surfacing materials.

1.14.1 Decontamination facilities as described in section 1.14 shall at a minimum comply with the following:

- A. The Decontamination Facility (DF) shall be constructed using wood framing or equivalent (PVC or aluminum framing may be substituted where the roof of the decontamination facility will not be utilized as a working surface) and two layers of 6-mil fire retardant poly sheeting attached for the walls, floors and ceiling. Airlocks shall be installed at each chamber of the Decontamination Facility. The 6 mil fire retardant poly sheeting shall be sealed water and airtight with duct tape at all overlapping seams. The entire floor, walls and ceiling of the DF shall be covered with two (2) layers of 6-mil fire retardant poly sheeting turned up 12"-16" on the wall layers. The upper layer of floor poly sheeting shall be replaced as wear necessitates.
- B. An Air Lock is a system permitting ingress and egress without permitting air movement. It consists of two (2) curtained doorways at least three feet apart. Each curtained doorway shall be constructed by placing three overlapping sheets along the top of the doorway, securing each along the top of the doorway. The first and third sheets shall be secured on one side of the doorway and the middle sheet shall be secured on the other side of the doorway. There are no swinging/closing doors between airlocks.
- C. Three-Stage Decontamination Facilities shall consist of a Clean Room at entrance followed by a Shower Room followed by an Equipment Room leading to the Work Area. Two-Stage Decontamination Facilities shall consist of a Clean Room at entrance followed by an Equipment Room leading to the work area and shall be equipped with a HEPA vacuum and water source for proper decontamination of personnel, waste bags, tools, equipment, etc. One-Stage Decontamination Facility shall consist of an Equipment Room leading to the work area and shall be equipped with a HEPA vacuum and water source for proper decontamination of personnel, waste bags, tools, equipment, etc. Protective work clothing must be cleaned in the Equipment Room with a HEPA vacuum before it is removed.
- D. All personnel shall enter and exit the regulated area(s) through the Decontamination Facility. Contaminated work clothing, spent waste rags, towels, etc., shall be properly packaged in leak tight containers in the Equipment room. All equipment and surfaces of containers filled with ACM or ACCM must be cleaned in the Equipment room prior to removal from the equipment room.
- E. The Decontamination Facility shall be properly demarcated with Asbestos Warning Signs to prevent unauthorized personnel entering the regulated work area(s). Warning signs shall be bilingual (English and Spanish) and posted at all approaches to the regulated work area(s). The warning signs required by OSHA / Cal-OSHA shall bear the following information.

**DANGER ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY**

- F. In addition, where the use of respirators and protective clothing is required in the regulated area the warning signs shall include the following:

WEAR RESPIRATORY PROTECTION AND PROTECTIVE CLOTHING IN THIS AREA

- G. The Decontamination Facility shall be installed prior to erecting protective coverings and before

disturbing any ACM/ACCM.

- H. Soap and clean, dry towels shall be provided in sufficient quantities for all personnel.
- I. Provide benches and lockers for storage of street clothes and respiratory equipment of workers in the clean room. Also provide in the same room uncontaminated disposable protective clothing and equipment in sufficient quantities for all workers and visitors. This room shall be used by workers and visitors to change from street clothes to disposable protective clothing and gear prior to entering into the contaminated area. The room shall be adequately sized for such purposes.
- J. Provide in shower room (when applicable) showering facilities with hot and cold water so arranged as to provide complete showering of workers and visitors as they exit from the contaminated area. Connect the shower water drains to a leak-proof pump and commercially manufactured filtering system consisting of several filters in series, including a 5-micron final filter, and an adequately sized pump. Discharge from this system shall be to a sanitary sewer system coordinated with the Owner's representative. Used water filters shall be packaged and disposed of as asbestos waste. Make provisions to prevent any contaminated run-off from the shower room. The shower room facilities and size shall be adequate to allow decontamination and thorough washing of all the workers and visitors within the 15-minute escape time.
- K. Provide the Equipment room with storage for contaminated clothing and equipment. In this room, workers and visitors shall dispose of their disposable protective clothing (except respirator) as they prepare to enter the shower room. Adequate quantities of clean, protected waste bags, filters for the HEPA-vacuums and exhaust units, and other tools and equipment necessary for the work shall be stored in this room. Waste containers and excessive quantities of equipment shall not be stored in this room.
- L. Cleaning: The Decontamination Facility shall be cleaned using a HEPA-filtered vacuum and disinfectant at least once every shift, or more frequently if needed to prevent residue accumulation.
- M. Prohibitions: Smoking, drinking, or eating shall not be permitted in the Work Area or Decontamination Facility. Personal equipment such as radios or flashlights shall not be permitted in the Work area, Shower Room, or Equipment Room unless they can be washed in the shower.
- N. The Contractor shall post or have available the following items in the Clean Room of the Worker Decontamination Facility:
 - 1. A copy of the U.S. Environmental Protection Agency Regulations for Asbestos, 40 CFR 61 Subpart A and Subpart M; a copy of OSHA Asbestos Regulations, 29 CFR 1926.1101; a copy Cal-OSHA Asbestos Regulations Title 8 1529, a copy of South Coast Air Quality Management District Rule 1403.
 - 2. A list of telephone numbers and addresses for local Owner, emergency squad, and local fire department.
 - 3. A copy of the Asbestos Abatement Specifications and drawings.
 - 4. Name of competent person(s), [as defined in 29 CFR 1926.1101 (b)] the Health and Safety Officer assigned to the project, and list of names of Abatement Contractor's employees conforming to requirements of who will be authorized to enter regulated area.
 - 5. Abatement Contractor's name, list of Contractor's organizational chain of command at the construction site, and phone number of responsible representative who may be reached 24 hours a day.
 - 6. A telephone and/or means of contact to emergency personnel, as well as continuous communications inside the work area.

7. Signs as required by 29 CFR 1926.1101 and CCR Title 8 1529.

- O. A louvered, hinged door with a padlock shall be installed at the outside entrance to the worker and waste decontamination facility as directed by the Consultant. This door shall be closed and locked whenever the work area is unattended. Keys for the lock shall be distributed to the Consultant/Resident Hygienist, and other parties designated by the Owner.
- P. Ensure that barriers and plastic linings are effectively sealed and taped at all times, and that the shower room is watertight. Repair damaged barriers, and remedy defects immediately upon discovery. Visually inspect the facility at the beginning of each work period. The Consultant/Resident Hygienist shall also be allowed to use smoke generators to test effectiveness of barriers, flow of air through the DF, and HEPA-exhaust systems.
- Q. Establish and maintain emergency and fire exits from the work areas satisfactory to local fire officials and the Consultant/Resident Hygienist. Exits shall be checked daily for exterior blockages or impediments to exiting.

1.15 ASBESTOS WASTE PACKAGING AND DISPOSAL

- A. It is the responsibility of the Contractor to determine current waste handling regulations including labeling, packaging and storage of the asbestos waste. The Contractor shall comply fully with these specifications and the California Department of Toxic Substance Control, U.S. Department of Transportation and EPA requirements, and any other Federal, State and local regulations for the proper packaging, labeling and storage of asbestos waste.
- B. The Contractor will be responsible for the proper manifesting, transportation and disposal of all asbestos waste.
- C. It is the responsibility of the Contractor to assure that all accumulated asbestos-containing waste is stored in a properly lined, labeled, enclosed, secured and locked storage area approved by the Owner and Consultant/Resident Hygienist. It is the Contractor's responsibility to coordinate with the Owner's representative all scheduled deliveries and pick-up of waste bins/containers.
- D. It is the Contractor's responsibility to provide the proper waste bins/dumpsters, storage, transportation and disposal of the non-hazardous asbestos-containing construction materials (<1% asbestos waste) removed from the project site. All waste must be disposed of at a landfill approved by the Owner. Contractor is responsible for providing copies of waste disposal records.
- E. The disposal of the asbestos hazardous waste will be conducted in accordance with SCAQMD Rule 1403 and current California Department of Toxic Substance Control hazardous waste manifest requirements and any other applicable Federal, State, or local regulations.

1.15.1 Waste Definition: Wastes are defined as all asbestos-containing or potentially asbestos contaminated materials or other items which have not been completely cleaned or sealed to the satisfaction of the Consultant/Resident Hygienist while inside the work area and must be removed from the job site and disposed of. Asbestos wastes may include building materials, insulation, disposable clothing and protective equipment, plastic sheeting and tape, exhaust systems or vacuum filters, contractor equipment, or other waste materials designated by state or local authorities or the Consultant/Resident Hygienist or which have been potentially contaminated with asbestos and have not been fully cleaned inside the work area by vacuuming followed by thorough washing. Pursuant to SCAQMD Rule 1403 (c) Definitions (5) ASBESTOS-CONTAINING MATERIAL (ACM) "is both friable asbestos-containing material or Class I non-friable asbestos-containing material." And (6) ASBESTOS-CONTAINING WASTE MATERIAL (ACWM) "is any waste that contains commercial asbestos and that is generated by a source subject to the provisions of SCAQMD Rule 1403."

1.15.2 Waste Packaging: All waste material shall be promptly placed in 6-mil polyethylene bags as the waste is generated. A sufficient number of waste bags shall be located in the immediate work area and in the Equipment (dirty) room of the Decontamination Facility. The bagged material shall be placed in a

second 6-mil polyethylene bag in the equipment room or load out chamber. The contractor shall count the bags and estimate the total volume leaving the work area and maintain a written record of such.

- 1.15.3** Pursuant to SCAQMD Rule 1403 (Amended October 5, 2007) (E) Handling Operations -" All Asbestos-Containing Waste Materials (ACWM) shall be collected and placed in leak-tight containers or wrappings. Such containers or wrappings shall be transparent". (Reference Section 1.15.5). (See also following Paragraphs).
- 1.15.4** Waste Labeling: Warning labels, having waterproof print and permanent adhesive, in compliance with OSHA, EPA, and DOT requirements, shall be affixed to or printed on the sides of all waste bags or transfer containers. Warning labels shall be conspicuous and legible, and contain the following words:

**DANGER
CONTAINS ASBESTOS FIBERS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
DO NOT BREATH DUST
AVOID CREATING DUST**

Additionally, all friable hazardous waste containers must display the Class 9 label (DOT labeling requirements 172.446).

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The background on the Class 9 label must be white with seven black vertical stripes on the top half. The black vertical stripes must be spaced so that visually they appear equal in width to the six white spaces between them. The lower half of the label must be white with the class number "9" underlined and centered at the bottom. All waste bags must have the generator's name and address, generator's EPA Identification Number, as well as the waste manifest number.

- 1.15.5** Pursuant to SCAQMD Rule 1403 (Amended October 5, 2007) (e) Warning Labels, Signs, and Markings (B) Leak tight containers that are transported off-site shall be labeled with the name of the waste generator and the location at which the waste was generated. The location description shall include the street address.
- 1.15.6** Wetting of Waste: A fine water spray shall be used to keep the waste in containers thoroughly wet at all times. When a waste bag is full, it shall be securely sealed with tape or other secure fastener.
- 1.15.7** Waste Container Decontamination and Removal Procedures: The following procedures shall be followed whenever containers, tools and equipment are removed from the work area:
- A. The Clean Room shall be considered a holding area only during the period of active waste transfer for the purpose of the loading of carts or drums. Storage of waste and carts (or drums) in the clean room is prohibited.
 - B. Waste removal shall not occur during worker shift changes or when workers are showering or changing. Care shall be taken to prevent cycling of air outward through the shower and clean room when used for waste removal.
 - C. Workers are to be stationed in each room/area of the decontaminations facility to transfer the containers and equipment to or from adjacent sections. These workers shall not cross the airlocks into the adjacent areas/rooms until the waste or equipment transfer is finished for that period and the workers have gone through decontamination as required by these specifications. The workers in the clean room or holding area shall enter from uncontaminated areas with appropriate personal protective equipment; or prior to the start of waste transfer, these workers shall exit the work area, fully decontaminated, and subsequently don clean personal protective equipment.

- D. External surfaces of contaminated waste containers, and contaminated tools and equipment shall be cleaned by wet cleaning and HEPA-vacuuming the items in the work area before moving such items through the decontamination facility airlock. Workers shall not enter the airlock during this procedure.
- E. The containers of waste, and tools and equipment shall be removed from the airlock by workers stationed in the washroom/equipment room during waste removal operations.
- F. Once in the washroom/equipment room, external surfaces of waste containers, and tools and equipment shall be cleaned a second time by wet cleaning.
- G. The cleaned containers of waste, tools and equipment shall be placed in a second clean leak-tight labeled 6-mil plastic bag (or 6-mil sheeting if physical characteristics necessitate and permit). Air volumes shall be minimized, and the bags or sheeting shall be sealed. Items that may puncture or tear the plastic bags or sheeting shall be placed in a hard wall container such as a drum, and then sealed.
- H. The clean "double bagged" items shall be moved into the airlock for subsequent transfer to the holding area. The washroom workers shall not enter this airlock or the work area until waste removal is finished for the period.
- I. The "double bagged" waste bags and cleaned tools and equipment shall be removed from the airlock to the holding area by workers who have entered from uncontaminated areas with appropriate personal protective equipment.
- J. The "double bagged" items of waste and cleaned, bagged tools and equipment shall be placed in open top, watertight plastic carts or drums and shall be covered during the transport to the disposal bins. These carts or drums shall be held in the holding area pending removal. The carts or drums shall be HEPA-vacuumed and wet-cleaned immediately following the removal of the containers of waste from them, and the location of where they are emptied shall also be HEPA-vacuumed.
- K. The exit from the waste decontamination facility shall be monitored and secured at all times to prevent unauthorized entry.
- L. The clean carts/drums may be temporarily stored in a holding area at the work site outside the workplace until a transport vehicle arrives, but such storage areas must be pre-approved by the Owner's representative.
- M. The disposal bins must display the proper Cal-OSHA warning signs on the outside, as well as a generator label for the waste. This will allow for correspondence of waste manifest and disposal bin at the time of pick-up.

1.15.8 Waste Container Storage: Sealed waste bags may be temporarily stored in a pre-designated and approved area, until a truckload quantity is obtained. The temporary storage area shall be lockable, and prominently identified and posted with asbestos danger signs. Waste containers shall be covered with polyethylene sheeting or otherwise protected from further contamination. (Any temporary storage area must be approved by the Owner and/or Consultant/Resident Hygienist).

1.15.9 Waste Removal Scheduling: All waste containers shall be decontaminated and removed from the area daily and before final cleanup is started and prior to removal of isolation barriers. The Contractor shall coordinate with the Owner's representative and the Consultant/Resident Hygienist to determine the most feasible route for transporting packaged waste containers from the work area to the designated waste storage area(s). The waste removal schedule and transport route will be agreed upon at the Project Pre-Construction Meeting. The contractor must pre-schedule and obtain the approval of the Owner's representative and Consultant/Resident Hygienist for all time periods during which he desires to remove waste bags from the facility. Once a truckload of waste containers has accumulated, the Contractor shall arrange for transportation to the disposal site. Waste shall not be stored in the work area or waste decontamination facilities. Outside bag storage must be monitored and secured at all times to prevent tampering. Temporary storage must be in secure locked areas.

- 1.15.10** Waste Transportation and Disposal Regulations: It is the Contractor's responsibility for proper waste transportation and disposal of asbestos waste, the Contractor shall determine and ensure that he is complying with 1) the current waste handling regulations applicable to each work site; and 2) the current regulations for transporting and disposing waste at each ultimate disposal landfill. He must comply fully with these regulations, and with U.S. Department of Transportation, EPA, and all Federal, State and local requirements.
- 1.15.11** The Contractor (or his Subcontractor) at no additional cost shall maintain a valid hazardous waste transporter registration issued by the California Department of Toxic Substance Control; and obtain, complete, and fully comply with any other local hazardous waste manifesting requirements. A copy of any manifest forms shall be sent to the Consultant/Resident Hygienist after disposal is completed and all required data and signatures have been inserted. (Manifest to have origin of ACM waste).
- 1.15.12** Copies of all transport manifests, trip tickets and disposal receipts for all asbestos waste materials removed from the work area within 48 hours of the transport, to:

Downey Unified School District
11627 Brookshire Avenue
Downey, California 90241
Attn: Vince Madsen

- 1.15.12** Asbestos Hauling: Transportation methods shall comply with the statutory requirements governing hazardous waste transportation in California which are contained in Division 20, Chapter 6.5, Article 6.5, Article 6.6, and Article 13 of the California Health and Safety Code. Regulations adopted pursuant to these statutes are found in, Division 4.5, Chapter 13, and Chapter 29 of the California Code of Regulations, Title 22. Hazardous waste transporters must comply with the California Vehicle Code, CHP Regulations (Cal. Code Regs., Title. 13); the California State Fire Marshal Regulations (Cal. Code Regs., Title. 19); United States Department of Transportation (DOT) Hazardous Waste Transporter Requirements Regulations, Title 49, Code of Federal Regulations; and U.S. Environmental Protection Agency Regulations, Title 40 Code of Federal Regulations and with any hazardous waste regulations for temporary storage, transport, and disposal if such codes are enforced in states where the waste shall be stored, transported or disposed of.
- A. Waste Container Removal and Disposal Procedure:
 - B. The costs for waste packaging, labeling, proper storage and transportation, and approved landfill disposal (plus all related record keeping) shall be included in Contractor's prices.
 - C. The Contractor shall package, label, and remove all asbestos waste as specified in the above Sections. Packaging shall be accomplished in a manner that minimizes waste volume but insures waste containers shall not tear or break. All material shall be bagged in a minimum of two (2) 6-mil transparent plastic labeled bags.
 - D. The Contractor shall perform proper removal of all waste containers to verify their condition and certify the total volume of waste material (to the nearest cubic yard).
 - E. Asbestos waste must be disposed at a waste disposal site operated in accordance with the provisions of 40 CFR 61.154 and SCAQMD Rule 1403 (d)(3).
 - F. Contractor shall obtain the EPA Hazardous Waste Generator Identification Number and State of California Hazardous Waste Tax Identification Number from the Owner.

1.16 EXPOSURE CONTROLS AND HEPA-FILTERED EXHAUST VENTILATION: The Contractor shall install inside the full or modified containment work area one or more portable HEPA-filtered exhaust units to maintain the area, including the Decontamination Facilities, under negative air pressure, and to reduce or control airborne asbestos fiber concentrations. Install and maintain a manometer equipped with a strip chart recorder. Manometer shall be capable of detecting at least 0.02" of water column. Contractor shall provide a contingency plan for maintaining negative air requirements in the event of mechanical failure.

- A. Unless otherwise approved by the Consultant, the (full or modified) containments shall remain under negative pressure at not less than -0.02 inches of water from the start of abatement until the final air clearance samples have passed. In accordance with SCAQMD Rule 206, each HEPA-filtered exhaust unit (negative air machine) must have attached to it the original Permit to Operate or a legible copy of the permit. Each negative air machine shall be operated in accordance with SCAQMD Operating Parameters for Rule 222. The Operating Parameters for Rule 222, copy of validated form 222-A, must be on-site along with the filing receipt.
- B. HEPA filtered exhaust units placed outside of regulated areas for the purpose of maintaining negative air pressure (remote) within a regulated area shall be placed within a mini enclosure. This enclosure shall be large enough to accommodate the unit (or portion thereof) and workers necessary for proper filter changes. The enclosure shall be constructed of one (1) layer, 6-mil minimum, of polyethylene sheeting. The enclosure shall be demarcated with the required OSHA warning signs and be constructed in such a manner to prevent unauthorized entry and/or shut down which may include lockable ridged barriers or fencing. Filter change supplies, waste packaging, wetting agents etc. shall not be stored within the enclosure but, shall be readily available.

1.17 SUBMITTALS:

1.17.1 The Contractor shall furnish the following items clearly identified as stated: Submittals items are to be submitted before project begins (at or before the Pre-construction Meeting). Abatement will not begin until the Consultant has received and approved the submittals: Close out submittals items are to be submitted no more than 10 working days upon project completion.

- 1. Submittal No. 1: Copy of the Contractor's formal written OSHA respiratory protection program, including a complete description of each respirator type, a fit testing procedure for passive air filtering type respirators. The respiratory protection program must conform to 29 CFR 1910.134 and CCR Title 8 Section 5144.
- 2. Submittal No. 2: A detailed listing of all materials, tools, equipment, and expendable supplies that will be used during the project. For each listed item, provide (as appropriate) the manufacturer's name, catalog number or model, a description of its function and location of use, and actual sample or photocopy of manufacturer's brochure. The listing shall include at a minimum: spray encapsulants, wetting agents, spray adhesives (including SDS) and equipment, HEPA-vacuums, HEPA-filtered exhaust fans (including: documented air moving power of the unit under actual working conditions with all filters installed and fan curve and static resistance rating of all filters and duct work used when operating the unit), respirators, protective clothing, waste containers, protective fireproof plastic coverings, sealing tapes, materials and compounds, temporary power and electric equipment, shower water pumps and filters, encapsulating equipment, and materials for constructing decontamination facilities, and barriers.
- 3. Submittal No. 3: A written "Health, Safety and Security Plan" describing in general and specifically the location of warning signs. The labeling of waste containers, emergency means of ingress/egress from areas, security for prevention of unauthorized entry into the area, log book forms for recording entries to the Work Areas, accident prevention and notification policy, emergency fire and accident response procedures (including decontamination procedures), and personnel responsible for these items. The "Security Plan" shall also describe equipment and methods the Contractor will use to efficiently communicate between personnel inside and outside work areas.
- 4. Submittal No. 4: A written site-specific confined space entry program (when applicable).

5. Submittal No. 5: Copies of notifications to local police, Fire Department or emergency medical officials, and all other notifications as directed by the Owner or Consultant. Notifications by Contractor shall be limited to only those parties contractor is required to notify by law.
6. Submittal No. 6: Copies of written pre-notification forms filed with the U.S. E.P.A., SCAQMD, CAL/OSHA, and any other required local agencies.
7. Submittal No. 7: Detailed work schedules which list for the work area: the dates of proposed work, the work shift times, the projected work accomplishments during that shift, and the number of workers (and the projected Supervisor/Foreman). Name and summary of the experience of all proposed Principals, Supervisors and Foremen, and all other employees, which may be used during the contract period (minimum of one qualified supervisor and foreman is required).
8. Submittal No. 8: Signed documentation of training and education for all proposed workers including respirator use training, and copies of OSHA specified medical exams with respirator use approvals.
9. Submittal No. 9: List of all subcontractors proposed for this project, with their specialty and qualifications.
10. Submittal No. 10: Proposed waste hauler and copies of applicable licenses, including State of California registration number.
11. Submittal No. 11: Proposed landfill for disposal of waste materials and letter from landfill authorizing hauler to dispose there.
12. Submittal No. 12: Name, address and telephone number of the environmental laboratory, which will analyze Contractor's air samples.
13. Submittal No. 13: The Contractor's "Standard Operating Procedure" for the project including a discussion of how workmen, visitors and building employees will be protected from exposure, how spaces outside the work area will be protected from contamination until completion of the work, and procedures which would be implemented in the case of an emergency possibly resulting in the release of asbestos contamination or exposure of unprotected people.
14. Submittal No. 14: Description of pre-cleaning, asbestos stripping, removal, encapsulation, and waste packaging methods to be used for the work area, and an explanation of decontamination and final cleanup sequence to be used.
15. Submittal No. 15: List of any other permits, licenses, manifests, or patents which are required or will be used.
16. Submittal No. 16: A copy of permits issued for HEPA Filtration System(s), (SCAQMD Rule 222).
17. Submittal No. 17: A copy of the Contractor's State of California, Department of Industrial Relations, Division of Occupation Safety and Health, Certificate of Registration for Asbestos-Related Work.
18. Submittal No. 18: A copy of the Contractor's notification to the Division of Occupational Safety and Health in compliance with Title 8 of The California Code of Regulations, Section 341.9.
19. Submittal No. 19: A copy of Certificate of Insurance
20. Submittal No. 20: Contractor shall provide daily inspection reports (written) on all respiratory equipment to the Consultant on a daily basis.
21. Submittal No. 21: Close Out Documentation: within working 10 days of project completion the Contractor must provide all documentation generated during the project. Documentation shall include but is not limited to: supervisors daily logs, signed daily personnel logs, visitor entry/exit logs, employee entry/exit logs for regulated areas, manometer print reports or logs (as applicable), filter change logs for all air filtration units, water, and respirators, air monitoring sample results for

personnel, work areas, air monitoring sample results for air filtration (when required), safety meeting attendance and any other contractor generated documentation for inclusion in a final closure report.

END OF SECTION

PART 2 PRODUCTS

2.1 GENERAL REQUIREMENTS:

- A. The Contractor shall deliver all material and equipment to the site in the original containers bearing the name of the manufacturer, and details for proper storage and usage.
 - B. All materials or equipment delivered to the site shall be unloaded, temporarily stored, and transferred to the work area in a manner, which shall not interfere with operations of the Owner.
 - C. The Owner or Owner's representative must approve unloading and temporary storage sites, and transfer routes, in advance.
 - D. Damaged or deteriorated materials may not be used and must be promptly removed from the premises. Material, which becomes contaminated with asbestos containing material, shall be packaged as ACM and legally transported and disposed of at an approved asbestos landfill.
1. Plastic Sheeting and Bags - Shall be fire retardant or equivalent with a thickness of least 6 mil for all applications. Both transparent and opaque plastic shall be required, as directed by the Consultant/Resident Hygienist. Fire retardant polyethylene sheeting shall be used throughout the duration of the project. Waste disposal bags and/or plastic wrapping shall be clear and a minimum of 6-mil thickness with appropriate warning labels as previously described.
 2. Encapsulants - Encapsulating agents shall be approved by the Owner's representative and must be compatible with the replacement materials (where necessary). The encapsulants must be UL tested.
 3. Wetting Agent or Surfactant - Shall be 50% polyethylene ester and 50% polyethylene ether or equivalent, mixed in the proportion of one-ounce surfactant per five gallons of water. The material must be odorless, non-flammable, nontoxic, non-irritating, and non-carcinogenic. It shall be applied as a mist using a low-pressure airless sprayer recommended by the surfactant manufacturer.
 4. Tape and Glue - Shall be capable of sealing plastic to finished surfaces without damage when they are removed. The bonding strength and resulting seal integrity must not be affected by mist or water, encapsulating agent, or any other materials to be used in the work area.
 5. Warning Signs and Labels - Shall comply with 29 CFR 1926.1101(s), CCR Title 8 1529 (7) and (8), and all other Federal, State, or local codes and regulations.
 6. Waste Containers and Transportation - Shall be bags as noted in Item No.1 above, drums or other closed containers, suitable for loading, temporary storage, transit, and unloading of contaminated waste without rupture, or otherwise causing spillage or exposure to persons or emissions to the atmosphere. Transportation methods shall comply with the provisions as stated above in section 1.15.12 and with any hazardous or special waste regulations for temporary storage, transport, and disposal if such codes are enforced in states or cities where the waste will be generated, stored, transported or disposed of. All containers shall be labeled in accordance with OSHA Regulation 29 CFR 1926.1101, Cal-OSHA CCR Title 8 1529, NESHAPS, SCAQMD Rule 1403 and DOT 49 CFR Parts 171 and 172.

7. Respiratory Protection Devices - Shall be NIOSH approved and shall comply with all provisions of 29 CFR 1926.1101, CCR Title 8 1529. Fit testing procedures must comply with 29 CFR 1910.134, CCR Title 8 5144. Provide documentation of fit testing procedure.
8. Electrical Equipment - Shall be Underwriters Laboratory listed and approved, and shall have ground fault circuit interrupt protection, which has been installed by a licensed electrician.
9. Ladders or Scaffolds - Shall be OSHA approved and be of sufficient dimensions and quantities so that all work surfaces can be easily and safely accessed by the Consultant, workers, and other inspectors. Scaffold joints and ends shall be sealed with tape to prevent incursion of asbestos fibers.
10. Hand Power Tools - Shall be equipped with HEPA filtered local exhaust ventilation if used to drill, cut into, or otherwise disturb ACM.
11. Brushes - All brushes shall have nylon bristles. Wire brushes are excluded from use due to their potential to shred asbestos fibers into small fibers. Wire brushes may be used on pipe joint applications upon prior written approval by the Consultant.
12. Lumber/Plywood - All lumber and plywood supplied by and used by the Contractor shall be fire retardant.

END OF SECTION

3.0 EXECUTION

3.1 PRE-ASBESTOS ABATEMENT PREPARATIONS: The Contractor shall prepare the work area as described in this section. Preparation work shall be performed according to the following general sequence of steps and procedures to ensure that proper containment and protection systems are installed prior to any work which could generate airborne asbestos fibers.

3.1.1 Pre-clean the entire work area and remove/protect all items within the work area not removed by the Owner.

3.1.2 Asbestos removal work (Cal/OSHA Class I and II) shall be performed using Full Containment procedures when removing:

- Greater than 500 square feet of non-friable material (except roofing removal)
- Greater than 10 square feet or 25 linear feet of Surfacing material
- Greater than 10 square feet or 25 linear feet of Thermal System Insulation (TSI) including glove bag operations.
- Greater than 10 square feet or 25 linear feet of rendered friable material (including, but not limited to, linoleum sheeting, thin set, drywall/mud, window putty, etc.) and/or when using mechanical buffers, bead blasting, wet blasting, grinding or sand blasting of any material.

These procedures consist of, but are not limited to the following:

- Minimum of two (2) layers of 6-mil fire retardant poly sheeting on walls, and floors (if not the intended scope of work)
- Minimum of one (1) layer of 6-mil plastic sheeting on ceilings (when applicable and as directed by the Consultant/Resident Hygienist).
- Minimum of two (2) layers of 6-mil fire retardant polyethylene sheeting for all critical barriers including, but not limited to HVAC systems, corridor openings, windows, doorways, where walls and/or ceilings are non-existent, stationary items, cabinetry, sinks, toilets, dispensers, penetrations/openings to the work area and or any other non-work area surface.
- Utilization of HEPA-filtered exhaust ventilation as described in section 1.16.
- Installation of three stage Decontamination Facilities as described in section 1.14.1.
- At least one (1) airless sprayer shall be present and in good working condition to conduct wet removal and misting of the air in each containment.
- At least one (1) HEPA vacuum shall be present and in good working condition to collect all asbestos debris and dust

3.1.3 Asbestos removal work (Cal/OSHA Class I and II) shall be performed using Modified Containment procedures when removing:

- Less than 500 square feet of non-friable material (except roofing removal)
- Less than 10 square feet or 25 linear feet of Surfacing material
- Less than 10 square feet or 25 linear feet of Thermal System Insulation (TSI) including glove bag operations.
- Less than 10 square feet or 25 linear feet of rendered friable material (including, but not limited to, linoleum sheeting, thin set, drywall/mud, window putty, etc.)

These procedures consist of, but are not limited to the following:

- Minimum of one (1) layer of 6-mil fire retardant poly sheeting for walls, ceilings (when applicable, and as directed by the Consultant/Resident Hygienist), and floors (when not the intended scope of work).
- A minimum of two (2) layers of 6-mil fire retardant poly sheeting for all critical barriers including, but not limited to HVAC systems, corridor openings, windows, doorways, stationary items and any other penetrations or openings into the work area.
- Utilization of HEPA-filtered exhaust ventilation as described in section 1.16.
- Installation and utilization of a one or two stage decontamination facility as directed by the Consultant/Resident Hygienist and described in section 1.14.1.
- At least one (1) airless sprayer shall be present and in good working condition to conduct wet removal and misting of the air. Hudson sprayers may be used only if pre-approved by the

Consultant/Resident Hygienist.

- At least one (1) HEPA vacuum shall be present and in good working condition to collect all asbestos debris and dust

3.1.4 In addition to the above the following shall apply:

- A. The Contractor in coordination with the Owner's representative shall shut down and/or isolate or temporarily modify heating, cooling, and ventilation air systems to the work areas, as required, for duration of work activities.
- B. Remove or cover furniture or fixed objects with one (1) or two (2) layers of 6-mil fire retardant poly as specified in section 3.1.2, 3.1.3.
- C. The Contractor, in accordance with the Owner, shall shut down electrical power (lock-out/tag-out) to work areas. The Contractor may use existing electrical service to the building for temporary electrical power during abatement work in accordance with the Owner's representative's instruction.
- D. Designated areas shall be closed to all activity before the commencement of any work activities and shall not be available for re-occupancy until final air clearance results are submitted and approved by the Consultant/Resident Hygienist.
- E. Alterations to existing fire alarm/safety systems must receive prior approval from the Owner's representative. Twenty-four hour fire watch may be required.
- F. Install HEPA unit(s) to facilitate air filtration as specified in Section 1.16. When the use of solvents is employed the HEPA filtration units are required to be equipped with charcoal filters (including HEPA vacuums). All filtration shall be externally exhausted unless otherwise approved by the Consultant. External exhaust flex tubing must be installed and attached at a minimum of 10 feet up from the ground level and 10 feet from any receptor (any location where the public can be exposed to asbestos fiber emissions). The end of the exhaust flex tubing must be clearly open and unobstructed.
- G. Seal all openings airtight with poly sheeting. Remove and clean ceiling or wall-mounted objects, such as lights and other items not previously sealed off that interfere with abatement work. Store items removed as directed by Consultant/Resident Hygienist and/or Owner's Representative.
- H. Viewing Ports: A minimum of one view port must be provided which will allow the greatest possible degree of the containment area to be viewed from an uncontaminated site. Viewing Ports shall be at least 18" x 18" in size.
- I. Maintain and mark emergency exits from the work areas, with cutting device taped to base of polyethylene sheeting or establish alternate exits satisfactory to the local fire Marshal.
- J. Upon completion of all preparation of the work area notify Consultant/Resident Hygienist that the work area is ready for inspection. The Contractor shall not begin abatement work until the Consultant/Resident Hygienist has inspected the area and any deficiencies have been corrected.
- K. The contractor shall smoke test each containment to check for proper seal of the containment area. No removal work shall commence, until such seal is found leak-proof. The smoke test for each containment is to be conducted in the presence of the Consultant/Resident Hygienist.

3.2 APPROVAL OF PREPARATION WORK: After the asbestos removal work area has been prepared as specified above, the Contractor shall request a formal work area preparation inspection by the Consultant/Resident Hygienist. No removal, demolition or other disturbance of asbestos-containing materials, dust or debris shall occur until the Consultant/Resident Hygienist has inspected and approved the work area preparation work in writing.

3.3 REMOVAL OF ASBESTOS CONTAINING MATERIALS

- A. This section covers the removal of, but not limited to, asbestos-containing window putty as specified in the documents or as directed by the Consultant/Resident Hygienist.
- B. Amended water (wetting agent) mixed and carefully applied using an airless sprayer as specified by the manufacturer, shall continuously be used to control the release of asbestos fibers from the asbestos-containing materials prior to and during removal. The amended water shall be applied in sufficient quantity to fully penetrate and saturate the material before it is removed. Wetting shall commence before removal work to ensure effectiveness.
- C. Spray asbestos-containing material with amended water, using spray equipment capable of providing a “mist” application to reduce the release of fibers. Saturate the material sufficiently so the material is wet to the substrate without causing excessive dripping. The use of high RPM power equipment, pressure washers, or hydroblasters shall not be acceptable without special permission from the Consultant. Remove the saturated asbestos material in small sections from all areas. Material shall not be allowed to dry before placing in sealable polyethylene bags 6-mil minimum thickness. All asbestos-containing material shall be removed thoroughly and completely. Nylon fiber brushes shall be used to clean asbestos fibers from rough surfaces. No asbestos-containing material is to remain for any reason, nor is any friable asbestos-containing material to be encapsulated rather than removed. Any contaminated material capable of puncturing the polyethylene bags shall be packaged separately.
- D. Maintain work areas free of accumulated asbestos-containing materials at all times. Keep waste materials wet until enclosed in sealed plastic bags or wrappings. Remove all debris and waste from containment prior to completion of each shift.
- E. Seal polyethylene bags airtight. Ensure that all contaminated materials are double-bagged or wrapped to yield a minimum covering of 12-mil thickness before removal from the work area. Single bagged material shall be placed in a clean bag or into a lined drum.
- F. Ensure all disposable containers are clear and properly labeled in conformance with 29 CFR 1926.1101, CCR Title 8 1529, 40 CFR 61, SCAQMD (1403) and any other applicable Federal, State or local regulations.
- G. Workers shall wear disposable full body coveralls and a minimum of Half Mask Air Purifying Respirators (APRs) with NIOSH approved asbestos cartridges for removal of non-friable materials and a minimum of Powered Air Purifying Respirators (PAPR) for removal of friable materials.
- H. Electrical grinding or cutting tools shall not be used during the removal operation.
- I. The Contractor shall repeatedly spray the material to prevent it from drying out. Metal shovels shall not be used.
- J. The Contractor shall minimize contamination of the work floor, the exterior of disposal containers, and all other surfaces within the work area. At the end of each shift, all surfaces shall be cleaned of all debris and then HEPA vacuumed and wet wiped.
- K. The use of brooms or the like within the containment removal area is strictly prohibited. Dry sweeping, shoveling or other dry clean-up of dust and debris containing ACM is strictly prohibited

3.4 CLEANING OF ASBESTOS CONTAMINATED SURFACES:

- A. This section pertains to the cleaning of surfaces that are potentially contaminated with asbestos containing dust and debris. Such cleaning shall be required to prevent this dust from becoming airborne and posing an exposure risk. Cleaning action shall be performed as preliminary exposure control procedures prior to performing other actions which are required. Cleaning shall consist of HEPA vacuuming followed by wet mopping/wiping of surfaces in a manner that prevents dust generation but effectively rids the surface of all visible debris, dust, film and grime.
- B. Each HEPA vacuum cleaner shall be separately equipped with an airtight securely attached hose of proper length and a collection wand, brush and other special attachments appropriate to the required cleaning tasks. The equipment shall be properly operated at all times and shall contain no air leaks. The Consultant/Resident Hygienist shall inspect and request verification of the efficiency of the equipment's filtration (manufacturers' equipment data sheets). In accordance with SCAQMD Rule 206, the HEPA Vacuum must have attached to it the original Permit to Operate or a legible facsimile of the permit. Each HEPA vacuum shall be operated in accordance with SCAQMD Operating Parameters for Rule 222. The Operating Parameters for Rule 222, copy of validated form 222-A, must be on-site along with the filing receipt.
- C. Cleaning Procedure:
 - 1. Remove large pieces of debris by hand, and then vacuum all surfaces using HEPA filtered equipment and a collection attachment with minimizes dust generation. Clean surfaces by working outward from the point of access so that workers do not walk on or disrupt unclean surfaces.
 - 2. Lightly wet the surface of any material that could produce airborne fibers by using an airless sprayer and amended water.
 - 3. Collect, package, label, and dispose of HEPA vacuumed material as asbestos waste (as described in following sections).
 - 4. Thoroughly wet wipe or mop all surfaces to remove any remaining dirt or grime, being careful not to wet or damage any electrical equipment, furniture, or other sensitive surfaces.
 - 5. Allow surfaces to completely dry, and then inspect them for any visible remaining dirt or debris.
 - 6. HEPA vacuum any remaining dirt or debris using an efficient collection attachment.
 - 7. Request Consultant/Resident Hygienist to conduct final inspection of cleaning work prior to performing any other specified actions.

3.5 DAILY CLEAN-UP PROCEDURES AND WASTE CONTAINERIZATION

- A. The Contractor must remove and containerize into bags all waste (including ACCM waste), disposing of same at the end of each day (at a minimum). The Contractor shall not leave removed ACM or ACCM inside the work area(s) overnight.
- B. Containers (6-mil polyethylene bags) shall be sealed when full. Bags shall not be overfilled. They should be securely sealed to prevent accidental opening and leakage by tying tops of bags in an overhand knot or by taping in gooseneck fashion. All ACM waste shall be double bagged or wrapped and sealed in an appropriate waste container, and labeled in accordance with current Federal, State and local regulations.
- C. Seal polyethylene bags air-tight. Ensure that all contaminated materials are double-bagged or wrapped to yield a minimum covering of 12-mil thickness before removal from the work area(s).

- D. Ensure all disposable containers are transparent (“clear”) and properly labeled in accordance with 29 CFR 1926.1101, CCR Title 8 1529, 40 CFR 61, SCAQMD (1403) and any other applicable Federal, State or local regulations.
- E. The Contractor shall decontaminate all tools and equipment by HEPA vacuuming and/or wet wiping prior to removal from the work area(s). All remaining surfaces should be visually inspected by the Contractor for visible debris and cleaned as necessary.

3.6 FULL CONTAINMENT

- A. This section covers the removal of asbestos containing materials as specified in section 3.1.2, or as directed by the Consultant/Resident Hygienist.
- B. Amended water (wetting agent) mixed and carefully applied using an airless sprayer as specified by the manufacturer, shall continuously be used to control the release of asbestos fibers from the asbestos materials prior to and during removal. The amended water shall be applied in sufficient quantity to fully penetrate and saturate the materials. Wetting shall commence before removal work to ensure effectiveness.
- C. Where carpets are installed with non-asbestos glue to asbestos-containing flooring materials or glued to non-asbestos flooring materials where asbestos containing mastics exist, removal of carpets shall be performed under containment in accordance with this section.
- D. Removal work shall be conducted in accordance with section 3.3 of this specification.

3.6.1 FULL CONTAINMENT- WORK AREA PREPARATION

- A. Pre-clean the abatement area and any fixed objects to remain within the work area, first using HEPA vacuum equipment and then wet cleaning methods as appropriate, and completely cover all remaining fixed objects with a minimum of two (2) layers of 6-mil thick plastic sheeting sealed with tape.
- B. Seal off all openings, including but not limited to windows, corridors, doorways, HVAC ducts, grilles, vents, diffusers, and any other openings or penetrations to the work areas, with two (2) layers of 6-mil plastic sheeting sealed with tape. A U.L. approved fire stopping material shall be used in reconstruction or sealing of all fire walls and floor penetrations.
- C. Use a minimum of two (2) layers of 6-mil plastic sheeting on walls and floors (if not the intended scope of work). Install a minimum of one (1) layer of 6-mil plastic on ceilings (when applicable and as directed by the Consultant/Resident Hygienist). All seams are to be sealed with tape.
- D. Construct Decontamination enclosure systems at entrances / exits from the work area(s) as specified in section 1.14. Decontamination Facility(s) are required to be equipped with a water source for decontamination purposes.
- E. Install HEPA unit(s) to facilitate air filtration as described in section 1.16. When the use of solvents is employed the HEPA filtration units are required to be equipped with charcoal filters (including HEPA vacuums). All air filtration shall be externally exhausted unless otherwise approved by the Consultant/Resident Hygienist. Only approved low-odor solvents are permitted to be used.
- F. Workers shall wear disposable coveralls and a minimum of Half Mask Air Purifying Respirators (APRs) with NIOSH approved asbestos cartridges for removal of non-friable materials and PAPR's for removal of friable materials.

3.7 MODIFIED CONTAINMENT

- A. This section covers the removal of asbestos containing materials as specified in section 3.1.3 or as directed by the Consultant/Resident Hygienist.
- B. Amended water (wetting agent) mixed and carefully applied using an airless sprayer as specified by the manufacturer, shall continuously be used to control the release of asbestos fibers from the asbestos materials prior to and during removal. The amended water shall be applied in sufficient quantity to fully penetrate and saturate the materials. Wetting shall commence before removal work to ensure effectiveness.
- C. Where carpets are installed with non-asbestos glue to asbestos-containing flooring materials or glued to non-asbestos flooring materials where asbestos containing mastics exist, removal of carpets shall be performed under containment in accordance with this section.
- D. Removal work shall be conducted in accordance with section 3.3 of this specification.

3.7.1 MODIFIED CONTAINMENT - WORK AREA PREPARATION

- A. Pre-clean the abatement area and any fixed objects to remain within the work area, first using HEPA vacuum equipment and then wet cleaning methods as appropriate, and completely cover all remaining fixed objects with minimum of one(1) layer of 6-mil thick plastic sheeting sealed with tape.
- B. Seal off all openings, including but not limited to windows, corridors, doorways, HVAC ducts, vents, grilles, diffusers, and any other openings or penetrations to the work areas, with one (1) or two (2) layers of 6-mil plastic sheeting sealed with tape, as directed by the Consultant/Resident Hygienist. A U.L. approved fire stopping material shall be used in reconstruction or sealing of all fire walls and floor penetrations.
- C. Use a minimum of one (1) layer of 6-mil plastic sheeting on walls (if not the intended scope of work). Use a minimum of one (1) layer of 6-mil plastic sheeting on floors (if not the intended scope of work) and a 6-mil poly drop layer. All seams are to be sealed with duct tape.
- D. Construct Decontamination enclosure systems at entrances / exits from the work area(s) as specified in section 1.14. Decontamination Facility(s) are required to be equipped with a HEPA vacuum and water source for decontamination purposes. Personnel are required to HEPA vacuum disposable clothing prior to removing the disposable clothing in the equipment (dirty) room.
- E. Install HEPA unit(s) to facilitate air filtration as described in section 1.16. When the use of solvents is employed the HEPA filtration units are required to be equipped with charcoal filters (including HEPA vacuums). All air filtration shall be externally exhausted unless otherwise approved by the Consultant/Resident Hygienist. Only approved low-odor solvents are permitted to be used.
- F. Workers shall wear disposable coveralls (double suit) and a minimum of Half Mask Air Purifying Respirators (APRs) with NIOSH approved asbestos cartridges for non-friable materials removal and PAPR's for removal of friable materials.

3.8 OTHER NON-CONTAINMENT REGULATED AREAS:

- A. This section covers the removal of non-friable asbestos-containing materials, not otherwise removed within a modified or full containment.
- B. A layer of 6-mil plastic sheeting shall be placed immediately below the work area(s) and secured to the ground surface. The work area(s) shall be properly demarcated with "Asbestos Danger" barrier tape and signs. Workers shall wear disposable coveralls (double suit) and a minimum of Half Mask Air Purifying Respirators (APRs) with NIOSH approved asbestos cartridges for non-friable materials removal.

- C. The materials shall be removed utilizing wet methods and hand tools. The wetting solution shall be applied with an airless spray or low pressure spray equipment to avoid displacement and dispersal of asbestos fibers. HEPA vacuums shall be used for prompt clean-up of the dust and debris.
- D. Upon completion of removal work, but prior to commencing encapsulation, an inspection and approval of the removal area(s) shall be conducted by the Consultant/Resident Hygienist.

3.9 GLOVEBAG REMOVAL - GENERAL

- A. Maximum temperature of components (pipe, etc.) allowable for glove-bag work as specified by glove bag manufacturer.

Note: Glove-bags shall not be used on surfaces of which the temperature exceeds 150°degrees.

- B. Contain work area: shut down or temporarily modify HVAC systems, exclude casual personnel, close doors, and install warning signs.
- C. Wear personal protection: disposable whole body suits and powered air purifying respirators (PAPR's) with HEPA filter.
- D. Install secondary containment (i.e., critical barriers, visual barriers, poly drop floors as directed by the Consultant/Resident Hygienist).
- E. Provide supplementary lighting as required.
- F. Contractor shall utilize Negative air (units and/or HEPA vacuum) on-site during all glove-bag operations.
- G. Contractor shall provide a crew of two or more persons for glove-bag removal.
- H. Glovebags shall be made of 6 mil thick plastic and shall be seamless at the bottom. Glovebags may be used only once and may not be moved and must be affixed around not more than a 60 x 60 inch area of asbestos-containing material.

3.9.1 GLOVEBAG – WORK AREA PREPARATION

- A. Pre-clean the abatement area and any fixed objects to remain within the work area, first using HEPA vacuum equipment and then wet cleaning methods as appropriate, and completely cover all fixed objects with a minimum of (1) layer of 6-mil thick plastic sheeting sealed with tape.
- B. Seal off all openings, including but not limited to windows, corridors, doorways, skylights, ducts, grilles, diffusers, conduit, and any other penetrations to the work areas, with (2) layers of 6-mil polyethylene fire retardant sheeting sealed with tape. A U.L. approved fire stopping material shall be used in reconstruction or sealing of all fire walls and floor penetrations.
- C. Use a minimum of one-layer of 6-mil plastic sheeting on floors and adjacent walls. All seams are to be completely sealed with tape.
- D. For mini-enclosure secondary containments use a minimum of (1) layer of 6-mil plastic on floors, walls and all fixed horizontal surfaces. All seams are to be completely sealed with tape.
- E. Build two-stage or three-stage decontamination enclosure systems at entrances / exits from the work area(s) as specified in section 1.14. Decontamination facility(s) are required to be equipped with a water source, for decontamination purposes. Personnel are required to HEPA vacuum disposable clothing prior to removing the disposable clothing in the equipment (dirty) room. Dispose of used protective clothing, respirator filters as contaminated waste.

- F. Remove and clean ceiling or wall-mounted objects, such as lights and other items not previously sealed off that interfere with abatement work. Store items removed as directed by Consultant and/or Owner's Representative.
- G. Maintain and mark emergency exits from the work areas, with cutting device taped to base of polyethylene sheeting or establish alternate exits satisfactory to the local fire Marshal. Provide 18" x 18" view ports at work area.
- H. Upon completion of all prep work notify Consultant that the work area is ready for prep inspection. The Contractor shall not begin abatement work until the Consultant/Resident Hygienist has inspected the area and any deficiencies have been corrected.
- I. The contractor shall smoke test each glove-bag seal to applied surface. No removal work shall commence, until such seal is found leak-proof. The smoke test for each glove-bag is to be conducted in the presence of the Consultant/Resident hygienist.

3.9.2 GLOVE BAG ABATEMENT

- A. Using approved glove bag(s) in strict accordance with the manufacturer's instructions, workers in full protective body clothing and appropriate respiratory protection may begin removal of pipe insulation as per the following, or manufacturer's instructions. In case of conflict, the more stringent provisions shall apply.
- B. Cut the sides of the glove bag to fit the size of the pipe you will be working on and insert the tools you will need into the attached tool pocket.
- C. Attach the glove bag to the working area by folding the open edges together and sealing with spray glue and tape. Any additional support that may be necessary to support the weight of the debris shall be provided. Do not allow glove bag to come in contact with hot pipes.
- D. Seal the edges of the glove bag around the working area with tape or adjustable straps to form a tight seal. Slice open the side port to allow entry of the wetting tube and HEPA vacuum hose. Insert the nozzle from the portable sprayer, seal around it with tape, and thoroughly wet the area to be removed. Glove bags must be smoke tested in the presence of the Consultant prior to starting removal.
- E. Spray asbestos-containing material with amended water, using spray equipment capable of providing a "mist" application to reduce the release of fibers. Saturate the material sufficiently to wet it to the substrate without causing excessive dripping. The use of high RPM power equipment, pressure washers, or hydroblasters shall not be acceptable without special permission from the Consultant. Remove the saturated asbestos material in small sections from all areas. All asbestos-containing material shall be removed thoroughly and completely. Nylon fiber brushes shall be used to clean asbestos fibers from rough surfaces. No asbestos-containing material is to remain for any reason, nor is any friable asbestos-containing material to be encapsulated rather than removed. Any contaminated material capable of puncturing the polyethylene bags shall be packaged separately.
- F. Insert arms into the armholes and gloves and proceed to remove the asbestos from the elbow, valve fitting or pipe. At locations where the insulation rests directly on pipe by shimming with wood blocks or other suitable materials. Continue wetting the material as required. Thoroughly wet the remaining pipe and insulation and wash down the inside of the glove bag. Scrub or brush any remaining suspect insulation material from the pipe or fitting.
- G. When glove bag operations are complete, clean tools by cleaning any residual materials from tools and disposing of glove bag and water as contaminated waste.
- H. When the job has been completed, remove the spray nozzle, insert the HEPA vacuum nozzle, and turn on the HEPA vacuum to remove air from the bag. With the air removed from the glove bag, squeeze the bag tightly as close to the top as possible and twist seal and tape to keep the asbestos material safely at the bottom of the bag. Turn off the HEPA vacuum, remove the hose from the side port, and seal the side port with tape.

- I. Cut and remove the glove bag from the working area and place it into another plastic bag. Move bags to holding area or disposal storage unit. Re-insulate hot pipes with temporary non-combustible insulation upon completion of each shift's activities (when applicable).
- J. Seal polyethylene bags air tight. Ensure that all contaminated materials are double-bagged to yield a minimum covering of 12-mil thickness before removal from the work area. Single bagged material shall be placed in a clean bag or into a lined drum.
- K. Ensure all disposable containers are properly labeled in accordance with 29 CFR 1926.1101, CCR Title 8 1529, 40 CFR 61, SCAQMD (1403), DOT and any other applicable Federal, State or local regulations.

3.10 REMOVAL OF ASBESTOS-CONTAINING ROOFING MATERIALS:

- A. The following work practice requirements are for the removal/disturbance of asbestos-containing roofing materials. Mechanical removal practices, other than use of saw cutting, will require full compliance with SCAQMD Rule 1403 requirements. HEPA vacuuming of small debris is required. Gentle sweeping will be allowed as long as the material is adequately wet (29 CFR 1926.1101 and CCR Title 8 1529). HEPA vacuuming equipment will be operated in accordance with SCAQMD Operating Parameters for Rule 222. Workers shall wear disposable coveralls (double suit) and a minimum of Half Mask Air Purifying Respirators (APRs) with NIOSH approved asbestos cartridges for non-friable materials removal.
- B. Establish/install an equipment room or area that is adjacent to the regulated area and is equipped with a HEPA vacuum and water source for the proper decontamination of employees and their equipment. Personnel are required to HEPA vacuum disposable clothing prior to removing the disposable clothing in the equipment (dirty) room.
- C. As required by federal OSHA, CAL-OSHA, and any other applicable Federal, State, and local safety agencies, guard rails, scaffolding, rigging, etc. shall be installed as necessary prior to removal activities commencing. Ropes and safety harnesses must be utilized where applicable and where approved by the Contractors safety officer and OSHA/Cal-OSHA.
- D. Before work begins and as needed during the job, a competent person who is capable of identifying asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate such hazards, shall conduct an inspection of the work site and determine that the roofing material is intact and will likely remain intact.
- E. It is the Contractor's responsibility to perform inspections of the roofing system and to verify that it is safe to work on and to have materials removed from.
 - 1. Roofing material shall be removed in an intact state to the extent feasible.
 - 2. Wet methods shall be used to remove roofing materials that are not intact, or that will be rendered not intact during removal, unless such wet methods are not feasible or will create safety hazards.
 - 3. Remove all objects not fastened to existing structure from work area prior to commencement of removal activities.
 - 4. Cover all stationary objects and surfaces not intended for removal or stripping of asbestos containing roofing material. Cover and render air-tight all air passageways, such as doors, windows, skylights, air circulating units, vents and registers in the work area, with plastic sheeting, or hard wood barriers with studded support.
 - 5. Confine all debris associated with roofing removal activities and prevent dispersal into the facility structure.

6. Utilize plastic sheeting catch devices secured to the structure foundation to contain incidental falling of roofing debris.
7. Warning tape shall be installed surrounding buildings where debris may accidentally be dislodged during preparation and removal activities at a minimum of ten (10) feet from the perimeter of the building. Tape shall remain in place and inspected daily throughout the duration of the removal project.
8. When cleaning roof surface do not use tools or devices which would cause debris to become airborne i.e., brooms, blowers, high pressure rinse, etc.
9. Amended water will be used continually throughout the work period to ensure that any asbestos-containing material exposed by manual force or saw cutting, is wet and remains wet until final disposal. Unless a competent person determines that wetting substantially decreases worker safety.
10. Cutting machines shall be continuously misted during use, unless a competent person determines that misting substantially decreases worker safety.
11. When removing built-up roofs with asbestos-containing roofing felts and an aggregate surface using a power roof cutter, all dust resulting from the cutting operation shall be collected by a HEPA dust collector, or shall be HEPA vacuumed by vacuuming along the cut line. When removing built-up roofs with asbestos-containing roofing felts and a smooth surface using a power roof cutter, the dust resulting from the cutting operation shall be collected either by a HEPA dust collector or HEPA vacuuming along the cut line, or by completely wiping up the still-wet dust and debris left along the cut line. The dust and debris shall be immediately bagged or placed in covered containers.
12. The wetting solution shall be applied with airless spray or low pressure spray equipment to avoid displacement and dispersal of asbestos fibers. The Contractor shall be cautious when using water so as not to cause any water damage to the interior space of the building.
13. All efforts shall be made to manually loosen and remove the roofing material limiting breaking and chipping.
14. The Contractor shall insure that the interior space below the work area does not get contaminated with the fallout debris while removing the roofing materials. This area should be adequately policed during the removal operation. If there is any fallout debris resulting from the roof work the Contractor will be responsible for any damages as well as the clean-up of the debris.
15. A penetrating encapsulant shall be used during the cutting process to prevent asbestos fiber release, as directed by the Consultant/Resident Hygienist.
16. Asbestos-containing material that is being removed or has been removed from a roof shall not be dropped or thrown to the ground. Unless the material is carried or passed to the ground by hand, it shall be lowered to the ground via covered, dust-tight chute, crane or hoist.
17. All non-friable roofing materials will be carried to the edge of the roof where off loading and transport will take place by means of a chute, hoist or other approved means of removal from the roof.
18. Carefully lower asbestos-containing material that has been removed in unit(s) or section(s) to the ground or a lower floor without dropping, throwing, sliding, or otherwise damaging the asbestos-containing material, or transport the asbestos-containing material to the ground or a lower floor via leak-tight chute(s), or container(s) when removal occurs more than 50 feet above the ground level and were not removed in unit(s) or in section(s). Roofing materials transported off the roof via air tight leak tight

chutes must lead to a contained staging area where materials are properly stored in leak tight containers prior to leaving for disposal.

19. Any ACM that is not intact shall be lowered to the ground as soon as is practicable, but in any event no later than the end of the work shift. While the material remains on the roof it shall either be kept wet, placed in an impermeable waste bag, or wrapped in plastic sheeting.
20. Intact ACM shall be lowered to the ground as soon as is practicable, but in any event no later than the end of the work shift.
21. Upon being lowered, unwrapped material shall be transferred to a closed receptacle in such manner so as to preclude the dispersion of dust. Roofing material must be immediately sealed into an air tight container, covered drop box or plastic wrapping with 6 mil. minimum thickness.
22. Roof level heating and ventilation air intake sources shall be isolated or the ventilation system shall be shut down.
23. Immediately following removal of roofing materials, apply amended water to entire exposed surface.
24. Remaining wetted asbestos-containing waste materials, including plastic or wooded barriers, shall be placed in leak-tight containers or sealed plastic bags with 6 mil. minimum thickness.
25. Maintain on-site storage of encapsulated materials or leak-tight containers within an enclosed storage area prior to transportation. Leak-tight containers and encapsulated material shall not be accessible to the general public and shall be stored in properly lined, labeled and locked storage areas/bins when not in use.
26. All asbestos-containing waste material shall be placed in leak-tight containers that will not allow said material to escape while moving them from work areas to disposal container or transport vehicle.

If the Abatement Contractor elects to dispose of roofing materials via “burrito wrap” enclosure the Contractor must provide a letter from the approved asbestos waste disposal site providing information regarding proper “burrito wrapping” methods and proper methods for unloading from waste hauling container. Advanced approval from SCAQMD will also be required if the abatement Contractor intends to “burrito wrap” roofing materials.

3.11 CLEANING AND FINAL DECONTAMINATION

- A. Methods and Approvals: Cleaning methods and approvals shall consist of the following tasks performed in the listed order:
 1. Remove all visible accumulations of asbestos debris on all surfaces, and then HEPA vacuum all surfaces.
 2. After HEPA vacuuming, the work area air shall be lightly misted (with amended water) and then all surfaces shall be wet wiped thoroughly clean (first cleaning). When applicable, when the use of low-odor solvents has been employed the floor surface shall be aggressively mopped with either baking soda or other approved (odor absorbing) detergent and hot water as directed by the Consultant/Resident Hygienist.
 3. The Contractor shall decontaminate all tools and equipment by HEPA vacuuming and/or wet wiping prior to removal from the work area.
 4. All asbestos materials including waste bags shall be removed from the work area and all surfaces should be visually inspected by the Contractor’s Supervisor for visible dust, debris, and cleaned as necessary prior to requesting a visual inspection by the Consultant/Resident

Hygienist.

5. After the Contractor has completed the above steps, he shall request to have the Consultant/Resident Hygienist visually inspect the removal work area. Reference Section 3.12 Consultant's Approval of Removal Work.

3.12 CONSULTANT'S APPROVAL OF REMOVAL WORK:

- A. Upon completion of removal work and cleaning of the work area, but prior to commencing encapsulation of the work area, the Contractor shall request the Consultant/Resident Hygienist to conduct an inspection and approval of the removal work.
- B. The Consultant/Resident Hygienist shall inspect each regulated work area for visible debris, dust, or residue. If any accumulation of residue, dust or debris is observed during the inspection, the work area shall be re-cleaned by the Contractor as directed by the Consultant/Resident Hygienist.
- C. Upon obtaining the Consultant's written approval of final cleaning, the Contractor shall encapsulate all substrate surfaces and other surfaces within the work area as specified herein. Unless otherwise permitted, drying time shall be as specified by the manufacturer before final air sampling is conducted.
- D. After an acceptable visual inspection and encapsulation of the work area, clearance air samples will be collected by the Consultant/Resident Hygienist.
- E. If any of the post cleaning clearance air sample results are above the EPA AHERA "clearance" levels, the Consultant will require additional cleaning and decontamination by the Contractor and the above inspection and air tests shall be repeated by the Consultant/Resident Hygienist.

3.13 CLEARANCE AIR MONITORING

- A. Following an acceptable visual inspection and encapsulation of surfaces that were exposed during abatement and a subsequent satisfactory inspection of the completely cleaned work area by the Consultant/Resident Hygienist, post-abatement clearance air monitoring for all "Containment areas" will be conducted.
- B. The Consultant shall arrange for sampling of the air in the work area for airborne asbestos fiber concentrations. Air samples shall be collected in each "Containment" work area. All clearance air samples will be analyzed for airborne fiber concentrations in accordance with NIOSH 7400 (most current edition) for Phase Contrast Microscopy (PCM) and 40 CFR, Part 763, Subpart E (AHERA) for Transmission Electron Microscopy (TEM).
- C. All samples collected within a work area shall indicate fiber concentrations less than or equal to 0.01 fibers per cubic centimeter (f/cc) of total air volume of not less than 1199 liters using PCM analysis, or, if applicable, average concentrations of less than 70 structures per square millimeter (s/mm²) for total air volume of not less than 1199 liters using TEM analysis.
- D. Areas exceeding the clearance level shall be re-cleaned, re-encapsulated and re-tested until acceptable clearance levels are obtained. All costs associated with re-testing of an area shall be borne by the Contractor.
- E. Following the satisfactory completion of clearance air monitoring, work area isolation barriers shall be removed by the Contractor and properly disposed of as contaminated waste or as directed by the Consultant/Resident Hygienist.
- F. Air clearance sampling as described above does not apply to non-containment regulated areas (i.e., Roofing abatement).

3.14 RE-ESTABLISHMENT OF WORK AREAS AND SYSTEMS

- A. Re-establishment of each work area shall occur only following the completion of all heretofore described procedures and after clearance air monitoring has been performed satisfactorily.
- B. The Contractor will be responsible to repair all areas of damage that occurred as a result of the Contractor's activities.
- C. Any objects that were removed to temporary locations shall be relocated to their original position unless specified otherwise by the Owner, including re-installment of lighting and electrical fixtures.
- D. When applicable, the Contractor shall re-establish HVAC, mechanical and/or electrical systems in proper working order, as directed by the Owner's representative.

3.15 MONITORING, TESTING AND INSPECTION:

- A. The Consultant shall closely and continuously monitor the performance and execution of the work. The monitoring work shall be performed both around the work area and the surroundings to ensure full compliance with these specifications and all applicable regulations. Ambient air samples will be collected and analyzed by the Consultant/Resident Hygienist. The Contractor shall provide full cooperation and support to the Consultant throughout the work. Monitoring and inspections shall include air samples in the work space, air samples in the areas surrounding the work areas, and if necessary, periodic personnel samples at breathing levels on a number of workers, checking of the Contractor's standard operating procedures, engineering controls, respiratory protection equipment, packaging, transporting and disposal of asbestos waste, decontamination facilities and procedures, and any other aspects of the abatement process that may impact the health and safety of people and the pollution of the environment.
- B. The Owner shall bear all cost in connection with the laboratory work required in Paragraph A above. However, the costs of all subsequent laboratory analysis collected because the limits specified were exceeded on the initial testing shall be borne by the Contractor. The Contractor shall also conduct and bear the cost of personal air samples for Cal/OSHA compliance.
- C. The Contractor shall receive copies of all laboratory reports presenting the results of the Consultant's air monitoring and inspection program. All information shall be recorded in the Contractor's air monitoring log.

3.16 AIR MONITORING BY CONTRACTOR:

- A. The Contractor shall be responsible for personal air monitoring to document compliance with the OSHA/Cal-OSHA regulations for asbestos.
- B. The Analytical Laboratory shall be successfully participating in the AIHA / NIOSH Proficiency Analytical Testing (PAT) Program.
- C. Number and frequencies of personal air sampling shall be as required by OSHA/Cal-OSHA regulations but not less than two (2) samples per eight (8) hour work shift for each type of activity during times of asbestos removal work.
- D. Results of sample analysis shall be provided to the Consultant/Resident Hygienist within twenty-four (24) hours of collection.
- E. The Contractor shall at no additional charge install and provide AC power and extension cords for the Consultant to collect all area and final air clearance samples as deemed necessary by the Consultant/Resident Hygienist.

3.17 FINAL INSPECTION AND TESTING:

- A. After thorough cleaning of the work area, and satisfactory degree of cleanliness has been achieved, the Contractor shall notify the Consultant/Resident Hygienist that the work area is ready for inspection and final testing. The Consultant/Resident Hygienist and the Contractor shall then visually inspect the workspace for the detection of any visible asbestos dust or contamination. If the visual inspection does not reveal any dust or other signs of contamination, final air testing shall commence.
- B. The final test shall consist of collecting air samples in the work area to establish that airborne fiber levels do not exceed 0.01 f/cc as determined by PCM or an average concentration of 70 structures per square millimeter (S/mm²) for TEM, if applicable. Surface wipe samples may also be collected and analyzed at the option of the Consultant to confirm the results of the air sampling. If the results of the final testing are not satisfactory, thorough wet cleaning and/or HEPA vacuuming shall be repeated until the required "clearance levels" are achieved.
- C. After achieving the level of cleanliness and decontamination as specified herein and as confirmed by the visual inspections and final testing, the Consultant shall thoroughly inspect the space jointly with the Contractor to determine whether any damage has been done to the building/areas. A final inspection report shall be prepared jointly by the Consultant and the Contractor detailing the list of items (if any) to be fixed by the Contractor.

3.18 RESPONSIBILITY FOR DAMAGES: Any damages to any items or fixtures that has been the result of actions by the Contractor's personnel shall be repaired to their original condition without any additional cost to the Owner. A comparison to the pre-construction inspection report shall be the basis for the assessment of damages to be addressed.

3.19 RESTORATION AND REPAIRS: Repair and restore all items in accordance with the final inspection list specified herein. All surfaces within the work area must be free and clean of residues including but not limited to encapsulants, glue, tape, poly, etc.

END OF SECTION

SECTION 13280 - INORGANIC LEAD REMOVAL / CONSTRUCTION ACTIVITIES GUIDE

PART I GENERAL

1.1 DESCRIPTION OF WORK: The Contractor shall furnish all labor, materials, facilities, equipment, services, employee training and testing, permits and agreements, and waste transport and disposal necessary to perform the work required for the lead related construction activities including, but not limited to, removal, stabilization, and demolition of lead-containing paint/lead-based paint and lead components for the Rio San Gabriel Elementary School Window Replacement project located at 9338 Gotham Street, Downey, California. Lead paint related construction activities shall be conducted in accordance with Cal-OSHA, EPA/California Department of Public Health (when applicable), California Department of Toxic Substance Control, and any other applicable federal, state and local government regulations. Whenever there is a conflict or overlap of the above references, the most stringent provisions are applicable.

- A. The Work covered by this section includes the handling of Lead bearing paints and compounds which are encountered during the lead related construction activities of all painted surfaces including, but not limited to exterior/interior window frames / panes, and windowpane putty, and the incidental procedures and equipment required to protect workers and occupants of the buildings, from contact with airborne Lead dust, fallen dusts containing Lead, and attached Lead bearing materials. The work includes the proper packaging, labeling and storage of the removed Lead containing materials prior to disposal according to current Federal, State, Regional, or Local regulations that apply.
- B. The Contractor shall supply all labor, materials, equipment, services, insurance and incidentals, which are necessary or required to perform the Work. The Work shall be performed in accordance with applicable governmental regulations and these Specifications.
- C. The Contractor will be responsible for all medical monitoring before and after abatement in accordance with applicable laws and regulations including without limitation OSHA 29 CFR 1910.1025, 1926.62 and Title 8, CCR 1532.1.
- D. The Contractor will be responsible for all environmental and health and safety monitoring including without limitation conducting personal breathing zone monitoring and the posting of results.
- E. When mandated by the Consultant, the Contractor will be responsible for conducting all lead waste characterization tests to determine the proper disposal of lead waste generated by lead related paint/component removal or paint stabilization activities. Testing conducted by the Contractor the Consultant will observe all sample collection and shall be provided copies of the sample analysis prior to disposal of the Lead waste. Otherwise, the Consultant will be responsible for conducting the lead waste characterization tests. This includes but is not limited to Total Threshold Limit Concentration (TTLC), Soluble Threshold Limit Concentration (STLC) and Toxicity Characteristic Leaching Procedure (TCLP) (when applicable) testing.
 - 1. For building demolition the lead waste testing (composite of various lead painted and non-lead/unpainted building components) should be conducted prior to demolition to determine the proper waste stream and if segregation of components is necessary to reduce waste disposal costs. Lead Waste Characterization testing of the building components may be conducted by the Contractor or Consultant. **Intact Lead painted Metal Components shall be segregated from the waste stream and sent to an approved recycling company that accepts intact Lead painted metal components.** If the painted metal components are not segregated and sent to recycling, then the metal components shall be included in the waste stream and tested along with the remaining building components to determine the proper disposal. Based on the sample analysis the Contractor must make every effort to minimize the waste stream utilizing industry-accepted standards.
- F. The Contractor will be responsible for the removal, as specified, and proper packaging, labeling, storage, and transportation and disposal of all Lead-containing/lead based paint and

lead materials removed from surfaces as well as all removed components in the affected area(s).

- G. This Lead guideline specification is general in scope to cover conditions that most often occur. However, the Contractor is bound only by the applicable portions of the specification. Additional or specific instructions to the Contractor may be added as part of the Scope of Work of a contract. In such cases, the Contractor is bound by those special provisions or requirements.

1.2 RELATED WORK This section of the specification contains the requirements of the current Federal and State regulations for occupational exposure to Lead and Lead bearing compounds. The Contractor shall provide Asbestos abatement in accordance with the "Asbestos Abatement" section of this specification.

1.3 SCOPE OF WORK This specification covers lead related construction activities including, but not limited to removal, stabilization, and demolition of lead-containing paint/lead-based paint and lead components utilizing manual removal methods or chemical methods. The work covered by this section is in association with the scheduled renovation or demolition activities and is not intended to reduce or eliminate any lead hazards by design.

1.4 APPLICABLE PUBLICATIONS: The publications listed below are incorporated into this specification and shall be read as if printed herein. In case of conflict between the referenced documents and the requirements in the specification, the stricter requirements shall apply. When differences occur between Federal, State, Regional, City or local regulations or ordinances, the stricter requirements shall apply. However, only the regulations of agencies that have jurisdiction over the operations apply, others may be used as guidelines. Recommended practices by regulatory agencies or scientific advisory organizations may be used as guidelines in establishing current state-of-the-art practices.

A. CODE OF FEDERAL REGULATIONS:

29 CFR 1910.1025	Lead (General Industry)
29 CFR 1910.1020	Employee Access to Medical Records
29 CFR 1910 Subpart I	Personal Protective Equipment
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.1200	Hazard Communications Standard
29 CFR 1926.20	General Safety and Health - Construction
29 CFR 1926.21	Safety Training and Education (including confined spaces)
29 CFR 1926.25	Housekeeping
29 CFR 1926.28	Personal Protective Equipment
29 CFR 1926.51(f)	Washing Facilities
29 CFR 1926.55	Gases, Vapors, Fumes, Dusts, Mists
29 CFR 1926.57	Ventilation
29 CFR 1926.59	Hazard Communications Standards (Construction)
29 CFR 1926.62	Lead Exposure in Construction
29 CFR 1926.134	Respiratory Protection
29 CFR 1926.150	Fire Protection
29 CFR 1926.353	Ventilation-Welding, Heating, etc.

40 CFR, Parts 261, 262, 268 - RCRA (Resource Conservation & Recovery Act) of 1976, as amended in 1980 and 1984 - Hazardous Waste Disposal (Toxic & Hazardous Chemicals).

40 CFR PART 745, Lead Based Paint Poisoning Prevention in Certain Residential Structures

49 CFR - Department of Transportation (DOT) Regulations regarding the proper packaging, labeling and transportation of hazardous materials

HUD Department of Housing and Urban Development (If Applicable)
Technical Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing

B. STATE OF CALIFORNIA & LOCAL REGULATIONS

CCR Title 8 1532.1	Construction Safety Orders, Lead (Amended March 6, 2007)
CCR Title 17 Div1 Ch 8	Accreditation, Certification, and Work Practices For Lead-Based Paint and Lead Hazards
South Coast Air Quality Management District, Rule 1420	Emissions Standards for Lead
CCR Title 8, 5144	Respiratory Protection
CCR Title 8, 5194	Hazard Communication
CCR Title 22	Department of Toxic Substance Control (DTSC)
CCR Title 8, 5156, 5157, 5158	Confined Spaces
CCR Title 8	Construction Safety Orders 1500-1938 (as applicable)

C. GUIDANCE DOCUMENTS

1. National Institute for Occupational Safety & Health, (NIOSH), Occupational Exposure to Inorganic Lead, Criteria for a Recommended Standard. Pub 78-158, 1978.
2. U.S. EPA, Air Quality Criteria for Lead, EPA-600/8-83/028a, Final Draft, 1986.
3. National Institute for Occupational Safety & Health (NIOSH), NIOSH Respirator Decision Logic, Pub 87-108, 1987.
4. National Institute for Occupational Safety & Health (NIOSH), NIOSH Guide to Industrial Respiratory Protection, Pub 87-116, 1987.
5. National Institute for Occupational Safety & Health (NIOSH), Recommended Industrial Ventilation Guidelines, Pub 96-162.
6. American Conference of Governmental Industrial Consultants (ACGIH), Industrial Ventilation Manual, 22 Edition, 1980.
7. American National Standards Institute (ANSI) Pub Z9.2-79 Local Exhaust Ventilation Systems. Pub Z88.2-80 Practices for Respiratory Protection.
8. American Conference of Governmental Industrial Hygienists (ACGIH), Documentation of "Threshold Limit Values and Biological Exposure Indices", Fifth Edition, 1989 - 1990.
9. Department of Housing and Urban Development, Office of Public & Indian Housing, *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (2012 Edition)*.

1.5 DEFINITIONS AND REQUIREMENTS:

- A. Lead: all metallic Lead, inorganic Lead compounds, Lead containing paints, bulk Lead sheets, and organic Lead soaps.
- B. Action Level: Exposure without the use of respirators to airborne concentrations of Lead in the

breathing zone of 30 micrograms/cubic meter (ug/m³) of air sampled and average over an 8-hour work period.

- C. Permissible Exposure Limit: A limit of 50 ug/m³ Lead exposure averaged over an 8-hour work period. The 8-hour time-weighted average (TWA) allowable exposure is reduced proportionately if more than 8 hours are worked that day. Periods when respirators are worn may be calculated with periods when they are not worn according to the respirator protection factor to develop the 8-hour TWA. (Reference 29 CFR 1926.62, Title 8, 1532.1).
- D. Exposure Monitoring: The following criteria must be met:
1. Sample of breathing zone exposure as if no respirator were worn.
 2. Sample for at least (7) hours of the 8-hour work shift.
 3. Sample the most exposed employee for each job classification in each different work area.
 4. Full shift samples must be representative of the employees' regular daily exposure to Lead.
 5. The employer must determine by air sampling if employees are exposed to lead at or above the Action Level or above the Permissible Exposure Limit.
 6. Air monitoring reports shall include at a minimum:
 - Date, names, social security numbers
 - Locations
 - Area name/job classifications.
 - Sample Time.
 - Sample volume.
 - Sampling and analytical techniques
 - Type of Respiratory Protection worn
 - Airborne lead concentrations (ug/m³).
 - Note actions taken in response to exceeding the established exposure levels.
 7. All air sampling data must be recorded even that which shows that employees are below the Action Level.
 8. Weekly reports shall be submitted along with pay requests for Completed Work.
- E. Frequency: If initial monitoring results show that occupational exposure of workers is below the Action Level, then only periodic monitoring is required. If initial air monitoring results are above the Action Level, but below the PEL, sample every six months. When the monitoring results are above the PEL, then monitoring must continue at least quarterly until results show that exposures have fallen below the Action Level. Whenever there are changes in the operations, or type or location of the work, initial monitoring must be repeated to establish the workers' exposure.
- F. Notification: Within five (5) days following receipt of monitoring results, the employer must make the information available to the employees in writing. Posting of results, on site, is required.
- G. Method of Compliance: When employees are exposed to Lead above the PEL, then engineering controls (e.g., ventilation), administrative controls, and work practice controls (e.g. housekeeping, regulated areas, hand washing facilities) are required to reduce the exposures to below the PEL.
- H. Respiratory Protection: Where a negative exposure assessment has not been performed and/or where engineering controls and change of work practices may not reduce the employee exposures at or below the PEL of 50 ug/m³, then proper respiratory protection as defined in

Paragraph (f) of 29 CFR 1926.62 and Title 8 1532.1, and Title 8 5144 Table 1, must be used according to the airborne concentrations of Lead present in the breathing zone.

- I. Compliance Program: Each employer shall develop a written compliance program for the control of occupational exposures to Lead below the PEL. Compliance programs must be explicit in the methodologies to reduce employee exposures. This program must be provided to the Consultant five (5) days prior to project commencement.
- J. Mechanical Ventilation: The ventilation systems must meet ANSI criteria and be tested for static pressure at least every three months, or directly after maintenance or major repair. Temporary mechanical ventilation, such as negative air machines, must be inspected daily for leaks and proper assembly. HEPA filter systems must be inspected for leaks daily.
- K. Recirculation of Air: Air that is returned to the work space must be filtered with a HEPA filter to retain the Lead particulate. Such devices must be inspected daily.

Also, open vents, shafts or ventilation systems inlets and outlets must be sealed shut to prevent capture of the Lead dust in the air which would be transported throughout the influence of the ventilation system.

- L. Administrative Controls: If the employer uses administrative controls to reduce employee overall exposures to Lead, then careful scheduling must be conducted to ensure that employees are not accidentally overexposed above the PEL.
- M. Respiratory Program: The employer shall establish a written respiratory program in accordance with 29 CFR 1910.134 and CCR Title 8, 5144. Each employee must be trained and instructed in the handling and use of the appropriate respiratory protection required for the work area(s) where the established airborne lead concentration has been determined.
- N. Protective Clothing: The employer shall provide appropriate protective work clothing and equipment which includes but is not limited to, disposable coveralls or similar full-body work clothing, gloves, hats, shoes or disposable shoe coverlets, and face shields or vented goggles. Dirty clothing can be a substantial contribution to the worker's inhalation or ingestion of Lead dust and may be a source of introduction into the home where children may reside.
- O. Cleaning and Replacement of Lead contaminated clothing, gloves, shoes, goggles, hats, etc: The employer must make provisions to clean protective clothing *daily* if the exposure levels exceed 200 ug/m³ as an 8 hour TWA.
- P. Laundry: The employer must inform in writing any person who cleans or launders protective clothing of the Lead contaminated clothing and label the bags which are transported to the laundry with the following:

CAUTION - CLOTHING CONTAMINATED WITH LEAD, DO NOT REMOVE DUST BY SHAKING OR BLOWING. DISPOSE OF LEAD CONTAMINATED WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL REGULATIONS.

- Q. Air Hoses: The use of air hoses to remove dust from clothing, equipment, or other protective clothing is *prohibited*.
- R. Housekeeping: The following practices shall be used;
 - 1. Maintain the surfaces as free of Lead as practical.
 - 2. Air cleaning with air hoses or blowers on surfaces is prohibited.
 - 3. Shoveling, or gross removal may only be done in enclosed, ventilated areas and where employees are properly protected.
 - 4. Where vacuuming is used, the vacuum must be fitted with a HEPA filter.

5. Clean-up of the work area must be done daily.

- S. Eating and Rest Places: Rest places and places where employees eat must be kept free of Lead contamination. Eating, drinking, chewing, smoking or applying skin creams or lotions in Lead contaminated work areas is *prohibited*. Ingestion is a major source of introduction of Lead into the body.
- T. Hygiene Facility: The employer shall provide clean, adequate hygiene facilities to comply with 29 CFR 1926.62 and CCR Title 8, 1532.1. Washing facilities are required. Employees need to wash their hands and face before eating, drinking, chewing, or smoking.
- U. Medical Surveillance: The employer shall make available initial medical surveillance to employees occupationally exposed on any day to lead at or above the action level. The employer shall also initiate a program of medical surveillance for all employees who are or may be exposed at or above the action level for more than 30 days in any consecutive 12 months. The medical surveillance shall be made by a licensed physician using the protocol defined in 29 CFR 1926.62 and CCR Title 8, 1532.1.
- V. Medical Notification: The employer shall notify, in writing, each employee within five working days after the receipt of biological monitoring results of his or her blood lead level. Each employee whose blood Lead levels are at or above 40µg/dl shall be notified by the employer of the Cal-OSHA medical removal requirements, as described in CCR Title 8 1532.1. These employees shall be monitored according to the schedule in 29 CFR 1926.62 and CCR Title 8, 1532.1.
- W. Medical Removal: The employer shall remove an employee from work having an exposure to lead at or above the action level on each occasion that a periodic and a follow-up blood sampling test conducted pursuant to CCR Title 8 1532.1 indicate that the employee's blood lead level is at or above 50ug/dl and as described in CCR Title 8 1532.1.
- X. Employee Information and Training program: The employer shall provide initial training for employees who may be exposed to Lead dust above the Action Level (AL) or above the Permissible Exposure Limit (PEL).
- Y. Signs: The employer shall post signs at the work site that are readily visible to those who enter where the PEL is or may be exceeded. They shall read:

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

- Z. Record Keeping: The employer shall keep accurate records of medical examinations, blood lead data, air sampling results, ventilation system inspections, the number and names of employees present, the respiratory protection worn, the protective equipment worn, and workers medically removed from the job and any other job site variables that affect the exposures of the workers. Exposure monitoring records must be kept for at least thirty (30) years and biological monitoring and medical records must be kept for the duration of employment plus thirty (30) years. The records affecting each employee must be made available on request.
- AA. Observation of Monitoring: The employer must make methods and observations available to employees of the air monitoring on the job. Individual medical information must not be disclosed without the employee's permission.

1.6 QUALITY ASSURANCE

A. Onsite Observations:

1. The Consultant will perform on site project oversight, air monitoring and visual inspections during all lead-related construction activities including lead related building demolition.
2. Consultant/Resident Hygienist will provide observations regarding integrity of barriers, contamination control, decontamination facilities, enclosures (when they are used), protective clothing, worker protection programs, Contractor's air monitoring procedures, proper performance of the lead related work including work area preparation, isolation, packaging and labeling of refuse and compliance with the EPA, OSHA, State, City and Local regulations affecting the job.
3. If at any time, the Consultant/Resident Hygienist determines that the work practices are in violation of applicable regulations or defined procedures, or practices that endanger the employees, he/she shall notify the Contractor orally that operations must cease until approved corrective action is taken. The notification shall be followed by a written confirmation to the Contractor.
4. If the work has been stopped for reasons in 1.6.A.3 above, the work may not be restarted until the Contractor receives a written authorization to proceed from the Consultant/Resident Hygienist. The Contractor shall bear the costs of the delay due to non-compliance with the regulations, specifications or the contract.
5. Any costs resulting from such a stop work order issued by the Consultant/Resident Hygienist and any work costs involved in restarting the work will be borne by the Contractor and will not be considered as the basis for an increase in the contract amount or time due to delays.
6. The safety of the Contractor's employee used under this contract specification and any visitors on the job site are the sole responsibility of the Contractor.

B. Auditing of the Contractor:

1. The Abatement site will be audited by the Consultant/Resident Hygienist, as the Consultant/Resident Hygienist deems necessary relative to compliance with all applicable Federal, State and Local laws, standards and regulations.
2. Allow the Consultant or its representative access to the site, logbooks and monitoring data upon request.
3. Provide the Consultant/Resident Hygienist on a weekly basis the following reports:
 - a. Weekly logs.
 - b. Airborne monitoring results for each work area.
 - c. Job site inspection forms
 - d. Weekly written confirmation that the air outside the Work area has not been affected by the Lead abatement activities.
4. Chain-of-custody forms are to be kept for all samples collected.

1.7 TITLE TO MATERIALS All lead bearing materials and refuse resulting from removal operations or demolition work, except as specified herein, shall remain the property of the Owner and shall be disposed of according to Federal and State regulations in an EPA approved landfill.

- 1.8 PROTECTION OF EXISTING WORK TO REMAIN** The Contractor shall perform the Lead paint/component removal and demolition work without *damage or contamination* of the adjacent areas. The California Department of Public Health (CDPH) considers contamination outside the work area a “lead hazard”. Where adjacent areas are damaged or contaminated with Lead dust or refuse, it shall be restored, by the Contractor, to its original condition at no expense to the Owner. The restorative procedures shall be performed in accordance with the CDPH Regulations (Title 17 CCR, Division 1, Chapter 8) and approved by the Owner’s representative or the Consultant prior to the start of restoration or decontamination.
- 1.9 MEDICAL REQUIREMENTS** The Lead standard is strict about the medical monitoring of employees exposed to Lead bearing dusts, fumes or mists. The employer must conduct the initial monitoring of the work place as required and use that information to develop a plan for medical monitoring of the employees. It is to the Contractor’s advantage to keep the airborne concentrations of Lead in the air at or below the Action Level of 30 µg/m³ a point at which no medical monitoring is required. If the airborne lead concentrations are above the Action level for representative 8-hour TWA workdays, then a vigorous medical surveillance program, in accordance with 29 CFR 1926.62 and CCR Title 8, 1532.1, must be initiated including blood Lead analysis. The Medical records must be kept on each worker for the duration of employment plus 30 years.
- 1.10 TRAINING** Prior to the assignment to Lead Related Construction Work, each employee must be instructed about the hazards of Lead in accordance with the requirements of the Hazard Communication Standards (29 CFR 1926.59 and Title 8 CCR 5194) and the procedures and equipment that must be used to minimize exposures. This includes the use of respirators, protective clothing and methods of removal.
- For employees subject to exposure to lead at or above the action level on any day the employer shall provide a training program in accordance with 29 CFR 1926.62 and Title 8 CCR, 1532.1.
- In addition, all employees and supervisors must be certified by the State of California Department of Public Health (CDPH) when engaged in Lead related Construction Work in residential and public buildings, as defined by CCR, Title 17 Div. 1, Ch 8, when workers have been shown to be exposed to airborne lead concentrations in excess of the PEL. Unless a negative exposure assessment has been performed the Contractor shall assume that when they are performing any one or a combination of the “trigger tasks” listed in Title 8 CCR, 1532.1 (d) that airborne concentrations of lead will be in excess of the PEL. Any Federal, State, Regional, City or Local permits or licenses required must be obtained by the Contractor prior to beginning work.
- 1.11 PERMITS AND NOTIFICATIONS** Secure all necessary permits in conjunction with the Lead related work and provide timely notification of such actions as may be required by Federal, State or Local authorities. Except, as negotiated, the Contractor shall procure and pay for all permits and inspections, except those performed by the Owner, and shall furnish any bonds, security, or deposits required to permit performance of the work defined. The Contractor will be responsible for the determination of required notifications and postings to the California Department of Public Health Services (Title 17, Div 1, Ch 8) and/or Cal-OSHA, for the lead work to be conducted.
- 1.12 SAFETY COMPLIANCE** In addition to detailed requirements of this specification, the Contractor shall comply with the safety and health requirements of applicable Federal, State and Local regulations. Where interpretations are necessary, they shall be obtained before commencing work. Where the referenced regulations vary, the most stringent requirements shall apply.
- 1.13 RESPIRATOR PROGRAMS** All workers engaged in Lead Related Construction work will wear the appropriate respirator for the existing lead concentration. The Contractor shall prepare a respirator program as required in 29 CFR 1926.62 and CCR Title 8, 1532.1. The respiratory requirements in Table I, 29 CFR 1910.134 and CCR Title 8, 5144 - must be followed. They are:

Airborne Concentration of Lead and Use	Required Respirators
Not in Excess of 500 ug/m ³ (10X PEL)	Half-mask, air-purifying respirator with HEPA filters. Half-mask supplied air respirator operated in demand mode (negative pressure) mode. Half-mask SCBA operated in demand mode
Not in Excess of 1,250 ug/m ³ (25X PEL)	Loose fitting facepiece, hood/ helmet PAPR with HEPA filters Loose fitting facepiece, hood/helmet supplied air respirator operated in a continuous flow mode
Not in Excess of 2500 ug/m ³ (50X PEL)	Full face air purifying respirator with HEPA filters. Half-mask PAPR with HEPA filters Full face supplied air operated in demand mode Half- mask supplied air operated in continuous flow mode or pressure demand or other positive pressure mode Full face or hood/helmet SCBA operated in demand mode
Not in Excess of 50,000 ug/m ³ (1,000X PEL)	Full face PAPR with HEPA filters Full face supplied air operated in continuous flow or pressure demand or other positive pressure mode.
Not in Excess of 100,000 ug/m ³ (2,000X PEL)	Full facepiece self-contained breathing (SCBA) operated in pressure demand or other positive pressure mode.
Greater than 100,000 ug/m ³ or unknown	Full face or hood/helmet self-contained breathing (SCBA) operated in pressure demand or other positive pressure mode.

Notes:

1. HEPA means High Efficiency Particulate filter at 99.97% efficiency collection of .3 micron diameter particles or larger.
2. The values in the table are based upon reasonable measurements in the breathing Zone of workers for an 8 hour time-weighted average work day.

The Workers must be properly trained in the care, use and maintenance of respirators. The employer shall ensure that an employee using a tight-fitting facepiece respirator is fit tested prior to initial use of the respirator, whenever a different respirator facepiece (size, style, model or make) is used, and at least annually thereafter. The Contractor must implement a formal respiratory protection program as required by 29 CFR 1926.62 and CCR Title 8, 1532.1.

The Workers may not remove their Respirators until they enter the washing area (or equivalent) of the decontamination chamber.

1.14 SUBMITTALS The Contractor shall furnish the following items clearly identified as stated: Submittals items are to be submitted before project begins (at or before the Pre-construction Meeting). Abatement will not begin until the Consultant has received and approved the submittals:

- A. Certification of Compliance: Submit the manufacturer's certification that vacuums, ventilation equipment or other equipment required to remove, demolish, or disturb Lead paints / components

conforms to ANSI Z9.2 (See references)

- B. Lead Work Plan: Submit a detailed plan of the work procedures to be used to accomplish the Lead related work, as required by OSHA, Cal-OSHA. Such a plan shall include the location of Lead control areas, change rooms, rest areas, eating areas, mini-enclosures (if used) methods of packaging, labeling and storage.

The Contractor must not deviate from procedures set forth in this specification, unless express permission is granted by the Consultant. All deviations from established Lead related work are subject to review and approval by the Owner's representative or the Consultant. Applicable regulations must be obeyed.

- C. Testing Laboratory: Submit the name, address and telephone number of the testing laboratory selected for the monitoring of airborne concentrations of Lead as well as the lead waste characterization testing, if not conducted by the Consultant. The analytical laboratory shall be accredited by AIHA ELLAP or NLLAP and be a current participant in the AIHA, NIOSH, EPA Environmental Lead Proficiency Analytical Testing Program (ELPAT).
- D. Industrial Consultant/Safety Personnel: Submit the name of any industrial Consultant or safety personnel who will be involved in the Contractor's Lead monitoring and training program. If third party monitoring of the air is conducted the name of the organization conducting the work must be offered by the Contractor.
- E. Monitoring Results: The results of air monitoring or blood Lead analyses shall be submitted to the Consultant for review within 24 hours after the Contractor receives them. Any unwarranted overexposure must be reported to the Consultant who will review the methods of prevention developed by the Contractor.
- F. Competent Person / Site Safety Personnel: Name of the Competent Person assigned to conduct project site safety inspections as required by 29 CFR 1926.62 and Title 8, 1532.1.
- G. Landfill: Submit written evidence that the landfills or EPA dump sites are approved by the Federal, State, or Local authorities for disposing of the Lead bearing refuse. A landfill (dump site) log or manifest must be maintained, and a copy submitted to the Consultant. All dump receipts must be reconciled with the manifest and provided to the Consultant for review.
- H. Permits: Submit copies of any required permits as they pertain to the identified Lead related work as applies, and proof that all arrangements have been made for the transportation and disposal of the Lead bearing materials and refuse to a dumpsite approved by the EPA or local authorities.
- I. Schedule and Work Plan: The Contractor shall submit a written work plan and work force schedule to the Consultant for review prior to project start. The plan must establish the locations, expected rates of lead related work, start and completion dates and number of workers assigned on the job. The plan should include any time-phased work or phasing out of the job at the end.
- J. Respirator Program: As noted above, the Contractor must develop a viable respirator program based upon monitoring results on the job. The Consultant for the Owner may conduct air sampling and review of conduct of operations for compliance to the regulations and conformance to the contract.
- K. Disposal Site Records: Upon completion of the Lead related work the Contractor must submit the transportation manifests and dump receipts that are reconciled to the Consultant for review. This phase is part of the contract, and the Contractor will not be released until this action is completed.
- L. Signed documentation of proper and current lead training and education for all proposed workers including respirator use training, and copies of OSHA/Cal-OSHA specified medical exams with respirator approvals.

- M. Close Out Documentation: within 10 days of project completion the Contractor must provide all documentation generated during the project. Documentation shall include but is not limited to: supervisors daily logs, signed daily personnel logs, visitor entry/exit logs, employee entry/exit logs for regulated areas, manometer print reports or logs (as applicable), filter change logs for all air filtration units, water, and respirators, air monitoring sample results for personnel, work areas, air monitoring sample results for air filtration (when required), safety meeting attendance and any other contractor generated documentation for inclusion in a final closure report.

1.15 SANITARY FACILITIES Adequate toilet facilities are required at the work site. The Contractor is required to provide a lunch/rest area away from contaminated areas as well as soap and water to wash hands and faces prior to eating. This includes an area to change clothes and clean or repair respirators. Where toilet facilities do not exist in the building, the Contractor shall provide temporary toilet facilities.

1.16 DELIVERY, STORAGE AND PROTECTION

- A. Delivery: Deliver all materials in the original packages, containers or bundles bearing the manufacturer and brand name.
- B. Storage: Store all materials subject to damage off the ground, away from wet or damp surfaces. Lead waste materials or refuse must be stored in locked and properly labeled dumpsters, bins, drums including painted components that have been removed from building or site structures but have not yet been tested for proper waste disposal.
- C. Protection: Damaged or deteriorating materials shall not be used and shall not be discarded on the premises. This includes any refuse that is not Lead bearing that is generated by the Contractor, which must be removed from the premises. Any materials that become contaminated with Lead bearing materials that cannot be decontaminated shall be properly disposed of in accordance with the applicable Federal, State and Local regulations.

END OF PART 1 - GENERAL

PART 2 PRODUCTS

2.1 RESPIRATORS

- A. Selection: Select respirators from those currently approved by the National Institute for Occupational Safety & Health (NIOSH) as defined in the NIOSH Certified Equipment List (most current).
- B. Respirators: Provide respirators of the type listed in the Tables of 29 CFR 1910.134 and CCR Title 8, 5144 for the airborne concentrations of Lead encountered for handling, removal, decontamination, packaging or disposal.
- C. Types of Respirators: The types of respirators required are defined in Table I described above. If the lead related work to be conducted does not fall into one of the OSHA "Trigger Tasks", the Contractor must initially measure the airborne concentrations and select the appropriate respirator. Historical data may be relied upon for proper respirator selection if the data conforms with the OSHA, Cal-OSHA requirements including any exceptions. In all other cases, the Contractor must obtain approval from the Consultant for special conditions.

2.2 ENCAPSULANTS

- A. Penetrating: Where the Contractor wishes to use encapsulants or is directed by the Owner's representative or included in the scope of work, there are a large number of encapsulants for fine particles available. The encapsulants should meet the EPA's recommendations for application and composition. Any other products must be approved by the Consultant before use.
- B. Bridging: There are a number of bridging encapsulants available on the market that meet the EPA recommendations for application and composition to surface coat contaminated surfaces. Any deviations must receive the Consultant's approval.

- 2.3 PLASTIC SHEET** Plastic sheet used for Lead abatement shall be used in sufficient size and length to reduce the number of joints. Plastic sheeting shall be fire retardant or equivalent and the minimum thickness shall be:

APPLICATION	THICKNESS
Wall Barriers	4 mil
Floor Barriers	2 layers of 6 mil
Other Applications	6 mil

- 2.4 PLASTIC BAGS** Any plastic bags used for containment of Lead bearing material refuse, contaminated clothing or tools, or other materials used in the work area shall be polyethylene and a minimum of 6 mil in thickness. The bags must be labeled with a proper warning/generator label, sealed and placed into a labeled 55-gallon metal drum.
- 2.5 TAPE** Duct tape shall be capable of sealing joints of adjacent plastic sheet and attachment of plastic to surfaces under wet or dry conditions and be able to stick when wetted with amended water.
- 2.6 DISPOSAL CONTAINERS** Disposal containers shall be leak tight and shall be labeled in accordance with the EPA, California Department of Toxic Substance Control (CCR Title 22), DOT and any other requirements of Federal, State and Local authorities that apply.
- 2.7 EYE PROTECTION** During Lead related work activities employees will need protection from airborne particles during scraping, removal, demolition, and packaging of waste. The Contractor is responsible to provide eye protection and any other necessary protective measures in accordance with 29 CFR

2.8 SPECIAL CLOTHING

- A. Protective Clothing: The Contractor must provide workers who may be exposed to Lead dust, or airborne concentrations above the OSHA PEL, protective clothing and work clothing, such as:
- Coveralls, or similar full body clothing.
 - Head covers, gloves, hats, shoe covers, etc.
 - Face shield or goggles, where required.
- B. Work Clothing: Provide work clothing and safety devices along with the protective clothing as required. Such safety devices, rubber boots, etc. may be decontaminated and reused after inspection by the Consultant.

- 2.9 **WARNING SIGNS** The employer shall post the following warning signs in each work area where the PEL could reasonably be exceeded.

DANGER
LEAD WORK AREA
MAY DAMAGE FERTILITY OR THE UNBORN CHILD
CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM
DO NOT EAT, DRINK OR SMOKE IN THIS AREA

The Contractor shall place two (2) inch wide barrier tape with the wording “CAUTION: LEAD-PAINT WORK AREA” at the entrances to each work area to discourage unauthorized entry.

- 2.10 **SURFACTANTS (WETTING AGENT)** Surfactants shall be mixed as recommended by the manufacturer to produce amended water. Generally, the ratio is about (30:1) or one cup of surfactant to 30 gallons of water, depending upon the concentrations of the original material.

- 2.11 **SOLVENTS, CHEMICALS, AND NEUTRALIZERS** Shall be used in accordance with manufactures instructions. Additionally the Contractor shall comply at a minimum with recommended safety precautions, equipment, and handling per the products Safety Data Sheets and Federal, State, Local regulatory requirements. All products must have approval from the Owner’s representative and/or the Consultant before use.

- 2.12 **OTHER MATERIALS** The Contractor shall provide standard commercial grade quality of all other materials such as lumber, nails and hardware which may be required to construct or dismantle the decontamination areas and barriers that isolate the Lead work areas.

2.13 TOOLS AND EQUIPMENT

- A. Water Sprayer: Water sprayers for amended water or encapsulants shall be an airless or other low-pressure type, such as hand sprayers.
- B. Airless Sprayer: An airless sprayer may be used for the application of penetrating wash solution such as sodium hexametaphosphates to remove Lead residues from walls or other surfaces.
- C. Negative Air Machines: All negative air machines shall be of the type that filters the exhaust through a HEPA filter and properly permitted through SCAQMD. They must be vented outside the enclosures. A failure of the exhaust system may contaminate the entire work area with fine airborne Lead dust, which cannot be seen with the naked eye, thus creating an unknown and unwarranted exposure to occupants.
- D. Exhaust System Requirements: A local exhaust system must be provided to the work area where airborne concentrations can reasonably be expected to exceed the PEL of 50 µg/m³ for an 8-hour time- weighted average workday. Where exhaust systems are used to ventilate enclosures, a minimum pressure differential of -0.02 inches of water must be maintained to ensure that Lead-

containing dusts cannot escape. All filters and exhaust equipment must conform to the ANSI Z9.2 HEPA requirements.

- E. Vacuum Equipment: All vacuum equipment utilized in the work area shall use the HEPA filters on the discharge and be suitable for wet use where water is involved. Vacuum equipment, which is exhausted outside the work area, shall be properly permitted and operated in accordance with SCAQMD.
- F. Scaffolding: Scaffolding as required shall meet the current safety and health regulations administered by the Federal or applicable State standards.
- G. Transportation Equipment: Transportation equipment shall be suitable for loading, temporary storage, transit and unloading of contaminated waste without exposure to persons or property. All transportation of Lead refuse to the dump sites must be in enclosed covered vehicles.
- H. Electrical: Electrical tools and equipment shall meet all applicable codes and regulations. Ground fault interrupters and assured grounding programs are required because of the wet nature of some of the Lead Paint removal projects.
- I. Fall Protection: The Contractor shall adhere to the Fall Protection requirements set forth in 1926.502 and CCR Title 8, 1669-1672.

END OF PART 2 - PRODUCTS

PART 3 - EXECUTION

3.1 WORK PROCEDURE All Lead related work must be performed in accordance with all applicable Federal, State and local regulations. At a minimum, the following procedures that are known to control the release and spreading of Lead dust must be utilized:

- A. Wet removal procedures
- B. Proper housekeeping (continual cleaning of work area) including the use of HEPA vacuums.
- C. Personal Protective Equipment must be worn where workers are in contact with Lead dust and use of hygiene facilities to prevent spread of contamination.
- D. Negative pressure enclosures to enclose Lead paint removal operations where mechanical sanding and abrasive blasting methods are used.

3.2 MANUAL REMOVAL METHODS CONTROL AREA (ENCLOSED) As directed by the Consultant, for the interior or exterior removal of lead paint or lead components utilizing manual removal methods including, but not limited to, manual demolition, manual scraping (paint film stabilization), manual sanding, and use of HEPA attached power tools conducted in and/or adjacent to occupied areas an enclosed method of Lead control shall be used and the following procedures are required:

- A. Seal all openings where the release of Lead could occur with two (2) layers of 6-mil fire retardant polyethylene sheeting secured with duct tape (windows, doorways, HVAC systems, and any other openings).
- B. Cover floors, ground surfaces and stationary items within the work area with a minimum of one (1) layer of 6-mil fire retardant polyethylene sheeting secured with duct tape.
- C. Properly demarcate with bilingual Lead Warning signs at all approaches to the regulated work areas to prevent unauthorized personnel entering the regulated work area(s).
- D. When applicable and as directed by the Consultant, utilization of negative air machines for total enclosures or for partial enclosures.
- E. Mini-enclosures may be used where only small amounts of Lead Paint must be removed. Mini-enclosures may only require ventilation using a HEPA vacuum cleaner that will provide negative pressure ventilation.
- F. Install a Decontamination area as described in Section 3.8 "Decontamination Area" of this specification.
- G. Wet methods shall be utilized to reduce the release of airborne lead dust. Prompt clean-up by use of HEPA vacuums and wet methods and proper packaging of all generated lead waste.
- H. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.

3.3 MANUAL REMOVAL METHODS OPEN CONTROL AREA - As directed by the Consultant, for the removal of lead paint or lead components utilizing manual removal methods including, but not limited to, manual demolition, manual scraping (paint film stabilization), cutting, drilling, manual sanding, and use of HEPA attached power tools conducted outdoors or indoors at unoccupied areas and adjacent to unoccupied areas an open area may be used as approved by the Consultant and the following procedures are required:

- A. Establish designated limits to the Lead work area by using Lead Warning tape and other continuous barriers or barricades, as directed by the Consultant, to separate the Lead operations.
- B. Properly demarcate with bilingual Lead Warning signs at all approaches to the regulated work areas to prevent unauthorized personnel entering the regulated work area(s).

- C. Cover floors, ground surfaces beneath the removal area with a minimum of one (1) layer of 6-mil fire retardant poly sheeting extending a minimum of 10 feet in all directions secured with duct tape or heavy supports. All areas shall be pre-cleaned so as to remove any existing lead paint chips.
- D. Install a Decontamination area as described in Section 3.8 "Decontamination Area" of this specification.
- E. Clean-up of lead debris and paint chips generated by the lead paint/component removal must be conducted by the Contractor on a continuous basis. If the Consultant observes a large amount of accumulated lead debris and / or lead paint chips, the lead activities will cease, and clean-up activities will continue until approval by the Consultant to resume the lead removal activities.
- F. Wet methods shall be utilized during all lead removal activities to reduce the release of airborne lead dust. Prompt clean-up by use of HEPA vacuums and wet methods and proper packaging of all generated lead waste.
- G. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.

3.4 DEMOLITION OF BUILDING STRUCTURES Demolition of building structures with intact lead painted building components shall be conducted upon completion of removal of identified loose and flaking paint (paint film stabilization) from various building components. For the demolition by mechanical methods of building structures that contain intact lead painted building components the following minimum procedures are required:

- A. Establish designated limits to the Lead work area by using Lead Warning tape and install hard barriers such as temporary fencing or temporary walls around the perimeter of the work area.
- B. Properly demarcate with bilingual Lead Warning signs at all approaches to the regulated work areas to prevent unauthorized personnel entering the regulated work area(s).
- C. Install a Decontamination area as described in Section 3.8 "Decontamination Area" of this specification.
- D. Continual misting (wet methods) shall be conducted prior to and during all demolition activities including segregation and loading of demolition debris.
- E. Clean-up of lead debris and paint chips generated by the demolition activities must be conducted by the Contractor on a continuous basis. If the Consultant observes a large amount of accumulated lead debris and / or lead paint chips the demolition activities will cease, and clean-up activities will continue until approval by the Consultant to resume the lead-related demolition activities.
- F. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.
- G. Pre and post lead soil testing will be conducted by the Consultant; post demolition soil clean-up may be required by the Contractor based on the pre and post lead soil sample results.
- H. Segregation of intact lead painted metal components from the remainder of the demolition debris shall be conducted by the Contractor.
- I. If torch cutting or mechanical saw cutting is required to accommodate removal, loading of lead painted structural steel or other lead painted components spot abatement of the lead painted surfaces at the "cut areas" shall be conducted prior to the torch or saw cutting activities. If spot abatement of paint is not feasible then the torch cutting or saw cutting activities shall be conducted in accordance with Section 3.7 "Lead Paint Welding, Burning, and Torch Cutting" of this specification.

3.5 LEAD PAINT REMOVAL (SANDING, SANDBLASTING, WATER BLASTING, ETC.) The removal of lead paint by utilizing mechanical sanding, cutting, or abrasive blasting activities shall be performed within a negative pressure enclosure which includes, but not limited to the following:

- A. Installation of a minimum of two (2) layers of 6-mil fire retardant polyethylene sheeting, secured with duct tape for protection of walls, ceilings, floors, stationary items.
- B. Shut down and/or isolation of HVAC systems with two (2) layers of 6-mil fire retardant poly.
- C. Installation of a minimum of two (2) layers of 6-mil fire retardant polyethylene sheeting, secured with duct tape for all critical barriers including, but not limited to corridors, windows, doorways, and any other penetrations or openings to the work area.
- D. Utilization of HEPA-filtered exhaust ventilation to maintain the work area including the Decontamination Facility under negative pressure to reduce or control airborne lead particulate concentrations. The negative pressure enclosure shall be maintained at not less than -0.02 inches of water from the start of abatement until final clearance testing has passed.
- E. At least one (1) airless sprayer shall be present and in good working condition to conduct wet removal and misting of the air.
- F. Construction and utilization of a three-stage Decontamination Facility as described in section 3.8 "Decontamination Area" of this specification.
- G. Lead waste generated by the abatement activities shall be promptly cleaned up by use of HEPA vacuums and wet methods and properly packaged lead waste debris shall not be allowed to remain in containment overnight.
- H. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.

3.6 LEAD PAINT REMOVAL (CHEMICAL STRIPPING) The removal of interior or exterior lead paint by utilizing chemical stripping activities, when conducted in and/or adjacent to occupied areas, shall be performed within a negative pressure enclosure which includes, but not limited to the following:

- A. Installation of a minimum of two (2) layers of 6-mil fire retardant polyethylene sheeting, secured with duct tape, for walls, floors, stationary items, critical barriers including, but not limited to corridors, windows, doorways, HVAC vents, and any other penetrations or openings to the work area.
- B. Utilization of HEPA-filtered exhaust ventilation to maintain the work area including the Decontamination Facility under negative pressure to reduce or control airborne lead particulate concentrations. The exhaust ventilation shall be additionally equipped with charcoal filters. The negative pressure enclosure shall be maintained at not less than -0.02 inches of water from the start of abatement until final clearance testing has passed.
- C. Portable eyewash stations in each work area
- D. When applicable, additional reversed exhaust ventilators (i.e. negative air machine) to provide a continuous source of clean air into each containment/work area
- E. Foam or dry chemical fire extinguishers in each work area
- F. At least one (1) airless sprayer shall be present and in good working condition to conduct wet removal and misting of the air.
- G. Construction and utilization of a three-stage Decontamination Facility as described in section 3.8 of this specification.

- H. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.
- I. Lead waste generated by the abatement activities shall be promptly cleaned up by use of HEPA vacuums and wet wiping and properly packaged, lead waste debris shall not be allowed to remain in containment overnight.

3.6.1 LEAD PAINT REMOVAL (CHEMICAL STRIPPING) The removal of lead paint by utilizing chemical stripping activities, when conducted outdoors or indoors at unoccupied areas and adjacent to unoccupied areas, may be performed in an open control area which includes, but not limited to the following:

- A. Establish designated limits to the Lead work area by using Lead Warning tape and other continuous barriers or barricades, as directed by the Consultant, to separate the Lead operations.
- B. Properly demarcate with bilingual Lead Warning signs at all approaches to the regulated work areas to prevent unauthorized personnel entering the regulated work area(s)
- C. If conducted indoors, seal all openings where the release of Lead could occur with two (2) layers of 6-mil fire retardant polyethylene sheeting secured with duct tape (windows, doorways, HVAC systems, and any other openings).
- D. Cover floors, ground surfaces and stationary items beneath the work area with a minimum of one (1) layer of 6-mil fire retardant polyethylene sheeting, extending a minimum of 5 feet in all directions, secured with duct tape or heavy supports.
- E. Portable eyewash stations in each work area
- F. When conducted indoors and when applicable, additional reversed exhaust ventilators (i.e. negative air machine) to provide a continuous source of clean air into each containment/work area
- G. Foam or dry chemical fire extinguishers in each work area
- H. Construction and utilization of a three-stage Decontamination Facility as described in section 3.8 of this specification.
- I. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.
- J. Lead waste generated by the abatement activities shall be promptly cleaned up by use of HEPA vacuums and wet wiping and properly packaged.

3.7 LEAD PAINT WELDING, BURNING, AND TORCH CUTTING: Activities which involve welding, burning, and/or torch cutting of surfaces with lead- paint coatings when conducted in and/or adjacent to occupied areas shall be performed within an enclosed area which includes, but not limited to the following:

- A. Install a minimum of two (2) layers of 6-mil fire retardant polyethylene sheeting for protection of walls, ceilings, floors, stationary items.
- B. Shut down and/or isolate HVAC systems with two (2) layers of 6-mil fire retardant polyethylene sheeting, secured with duct tape.
- C. Install a minimum of two (2) layers of 6-mil fire retardant polyethylene sheeting for all critical barriers including, but not limited to corridors, windows, doorways, and any other penetrations or openings to the work area.
- D. Construction and utilization of a three-stage Decontamination Facility as described in section 3.8 of

this specification.

- E. Respiratory protection shall be selected based on the respiratory requirements in Section 1.13 of this specification and Table I, 29 CFR 1910.134 and CCR Title 8, 5144.
- F. As directed by the Consultant use of mechanical ventilation (negative air machines) and/or local exhaust ventilation as described below in Section 3.7.1 (A).
- G. Lead waste generated by the abatement activities shall be promptly cleaned up by use of HEPA vacuums and wet wiping and properly packaged, lead waste debris shall not be allowed to remain in containment overnight.

3.7.1 The-engineering controls that can be used, depending on feasibility, are:

- A. Local exhaust ventilation with a flanged hood equipped with HEPA filtration may be utilized where the use of LEV does not create safety hazards. Use of a flexible duct system requires that the cutter or welder be instructed to keep the duct close to the emission source and to ensure the duct is not twisted or bent.
- B. A fume-extractor gun that removes fumes from the point of generation is an alternative to an exhaust hood for gas-shielded arc-welding processes. Such extraction systems can reduce breathing zone concentrations by 70% or more (Hughes and Amendola, 1982). These systems require that the gun and shielding gas flow rates be carefully balanced to maintain weld quality and still provide good exhaust flow.
- C. A longer cutting torch can be used in some situations to increase the distance from the lead source to the worker's breathing zone.
- D. Hydraulic shears can sometimes be used to mechanically cut steel that is coated with lead based-paint. The use of this method is limited by the ability of the shears to reach the cutting area.
- E. Whenever possible, pneumatic air tools should be used to remove rivets in lieu of burning and torch cutting.

3.7.2 WORK PRACTICE CONTROLS The following work practice controls will help to reduce worker exposures to lead during welding, burning, and torch cutting:

- A. When feasible, strip back all lead-containing and/or lead-based paint for a distance of at least 4 inches in all directions from the area of heat application. Chemical stripping shall be conducted in accordance with section 3.6 of this specification. Vacuum-shrouded hand tools, vacuum blasting, or other suitable method may be used. However, in enclosed spaces, strip back or protect the workers with airline respirators in accordance with the requirements of OSHA 29 CFR 1926.354 (c).
- B. Ensure that workers avoid the smoke plume by standing to the side or upwind of the cutting torch whenever the configuration of the job permits.
- C. Burning is prohibited to remove lead paint. Lead paint shall be removed using other methods, such as chemical stripping, power tools (e.g. needle guns) with HEPA vacuum attachments, etc.

3.8 DECONTAMINATION AREAS/HYGIENE FACILITIES

- A. Construct the following Worker decontamination enclosure system contiguous to or adjacent to the work area:
 - 1. If feasible and as directed by the Consultant, a shower room with two doorways, one to the equipment room and one to the clean room. The shower room shall contain at least one shower with hot and cold water. The Contractor shall ensure that the shower enclosure system does not leak. Additionally, the shower shall always contain an ample supply of soap, shampoo and clean dry towels. The Contractor shall utilize a proper water filtration system to

filter lead particles prior to release of the filtered shower water into the sanitary sewer system, as approved by the Consultant and Owner's representative. Otherwise the filtered water shall be placed in leak-tight labeled containers and tested for lead content to determine proper disposal. The spent filters shall be disposed of as hazardous waste.

2. A clean room with one doorway into the shower and one entrance/exit to non-contaminated areas. The clean room shall possess sufficient space for storing the Worker's street clothes, towels and other non-contaminated items. An equipment room with two doorways, one to the shower room and one entrance / exit to the regulated area. Remove protective clothing, in the equipment room by first HEPA vacuuming contaminated protective clothing. Protective clothing and contaminated equipment must be disposed of in sealed, labeled 6-mil polyethylene bags and/or drums and transferred to the waste storage bin to await proper disposal.
 3. If shower facilities are deemed not feasible, the Contractor must provide adequate handwashing facilities for use by employees. The Contractor shall assure that employees wash their hands, face, respirators and equipment upon leaving the work area. Protective clothing and equipment must be removed and containerized as stated above in paragraph 2.
- B. Workers shall change clothes exclusively (i.e., dress and undress) within the clean room. If additional space is required for changing clothes, the Contractor shall construct modesty rooms (if inside the building, use black polyethylene sheeting, if outside the building, use 1/2" plywood). The clean room shall be supplied with separate storage facilities for work and street clothing.
- C. The Worker decontamination enclosure system should be portable and should exist independent of the facility but contiguous to the work area (i.e., building facilities such as toilets, sinks and showers shall not be used in constructing the decontamination enclosure system).
- D. When applicable and as directed by the Consultant, the Worker decontamination area shall be under negative air pressure at all times. Additionally, the Contractor shall provide sufficient quantities of make-up air.
- E. When necessary and as directed by the Consultant, the Contractor shall construct a waste load-out wash down station contiguous to the equipment room or work area. The waste load-out area shall be constructed of two (2) layers of 6-mil fire retardant polyethylene sheeting with overlapping seams secured with duct tape for walls, floor and ceilings.
- F. The Contractor shall move all materials or equipment from the work area through the equipment decontamination room and/or the waste load-out wash down station according to the following sequence:
1. The Contractor shall establish air locks at the entrance to the decontamination equipment room and/or waste load-out area.
 2. All ingress and egress from the decontamination equipment room and/or waste load-out area shall take place between the work area's separate airlock and the shower and/or wash down station.
 3. Workers shall thoroughly wet clean contaminated equipment in the work area and pass the equipment into the shower and/or wash room. After the Workers pass the equipment into the shower and/or wash room, they shall repeat the wet cleaning and place the equipment into a clean area. All Workers in the decontamination facility shall wear full protective clothing and appropriate respiratory protection. If rented equipment is used, it must be completely decontaminated. Lead wipe test may be necessary to ensure proper decontamination.
- G. Lunch Room & Facilities: The Contractor shall provide a separate place for the employees to eat and rest that is not contaminated with lead dust. Contaminated clothing and devices shall be prohibited from any lunch room area.

3.9 DISPOSAL OF LEAD WASTE When mandated by the Consultant the Contractor will be responsible for the performance of the collection and analysis of lead waste generated by lead paint removal and demolition activities to determine the proper disposal. If the Contractor conducts the lead waste testing the Consultant will observe all sample collection and shall be provided copies of the sample analysis prior to disposal of the lead waste. This includes, but is not limited to TTLC, STLC, and TCLP testing.

- A. As work progresses and to prevent exceeding available storage capacity on site, the Owner's representative in coordination with the Contractor shall remove sealed and labeled containers of waste from the site and dispose of such containers at an authorized disposal site in accordance with applicable regulations.
- B. The state statutes and regulations of the California Department of Toxic Substance Control (DTSC) which incorporates the Federal Resource Conservation and Recovery Act (RCRA) regulations shall be complied with as well as any other applicable state solid waste plan requirements. The Contractor will ensure that applicable local, State and Federal permits are obtained for transportation of hazardous materials and that all waste materials are properly classified for disposal and disposed of properly. During the lead related work activities, the Contractor shall not leave debris in the yard or nearby property, incinerate debris, dump waste by the road or in an unauthorized dumpster, or introduce lead-contaminated water into storm (will not be flushed down yard inlet or street drain) or sanitary sewers (will not be flushed down toilet or other household drain).
- C. If the intact Lead painted building component exhibits all of the following characteristics, it may handled as an architectural waste/trash:
- If the component is greater in size than 60mm, which is the California definition of debris;
 - If the paint adhered to the component does not exhibit any cracking, peeling or flaking powder or any other delamination;
 - If the lead waste does not exceed 50 mg/kg using the TTLC test procedure or;
 - If the lead waste does not exceed 1000 mg/kg using the TTLC test procedure and;
 - If the lead waste does not exceed 5.0 mg/L using the STLC test procedure;

NOTE: When applicable, a letter from the landfill will be required to acknowledge the receipt of lead-containing materials.

- D. Intact Lead painted Metal Components shall be segregated from the waste stream and sent to an approved recycling company that accepts intact Lead painted metal components. **If the painted metal components are not segregated and sent to recycling, then the metal components shall be included in the lead waste stream and tested along with the remaining lead components to determine the proper disposal. An intact lead painted metal component is where the lead paint is adhered to the component and does not exhibit any cracking, peeling, or flaking or any other delamination. It is the Contractor's responsibility to locate a metal recycling company that will accept the lead painted metal components. A signed letter indicating the knowledge of the lead painted metal components and acceptance by the recycling company must be submitted to the Consultant prior to the transfer of the components off-site.**
- E. Proper testing of lead waste materials generated by the demolition of the building structures includes all lead painted building components and non-lead painted building components that have been removed from the building structures and/or the job site which is intended for disposal. Building component removal includes both manual and mechanical methods. Additionally, any lead paint debris that has become separated from the building components during demolition activities shall be segregated and tested to determine the proper disposal.

3.9.1 The following materials shall also be tested to determine whether or not they are hazardous waste.

- A. waste water from decontamination/hygiene facilities, if not properly filtered and discharged to a sanitary sewage system
- B. dust from HEPA filters and from damp sweeping
- C. plastic sheets, duct tape, or tape used to cover floors and other services during the lead paint removal activities
- D. solvents and caustics used during the stripping process
- E. liquid waste, such as wash water used to decontaminate wood, steel after solvents have been used, and liquid waste from water blasting activities
- F. rags, sponges, mops, HEPA filters, scrapers, and other materials used for testing, removal, demolition and cleanup
- G. disposable work clothes and respirator filters
- H. any other items contaminated with lead paint.

3.9.2 California -Hazardous Solid Waste (as determined by testing). The Contractor shall place lead paint chips, debris, lead dust, used disposable cleaning supplies, protective clothing, plastic sheeting, vacuum bags and filters, etc. in double (4-mil) or single (6-mil) polyethylene bags that are leak-tight and puncture-resistant. Other types of lead painted components that do not fit into plastic bags will be wrapped and sealed with plastic and secured with duct tape. All plastic bags and wrappings shall be labeled with appropriate warning labels and generator labels in accordance with Federal, State, and local regulations. The bags and/or wrappings shall then be placed into properly labeled DOT metal drums.

It is the Contractor's responsibility to provide the proper waste bins/dumpsters, storage, transportation and disposal of the hazardous lead waste removed from the project site. All waste must be disposed of at a landfill approved by the Owner. Contractor is responsible for providing copies of waste disposal records.

3.9.3 Non-Hazardous Solid Waste (as determined by testing). The Contractor shall ensure that lead waste / components determined to be non-hazardous are handled appropriately to eliminate the separation of the lead paint from the substrate. Any lead paint that becomes detached from the substrate or becomes delaminated during the handling and disposal must be immediately misted with amended water, HEPA vacuumed and/or wet wiped clean, and properly bagged and stored until further testing is completed for the newly identified lead waste stream.

3.9.4 The Contractor shall clean surfaces and equipment and bag large debris. The Contractor shall then remove plastic sheeting and tape from covered surfaces. Prior to removing the plastic sheeting, the Contractor shall lightly mist the sheeting in order to keep dust down and fold inward to form tight small bundles to bag for disposal. The Contractor shall place all plastic sheeting in double (4-mil) or single (6-mil) thick plastic bags and seal leak-tight.

3.9.5 The Contractor shall bag and seal leak-tight vacuum bags and filters in double (4-mil) or single (6-mil) thick plastic bags.

3.9.6 The Contractor shall place all contaminated clothing or clothing covers used during abatement and cleanup in plastic bags for disposal prior to leaving equipment room.

3.9.7 The Contractor shall place solvent residues and residues from strippers in drums made out of materials that cannot be dissolved or corroded by chemicals. Solvents will be tested by the Contractor to determine if they are hazardous waste. Solvents, caustic and acid waste must be segregated and not stored in the same containers.

- 3.9.8** The Contractor shall properly containerize all liquid waste, including lead contaminated wash water, if not properly filtered and dispersed to a sanitary sewer system.
- 3.9.9** The Contractor shall HEPA vacuum the exterior of all waste containers prior to removing the waste containers from the work area and shall wet wipe the containers to ensure that there is no residual contamination. Containers should then be moved out of the work area into the designated storage area.
- 3.9.10** The Contractor shall carefully place all waste containers into properly lined and labeled waste bins until transport to the landfill. Waste dumpsters must be locked at all times with exception loading of waste containers.
- 3.9.11** The Contractor, in coordination with the Owner's representative, shall ensure that all waste is transported in covered vehicles to an approved landfill.
- 3.9.12** If the Contractor subcontracts the transporting of the lead paint waste, he shall insure that the company transporting the waste material adequately covers all loads so as to assure that no dust or debris is released.
- 3.9.13** Disposal of RCRA Hazardous Waste (as determined by testing). The Contractor, in coordination with the Owners' representative, will be required to comply with the California Department of Toxic Substance Control which incorporates the Resource Conservation and Recovery Act (RCRA) requirements.
- 3.9.14** Waste Containers. The Contractor will comply with EPA and DOT regulations for containers. The Contractor shall contact the state and local authorities to determine the criteria for containers. The more stringent regulation shall apply.
- 3.9.15** Waste Transportation. It is the Contractor's responsibility to contract with a properly certified hazardous waste transporter. If the Contractor must provide the proper transportation of hazardous waste then the Contractor must be a certified hazardous waste hauler or a contract shall be entered into by the Contractor with a certified hazardous waste transporter to transport the waste.

Please note that the regulatory guidance issued by Waste Evaluation Department of Toxic Substance Control on lead painted building debris dated 6/13/94 is not a variance but a regulatory guidance and will not be interpreted as a variance from RCRA, Federal guidelines or HUD guidelines.

- 3.10 CONTROLLING OFFSITE DISPERSAL** The Contractor must implement control measures to contain Lead dust and debris within the Work Area / Site including without limitation:
- A. Control and limit access to the abatement / demolition work areas.
 - B. Limit tracking of dust and debris.
 - C. Implement a program of ongoing cleanup.
- 3.11 CLEANUP AND AIR MONITORING** If applicable, the contractor shall be responsible for not exceeding air and surface baseline Lead levels during the preparation, removal and cleanup operations. If levels at any time exceed baseline levels, it shall be the Contractor's responsibility to clean the affected areas until baseline levels have been achieved.
- 3.12 FINAL INSPECTION AND TESTING:**
- A. After thorough cleaning of the workspace, and satisfactory degree of cleanliness has been achieved, the Contractor shall notify the Consultant that the workspace is ready for inspection and final testing. The Consultant and the Contractor shall then visually inspect the workspace for the detection of any visible lead dust or lead contamination. If the visual inspection does not reveal any dust or other signs of contamination, final testing may commence.

- B. The Consultant may perform lead dust wipe sampling on the horizontal surfaces in accordance with the clearance sampling requirements specified in the HUD Guidelines at a minimum. The clearance levels will be the most recent levels as defined in this specification. The Consultant may also perform soil sampling on the bare soil areas in accordance with the clearance sampling requirements specified in the HUD Regulations
 - C. Lead –Contaminated Dust is defined by the California Department of Public Health as dust that contains an amount of lead equal to, or in excess of, ten micrograms per square foot ($10 \mu\text{g}/\text{ft}^2$) for interior floor surfaces, $100 \mu\text{g}/\text{ft}^2$ for interior horizontal surfaces, and $400 \mu\text{g}/\text{ft}^2$ for exterior floor and exterior horizontal surfaces. The California Department of Public Health Standards for clearance shall apply.
 - D. Lead-Contaminated Soil is defined by the California Department of Public Health as bare soil that contains lead equal to, or in excess of, four hundred parts per million (400 ppm) in child play areas and one thousand parts per million (1000 ppm) in all other areas. The California Department of Public Health Standards for clearance shall apply.
 - E. Areas exceeding the clearance level shall be re-cleaned, re-encapsulated and re-tested until acceptable clearance levels are obtained. All costs associated with re-testing of an area shall be borne by the abatement Contractor.
 - F. Following the satisfactory completion of clearance lead dust wipe sampling testing, work area isolation barriers shall be removed by the abatement contractor and properly disposed of as contaminated waste or as directed by the Consultant.
 - G. The Contractor shall at no additional charge install and provide AC power and extension cords for the Consultant to collect all area air samples deemed necessary by the Consultant.
- 3.13 SITE SECURITY** Requirements: Proper security for the project abatement / demolition area(s) shall be the responsibility of the Contractor and is to be coordinated with the Owner's representative. Proper security includes, but is not limited to, installation of lockable chain linked fencing and / or other secured barriers to ensure work areas are not accessible to unauthorized persons.
- 3.14 RESPONSIBILITY FOR DAMAGES:** Any damages to any items or fixtures that has been the result of actions by the Contractor's personnel shall be repaired to their original condition without any additional cost to the Owner. A comparison to the pre-construction inspection report shall be the basis for the assessment of damages to be addressed.
- 3.15 RESTORATION AND REPAIRS:** Repair and restore all items in accordance with the final inspection list specified herein. All surfaces within the work site must be free and clean of debris including but not limited to encapsulants, glue, tape, poly, waste, etc.

END OF PART 3 – EXECUTION

ATTACHMENT 1

SCOPE OF WORK

ASBESTOS-CONTAINING MATERIALS, LEAD-BASED AND LEAD CONTAINING PAINT

<u>RIO SAN GABRIEL ELEMENTARY SCHOOL</u> <u>WINDOW REPLACEMENT PROJECT</u> ASBESTOS CONTAINING MATERIALS				
MATERIAL	TYPE (1)	LOCATION	QUANTITY (2)	ASBESTOS CONTENT
Off-White Windowpane Putty (Painted Gray, White)	NF/F	Building A – East Side Upper Exterior Windows at Windowpanes	760 LF	2% Chrysotile
Off-White Windowpane Putty ⁽³⁾ (Painted Gray, Green, Brown)	NF/F	Building B1 – East Side Upper Exterior Windows at Windowpanes	760 LF	4% Chrysotile
Off-White Windowpane Putty ⁽³⁾ (Painted Gray, Green, Brown)	NF/F	Building B2 – East Side Upper Exterior Windows at Windowpanes	720 LF	2% Chrysotile
Off-White Windowpane Putty (Painted Gray, Green, Brown)	NF/F	Building C1 – East Side Upper Exterior Windows at Windowpanes	760 LF	2%-3% Chrysotile
Off-White Windowpane Putty ⁽³⁾ (Painted Gray, Green, Brown)	NF/F	Building C2 – East Side Upper Exterior Windows at Windowpanes	720 LF	2% Chrysotile
Off-White Windowpane Putty (Painted Gray, Green, Black)	NF/F	Building D1 – East Side Upper Interior Windows at Windowpanes	720 LF	2% Chrysotile
Off-White Windowpane Putty (Painted Gray, Green, Brown)	NF/F	Building D2 – East Side Upper Exterior Windows at Windowpanes	720 LF	2% Chrysotile
⁽¹⁾ Type -The classification is based upon the existing material condition and/or the potential condition of the material to change when disturbed in accordance with applicable regulatory definitions. F=Friable NF=Non-Friable NF/F=Currently Non-Friable but becomes Friable when disturbed ⁽²⁾ Actual Quantities should be field verified ⁽³⁾ Material previously sampled; reference TES asbestos survey report dated June 21, 2017 (Project No. 059678-AS)				

<u>RIO SAN GABRIEL ELEMENTARY SCHOOL</u> <u>WINDOW REPLACEMENT PROJECT</u> LEAD PAINT MATERIALS				
COMPONENT / MATERIAL ⁽¹⁾	COLOR(S)	LOCATION	PPM	IMPACT QUANTITY ⁽²⁾
Window Frame / Pane Putty	Gray, White	Building A – East Side Upper Exterior Windows	5,600	760 LF
Window Frame / Pane Putty	Gray, Green, Brown	Building B1 – East Side Upper Exterior Windows	PLB	760 LF
Window Frame / Pane Putty	Gray, Green, Brown	Building B2 – East Side Upper Exterior Windows	PLB	720 LF
Window Frame / Pane Putty	Gray, Green, Brown	Building C1 – East Side Upper Exterior Windows	6,500	760 LF
Window Frame / Pane Putty	Gray, Green, Brown	Building C2 – East Side Upper Exterior Windows	PLB	720 LF
Window Frame / Pane Putty	Gray, Green, Black	Building D1 – East Side Upper Exterior Windows	1,900	720 LF
Window Frame / Pane Putty	Gray, Green, Brown	Building D2 – East Side Upper Exterior Windows	8,000	720 LF

Rio San Gabriel Elementary School – Window Replacement Project
Section 13280 – Hazardous Materials Removal Scope of Work

RIO SAN GABRIEL ELEMENTARY SCHOOL
WINDOW REPLACEMENT PROJECT

LEAD PAINT MATERIALS

COMPONENT / MATERIAL ⁽¹⁾	COLOR(S)	LOCATION	PPM	IMPACT QUANTITY ⁽²⁾
Window Frame / Pane Putty	Gray, Black	Building E – East Side Upper Exterior Windows	2,900	560 LF
Window Frame / Pane Putty	White, Brown	Building D1 – East Side Upper Interior Windows	3,600	720 LF

PPM = Parts Per Million

⁽¹⁾ **Materials/Components** - LBP=Lead-Based Paint ($\geq 5,000$ ppm), PLB=Presumed Lead-Based, LCP=Lead-Containing Paint ($< 5,000$ ppm)

⁽²⁾ Actual quantities to be impacted should be field verified.

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Downey Unified School District
Downey • California • 90241

Window Glazing Project At:

Rio San Gabriel Elementary School

1. DETAILS MARKED "TYPICAL" SHALL APPLY IN ALL LIKE CASES. WHERE NO SPECIFIC DETAIL IS SHOWN, THE CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT DETAILED FOR SIMILAR CASES OF CONSTRUCTION.
2. COORDINATE THE REQUIREMENTS OF ALL DISCIPLINES HEREIN, AND THE REQUIREMENTS OF THEIR SPECIFICATIONS, IN ORDER THAT ALL ITEMS RELATING TO EACH OTHER, BUT INDICATED BY DIFFERENT SOURCES OR DISCIPLINES, COORDINATE, FIT AND WORK PROPERLY.
3. ENACT ALL MEASURES REQUIRED TO PROTECT AND SAFEGUARD ALL NEW AND EXISTING WORK AND MATERIALS FROM DAMAGE BY ANY MEANS. ALL AREAS ARE TO BE LEFT CLEAN AND IN GOOD REPAIR. REPLACE OR REPAIR WORK, MATERIALS AND FINISHES DAMAGED DURING THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION.
4. RUN-OFF FROM PETROLEUM PRODUCTS, LIME AND MORTAR, SOIL STERILANTS, AND THE WASHING OF EQUIPMENT USED TO APPLY THESE MATERIALS, IS PROHIBITED WITHIN PLANTED AREAS.
5. ALL FIRE LANES TO BE UNOBSTRUCTED DURING ALL PHASES OF CONSTRUCTION.
6. PENETRATIONS TO FIRE RATED MATERIALS OR ASSEMBLIES SHALL BE RESTORED TO EQUAL RATING. FIRE STOP SYSTEMS AS LISTED BY UNDERWRITERS LABORATORIES SHALL BE INSTALLED PER FIRE RESISTANCE DIRECTORY. FIRE STOP SYSTEMS SHALL BE AS SPECIFIED.
7. THE WORK SHOWN ON THESE DRAWINGS AS EXISTING CONDITIONS WAS PREPARED FROM THE INFORMATION FURNISHED BY OWNER. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, DOWNEY UNIFIED S.D. IS NOT RESPONSIBLE FOR THE ACCURACY OR ADEQUACY OF ANY WORK SHOWN AS EXISTING NOR IS DOWNEY UNIFIED S.D. RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.
8. THE CONTRACTOR IS TO PERFORM HIS OWN SITE INVESTIGATION PRIOR TO SUBMITTING BID.
9. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, C.C.R., SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION WHICH HAS OF BEEN CONCEALED AND IS NOT COVERED BY THE CONSTRUCTION DOCUMENTS, WHEREIN THE FINISH WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT (C.C.D.) OR SEPARATE SET OF PLANS / SPECIFICATIONS DETAILING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THAT WORK. (REFERENCE: SECTION 4-317 (c), CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE DONE BY HIM TO THE DISTRICT'S PREMISES OR OTHERWISE, AND SHALL REPAIR SAME AT HIS OWN EXPENSE
11. CONTRACTOR SHALL ABIDE BY THE 2019 C.B.C CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION
12. ALL WORK SHALL CONFORM TO 2019 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
13. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-336, PART 1, TITLE 24, CCR.

GENERAL NOTES

THIS PROJECT CONSISTS OF THE FOLLOWING BUT NOT LIMITED TO:

DEMOLITION:

- REMOVE EXISTING WINDOW GLAZING, PUDDY, CAULKING AND ASSOCIATED FINISH - PROTECTING IN PLACE THE EXISTING WINDOW FRAME SYSTEM.

LOCATION: AT BUILDINGS A, B, C, D, AND E.

CONSTRUCTION:

- PROVIDE NEW WINDOW GLAZING, PUDDY, CAULKING AND PAINT TO MATCH EXISTING. SEE DISTRICT STANDARD FOR WINDOW TRIM COLOR AND WALL COLOR.

LOCATION: AT BUILDINDS A, B, C, D, AND E.

SCOPE OF WORK

01	T-00	TITLE SHEET
02	A001	SITE PLAN
03	A002	ELEVATIONS AT BLDGS A, B, C, D
04	A003	ELEVATIONS AT BUILDING E

CHAPTER 4, PART 1, TITLE 24, C.C.R., ADMINISTRATIVE REQUIREMENTS (PARTIAL LISTING ONLY)

A COPY OF PARTS 1 AND 2, TITLE 24, C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.

ALL CHANGE ORDERS ARE NOT VALID UNTIL APPROVED BY DSA PER SECTION 4-338, PART 1 TITLE 24

DSA WILL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24.

PROJECT INSPECTOR CLASS 3 WILL BE APPROVED BY DSA. INSPECTION WILL BE IN ACCORDANCE WITH SECTION 4-333(B). THE DUTY OF THE INSPECTOR WILL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.

SUPERVISION OF THE CONSTRUCTION BY DSA WILL BE IN ACCORDANCE WITH SECTION 4-334, PART 1, TITLE 24.

CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS WILL SUBMIT VERIFIED REPORTS (FORM DSA-6 BY INSPECTORS AND DSA-6A/E BY ARCHITECTS AND ENGINEERS) IN ACCORDANCE WITH SECTION 4-336 AND 4-334, PART 1, TITLE 24.

THE ARCHITECT WILL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTION 4-333(A) AND 4-341, PART 1, TITLE 24.

THE CONTRACTOR WILL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1, TITLE 24.

APPLICABLE CODES AS OF JANUARY 1, 2019

2019 BUILDING STANDARDS ADMINISTRATIVE CODE, TITLE 24, C.R.R.

2019 CALIFORNIA BUILDING CODE (C.B.C.), TITLE 24, C.C.R.

2019 CALIFORNIA ELECTRICAL CODE (C.E.C.), TITLE 24, C.C.R.

2019 CALIFORNIA MECHANICAL CODE (C.M.C.), TITLE 24, C.C.R.

2019 CALIFORNIA PLUMBING CODE (C.P.C.), TITLE 24, C.C.R.

2019 CALIFORNIA FIRE CODE (C.F.C.), TITLE 24, C.C.R.

2019 CALIFORNIA REFERENCED STANDARDS CODE, TITLE 24, C.C.R.

PARTIAL LIST OF APPLICABLE STANDARDS

2019 CALIFORNIA BUILDING CODE (SBF) REFERENCE STANDARDS CHAPTER 35

NFPA 13 AUTOMATIC SPRINKLER SYSTEMS 2019 EDITION

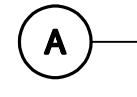
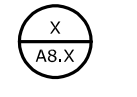

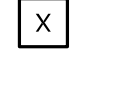

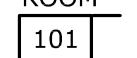
NFPA 14 STANDPIPES SYSTEMS 2019 EDITION

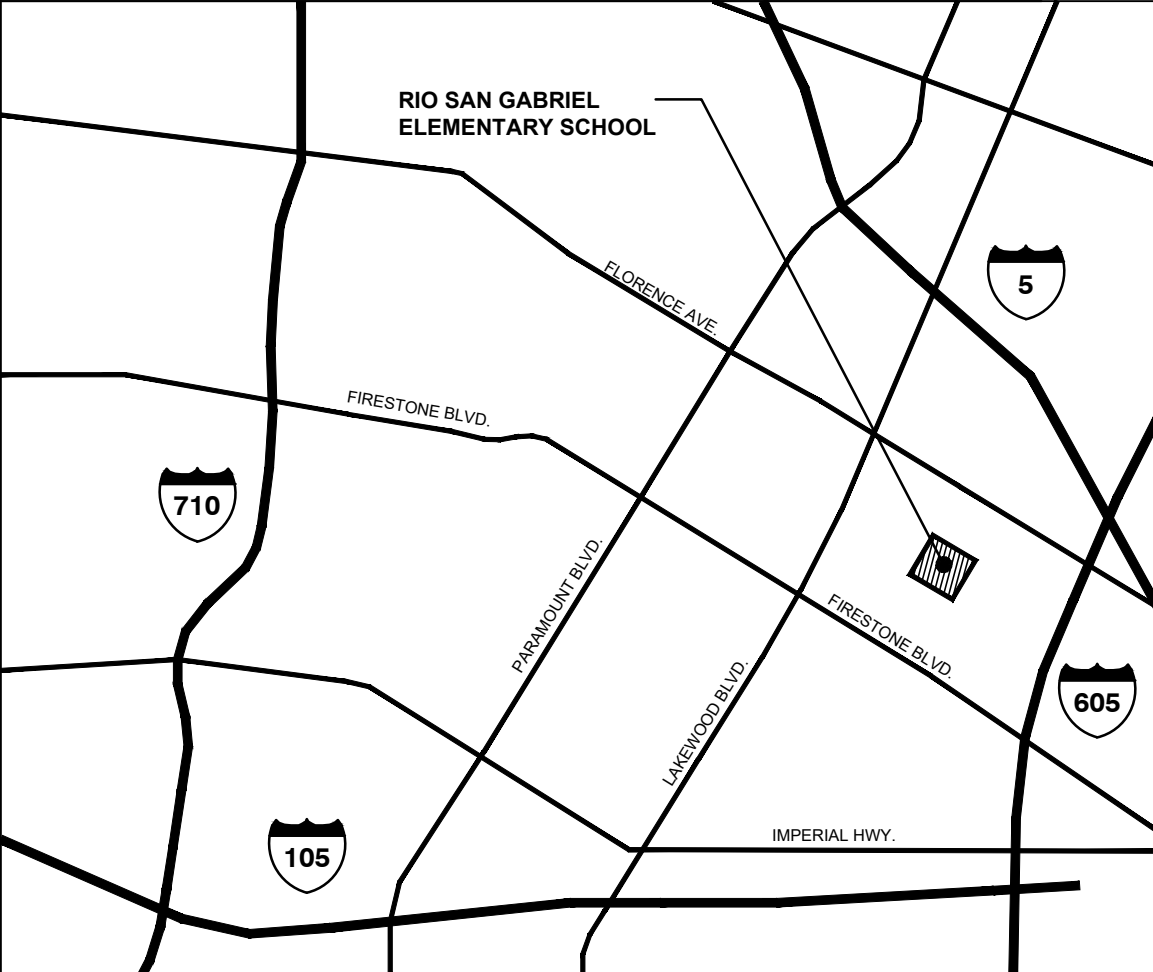
NFPA 72 NATIONAL FIRE ALARM CODES 2019 EDITION

NFPA 80 FIRE DOOR AND OTHER OPENING PROTECTIVES 2019 EDITION

DISTRICT/OWNER

DOWNEY UNIFIED SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CALIFORNIA 90241
(562) 469-6707 FAX: (562) 469-6770
CONTACT: VINCE MADSEN,
SENIOR DIRECTOR, FACILITIES PLANNING & DEVELOPMENT

-  GRID LINES
-  DETAIL NUMBER DRAWING NUMBER
-  KEYNOTE
-  WINDOW NUMBER
-  REVISION NUMBER
-  ROOM NUMBER



APPLICABLE CODES

CONTACT INFORMATION

SYMBOLS

VICINITY MAP

SHEET INDEX



Downey Unified School District
11627 Brookshire Ave,
Downey • CA • 90241
562.469.6500

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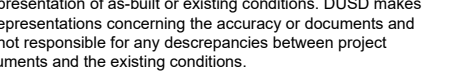
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Window Glazing Project

Project No.:
Date:
Scale:

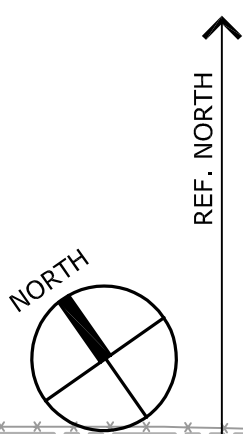
TITLE SHEET,

T-00



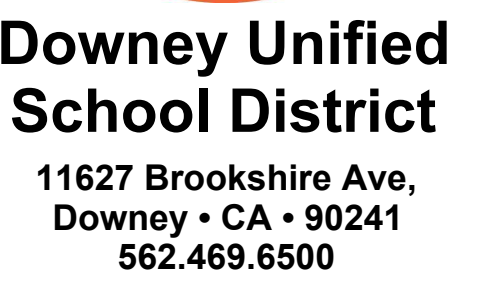
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Window Glazing Project



1

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET 6001.
2. PROTECT AND SAFEGUARD FROM DAMAGE ALL EXISTING FINISHES AND WORK TO REMAIN.
3. NOT USED.
4. CONTRACTOR IS TO PROTECT ALL AREAS WITHIN PERIMETER OF SCOPE OF WORK THAT IS NOT TO BE REMOVED. IF DAMAGED, CONTRACTOR WILL REPLACE AT CONTRACTOR'S EXPENSE OR PROVIDE DISTRICT A CREDIT, WHICHEVER THE DISTRICT DEEMS ACCEPTABLE.
5. ANY AREAS OUTSIDE SCOPE OF WORK THAT IS DAMAGED BY CONTRACTOR WILL BE REPLACED AT CONTRACTOR'S EXPENSE AND IS TO MATCH EXISTING CONDITIONS.
6. CONTRACTOR TO VERIFY ALL EXISTING DIMENSIONS & SITE CONDITIONS BEFORE COMMENCING WORK AND REPORT ANY DISCREPANCIES TO THE DISTRICT.
7. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL, PARTICULATE, CONSTRUCTION WASTE MATERIALS, OR WASTEWATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED, CONVEYED OR DISCHARGED INTO THE STREET, GUTTER OR STORM DRAIN SYSTEM.



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EXTERIOR ELEVATION - OVERALL CLASSROOM BUILDING D

3



EXTERIOR ELEVATION - OVERALL CLASSROOM BUILDING C

2



EXTERIOR ELEVATION - OVERALL CLASSROOM BUILDING B

1



4

○ KEYNOTES

GENERAL NOTES



Rio San Gabriel
Elementary School

9338 Gotham St, • Downey, CA • 90241

Window Glazing Project

Project No.:

ate:

scale:

ELEVATIONS

A002



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**Rio San Gabriel
Elementary School**

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Window Glazing Project

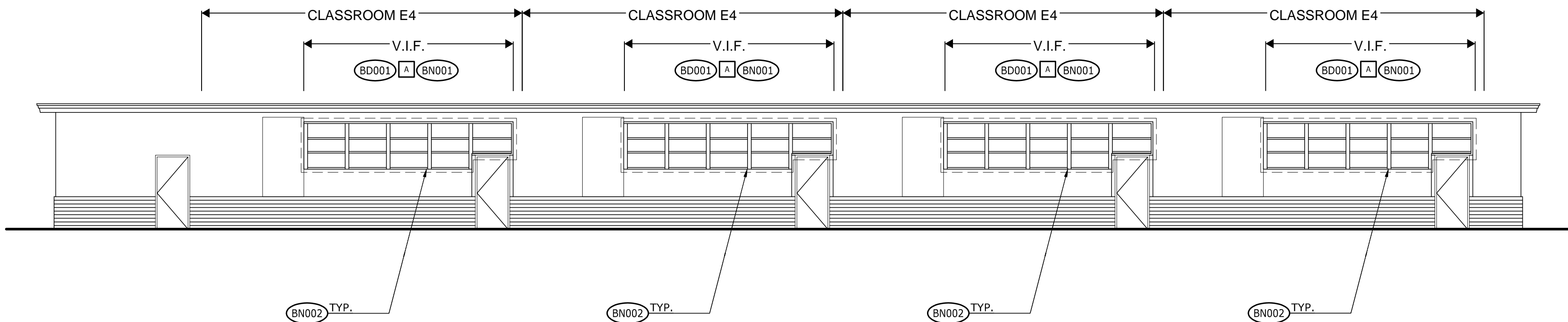
Project No.:

Date:

Scale:

ELEVATIONS

A003



EXTERIOR ELEVATION - OVERALL CLASSROOM BUILDING E

1/8" = 1'-0"

1

1. ALL GLAZING BELOW 1'-6" A.F.F. AND WITHIN 5'-0" OF A DOOR SHALL BE TEMPERED AND DESIGNATED BY U.N.O.
2. VERIFY ALL WINDOW DIMENSIONS AT THE JOB SITE.
3. ALL EXTERIOR GLAZING SHALL BE TINTED. ALL INTERIOR GLAZING SHALL BE CLEAR.

BN001 SPEC TO BE:

TYPE G-1: Tinted glass, reflective coating.

1/4" Vitro Solarcool on Solargray 6mm (2)

Visible Light Transmittance	17%
U Value	1.03 BTU.
Solar Heat Gain Coefficient	0.44

BD001 REMOVE EXISTING WINDOW PUDDY, CAULKING, ASSOCIATED FINISH AND GLAZING. KEEP EXISTING FRAME SYSTEM. SCRAPE, SAND AND REMOVE LOOSE PAINT. PREPARE EXISTING WINDOW FRAME SYSTEM TO RECEIVE NEW WINDOW GLAZING AND NEW PAINT AT THE FRAME SYSTEM AS NEEDED.

BN001 INSTALL NEW GLAZING WITH TINT AND WINDOW PUDDY / CAULKING ALL AROUND WHERE NEEDED. SEE WINDOW SCHEDULE ON SHEET A003. MATCH EXISTING PAINT. TRIM COLOR TO BE 'LOOKING GLASS' AND WALL COLOR THAT NEEDS TO BE REPAINTED IS TO BE 'SILVER POLISH' PER DISTRICT STANDARD.

BN002 PAINT EXTERIOR PLASTER / EXPOSED WOOD AT ENTIRE AFFECTED SURFACE(S). PAINT COLOR TO MATCH EXISTING. TRIM COLOR TO BE 'LOOKING GLASS' AND WALL COLOR TO BE 'SILVER POLISH' PER DISTRICT STANDARD.

BN009 INSTALL NEW GLAZING WITH OBSCURE TINT AND WINDOW PUDDY / CAULKING ALL AROUND WHERE NEEDED. SEE WINDOW SCHEDULE ON SHEET A003. MATCH EXISTING PAINT. TRIM COLOR TO BE 'LOOKING GLASS' AND WALL COLOR THAT NEEDS TO BE REPAINTED IS TO BE 'SILVER POLISH' PER DISTRICT STANDARD.

BN001 SPEC TO BE:

TYPE G-1: Tinted glass, reflective coating.

1/4" Vitro Solarcool on Solargray 6mm (2)

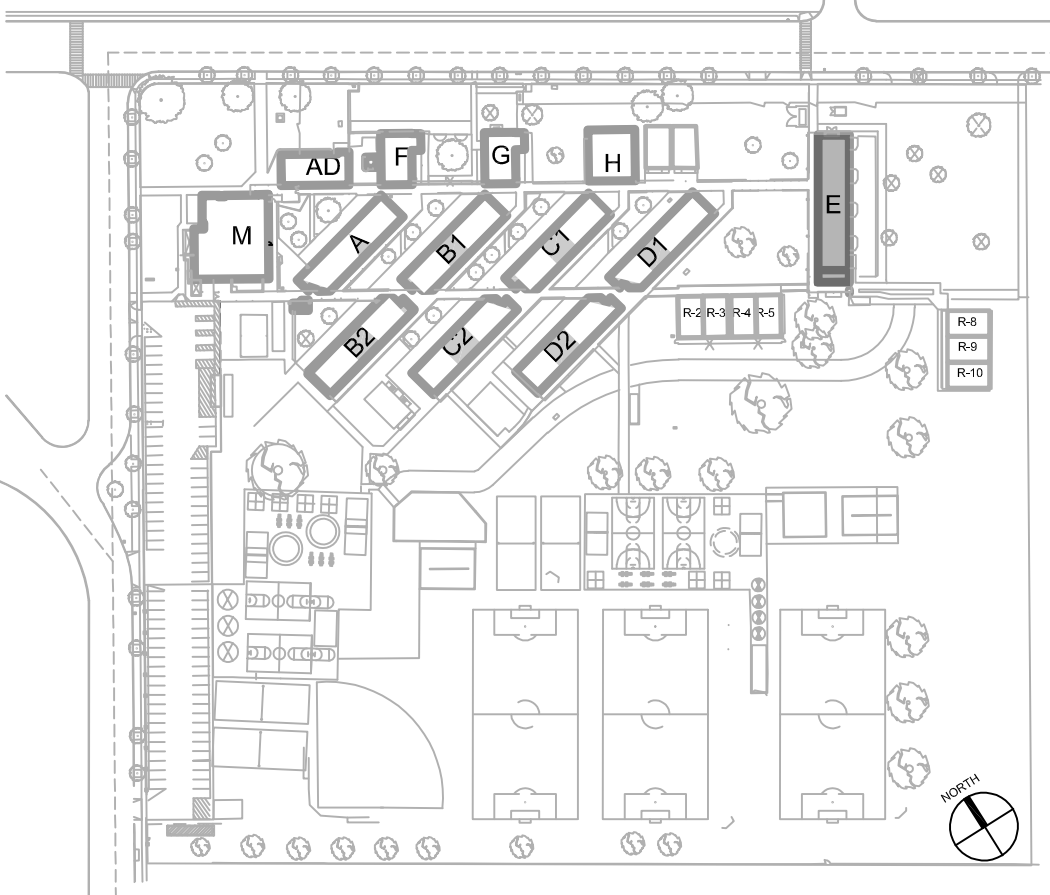
Visible Light Transmittance	17%
U Value	1.03 BTU.
Solar Heat Gain Coefficient	0.44

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.

2. PROTECT AND SAFEGUARD FROM DAMAGE ALL EXISTING CONSTRUCTION AND FINISHES TO REMAIN.

3. PATCH AND PAINT RELATED DAMAGED FINISHES TO MATCH EXISTING.

4. PAINT ALL EXISTING PAINTED SURFACES AT THE INTERIOR AND EXTERIOR OF ALL BUILDINGS AFFECTED BY THE SCOPE OF WORK, INCLUDING WINDOW FRAMES. PATCH AND PREPARE EACH MATERIAL PRIOR TO PAINTING.



WINDOW NOTES

KEYNOTES

GENERAL NOTES

KEY PLAN