

NOTICE TO CONTRACTORS

Notice is hereby given that the Hamilton Unified School District, hereinafter referred to as the Owner, will receive sealed proposals for the construction of the Gas Line Replacement Project at Hamilton Elementary School, at the Hamilton USD District Offices, 620 Canal Street, Hamilton City, CA.95951 until 3:00 p.m., on Wednesday, May18, 2016, at which time they shall be opened and publicly read.

DETERMINATION OF LOW BIDDER: In order to conform with Public Contract Code Section 1103 and Public Contract Code Section 20103.8, the following procedure will be used to determine the low bidder:

- Lowest base bid submitted by a responsible, responsive bidder

Attention is directed to the provisions of Section 1725.5 et. seq. of the Labor Code of the State of California concerning Labor Compliance Programs. The prime contractor and all subcontractors are responsible for compliance with the requirements of Section 1725.5 et seq.

In accordance with the provisions of Section 1770 et seq. of the Labor Code, the Director of Industrial Relations has determined the general prevailing rate of wages applicable to the work to be done. These rates are set forth in a schedule located at the State Department of Industrial Relations, Director of Industrial Relations Website: www.dir.ca.gov . The Contractor shall post a copy thereof at each job site.

Attention is directed to the provisions of Section 1777.5 and 1777.6 of the Labor Code of the State of California concerning employment of apprentices by the contractor or any subcontractor under him. The prime contractor is responsible for compliance with the requirements of Section 1777.5 and the prime contractor and any subcontractor under him shall comply with the requirements of Section 1777.6.

Each bid must conform to the requirements of the Drawings and Project Manual and other documents comprising the Contract Documents, all of which may be examined on the District's website at <http://www.husdschools.org>

No bid will be considered unless it is made up on the form provided in the Bid Documents and accompanied by Cashier's Check or Bidder's Bond from a surety company registered with the State of California Insurance Commissioner, for 10% of the amount of the bid, made payable to the Owner. The above mentioned checks or bid bond shall be given as a guarantee that the bidder shall execute the Contract, if it be awarded to him, in conformity with the Contract Documents.

There will be a **non-mandatory** Bid Walk on the project site at Hamilton Elementary School, 277 Capay Ave., Hamilton City, CA 95951 on Wednesday, May 11, 2016 at 3:30 PM. Prospective bidders are encouraged to attend

After the scheduled closing time set for receipt of bids, bids may not then be withdrawn for a period of time as stated on 00 41 04 – BID FORM days from and after said closing time, except as otherwise provided for in the California Public Contract Code.

Within ten (10) days after notification of the award of the Contract, the successful bidder/or bidders will be required to furnish a labor and Material Bond in an amount equal to one hundred percent (100%) of the Contract price and a Faithful Performance Bond in an amount equal to one hundred percent (100%) of the Contract price. Said bonds shall be secured from a Surety Company satisfactory to the Owner, and authorized to do business in the State of California.

Pursuant to California Public Contract Code Section 22300 of the State of California, the contract will contain provisions permitting the successful bidder to substitute securities for any moneys withheld by the Owner to ensure performance under the contract.

The Owner reserves the right to reject any and all bids and/or waive any irregularities or informalities in the bidding.

Advertising dates: Wednesday, May 4, 2016 and Wednesday, May 11, 2016

PART 1 - GENERAL

1.01 PROPOSALS

- A. Proposals to receive consideration should be made in accordance with the following instructions:
 - 1. Proposals shall be made on a form provided by the Architect. All items on the form should be filled out; numbers should be stated both in writing and in figures and the signature of individuals must be in longhand. The completed form should be without inter-lineations, alterations, or erasures.
 - 2. Proposals should not contain recapitulation of the work to be done, and alternative proposals will not be considered, unless called for.
 - 3. Should a bidder find discrepancies in or omissions from the Drawings or Documents, or should he be in doubt as to their meaning, he should at once notify the Architect, who will send written instructions to all bidders. Neither Owner nor Architect will be responsible for any oral instructions. No interpretations will be issued later than three (3) days prior to the date set for the opening of bids so that all inquiries can be answered in writing and distributed to all bidders in the form of addenda to the contract documents in ample time before the bid opening date.
 - 4. All addenda or bulletins issued during the bidding period are to be included in the proposal, and they will become a part of the contract for the project.
 - 5. Pursuant to the provisions of Sections 4100 to 4114, inclusive, of the California Public Contracts Code, every bidder shall in his bid set forth:
 - a. The name and location of the place of business of each subcontractor who will perform work or labor or render service to the bidder in or about the work in an amount in excess of one half (1/2) of one percent (1%) of the bidder's total bid.
 - b. The portion of the work that will be done by each subcontractor. If the bidder fails to specify a subcontractor for any portion of the work to be performed under the Contract in excess of one half (1/2) of one percent (1%) of the bidder's total bid, he agrees to perform that portion himself. The successful bidder shall not, without the consent of the Owner, either:
 - 1) Substitute any person as subcontractor in place of the subcontractor designated in the original bid.
 - 2) Permit any subcontract to be assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the bid.
 - 3) Sublet or subcontract any portion of the work in excess of one half (1/2) of one percent (1%) of the total bid as to which his original bid did not designate a subcontractor.

- 6. A bid guarantee in the amount of 10% of the bid must accompany the bid. Failure to furnish a required bid guarantee in the proper form and amount, by the time set for opening the bids, may be cause for rejection of the bids. A bid guarantee shall be in the form of a firm commitment, such as a bid bond from a surety company admitted and registered with the State of California Insurance Commissioner, personal money order, or cashier's check. Bid guarantees, other than bid bonds, will be returned (a) to unsuccessful bidders as soon as practicable after the opening of the bids, (b) to the successful bidder upon the execution of such further contractual document and bonds as may be required by the bid as accepted. If the successful bidder withdraws his bid within the period specified therein for acceptance, or upon acceptance thereof by the Owner, fails to enter into the Contract and give bond within the time specified after the forms are presented to him, he shall be liable for any difference by which the cost of securing the supplies or services exceeds the amount of bid, and the bid guarantee shall be available toward offsetting such difference.
- 7. Every bidder shall include, as part of his bid documents, an executed statement of non-collusion, as indicated in Section 00 45 19 - NON COLLUSION AFFIDAVIT.
- 8. Proposal shall be addressed to the Owner in care of the Architect, and shall be delivered to the Owner enclosed in an opaque sealed envelope addressed to him marked "Proposal" and bearing the title of the work and the **name of the bidder**. No telephone or telegraphic bids or amendments to bids shall be effective.

1.02 WITHDRAWAL OF PROPOSALS

- A. Proposals may be withdrawn by the bidder prior to but not after the time fixed for opening of proposals.

1.03 OPENING OF PROPOSALS

- A. Proposals will be opened and read at or about the time set in Section 00 11 17 - NOTICE TO CONTRACTORS, and as advertised. Bidders, or their representatives, and other interested persons may be present at the opening of proposals.

1.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE OF WORK

- A. Before submitting a proposal, bidders should examine the Drawings and read the Project Manual. They should visit the site of the proposed work, fully inform themselves of all conditions on, in, at, and about the site; examine the building or buildings, if any, and any work that may have been done thereon. Bidders are held fully responsible for understanding both the scope and intent of the project.

1.05 COSTS FOR SPECIAL INSPECTIONS

- A. Certain sections of the technical specifications may contain requirements for special inspections. The Owner and Contractor share responsibility for the cost of these inspections. Refer to Section 01 11 00 - SUMMARY OF THE WORK, for the basis of responsibility and to the technical specifications for the details of the inspections.

1.06 REQUESTS FOR INFORMATION

- A. Contractors are required to use the form found at the end of Section 01 26 14 to submit Requests for Information.

- B. Requests for Information will not be considered if submitted without Contractor's Cost Effective Proposed Solution.
- C. Contractor may be back charged for costs incurred by Architect as defined in Section 01 26 14.

1.07 PRODUCT OPTIONS

- A. Substitutions will only be considered where Owner will receive benefit or because specified materials are no longer available due to no fault of Contractor. Refer to Section 01 62 00.

1.08 FORM OF CONTRACT

- A. The form of Contract that the successful bidder will be required to execute: see Section 00 52 01.

1.09 CONTRACTORS INSURANCE

- A. The Contractor shall maintain such insurance as will protect him from claims under Worker's Compensation Acts. Contractor shall maintain policies of public liability bodily injury insurance in an amount not less than One Million Dollars (\$1,000,000) for injury or death to any one person and not less than One Million Dollars (\$1,000,000) for injury or death to more than one person arising out of any one occurrence and property damage liability insurance in an amount not less than One Million Dollars (\$1,000,000) against any liability arising directly or indirectly out of any activity, performance, or operation under the Contract. The hereinabove mentioned policies shall include Owner, its Architect, officers and employees as additional insured and the coverage of said policies shall be expressly made primary insurance with respect to any other similar coverage carried by Owner. Copies of such policies or certificates evidencing such policies shall be first approved by the Owner and filed with the Board of Trustees of the Owner. Said policies of public liability and property liability insurance shall contain a contractual liability endorsement recognizing the contractual obligation of Contractor to Owner contained in this paragraph. Contractor shall maintain automobile liability insurance covering owned, hired, and non-owned automobiles with minimum limits of liability, per occurrence, of One Million Dollars (\$1,000,000) for bodily injury and property damage. All policies shall contain a provision requiring thirty (30) days written notice to be given to Owner prior to cancellation, modification, or reduction of limits.

1.10 WAGES

- A. The attention of the bidder is directed to the fact that the schedule of prevailing rates of pay for each craft or type of worker needed to execute the work, as indicated in the attached Section 00 11 17 - NOTICE TO CONTRACTORS, contains the minimum rate of pay as established by the State Director of Industrial Relations in pursuance of the provisions of the Labor Code of the State of California, which Code requires the establishing of such rates for the locality in which the work is to be performed. Section 1770 of the Labor Code reads: "Nothing ...shall prohibit the payment of more than the general prevailing rate of wages to any worker employed on public work.".
- B. All bidders shall check the available source of labor supply and obtain information with reference to the length of the working day of various crafts and actual rates of wages being paid in the immediate vicinity of the place where work contemplated by these Specifications is to be performed, particularly with reference to rates of pay that may be in

excess of those general prevailing rates established by the Owner indicated in the above-mentioned Section 00 11 17 - NOTICE TO CONTRACTORS.

1.11 CONTRACTORS LICENSE

- A. Bidder must be a contractor properly licensed to perform the work of this project with an active license in good standing as of the date of receipt of bids. License must be issued by the Contractors State License Board of California and must be maintained in good standing throughout the term of the contract.

* End Document 00 21 13 *

PART 1 - GENERAL

1.01 BID FORM

Bids will be received until 3:00 pm on Wednesday, May 18, 2016, in the Hamilton Unified School District-District Office, 620 Canal Street, Hamilton City, CA 95951.

TO THE HONORABLE:

Governing Board of Hamilton Unified School District (Sometimes hereinafter called "Owner".)

Ladies/Gentlemen:

The undersigned hereby proposes and agrees to furnish any and all required labor, material, equipment, transportation and services for construction of the **Gas Line Replacement Project** at Hamilton Elementary School, 277 Capay Street, Hamilton, CA, for the Hamilton Unified School District in strict conformity with the Drawings and Project Manual, all of which may be reviewed on the District's website at <http://www.husdschools.org> .

BASE BID:

_____ DOLLARS

(\$ _____)

SCHEDULE FOR COMPLETION:

Construction Period: July 1, 2015 – July 31 – 31 calendar days

The undersigned, upon notice of the acceptance of the bid within ten (10) days after the date of opening of the bids, hereby agrees to sign said Contract and furnish the necessary bonds within ten (10) days after Notice of Award of said Contract.

The undersigned has examined the location of the proposed work and is familiar with the Drawings, Project Manual and the local conditions at the place where the work is to be done.

The undersigned has checked carefully all of the above figures and understands that the Governing Board of the Hamilton Unified School District will not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

The undersigned acknowledges that the Governing Board of the Hamilton Unified School District reserves the right to reject any and all bids and/or waive any irregularities or informalities in the bidding.

Enclosed find Bidder's Bond, from a surety company registered with the State of California Insurance Commissioner, or Cashier's Check in the amount of 10% of the bid; Cashier's Check No. _____ of the _____ Bank for _____.

Receipt of Addenda is acknowledged as follows:

No. 1 _____ No. 2 _____ No. 3 _____ No. 4 _____

CONTRACTOR _____

By _____

ADDRESS (Street) _____

(P.O.) _____

PHONE (____) _____

FAX (____) _____

CONTRACTORS STATE
LICENSE BOARD NO. _____

CLASSIFICATION _____

Dated this _____ day of _____ 2016.

LIST OF SUBCONTRACTORS FOR _____ , GENERAL CONTRACTOR

PROJECT: GAS LINE REPLACEMENT PROJECT AT HAMILTON ELEMENTARY SCHOOL

Pursuant to the provisions of Sections 4100 to 4114 inclusive, of the California Public Contracts Code, and as set forth in Instructions to Bidders, and the General Conditions, the above named Contractor hereby designates below the names and locations of the place of business of each subcontractor.

<u>Work to be Done</u>	<u>Name of Subcontractor</u>	<u>Location of Place of Business</u>
_____	_____	_____
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* End Document 00 41 01 *

GENERAL CONDITIONS:

1. **PROJECT SCOPE:** Except as otherwise stated in these Contract Documents, the scope of this contract consists of all labor, materials, tools, equipment, transportation, utilities, superintendence, temporary construction and any other service and facility required to execute and deliver the entire Work complete as shown on the drawings and as specified, all according to the Conditions stated therein, within the time stated in the Agreement.
2. **DEFINITIONS:** The following words, or variations thereof, as used in these documents, shall have meanings as defined below:
 - A. **Owner:** Hamilton Unified School District
 - B. **Architect/Engineer:** Capital Engineering Consultants, Inc. furnishing Engineering services by or under supervision of licensed Architect/Engineers. Use of the term "Architect/Engineer/Engineer" when referring to WCE is for convenience of reference, and shall not be construed as meaning that the Corporation is itself a licensed Architect/Engineer.
 - C. **Licensed Architect/Engineer:** A person duly authorized and licensed to practice Architecture or Engineering in the State in which this project is located.
 - D. **Contract Documents:** The Notice to Contractors, Proposal Form, List of Subcontractors, Instructions to Bidders, General Conditions, Supplementary General Conditions, and Special Conditions, Labor and Material and Faithful Performance Bonds, attached hereto, and the Drawings and Specifications and all modifications and amendments thereof, Addenda and the Agreement.
 - E. **Contractor:** A person, persons, entity, joint venture, co-partner-ship, or corporation, as named in the Agreement.
 - F. **Subcontractor:** Person, persons, entity, joint venture, co-partner-ship, or corporation having direct contract with the Contractor.
 - G. **Work:** Labor or materials, or both, including equipment, tools, services, and incidentals.
 - H. Furnish, provide, include, install, place, apply, locate or similar words used individually shall each include the meaning of the others.
 - I. Called for, noted, shown, indicated, detailed, or similar words refer to applicable portions of the Contract Documents.
 - J. Approved, proper, equal, required, satisfactory, suitable, necessary, reviewed, permitted, directed, accepted, etc. refer to matters solely within the province of the Architect/Engineer's decision.
 - K. **Notice:** Written demands, instructions, warnings, claims, approvals and disapprovals required to obtain compliance with Contract requirements. Any written notice by either party to the Contract shall be sufficiently given if delivered to or at the last known business address of the person, firm, or corporation constituting the other party to the Contract, or to his, their or its duly authorized agent, representative, or officer, who is authorized to receive such notice, or when enclosed in a registered postage prepaid

envelope addressed to such last known business address and deposited with the United States mail.

- L. Notice to Proceed: Written notice to commence the Work, issued by the Owner, or, on his instructions, by the Architect/Engineer.

3. FUNCTION OF CONTRACT DOCUMENTS:

- A. Correlation: The Contract Documents are complementary and anything called for by one part shall have the same impact as if called for by all. In case of a discrepancy, an item of higher quality or quantity shall take precedent.
- B. Conditions: The GENERAL CONDITIONS and the SUPPLEMENTARY GENERAL CONDITIONS apply with equal force to all Work including work of subcontractors and approved extra Work.
- C. The Contractor admits and agrees that the Contract Documents exhibit the intent and purpose of the Owner in regard to the Work, and that they are not complete in every detail and are to be considered as showing the purpose and intent only; and the Contractor further agrees to furnish all labor or material for any detail that is necessary to carry out said intent and purpose of the Contract Documents without extra charge to the Owner.
- D. Function of Drawings: To determine general character of the work and its details. Parts not detailed shall be subject to the Architect/Engineer's approval. When reasonably inferable that a drawing illustrates only part of a given work or of a number of items, the remainder shall be deemed repetitious and so construed. In general, drawings illustrate locations, arrangements, dimensions and details. Any part of the work or any detail pertaining thereto which is not specifically shown on the Drawing, but which is necessary for the proper completion of the Work, shall be furnished and installed without extra cost to the Owner.
- E. Function of Specifications: For convenience, specifications are separated into topical divisions of Work, each of which is further broken down into sections describing portions of Work related to the topical division under which it occurs. Such separation shall not be construed as an attempt by the Architect/Engineer to establish limits of any agreements between Contractor and subcontractors. In general, specifications describe minimum qualities and performances required for materials and execution. Any part of the Work or any article pertaining thereto which is not specifications, but which is necessary for the completion of the Work, shall be furnished and installed without extra cost to the Owner.
- F. The misplacement, addition or omission of any word, letter, numbers, or punctuation marks shall in no way change the intent, purpose or meaning of the Plans and Specifications.

4. SIGNING OF CONTRACT:

- A. The Contract Documents, including specifications and drawings, will be completely identified and shall be signed in four (4) counterparts by the Contractor and by the Owner before the work is started. Two sets of documents will be retained by the Owner, one set by the Architect/Engineer, and one set by the Contractor.

- B. Addenda: All additions, deductions and special interpretations pertaining to the Contract, whether arranged by specific addenda prior to bid, by letters of instructions, or by other written explanations, shall be properly listed and described in the Contract Documents. Changes or alterations of the approved plans or specifications prior to letting a construction contract shall be made by addenda signed by the Architect/Engineer and Owner.
- C. Identification: If any Contract Document other than the Agreement be found to lack any or all signatures of the Owner or the Contractor, identification by the Architect/Engineer is deemed sufficient and conclusive.

5. TIME FOR PERFORMANCE:

- A. Notice of Award: Contractor shall submit executable Contract, including Bonds and Insurance documents, within ten (10) working days after Notice of Award. The Owner may deem Bidder non-responsive for failure to execute within ten (10) working days.
- B. Notice to Proceed: The Owner will issue, or will authorize the Architect/Engineer to issue to the Contractor, a Notice to Proceed with the work.
- C. Schedule for Completion: The time scheduled for completion of this project begins on July 1, 2016 and ends on July 31, 2017, a total of thirty-one (31) calendar days
- D. Time: Time is of the essence of the contract. All work shall be completed and this contract shall be fully performed within the time set forth in this Agreement. Time for performance shall be calculated to commence on the date of the Notice to Proceed.
- E. Liquidated Damages: The Owner reserves the right to claim liquidated damages for delays in completion of the work attributable to the Contractor.
- F. Substantial Completion: The work will be deemed complete for purposes of this Paragraph hereof at such time as the entire project is sufficiently complete, in accordance with the Contract Documents, so that the Owner can occupy and utilize the entire project for its intended purpose.

6. TIME EXTENSIONS:

- A. Delays in Completion: The time for completion of the work shall be extended by the number of whole days which the contractor is unable to perform any work on the project for reasons which are beyond his control and are not his responsibility nor that of his subcontractors, provided that a claim for extension be made and granted as set forth herein. These reasons may include the following:
 - 1) Unusual or unexpected Acts of God.
 - 2) Acts of foreign, domestic, Federal or State Governments.
 - 3) Federal Government orders or contracts required by law to have priority over this contract.
 - 4) Strikes.
 - 5) Unusual failure of interstate transportation.
 - 6) War and the inability to obtain materials due to war.
 - 7) Perils of the sea.
 - 8) Insurrection or riot.

- B. The number of days allowed for completion as referred to in the Agreement takes into consideration a time loss up to and including one (1) working day within the contract time period for time lost due to adverse weather and weather caused conditions such as rain, mud and wind, which in the Architect/Engineer's opinion actually delays the work or a portion of the work. Up to and including one (1) working day shall not be regarded as unavoidable delays in this sense, as the Contractor should understand that such conditions are to be expected within the average climatic range, and shall so be considered for purposes of this contract.
- C. Delay in Furnishing Drawings: No claim for extension of time for performance will be considered for Architect/Engineer's failure to act or furnish drawings unless the Architect/Engineer fails to act or furnish drawings within a reasonable time from the date of written notice requesting such act or drawings.
- D. Any and all claims for Extensions must be submitted in writing to the Owner within three (3) days of the beginning of the delay.
- E. The Owner will, in his sole discretion, decide whether the cause for claim for extension does in fact exist, and will grant only such claims as are supported by good cause.
- F. Approved extension of contract time will be issued by written change order signed by the Owner and by the Architect/Engineer. No order will authorize a time extension unless it is specifically stated therein. No extension of time granted by the Owner shall be deemed to allow the contractor any basis for additional compensation for overhead or any other expenses.

7. CONTRACTOR'S RESPONSIBILITIES:

- A. Existing Conditions: Detailed knowledge of existing conditions is required of the Contractor. Lack of such knowledge and understanding shall not be the basis of any claim for change in the contract amount or operate to release the Contractor from any requirement for the complete performance of the contract. If conditions arise which are not predictable or inferable from the Contract Documents or site inspection, and which are the cause for additional work, the amount of additional cost will be considered as a basis for claims for adjustment to the contract price.
- B. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract, unless the Contract Documents give other specific instructions concerning these matters.
- C. Checking Contract Documents: Contractor shall compare and check all Contract Documents prior to commencing work. He shall immediately report any discrepancy to the Architect/Engineer for clarification and he shall not proceed with any work affected by the discrepancy until such clarification has been received in writing.
 - 1) General Contractor must thoroughly review all Contract Documents prior to start of construction to minimize the quantity of RFI's during construction.

All Requests for Information (RFI's) must come from the General Contractor and must be typed or legibly hand printed with clear, concise information. They must be first submitted to the Inspector and must bear the Inspector's signature and comments prior to being submitted to the Architect/Engineer. Any RFI's not

meeting these requirements may be rejected and returned to the General Contractor for revisions. All RFI's must be submitted in a time frame that allows a minimum of five (5) working days for review and response. However, RFI's regarding unforeseeable conditions (as determined by the Architect/Engineer) will receive priority attention and an expedient response.

General Contractor will not be entitled to additional compensation for his expenses incurred in the processing of RFI's. No extensions in time or overhead cost increases will be permitted for any work as a direct result of any RFI's responded to in the time frame outlined above.

General Contractor may be responsible for Architect/Engineer's expenses incurred in responding to frivolous RFI's at the current rate for Architect/Engineering services.

- 2) If the Contractor proceeds in error or omits required work, and if corrective documents are provided by the Architect/Engineer in order that the Project can proceed without the Contractor having to remove all of the incorrect work, the Contractor shall pay the Architect/Engineer and his engineers for their professional services analyzing the defect(s) at their current hourly rate schedule.
- D. Drawings and Specifications: At all times until completion of the contract, Contractor shall make available to the Architect/Engineer at the job site one complete and up-to-date set of drawings and specifications, and upon request, all standards referred to therein.
 - E. Coordination of Work: Contractor shall coordinate efficiently all work of his subcontractors and of all trades involved and shall make available to each subcontractor copies of Contract Documents and shall relay all information affecting each trade in ample time so that progress of the Work is not delayed. Any extra work or material, caused by failure or delay of Contractor to so comply, shall be furnished without expense to the Owner.
 - F. Superintendence: Contractor shall efficiently oversee and direct the work at all times and watch progress of the work to determine when and where materials and labor will next be needed. He shall continuously employ on the project an efficient and competent general superintendent and his necessary assistants, all satisfactory to the Architect/Engineer. Contractor's general superintendent shall have full authority as the Contractor's agent to answer questions and to receive and carry out Architect/Engineer instructions. Such instructions shall be as binding as if given directly to the Contractor. The approved superintendent, once on site, shall only provide supervision related directly and/or indirectly to the Project. He/she shall not be assigned other job responsibilities that involve non-supervision and non-leadership duties. Other tradesmen shall execute these services as needed to ensure that the contractor's superintendent devotes his/her full time to only superintendency.
 - G. Incompetent Superintendents If, in the District's or Architect/Engineer's opinion, any general superintendent is deemed incompetent or unfaithful in execution of the work, the Contractor shall, on written notice, dismiss such person forthwith and shall not employ him thereafter on work of any part of this contract.
 - H. Engineering Services: Contractor shall provide efficient surveying and engineering services to lay out the work in accordance with lines and elevations shown.
 - I. Bench Marks & References: Established bench marks, monuments or reference points shall be protected and preserved, and no changes in location shall be made without Owner's written

approval. Should any mark, monument or point be lost or destroyed or require relocating because of changes in grades, etc., Contractor shall, subject to Owner's approval, replace and accurately locate it without additional contract cost.

- J. Access to all parts of the work shall be afforded at all times to all governing agencies and representatives of the Owner having jurisdiction over the work. The Contractor shall provide all facilities for such access and inspection.

8. REGULATIONS, PERMITS AND LICENSES:

- A. The Owner will, as necessary, pay all building permit fees required by the local building department having jurisdiction.
- B. The Contractor shall obtain all other permits and all licenses that are required for the performing of his work by all laws, ordinances, rules, regulations, or orders of any officer and/or body lawfully empowered to make or issue the same and having jurisdiction, and shall give all notices and all costs and expenses incurred on account thereof, and deliver certificates of same to the Owner, except when otherwise provided herein. Contractor shall obtain permits and pay costs for all connection fees to Public Utilities. Owner shall reimburse Contractor for actual connection fee cost charged by Utility Company (gas, water, sewer, electricity, telephone and cable TV).
- C. Contractor shall, as needed, complete the Storm Water Pollution Prevention Plan (SWPPP) and necessary permits prior to commencement of work on the project. Contractor shall be responsible for implementing and complying with the provisions of the Permit and the SWPPP pursuant to the General Conditions hereof, including requirements specified in other parts of the contract documents. It shall be Contractor's responsibility to evaluate and include in the bid the cost of development and compliance with the SWPPP and the cost of monitoring as required by the Permit.
- D. The Contractor shall conform to all Federal and State laws, ordinances and regulations covering this work.
- E. All fees associated with actual fees at project site and as listed above shall not be part of the contractors bid. Contractor shall pay for and be reimbursed as an additional expense and shall bill the owner directly as an independent billing and shall not be part of the payment requests.

9. LAWS & REGULATIONS:

- A. The entire Contract Documents and the performance of Work described therein are subject to applicable governmental statutes, codes, regulations, ordinances, among which are the UBC, UPC, UMC, and NEC, now in effect or which shall be in effect during the term of the contract in the locale of the project. Nothing in these Contract Documents shall be construed to permit violation.
- B. Contractor shall utilize only materials and methods on the work which conform with these provisions. Contractor shall promptly inform the Architect/Engineer of any violations of governmental provisions which he may find in the Contract Documents.
- C. Contractor shall waive "common practice" and "common usage" as construction criteria wherever details and specifications or codes, ordinances, etc. require greater quantity or better quality than common practice or common usage would allow.

- D. Labor Compliance Program: District, on its own or through its agents will operate a Labor Compliance Program (LCP) for the Project which complies with Labor Code section 1771.5 et seq.. Contractor and all subcontractors shall comply with the requirements of the District's LCP.
- E. Prevailing Wages: In accordance with the provisions of sections 1720 et seq. of the Labor Code, the Division of Labor Standards and Research has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1773.8. It shall be mandatory upon Contractor and all subcontractors to pay not less than the said specified rates to all laborers, workers and mechanics employed by them in the execution of the Agreement.
- F. Penalties: Contractor shall forfeit a penalty for each calendar day, or portion thereof, during which each worker was paid less than the stipulated prevailing rate for such work or craft in which such worker is employed for any work done under the Agreement by it or by any subcontractor under it, the amount of which is to be determined in accordance with Labor Code section 1775. In addition to said, the difference between such stipulated prevailing wage rates and the amount paid to each workman for each calendar day or portion thereof for which each workman was paid less than the stipulated prevailing wage rate shall be paid to each workman by Contractor. Contractor may be responsible for paying subcontractor's employees prevailing wages if it does not comply with the provisions of Labor Code sections 1770 et seq.
- G. Records: Contractor and each subcontractor shall keep or cause to be kept an accurate record showing the names and occupants of all laborers, workers and mechanics employed by it in connection with the execution of this Agreement or any subcontract thereunder, and showing also the actual per diem wage paid to each of such workers, which records shall be open at all reasonable hours to inspection by the School District, its officers and agents and to the representatives of the Division of Labor Standards and Research.
- H. Apprentices. Contractor and all subcontractors shall comply with all provisions of Labor Code sections 1777.5 et seq. and sections 3077 et seq. regarding the employment of apprentices. The responsibility for compliance with these provisions for all apprenticable occupations rests with Contractor and subcontractors.

10. MATERIALS & WORKMANSHIP:

- A. Specific Standards: Materials and workmanship specified by reference to number, symbol, or title of a specific standard such as Commercial Standard, a Federal Specification, a trade association standard, or other similar standard, shall comply with requirements in latest revision thereof and with any amendment or supplement thereto in effect on the date heading these specifications. Such standard, except as modified herein, shall have full force and effect as though printed in the specifications.
- B. Clear Title: No materials or supplies for the work shall be purchased by the Contractor or by any subcontractor subject to any chattel mortgage or under conditional sale or under any other agreement by which an interest is retained by the seller. Contractor warrants that he has clear title to materials and supplies for which he accepts any payment.

11. ARCHITECT/ENGINEER'S FUNCTION:

- A. Architect/Engineer will periodically observe and review the work for conformance with Contract Documents and will interpret and clarify points of question. All decisions concerning color, texture, design, and aesthetic appearances shall be made by the Architect/Engineer, whose decision shall be final and are not subject to arbitration; but this does not include direction of persons selection or direction of methods and construction equipment or placing in operation any mechanical or electrical facilities.
- B. Architect/Engineer will review all shop drawings, samples, and materials.
- C. Architect/Engineer will recommend approval or rejection of changes in contract amount and/or time and issue change orders accordingly for Owner's written approval.
- D. Architect/Engineer will review amounts of all applications for partial payments from the Contractor as they become due and recommend certificates of payments for the Owner's written approval.
- E. Architect/Engineer may order the Project work stopped if the Contract Documents are not being followed.
- F. Architect/Engineer's orders will be in writing only, properly signed. Oral orders from Architect/Engineer or from anyone acting for him shall not be considered binding in case of dispute.
- G. Architect/Engineer will make written decisions regarding all claims of the Contractor and will interpret the Contract Documents on all questions arising in connection with execution and progress of the work, except as otherwise specified.
- H. Architect/Engineer will appoint representatives to assist him in conduct of the Work; these persons shall be entitled to same free access to all parts of Work. All written instructions issued by Architect/Engineer's representatives are final and binding as if issued by the Architect/Engineer himself. Contractor shall act upon verbal instructions entirely at his own risk.
- I. All communications relating to the Work shall be submitted through the Architect/Engineer, except the required Notice of Arbitration.

12. NON-PERFORMANCE OF CONTRACT:

- A. Owner's Right to Terminate Contract: The Owner, without prejudice to any other rights or remedy he may have, may terminate Agreement with the Contractor and Contractor's right to proceed, either with the entire Work or any portion thereof to which delay or default shall have occurred in any of the following circumstances:
 - 1) If Contractor be adjudged bankrupt or make an assignment for the benefit of creditors.
 - 2) If receiver or liquidator be appointed for the Contractor or for any of his property and not be dismissed within 20 days after such appointment, or if proceedings in connection therewith are not stayed on appeal within said 20 days.

- 3) If Contractor shall refuse or fail to supply enough properly skilled workmen or proper materials after notice or warning from Architect/Engineer.
 - 4) If Contractor shall refuse or fail to execute the Work or any part thereof with such diligence as will insure its completion within the time specified or shall fail to complete the Work within said time. Architect/Engineer shall be the sole judge of contractor's progress hereunder.
 - 5) If Contractor fails to make payments as specified herein to persons supplying labor or materials for the work.
 - 6) If Contractor fails or refuses to regard laws, ordinances or instructions of the Architect/Engineer or otherwise be guilty of substantial violation of any provision of this contract.
- B. Procedure for Owner's Termination of Contract: Owner will give written notice of termination to Contractor and to Contractor's sureties. If contractor's sureties do not commence performance of the project within five (5) days of such notice of intention, Owner may take over the work and prosecute it to completion by contract or by any other method deemed expedient. In such event, work shall be at the expense of the Contractor and of his sureties who shall be liable to the Owner for any excess cost or damage occasioned thereby, Owner may also, without any further liability, take possession of and utilize in completing the work, such materials, equipment, plant and other property of the Contractor as may be on the site of the Work.
- C. Termination Payment to Contractor: Contractor shall not be entitled to receive any further payment on the work until the work is finished. If the unpaid balance of compensation to be paid the Contractor for complete performance of the contract exceeds the expense of so completing the work, including compensation for additional managerial, administrative and inspection services and any liquidated damages for delay, such excess will be paid to the Contractor. If such expense exceeds such unpaid balance, the Contractor and his sureties shall be liable to Owner for such excess.
- D. Right to Stop Work: Authority to stop the work in whole or part is vested in the Architect/Engineer and may be invoked whenever he deems such action necessary to insure proper execution of the contract; work may not be resumed until the Architect/Engineer has given written consent.
- E. Rejection of Materials and Workmanship: The Owner and the Architect/Engineer have the right to reject defective material and workmanship and to require its replacement or correction without additional cost to Owner. Contractor shall promptly segregate and remove rejected work from the premises. All adjacent work disturbed by removal of such work shall be replaced in accordance with this contract and without expense to the Owner including Work of any other contractors disturbed by such removals and replacements.
- 1) If Contractor fails to proceed at once with replacement of rejected Work, Owner may, by contract or otherwise, replace such material and correct such workmanship and charge the cost to the Contractor, or Owner may terminate right of the Contract to proceed. Contractor and his surety shall be liable for any damage to same extent as provided for by terminations hereunder.
 - 2) If rejected materials are not removed from premises within reasonable time, Owner may cause them to be removed and stored at Contractor's expense within four (4)

days after issuing written notice to so remove them. If Contractor does not pay for such removal and storage within six (6) days after such notice, Owner may, six (6) days after further written notice, sell the materials and credit Contractor with net proceeds after all costs of removal and sale are deducted. If materials so removed are valueless or sale does not meet cost of removal, Contractor shall bear all resultant loss.

- F. Neglected Work: Owner may perform or employ others to undertake portions of the work persistently neglected by the Contractor if work is still proceeding unsatisfactorily three (3) days after written notice to the Contractor. In such case work will be done according to the Contract Documents and shall in no way affect the status of either party under this contract, nor be held as the basis of any claim by the Contractor for damages or for extension of time.

- G. Right to Withhold Payment: Part or whole of any payment or any certificate may be withheld by Owner if such course be deemed necessary to protect Owner from loss on account of Contractor's failure to meet his obligations or if balances unpaid to Contractor are insufficient to complete the Work. This right may also be exercised if in Owner's opinion the work will not be completed within the time specified for performance of the contract.

13. CONTRACTOR'S RIGHT TO STOP WORK:

- A. If any of the following circumstances exist and are not the fault of the Contractor, the Contractor may stop work or terminate the contract thirty (30) days after written notice to Owner and to Architect/Engineer. In such event the Owner will be liable to the Contractor for all expenses incurred in the work to date of termination, including obligations to subcontractors and for supplies and for Contractor's prescribed profit on the work performed and such other actual and reasonable damages as may be shown.
 - 1) If work is stopped by order of any court or governmental authority for more than thirty (30) days.
 - 2) If Architect/Engineer without just cause fails to issue any certificate for payment to the Owner within fifteen (15) days after it is received.
 - 3) If Owner fails to pay Contractor any sum certified by Architect/Engineer within thirty (30) days after its presentation; or any sum awarded by arbitrators, if arbitrated.

14. CHANGES TO CONTRACT:

- A. Owner may, through the Architect/Engineer, issue revision orders at any time without notice to the sureties, changing the specifications and drawings of this contract but the Contractor shall not make any change which increases the aggregate total contract price without written authorization. All Addenda and Change Orders shall be signed by the Owner, Architect/Engineer and Contractor.

- B. Change Orders: Contractor shall submit for the Architect/Engineer's review in itemized form his estimate of cost of all changes to the work prior to commencing any such work. Architect/Engineer will either reject the estimate for further study or recommend approval of all or portions of the estimate and will prepare a written revision order stating description of work and its cost change for the Owner's approval.

Contractor shall commence for the work upon receipt of written authorization by the Owner and Architect/Engineer.

C. Cost of Change Orders

1) **DETERMINATION OF COST**

The amount of the impact on the Guaranteed Maximum Price and Construction Contingency resulting from a Change Order (CO), if any, shall be determined in one or more of the following ways as applicable to a specific situation:

- a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- b. Unit prices stated on the Contractor's Bid Form, the Contract Documents, or subsequently agreed upon between the Owner and the Contractor;
- c. Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- d. By cost of material and labor and percentage of overhead and profit. If the value is determined by this method the following requirements shall apply:

1. **Daily Reports by Contractor.**

- a) General: At the close of each working day, the Contractor shall submit a daily report to the Inspector, on forms approved by the Owner, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, the location of the Work, and other services and expenditures when authorized concerning extra work items. An attempt shall be made to reconcile the report daily, and it shall be signed by the Inspector and the Contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by Subcontractors or others shall be submitted through the Contractor.
- b) Labor: List names of workers, classifications, and hours worked.
- c) Materials: Describe and list quantities of materials used.
- d) Equipment: List type of equipment, size, identification number, and hours of operation, including, if applicable, loading and transportation.
- e) Other Services and Expenditures: Describe in such detail as the Owner may require.

2. **Basis for Establishing Costs.**

- a) Labor will be the actual cost for wages prevailing locally for each craft or type of workers at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation,

apprenticeship funds, and other direct costs resulting from Federal, State, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification, which would increase the extra work cost, will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

- b) Materials shall be at invoice or lowest current price at which such materials are locally available and delivered to the Site in the quantities involved, plus sales tax, freight, and delivery.

The Owner reserves the right to approve materials and sources of supply or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Owner.

- c) Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of \$100 or less.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies or distributors at the time the work is performed.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Necessary loading and transportation costs for equipment used on the extra work shall be included. If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Owner than holding it at the work Site, it shall be returned unless the Contractor elects to keep it at the work Site at no expense to the Owner.

All equipment shall be acceptable to the Inspector, in good working condition, and suitable for the purpose for which it is to be used. Manufacturer's ratings and modifications shall be used to classify equipment, and equipment shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

- d) Other Items. The Owner may authorize other items which may be required for the extra work. Such items include labor, services, material, and equipment which are different in their nature from those required by the Work, and which are of a type not ordinarily available from the Contractor or any of the Subcontractors. Invoices covering all such items in detail shall be submitted with the request for payment.

- e) Invoices. Vendors' invoices for material, equipment rental, and other expenditures shall be submitted with the Change Order Request (COR). If the request for payment is not substantiated by invoices or other

documentation, the Owner may establish the cost of the item involved at the lowest price which was current at the time of the Daily Report.

- f) Overhead. Overhead, including direct and indirect costs, shall be submitted with the COR and include: home office overhead, CO preparation/negotiation/research, time delays, project interference and disruption, additional guaranty and warranty durations, on-Site supervision, additional temporary protection, additional temporary utilities, additional material handling costs, and additional safety equipment costs.

2) **FORMAT FOR PROPOSED COST CHANGE**

The following format shall be used as applicable by the Owner and the Contractor to communicate proposed additions and deductions to the Contract. Any additions or deductions that affect the Guaranteed Maximum Price and the Construction Contingency shall be subject to the provisions of the Agreement and these General Conditions.

	<u>EXTRA</u>	<u>CREDIT</u>
A. Material (attach itemized quantity and unit cost plus sales tax)	_____	_____
B. Labor (attach itemized hours and rates)	_____	_____
C. Equipment (attach invoices)	_____	_____
D. Subtotal	_____	_____
E. If Subcontractor performed Work, add Subcontractor's overhead and profit to portions performed by Subcontractor, not to exceed ten percent (10%) of item D.	_____	_____
F. Liability and Property Damage Insurance, Worker's, Compensation Insurance, Social Security, and Unemployment Taxes, not to exceed twenty-five percent (25%) of Item B.	_____	_____
G. Subtotal	_____	_____
H. General Contractor's Overhead and Profit, not to exceed ten percent (10%) of Item G.	_____	_____
I. Subtotal	_____	_____

	<u>EXTRA</u>	<u>CREDIT</u>
J. Bond not to exceed two percent (2%) of Item I.	_____	_____
K. TOTAL	_____	_____

It is expressly understood that the value of such extra work or changes, as determined by any of the aforementioned methods, expressly includes any and all of the Contractor's costs and expenses, both direct and indirect, resulting from additional time required on the Project or resulting from delay to the Project. Any costs or expenses not included are deemed waived.

3) DISCOUNTS, REBATES, AND REFUNDS

For purposes of determining the cost, if any, of any change, addition, or omission to the Work hereunder, all trade discounts, rebates, refunds, and all returns from the sale of surplus materials and equipment shall accrue and be credited to the Owner, and the Contractor shall make provisions so that such discounts, rebates, refunds, and returns may be secured, and the amount thereof shall be allowed as a credit to the Guaranteed Maximum Price in determining the actual cost of construction for purposes of any change, addition, or omissions in the Work as provided herein.

4) ACCOUNTING RECORDS

With respect to portions of the Work performed by COs and CCDs on a time-and-materials, unit-cost, or similar basis, the Contractor shall keep and maintain cost-accounting records satisfactory to the Owner, which shall be available to the Owner on the same terms as any other books and records the Contractor is required to maintain under the Contract Documents.

5) NOTICE REQUIRED

If the Contractor desires to make a claim for an impact on the Guaranteed Maximum Price and Construction Contingency, or any extension in the Contract Time for completion, it shall give the Owner and the Architect/Engineer written notice thereof within ten (10) days after the occurrence of the event giving rise to the claim, together with detailed estimates of the impact on the Guaranteed Maximum Price and the Construction Contingency and/or the Contract Time. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property, in which case the Contractor shall proceed in accordance with paragraph 10.4 hereof. No claim shall be considered unless made in accordance with this Subparagraph; however, the mere presentation of such claim shall not establish the validity of the cause giving rise to such claim, or of the extension of the Contract Time, and/or the effect on the Guaranteed Maximum Price and the Construction Contingency. Contractor shall proceed to execute the Work even though the adjustment has not been agreed upon. Any effect on the Guaranteed Maximum Price and the Construction Contingency or extension of the Contract Time resulting from such claim shall be authorized by a CO, and paid subject to the Agreement and these General Conditions.

6) APPLICABILITY TO SUBCONTRACTORS

Any requirements under this Article shall be equally applicable to COs or CCDs issued to Subcontractors by the Contractor to the same extent required of the Contractor.

15. NOTICE OF COMPLETION:

A. Final Observation and Re-observation:

- 1) Request for Final Observation: When the work is completed, Contractor shall notify Architect/Engineer and Owner in writing that the work will be ready for final observation on a definite date which shall be stated in such notice. The notice shall be given at least ten (10) days in advance of such date. Contractor shall arrange for the presence at this observation of all subcontractors dealing with paving, concrete work, striping, drainage, and such other subcontractors as Architect/Engineer may designate.
- 2) Except for minor touch-up work, ALL work of the contract shall be completed and systems operating and checked by Contractor and manufacturer's representatives BEFORE a final observation is requested by Contractor.

B. Architect/Engineer and Contractor will make joint final observation to determine if work is (1) entirely complete, or (2) substantially complete, or (3) neither entirely or substantially complete. Substantial completion implies completion except for minor adjustments, correction of finishes, etc. which minor items will not limit Owner's use or occupancy of the entire work. Architect/Engineer will be sole judge in determining specifically what constitutes any minor item in this instance.

- 1) If the Architect/Engineer arrives at the site for the Final Observation at the request of the Contractor and the Project is not deemed to be substantially complete by the Architect/Engineer, the Final Observation shall be rescheduled. The Contractor shall be financially responsible to the Owner for paying the owner's Architect/Engineer based on the amounts in B.4 below.
- 2) Within ten (10) days after the final observation, a written list of any deficiencies consisting of items to be completed or corrected before acceptance of the building, shall be furnished to Contractor. Such completion or correction shall be done within fourteen (14) days after the final observation or such other time limit as may be established by Architect/Engineer or Owner.
- 3) A Follow-Up Observation will be made by Architect/Engineer's and Owner within thirty (30) days after the final observation or such other time limit as may be established by Architect/Engineer or Owner. Contractor shall arrange for the presence of subcontractors whose work was on the list of deficiencies.
- 4) Should it be determined during the follow-up observation that all items on the list of deficiencies have not been completed or corrected and that additional observations would be required to observe those items not completed or corrected, Contractor shall be charged in accordance with the following schedule. Determination of necessity for such re-observations shall be made by Architect/Engineer.
 - i) Each additional observation by Architect/Engineer will be at current hourly rate (4 hours minimum), including travel time and reimbursement for mileage.
 - ii) Each additional observation by the Consultant(s) will be at current hourly rate (4 hours minimum), including travel time and reimbursement

for mileage.

- 5) When Work is accepted, Architect/Engineer shall give Contractor written notice of the date on which a legal Notice of Completion is recorded. These charges shall be withheld from the Contractor's remaining partial payments by the Owner and paid by the Owner to the Architect/Engineer for these additional site visits.
- C. Notice of Completion: If the Architect/Engineer determines project to be either entirely complete or substantially complete as a result of final observation, he may advise the Owner to record a Notice of Completion with the Clerk of the County in which the project is located.
- 1) Date of filing such notice shall determine start of lien period and guarantee period on items that have been approved as substantially completed.
 - 2) Recording notice of completion, issuing any certificate for payment, making any payment other than final payment, and partial or entire use or occupancy of the work by the Owner shall not be construed as an acceptance of any work or material not in accord with the Contract Documents.
- D. Pre-Final Certificate of Payment: Architect/Engineer, upon advising the Owner to file the Notice of Completion, will file a written certificate with the Owner and Contractor for the entire amount of work performed and compensation earned by the Contractor, including approved extra work and compensation. The Contractor shall be entitled to full payment of this amount, less retention.

16. ACCEPTANCE OF WORK:

- A. Final Payment: Thirty five (35) days after recording the notice of completion, the Contractor shall be entitled to payment of all remaining monies on following conditions:
- 1) Receipt of all Guarantee/Warranties, Release of Liens, and O&M Manuals.
 - 2) No stop notices or claims have been filed.
 - 3) Any such notices or claims which have been filed have been satisfied.
 - 4) All Work is completed satisfactorily according to the terms of the Contract.
 - 5) Acceptance of As-Built Drawings.
- B. Release of Claims: Final payment shall not become due until Contractor delivers to the Owner through the Architect/Engineer a complete release of all claims against the Owner arising under and by virtue of this contract, including claims of all subcontractors and suppliers of other materials or labor. Should said release not be delivered before final payment is made by the Owner, acceptance of final payment shall operate to release Owner from all claims the same as if said release had in fact been delivered.
- C. Performance Bond: No payment, final or otherwise, shall operate to release the Contractor or his sureties from any obligations under any performance bond.
- D. Final Acceptance of Work: Receipt of final payment by the Contractor shall operate as

the act of delivery to and final acceptance by the Owner of the completed project; but receipt shall not relieve the Contractor of his responsibilities for any deviation, defect or omission of work, nor limit or waive any obligation due the Owner under guarantees and warranties required by the Contract.

17. OCCUPANCY:

- A. Owner may occupy certain portions of the work prior to Contractor's completion of the total project. The Owner's right to such occupancy is understood to be part of the Contract and Contractor shall proceed with completion of the total project in such manner as to cause least possible interference with the Owner, his employees, or others having business on the premises.
- B. Partial occupancy shall not be deemed acceptance or completion of work in whole or in part, and shall in no manner diminish any provision for liquidated damages for delay in completion of Contract, nor extend the time for completion of Contract.

18. GUARANTEES:

- A. General Guarantee: All Work shall be guaranteed by the Contractor and the surety of his performance bond against defects of materials or workmanship for one year from the date of recording notice of completion.
- B. Special Guarantees: Certain parts of the work, where specifically noted, may require guarantee periods of greater duration than the General Guarantee period of one year, or may require other starting dates for guarantee period than date of filing notice of completion, or may require both of these exceptions to the general guarantees.
- C. Guarantee Requirements: If corrections are required within any guarantee period, without expense to the Owner, the Contractor shall promptly comply with the following:
 - 1) Place in condition satisfactory to Owner all such guaranteed work.
 - 2) Make good all damage to buildings, to Owner's furnishings and personal property, or to site which is the result of said defects.
 - 3) Make good any work, materials, equipment and contents of buildings or site disturbed by repairs and changes in fulfilling any such guarantee.
- D. Failure to Comply: Owner may have defects corrected if Contractor, after notice, fails to proceed promptly to comply with terms of the guarantee and Contractor and his surety shall be liable for all expenses incurred.
- E. Special Equipment: Owner may, at his sole discretion, exercise his option to repair or replace damaged special equipment if such repair or replacement is included in provisions of any guarantee. Cost of such remedy shall be recoverable from the Contractor in the amount of exact cost to the Owner.
- F. Certain items of work or equipment shall be excluded from the provision for commencement of guarantee if, at time of final acceptance of the work, these items are incomplete or unacceptable. The guarantee period for these items shall commence only upon written acceptance by the Owner.

19. ASSIGNMENT:

The Contractor shall not assign the contract nor sublet it as a whole without written consent of the Owner, nor shall the Contractor assign any monies due or to become due to him hereunder without written consent of the Owner. Such assignment or sub-letting by the Contractor will not be binding upon the Owner without such consent.

20. SUBCONTRACTS:

- A. Agreements between Contractor and subcontractors shall be made available upon Architect/Engineer's request.
- B. Contractor shall bind each subcontractor to the terms of the Contract Documents; but no act of the Architect/Engineer nor anything contained in any Contract Documents shall be construed as creating any contractual relation between the Owner and any subcontractor.
- C. Disputes: Neither Architect/Engineer nor Owner will undertake to settle any disputes between the contractor and his subcontractors or between subcontractors.

21. SEPARATE CONTRACTS:

- A. Owner, at his discretion, may let separate contracts related to the project which may be carried on simultaneously with this contract. Scope and technical details of separate contracts will be made available to Contractor for his examination. Contractor shall cooperate with separate contractors to ensure uninterrupted progress of all work including delivery and storage of materials necessary for work of separate contractors.
- B. Contractor shall notify Architect/Engineer of potential interference with this Work by any separate Contractor's work before Work of either contract is disturbed, and shall secure Architect/Engineer's decision as to procedure or change in design or construction before proceeding.
- C. Where results or proper execution of this work depend upon work by separate contractor, Contractors shall inspect separate contractor's work and promptly report to Architect/Engineer any defects that render it unsuitable for such results or execution. Failure to so report shall constitute acceptance of separate contractor's work as proper for reception of Contractor's work.
- D. If Contractor damages any separate contractor's work, or vice versa, or if any dispute arises, Contractor agrees to settle by mutual consent, or upon due notice, to settle by arbitration in the manner provided in these GENERAL CONDITIONS or by agreement with the Owner.

22. SAFETY:

- A. Contractor shall be solely and completely responsible for conditions of the premises on which the work is performed and for safety of all persons and property on the site during performance of the contract. This requirement shall not be limited to normal working hours, but shall apply continuously.
- B. Contractor shall conform with all governing local, State and Federal safety regulations. The Architect/Engineer is not responsible for monitoring the Contractor's

compliance with safety regulations.

- C. Contractor shall hold the Owner, Architect/Engineer and their representative free and harmless from any claim or judgment including litigation costs and counsel fees deriving from or related to performance of the work as regards safety to property or persons, including injury or death, irrespective of whose conduct including conduct of the Owner, the Architect/Engineer, or of their representatives, may have given rise to the claim or loss.

23. LIABILITY & INSURANCE (For extent of coverage, see SUPPLEMENTARY GENERAL CONDITIONS.):

- A. For the duration of this contract, Contractor shall maintain Statutory Workmen's compensation and shall maintain Employer's Liability Insurance. Contractor shall require subcontractors to provide Workmen's Compensation and Employer's Liability Insurance with the same minimum limits.
- B. For the duration of this Contract, Contractor shall maintain Comprehensive General Liability Insurance. The policy shall include Protective Liability Insurance with the same minimum limits. Contractor shall require subcontractors to provide Comprehensive General Liability Insurance with the same minimum limits.
- C. For the duration of this Contract, Contractor shall maintain Comprehensive Automobile Liability Insurance for all owned, non-owned, and hired vehicles. Contractor shall require subcontractors to provide Comprehensive Automobile Liability Insurance with same minimum limits.
- D. Hold Harmless Agreement & Contractor's Insurance: Contractor's Comprehensive General Liability Insurance and his Comprehensive Automobile Liability Insurance shall hold Owner, Architect/Engineer, and their elective and appointive boards, officers, agents and employees, harmless from any liability for personal injury or claims for property damage including Owner's property which may arise from Contractor's or any subcontractor's operations under this agreement, whether such operation be by Contractor or by any subcontractor or subcontractors, or by any one or more persons directly or indirectly employed by, or acting as agent for, Contractor or any subcontractor. Policies shall include Owner's and Architect/Engineer's full legal names in the endorsements.

The obligations of the Contractor shall not extend to the liability of the Architect/Engineer, his agents or employees, arising out of the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or specifications.

- E. Contractor shall defend Owner and Architect/Engineer and their elective and appointive boards, officers, agents and employees from any suits or actions at law or in equity for damages caused, or alleged to have been caused, by reason of any of the aforesaid operations, provided as follows:
 - 1) That neither the Owner nor the Architect/Engineer waives any right against Contractor which they may have by reason of the aforesaid hold harmless agreement, because of the acceptance by the Owner or the Architect/Engineer, or the depositing with either of them by the Contractor of any insurance policies described herein.

- 2) That the aforesaid Hold Harmless Agreement by Contractor shall apply to all damages and claims for damages of every kind suffered or alleged to have been suffered by reason of any of the aforesaid operations, regardless of whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.
- F. The insurance required by sub-paragraphs 24.C, 24.D, 24.E (1) & (2) of the General Conditions shall include Contractual Liability Insurance applicable to the contractor's obligations under these same sub-paragraphs.
- G. Contractor shall not commence work at the site until he has obtained all required insurance and until such insurance has been approved by the Owner. The Contractor shall not allow any subcontractor to commence work until all insurance required has been obtained and approved. Approval of the insurance by the Owner shall not relieve or decrease the liability of the Contractor hereunder. Certificates of insurance shall be filed with the Owner and copies with the Architect/Engineer prior to commencing work.
- H. The required insurance must be written by a Company licensed to do business in the state in which the work is located at the time the policy is issued. In addition, the Company must be acceptable to the Owner.
- I. The Contractor shall not cause any insurance to be canceled nor permit any insurance to lapse. All insurance policies shall include a clause to the effect that the policy shall not be canceled or reduced, restricted or limited until ten (10) days after the Owner has received written notice as evidenced by return receipt of registered or certified letter. Certificates of Insurance shall contain transcripts from the proper office of the insurer, evidencing in particular those insured, the extent of the insurance, the location and the operations to which the insurance applies, the expiration date, and the above-mentioned notice of cancellation clause.
- J. Approval or review by the Architect/Engineer or by his representative of any equipment or material or work of installation shall in no manner act to release the Contractor, his sureties or insurers from any liability or indemnity as provided in these GENERAL CONDITIONS related to such equipment, material or installation work, or to its performance.
- K. Builder's Risk Insurance: The contractor shall carry coverage on a Builders Risk and/or installation floater for covering the interest of the contractor and Owner against loss or damage to machinery, equipment, building materials or supplies, being used with and during the course of installation, testing, building, renovating or repairing. Such policies shall cover at points or places where work is being performed, while in transit and during temporary storage or deposit of property designated for and awaiting specific installation, building, renovating or repairing.

24. TIME OF WORK:

- A. The Architect/Engineer shall designate the starting date of the work, on which date the Contractor shall begin work forthwith.
- B. The Contractor shall, within ten (10) days from the execution of the Contract, furnish to the Architect/Engineer a detailed estimate of the contract price (contract breakdown) and present a contemplated time schedule showing the time necessary to complete each portion of the building and to complete the entire project.
- D. The Contractor "breakdown" showing percentage of work completed shall be verified by

the Inspector and presented each pay period to accompany the Architect/Engineer's certificate of payment.

- E. The Contractor obligates himself to make the whole work complete and satisfactory on, or before, such date as shall be determined by the elapsed number of calendar days set forth in the Proposal, plus any extension approved by the Owner.

25. PAYMENTS:

- A. Payments to the Contractor on account of the Contract shall be made according to the following schedule, and subject to additions and deductions, if any, as hereinafter provided. No payment will be made without the completion and verification of the certificate referred to in General Conditions 25-C. **Pay Request format shall be approved by Architect/Engineer. A sample may be obtained from Architect/Engineer's office.**
- B. On or about the first day of the month following the commencement of the Work there shall be paid to the Contractor after certification by the Architect/Engineer, a sum equal to Ninety-five Percent (95%) of the value of the work completed since the commencement of the work. Thereafter, on or about the twentieth day of each successive month as the work progresses, similar payments may be requested by the Contractor equal to Ninety-five Percent (95%) of the value of the work completed since the commencement of the work less all previous payments. Payment for additional Work or extras, if any, under this Contract shall be made in like manner. Said payment shall be made by demands drawn in the manner required by law, accompanied by a certificate signed by the Architect/Engineer, stating that the Work for which payment is to the best of Architect/Engineer's knowledge has been performed in accordance with the terms of the Contract, and that the amount stated in the certificate is due under the terms of the Contract. Partial payment on the contract price shall not be considered as an acceptance of any part of the work.
- C. After the completion of the Work required by this Contract, the Contractor shall file with the Owner, his affidavit, sworn to before a Notary Public, stating that all workmen and persons employed, all firms supplying the materials, and all subcontractors upon the project have been paid in full, and that there are no disputed claims or stop notices. The filing of such affidavit by the Contractor shall be a prerequisite to the making, by the Owner, of the final payment of the Contract. Final payment shall be made forty-five (45) days after completion of the work and its acceptance by Owner.
- D. Payment hereunder may, at any time, be reduced or withheld by the Owner, if, in the opinion of the Architect/Engineer or the Owner, the Contractor is not diligently and efficiently endeavoring to comply with the intent of this Contract, or if the Contractor shall fail to pay for labor and material used on the project when such payments become due.
- E. The acceptance by the Contractor of the payment of the final certificate shall constitute a waiver of all claims against the Owner under or arising out of this Contract.
- F. The Owner, at any time during the progress of the Work, shall have the right to order alterations in, additions to, or deviations or omissions from the work contemplated by this Contract, and the same shall in no way make void the Contract. Changes involving an increase or decrease in the contract amount shall be processed as per Paragraph 14.

- G. CLAIMS FOR EXTRA COSTS. It is hereby mutually agreed that the Contractor shall not be entitled to payment of additional compensation for any occurrence, unless he shall have given the Architect/Engineer and Owner due written notice of potential extra cost.

The written notice of potential extra cost shall set forth the reasons the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible an estimate of the total cost. The required notice must have been given to the Architect/Engineer and Owner prior to the time the contractor performed the work, or in all other cases within seven (7) days after the start of work, giving rise to the potential extra cost.

It is the intention of this Article that differences between the parties arising under and by virtue of the Contract be brought to the attention of the Architect/Engineer at the earliest possible time so that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that he shall have no right to additional compensation for any claim that may be based on any act, failure to act, event, thing or occurrence for which no written notice of potential claim was filed within the time constraints stated above. In the event of an emergency endangering life or property, the Contractor shall act as stated below, and after execution of the emergency work, shall present an accounting of labor, materials, and equipment in connection therewith. The procedure for any payment that may be due for emergency work will be as specified in Paragraph 14. The Architect/Engineer shall, within a reasonable time after their presentation to him, state his decisions in writing on all claims for extra compensation. All such decisions of the Architect/Engineer shall be final.

- H. In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Architect/Engineer or Owner, is hereby permitted to act at his discretion to prevent such threatened loss or injury, and he shall so act without appeal if so instructed or authorized. Any compensation claimed by the Contractor for emergency work shall be determined as specified under Paragraph 14.
- I. Payment for additional work or extras, if any, under this Contract shall be made in accordance with the provisions of Paragraph 14. The value of omissions, if any, from the Contract, shall be deducted from the amount of the contract price, and the deductions shall be made by the Owner from the payment first following the authorization for said deductions.

26. TESTS AND INSPECTIONS:

- A. The cost of all tests, sampling, tagging and shipping inspection called for in the specifications shall be paid for by the Owner. Should the result of any tests show that the materials and/or workmanship fails to meet the requirements of the specifications, then the contractor shall provide new materials and/or workmanship, and additional tests shall be made until the requirements of the specifications are satisfied. The Owner shall deduct from the final payment sufficient money to pay for all the testing costs from and after the first tests required by specifications. If the results of any tests on imported material show that it is not suitable, the contractor shall provide new material and additional tests shall be made. The Owner shall deduct from the final payment the cost of testing from and after the first tests should the material fail to meet the tests. The testing laboratory shall be employed by the owner.

27. RESOLUTION OF CONSTRUCTION CLAIMS:

- A. The parties hereto shall adhere to and be bound by each and all of the provisions of Public Contract code Section 20104 through 20104.8, a copy of which is attached as "EXHIBIT A" and is incorporated herein by this reference.

28. ARBITRATION OF PUBLIC WORKS CONTRACT CLAIMS:

- A. The parties hereto shall adhere to and be bound by each and all of the provisions of Public Works Contract, Sections 22200 through 22201, and Sections 20104 through 20104.4, which are included below and incorporated herein by this reference.

**PUBLIC CONTRACT CODE
SECTION 22200-22201**

22200. As used in this part:

- (a) "Public works contract" means, except for a contract awarded pursuant to the State Contract Act (Part 2 (commencing with Section 10100)), a contract awarded through competitive bids or otherwise by the state, any of its political subdivisions or public agencies for the erection, construction, alteration, repair, or improvement of any kind upon real property.
- (b) "Claim" means a demand for monetary compensation or damages, arising under or relating to the performance of any public works contract.

22201. Unless otherwise prohibited by law, the terms of any public works contract may include at the time of bidding and of award a provision for arbitration of any claim pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

**PUBLIC CONTRACT
CODE SECTION
20104-20104.4**

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" has the same meaning as in Sections 3100 and 3106 of the Civil Code, except that "public work" 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 sixty (60) days of receipt of the claim, or may request, in writing, within thirty (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 thirty (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 fifteen (15) days of receipt of the local agency's response or within fifteen (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 thirty (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 sixty (60) days, but no earlier than thirty (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 fifteen

(15) days by both parties of a disinterested third person as mediator, shall be commenced within thirty (30) days of the submittal, and shall be concluded within fifteen (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 procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 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.

**END OF
SECTION**

SUPPLEMENTARY GENERAL CONDITIONS:

1. DOCUMENTS CONSTITUTING CONTRACT:

- A. ADVERTISEMENTS FOR BIDS
- B. INSTRUCTIONS TO BIDDERS
- C. PROPOSAL FORM
- D. AGREEMENT
- E. PERFORMANCE BOND
- F. LABOR AND MATERIAL BOND
- G. GENERAL CONDITIONS
- H. SUPPLEMENTARY GENERAL CONDITIONS
- I. All addenda instructions, modifications and clarifications to these documents issued prior to signing an agreement.
- J. SPECIFICATIONS: As listed in the table of contents.
- K. DRAWINGS

2. USE AND INTERPRETATION OF DRAWINGS AND SPECIFICATIONS

- A. The drawings and Specifications are issued to the Contractor as a complete set for reference, as approved by the Division of the State Architect. Contractor is responsible only for those sections not excluded as a part of the Underground Work, which are marked as such and will be performed by a separate Contractor. The Contractor will be responsible for connecting to and final testing of the Underground section of Gas Line Replacement for this Project. The Underground Specifications and Plan Sheets are included for reference only.

3. ISSUE OF DRAWINGS AND SPECIFICATIONS:

- A. Contractor will be issued without any cost to him three (3) sets of drawings and specifications including copies already issued for bidding purposes. Cost of reproduction of any additional sets of drawings and specifications will be charged to the Contractor.
- B. Architect/Engineer retains ownership of all copies of drawings and specifications. These documents shall not be used for work other than for the specific project identified by the Architect/Engineer's project number.

4. INSPECTION:

Project Inspector: Owner will employ an Inspector, to observe progress of the work and report to the Architect/Engineer any non-conformance with drawings and specifications.

5. PLAN CHECK & BUILDING PERMIT FEE: (Reference GENERAL CONDITIONS, Para. 8): No Charge - Paid by Owner.

6. PARTIAL PAYMENTS:

- A. Prior to Contractor's submitting his first request for payment, he shall submit for Architect/Engineer's approval a breakdown of costs of all labor and material

according to trade classification. Breakdown, when approved, shall form basis for all payments.

- B. Requests for payment shall be written, submitted monthly not later than date established at pre-construction conference.
- C. Amount of payment will be certified by Architect/Engineer according to the value of the work and materials installed during period covered by request. Materials delivered to site and preparatory work may be included in request for payment subject to paragraph re: Stockpiled Material.
- D. Partial payment shall be withheld by 35% of the total amount required if the project inspector and Architect/Engineer determine adequate and timely record documents are not being kept.
- E. Stockpiled Material is material either delivered to site or stored at Contractor's expense in a bonded public warehouse within reasonable proximity of site. Owner at its sole discretion may honor requests for payment for stockpiled material, allowing for percentage retentions, upon following conditions:
 - (1) Prior written approval by Architect/Engineer and Owner shall be obtained for each delivery to site or to bonded off-site warehouse.
 - (2) Title to stockpiled material shall remain vested in Contractor at time of delivery to site or bonded warehouse. Stockpiled material shall be available for inspection by Owner's authorized agents.
 - (3) Contractor shall obtain a negotiable warehouse receipt, endorsed over to Owner, for all material stored in warehouse. No payment will be made until endorsed receipt is delivered to Owner.
 - (4) If, after delivery of material, any inherent or acquired defects are discovered therein, material shall be removed and replaced with suitable material at Contractor's expense.
 - (5) Contractor shall keep and maintain the material safe and secure from damage or loss by the elements, theft, or other cause, and shall, at his expense, insure material against theft and fire and deliver policy or certificate of such insurance to Owner, naming Owner as assured. Insurance shall not be cancelable for at least 10 days and shall not be effective until certificate thereof is given to Owner.
- F. Owner will make partial payments to Contractor not later than the day established at pre-construction conferences on basis of amount duly certified and approved by Architect/Engineer.
- G. Percentage retention on determined amount of partial payments:
 - (1) For all work up to substantial completion of the project: 5%
 - (2) All monies retained by Owner after substantial completion of project will be released to Contractor according to Para. 16 of GENERAL CONDITIONS.

7. MINIMUM LIMITS OF LIABILITY INSURANCE (Reference GENERAL CONDITIONS 23):

- A. Statutory Worker's Compensation and Employer's Liability Insurance: As prescribed by the State of California.
- B. Comprehensive General Liability Insurance with Owner and its officers, agents, and employees, and Architect/Engineer protected with Contractor as additional insured. Personal injury \$1,000,000 each occurrence and property damage \$200,000 each occurrence.
- C. Comprehensive Automobile Liability Insurance for all owned and non-owned and hired vehicles, with Owner and Architect/Engineer protected with Contractor as additional insured: Personal injury \$1,000,000 each occurrence and property damage \$200,000 each occurrence.

8. WORKMANSHIP AND LABOR:

- A. All employees shall be especially skilled for the kind of work for which they are employed, and shall work under the direction of a competent foreman.
- B. Should the Architect/Engineer, and/or the Owner deem anyone employed on the work incompetent or unfit for his duties, the Contractor shall dismiss him, and he shall not again, without the permission of the Architect/Engineer and/or Owner, be employed on the work.

9. WAGES:

- A. Pursuant to the provisions of Articles I and 2 of Chapter I, Part 7, Division II of the Labor Code of the State of California, Contractor and all sub-contractors shall pay their workmen on all work included in this contract not less than the general prevailing rate of per diem wages, and not less than the general prevailing rate of per diem wages for legal holidays and overtime work, for each craft or type of workman needed to execute the work contemplated under this Agreement, as ascertained by the Owners, and as set forth in the schedule of such wages located at the Office of the County Administrator on said work by the Contractor, or by any subcontractor doing or contracting to do any part of said work. Current prevailing wage rates may also be found online at <http://www.dir.ca.gov/>.

- (1) The Contractor shall forfeit as a penalty to the Owner, the sum of Fifty Dollars (\$ 50.00) for each calendar day or portion thereof, for each workmen paid less than said stipulated rates for any work done under this Agreement by him or by any subcontractor under him and shall pay each such workmen the difference between said prevailing wage rate, and the amount paid to each workman, and shall otherwise comply with Section 1775 of the Labor Code. The Contractor and each Subcontractor shall keep an accurate record showing the name, occupation, and actual per diem wages paid to each workmen employed on the work contemplated by this Agreement, which record shall be kept open at all reasonable hours to the inspection of

the Owner and the
Division of Labor Law Enforcement.

(2) Contractor shall be responsible for complying with Labor Code Section 1777.5 pertaining to the employment of the registered apprentices and Section 1771 of the Labor Code requires that for all public works projects, not less than the general prevailing rate of per diem wages must be paid to all workmen employed on public work.

(3) APPLICATION OF LABOR CODE
Pursuant to § 1776 of the Labor Code, as reproduced in part below:

“(a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

“(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

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

“(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.

“(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public may not be given access to the records at the principal office of the contractor.

“(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division...

“(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records

within 10 days after receipt of a written request.

“(e) Except as provided in subdivision (f), any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated...”

“(g) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five working days, provide a notice of a change of location and address.

“(h) The contractor or subcontractor has 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit One Hundred Dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due...”

Notwithstanding monitoring by the Owner and the CMU, the responsibility for compliance with this Article shall rest upon the Contractor.

(4) **ELECTRONIC SUBMISSION OF PAYROLL RECORDS**

Payroll records, as described above at paragraph 13.9.1, must be submitted by the Contractor and each subcontractor to the CMU by way of the CMU's eCPR system, known as "My LCM," at <https://app.mylcm.com>. The Contractor and each subcontractor shall register with the eCPR system. Once registered, the Owner or the CMU shall assign the Contractor and each subcontractor to the Project, or the Contractor may assign the subcontractors to the Project.

(5) **INSPECTION OF PAYROLL RECORDS AND INVESTIGATION BY CMU**

Certified payroll records are also available on the CMU's eCPR system for review and inspection by the Owner, the CMU, and the Division of Labor Standards Enforcement. The Owner and the Contractor and any subcontractors performing any portion of the Work under the Contract shall cooperate with the CMU and the Division of Labor Standards Enforcement in any investigation of suspected violations of prevailing wage requirements, including permitting interviews of tradesworkers during working hours on the project site and withholding of payments upon determination of a violation of prevailing wage requirements.

10. LEGAL DAY'S WORK:

- A. In accordance with the provisions of Article 1 and 3 of Chapter 1, Part 7, Division II, of the Labor Code of the State of California, eight (8) hours labor shall constitute a regular day's work, and no workman in the employ of the Contractor or any Subcontractor doing or contracting to do any part of the work

contemplated by this Agreement, shall be required or permitted to work more than eight (8) hours in any one calendar day or forty (40) hours during any calendar week, except as provided in Section 1810 to Section 1815 thereof, inclusive, of the Labor Code: and the Contractor and each Subcontractor shall keep an accurate record showing the name of and actual hours worked by each workman employed on the work contemplated by this Agreement, which record shall be kept open at all reasonable hours to the inspection of the Owner and to the Division of Labor Law Enforcement; and that said Contractor shall forfeit as a penalty to the Owner the sum of Fifty Dollars (\$ 50.00) for each workman employed in the execution of this contract, by him or by any Sub-contractor, for each calendar day during which said workman is required or permitted to labor more than eight (8) hours in violation of the provisions of said Article 3, as modified by Section 1815 of the Labor Code.

11. MATERIALS:

- A. The Contractor shall furnish and use new materials of quality required by the provisions of the Contract for every part of his work, unless otherwise specified. CONTRACTOR SHALL SUBMIT SAFETY DATA SHEETS FOR ALL CONSTRUCTION MATERIALS USED ON THE PROJECT. CONTRACTOR SHALL COLLECT AND KEEP ALL SAFETY DATA SHEETS (MSDS) ON THE JOB SITE IN A READILY ACCESSIBLE THREE RING BINDER. THIS BINDER SHALL BE SUBMITTED AT THE END OF THE PROJECT WITH THE OTHER CLOSE-OUT DOCUMENTATION.
- B. Whenever, in the specifications, any material or process is indicated or specified by patent or proprietary name and/or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating description of the material and/or process desired, and shall be deemed to be followed by the words, "or approved equal", and the Contractor may offer any material or process which shall be equal in every respect to that so indicated or specified, provided however, that if the material, process, or article offered by the Contractor is not, in the opinion of the Architect/Engineer, equal in every respect to that specified, then the Contractor must furnish the material, process, or article specified or one that in the opinion of the Architect/Engineer is the equal thereof in every respect. Request for substitution shall be made in writing to the Architect/Engineer within thirty-five (35) days after signing of Contract. Time used by Architect/Engineer in making decisions on substitute materials will not be allowed as a claim for extension of working time.
- C. If after the Architect/Engineer has made a review of materials or equipment it is found that the materials or equipment presented and approved for use are not justifiably equal in quality and performance to the product originally specified, the Architect/Engineer retains the right to revoke said approval, and to reject the materials or equipment prior to the installation without any additional cost.
- D. All materials, samples, tests, and inspection shall be in accordance with the requirements of the specifications.
- E. Any material may be submitted to the Architect/Engineer prior to the bid opening for consideration as an approved equal to the proprietary material.

Requests for such shall be in writing and be made not less than seven (7) working days prior to the bid opening. The request will be accompanied by manufacturer literature, details, test data and samples in a format which shows direct item by item comparison between the proprietary and proposed materials. Approval lies solely within the province of the Architect/Engineer.

12. LIQUIDATED DAMAGES (Reference GENERAL CONDITIONS, Para. 5 D):

As of the date of this contract, it is impossible to determine precisely the damages which Owner would sustain, should Contractor fail to complete the work by the date of completion set forth in the Agreement. Under the circumstances existing at the current time, the parties hereto have exercised a good faith attempt to estimate the amount of such damages, and agree that said amount is **\$250.00** per day. If Contractor fails to complete the work by the date of completion set forth in the Agreement, Contractor shall pay to Owner or Owner shall withhold from funds otherwise due and payable to Contractor (at Owner's option) the sum of **\$250.00** per day for each day after the date of completion set forth in the Agreement until the project is completed. These damages are in addition to any other rights and remedies of Owner as set forth herein. Contractor acknowledges that the aforesaid sum is not intended to compensate Owner for and shall not affect its rights to collect from Contractor costs and expenses incurred by Owner to complete the work after the date of completion.

13. SUBCONTRACTS:

- A. The Owner will deal only through the Contractor, who shall be responsible for the proper execution of the whole work. Subletting the whole or any part of the Contract shall be made only in accordance with the provisions of Section 4100 to 4108 inclusive, of the Public Contracts Code of the State of California.
- B. Pursuant to the provisions of Section 4100 to 4108, inclusive, of the Public Contracts Code of the State of California, the Contractor shall not without the consent of the Owner, either:
 - 1. Substitute any persons as subcontractor in place of the subcontractor designated in his original bid.
 - 2. Permit any subcontract to be assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the bid.
 - 3. Sublet or subcontract any portion of the work in excess of one-half (1/2) of one percent (1%) of his bid as to which his original bid did not designate a subcontractor.
- C. Should the Contractor violate any of the provisions of said Section 4100 to 4108, inclusive, of the Public Contracts Code, his so doing shall be deemed a violation of this Contract, and the Owner may cancel the Contract. In the event of such violation, the Contractor shall be penalized to the extent of ten percent (10%) of the amount of the subcontract involved.

14. THE ARCHITECT/ENGINEER:

- A. Nothing contained in the Contract Documents shall create any contractual relationship between the Architect/Engineer and the Contractor.
- B. The Architect/Engineer will make periodic visits to the site to familiarize himself generally with the progress and quality of the work and to determine in general if the Work is proceeding in accordance with the Contract Documents. On the basis of his on-site observations as an Architect/Engineer, he will keep the Owner informed of the deficiencies in the Work. The Architect/Engineer will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and he will not be responsible for the Contractor's failure to carry out the work in accordance with the Contract Documents.
- C. The Architect/Engineer will not be responsible for the acts or omissions of the Contractor, any subcontractors or any of their agents or employees, or any other persons performing any of the work.

15. PROTECTION OF PUBLIC:

- A. This work may be executed at the time when the public is using the facility; therefore, the Contractor shall arrange with the Owner, who shall designate the areas, which the Contractor shall use in the storage of materials and the construction activities. Every precaution shall be exercised to protect the public from injury by building accident.

END OF SECTION

SECTION 22 00 50 - BASIC PLUMBING MATERIALS AND METHODS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Valves and fittings.
- B. Valve boxes.
- C. Expansion loops.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. This Section is a part of each Division 22 Section.

1.3 ADDITIONAL REQUIREMENTS

- A. Furnish and install any incidental work not shown or specified which is necessary to provide a complete and workable system.
- B. Make all temporary connections required to maintain services during the course of this Contract without additional cost to the Owner. Notify the Owner seven days in advance before disturbing any service.

1.4 REFERENCED STANDARDS

- A. Where material or equipment is specified to conform to referenced standards, it shall be assumed that the most recent edition of the standard in effect at the time of bid shall be used.
 - 1. CSA – Canadian Standards Association International
 - 2. ANSI - American National Standards Institute
 - 3. ASTM - American Society for Testing and Materials
 - 4. CCR - California Code of Regulations
 - a. Title 8 - Division of Industrial Safety, Subchapter 7; General Industry Safety Orders, Articles 31 through 36
 - 5. NCPWB - National Certified Pipe Welding Bureau
 - 6. CEC - California Electrical Code
 - 7. NEMA - National Electrical Manufacturers' Association
 - 8. NFPA - National Fire Protection Association
 - 9. OSHA - Occupational Safety and Health Act
 - 10. UL - Underwriters' Laboratories, Inc.

1.5 DRAWINGS

- A. Examine Contract Documents prior to bidding of work and report discrepancies in writing to Architect.

Hamilton Elementary School Gas Line Replacement

- B. Contractor shall visit Project site and examine existing conditions in order to become familiar with Project scope. Verify dimensions shown on Drawings at Project site. Bring discrepancies to the attention of Architect. Failure to examine Project site shall not constitute basis for claims for additional work because of lack of knowledge or location of hidden conditions that affect Project scope.

1.6 REQUIREMENTS OF REGULATORY AGENCIES

- A. The publications listed below form part of this specification; comply with provisions of these publications except as otherwise shown or specified.
 1. California Building Code, 2013
 2. California Electrical Code, 2013
 3. California Energy Code, 2013
 4. California Fire Code, 2013
 5. California Green Building Standards Code, 2013
 6. California Mechanical Code, 2013
 7. California Plumbing Code, 2013
 8. California Code of Regulations, Title 24
 9. California Health and Safety Code
 10. CAL-OSHA
 11. California State Fire Marshal, Title 19 CCR
 12. National Fire Protection Association
 13. Occupational Safety and Health Administration
 14. Other applicable state laws
- B. Nothing in Drawings or specifications shall be construed to permit work not conforming to these codes, or to requirements of authorities having jurisdiction. It is not the intent of Drawings or specifications to repeat requirements of codes except where necessary for clarity.
- C. Comply with State of California 2013 Energy Code for all systems, equipment, and construction.
- D. When Contract Documents differ from governing codes, furnish and install larger size or higher standards called for without extra charge.
- E. No material installed as part of this Work shall contain asbestos.

1.7 FEES AND PERMITS

- A. Obtain and pay for all permits and service required in installation of this work; arrange for required inspections and secure approvals from authorities having jurisdiction. Comply with requirements of Division 01.

1.8 FRAMING, CUTTING AND PATCHING

- A. Special framing, recesses, chases and backing for Work of this Section, unless otherwise specified, are covered under other Specification Sections.
- B. Contractor is responsible for placement of pipe sleeves, hangers, inserts, supports, and location of openings for the Work.
- C. Cutting, patching, and repairing of existing construction to permit installation of equipment, and materials is the responsibility of Contractor. Repair or replace damage to existing work with skilled mechanics for each trade.
- D. Cut existing concrete construction with a concrete saw. Do not utilize pneumatic devices.

Hamilton Elementary School Gas Line Replacement

- E. Core openings through existing construction for passage of new piping and conduits. Cut holes of minimum diameter to suit size of pipe and associated insulation installed. Coordinate with building structure, and obtain Structural Engineer's approval prior to coring through existing construction.

1.9 SUBMITTALS

- A. Submittal packages may be submitted via email as PDF electronic files, or as printed packages. PDFs shall be legible at actual size (100 percent). Provide seven copies of printed submittal packages.
- B. Provide submittal of materials proposed for use as part of this Project. Product names in Specifications and on Drawings are used as standards of quality. Furnish standard items on specified equipment at no extra cost to the Contract regardless of disposition of submittal data. Other materials or methods shall not be used unless approved in writing by Architect. Architect's review will be required even though "or equal" or synonymous terms are used. Refer to Division 01 for complete instructions.
 - 1. Partial or incomplete submittals will not be considered.
 - 2. Quantities are Contractor's responsibility and will not be reviewed.
 - 3. Provide materials of the same brand or manufacturer for each class of equipment or material.
 - 4. Identify each item by manufacturer, brand, trade name, number, size, rating, or other data necessary to properly identify and review materials and equipment. Words "as specified" are not sufficient identification.
 - 5. Identify each submittal item by reference to items' Specification Section number and paragraph, by Drawing and detail number, and by unit tag number.
 - 6. Organize submittals in same sequence as in Specification Sections.
 - 7. Show physical arrangement, construction details, finishes, materials used in fabrications, provisions for piping entrance, access requirements for installation and maintenance, physical size, mechanical characteristics, foundation and support details, and weight.
 - a. Submit Shop Drawings, performance curves, and other pertinent data, showing size and capacity of proposed materials.
 - b. Specifically indicate, by drawn detail or note, that equipment complies with each specifically stated requirement of Contract Documents.
 - c. Drawings shall be drawn to scale and dimensioned (except schematic diagrams). Drawings may be prepared by vendor but must be submitted as instruments of Contractor, thoroughly checked and signed by Contractor before submission to Architect for review.
 - d. Catalog cuts and published material may be included with supplemental scaled drawings.
- C. Review of submittals will be only for general conformance with design concept and general compliance with information given in Contract Documents. Review will not include quantities, dimensions, weights or gauges, fabrication processes, construction methods, coordination with work of other trades, or construction safety precautions, which are sole responsibility of Contractor. Review of a component of an assembly does not indicate acceptance of an assembly. Deviations from Contract Documents not clearly identified by Contractor are Contractor's responsibility and will not be reviewed by Architect.
- D. Furnish to the Project Inspector complete installation instructions on material and equipment before starting installation.

Hamilton Elementary School Gas Line Replacement

- E. Product Data for California Green Building Standards Code Compliance: For adhesives and sealants, including primers, documentation of compliance including printed statement of VOC content and chemical components.
- F. Provide product data for insulation products, including insulation, insulation facings, jackets, adhesives, sealants, and coatings, indicating compliance with requirement that these products contain less than 0.1 percent (by mass) polybrominated diphenyl ethers (PBDEs) in penta, octa, or deca formulations.

1.10 OPERATION AND MAINTENANCE MANUAL

- A. Furnish three complete sets of Operation and Maintenance Manual bound in hardboard binder, and one compact disc containing complete Operation and Maintenance Manual in searchable PDF format. Provide Table of Contents. Provide index tabs for each piece of equipment in binder and disc. Start compiling data upon approval of submittals.

1. Sets shall incorporate the following:

- a. Service telephone number, address and contact person for each category of equipment or system.
- b. Complete operating instructions for each item of plumbing equipment.
- c. Copies of guarantees/warranties for each item of equipment or systems.
- d. Test data and system balancing reports.
- e. Typewritten maintenance instructions for each item of equipment listing lubricants to be used, frequency of lubrication, inspections required, adjustment, etc.
- f. Manufacturers' bulletins with parts numbers, instructions, etc., for each item of equipment.
- g. Control diagrams and literature.
- h. Check test and start reports for each piece of plumbing equipment provided as part of the Work.
- i. Commissioning and Preliminary Operation Tests required as part of the Work.

1.11 SITE CONDITIONS

- A. Information on Drawings relative to existing conditions is approximate. Deviations from Drawings necessary during progress of construction to conform to actual conditions shall be approved by the Architect and shall be made without additional cost to the Owner. The Contractor shall be held responsible for damage caused to existing services. Promptly notify the Architect if services are found which are not shown on Drawings.

1.12 EXISTING MATERIALS

- A. Remove existing equipment, piping, wiring, construction, etc., which interferes with Work of this Contract. Promptly return to service upon completion of work in the area. Replace items damaged by Contractor with new material to match existing.
- B. Removed materials which will not be re-installed and which are not claimed by Owner shall become property of Contractor and shall be removed from Project site. Consult Owner before removing any material from Project site. Carefully remove materials claimed by Owner to prevent damage and deliver to Owner-designated storage location.
- C. Existing piping and wiring not reused and are concealed in building construction may be abandoned in place and all ends shall be capped or plugged. Remove unused piping and wiring exposed in Equipment Rooms or occupied spaces. Material shall be removed from Project

Hamilton Elementary School Gas Line Replacement

premises. Disconnect power, water, gas, pump or any other active energy source from piping or electrical service prior to abandoning in place.

- D. Existing piping, ductwork, and equipment modified or altered as part of this Work shall comply with the most recent applicable code requirements.

1.13 WARRANTY

- A. Repair or replace defective work, material, or part that appears within the warranty period, including damage caused by leaks.
- B. On failure to comply with the above warranty within a reasonable length of time after notification is given, the Architect/Owner shall have the repairs made at the Contractor's expense.

1.14 RECORD DRAWINGS

- A. Upon completion of the work, deliver to Architect the following:
 - 1. Originals of drawings showing the Work exactly as installed.
 - 2. One complete set of reproducible drawings showing the Work exactly as installed.
 - 3. One compact disc with complete set of drawings in PDF format showing the Work exactly as installed.
- B. Provide Contractor's signature, verifying accuracy of record drawings.

1.15 DELIVERY AND STORAGE

- A. Protect equipment and piping delivered to Project site from weather, humidity and temperature variations, dirt, dust and other contaminants.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Materials or equipment of the same type shall be of the same brand wherever possible. All materials shall be new and in first class condition.
- B. All sizes, capacities, and efficiency ratings shown are minimum, except that gas capacity is maximum available.
- C. Refer to Sections 22 10 00 for specific system piping materials.

2.2 VALVES AND FITTINGS FOR GAS SYSTEMS

- A. Building Gas Shut-Off Valve:
 - 1. 2 inches and smaller: Provide 175 psi SWP ball valve, CSA listed, full port, lockwing type, with AGA painted grey finish. Jomar 175-LWN, or equal.
 - 2. Above 2 inches: Provide ReSun D-126, Key Port, or equal, lubricated plug cock, CSA listed, rectangular port, full pipe area, 125 psi SWP, flanged ends. Provide T-Handle socket wrench and adapter fittings as required for operation of valves. Provide one package of spare lubricant sticks, sizes as required for valve sizes. Lubricant shall be the product recommended by valve manufacturer for use with type of gas conveyed by the piping system.

3. Provide valves same size as upstream piping. Make any reduction in size of gas piping downstream of shutoff valves.

B. Gas Shut-off Valve Above Grade:

1. 2 inches and smaller: Provide Milwaukee BB2-100, Jomar T-100NE, or equal, ball valve, CSA listed, full port.
2. Above 2 inches: Provide ReSun D-126, Key Port, or equal, CSA listed, rectangular port, full pipe area, 125 psi SWP, flanged ends. Provide T-Handle socket wrench and adapter fittings as required for operation of valves. Provide one package of spare lubricant sticks, sizes as required for valve sizes. Lubricant shall be the product recommended by valve manufacturer for use with type of gas conveyed by the piping system.
3. Provide valves same size as upstream piping. Make any reduction in size of gas piping downstream of shutoff valves.

C. For Gas Service Below Grade:

1. Lubricated plug cocks: ReSun Model D-126, Key Port, or equal, lubricated plug cock, CSA listed, rectangular port, full pipe area, 125 psi SWP, flanged ends. Provide extended lubrication stem, arranged to allow for lubrication of the valve from grade. The extension must be constructed to allow for lubrication of the valve and for operation of the valve from grade. Provide T-Handle socket wrench and adapter fittings as required for operation of valves. Provide one package of spare lubricant sticks, sizes as required for valve sizes. Lubricant shall be the product recommended by valve manufacturer for use with type of gas conveyed by the piping system.
 - a. Provide flanged ends on valves installed below grade. Connect to polyethylene piping with flanges and stainless steel bolts.
 - b. Anchor each valve flange to valve box with welded angle iron, or provide vertical stiff leg, minimum 18 inches into earth.
 - c. Provide Central Double O Seal Transition Fittings, or equal, flanged style for connection between valve and piping system.
 - d. Wrap valve, flanges and exposed pipe with Pabco, or equal tape wrap, installed in accordance with requirements listed under "Pipe Protection".
2. Molded polyethylene body ball valve: Nordstrom Valves - Polyvalve II for sizes 1-1/4 inches to 2 inches, and Polyvalve for sizes 2 inches and larger, or equal. Valves 1 inch and smaller shall be listed lubricated plug cocks, with transition fittings..
 - a. Provide stub ends to match SDR of the piping, arranged for butt fusion welding. Provide valve body material to suit the adjacent piping system.
 - b. Provide wrench to suit the valve operator.

2.3 JOINING MATERIALS

- A. Refer to Division 22 and 23 piping sections for special joining materials not listed below.
- B. Welding Filler Metals: Comply with ASME B31.1 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

2.4 VALVE BOXES

- A. General:

Hamilton Elementary School Gas Line Replacement

1. Where several valves or other equipment are grouped together, provide larger boxes of rectangular "vault" type adequately sized for condition and similar in construction to those specified above.
 2. Provide valve box extensions as required to set bottom of valve box tight up to top of piping in which valve is installed.
 3. Provide a tee handle wrench for each size, Alhambra Foundry Co. #A-3008, or equal.
- B. Valve Boxes in Traffic Areas: Provide Christy No. G5 traffic valve box, Brooks, or equal, 10-3/8 inches inside diameter with extensions to suit conditions, with cast iron or steel locking cover. Provide Owner with set of special wrenches or tools as required for operation of valves.
- C. Valve Boxes in Non-Traffic Areas: Provide Christy No. F22, Brooks, or equal, 8 inches inside diameter by 30 inches long, with cast iron or steel locking cover. Provide Owner with set of special wrenches or tools as required for operation of valves. Cut bottom of plastic body for operation of valves.

2.5 EXPANSION LOOPS

- A. Manufactured assembly consisting of inlet and outlet elbow fittings, two sections of flexible metal hose and braid, and 180-degree return bend or center section of flexible hose. Flexible hose shall consist of corrugated metal inner hose and braided outer sheath.
- B. Provide expansion loops listed for 4 inches of movement for use in natural or propane gas piping systems.
- C. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following, or equal:
- Metraflex Inc., Metraloop series.
Unisource Manufacturing, Inc., V series.

2.6 PIPE IDENTIFICATION

- A. Identify each piping system and indicate the direction of flow by means of Seton, Inc., Marking Services Inc., Reef Industries, Inc., or equal, pre-tensioned, coiled semi-rigid plastic pipe labels formed to circumference of pipe, requiring no fasteners or adhesive for attachment to pipe.
- B. The legends and flow arrows shall conform to ASME A13.1.

PART 3 - EXECUTION

3.1 PLUMBING DEMOLITION

- A. Refer to Division 01 Sections "Cutting and Patching" and "Selective Demolition" for general demolition requirements and procedures.
- B. Disconnect, dismantle and remove mechanical systems, equipment, and components indicated to be removed. Coordinate with all other trades.
1. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 2. Piping to Be Abandoned in Place: Drain piping and cap or plug piping to remain with same or compatible piping material. Refrigerant system must be evacuated per EPA requirements.

Hamilton Elementary School Gas Line Replacement

3. Equipment to Be Removed: Drain down and cap remaining services and remove equipment.
 4. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
 5. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
- C. If pipe, insulation, or equipment to remain is damaged in appearance or is unserviceable, remove damaged or unserviceable portions and replace with new products of equal capacity and quality.

3.2 PIPING SYSTEM REQUIREMENTS

- A. Drawing plans, schematic and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on coordination drawings.

3.3 PRIMING AND PAINTING

- A. Perform all priming and painting on the equipment and materials as specified herein.
- B. Priming:
1. Exposed ferrous metals, including piping, which are not galvanized or factory-finished shall be primed. Black steel pipe exposed to the weather shall be painted one coat of Rust-Oleum #1069 primer for black steel piping or Rust-Oleum #5260, Kelly Moore, or equal, primer for galvanized piping.
 2. Metal surfaces of items to be jacketed or insulated except piping shall be given two coats of primer unless furnished with equivalent factory finish. Items to be primed shall be properly cleaned by effective means free of rust, dirt, scale, grease and other deleterious matter and then primed with the best available grade of zinc rich primer. After erection or installation, all primed surfaces shall be properly cleaned of any foreign or deleterious matter that might impair proper bonding of subsequent paint coatings. Any abrasion or other damage to the shop or field prime coat shall be properly repaired and touched up with the same material used for the original priming.
 3. Where equipment is provided with nameplate data, the nameplate should be masked off prior to painting. When painting is completed, remove masking material.
- C. See Painting Section for detailed requirements.

3.4 EXCAVATING

- A. Perform all excavating required for work of this Section. Provide the services of a pipe/cable locating service prior to excavating activities to determine location of existing utilities.
- B. Unless shown otherwise, provide a minimum of 2'-6" cover above top of pipe to finished grade for all service piping, unless otherwise noted. Trim trench bottom by hand or provide a 4 inch deep minimum bed of sand to provide a uniform grade and firm support throughout entire length of pipe. For all PVC pipe and for PE gas pipe, bed the pipe in 4 inch sand bed. Pipe bedding materials should be clean crushed rock, gravel or sand of which 100 percent will pass a 1 inch sieve. For pipes that are larger than 10 inches in diameter, at least 95 percent should pass a 3/4 inch sieve, and for pipes 10 inches in diameter or smaller, 100 percent should pass a 1/2 inch sieve. All other materials should have a minimum sand equivalent of 50. Only a small proportion of the native soils will meet these requirements without extensive processing; therefore,

Hamilton Elementary School Gas Line Replacement

importation of pipe bedding materials should be anticipated. Pipe bedding materials shall be compacted in lifts not exceeding 6 inches in compacted thickness. Each lift shall be compacted to not less than 90 percent relative compaction at or above the optimum moisture content, in accordance with ASTM Specification D2940, except that bedding materials graded such that less than 100 percent will pass a No. 200 sieve shall be compacted in 6 inch lifts using a single pass of a flat-plate, vibratory compactor or vibratory drum. Pipe bedding materials should extend at least to the spring line.

- C. Maintain all warning signs, barricades, flares, and red lanterns as required.
- D. For all trenches 5 feet or more in depth, submit copy of permit detailed drawings showing shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trenches. Obtain a permit from the Division of Industrial Safety prior to beginning excavations. A copy of the permit shall be available at the site at all times.

3.5 BACKFILLING

- A. Backfill shall comply with applicable provisions of Division 31 of these Specifications.
- B. Except under existing or proposed paved areas, walks, roads, or similar surfaces, backfill for other types of pipe shall be made using suitable excavated material or other approved material. Place backfill in 8 inch layers, measured before compaction, and compact with impact hammer to at least 90 percent relative compaction per ASTM D2940.
 - 1. Backfill plastic pipe and insulated pipe with sand for a minimum distance of 12 inches above the top of the pipe. Compact using mechanical tamping equipment.
- C. Entire backfill for excavations under existing or proposed pavements, walks, roads, or similar surfaces, under new slabs on grade, shall be made with clean sand compacted with mechanical tamping equipment vibrator to at least 90 percent relative compaction per ASTM D2940. Remove excess earth. Increase the minimum compaction within the uppermost two feet of backfill to 95 percent.
- D. Replace or repair to its original condition all sod, concrete, asphalt paving, or other materials disturbed by the trenching operation. Repair within the guarantee period as required.

3.6 INSTALLATION OF VALVES

- A. Install valves as indicated on Drawings and in the following locations:
 - 1. Shutoff Valves: Install on inlet of each plumbing equipment item, and on inlet of each plumbing fixture, and elsewhere as indicated.
 - 2. Drain Valves: Install on each plumbing equipment item located to completely drain equipment for service or repair. Install at base of each riser, at base of each rise or drop in piping system, and elsewhere indicated or required to completely drain potable water system.
 - 3. Provide gate or globe valves on inlet and outlet of each water heater or pump.
- B. General:
 - 1. Valves shall be full line size unless indicated otherwise on Drawings.
 - 2. Install horizontal valves with valve stem above horizontal.
 - 3. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance, and equipment removal without system shutdown.

Hamilton Elementary School Gas Line Replacement

4. Locate valves for easy access and provide separate support where necessary.
5. Install valves in position to allow full stem movement.
6. Valves 2-1/2 inches and smaller (except ball valves) in nonferrous water piping systems may be solder joint type with bronze body and trim.

C. Gas Shut-Off Valves:

1. Provide line size ball valve in gas line to each appliance.

D. Valve Adjustment: Adjust or replace valve packing after piping systems have been tested and put into service but before final adjusting and balancing. Replace valves if persistent leaking occurs.

3.7 INSTALLATION OF PIPING SYSTEMS

A. At time of final connection, and prior to opening valve to allow pressurization of water and gas piping from existing systems, on site or off site, perform a pressure test to indicate static pressure of existing systems. If pressure on water piping is greater than 80 psi, or gas pressure is not as indicated on Contract Documents, inform Architect immediately. Do not allow piping systems to be pressurized without written consent of the Architect.

B. General:

1. All piping shall be concealed unless shown or otherwise directed. Allow sufficient space for ceiling panel removal.
2. Installation of piping shall be made with appropriate fittings. Bending of piping will not be accepted.
3. Install piping to permit application of insulation and to allow valve servicing.
4. Where piping or conduit is left exposed, the same shall be run true to plumb, horizontal, or intended planes. Where possible, uniform margins are to be maintained between parallel lines and/or adjacent wall, floor, or ceiling surfaces.
5. Horizontal runs of pipes and/or electrical conduit suspended from ceilings shall provide for a maximum headroom clearance. The clearance shall not be less than 6'-6" without written approval from the Architect.
6. Close ends of pipe immediately after installation. Leave closure in place until removal is necessary for completion of installation.
7. Each piping system shall be thoroughly flushed and proved clean before connection to equipment.
8. Install exposed polished or enameled connections with special care showing no tool marks or threads at fittings.
9. Install horizontal valves with valve stem above horizontal.
10. Use reducing fittings; bushings shall not be allowed. Use eccentric reducing fittings wherever necessary to provide free drainage of lines and passage of air.
11. Verify final equipment locations for roughing-in.
12. Service Markers: Mark the location of each plugged or capped pipe with a 4 inch round by 30 inch long concrete marker, set flush with finish grade. Provide 2-1/2 inch diameter engraved brass plate as part of monument marker.

C. Expansion Loops:

1. Install expansion loops where piping crosses building expansion or seismic joints, between buildings, between buildings and canopies, and as indicated on Drawings.
2. Install expansion loops of sizes matching sizes of connected piping.
3. Install grooved-joint expansion joints to grooved-end steel piping.

Hamilton Elementary School Gas Line Replacement

4. Materials of construction and end fitting type shall be consistent with pipe material and type of gas or liquid conveyed by the piping system in which expansion loop is installed.

D. Sleeves:

1. Install Adjus-to-Crete, Pipeline Seal and Insulator, or equal, pipe sleeves of sufficient size to allow for free motion of pipe, 24 gauge galvanized steel. The space between pipe and sleeves through floor slabs on ground, through outside walls above or below grade, through roof, and other locations as directed shall be caulked with oakum and mastic and made watertight. The space between pipe and sleeve and between sleeve and slab or wall shall be sealed watertight.
2. At Contractor's option, Link-Seal, Metraflex Metraseal, or equal, casing seals may be used in lieu of caulking. Wrap pipes through slabs on grade with 1 inch thick fiberglass insulation to completely isolate the pipe from the concrete.

E. Floor, Wall, and Ceiling Plates:

1. Fit all pipes with or without insulation passing through walls, floors, or ceilings, and all hanger rods penetrating finished ceilings with chrome-plated or stainless escutcheon plates.

F. Flashing:

1. Furnish and install around each pipe, where it passes through roof, a flashing and counterflashing. All flashing shall be made of four pound seamless sheet lead with 6 inch minimum skirt and steel reinforced boot. Counterflashing shall be cast iron. For vents, provide vandalproof top and flashing combination. Elmdor/Stoneman Model 1100-4, 1100-5, 1100-7, or equal.

G. Hangers and Supports:

1. General: Support all equipment and piping so that it is firmly held in place by approved iron hangers and supports and special hangers as required. All components shall support weight of equipment and pipe, fluid, and pipe insulation based on spacing between supports with minimum factor of safety of five based on ultimate strength of material used. Do not exceed manufacturer's load rating. Pipe attachments or hangers, of same size as pipe or tubing on which used, or nearest available. Rigidly fasten hose faucets, fixture stops, compressed air outlets, and similar items to the building construction. The Architect shall approve all hanger material before installation. Do not support piping with plumbers' tape, wire rope, wood, or other makeshift devices. Where building structural members do not match piping support spacing, provide all "bridging" support members as required firmly attached to building structural members in a fashion approved by the Structural Engineer.
 - a. Materials, design, and type numbers per Manufacturers' Standardization Society (MSS), Standard Practice (SP)-58.
2. All hanger components shall be provided by one manufacturer B-Line, Grinnell, Uni-Strut, Badger, or equal.
3. Hanger and Support Spacing:
 - a. Vertical piping support spacing: B-line #B3373 clamps attached to the pipe above each floor to rest on the floor. Provide with lead or Teflon liners on copper tubing. Provide additional support at base of cast iron risers and support at unsupported riser joints and horizontal offsets per 2007 Mason Industries Seismic Restraint

Hamilton Elementary School Gas Line Replacement

Guidelines. Provide intermediate support for vertical piping, spaced at or within the following maximum limits.

Pipe Diameter	Steel Fluid	Steel Vapor
1/2 - 1"	12	6
1-1/4 - 2"	12	Each Floor
2-1/2 - 3"	12	Each Floor
Over 4"	12	Each Floor

- b. Horizontal piping, hanger and support spacing: Locate hangers and supports at each change of direction, within one foot of elbow, and spaced at or within following maximum limits.

Pipe Diameter	Steel Fluid	Steel Vapor
1/2 - 1"	6	6
1-1/4 - 2"	7	10
2-1/2 - 3"	10	10
Over 4"	10	10

4. Individually Suspended Piping:

- a. Individually suspended piping: B-Line B3690 J-Hanger or B3100 Clevis, complete with threaded rod, or equal. All hangers on supply and return piping handling heating hot water or steam shall have a swing connector at point of support.

<u>Pipe Size</u>	<u>Rod Size</u>
2" and Smaller	3/8"
2-1/2" to 3-1/2"	1/2"
4" to 5"	5/8"
6"	3/4"

- b. Pipe Clamps and Straps: B-Line B2000, B2400; isolate copper pipe with two thicknesses of 2 inches wide 10-mil polyvinyl tape. Where used for seismic support systems, provide B-Line B2400 series pipe straps.

5. Support to Structure:

- a. Wood Structure: Provide and install wood blocking as required to suit structure. Provide lag screws or through bolts with length to suit requirements, and with size (diameter) to match the size of hanger rods required.

Hamilton Elementary School Gas Line Replacement

- 1) Do not install Lag screws in tension without written review and acceptance by Structural Engineer.

Side Beam Angle Clip	B-Line B3062	MSS Type 34
Side Beam Angle Clip	B-Line B3060	
Ceiling Flange	B-Line B3199	
- 2) Blocking for support of piping shall be not less than 2 inch thick for piping up to 2 inch size (water filled) or 3 inch size (vapor filled). Provide 3 inch blocking for piping up through 5 inch size, and 4 inch blocking for larger piping. Provide support for blocking in accordance with Structural Engineers requirements.
- 3) Where lag screws are used, length of screw shall be 1/2 inch less than the wood blocking. Pre-drill starter holes for each lag screw.

3.8 PIPE JOINTS AND CONNECTIONS

A. General:

1. Cutting: Cut pipe and tubing square, remove rough edges or burrs. Bevel plain ends of steel pipe.
2. Remove scale, slag, dirt and debris from inside and outside of pipe before assembly.
3. Boss or saddle type fittings or mechanically extracted tube joints will not be allowed.

B. Threaded Pipe: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:

1. Apply thread compound to external pipe threads: Rectorseal No. 5, Permatex No. 1, or equal.
2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.

C. Flanged Joints: Select appropriate asbestos-free, nonmetallic gasket material in size, type, and thickness suitable for domestic water service. Join flanges with gasket and bolts according to ASME B31.9.

D. Welded Pipe:

1. Make up with oxyacetylene or electric arc process.
2. All welding shall conform to the American Standard Code for Power Piping ASME B-31.1. When requested by the Architect, furnish certification from an approved testing agency or National Certified Pipe Welding Bureau that the welders performing the work are qualified.
3. All line welds shall be of the single "V" butt type. Welds for flanges shall be of the fillet type.
4. Where the branch is two pipe sizes smaller than the main or smaller, Bonney Weldolets, Threadolets, Nibco, or equal, may be used in lieu of welding tees.

E. Polyethylene Pipe: Assemble with fusion joints in strict accordance with manufacturer's instructions.

3.9 UNIONS AND FLANGES

- A. Locate the unions for easy removal of the equipment, tank, or valve.

Hamilton Elementary School Gas Line Replacement

3.10 CONCRETE WORK

- A. Thrust blocks, underground anchors, and pads for cleanouts, valve access boxes and washer boxes are included under this Section of the Specification. Concrete shall be 3000 psi test minimum. Refer to Division 03 for concrete types.

3.11 PIPE PROTECTION

- A. Wrap bare galvanized and black steel pipe buried in the ground and to 6" above grade, including piping in conduit, with one of the following, or equal:
 - 1. Polyethylene Coating: Pressure sensitive polyethylene coating, "X-Tru-Coat" as manufactured by Pipe Line Service Corporation or "Green Line" wrap as manufactured by Royston Products, or equal.
 - a. Field Joints and Fittings: Protecto Wrap #1170 tape as manufactured by Pipe Line Service Corporation, or Primer #200 tape by Royston Products, or equal. Installation shall be as per manufacturer's recommendation and instructions.
 - 2. Tape Wrap: Pressure-sensitive polyvinyl chloride tape, "Transtex #V-10 or V-20", "Scotchwrap 50", Slipknot 100, Pabco, or equal, with continuous identification. Tape shall be a minimum of 20 mils thick for fittings and irregular surfaces, two wraps, 50 percent overlap, 40 mils total thickness. Tape shall be laminated with a suitable adhesive; widths as recommended by the manufacturer for the pipe size. Wrap straight lengths of piping with an approved wrapping machine.
- B. Field Joints: Valves and Fittings: double wrap polyvinyl chloride tape as above. Provide at least two thicknesses of tape over the joint and extend a minimum of 4 inches over adjacent pipe covering. Build up with primer to match adjacent covering thickness. Width of tape of fittings shall not exceed 3 inches. Tape shall adhere tightly to all surfaces of the fittings without air pockets.
- C. Testing: Test completed wrap of piping, including all epoxy painted piping with Tinker and Razor Co. test machine (San Gabriel, CA - 818-287-5259), Pipeline Inspection Company (Houston, TX - 713-681-5837), or equal.
- D. Cleaning: Clean all piping thoroughly before wrapping.
 - 1. Inspection: Damaged or defective wraps shall be repaired as directed. No wrapped pipe shall be covered until approved by Architect.
- E. Covering: No rocks or sharp edges shall be backfilled against the wrap. When backfilling with other than sand, protect wrap with an outer wrapping of Kraft paper; leave in place during backfill.

3.12 PIPE IDENTIFICATION

- A. Provide temporary identification of each pipe installed, at the time of installation. Temporary identification shall be removed and replaced with permanent identification as part of the work.
- B. Apply the legend and flow arrow at all valve locations; at all points where the piping enters or leaves a wall, partition, cluster of piping or similar obstruction, at each change of direction and at approximately 20'-0" intervals on pipe runs. Variations or changes in locations and spacing may be made with the approval of the Architect. There shall be at least one marking in each room. Markings shall be located for maximum visibility from expected personnel approach.

Hamilton Elementary School Gas Line Replacement

- C. Wherever two or more pipes run parallel, the markings shall be supplied in the same relative location on each.
- D. Apply markings after painting and cleaning of piping and insulation is completed.

3.13 EXPANSION ANCHORS IN HARDENED CONCRETE

3.14 TESTS AND ADJUSTMENTS

- A. Test the installations in accordance with the following requirements and all applicable codes:
 - 1. Inspector of Record should witness all tests of piping systems.
 - 2. Notify the Architect at least seven days in advance of any test.
 - 3. All piping shall be tested at completion of roughing-in, or at other times as directed by the Architect.
 - 4. Furnish all necessary materials, test pumps, gases, instruments and labor required for testing.
 - 5. Isolate from the system all equipment that may be damaged by test pressure.
 - 6. Make connections to existing systems with flanged connection. During testing of the new work, provide a slip-in plate to restrict test pressure to new systems only. Remove plate and complete connection to existing system at completion of testing.
 - a. Inspector of record shall witness final connection to system.
- B. Test Schedule: No loss in pressure or visible leaks shall show after four hours at the pressures indicated.

<u>System Tested</u>	<u>Test Pressure PSI</u>	<u>Test With</u>
Natural Gas (PE)	60	Air & Non-corrosive Leak Test Fluid
Natural Gas (Steel)	100	Air & Non-corrosive Leak Test Fluid

- C. Perform operational tests under simulated or actual service conditions, including one test of complete plumbing installation with all fixtures and other appliances connected, and one test of complete installation of 48 hours each for heating and cooling with all equipment connected and operating.
- D. Should any material or work fail in any of these tests, it shall be immediately removed and replaced for new material, and portion of the work replaced shall again be tested by Contractor at his own expense.

3.15 TRACER WIRES

- A. Provide tracer wire for non-metallic gas and water pipe in ground outside of buildings. Use AWG #12 tracer wire with low density high molecular weight polyethylene insulation, and lay continuously on pipe so that it is not broken or stressed by backfilling operations. Secure wire to the piping with tape at 18 inch intervals. Solder all joints. Tracer wire insulation shall be colored yellow for gas piping, blue for water piping.

Hamilton Elementary School Gas Line Replacement

- B. Terminals: Precast concrete box and cast iron locking traffic cover, Brooks 3TL, or equal; cover marked with name of service; 6 inches of loose gravel below box. Plastic terminal board with brass bolts; identify line direction with plastic tags. Test for continuity between terminals, after backfilling, in presence of Inspector.
- C. Use electronically detectable plastic tape with metallic core, Terra Tape D, manufactured by Reef Industries, Inc., Seton, Inc., Marking Services, Inc., or equal; tape 2 inches wide, continuously imprinted "CAUTION WATER (GAS, etc.) LINE BELOW". Install, with printed side up, directly over pipe, 18 inches below finish grade. Backfill material shall be as specified for the particular condition where pipe is installed, but avoid use of crushed rock or of earth with particles larger than 1/2 inch within the top 12 inches of backfill. Take precautions to insure that tape is not damaged or misplaced during backfill operations. Terminal boxes not required.

3.16 OPERATION OF SYSTEMS

- A. Do not operate any plumbing equipment for any purpose, temporary or permanent, until all of the following has been completed:
 - 1. Complete all requirements listed under "Check, Test and Start Requirements."
 - 2. Piping has been properly cleaned. Piping systems shall be flushed and treated prior to operation.
 - 3. Filters, strainers etc. are in place.
 - 4. Bearings have been lubricated, and alignment of rotating equipment has been checked.
 - 5. Equipment has been run under observation, and is operating in a satisfactory manner.
- B. Provide test and balance agency with one set of Contract Drawings, Specifications, Addenda, Change orders issued, applicable shop drawings and submittals and temperature control drawings.
- C. Review of Contractor's Tests:
 - 1. All tests made by the Contractor are subject to observation and review by the Owner. Provide timely notice prior to start of each test, in order to allow for observation of testing. Upon the completion of all tests, provide a letter to confirm that all testing has been successful.
- D. Test Logs:
 - 1. Maintain test logs listing the tests on all mechanical systems showing dates, items tested, inspectors' names, remarks on success or failure of the tests.
- E. Preliminary Operation:
 - 1. The Owner reserves the right to operate portions of the plumbing system on a preliminary basis without voiding the guarantee.

3.17 CERTIFICATES OF INSTALLATION

- A. Contractor shall complete applicable "Certificates of Installation" forms contained in the California Building Energy Efficiency Standards and submit to the authorities having jurisdiction for approval and issuance of final occupancy permit, as described in the California Energy Code.

3.18 DEMONSTRATION AND TRAINING

Hamilton Elementary School Gas Line Replacement

- A. An authorized representative of the equipment manufacturer shall train Owner-designated personnel in maintenance and adjustment of equipment. The representative may be an employee of the equipment manufacturer, or a manufacturer-certified contractor. Submit written certification from the manufacturer stating that the representative is qualified to perform the Owner training for the equipment installed.
1. As part of the submittal process, provide a training agenda outlining major topics and time allowed for each topic.
 2. Some items of specified equipment require that training must be performed by the manufacturer, using manufacturer's employees. See specific equipment Articles in these Specifications for this requirement.
 3. Contractor shall provide three copies of certification by Contractor that training has been completed, signed by Owner's representative, for inclusion in Operation and Maintenance Manual. Certificates shall include:
 - a. Listing of Owner-designated personnel completing training, by name and title.
 - b. Name and title of training instructor.
 - c. Date(s) of training.
 - d. List of topics covered in training sessions.
 4. Refer to specific equipment Articles for minimum training period duration for each piece of equipment.

END OF SECTION 22 00 50

SECTION 22 10 00 - PLUMBING PIPING SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Pipe and fittings.
- B. Gas pressure regulating valve.

1.2 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 22 00 50 Basic Plumbing Materials and Methods.

1.3 ADDITIONAL REQUIREMENTS

- A. Furnish and install any incidental work not shown or specified which is necessary to provide a complete and workable system.
- B. Coordinate all of work in this Section with all of the trades covered in other Sections of the Specifications to provide a complete, operable and sanitary installation of the highest quality workmanship.
- C. All plumbing work required in the course of this contract shall be performed in strict accordance with all codes and regulations. Plumbing work done under this contract shall not adversely affect the operation of the existing plumbing systems. All materials shall be new and shall match existing.

1.4 DESCRIPTION OF WORK

- A. Furnish and install all plumbing work indicated on the drawings and described herein.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Firms regularly engaged in manufacture of plumbing piping systems products, of types, materials, and sizes required, whose products have been in satisfactory use in similar service for not less than 5 years.
- B. Contractor's Qualifications: Firm with at least 5 years of successful installation experience on projects with piping systems work similar to that required for project.
- C. Requirements of Regulatory Agencies: The publications listed below form a part of this specification; comply with provisions of these publications except as otherwise shown or specified.
 - 1. Plumbing Code Compliance: Comply with applicable portions of California Plumbing Code pertaining to selection and installation of plumbing materials and products.
 - 2. California Health and Safety Code Compliance: For products covered under the scope of HSC 116875 for potable water service. Products for potable water service shall be third-

Hamilton Elementary School Gas Line Replacement

party certified by an approved laboratory as complying with California Health and Safety Code Section 116875.

3. NFPA/ANSI Compliance: Fabricate and install natural gas systems in accordance with latest edition of NFPA 54/ANSI Z223.1 "National Fuel Gas Code."
4. Utility Compliance: Fabricate and install natural gas systems in accordance with local gas utility company requirements.
5. CPC Compliance: Fabricate and install natural gas systems in accordance with California Plumbing Code.
6. Provide certified gas welder as defined in California Plumbing Code to weld all joints in welded gas piping.

1.6 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data and installation instructions for plumbing piping systems materials and products.
- B. Provide welding certificate for all gas pipe welders.
- C. Record Drawings: At project closeout, submit Record Drawings of installed piping systems, in accordance with requirements of Division 01.
- D. Maintenance Data: Submit maintenance data and parts lists for plumbing piping systems materials and products. Include this data, product data, shop drawings, and record drawings in Operation and Maintenance Manual; in accordance with requirements of Division 01.

1.7 JOB CONDITIONS

- A. Cooperation with other trades: Coordinate Work of this Section with that of other Sections to ensure that Work is carried out in an orderly fashion.
- B. Coordinate with other trades all equipment locations, pipe, duct and conduit runs, electrical outlets and fixtures, air inlets and outlets, and structural and architectural features. Provide information on location of piping and seismic bracing to all other trades as required for a completely coordinated project.

PART 2 - PRODUCTS

2.1 MATERIALS AND PRODUCTS

- A. Provide piping materials and factory-fabricated piping products of sizes, types, pressure ratings, temperature ratings, and capacities as indicated. Provide materials and products complying with California Plumbing Code. Where more than one type of material or product is indicated, selection from materials or products specified is Contractor's option.

2.2 PIPE AND FITTINGS INSIDE BUILDINGS AND BELOW COVERED WALKS AND CORRIDORS

- A. Gas Pipe: Schedule 40 black steel conforming to ASTM A53, with malleable iron screwed fittings above grade for piping 2 inch and smaller; welded piping below grade and for above grade piping larger than 2 inches, with Class 150 welding fittings.
 1. Appliance fuel connectors, as defined in 1203 of the CPC, are not acceptable for connection of equipment, except where specifically indicated on the Contract Documents.
 2. Where Drawings indicate installation of mechanical equipment on spring isolation rails or spring mounted curbs, provide flexible connection, Metraflex, Metraloop, Unisource Mfg. Co. "V" connector, or equal, CSA listed for 4 inches of movement.

Hamilton Elementary School Gas Line Replacement

- a. Provide CSA certification for gas connections.

2.3 PIPING AND FITTINGS OUTSIDE BUILDINGS AND BEYOND COVERED WALKS

- A. Gas Piping Underground: Performance Pipe, "DriscoPlex" 6500 PE 2708 (yellow), Polypipe, Inc., "Polypipe", or equal, polyethylene gas distribution pipe, ASTM D2513, ASTM D3261, and ASTM D2683 fittings with fusion welded joints. Provide piping labeled for natural gas in accordance with CPC.
 1. Electrically isolate underground ferrous gas piping from the rest of the gas system with listed or approved isolation fittings installed a minimum of six inches above grade.
 2. Provide Central Plastics Corp., Perfection, or equal, anodeless, single seal riser for transition from below grade polyethylene to schedule 40 steel piping above grade. Minimum horizontal length shall be 30 inches. Minimum vertical length shall be 30 inches, or greater as required. Provide fusion connection to polyethylene pipe below grade, and screwed connection to steel pipe above grade.
- B. Gas Piping Aboveground to 30 inches Belowground: Schedule 40 black steel with beveled ends for welding, with Class 150 welding fittings. Mitering to form elbows or tees will not be permitted; where branch tee connections of welded piping are required, Bonney "Weldolet" Allied Pipe Fittings, or equal fittings may be used if the branch is one-half of the diameter of the main or less.

2.4 GAS PRESSURE REGULATING VALVES

- A. Provide single-stage, spring-loaded, corrosion-resistant gas pressure regulators, with die-cast aluminum or cast iron body, complying with ANSI Z21.80. Unit shall be with atmospheric vent, internal relief overpressure protection, threaded ends for 2 inches and smaller, flanged ends for 2-1/2 inches and larger. For inlet and outlet gas pressures, specific gravity, and volume flow refer to Drawings schedule.
- B. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include the following, or equal:

1/2 inch:	Elster (American, Singer) model 1213B. Itron (Actaris, Slumberger, Sprague) model B42R.
3/4 thru 1-1/4 inches:	Elster (American, Singer) model 1813C. Sensus (Ivensys, Equimeter, Rockwell) model 143-80-12 Itron (Actaris, Slumberger, Sprague) models B42R, B57R, B58R.
1-1/2 thru 2 inches:	Elster (American, Singer) models 1813, 1813B. Sensus (Ivensys, Equimeter, Rockwell) model 243. Itron (Actaris, Slumberger, Sprague) models B43SR, B34R, B38R.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Examine areas and conditions under which plumbing piping systems are to be installed. Do not proceed with Work until unsatisfactory conditions have been corrected in manner acceptable to Contractor.
- B. At time of final connection, and prior to opening valve to allow pressurization of water and gas piping from existing systems, on site or off site, perform a pressure test to indicate static pressure of existing systems. If pressure on water piping is greater than 80 psi, or gas pressure is not as indicated on Contract Documents, inform Architect immediately. Do not allow piping systems to be pressurized without written consent of the Architect.

Hamilton Elementary School Gas Line Replacement

3.2 INSTALLATION OF NATURAL GAS PIPING

- A. Install natural gas piping in accordance with Division 22 Basic Plumbing Materials and Methods sections.
- B. Use sealants on metal gas piping threads that are chemically resistant to natural gas. Use sealants sparingly, and apply to only male threads of metal joints.
- C. Remove cutting and threading burrs before assembling piping.
- D. Do not install defective piping or fittings. Do not use pipe with threads that are chipped, stripped, or damaged.
- E. Plug each gas outlet, including valves, with threaded plug or cap immediately after installation and retain until continuing piping or equipment connections are completed.
- F. Ground gas piping electrically and continuously within project, and bond tightly to grounding connection.
- G. Install drip-legs in gas piping where indicated and where required by code or regulation.
 - 1. Install "Tee" fitting with bottom outlet plugged or capped at bottom of pipe risers.
- H. Install piping with 1/64 inch per foot (1/8 percent) downward slope in direction of flow.
- I. Install piping parallel to other piping.
- J. Paint all gas piping installed in exposed exterior locations.
- K. Provide shutoff valve downstream of meter.
- L. Provide exterior shutoff valve at each building. Provide sign affixed to wall at valve location reading: "Gas Shut-Off." Size and location of the sign shall be as required by the Authority Having Jurisdiction. Where gas piping enters a building in more than one location, exterior shutoff valves shall have a permanently attached metal tag identifying the area served by that valve, in addition to sign on wall.
- M. Provide watertight Schedule 40 PVC conduit to protect gas piping installed below covered walk, covered driveways, and where noted on Drawings. Extend sleeve at least 12 inches beyond any area where it is required to be installed, and terminate with valve box extended to grade, and marked "GAS".

3.3 GAS PRESSURE REGULATING VALVES

- A. Install as indicated; comply with utility requirements. In locations where regulators are installed in confined spaces, pipe atmospheric vent to outdoors, full size of outlet. Install gas shutoff valve upstream and downstream of each pressure-regulating valve.

3.4 SPARE PARTS

- A. Furnish to Owner, with receipt, one valve key for each key operated hydrant, bibb, or faucet installed.

3.5 CARE AND CLEANING

Hamilton Elementary School Gas Line Replacement

- A. Repair or replace broken, damaged, or otherwise defective parts, materials, and work. Leave entire work in condition satisfactory to Architect. At completion, carefully clean and adjust equipment, fixtures, and trim that are installed as part of this work. Leave systems and equipment in satisfactory operating condition.

3.6 CLEANING UP

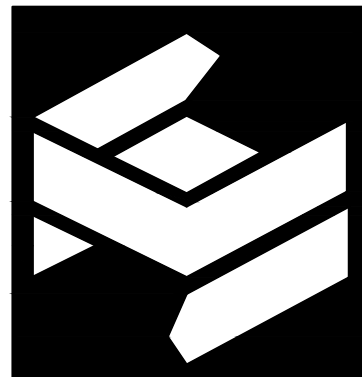
- A. Upon completion of Work remove materials, equipment, apparatus, tools, and the like, and leave premises clean, neat, and orderly.

END OF SECTION 22 10 00

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- GENERAL NOTES:**
- PLUMBING DESIGN HAS BEEN BASED ON PARTIAL SITE SURVEY OF EXISTING PLUMBING LINES. CONTRACTOR SHALL INCLUDE IN BID THE COSTS OF CONNECTING NEW PIPING WITH EXISTING UTILITIES. FIELD INVESTIGATION OF EXISTING CONDITIONS, SELECTIVE DEMOLITION, CONCEALED UTILITY LOCATING AND SKETCHES OF EXISTING CONDITIONS REVEALED BY DEMOLITION. CONTRACTOR SHALL PERFORM INVESTIGATIONS OF EXISTING CONDITIONS PRIOR TO INSTALLATION OF NEW WORK. CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF EXISTING CONDITIONS THAT MAY NOT ALLOW INSTALLATION OF NEW WORK.
 - CONTRACTOR SHALL FIELD VERIFY EXACT SIZES, LOCATIONS AND ELEVATIONS OF ALL PIPING, OTHER WORK, ETC., PRIOR TO TRENCHING OR INSTALLING OF ANY NEW WORK. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY, IN WRITING, OF ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL CONDITIONS.
 - THE FULL EXTENT OF DEMOLITION, CUTTING, RESTORING AND REFINISHING IS NOT SHOWN ON THE DRAWINGS NOR STIPULATED IN THE SPECIFICATIONS.
 - IN ADDITION TO DIVISION 15 MECHANICAL SPECIFICATIONS, THE INSTALLATION OF SITE GAS PIPING SHALL BE EXECUTED IN STRICT ACCORDANCE WITH CHAPTER 12 OF THE 2013 CALIFORNIA PLUMBING CODE (CPC). CONTRACTOR SHALL COORDINATE WITH OWNER PRIOR TO THE TRENCHING AND/OR INSTALLATION OF PIPING. CONTRACTOR SHALL MAKE ALLOWANCES IN THEIR BID FOR ANY ADDITIONAL PIPING AS A RESULT OF THESE REQUIREMENTS.
 - MAINTAIN UTILITY CONNECTIONS TO EXISTING BUILDINGS. SCHEDULE REQUIRED SHUTDOWN WITH OWNER'S REPRESENTATIVE.
 - IN REGARDS TO CAPPING OF GAS PIPING, REFER TO CALIFORNIA PLUMBING CODE 1210.9.1

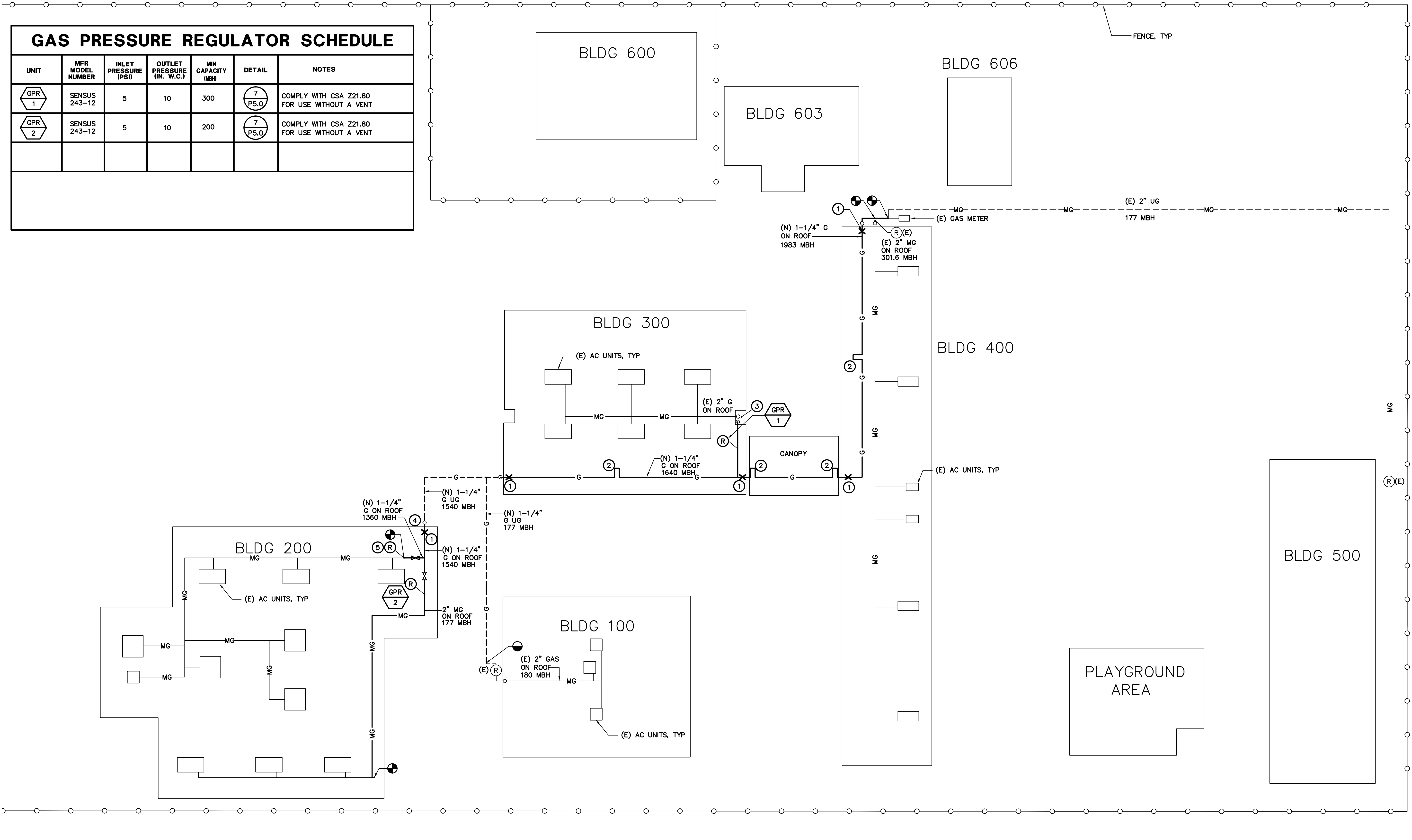
- SHEET NOTES:**
- PIPE ANCHOR, SEE DETAIL 1/P5.0
 - LINE SIZE "METRAFLEX" EXPANSION LOOP
 - 1-1/4" DROP TO SOV, SEE DETAILS 4/P5.0
 - BLDG SOV ON WALL. SEE DETAIL 4/P5.0
 - REINSTALL GAS REGULATOR REMOVED FROM WALL SHOWN ON P1.0 AND CONNECT TO (E) PIPING



CAPITAL ENGINEERING CONSULTANTS, INC.
 RANCHO CORDOVA, CALIFORNIA
 SM - JS 151128.00
 PM - DESIGN TEAM PROJECT NO.

CANAL AVENUE / STATE HIGHWAY 45

GAS PRESSURE REGULATOR SCHEDULE						
UNIT	MFR MODEL NUMBER	INLET PRESSURE (PSI)	OUTLET PRESSURE (IN. W.C.)	MIN CAPACITY (MBH)	DETAIL	NOTES
GPR 1	SENSUS 243-12	5	10	300	7 P5.0	COMPLY WITH CSA Z21.80 FOR USE WITHOUT A VENT
GPR 2	SENSUS 243-12	5	10	200	7 P5.0	COMPLY WITH CSA Z21.80 FOR USE WITHOUT A VENT



CAPAY AVENUE

EMERGENCY GAS LINE REPLACEMENT
 HAMILTON ELEMENTARY SCHOOL


277 CAPAY AVENUE
 HAMILTON CITY, CA 95951

FILE NO.
 IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 OFFICE OF REGULATION SERVICES
 APPLICATION NO. XXXX
 AC. FLS. SS
 DATE
 DIVISION OF THE STATE ARCHITECT
 revision date by

No.	DATE	REVISION COMMENTS

PROJECT DESCRIPTION
 HAMILTON ES
 EMERGENCY GAS LINE
 REPLACEMENT

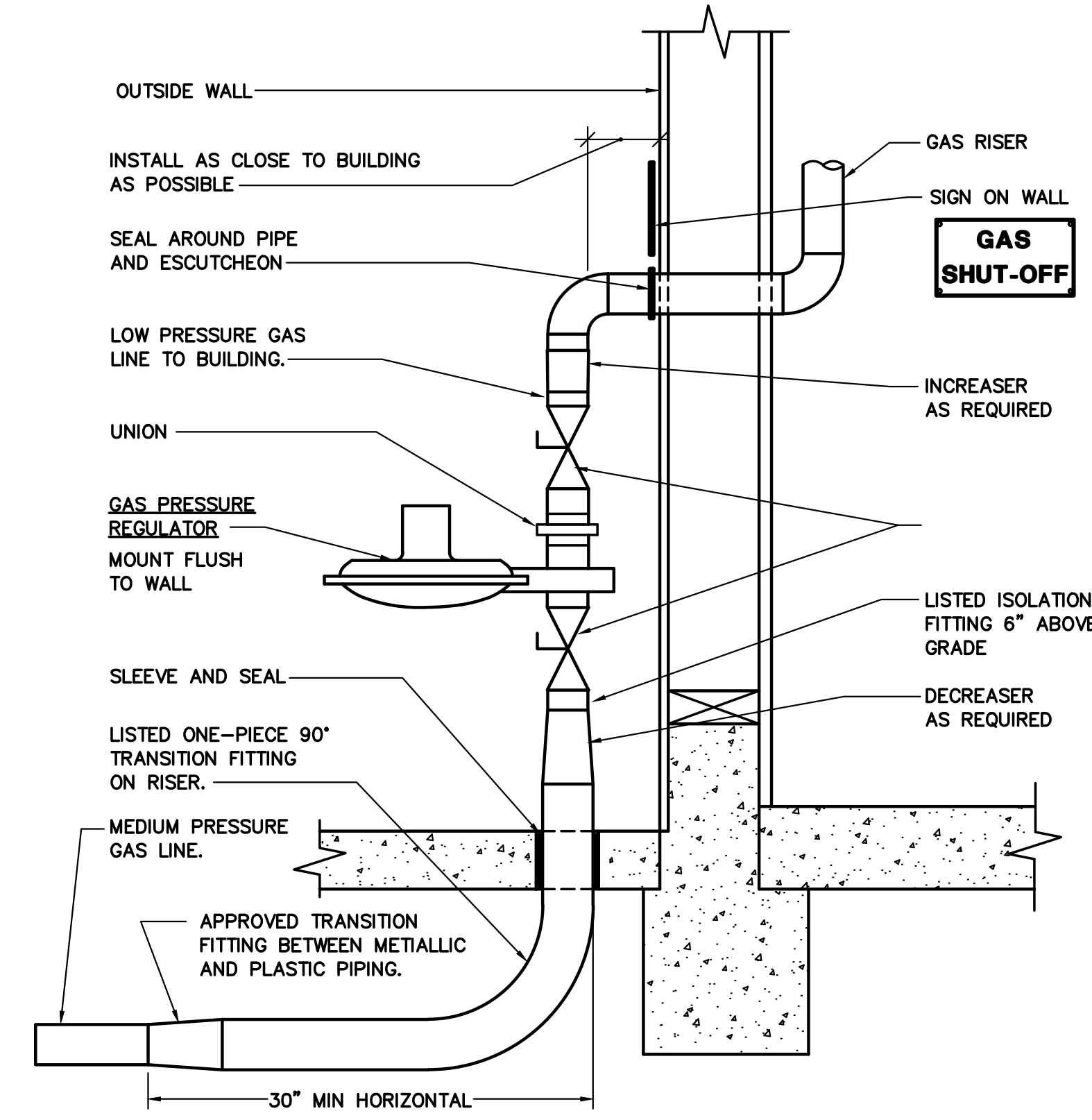
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 PLUMBING NEW WORK PLAN

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	CHECKED BY SM	PROJECT NO. 151128.00
	SCALE AS NOTED	DRAWING NO.
	DATE 2015 12 01	P1.1
DATE SIGNED:		SHEET XX OF XX

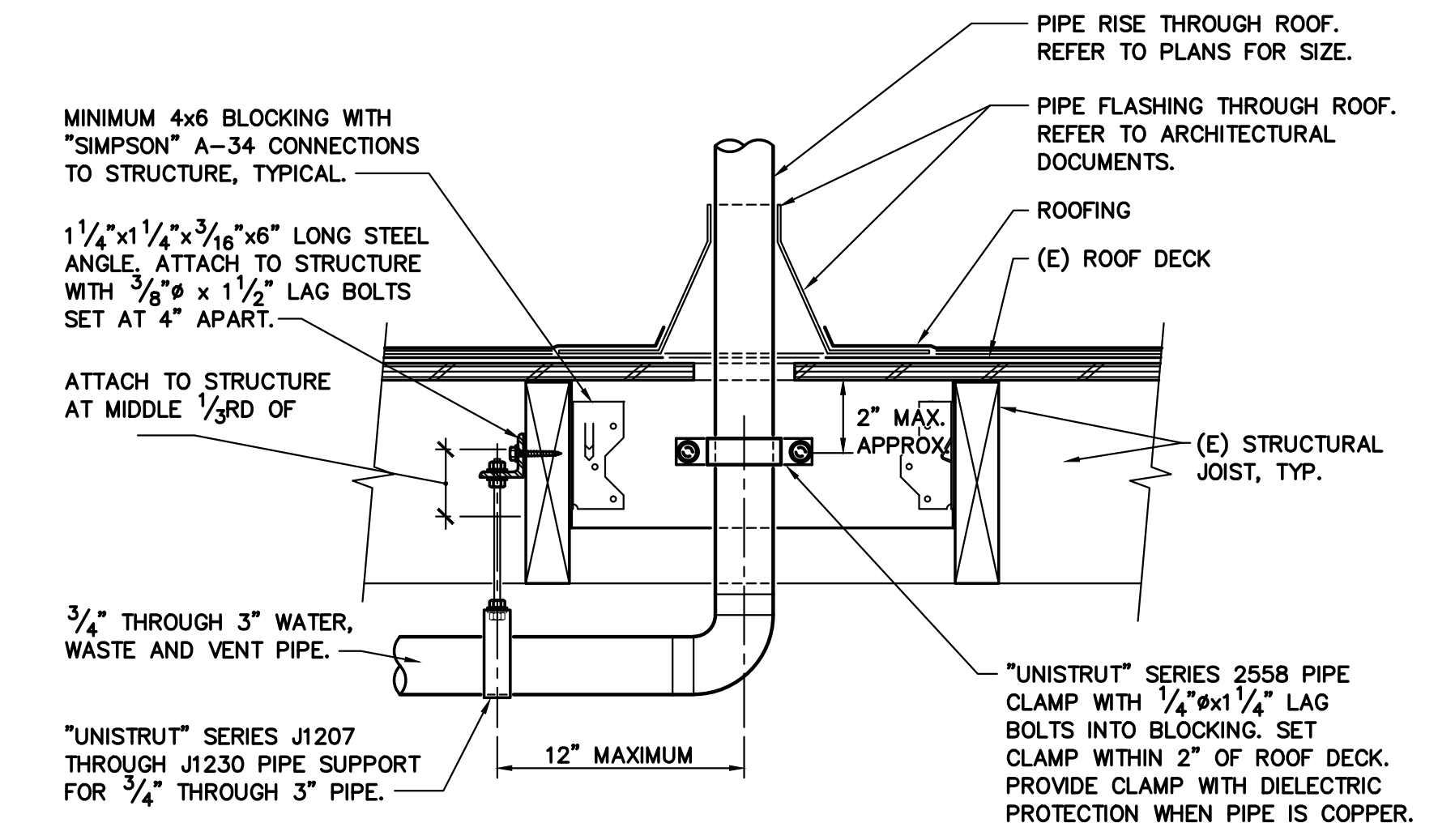
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**EMERGENCY GAS LINE REPLACEMENT
 HAMILTON ELEMENTARY SCHOOL**

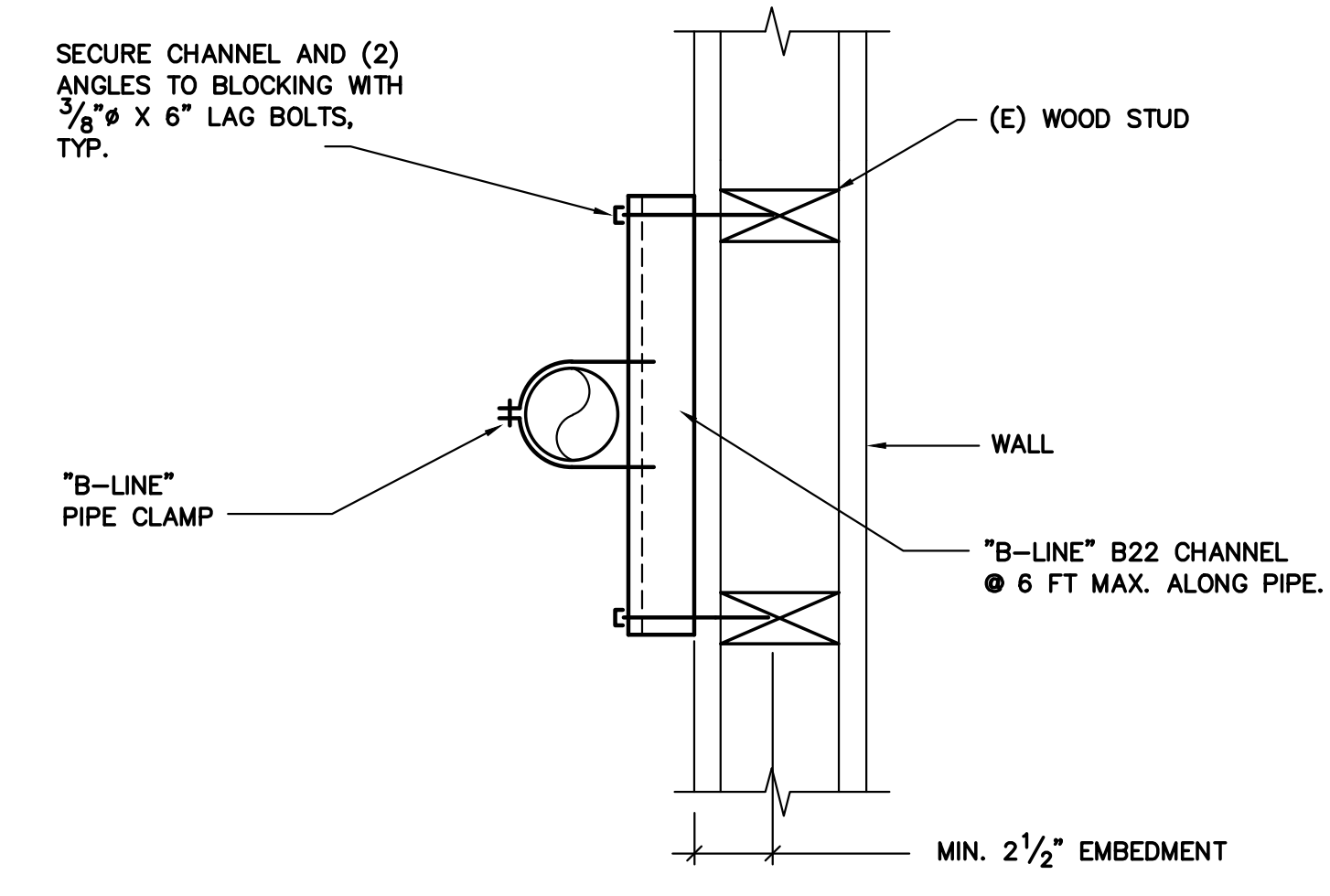
**277 CAPAY AVENUE
 HAMILTON CITY, CA 95951**



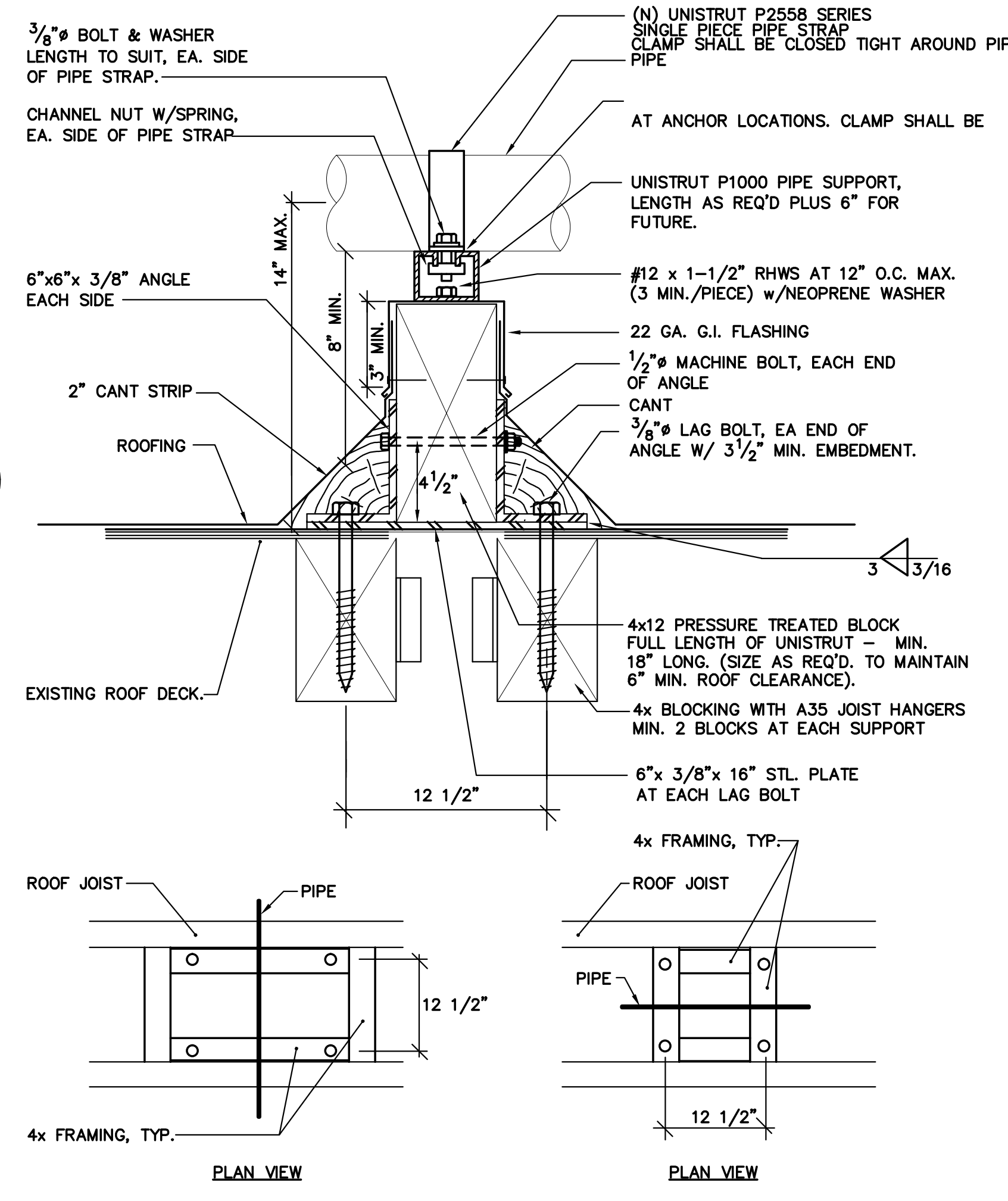
GAS PRESSURE REGULATOR DETAIL (7)
 SCALE : NONE P5.0



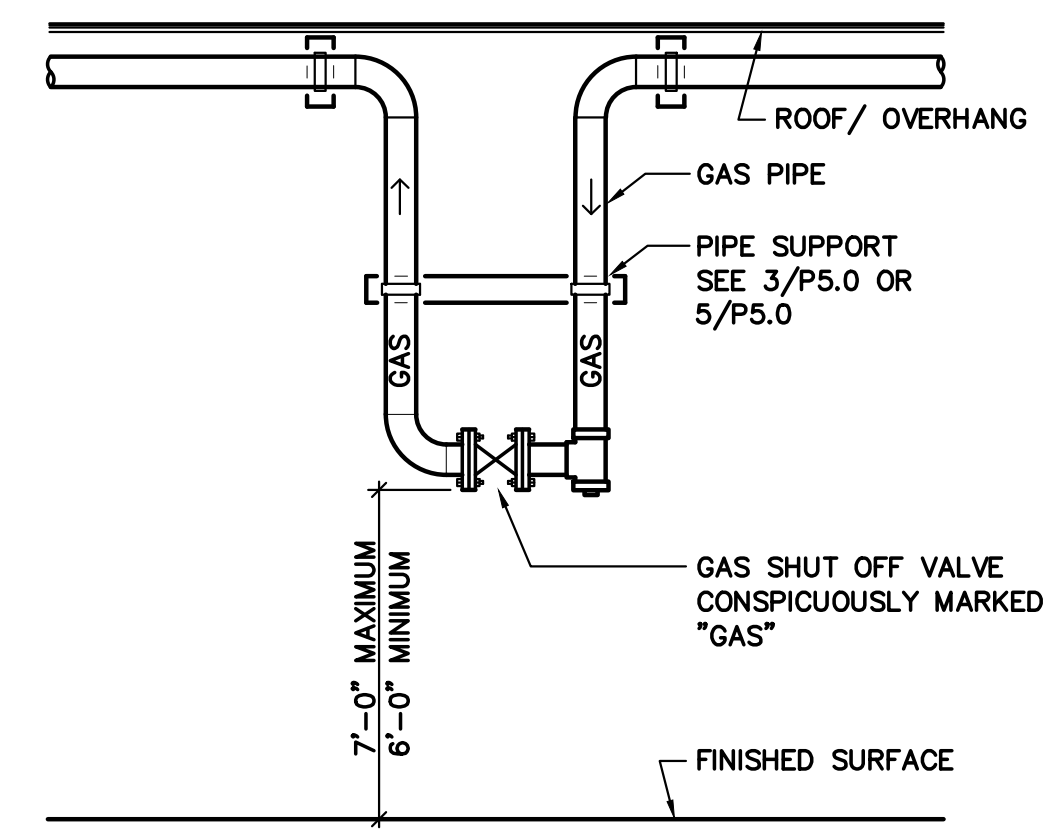
GAS PIPE SUPPORT AT ROOF PENETRATION (6)
 SCALE : NONE P5.0



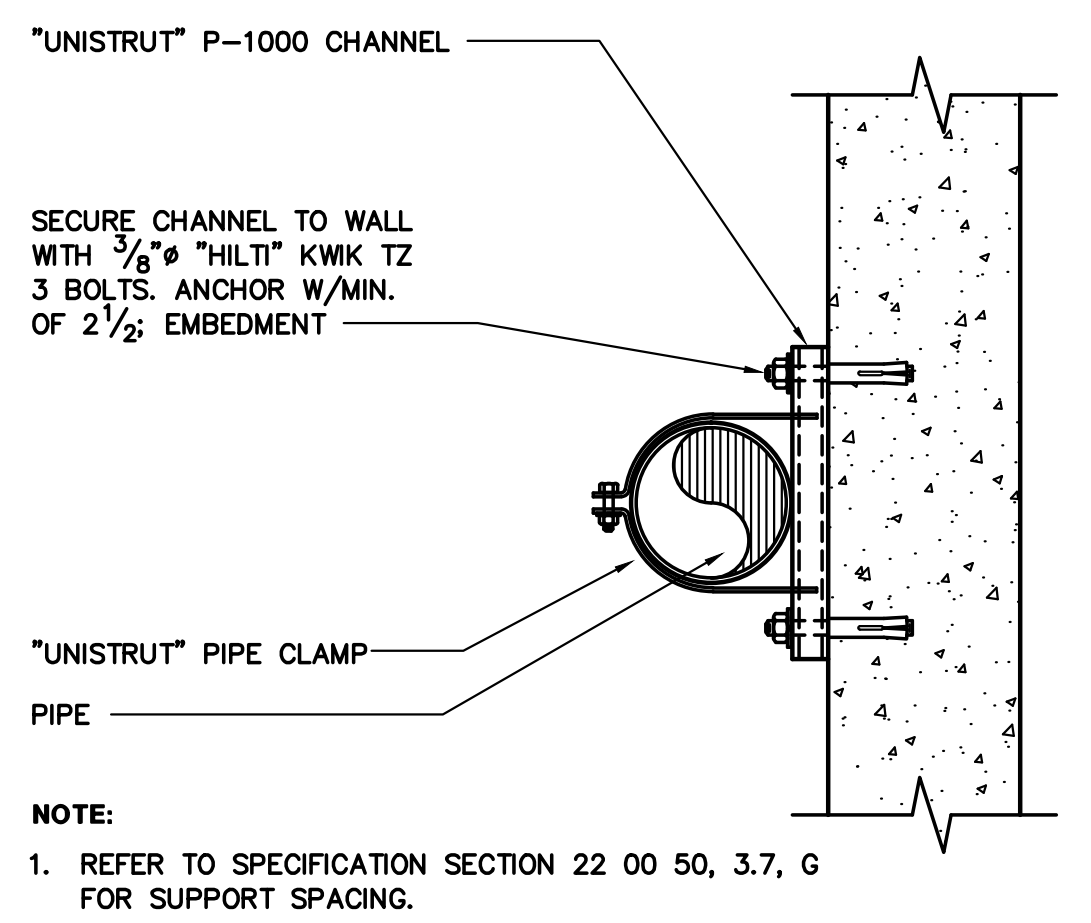
GAS PIPE SUPPORT AT FRAMED WALLS (5)
 SCALE : NONE P5.0



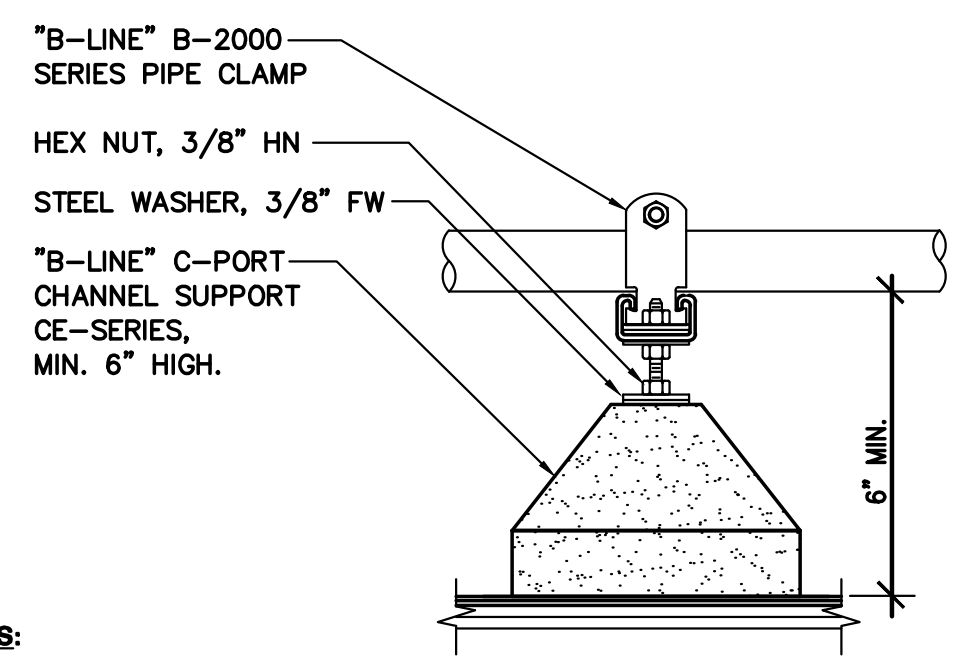
GAS PIPE ON ROOF ANCHOR (1)
 SCALE : NONE P5.0



GAS VALVE ON WALL (4)
 SCALE : NONE P5.0



GAS PIPE SUPPORT ON CONCRETE WALL (3)
 SCALE : NONE P5.0



GAS PIPE ON ROOF INTERMEDIATE SUPPORT MOUNTING DETAIL (2)
 SCALE : NONE P5.0

FILE NO. _____
 IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 OFFICE OF REGULATION SERVICES
 APPLICATION NO. XXXX
 AC. FLS. SS
 DATE _____
 DIVISION OF THE STATE ARCHITECT
 revision date _____

No.	DATE	REVISION COMMENTS

PROJECT DESCRIPTION
**HAMILTON ES
 EMERGENCY GAS LINE
 REPLACEMENT**

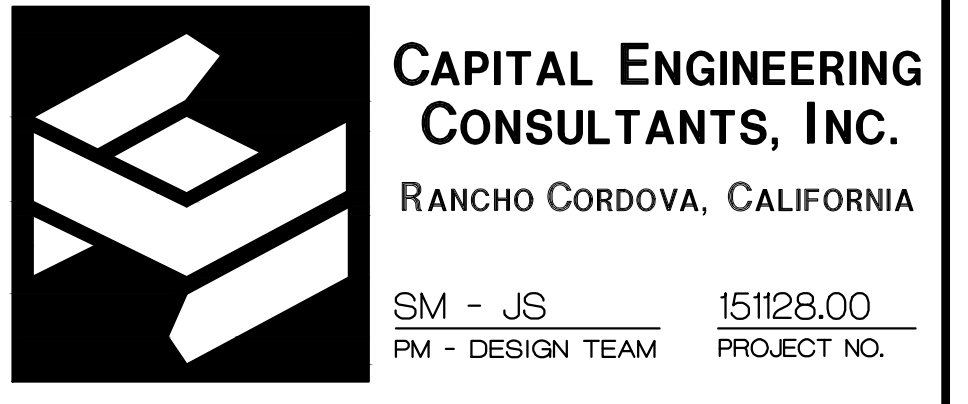
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PLUMBING DETAILS

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	CHECKED BY SM	PROJECT NO. 151128.00
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DATE 2015 12 01		P5.0
DATE SIGNED:		SHEET XX OF XX

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HAMILTON ELEMENTARY SCHOOL



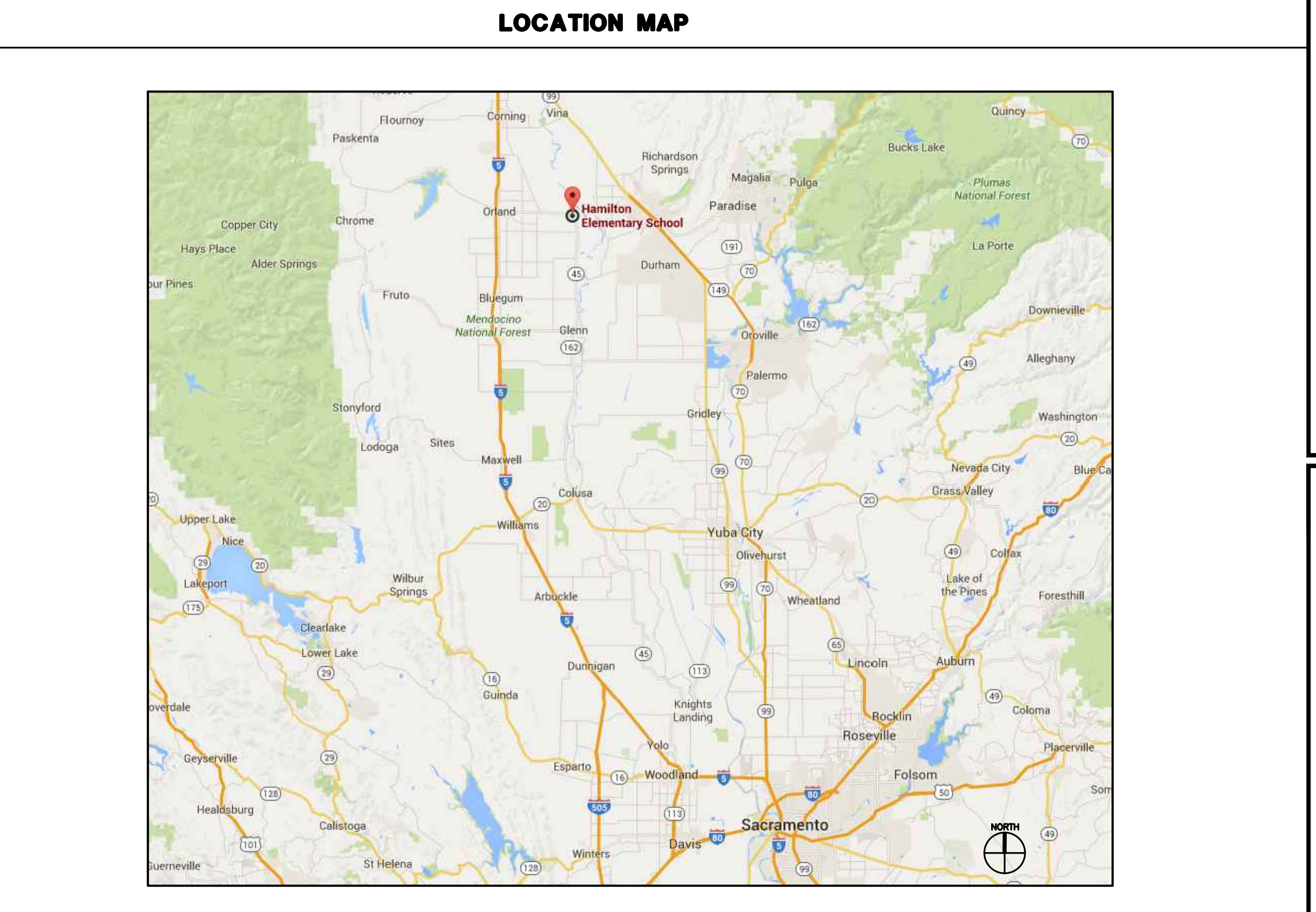
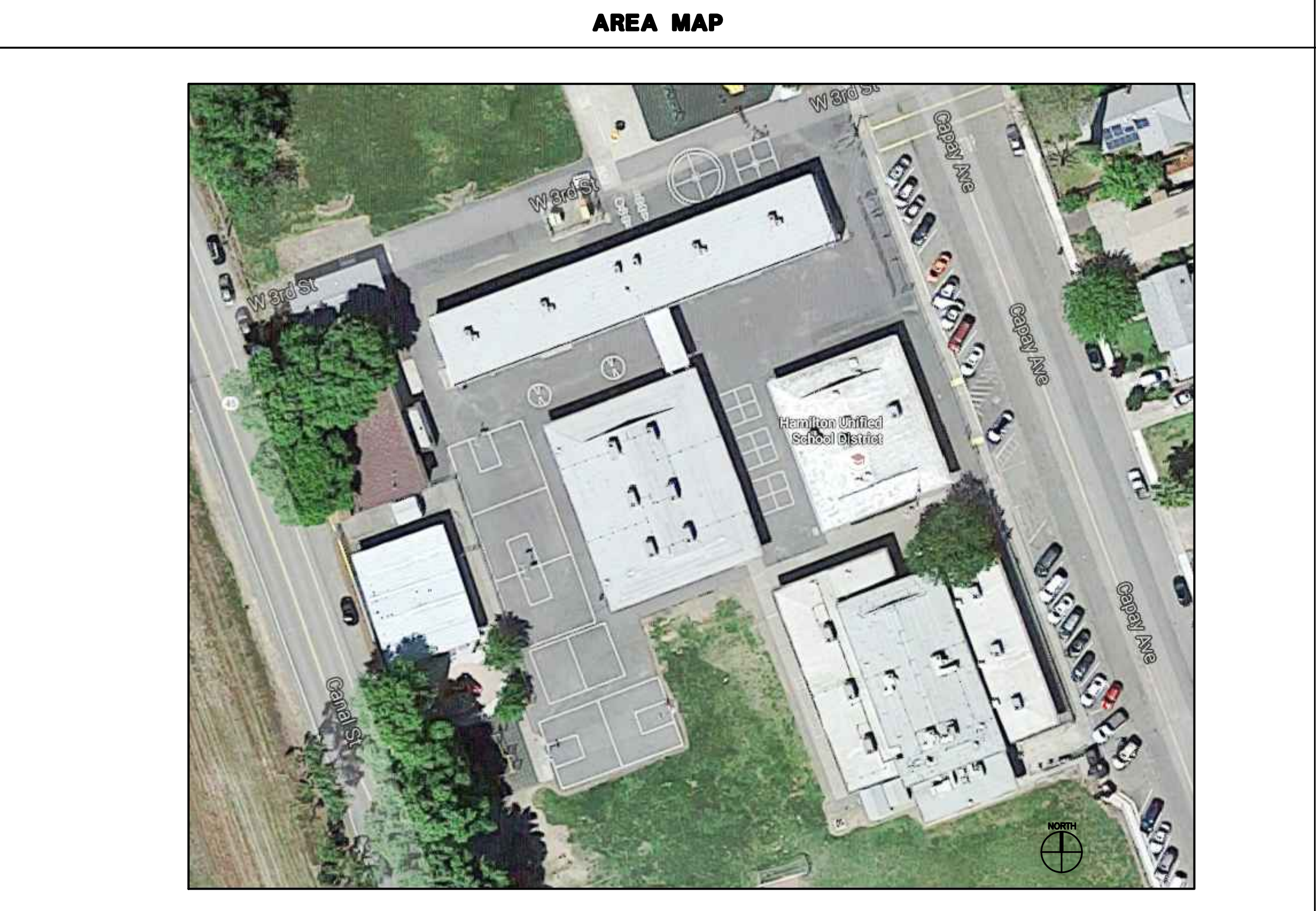
EMERGENCY GAS LINE REPLACEMENT

HAMILTON UNIFIED SCHOOL DISTRICT
 277 CAPAY AVENUE
 HAMILTON CITY, CA 95951

SCOPE OF WORK	
THE SCOPE OF WORK UNDER THIS DSA APPLICATION IS STRICTLY LIMITED TO THE REPLACEMENT OF THE UNDERGROUND NATURAL GAS DISTRIBUTION SYSTEM. NO EXISTING PRIMARY STRUCTURE IS BEING REMOVED OR MODIFIED. NO NEW STRUCTURES OR STRUCTURAL COMPONENTS ARE BEING ADDED EXCEPT FOR MISCELLANEOUS BLOCKING AT PIPE ANCHORAGES. WORK ALSO INCLUDES TRENCHING AND UNDERGROUND WORK ASSOCIATED WITH THE REPLACEMENT OF THE GAS LINES AND REPLACEMENT OF CONCRETE, SOD OR ASPHALT REMOVED DURING THE SCOPE OF THE PROJECT. NO NEW ACCESSIBILITY UPGRADES ARE BEING PROVIDED AS PART OF THIS DSA APPLICATION.	
SHEET INDEX	PROJECT TEAM
T-0 TITLE SHEET	OWNER: HAMILTON UNIFIED SCHOOL DISTRICT 277 CAPAY AVENUE HAMILTON CITY, CA 95951 (530) 826-3261 CONTACT: DIANE LYON
PLUMBING: P1.0 PLUMBING DEMO PLAN P1.1 PLUMBING NEW WORK PLAN P5.0 PLUMBING DETAILS	PROJECT MANAGEMENT OR ASSOCIATES, LLC 129 RIDEOUT WAY MARYSVILLE, CA 95901 PHONE: (916) 825-0000 CONTACT: MICHAEL CANNON MECHANICAL ENGINEER: CAPITAL ENGINEERING CONSULTANTS, INC. 11020 SUN CENTER DRIVE RANCHO CORDOVA, CA 95670 PHONE: (916) 851-3500 CONTACT: STEVE MYERS

PLUMBING LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
— AFG —	AFG	ABOVE FINISHED GRADE BUILDING
— G —	G	GAS - 5 PSI
— GPR —	GPR	GAS PRESSURE REGULATOR
— LOD —	LOD	LIMIT OF DEMOLITION
— MG —	MG	GAS - 10" W.C.
— MBH —	MBH	1000 BTUH
(N), (E)	(N), (E)	NEW, EXISTING
— POC —	POC	POINT OF CONNECTION
— R —	R	GAS PRESSURE REGULATOR
— SOV —	SOV	SHUT OFF VALVE
— TYP —	TYP	TYPICAL
— UG —	UG	UNDERGROUND
— W.C. —	W.C.	WATER COLUMN

- | GENERAL NOTES | APPLICABLE CODES |
|---|---|
| <ol style="list-style-type: none"> THIS IS AN EXISTING GAS LINE REPLACEMENT PROJECT TO REPLACE THE AGING UNDERGROUND NATURAL GAS DISTRIBUTION SYSTEM WHICH WAS BREACHED IN SEVERAL PLACES BY RECENT SEISMIC ACTIVITY IN THE AREA. THE PROJECT WILL REPLACE THE EXISTING UNDERGROUND NATURAL GAS SYSTEM WITH A COMBINED OVERHEAD/UNDERGROUND DISTRIBUTION SYSTEM. THE WORK OF THE PROJECT, IS GENERALLY CONFINED TO THE EXTERIOR OF EXISTING BUILDINGS. ALL WORK SHOWN, NOTED OR DETAILED IS NEW, EXCEPT WHERE INDICATED AS EXISTING OR AS EXISTING TO REMAIN. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE AND SHALL REPORT ANY DISCREPANCIES IN WRITING TO THE CONSTRUCTION MANAGER BY THE MEANS OF AN REQUEST FOR INFORMATION (RFI) OR AS PART OF THE APPLICABLE SHOP DRAWING/SUBMITTAL. SPECIFIC ITEMS NOTED TO BE VERIFIED OR FIELD VERIFIED ARE REQUIRED TO BE VERIFIED PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH THE WORK. CONTRACTOR IS RESPONSIBLE FOR ALL INCIDENTAL WORK NECESSARY TO COMPLETE THE INSTALLATION OF NEW WORK. THIS INCLUDES, BUT IS NOT LIMITED TO, THE REMOVAL AND/OR REINSTALLATION OR ALL EXISTING ITEMS, OF PORTIONS OF THE EXISTING CONSTRUCTION WHETHER SHOWN OR NOT. CONTRACTOR IS RESPONSIBLE FOR PROTECTION, MODIFICATION AND RE-INSTALLATION OF ALL EXISTING ROOFTOP PIPING, CONDUIT, WIRE AND EQUIPMENT DURING ANY REQUIRED ROOF REMOVAL/REPLACEMENT OPERATIONS. PRIOR TO SITE MOBILIZATION, ALL PRIME CONTRACTORS, THE CONSTRUCTION MANAGER AND PROJECT INSPECTOR ARE TO MEET ON SITE AND PHOTO DOCUMENT THE EXISTING CONDITIONS OF THE CONTRACTORS CORPORATION YARD AREA AND LANDSCAPED AREAS WHERE TRENCHING WILL BE OCCURRING OR WHERE VEHICLE TRAFFIC IS ANTICIPATED. ALSO TEST IRRIGATION SYSTEM FOR PROPER OPERATION. AT PROJECT COMPLETION ALL AREAS MUST BE RESTORED TO ORIGINAL CONDITION INCLUDING BUT NOT LIMITED TO INSTALLING SOD AT DAMAGED TURF AREAS, REPLACING DAMAGED PLANTINGS, REPAIRING DAMAGED UNDERGROUND UTILITIES, PATCHING DAMAGED ASPHALT PAVING, RE-STRIPPING PAVING OR REPLACEMENT OF DAMAGED CONCRETE. ALL PRIME CONTRACTORS, THE CONSTRUCTION MANAGER AND PROJECT INSPECTOR SHALL MEET ON SITE AT PROJECT COMPLETION AND REVIEW ALL SITE CONDITIONS AND OPERATION OF IRRIGATION SYSTEM. ALL PRIME CONTRACTORS ARE RESPONSIBLE TO HAVE EMERGENCY SHUT-OFF PROCEDURES IN PLACE PRIOR TO START OF CONSTRUCTION. EACH PRIME SHALL FAMILIARIZE THEMSELVES WITH ALL SHUT-OFF VALVE LOCATIONS ON SITE AND HAVE PROPER TOOLS READILY AVAILABLE TO OPERATE VALVES. ALL WORK, MATERIAL, METHODS, ETC. SHALL CONFORM TO ALL GOVERNING BUILDING CODES, REGULATIONS AND AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL NECESSARY PERMITS AND APPROVALS ARE OBTAINED PRIOR TO BEGINNING WORK OR ORDERING MATERIALS. ANY CONFLICT WITH THESE PLANS AND EXISTING CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT. | <p>THE CONTRACTOR(S) SHALL COMPLY WITH ALL APPLICABLE LAWS AND BUILDING CODES GOVERNING THIS PROJECT. SUCH COMPLIANCE WILL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:</p> <p>2013 CALIFORNIA ADMINISTRATIVE CODE (CAC) - PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)</p> <p>2013 CALIFORNIA BUILDING CODE (CBC) - PART 2, TITLE 24, CCR, BASED ON THE 2012 INTERNATIONAL BUILDING CODE (IBC)</p> <p>2013 CALIFORNIA ELECTRICAL CODE (CEC) - PART 3, TITLE 24, CCR, BASED ON THE 2012 NATIONAL ELECTRICAL CODE (NEC)</p> <p>2013 CALIFORNIA MECHANICAL CODE (CMC) - PART 4, TITLE 24, CCR, BASED ON THE 2012 UNIFORM MECHANICAL CODE (UMC)</p> <p>2013 CALIFORNIA PLUMBING CODE (CPC) - PART 5, TITLE 24, CCR, BASED ON THE 2012 UNIFORM PLUMBING CODE (UPC)</p> <p>2013 CALIFORNIA FIRE CODE (CFC) - PART 9, TITLE 24, CCR, BASED ON THE 2012 INTERNATIONAL FIRE CODE</p> <p>NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) LIFE SAFETY CODE, NFPA 13, 72, 80, 90A, 99 & 101.</p> |



EMERGENCY GAS LINE REPLACEMENT
HAMILTON ELEMENTARY SCHOOL
 277 CAPAY AVENUE
 HAMILTON CITY, CA 95951

FILE NO.	
IDENTIFICATION STAMP OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES	
APPLICATION NO.	XXXX
AC. FLS. \$S	
DATE	
DIVISION OF THE STATE ARCHITECT	

No.	DATE	REVISION COMMENTS

PROJECT DESCRIPTION
 HAMILTON ES
 EMERGENCY GAS LINE REPLACEMENT

DRAWING TITLE
 TITLE SHEET

	DRAWN BY	APPROVED
	JS	SM
	CHECKED BY	PROJECT NO.
	SM	151128.00
	SCALE	DRAWING NO.
	AS NOTED	
	DATE	T0.1 SHEET XX OF XX
	2015 12 01	
DATE SIGNED:		

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