

# 2025 ROOF REPLACEMENTS

Filter Building, Juniper Pump Station, Knolls Pump Station, and Timber Ridge Pump  
Station Structural Retrofit and Roof Replacement

CAPITAL PROJECT #25WW03

July 11, 2025

## CONTRACT DOCUMENTS AND SPECIFICATIONS



MAMMOTH COMMUNITY WATER DISTRICT  
MAMMOTH LAKES, CALIFORNIA



MCWD Modified Short Form

**FILTER BUILDING, JUNIPER RIDGE PUMP STATION, KNOLLS  
PUMP STATION, AND TIMBER RIDGE PUMP STATION ROOF  
REPLACEMENTS**

TABLE OF CONTENTS

1	Bidding Requirements .....	4
1.1	Invitation to Bid .....	4
1.2	Bid .....	6
1.3	Bid Schedule.....	8
1.4	Designation of Subcontractors .....	9
1.5	Bid Bond.....	10
1.6	Experience Qualification.....	12
1.7	Noncollusion Declaration to be Executed by Bidder and Submitted with Bid .....	14
1.8	Acknowledgement of Insurance and Bonding Requirements .....	15
1.9	Iran Contracting Act Certification .....	16
2	MCWD Short Form Public Works Construction Contract.....	17
2.1	Scope of Work.....	17
2.2	Time of Completion .....	18
2.3	Contractor’s Performance .....	18
2.4	Contract Price and Payments .....	18
2.5	Compliance with Laws .....	19
2.6	Permits and Licenses .....	19
2.7	Certificates of Reported Compliance .....	19
2.8	Bonds .....	19
2.9	Authority of District and District’s Representative .....	20
2.10	Contractor’s Understanding .....	20
2.11	Subcontractors .....	20
2.12	Changes in the Work.....	21
2.13	Guarantee.....	21
2.14	Suspension of Work.....	22
2.15	Termination.....	22
2.16	Prevailing Wages .....	22
2.17	Labor Nondiscrimination .....	23
2.18	Eight-Hour Day Limitation .....	23
2.19	Payroll Records .....	23

2025 Roof Replacements

2.20	Employment of Apprentices.....	24
2.21	Character of Worker.....	24
2.22	Superintendence.....	24
2.23	Inspection and Testing of Work.....	24
2.24	Trade Names and Alternatives.....	25
2.25	Protection of Work and Safety.....	25
2.26	Protection of Public and Property.....	26
2.27	Clean-Up.....	26
2.28	Water Pollution.....	27
2.29	Underground Work.....	27
2.30	Hazardous Materials; Hazard Communication.....	28
2.31	Contractor’s License Notice.....	29
2.32	Indemnification.....	29
2.33	Insurance.....	30
2.34	Final Acceptance and Date of Completion.....	33
2.35	Right to Withhold Payments.....	33
2.36	State Audit Contingency.....	34
2.37	Liquidated Damages.....	34
2.38	Waiver of Interest.....	34
2.39	Claims and Resolution of Disputes.....	35
2.40	Assignment of Anti-Trust Claims.....	39
2.41	Integration.....	39
2.42	Counterparts and Electronic Signatures.....	40
2.43	Independent Contractor.....	40
2.44	Governing Law.....	40
2.45	Waiver; Remedies.....	40
2.46	Severability.....	40
2.47	Binding on Successors.....	40
2.48	Notices.....	40
3	Contractor’s Workers’ Compensation Certificate.....	42
4	Payment Bond.....	43
5	Faithful Performance Bond.....	45
Exhibit A	Technical Specifications	
Exhibit B	Demolition and Construction Plans	
Exhibit C	Thermoplastic Roofing Specifications	

2025 Roof Replacements

Exhibit D	Asbestos Testing Surveys
Exhibit E	Original Structural Plans

## 1 BIDDING REQUIREMENTS

### 1.1 Invitation to Bid

Sealed proposals will be received at the office of the Mammoth Community Water District, located at Mammoth Community Water District, 1315 Meridian Boulevard, Mammoth Lakes, CA 93546, until **4:00PM** local time on **Friday, August 1, 2025**, or such later date as may be set by addendum, and then will be publicly opened and read for the construction of the following public works project:

#### **Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station Roof Replacements**

All questions will be submitted to Nick Holt via email at [nholt@mcwd.dst.ca.us](mailto:nholt@mcwd.dst.ca.us). All questions shall be submitted by **4:00PM** local time on **Wednesday, July 23, 2025**.

Mammoth Community Water District (MCWD) is seeking qualified roofing or general contractors to demolish existing roof systems and install supplemental structural roof supports and new roofing systems for four single-story buildings within the Town of Mammoth Lakes. The roofs are approximately 3,300, 580, 420, and 230 square feet as described in the plans and specifications included as **Exhibits A and B**.

The contract documents for the Project, including the public works construction contract, instructions to bidders, bid forms, and plans and specifications, may be examined at the District office, with prior notice to the District's representative, located at **1315 Meridian Blvd., Mammoth Lakes, CA**, or online at [www.mcwd.dst.ca.us](http://www.mcwd.dst.ca.us). Bidders must comply with the Instructions to Bidders.

The District will hold a pre-bid conference at the District Headquarters, **1315 Meridian Blvd., Mammoth Lakes, CA**, on **Tuesday, July 22, 2025** at **1PM** local time. Walkthroughs of the Filter Building will take place at the District Headquarters, and additional walkthroughs will be arranged for the Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station buildings. It is suggested that each prospective bidder review the bid documents and project site prior to the pre-bid conference. Attendance at the pre-bid conference is not mandatory for a prospective bid to be considered responsive.

Each Bid must be submitted on the prescribed forms and accompanied by cash, a cashier's check, certified check or bid bond executed on the prescribed form payable to the District in an amount not less than 10 percent of the amount bid.

The successful bidder will be required to furnish a payment bond and faithful performance bond each in the full amount of the Contract price, and insurance with certificates and endorsements of insurance, as provided in the Contract Documents. The required bonds must be provided only by a surety insurer who is admitted to do business by and in good standing with the California Department of Insurance.

Bidders are hereby notified that in accordance with Public Contract Code section 22300, securities may be substituted for any monies that the District may withhold pursuant to the terms of this Contract to ensure performance.

The successful bidder must possess the following classification or type of contractor's license issued by the Contractors State License Board: **Class A, Class B, or Class C39** California.

To be qualified to bid on this Project, bidders must be registered and qualified to perform public work with the Department of Industrial Relations pursuant to section 1725.5 of the Labor Code. All subcontractors listed in a qualified bidder's bid as performing any portion of the work also must be registered and qualified with the Department of Industrial Relations.

To qualify to bid on this Project, bidders must submit to the District copies of valid Certificates of Reported Compliance, as described in section 2449(n) of Title 13 of the California Code of Regulations, for the fleet selected to perform such work proposed in the bid. If applicable, subcontractors must submit copies of valid Certificates of Reported Compliance, as well. If a bidder does not submit the necessary Certificates of Reported Compliance with their bid, the bid will be disqualified.

Bids that equal or exceed \$1,000,000 must be accompanied by an Iran Contracting Act certification in the form provided in section 1.9.

The District's General Manager has determined that the Project involves work that is substantially complex and therefore requires the District to retain a higher percentage of proceeds from each payment to the Contractor in order to adequately protect the public against potential claims and losses that might result from such work. Based on the above finding, the District has imposed a retention of proceeds under this Contract equal to **five percent (5%)** of the amount of each approved payment requested by the Contractor.

The attention of bidders is directed to the requirements and conditions of employment to be observed and prevailing wage rates to be paid to all workers employed under the Contract in accordance with Labor Code sections 1770 and following. Copies of the prevailing rate of per diem wages are on file at the District's office, and will be made available to any interested party on request. In accordance with Labor Code section 1771.4(a)(1), this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The District reserves the right to reject all bids. Any bid not conforming to the intent and purpose of the Contract Documents may be rejected. The District may extend the time to award the Contract.

Dated: 7/11/25

Mammoth Community Water District

By: 

Nick Holt, PE  
Associate Engineer

1.2 **Bid**

TO: Mammoth Community Water District, 1315 Meridian Boulevard, Mammoth Lakes, CA 93546

The undersigned states and declares as follows:

That the Bidder has carefully examined the location of the proposed work; that the Bidder has examined the Contract Documents entitled: Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station Roof Replacements; the Addenda Numbers \_\_\_ to \_\_\_, if any; that the Bidder has read the accompanying Short Form Public Works Contract ([Section 2](#)); that the Bidder hereby proposes to begin work and complete the project in accordance with the schedule and deadlines in the Contract Documents; that the Bidder hereby proposes to furnish all labor, materials, tools, and equipment, and to perform all work required, complete in place, in compliance with all terms and conditions and requirements of all Contract Documents; and that the Bidder will take in full payment for the work the prices set forth in the accompanying bid schedule.

The Bidder acknowledges that the following quantities are approximate only, being given as a basis for the comparison of proposals, that the District does not expressly or by implication agree that the actual amount of the work will correspond therewith, and that the District reserves the right to increase or decrease the amount of any class or portion of the work, as may be deemed necessary or advisable by the Engineer.

The following surety or sureties have agreed to furnish payment and faithful performance bonds to the Bidder if it is awarded the contract:

Name of Performance Bond Surety: \_\_\_\_\_

Name of Payment Bond Surety: \_\_\_\_\_

**Bidder Information**

Bidder Name: \_\_\_\_\_

Type of Business Entity and State of Incorporation (e.g., corporation, limited liability company, partnership): \_\_\_\_\_

Contractor's License No.: \_\_\_\_\_

DIR Public Works Contractor Registration No.: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Type of license: \_\_\_\_\_

Name under which license is held: \_\_\_\_\_

Status of license: \_\_\_\_\_

2025 Roof Replacements

The Bidder's authorized officer identified below hereby declares that the representations in this Bid are true and correct and of my own personal knowledge, and that these representations are made under penalty of perjury under the laws of the State of California.

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

1.3 Bid Schedule

Item	Description	Quantity*	Units	Unit Price	Amount
1	Mobilization	1	Lump		\$ _____
2	Demolition and Disposal – Filter Building	1	Lump		\$ _____
3	Demolition and Disposal – Knolls Pump Station	1	Lump		\$ _____
4	Demolition and Disposal – Juniper Ridge Pump Station	1	Lump		\$ _____
5	Demolition and Disposal – Timber Ridge Pump Station	1	Lump		\$ _____
6	Structural Retrofitting – Filter Building	1	Lump		\$ _____
7	Structural Retrofitting – Knolls Pump Station	1	Lump		\$ _____
8	Structural Retrofitting – Juniper Ridge Pump Station	1	Lump		\$ _____
9	Structural Retrofitting – Timber Ridge Pump Station	1	Lump		\$ _____
14	Insulation and Membrane Roof Installation – Filter Building	1	Lump		\$ _____
15	Insulation and Membrane Roof Installation – Knolls Pump Station	1	Lump		\$ _____
16	Insulation and Membrane Roof Installation – Juniper Ridge Pump Station	1	Lump		\$ _____
17	Insulation and Membrane Roof Installation – Timber Ridge Pump Station	1	Lump		\$ _____
				Grand Total:	\$ _____

\* Items described include all labor, equipment, tools, materials, and tasks of work needed to complete the existing roof demolition and disposal, structural reinforcement, and new roof installation as described in these Specifications.

\*\* Above prices include any amount payable by the Owner for taxes by reason of this contract.

**Acknowledge Addenda**

Addendum #: \_\_\_\_\_ Signed: \_\_\_\_\_

**1.4 Designation of Subcontractors**

In compliance with Public Contract Code section 4100 et. seq. each bidder shall set forth below the: (a) name, location of the mill, shop, or office, and California contractor’s license number of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work or improvement to be performed under these specifications in excess of one-half of 1% of the Contractor’s total bid, (b) description of the type of work to be performed by each such subcontractor, and (c) portion of the work (expressed in dollar amount) that will be performed by each such subcontractor.

If the Contractor fails to specify a subcontractor for any portion of the work to be performed under the Contract, it shall be deemed to have agreed to perform such portion itself, and it shall not be permitted to subcontract that portion of the work except under the conditions hereinafter set forth.

Subletting or subcontracting of any portion of the work in excess of one-half of 1% of the Contractor’s total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after making a written finding as a public record of the District setting forth the facts constituting the emergency or necessity.

Subcontractor (name, address, Subcontractor’s CSLB License Number, Subcontractor’s DIR Public Works Contractor Registration Number)	Description of Subcontractor Work	Portion of Work (\$)

Additional pages attached: \_\_\_\_\_

1.5 **Bid Bond**

KNOW BY ALL MEN BY THESE PRESENTS, THAT WE, THE UNDERSIGNED \_\_\_\_\_, Contractor or Principal; and \_\_\_\_\_, as Surety, are hereby held and bound unto Mammoth Community Water District, hereinafter called the District, in the sum of \$ \_\_\_\_\_, which sum is equal to at least ten percent of the total amount of the Bid, payment of which sum, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

The condition of the above obligation is such that whereas the Principal has submitted to the District a certain Bid, attached hereto and hereby made a part hereof, to enter into a Contract in writing, for the construction of the following public works project:

**Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station Roof Replacements**

Mammoth Community Water District (MCWD) is seeking qualified roofing or general contractors to demolish existing roof systems and install supplemental structural roof supports and new roofing systems for four single-story buildings within the Town of Mammoth Lakes. The roofs are approximately 3,300, 580, 420, and 250 square feet as described in the plans and specifications included as **Exhibit A**.

NOW, THEREFORE,

(a) If the Bid is rejected, or in the alternate,

(b) If the Bid is accepted and the Principal shall sign and deliver a Contract, in the form of the Contract attached hereto and shall execute and deliver Performance and Payment Bonds in the forms attached hereto and shall deliver proof of insurance (all completed in accordance with the Contract Documents), and shall in all other respects perform the agreement created by the acceptance of the Bid;

Then, this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all default of the Principal hereunder shall be the amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the District may accept such Bid, and said Surety does hereby waive notice of any such extension.

IN WITNESS THEREOF, the above bounded parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**For Contractor or Principal**

\_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**For Surety:**

\_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

(Seal)

**1.6 Experience Qualification**

The Bidder has been engaged in the contracting business, under the present business name for \_\_\_\_ years. Experience in work of a nature similar to that covered in the Bid extends over a period of \_\_\_\_\_ years.

The Bidder, as a contractor, has never failed to satisfactorily complete a contract awarded to it, except as follows:

---



---



---



---

The following contracts have been satisfactorily completed in the last three years for the persons, firm or entity indicated:

Year	Owner	Type of Work	Contract Amount



**1.7 Noncollusion Declaration to be Executed by Bidder and Submitted with Bid**

(Public Contract Code Section 7106)

The undersigned declares:

I am the \_\_\_\_\_ (Title)  
of \_\_\_\_\_ (Bidder), the party  
making the foregoing bid.

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

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

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on \_\_\_\_\_, at \_\_\_\_\_, \_\_\_\_\_.

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

**1.8 Acknowledgement of Insurance and Bonding Requirements**

By signing below Bidder acknowledges the insurance requirements as listed in Short Form Public Works Contract (section 2), [section 2.33](#) "Insurance". By this acknowledgement, the Bidder and its insurance provider(s) and surety(ies) certify that they have read and understand the insurance and bonding requirements in their entirety, including limits of coverage, additional insureds and endorsements, and bonding requirements, and that the Bidder can provide the insurance coverage and bonds as required in the Contract documents without exception.

Bidder understands that if the insurance coverage provided in [section 2.33](#) of the Short Form Public Works Contract (section 2) and the Contract Bonds cannot be provided, its bid is subject to rejection by the District as non-responsive.

**BIDDER**

Company Name: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**SURETY PROVIDER/SURETY REPRESENTATIVE**

Surety Name: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Bidder Must Provide This Acknowledgment for Each Insurer or Surety Providing Insurance Coverage or a Bond under this Contract**

**1.9 Iran Contracting Act Certification**

Pursuant to Public Contract Code (PCC) section 2204, the following Iran Contracting Act certification is required if your bid totals \$1,000,000 or more.

If your bid totals \$1,000,000 or more, you must complete only one of the following two paragraphs. To complete paragraph 1, check the corresponding box and complete the certification. To complete paragraph 2, simply check the corresponding box.

1. We are not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services (DGS) pursuant to PCC 2203(b), and we are not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on

\_\_\_\_\_ (date),

at \_\_\_\_\_ (city), \_\_\_\_\_ (state).

\_\_\_\_\_ (signature)

\_\_\_\_\_ (printed name)

OR

2. We have received written permission from the District to submit a bid pursuant to PCC 2203(c) or (d). A copy of the written permission from the District is included with our bid.

**2 MCWD SHORT FORM PUBLIC WORKS CONSTRUCTION CONTRACT**

Name of Project	<b>Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station Roof Replacements</b>
Contractor Name, Address and Capacity (e.g., corporation, partnership)	
List and Title of Contract Exhibits	Exhibit A Technical Specifications Exhibit B Demolition and Construction Plans Exhibit C Thermoplastic Roofing Specifications Exhibit D Asbestos Testing Surveys Exhibit E Original Structural Plans
Type of Required California Contractor’s License Classification	<b>Class A, Class B, or Class C39</b>
Total Contract Price	\$ _____ (Per Bid Schedule*)
Daily Liquidated Damages Amount (insert zero if none)	\$1,000
District Representative Name, Title, and Address	Nick Holt, Associate Engineer  1315 Meridian Blvd.  Mammoth Lakes, CA 93546
Date of Contract	

\*Will be attached to executed contract.

This contract is made by and between Mammoth Community Water District and the Contractor named above, who agrees as follows:

**2.1 Scope of Work**

This Public Works Construction Contract, the Contract exhibit(s) listed above, approved Change Orders, and, if applicable, the notice inviting bids, addenda, Contractor’s bid and bid forms constitute the “Contract” between the parties. For purposes of this Contract, the “Work” shall mean the scope of work as described in the exhibit(s).

## 2.2 Time of Completion

**The work shall be complete no later than December 1, 2025.** The parties agree that time is of the essence for the performance of this Contract.

## 2.3 Contractor's Performance

Contractor shall construct, install, perform and do the Work, and shall furnish, provide and pay for all labor, equipment, materials, tools, supplies, transportation, permits, sales and taxes, and shop drawings necessary or appropriate to complete the Work. Contractor shall perform in the Work in a good and workmanlike manner, and such Work shall be done to the approval and satisfaction of District.

## 2.4 Contract Price and Payments

(a) If Contractor performs the Work in accordance with this Contract and to the satisfaction of District, District shall pay Contractor in the amount and manner as set forth in the Bid Schedule; however, the total Contract price shall not exceed the sum stated above, unless otherwise agreed to in writing by the District. No payment, including all progress payments and the final payment, shall be made to Contractor in excess of 95% of the percentage of Work actually completed plus a like percentage of the value of material delivered on the ground or stored subject to, or under control of, District. The five percent not paid shall be withheld by District until final completion and acceptance of the Work. However, in lieu of withholding of money, and in accordance with the provisions of California Public Contract Code section 22300, Contractor may substitute securities to ensure performance under the Contract.

(b) If payment is to be made by progress payments, then, in accordance with California Public Contract Code section 20104.50, a written payment request from Contractor shall be reviewed by District as soon as practicable in order to determine whether it is proper. If District determines it not to be a proper payment request suitable for payment, then District shall return it to Contractor with a written explanation of the deficiencies as soon as practicable, but not later than seven days after receipt of the payment request. If District determines the payment request to be properly submitted and undisputed, the District shall make the payment to Contractor within 30 days after receipt of the payment request. If District does not pay a properly submitted and undisputed payment request within this 3-day period, then District shall pay interest on the overdue amount to Contractor at the legal rate set forth at California Code of Civil Procedure section 685.010. This subsection shall not apply if District funds are not available for payment of the payment request or if payment is delayed due to an audit inquiry by the financial officer of District.

(c) No progress or final payment shall be considered or construed to be an approval or acceptance of any Work, materials or equipment, or a waiver of any breach or default. Estimated amounts and values of Work done and materials and equipment incorporated into the Work will be conformed with actual amounts and values as they become available in subsequent progress payments and the final payment. All payments will be subject to correction in subsequent progress payments and the final payment.

## 2.5 Compliance with Laws

Contractor shall give all notices and comply with all federal, state and local laws, statutes, regulations and ordinances applicable to the performance of the Work. Contractor is responsible for the safety of its workers and Contractor shall comply with, and require its workers to comply with, all applicable federal and state worker and job site safety-related laws and regulations, including, but not limited to, applicable federal Department of Labor, Occupational Safety and Health Administration (“OSHA”) regulations and California Department of Industrial Relations (including the Division of Occupational Safety and Health and Occupational Safety and Health Standards Board (“Cal/OSHA”)) regulations and safety orders. Contractor shall promptly notify District’s Representative in writing of any specification at variance therewith and any necessary changes shall be adjusted as provided in the Contract for changes in the work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations and without such notice to District’s Representative, it shall bear all costs arising therefrom.

## 2.6 Permits and Licenses

Permits, licenses, and easements necessary for the performance of the Work shall be obtained and paid for by Contractor, unless otherwise provided in the exhibit(s). Contractor must hold the current and valid type of California contractor’s license classification described above for the duration of the Work.

## 2.7 Certificates of Reported Compliance

This Contract is subject to the California Air Resources Board Off-Road Diesel Regulation (Title 13 CCR § 2449). In order to be eligible to perform the Work under this Contract, Contractor must submit to District copies of valid Certificates of Reported Compliance, as described in section 2449(n), for the fleet selected to perform work under this Contract. If applicable, subcontractors must submit copies of valid Certificates of Reported Compliance, as well. If Contractor does not provide said Certificates, Contractor may not perform work under this Contract.

The California Air Resources Board Off-Road Diesel Regulation applies to all self-propelled offroad diesel vehicles with 25 horsepower or greater and most two-engine vehicles (except on-road two-engine sweepers). This includes vehicles that are rented or leased (rental or leased fleets).

## 2.8 Bonds

Promptly upon execution of this Contract and prior to the commencement of any Work, Contractor shall obtain at its sole cost and expense and provide to District a performance bond and payment bond each in the amount of 100% of the amount of this Contract. The bonds must be issued by a surety admitted in California and be in a form acceptable to District. The bonds must comply with California Civil Code section 9550 and 9554 and applicable provisions of the California Bond and Undertaking Law (Code Civ. Proc. § 995.010 et. seq.).

## 2.9 Authority of District and District's Representative

(a) The District's representative listed above is the representative of the District for purposes of this Contract and has full authority to interpret the Contract, to conduct the construction review and inspection of Contractor's performance, and to decide questions which arise during the course of the Work. His/her decisions on these matters shall be final and conclusive. District's Representative has the authority to reject all Work and materials which do not conform to the Contract, and has the authority to stop the Work whenever such stoppage may be necessary to ensure the proper execution of the Contract. District's Representative's right and authority is limited to rejection of unsatisfactory Work or methods. District and the District's Representative do not bear any responsibility for Contractor's safety practices or procedures. Any order given by District's Representative, not otherwise required by the Contract to be in writing shall, on request of Contractor, be given or confirmed by District's Representative in writing. Whenever Work, methods of procedure, or any other matters are made subject to direction or approval of District, such direction or approval will be given by District's Representative.

(b) Except as provided elsewhere in the Contract, neither District nor District's Representative will be responsible for or have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work. Except as provided elsewhere in the Contract, neither District nor District's representative will be responsible for or have control or charge over the acts or omissions of Contractor, or any of their subcontractors, agents or employees, or any other persons performing any of the Work. Any general control of the Work exercised by the District or its authorized representatives shall not make Contractor an agent of District, and the liability of Contractor for all damages to persons and/or to public or private property arising from Contractor's execution of the Work shall not be lessened because of such general control.

## 2.10 Contractor's Understanding

Contractor acknowledges that it has, by careful investigation and inspection, satisfied itself as to the nature and location of the job site; the ground, character, quality and quantity of the materials and conditions to be encountered, including subsoil conditions, if applicable; the character and amount of labor, equipment, supplies and materials needed preliminary to and during the performance of the Work; and all other matters which can in any way affect the Work under this Contract. Contractor further acknowledges that neither District nor District's Representative have made any representations whatsoever concerning job site conditions, except for such representations that may have been made in writing in this Contract.

## 2.11 Subcontractors

All subcontractors and suppliers engaged in work will be considered as employees of Contractor, and Contractor shall be held responsible for their work, which shall be subject to the provisions of the Contract. Contractor will provide the following information (a) the name and the location of the place of business, and California contractor's license number of each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work or improvement, and of each subcontractor who, under subcontract to Contractor, is to specifically fabricate and install or provide a portion of the

work or improvement according to the Contract, in any amount in excess of ½ of 1 percent of the Contract amount. Contractor shall ensure that all subcontractors employed on the work comply with all applicable laws and regulations, including payment of prevailing wages, employment of apprentices, and preparation and submission of accurate and complete payrolls. Contractor shall be fully responsible to District for the acts or omissions of its subcontractors and of the persons either directly or indirectly employed by them. Nothing contained in this Contract shall create any contractual relationship between any subcontractor and District. Each subcontract shall contain a suitable provision for the suspension or termination thereof with or without cause. If a legal action, including arbitration and litigation, against District is initiated by a subcontractor or supplier, Contractor shall reimburse District for the amount of legal, engineering and all other expenses incurred by District in defending itself in said action. District and District's Representative reserve the right to approve all subcontractors.

Contractor shall not utilize, or allow work by, any subcontractor who is ineligible to bid or work on, or be awarded, a public works project pursuant to California Labor Code section 1777.1 or 1777.7. (See California Public Contract Code section 6109.) The California Division of Labor Standards Enforcement publishes a list of debarred contractors and subcontractors on the Internet at [www.dir.ca.gov/DLSE/debar.html](http://www.dir.ca.gov/DLSE/debar.html).

#### 2.12 Changes in the Work

District may, at any time, by written change order make changes in the Work, or extend the time to complete the Work, as deemed necessary by District. If such changes cause an increase or decrease in Contractor's cost of, or time required for, performance of the Contract, there shall be an equitable adjustment in the Contract price. The price adjustment shall be determined by one of the following methods in the order of precedence listed:

- (a) Based on the unit prices contained in the Bid Schedule.
- (b) Mutually agreed-upon lump sum or unit price adjustment.
- (c) Contractor's actual cost of labor (wages and benefits), materials (actual purchase price, sales tax, freight & delivery) and equipment/tools (at actual or fair/prevaling rental rates) directly engaged in the performance of the extra work plus 15% mark-up for overhead and profit. For price adjustments under this section, Contractor shall provide to District an itemized breakdown of the quantities and prices used in the extra work, and it shall make available all source documents, including payroll records, invoices, purchase orders, contracts and lease agreements.

#### 2.13 Guarantee

(a) Contractor unconditionally guarantees all materials and workmanship furnished under this Contract, and agrees to replace at its sole cost and expense, and to the satisfaction of District, any and all materials which may be defective or improperly installed. Contractor shall repair or replace to the satisfaction of District any or all such Work that may prove defective in workmanship or materials, ordinary wear and tear excepted, together with any other Work which may be damaged or displaced in so doing. This guarantee shall remain in effect for one year from the date of District's acceptance of the Work. The District shall have

the right to call for inspection or inspections of the work before the end of the one-year guarantee period and Contractor shall attend and participate in such inspection(s) upon request of District. This guarantee does not excuse Contractor for any other liability related to defective Work discovered after the guarantee period. Contractor shall transfer to District all manufacturer and supplier warranties relating to the Work, if any, upon completion of the Work and prior to final payment. Any products/completed operations insurance coverage shall be maintained after completion of the project for the full guarantee period.

(b) In the event of failure to comply with the above stated conditions within a reasonable time, District may have the defect repaired and made good at the expense of Contractor, which shall pay the costs and charges for such repair immediately upon demand, including any reasonable management and administrative costs, and engineering, legal and other consultant fees incurred by District in enforcing this guarantee.

#### **2.14 Suspension of Work**

District may suspend the Work wholly or in part, for such period as District may deem necessary, due to unsuitable weather or to any other conditions District considers unfavorable for the suitable performance of the Work, including the improper performance of the Work by Contractor. Contractor shall immediately comply with such written order of District to suspend the Work wholly or in part and shall be paid for the Work performed to the date of suspension, except for improperly performed Work. The suspended Work shall be resumed only when ordered by District.

#### **2.15 Termination**

(a) This Contract may be terminated with or without cause at any time by District by giving 10 days' advance written notice to Contractor. In the event of such termination, Contractor shall be compensated for actual Work performed to the date of termination as calculated by District based on the Contract price and payment provisions above.

(b) If District terminates the Contract because of Contractor's failure to do the Work with such diligence as will ensure the completion of the Work within the time specified in the Contract, then District may take over the Work and pursue the same to completion by using another contractor or any other method District deems expedient. In this event, District may also take possession and control of, and utilize in completing the Work, any and all materials, supplies, tools and equipment delivered to the site of the Work by Contractor or by its suppliers or subcontractors. The materials, supplies, tools and equipment remaining after completion of the Work shall be returned to Contractor.

#### **2.16 Prevailing Wages**

Contractor agrees to pay all workers employed on this Work not less than the general prevailing rate of per diem wages for Work of a similar character in the locality of District, and not less than the general rate of per diem wages for holiday and overtime work, as established pursuant to the California Labor Code (in particular sections 1770-1780) and applicable regulations and orders. A copy of the applicable prevailing rate of per diem wages is available to the contractor at the administrative offices of District. Contractor shall obtain and post a copy of such prevailing wage rates at the job site. Contractor shall also comply

with the provisions of California Labor Code section 1775, including provisions which require Contractor to (a) forfeit as penalty to District not more than \$200 for each calendar day or portion thereof for each worker (whether employed by Contractor or any subcontractor) paid less than the applicable prevailing wage rates for any work done under this Contract in violation of the provisions of the California Labor Code, and (b) pay to each worker the difference between the prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof for which said worker was paid less than the prevailing wage.

#### **2.17 Labor Nondiscrimination**

In accordance with California Labor Code section 1735, throughout the performance of the Contract, Contractor and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age (over 40), or sexual orientation (as those discrimination bases are defined in California Government Code sections 12926 and 12926.1) of such persons, except as provided in California Government Code section 12940. Any contractor violating this nondiscrimination provision shall be subject to penalties that may be imposed pursuant to Division 2, Part 7, Chapter 1 of the California Labor Code.

#### **2.18 Eight-Hour Day Limitation**

(a) Contractor agrees that 8 hours labor shall constitute a day's work, and no worker, in the employ of the Contractor, or any subcontractor, doing or contracting to do any part of the Work under this Contract, shall be required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week; provided that subject to California Labor Code section 1815, a worker may perform work in excess of 8 hours per day or 40 hours per week at not less than one and one-half times the basic rate of pay.

(b) Except as provided above for overtime, Contractor shall forfeit as a penalty to District the sum of \$25 for each worker employed in the execution of this Contract by it or by any subcontractor under it for each calendar day during which such worker is required or permitted to Work more than 8 hours in any one day and 40 hours in any one calendar week in violation of California Labor Code sections 1810 through 1815.

#### **2.19 Payroll Records**

Contractor and each subcontractor shall keep an accurate payroll record 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 in connection with the Work, and shall make such payroll record available for inspection, in accordance with the requirements of California Labor Code section 1776. Contractor shall be responsible to ensure compliance with section 1776. Failure to comply with that section may result in the Labor Commissioner's assessment of a penalty of \$100 per day per worker.

**2.20 Employment of Apprentices**

Contractor shall comply with, and take such actions as necessary to effectuate, the apprentice employment requirements as set forth at California Labor Code sections 1777.5, 1777.6 and 1777.7.

**2.21 Character of Worker**

If any employee of Contractor or any of its subcontractors shall be incompetent or act in a disorderly or improper manner, such employee or subcontractor shall be removed from the Work immediately, and such person or subcontractor shall not again be employed on the Work. Such discharge shall not be the basis for any claim for compensation or damages against District, or any of its officers or agents.

**2.22 Superintendence**

Contractor shall designate in writing before starting Work an individual as authorized representatives who shall have the authority to represent and act for Contractor. This authorized representative shall be present at the Work site at all times while Work is actually in progress. When Work is not in progress and during periods of Work suspension, arrangements acceptable to District's Representative shall be made for any emergency work that may be required.

**2.23 Inspection and Testing of Work**

(a) Unless otherwise provided, all equipment, supplies, materials, and Work shall be subject to inspection and testing by District's Representative. District's Representative will observe the progress and quality of the Work and determine, in general, if the Work is proceeding in accordance with the Contract. District's Representative shall not be required to make comprehensive or continuous inspections to check the quality of the Work, and he or she shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work. Observations, inspections or testing by District's Representative shall not relieve Contractor of its obligation to conduct comprehensive inspections of the Work and to furnish proper materials, labor, equipment and tools, and perform acceptable Work, and to provide adequate safety precautions, in conformity with the Contract.

(b) Contractor shall provide access to District's Representative and other agents of District, and agents of the federal, state, or local governments at all reasonable hours for inspection and testing to ascertain compliance with the Contract and applicable laws and regulations. Contractor shall cooperate in providing such access, and shall, upon request by District's Representative, promptly provide safe and convenient facilities, labor and materials reasonably needed by District's Representative for performing all inspections and tests.

(c) If, after any inspection or testing by District's Representative, District finds any of the Work to be unacceptable, defective or nonconforming, then Contractor at its sole cost and expense shall replace or repair the Work to the satisfaction of District's Representative. If any Work required to be tested or inspected was installed, covered, or buried without

inspection or testing, then, upon request by District's Representative, Contractor shall at its sole cost and expense remove or uncover the Work such that it may be inspected or tested, and replace the Work after completion of the inspection or testing. Upon failure of Contractor to comply with any order of District's Representative made under this section, District may cause the unacceptable, defective or nonconforming Work to be remedied, removed, or replaced, and may deduct the costs therefor from any monies due or to become due Contractor.

#### **2.24 Trade Names and Alternatives**

For convenience in designation in the Contract, certain articles or materials to be incorporated in the Work may be designated under a trade name or the name of a manufacturer. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, so long as Contractor shows to the satisfaction of District's Representative that the acceptable quality and suitability of the alternative(s).

#### **2.25 Protection of Work and Safety**

(a) Contractor shall be responsible for the care of all Work until its completion and final acceptance by District; and it shall at its own expense replace damaged or lost materials or supplies and repair damaged parts of the Work.

(b) District's Representative's construction review and inspection of Contractor's performance shall not include any review of the adequacy of Contractor's work methods, equipment, bracing or scaffolding or safety measures, in, on, or near the job site.

(c) Contractor shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. Safety procedures and practices shall conform to all applicable federal, state, and local laws, ordinances, and codes. Contractor shall carefully instruct all personnel as to potential dangers and shall provide such necessary safety equipment and instruction as may be necessary to prevent injury to personnel and damage to property. Contractor shall provide and maintain, in accordance with California Labor Code section 6708, OSHA and Cal/OHSA requirements, adequate emergency first aid treatment for its employees and anyone else who may be injured in connection with the work.

(d) Contractor shall have an Injury/Illness Prevention Program (IIPP) in place to protect the safety of its employees and ensure that its subcontractors also have an IIPP or comply with Contractor's program. The Contractor's IIPP shall comply with and be at least as effective as the requirements of section 3203 of Title 8 of the California Code of Regulations. The Contractor and subcontractors must implement all requirements of and Injury and Illness Prevention Program regulation, unless they can demonstrate that they are exempt from certain specific provisions in the regulation. The Contractor shall submit a copy of its IIPP to the District prior to any work being performed on District property.

(e) If the Work includes the construction, alteration, improvement, or maintenance of electric power generation, control transformation, transmission or distribution lines or

equipment within the meaning of Code of Federal Regulations title 29, section 1910.269 or 1926.950, then the Contractor will implement and comply with the requirements of the “contract employer” as described and set forth in section 1910.269 and 1926.950, including, but not limited to, the obligations to properly train the Contractor workers on safety-related work practices and procedures, exchange information with the District concerning unique hazardous conditions presented by the Work, instruct the Contractor workers about the hazardous conditions relevant to the Work, and coordinate with the District on safety-related work rules and procedures. The Contractor also shall be responsible for transmitting safety-related information under sections 1910.269 and 1926.950 with any subcontractors retained by it to perform electrical-related Work under the Contract.

## **2.26 Protection of Public and Property**

(a) Contractor shall take all necessary or appropriate precautions to prevent damage to all existing improvement, including above ground and underground utilities, pipelines, conduits, trees, shrubbery, fences, signs, mailboxes, driveways, sidewalks, gutters, streets, parking lots or other pavement, levees or embankments, survey markers and monuments, buildings, structures, District’s property, adjacent property, and any other improvements or facilities within or adjacent to the job site. If any such improvement or property damaged or destroyed by reason of Contractor’s operations, it shall be replaced or restored, at Contractor’s sole cost and expense, to a condition at least as good as that prior to the start of Contractor’s performance under this Contract.

(b) Contractor shall adopt all practical means to minimize interference to traffic and public inconvenience, discomfort or damage from the Work. All obstructions to traffic shall be guarded by barriers illuminated at night. For any Work on, adjacent to, or interfering with any street, the conditions and limitations applicable to such Work shall be determined by those public agencies or other entities responsible for maintenance of the affected street. Contractor shall determine the nature and extent of all such requirements, and shall comply with all permit and other requirements. As required at any street crossing, Contractor shall provide all necessary flag persons, guardrails, barricades, signals, warning signs and lighting to provide for the safety of existing roads and detours. Immediately after the need for temporary detours ceases, or when directed, Contractor shall remove such detours and perform all necessary cleanup work, including replacement of fences, removal of pavement, necessary replacement of existing roadway appurtenances, grading, soil stabilization and dust control measures.

## **2.27 Clean-Up**

During the progress of the Work, Contractor shall maintain the job site and related structures, grounds and equipment in a clean, orderly condition and free from unsightly accumulation of rubbish. Upon completion of Work and before final payment, Contractor shall at its own cost and expense clean-up and remove from the vicinity of the Work all rubbish, debris, trash, unused materials and supplies, concrete forms, and temporary bridging and other like materials, belonging to it or used under its direction during the construction of the Work. Where the construction has cross yards or driveways, they shall be restored by Contractor to the complete satisfaction of District’s Representative, at Contractor's sole expense.

## 2.28 Water Pollution

Contractor shall exercise every reasonable precaution to protect streams, lakes, reservoirs, and canals from pollution with fuels, oils bitumens, calcium chloride, and other harmful materials and shall conduct and schedule its operations so as to avoid or minimize muddying and silting of said streams, lakes, reservoirs, and canals. Care shall be exercised to preserve vegetation beyond the limits of construction. Contractor shall comply with California Fish and Game Code section 5650 and all other applicable statutes and regulations relating to the prevention and abatement of water pollution. If the Work is subject to the NPDES general permit for stormwater discharges from construction activities, Contractor will comply with all terms and conditions of any applicable special condition, specification or addendum issued by District related to implementation of the Storm Water Pollution Prevention Plan for the Work.

## 2.29 Underground Work

If the Work includes excavation and/or trenching deeper than four feet underground, then the following provisions shall apply:

(a) Protection of Underground Utilities. Prior to conducting any excavation or trenching, Contractor shall contact the appropriate regional notification center as required by California Government Code sections 4216 and following. In accordance with California Government Code section 4215, District shall be responsible for the timely removal, relocation or protection of existing main or trunkline utility facilities located on the project site and not shown on the plans and drawings. Contractor shall be compensated for the costs of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating existing main or trunkline utility facilities not indicated on the plans and drawings with reasonable accuracy, and for the equipment on the project necessarily idled during such work; provided that Contractor shall first notify District before commencing work on locating, repairing damage to, removing or relocating the utilities. Contractor shall not be assessed liquidated damages for delay in completion of the project, when the delay was caused by the failure of District or the owner of the utility to provide for removal or relocation of the utility facilities not shown on the plans and drawings.

(b) Sheet piling and Shoring Plan. If the total amount of the Contract exceeds \$25,000 and the Work involves the excavation of any trench or trenches five feet or more in depth, then, in accordance with California Labor Code section 6705, Contractor shall submit to District for acceptance, in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any such trench or trenches. The plan shall comply with applicable United States Department of Labor regulations (29 C.F.R. 1926) and OSHA and Cal/OSHA construction safety orders and shoring system standards or be prepared by a registered civil or structural engineer who certifies that the plan is not less effective than the shoring, bracing, sloping, or other provisions of the construction safety orders and shoring system standards.

(c) Unusual Underground Conditions. In accordance with California Public Contract Code section 7104, the following provisions shall apply to any work that involves digging trenches or other excavations:

(i) If, during any such digging or excavation, Contractor discovers (a) material Contractor believes may be material that is hazardous waste, as defined in California Health & Safety Code section 25117, that is required to be removed to a Class I, II, or III disposal site, (b) subsurface or latent physical conditions at the site differing from those indicated, or (c) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided in the Contract, then Contractor shall promptly notify District's Representative in writing and shall not disturb the area of the subject digging or excavation until notified by District's Representative.

(ii) Upon receipt of any notice pursuant to the foregoing subsection, District's Representative shall promptly investigate the conditions, and if he or she finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of the Work, or any part of the Work, it shall issue a change order pursuant to this Contract.

(iii) If there is a dispute between District and Contractor over whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in Contractor's cost of, or time required for, performance of any part of the Work, Contractor shall not be excused for the scheduled completion date, but shall proceed with all work to be performed under the Contract. Contractor shall remain any and all rights provided by this Contract or by law that pertain to the resolution of disputes and protests between the parties.

#### **2.30 Hazardous Materials; Hazard Communication**

(a) Proposition 65 and the California Health and Safety Code require businesses to provide warnings prior to exposing individuals to materials listed by the Governor as chemicals "known to cause cancer or reproductive toxicity." District may use chemicals on the Governor's list at many of its facilities. In addition, many of these chemicals are present at non-District-owned facilities and locations. Accordingly, in performing the Work under this Contract, Contractor, its employees, agents, and subcontractors may be exposed to chemicals on the Governor's list. Except as provided in subsection (b), Contractor is responsible for notifying its employees, agents, and subcontractors that work performed hereunder may result in exposures to chemicals on the Governor's list.

(b) Before starting work, Contractor shall have a written Hazard Communication Program ("HCP") in place that complies with the requirements of section 5194 of Title 8 of the California Code of Regulations, including the requirements of 8 C.C.R. section 5194(e). The information in Contractor's HCP must include the methods by which Contractor shall communicate to District which hazardous substances it will use and store on the job site(s) to which District's and Contractor's employees and subcontractors may be exposed. Contractor shall submit its HCP to District at the same time as submittal of its initial project schedules or other time designated by District. Contractor will provide copies of safety data sheets ("SDS") for all hazardous substances brought onto and used or stored on the job site(s). Contractor also will ensure that all hazardous substances are marked with Proposition 65 and any other visible warning labels as required by law. Whenever possible, Contractor shall provide SDS for all hazardous substances to District prior to bringing a hazardous substance onto a job site, but will provide all SDS by no later than the time the hazardous substance is physically brought onto the site. District will communicate Contractor's HCP and SDS

information to District's employees who work on or will enter the job site. District will provide Contractor with a copy of District's HCP and SDS information specific to District operations on the job site. Contractor shall, in turn, convey this information to its employees and subcontractors. During the course of the work, Contractor will keep copies of both its and District's HCP, SDS and other relevant information at Contractor's job site office.

(c) Asbestos testing surveys for each building, dated 4/30/2025 and prepared by Krazan & Associates, are included in Exhibit D.

### **2.31 Contractor's License Notice**

Statement required by California Business & Professions Code section 7030: "Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826."

### **2.32 Indemnification**

To the fullest extent permitted by law, Contractor shall protect, defend, indemnify and hold harmless District and, if applicable, District's Representative, and their respective officers, directors, agents, employees, volunteers, representatives, boards, and consultants from and against all penalties and fines imposed by law and all loss, claim, cause of action, demand, suit, judgment, cost, damage, expense, and liability (including but not limited to court or arbitration costs and reasonable attorneys' and expert witness fees) resulting from injury to or death of persons, including without limitation employees of the District, District's Representative and Contractor, or damage to or loss of property, caused by, arising out of or in any way connected with the Contractor's or its subcontractors' or suppliers' performance, operations or activities under this Contract, except to the extent the sole negligence, active negligence or willful misconduct of an indemnified party proximately causes the loss, claim, demand, cost, suit, judgment, penalty, fine, cause of action, damage, expense, or liability.

(a) Contractor's duty to defend is a separate and distinct obligation from Contractor's duty to indemnify. Upon the request of an indemnified party hereunder, Contractor shall defend any suit asserting a claim covered by this indemnity and shall pay any costs and expenses that may be incurred by an indemnified party in enforcing this indemnity. Contractor shall defend any suit asserting a claim covered by this indemnity and shall pay any costs and expenses that may be incurred by an indemnified party in enforcing this indemnity. Contractor shall be obligated to defend, in all legal, equitable, administrative, or special proceedings, the District and, if applicable, District's Representative, and their respective officers, directors, agents, employees, volunteers, representatives, boards, and consultants, immediately upon tender to Contractor of the claim in any form or at any stage of an action or proceeding, whether or not liability has been established. The obligation to defend extends through final judgment, including exhaustion of any appeals. In all cases, District shall have the right to approve counsel selected by Contractor in the defense of any legal action or with respect to any claim, which approval shall not be unreasonably withheld.

In addition, the indemnified party shall have the right to participate in and be represented by counsel of its own choice and at its own expense in any legal action with respect to any claim.

(b) In any and all claims against the District or District's Representative, and each of their officers, directors, employees and agents by any employee of Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this section shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable under Workers' Compensation statutes, disability benefit statutes or other employee benefit statutes.

(c) Neither termination of this Contract, completion of the acts to be performed under this Contract, nor District's Representative's approval or District's acceptance of the work shall release Contractor from its obligations to indemnify and defend District and District's Representative, and their respective officers, directors, agents, employees, volunteers, representatives, boards and consultants.

(d) Submission of insurance certificates or submission of other proof of compliance with the insurance requirements in this Contract does not relieve Contractor from liability under this indemnification provision. The obligations of this section shall apply whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

### 2.33 Insurance

(a) The Contractor shall procure and maintain for the duration of the Contract and for five years thereafter, the following insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, its agents, representatives, employees or subcontractors.

(i) General Liability – Commercial General Liability (CGL) – Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least two million dollars (\$2,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to District) or the general aggregate limit shall be twice the required occurrence limit.

(ii) Automobile Liability – Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.

(iii) Workers' Compensation Insurance – The Contractor shall provide workers' compensation coverage as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease.

(iv) Builder's Risk – (Course of Construction) – insurance utilizing an “All Risk” (Special Perils) coverage form with limits equal to the completed value of the project and no coinsurance penalty provision.

The above minimum insurance coverage limits can be met through provision of umbrella or excess policy insurance coverage consistent with the provisions of this section.

(b) If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the District requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum of insurance and coverage shall be available to the District. Furthermore, the above minimum insurance coverage limits can be met through provision of umbrella or excess policy insurance coverage consistent with the provisions of this section [2.33](#).

(c) Any deductibles or self-insured retentions must be declared to and approved by District. At the option of District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects District, its officers, officials, employees and volunteers; or Contractor shall procure a bond or other security guaranteeing payment of losses and related investigations, claim administration and defense fees, costs and expenses. All policies that include a self-insured retention shall include a provision that payments of defense costs and damages (for bodily injury, property damage, personal injury or any other coverages included in the policy) by any party, including additional insureds and insurers, shall satisfy the self-insured retention limits.

(d) The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

(i) Waiver of Subrogation (also known as Transfer of Rights of Recovery Against Others to Us): The Contractor hereby agrees to waive rights of subrogation to obtain endorsement necessary to affect this waiver of subrogation in favor of the District, its directors, officers, employees, and authorized volunteers, for losses paid under the terms of this coverage which arise from work performed by the Name Insured for the District; this provision applies regardless of whether or not the District has received a waiver of subrogation from the insurer.

(ii) District, and its officers, officials, employees, agents and volunteers are to be covered as additional insureds as respects: liability arising out of activities performed by or on behalf of Contractor, products and completed operations of Contractor; premises owned, occupied or used by Contractor; or automobiles owned, leased, hired or borrowed by Contractor. The coverage shall contain no special limitations on the scope of protection afforded to District, its officers, officials, employees, agents or volunteers. The additional insured coverage or endorsement shall comply with California Insurance Code section 11580.04.

(iii) For any claims related to this project, Contractor's general and automobile liability coverage shall be primary insurance as respects District, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by District,

its officers, officials, employees, agents or volunteers shall be excess to Contractor's insurance and shall not contribute with it.

(iv) Any failure to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to District, and its officers, officials, employees, agents or volunteers.

(v) Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(vi) Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, or reduced in coverage or in limits except after 30 days' prior written notice by U.S. mail has been given to District, or after 10 days' written notice in the case of cancellation for non-payment of premium.

(e) Course of construction policies shall contain, or be endorsed to contain, the following provisions: (a) District shall be named as loss payee; and (b) the insurer shall waive all rights of subrogation against District.

(f) Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII or equivalent and that are authorized to do business in California, unless otherwise approved by District. In the case of Workers' Compensation and Employer's Liability insurance, coverage provided by the California State Compensation Insurance Fund is acceptable.

(g) Before commencing work, Contractor shall provide to District the following proof of insurance: (a) certificate(s) of insurance on ACORD Form 25-S (or insurer's equivalent) evidencing the required insurance coverages; and (b) endorsement(s) on ISO Form CG 20 10 (or insurer's equivalent), signed by a person authorized to bind coverage on behalf of the insurer(s) and certifying the additional insured coverages, or equivalent additional insured blanket endorsement. District reserves the right to require complete copies of all required insurance policies and/or endorsements affecting required insurance coverage at any time.

(h) Contractor shall include all actions and activities of its subcontractors as insureds under its policies, or shall require each subcontractor to provide insurance coverage consistent with the foregoing and to furnish separate endorsements or certificates to District. All coverages for subcontractors shall be subject to all of the requirements stated in this section.

(i) Contractor shall maintain all required insurance coverages for the period provided in this section. If any of the required coverages expire during the coverage period, Contractor shall obtain renewal or replacement coverages and deliver certificates for the renewed or replacement coverages and any required endorsements to District at least 10 days before the expiration date of the existing coverage.

(j) Any products/completed operations insurance coverage shall be maintained after completion of the Work for the full guarantee period.

(k) The requirements as to the types, limits, and Districts approval of insurance coverage to be maintained by Contractor are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor under the Contract.

(l) In addition to any other remedy District may have, if Contractor or any of its subcontractors fails to maintain the insurance coverage as required in this section, District may obtain such insurance coverage as is not being maintained, in form and amount substantially the same as required herein, and District may deduct the cost of such insurance from any amounts due or which may become due Contractor under this Contract.

(m) Contractor shall execute and file with District the attached Contractor's Workers' Compensation Certificate in accordance with California Labor Code section 1861.

### **2.34 Final Acceptance and Date of Completion**

(a) Whenever Contractor shall deem all Work under this Contract to have been completed, it shall so notify District's Representative in writing, and District's Representative or other District representative shall promptly ascertain whether the Work has been satisfactorily completed and, if not, shall advise Contractor in writing of specific defects and any additional Work required.

(b) Neither the final payment nor any part of the retained percentage shall become due until Contractor, if required, shall deliver to District, a complete release of all liens and claims arising out of this Contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien or claim could be filed; but Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to District, to indemnify the District against any lien or claim. If any lien or claim remains unsatisfied after all payments are made, Contractor shall refund to District all monies that the latter may be compelled to pay in discharging such a lien, or claim, including all costs and reasonable attorneys' fees.

(c) When all the provisions of the Contract have been fully complied with to the satisfaction of District, District will accept the Work in writing and make the final payment to Contractor. As a condition of receiving the final payment, Contractor must execute and deliver to District, as appropriate, a Conditional Waiver and Release Upon Final Payment or Unconditional Waiver and Release Upon Final Payment in the form provided in Civil Code sections 8136 or 8138, respectively.

(d) Except for any sum required to be withheld by law or allowed to be held under this Contract, the 5% retention shall be paid 35 days after District's acceptance of the Work. In accordance with California Public Contract Code section 7107(c), in the event of a dispute between the parties, District may withhold from the final payment to Contractor an amount not to exceed 150% of the disputed amount.

### **2.35 Right to Withhold Payments**

(a) In addition to all other rights and remedies of District provided by law and this Contract, District may withhold the whole or any part of any progress or final payment to

such extent as may reasonably be necessary to protect District from loss on account of: (a) unacceptable, defective or nonconforming Work not remedied; (b) claims or liens filed or reasonable evidence indicating probably filing of claims or liens including, but not limited to, claims under sections 1775, 1776 and 1777.7 of the California Labor Code or the public works stop notice provisions in the California Civil Code; (c) failure of Contractor to make payments properly for labor, materials, equipment, or other facilities, or to subcontractors and/or suppliers; (d) a reasonable doubt that the Work can be completed for the balance then unearned; (e) failure of Contractor to clean up the job site, repair or replace damaged or affected improvements or property; or (f) damage to job site, completed Work, or other real or personal property.

(b) Whenever District withholds any monies pursuant to this paragraph, written notice of the amount withheld and the reasons for the withholding will be given to Contractor. After Contractor has corrected the enumerated deficiencies to the satisfaction of District, District will promptly pay to Contractor the amount so withheld. When District withholds monies to protect District against claims under the public works stop payment notice provisions of the California Civil Code, District may at its discretion permit Contractor to deliver a surety bond in terms and amount satisfactory to District, indemnifying District against any loss of expense, and upon acceptance thereof by District, District shall release to Contractor monies so withheld.

#### **2.36 State Audit Contingency**

Contractor acknowledges that this Contract, and performance and payments under this Contract, are subject to examination and audit by the State Auditor General for three years following final payment under this Contract pursuant to California Government Code section 8546.7.

#### **2.37 Liquidated Damages**

If Contractor does not complete the Work, as determined by District, before the expiration of the Contract time limit, or within any time extension granted by District, then District will sustain damage, and that it may be impracticable to determine the actual amount of damage by reason of the delay. The parties therefore agree that Contractor shall pay District as damages the daily liquidated damages amount stated above for each and every day's delay in finishing the Work beyond the Work completion deadline. The parties agree that this liquidated damages provision is reasonable under the circumstances existing at the time the Contract was made. District shall have the right to deduct the amount of liquidated damages from any money due or to become due Contractor.

#### **2.38 Waiver of Interest**

District shall have no obligation to pay and Contractor hereby waives the right to recover interest with regard to monies which District must withhold by reason of judgment, order, statute or judicial process, or which it may withhold pursuant to this Contract.

### 2.39 Claims and Resolution of Disputes

(a) General. The parties intend that differences between the parties, arising under the Contract, be brought to the attention of the District at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The parties agree to initially strive to resolve all disputes amicably and in an informal manner. Any dispute resolved informally shall be documented by the District, and if the dispute resolution involves a change in the contract work, increase or decrease in the compensation due the Contractor, or adjustment in the time of completion of the Work, then the informal dispute resolution shall be confirmed by a Change Order pursuant to section [2.12](#). Informal discussions or negotiations with the District or its representatives concerning informal resolution of a dispute shall not toll or suspend the claim filing and other deadlines provided below, unless so provided by the District in writing. Willingness of the District to engage in any such discussions is not a waiver of the District's right to deny a claim or dispute based on lack of merit, or procedural deficiency, or both.

(b) Compliance Required. Contractor shall not be entitled to any additional time to complete Work or the payment of any additional compensation for claimed extra work (or otherwise on account of any claim of any additional compensation for claimed extra work occurrence) unless either District has issued a Change Order pursuant to section [2.12](#) or a claim has been timely filed and approved pursuant to this section. If the Contractor fails to file a written claim within the claim deadline in section [2.39\(d\)](#), then the Contractor agrees that it was waived any right or remedy to thereafter pursue the claim against the District in any administrative, arbitration or litigation proceeding, and the District may elect to document this waiver.

(c) Scope of Claims. A claim for purposes of this section means a separate demand by the Contractor for (a) a time extension (including a demand for relief from damages or penalties for delay assessed by the District under the Contract), (b) payment of money or damages arising from work done by, or on behalf of, the Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or the Contractor is not otherwise entitled to, or (c) an amount the payment of which is disputed by the District.

#### (d) Filing of Contract Claim; Contents; Filing Deadline

(i) The Contractor shall file any "Contract Claim" with the District. A Contract Claim must (a) be in writing, (b) be labeled or clearly indicated as a claim under the Contract, (c) set forth in detail the reasons why the Contractor believes additional compensation or a time extension is or may be due, the nature of the costs involved, and, insofar as possible, the amount of the claim, and (d) include (or reference earlier provided) documents that support and substantiate the claim as both entitlement and quantification of time, money, or both.

(ii) A Contract Claim must be submitted to the District within the following claim following deadlines:

- A. if a deadline is set forth in the Contract for filing of the particular claim, then the claim must be filed by the specified time;

- B. if the claim relates to extra, additional or unforeseen work for which the Contractor intends to demand additional compensation, a time extension, or both, notice shall be given to the District prior to the time that the Contractor commences performance of the work giving rise to the potential claim for additional compensation or time extension, and Contractor shall not proceed with that work until so directed by the District; and
- C. for all other claims not included within (a) or (b), the claim must be filed on or before 15 days after the date of the occurrence, event or circumstance giving rise to the claim. In no event shall a Contract Claim be filed later than the date of final payment.

(e) Processing of Claims, Generally. This Contract provides for two types of Contract Claims, which will be processed and resolved under different subsections. Any claim for money or damages or for a time extension (i.e., any claim subject to Public Contract Code section 20104) shall be processed and resolved in accordance with section [2.39\(f\)](#). Any Contract Claim sent to District by registered mail or certified mail with return receipt requested (i.e., any claim subject to Public Contract Code section 9204) shall be processed and resolved pursuant to section [2.39\(g\)](#).

(f) Claims for Money, Damages, or for Time Extension

(i) District Response to Contract Claim. The District shall respond in writing to the Contract Claim within 60 days of receipt of the claim (or within 45 days of receipt for claims of less than \$50,000), 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 District may have against the Contractor. If additional information is thereafter required, it shall be requested and provided pursuant to this subsection, upon mutual agreement of the District and the Contractor. The District's written response to the claim, as further documented, shall be submitted to the Contractor within 30 days after receipt (or 15 days after receipt for claims of less than \$50,000) of the further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater. The District shall not fail to pay money as to any portion of a Contract Claim that is undisputed except as otherwise provided in the Contract.

(ii) Meet and Confer. If the Contractor disputes the District's written response, or the District fails to respond within the time prescribed, the Contractor may notify the District, in writing, either within 15 days of receipt of the District's response or within 15 days of the District'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 such a demand, the District shall schedule to meet and confer conference within 30 days for the parties to consider settlement of the dispute. If the Contractor fails to timely demand a meet and confer conference within the applicable 15-day period, then the Contractor shall be deemed not to dispute the District's written response to the Contract Claim and the District's decision on the Contract Claim shall be final, conclusive and binding, and the Contractor shall be deemed to have waived all its rights to further protest, judicial or otherwise.

(iii) Government Code Claim. Following the meet and confer conference, if the Contract Claim or any portion remains in dispute, the Contractor may file a Government Code Claim as provided in Government Code title 1, division 3.6, part 3, chapters 1 (commencing with section 900) and 2 (commencing with section 910). The running of the period of time within which Contractor must file a Government Code Claim shall be tolled from the time the Contractor submits a timely Contract Claim pursuant to section [2.39\(d\)](#) until the time that the Contract Claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process. The District shall respond to any Government Code Claim in accordance with the Government Claims Act.

(iv) Lawsuit. If the claim is not resolved pursuant to this section, the Contractor may file a lawsuit on the claim within the limitations period provided by the Government Claims Act. If the Contractor fails to timely file a lawsuit within the limitations period of the Government Claims Act, then the District's response to the Government Code Claim shall be final, conclusive and binding on the Contractor, and the Contractor thereafter shall be barred from filing a lawsuit on the claim.

(v) Mediation. If the Contractor timely files a lawsuit, then within 60 days, but no earlier than 30 days, following the filing of responsive pleadings, the court shall submit the matter to non-binding mediation (unless waived by mutual stipulation of both parties). The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator. The mediator's fees and expenses shall be split and paid equally between the parties. The court may, upon request by any party, order any witnesses to participate in the mediation process.

(vi) Arbitration. If the matter remains in dispute following the mediation or if the parties waive the mediation, then the case shall be submitted to judicial arbitration pursuant to Code of Civil Procedure part 3, title 3, chapter 2.5 (commencing with section 1141.10), notwithstanding section 1141.11 of that code. The Civil Discovery Act of 1986 (Code of Civil Procedure part 4, title 3, chapter 3, article 3 (commencing with section 2016.010)) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration. The arbitrator shall be experienced in public works construction law. The arbitrator's fees and expenses shall be split and paid equally by the parties, except where the arbitrator, for good cause, determines a different division. The court may, upon request by any party, order any witnesses to participate in the arbitration process. 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 any costs and fees under Code of Civil Procedure part 3, title 3, chapter 2.5 (commencing with section 1141.10)) pay the attorney's fees of the other party arising out of the trial de novo.

(vii) Interest. In any lawsuit filed under this subsection, District shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the lawsuit is filed in court.

(g) Claims Subject to Public Contract Code section 9204

(i) The Contract Claim will be processed and resolved pursuant to Public Contract Code section 9204, which is summarized here:

- A. District Review of Claim. Within 45 days after receiving a complete Contract Claim, District shall review the claim and provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. District will pay any undisputed portion of the claim within 60 days from the date of the written statement. If District fails to timely issue a written statement, the claim shall be deemed rejected in its entirety.
- B. Meet and Confer Conference. If the Contractor disputes the District's written statement or if the Contract Claim is deemed rejected, the Contractor may demand and the parties will conduct an informal conference to meet and confer regarding settlement in accordance with section 9204, subsection (d)(2). Within 10 business days following the conclusion of the meet and confer conference, District shall provide Contractor a written statement identifying the portion (if any) of the claim remaining in dispute and any undisputed portion will be paid by District within 60 days after this written statement.
- C. Non-Binding Mediation. Any remaining disputed portion of the claim shall be submitted to nonbinding mediation in accordance with section 9204, subsection (d)(2).
- D. Interest. Any amount not paid in a timely manner as required by this subsection shall bear interest at a rate of 7 percent per annum until paid.

The foregoing is summary of section 9204. In the event of any conflict between the summary and section 9204, the statute will govern.

(ii) Lawsuit and Judicial Reference. If mediation is unsuccessful and all or parts of the Contract Claim remain in dispute, then the Contractor may pursue a lawsuit. If the Contractor timely files a lawsuit, the case shall be submitted to judicial reference pursuant to California Code of Civil Procedure sections 638 and 640 through 645.1 (or any successor statute) and California Rules of Court title 3, division 9 (commencing with section 3.900). As authorized by Code of Civil Procedure section 638, a referee will consider and decide all factual and legal issues in the action. Each party acknowledges that it will not have any right to a jury trial or to have any judicial officer besides the referee hear or decide the action. When Contractor initiates the superior court lawsuit, it will, at the same time it files the complaint in the action, also file a motion for appointment of a single referee.

- A. Appointment of a referee shall be by mutual agreement within 30 days between the parties, and if unsuccessful, then by the court and will be governed by Code of Civil Procedure section 640, and subject to objection by either party as provided by Code of Civil Procedure section 641. The referee must be a retired judge or a licensed attorney with at least ten years substantive experience in public works construction matters.

- B. The parties shall be entitled to discovery and the referee shall oversee discovery and may enforce all discovery orders in the same manner as a superior court judge. The referee shall have the authority to consider and rule on appropriate pre-hearing and post-hearing motions in the same manner as a superior court judge. The referee will have the authority to set a briefing and hearing schedule for any such motion or for a hearing on the merits.
- C. The referee's statement of decision shall include findings of fact and conclusions of law. The statement of decision will stand as the decision of the superior court and, upon filing of the statement with the clerk of the court, judgment may be entered pursuant to Code of Civil Procedure section 644, subsection (a). The parties will have rights to appeal the final judgment so entered.
- D. Each party will pay half of the costs of the referee and the administrative fees of the reference proceeding, and each party will bear its own costs, expenses and attorney fees for the reference proceeding.

(h) Contract Work Pending Claim Resolution. Unless otherwise directed in writing by the District, pending resolution of a claim under this section, the Contractor shall continue to diligently prosecute the Work in accordance with the Contract and the instructions of the District.

(i) Tort Claims. The provisions of this section apply only to contract-based claims and they shall not apply to tort claims, and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Government Code title 1, division 3.6, part 3, chapters 1 (commencing with section 900) and 2 (commencing with section 910).

#### **2.40 Assignment of Anti-Trust Claims**

In entering into this Contract, Contractor offers and agrees to assign to District all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S. Code, section 15) or under the Cartwright Act (chapter 2 (commencing with section 16700) of part 2 of division 7 of the California Business and Professions Code), arising from purchases of goods, services or materials pursuant to this Contract. The assignment shall be made and become effective at the time District tenders final payment to Contractor, without further acknowledgement by the parties.

#### **2.41 Integration**

This Contract constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this contract among the parties concerning the subject matter addressed herein, and supersedes all prior negotiations, representations or agreements, either oral or written, that may be related to the subject matter of this Contract, except those other documents that are expressly referenced in this Contract.

#### **2.42 Counterparts and Electronic Signatures**

This Contract may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute the same instrument. Counterparts may be delivered by facsimile, electronic mail (including PDF or any electronic signature complying with California's Uniform Electronic Transactions Act (Civ. Code, §1633.1, et seq.) or any other applicable law) or other transmission method. The parties agree that any electronic signatures appearing on the Contract are the same as handwritten signatures for the purposes of validity, enforceability, and admissibility.

#### **2.43 Independent Contractor**

The relationship between District and Contractor is that of an owner and independent contractor, and all persons hired or employed by Contractor shall be Contractor's employees, agents or subcontractors.

#### **2.44 Governing Law**

This Contract shall be construed and enforced in accordance with, and the validity and performance of this Contract shall be governed by, the laws of the State of California.

#### **2.45 Waiver; Remedies**

Any waiver at any time by either party of its rights with respect to a breach or default or any other matter arising in connection with this Contract shall not be deemed to be a waiver with respect to any other breach, default or matter. The rights and remedies provided in this Contract are in addition to any of the rights and remedies provided by law.

#### **2.46 Severability**

The illegality or unenforceability of any provision of this Contract shall not render the other provisions unenforceable, invalid or illegal.

#### **2.47 Binding on Successors**

This Contract shall bind and inure to the benefit of the heirs, successors, assigns, and successor companies of the parties; however, Contractor shall not assign or transfer any rights, obligations or interest in the Contract without the prior written consent of District.

#### **2.48 Notices**

Any invoice, payment, notice, demand, request, consent, approval or notification of change of address that either party to this Contract may or is required to give to the other party will be in writing and signed for the party by an authorized officer and addressed to the addresses set forth above. All such notices will be deemed to have been received on the day of delivery if either personally delivered or sent by recognized national overnight courier service or three days after mailing if enclosed in a properly addressed and stamped envelope and deposited in a United States post office for first-class delivery. Either party may change its address at any time by notifying the other party in writing of the change of address in accordance with this section.

The parties enter into and execute this Contract effective on the date written above.

**For District:**

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

**For Contractor:**

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

SAMPLE

**3 CONTRACTOR’S WORKERS’ COMPENSATION CERTIFICATE**  
(Labor Code Section 1861)

To: Mammoth Community Water District

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

**For Contractor**

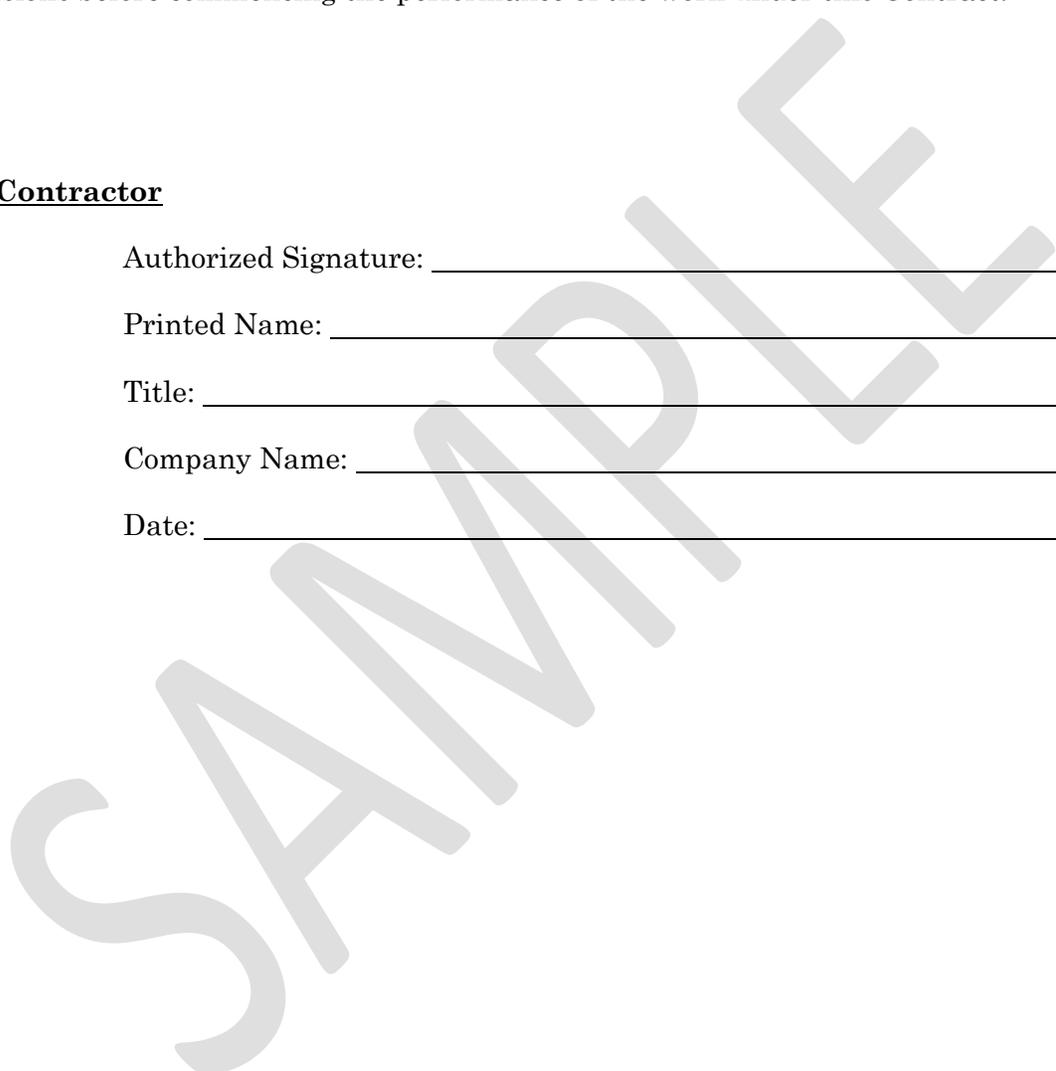
Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company Name: \_\_\_\_\_

Date: \_\_\_\_\_



**4 PAYMENT BOND**

KOWN ALL MEN BY THESE PRESENTS,

THAT, WHEREAS, the Mammoth Community Water District, hereinafter designated as the “District”, has awarded to \_\_\_\_\_ hereinafter designated as the “Contractor” a Contract for the work described as follows:

Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station Roof Replacements

The project consists of demolition and replacement of four (4) existing flat or low-sloped roofs at the single-story MCWD Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station. Existing beams and trusses will be removed and replaced with modern code compliant structural elements at the Filter Building, Juniper Ridge Pump Station, and Timber Ridge Pump Station. Structural elements will be added to the Knolls Pump Station. Associated decking, insulation flashing, and waterproofing elements will be installed for a waterproof thermoplastic membrane roof. Central drainage will be installed for the Filter Building.

WHEREAS, the Contractor is required by the Contract and by the provisions of Division 4, Part 6 of the Civil Code to furnish a bond in connection with the Contract, as hereinafter set forth.

WHEREAS, the Contract by this reference is made a part hereof;

NOW, THEREFORE, we, the undersigned Contractor, as Principal, and \_\_\_\_\_

\_\_\_\_\_, as Surety, a corporation organized and existing under the laws of the State of \_\_\_\_\_, duly authorized and in good standing to transact business under the laws of the State of California, as an admitted Surety, are held and firmly bound unto the District in the sum of \$ \_\_\_\_\_, the sum being not less than one hundred percent (100%) of the total Contract amount payable by the District, under the terms of the Contract, for which payment well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT, if the Contractor, its heirs, executors, administrators, successors, assigns or subcontractors shall fail to pay for any materials, provisions, provender or other supplies or teams, implements or machinery used in, upon, for or about the performance of the work contracted to be done, or shall fail to pay for any work or labor thereon of any kind, or shall fail to pay any of the persons named in Civil Code Section 9100, or shall fail to pay for amounts due under the Unemployment Insurance Code with respect to such work or labor as required by the provisions of Division 4, Part 6 of the Civil Code, or shall fail to pay for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and subcontractors pursuant to Section 13020 of the

Unemployment Insurance Code with respect to such work or labor, and provided that the claimant shall have complied with the provisions of that Code, the Surety or Sureties hereon will pay for the same in amount not exceeding the sum specified in the Contract, otherwise the above obligation shall be void. In case suit is brought upon this bond, the Surety will pay a reasonable attorney's fee to the prevailing party to be fixed by the court. This bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 9100 of the Civil Code, so as to give a right of action to them or to their assigns in any suit brought upon this bond. And the Surety, for value received, hereby stipulates and agrees that not change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specification.

The address or addresses at which the principal and surety(ies) may be served with notices, papers and other documents under the California Bond and Undertaking Law (Code of Civil Procedure section 995.010 et seq.) is the following:

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

IN WITNESS THEREOF, the above bounded parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**For Contractor as Principal:**

\_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**For Surety:**

\_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

(Seal)

(NOTE: The date of this bond must not be prior to date of Contract. If Contractor is a partnership, all partners should execute bond.)

**5 FAITHFUL PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS,

THAT, WHEREAS, Mammoth Community Water District, hereinafter designated as the "District," entered into a Contract with \_\_\_\_\_, hereinafter designated as the "Contractor" for the work described as follows:

Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station Roof Replacements

The project consists of demolition and replacement of four (4) existing flat or low-sloped roofs at the single-story MCWD Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and Timber Ridge Pump Station. Existing beams and trusses will be removed and replaced with modern code compliant structural elements at the Filter Building, Juniper Ridge Pump Station, and Timber Ridge Pump Station. Structural elements will be added to the Knolls Pump Station. Associated decking, insulation flashing, and waterproofing elements will be installed for a waterproof thermoplastic membrane roof. Central drainage will be installed for the Filter Building.

WHEREAS, the Contractor is required under terms of the Contract to furnish a bond for the faithful performance of the Contract;

WHEREAS, the Contract is by reference made a part hereof;

NOW, THEREFORE, we, the undersigned Contractor, as Principal, and \_\_\_\_\_, a corporation organized and existing under the laws of the state of \_\_\_\_\_, and duly authorized and in good standing to transact business under the laws of the State of California, as an admitted Surety, are held and firmly bound unto the District in the penal sum of \$ \_\_\_\_\_, the sum being not less than one hundred percent (100%) of the total Contract amount, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT, if the above bounden Contractor, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract and any alterations thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the District, its directors, officers, employees and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation in above-stated amount shall hold good for a period of one (1) year after the recording of the notice of completion, during which time if the Contractor, its heirs, executors, administrators, successors or assigns shall fail to make full, complete, and satisfactory repair

and replacements or totally protect the District from loss or damage made evident during the period of one (1) year from the date of recording of the notice of completion, and resulting from or caused by defective materials or faulty workmanship in prosecution of the work done, the above obligation in the above-stated amount shall remain in full force and effect. However, anything in this paragraph to the contrary notwithstanding, the obligation of the Surety hereunder shall continue so long as any obligation of the Contractor remains.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the specifications accompanying the same shall, in any way, affect its obligations on this bond and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the specifications. The Surety hereby waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

In the event suit is brought upon this bond by the District and judgment is recovered, the Surety shall pay all costs incurred by the District in such suit, including, but not limited to, administrative and consultant costs, and reasonable attorney's fees to be fixed by the Court.

The address or addresses at which the principal and surety(ies) may be served with notices, papers and other documents under the California Bond and Undertaking Law (Code of Civil Procedure section 995.010 et seq.) is the following:

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

IN WITNESS THEREOF, the above bounded parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and those presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**For Contractor as Principal:**

\_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

**For Surety:**

\_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

(Seal)

2025 Roof Replacements

(NOTE: The date of this bond must not be prior to date of Contract. If Contractor is a partnership, all partners should execute bond.)

SAMPLE

# **EXHIBIT A**

## **TECHNICAL SPECIFICATIONS**

**Mammoth Community Water District**

**Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and  
Timber Ridge Pump Station Roof Replacements**

**Mammoth Lakes, CA**

## Table of Contents

1 SUMMARY OF WORK .....3

2 CONTRACT DRAWINGS .....3

3 QUALIFICATIONS OF THE CONTRACTOR .....4

4 INSURANCE .....4

5 PERMITS.....4

6 SITE ACCESS .....4

7 WORK AREA CONSTRAINTS AND SITE SECURITY.....4

8 WATER AND POWER.....5

9 ON-SITE SANITATION .....5

10 EXISTING UTILITIES .....6

11 EXPOSED CONDITIONS.....6

12 REPAIR AND CLEANUP .....6

13 ROOF SAFETY .....6

14 INSULATION .....6

15 FILTER BUILDING ROOF DRAINAGE.....7

16 PUMP STATION ROOF SCUTTLES AND LIGHTNING GROUNDING .....7

17 FILTER BUILDING DEMOLITION.....7

18 JUNIPER RIDGE PUMP STATION DEMOLITION .....8

19 KNOLLS PUMP STATION DEMOLITION .....8

20 TIMBER RIDGE PUMP STATION DEMOLITION.....9

21 KNOLLS PUMP STATION ROOF REPLACEMENT .....9

22 MEMBRANE ROOF WATERPROOFING .....9

## 1 SUMMARY OF WORK

The specifications presented herein are intended to provide the information necessary for all parties concerned with the work to know the nature and amounts of materials and the work required to successfully add structural retrofitting and replace roofs for four (4) buildings owned by the Mammoth Community Water District and located within the Town of Mammoth Lakes, CA. The locations of the buildings are shown in **Figure 1**.

Mammoth Community Water District (MCWD) is the OWNER. Holmes, US, 235 Montgomery St. #1250 San Francisco, CA 94104 shall provide structural engineering design services as STRUCTURAL ENGINEER. All demolition and construction shall be conducted in accordance with the Town of Mammoth Lakes building code except where specified in these TECHNICAL SPECIFICATIONS and/or CONTRACT DRAWINGS.

The scope of work generally includes the following:

- a. Remove and dispose of existing.
- b. Remove and dispose of existing built-up roofing, decking, trusses, rafters, joists, insulation, and ceilings in the Filter Building, Juniper Ridge Pump Station, and Timber Ridge Pump Station.
- c. Remove and dispose of existing built-up roofing, roof access hatches, decking, and roof joists in the Knolls Pump Station.
- d. Provide temporary shoring and protection to lighting, conduits, wiring, antenna, equipment, and other nonstructural elements until permanent anchoring and/or attachment is made to new structural elements.
- e. Install trusses, joists, and necessary hardware to add additional vertical and horizontal structural support.
- f. Replace roof drainage for Filter Building.
- g. Install new roof sheathing, insulation sheeting, cover board, mechanically adhered membrane covering, and associated flashing and trim.
- h. Install necessary anchoring for nonstructural components.

## 2 CONTRACT DRAWINGS

The form and detail of the various features of the demolition and structural retrofitting work are shown on the following drawings sets, included in Exhibit B:

- Demolition Plans and Construction Notes (MCWD)
- Filter Building Drawings (Holmes)
- Juniper Ridge Pump Station Structural Drawings (Holmes)
- Knolls Pump Station Structural Drawings (Holmes)
- Timber Ridge Pump Station Structural Drawings (Holmes)

Original structural drawings of the Filter Building, Juniper Ridge Pump Station, and Knolls Pump Station are included as Exhibit E for further reference. No structural drawings or records are available for the Timber Ridge Pump Station.

### 3 QUALIFICATIONS OF THE CONTRACTOR

The CONTRACTOR, in order to qualify for award of the contract, shall be licensed in the State of California, hold either a Class A, Class B, or C39 Roofing Contractor License, and shall have experience in the demolition, retrofit, and replacement of roofing systems of similar designs for a period of not less than 5 years.

### 4 INSURANCE

See Mammoth Community Water District Modified Short Form Contract for Insurance Requirements.

### 5 PERMITS

Permits required by the State of California, Town of Mammoth Lakes, Great Basin Unified Air Pollution Control District, or any other agency having jurisdiction for demolition and installation of roof systems and structural modifications shall be obtained by the OWNER.

### 6 SITE ACCESS

The buildings sites are located with the Town of Mammoth Lakes on parcels owned by OWNER and the Inyo National Forest. Access to each building shall be by existing paved roads.

### 7 WORK AREA CONSTRAINTS AND SITE SECURITY

The buildings are located on parcels owned by MCWD (Filter Building and Juniper Ridge Pump Station) and on Inyo National Forest lands (Knolls Pump Station and Timber Ridge Pump Station).

The Filter Building is part of the MCWD Wastewater Treatment Plant (WWTP) and contains treatment processes, control and power systems, and other components necessary for full-time operation of the plant. Demolished building materials, construction waste, scraps, etc. cannot be allowed to enter the Headworks, Primary Clarification Tanks, or Aeration Basins which surround the Filter Building.

The Juniper Ridge Pump Station is located on MCWD property within the Town of Mammoth Lakes. The building houses pumps, pressure control valves, control systems, and telemetry equipment necessary for full-time operation of the drinking water distribution system. A 500,000 gallon treated water storage tank, Tank T-2, is located nearby. Access must be maintained at all times to the inside of the building for MCWD Water Operations and Maintenance teams. The Juniper Ridge Pump Station is located in a residential neighborhood.

The Knolls Pump Station is located on Inyo National Forest land at the end of a residential cul-de-sac. The building houses pumps, control systems, and telemetry equipment necessary for operation of a portion of the drinking water distribution system. Access must be maintained at all times to the inside of the building for MCWD Water Operations and Maintenance teams. The Juniper Ridge Pump Station is located in a residential neighborhood.

The Timber Ridge Pump Station is located on Inyo National Forest land near Canyon Lodge of the Mammoth Mountain Ski Area. The building houses pumps, control systems, and telemetry equipment necessary for operation of a portion of the drinking water distribution system. Access must be maintained at all times to the inside of the building for MCWD Water Operations and Maintenance teams. The Timber Ridge Pump Station is located in a residential neighborhood.

The CONTRACTOR shall use reasonable care and responsibility to protect the buildings and sites against damages, and shall take precautions that the storage and/or installation of materials and/or equipment does not overload roof decks or building structures. The CONTRACTOR shall be responsible for the correction of any damage incurred as a result of the performance of the contract.

Storage of equipment, materials, and vehicles necessary for performance of the work is available nearby in the MCWD District Yard for the duration of the project. Access is permitted during regular MCWD working hours from 7:00AM to 4:30PM Monday-Friday.

## 8 WATER AND POWER

The CONTRACTOR shall make arrangements to obtain water from the OWNER at the OWNER's office at 1315 Meridian Blvd., Mammoth Lakes, CA. The CONTRACTOR shall provide all equipment for hauling and storing water from the OWNER's office to the SITES. The CONTRACTOR shall provide for all costs of supplying water for the demolition and construction project, which shall be included the Mobilization tasks of Unit Bid Schedule.

The CONTRACTOR shall provide all power required for operations under the CONTRACT. Generators shall comply with Town of Mammoth Lakes noise requirements and should be less than 70 dB(A) at a distance of 25 feet when working in residential neighborhoods.

## 9 ON-SITE SANITATION

No restroom facilities are available at any of the SITES. The CONTRACTOR shall provide for a portable toilet facility for the duration of all related work for demolition, structural retrofitting, and roof system installation work. The cost for the portable toilet shall be included in the Mobilization tasks of Unit Bid Schedule.

## 10 EXISTING UTILITIES

The CONTRACTOR shall be fully responsible for the protection of all existing surface and underground utilities during all phases of the work. The CONTRACTOR shall repair, at their expense, any damages to existing facilities caused directly or indirectly by their operations.

## 11 EXPOSED CONDITIONS

Existing ceilings, trusses, rafters, beams, conduits, low-voltage control wires, insulation, etc. are not specified for demolition and removal except where noted in the Roof Demolition Plans. The existing conditions of all items below the roof decking are not known. CONTRACTOR shall make arrangements with OWNER if disturbance of conduits, wires, lighting, etc. is required during demolition, structural retrofit, or roof system installation.

All efforts shall be made by CONTRACTOR to protect exposed portions of buildings from weather during construction and the cost for such work shall be included in each roof's entry in the Unit Bid Schedule.

## 12 REPAIR AND CLEANUP

Following completion of work, the CONTRACTOR shall remove from the premises all temporary structures, fences, and excess materials, tools, and equipment used in the execution of their work, and shall dispose of all debris resulting from their work in accordance with local, state and federal regulations. The CONTRACTOR shall repair any damage to public street improvements, flood control, or other facilities damaged by CONTRACTOR. CONTRACTOR shall remove all debris from the job site in a timely and legally acceptable manner so as not to detract from the aesthetics or the functions of the buildings and sites. The cost for such items shall be included in each roof's entry in the Unit Bid Schedule.

## 13 ROOF SAFETY

Roofs do not have parapets, safety rails, fall protection, or permanent access points from the building or ground. CONTRACTOR shall provide all necessary scaffolding, shoring, bracing, underpinning, or propping necessary for providing safe and efficient working conditions. The cost for such items shall be included in each roof's entry in the Unit Bid Schedule.

## 14 INSULATION

Exact thickness and type of insulation currently installed above the ceiling or between rafters and/or trusses of each building is unknown. CONTRACTOR shall install a minimum 1" thick polyisocyanurate foam board or approved equivalent insulation above the roof sheathing as well as additional tapered insulation board and/or crickets as needed to create drainage slopes as designated on plans. Insulation shall be mechanically attached following recommendations of insulation and membrane roof

manufacturers. The cost for such items shall be included in each roof's corresponding Insulation and Membrane Roof Installation entry in the Unit Bid Schedule.

## 15 FILTER BUILDING ROOF DRAINAGE

CONTRACTOR to provide and install tapered polyisocyanurate foam or approved equivalent to achieve a minimum of 2% drainage to the two (2) existing Filter Building roof drain locations. The Filter Building is assumed to currently use lightweight concrete to create drainage to the center drains. Existing drainage plumbing shall be replaced and routed through a new penetration in the southwest wall of the building. Existing conduits, pipes, and other facilities may exist in this proposed alignment. A change order shall be created for replacement drain, drainage pipe, and gutter design based on clearances available from the replacement truss and rafter structural systems.

## 16 TEMPORARY SHORING, PROTECTION, AND FINAL ANCHORAGE OF STRUCTURAL AND NONSTRUCTURAL ELEMENTS

Existing lighting, conduits, wiring, antennae, and other nonstructural elements are currently supported by the existing roof and/or structural members planned for demolition and replacement. CONTRACTOR to provide necessary temporary shoring and/or protection for any impacted nonstructural elements listed or discovered during the demolition or construction of the project. The exact number and extent of these elements is not currently known in the Filter Building, Juniper Ridge Pump Station, or Timber Ridge Pump Station. All such elements are to be properly reinstalled in their original locations by the completion of the project. The Knolls Pump Station ceiling and ceiling joists are not planned for demolition or replacement and are not anticipated to require temporary shoring and protection of such elements. Sufficient substitute lighting may be provided for impacted buildings until original lighting fixtures are reinstalled. Permanent anchorage for impacted nonstructural elements will be provided as needed and confirmed by OWNER. A change order shall be created for this work.

## 17 PUMP STATION ROOF SCUTTLES

Existing roof scuttles on the Juniper Ridge, Knolls, and Timber Ridge Pump Stations are to be removed. Remove headers, brackets, flashing, etc. as needed to provide clearance for new structural rafters and decking to be installed per Structural Drawings. The cost for such removal shall be included in each roof's demolition entry in the Unit Bid Schedule.

## 18 FILTER BUILDING DEMOLITION

The Filter Building areas noted for demolition contain numerous conduits, low voltage control wires, and other components vital to the operation of the wastewater treatment plant. CONTRACTOR shall coordinate with MCWD Wastewater Operations and Plant Maintenance Departments during demolition to minimize disruptions. Existing equipment inside of the building including aeration blowers, pumps, tertiary filter, motor control centers, human-machine interface stations, etc. will require sufficient

protection to avoid dust or debris interfering with continuous operations. Materials for disposal, per drawings dated 4/30/1971 by Molina Engineering Consultants and John Bartlett Associates, are assumed to consist of asphalt-tar roofing, lightweight concrete, plywood decking, lathe and plaster ceiling, rafters, joists, ledgers, trusses, flashing, and fiberglass insulation. Remove all lightning protection systems from roof and walls. All removed materials are to be disposed of at an appropriate receiving facility. The cost for demolition and disposal shall be included in the Filter Building Demolition entry in the Unit Bid Schedule.

See Exhibit D for Asbestos Survey dated 4/30/2025, prepared by Krazan & Associates for asbestos sampling and testing results.

## 19 JUNIPER RIDGE PUMP STATION DEMOLITION

The Juniper Ridge Pump Station building areas noted for demolition may contain conduits, low voltage control wires, and other components vital to the operation of the MCWD water distribution system. CONTRACTOR shall coordinate with MCWD Water Operations and Plant Maintenance Departments during demolition to minimize disruptions. Existing equipment inside of the building including pumps, pressure control valves, motor control centers, human-machine interface stations, etc. will require sufficient protection to avoid dust or debris interfering with continuous operations. Materials for disposal, per drawings dated 4/18/1978 by Graham-Phillips, are assumed to consist of asphalt-tar roofing, lightweight concrete, plywood decking, rafters, ledgers, flashing, and fiberglass insulation. All removed materials are to be disposed of at an appropriate receiving facility. The cost for demolition and disposal shall be included in the Juniper Ridge Pump Station Demolition entry in the Unit Bid Schedule.

See Exhibit D for Asbestos Survey dated 4/30/2025, prepared by Krazan & Associates for asbestos sampling and testing results.

## 20 KNOLLS PUMP STATION DEMOLITION

The Knolls Pump Station building areas noted for demolition may contain conduits, low voltage control wires, and other components vital to the operation of the MCWD water distribution system. CONTRACTOR shall coordinate with MCWD Water Operations and Plant Maintenance Departments during demolition to minimize disruptions. Existing equipment inside of the building including pumps, pressure control valves, motor control centers, human-machine interface stations, etc. will require sufficient protection to avoid dust or debris interfering with continuous operations. Existing fiberglass insulation, drywall ceiling, and ceiling joists are not to be removed except where approved by OWNER. Materials for removal and disposal, per drawings dated 4/1/1986 by Graham-Phillips, are assumed to consist of asphalt-tar roofing, roof mastic (assumed to be 6% Chrysotile), plywood decking, roof joists, flashing, and soffit vent mesh. All removed materials are to be disposed of at an appropriate receiving facility. The cost for demolition and disposal shall be included in the Knolls Pump Station Demolition entry in the Unit Bid Schedule.

See Exhibit D for Asbestos Surveys dated 4/30/2025, prepared by Krazan & Associates for asbestos sampling and testing results.

## 21 TIMBER RIDGE PUMP STATION DEMOLITION

The Timber Ridge Pump Station building areas noted for demolition may contain conduits, low voltage control wires, and other components vital to the operation of the MCWD water distribution system. CONTRACTOR shall coordinate with MCWD Water Operations and Plant Maintenance Departments during demolition to minimize disruptions. Existing equipment inside of the building including pumps, pressure control valves, motor control centers, human-machine interface stations, etc. will require sufficient protection to avoid dust or debris interfering with continuous operations. No plans or record drawings are available for this structure. Materials for disposal are assumed to consist of asphalt-tar roofing, metal cladding, plywood decking, rafters, ledgers, and fiberglass insulation. All removed materials are to be disposed of at an appropriate receiving facility. The cost for demolition and disposal shall be included in the Timber Ridge Pump Station Demolition entry in the Unit Bid Schedule.

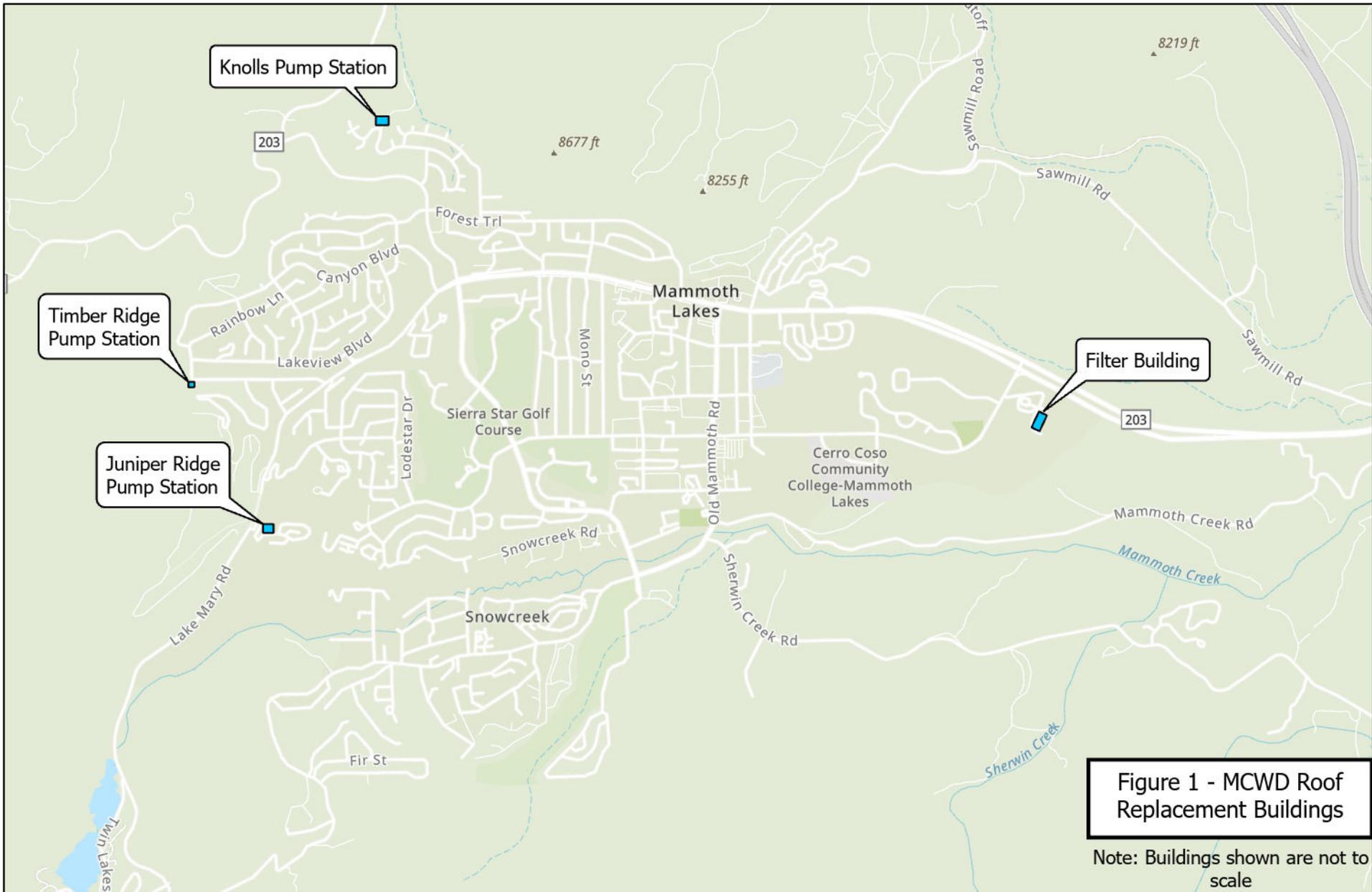
See Exhibit D for Asbestos Survey dated 4/30/2025, prepared by Krazan & Associates for asbestos sampling and testing results.

## 22 KNOLLS PUMP STATION ROOF VENTING

Install WUI-compliant fire-resistant soffit vents to replace existing non-approved vents. The cost for such items shall be included in the Knolls Pump Station roof installation entry in the Unit Bid Schedule.

## 23 THERMOPLASTIC MEMBRANE ROOF WATERPROOFING

Water barrier systems for all roofs shall consist of 1" rigid exterior insulation, cover board, waterproof membrane, and galvanized steel coping. Specifications for each element are listed on design plans or in relevant appendices. Membrane color to be approved by OWNER from available color options per membrane manufacturer. The cost for such items shall be included in the corresponding Insulation and Membrane Roof Installation entry in the Unit Bid Schedule. See Exhibit C for thermoplastic membrane roof specifications.



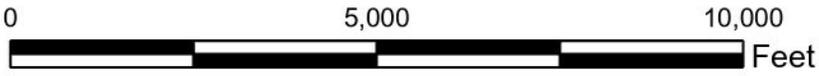
**Figure 1 - MCWD Roof Replacement Buildings**

Note: Buildings shown are not to scale



**MAMMOTH COMMUNITY  
WATER DISTRICT**

1315 Meridian Boulevard  
P.O. Box 597 Mammoth Lakes, CA 93546  
(760) 934-2596 Fax: (760) 934-2143



**EXHIBIT B**

**DEMOLITION AND CONSTRUCTION PLANS**

**Mammoth Community Water District**

**Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and  
Timber Ridge Pump Station Roof Replacements**

**Mammoth Lakes, CA**

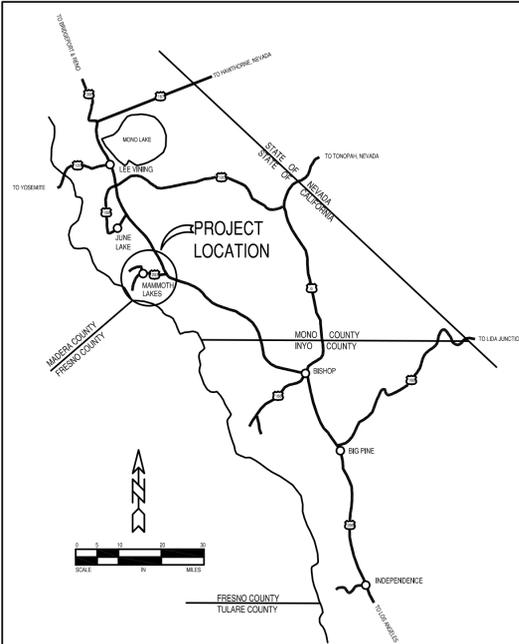
# MAMMOTH COMMUNITY WATER DISTRICT

## MAMMOTH LAKES, CALIFORNIA

### 2025 ROOF REPLACEMENTS

#### INDEX TO DRAWINGS

SHEET NO.	CONTENT DESCRIPTION
1	TITLE SHEET
2	FILTER BUILDING ROOF
3	FILTER BUILDING ROOF
4	JUNIPER RIDGE PUMP STATION ROOF
5	KNOLLS PUMP STATION ROOF
6	TIMBER RIDGE PUMP STATION ROOF
7	ROOF REPLACEMENT NOTES



#### AREA MAP

##### SYMBOLS & LINES

AIR/VACUUM RELEASE VALVE	
BLOWOFF VALVE	
HYDRANT-EXISTING	
HYDRANT-PROPOSED	
GRIND-PROPOSED	
RESTRAINED JOINT ZONE	
SEWER CLEANOUT	
SEWER MANHOLE	
STORM DRAIN	
UTILITY MANHOLE	
WATER METER-EXISTING	
WATER METER-PROPOSED	
WATER VALVE-EXISTING	
WATER VALVE-PROPOSED	
CURB STOP-EXISTING	
CURB STOP-PROPOSED	
EDGE OF PAVEMENT	EP
PROPERTY LINE/RIGHT OF WAY	PL
SEWER LINE	S
STORM DRAIN	SD
WATER LINE-EXISTING	W
WATER LINE-PROPOSED	W
WATER LINE-ABANDONED	ABND W



#### LOCATION MAP



#### ABBREVIATIONS

ACP	ASBESTOS CONCRETE PIPE
AC	ASPHALT CONCRETE
BF	BLIND FLANGE
BG	BELOW GRADE
CIP	CAST IRON PIPE
CL	CENTER LINE
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CORP	CORPORATION VALVE
CU	COPPER
DI	DRAIN INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
E	ELECTRIC
EP	EDGE OF PAVEMENT
EX	EXISTING
FHL	FIRE HYDRANT LATERAL
FL	FIELD LOCK
FLG	FLANGE
FSL	FIRE SERVICE LATERAL
GIP	GALVANIZED IRON PIPE
GR	GRIP RINGS
GV	GATE VALVE
HYD	FIRE HYDRANT
IPT	IRON PIPE THREAD
IRR	IRRIGATION
MAX	MAXIMUM
MCWD	MAMMOTH COMMUNITY WATER DISTRICT
MGR	MANAGER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
NOM	NOMINAL
NTS	NOT TO SCALE
PE	POLYETHYLENE PIPE PER AWWA C901
PL	PROPERTY LINE
PP	POWER POLE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
RG	RESTRAINING GLAND
ROW	RIGHT OF WAY
SCE	SOUTHERN CALIFORNIA EDISON
STDN	STORM DRAIN
SD	STANDARD DETAIL
SDR	STANDARD DIMENSION RATIO
SL	SEWER LATERAL
SS	SANITARY SEWER
STA	STATION
STL	STEEL
SVC	SERVICE
TELE	COMMUNICATIONS/TELEPHONE
TEMP	TEMPORARY
TOP	TOP OF PIPE
TYP	TYPICAL
W	WATER
WSL	WATER SERVICE LATERAL

REVISIONS	DATE	BY

TITLE SHEET

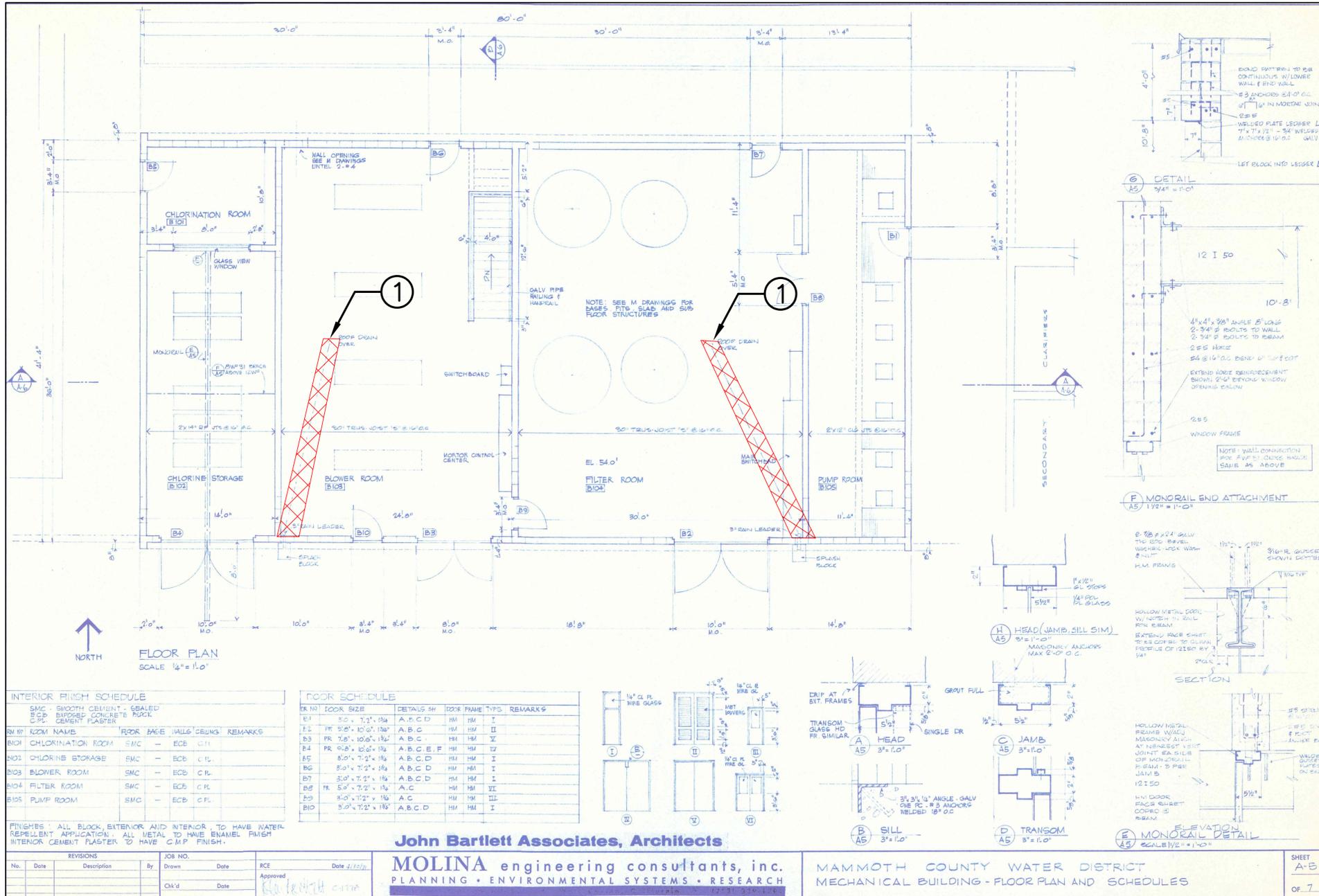
## 2025 ROOF REPLACEMENTS

**MAMMOTH COMMUNITY WATER DISTRICT**  
P.O. Box 597 Mammoth Lakes, CA 93546  
(760) 934-2596 FAX: (760) 934-2143



Submitted By:   
Nicholas P. Holt  
R.C.E. # 96285  
EXP: 9/30/26

DRAWN NPH
CHECKED NPH
DATE 7/9/2025
PROJECT NUMBER 25WW03
SCAN NUMBER
SHEET NO. <b>1</b>
1 OF 7 SHEETS



**DEMOLITION NOTES**

- ① REMOVE (E) ROOF DRAINS AND RAIN LEADERS.
- ② REMOVE (E) BUILT UP ROOFING, LIGHTWEIGHT CONCRETE, (IF PRESENT) AND ROOF SHEATHING.
- ③ REMOVE (E) TRUSSES. PROTECT (E) 2x4 LEDGERS FOR REUSE PER STRUCTURAL PLANS.
- ④ PROTECT (E) LIGHTNING PROTECTION SYSTEM, RADIO ANTENNAE, AND OTHER NONSTRUCTURAL ELEMENTS.
- ⑤ REMOVE (E) RAFTERS AND LEDGERS.
- ⑥ REMOVE (E) LATHE AND PLASTER CEILING AND ANY INSULATION. PROTECT (E) CONDUITS, CABLES, ETC.
- ⑦ REMOVE (E) FLASHING, DRIP CAP, CLADDING, ETC.
- ⑧ REMOVE (E) STEEL I-BEAM DURING DEMOLITION. SAVE BEAM FOR REINSTALLATION.
- ⑨ REMOVE (E) ROOF ACCESS HATCH(ES) AND LADDER(S).
- ⑩ REMOVE (E) ROOF JOISTS AS NEEDED FOR ACCESS TO INSTALL (N) TAPERED MICROLAM LVL.
- ⑪ REMOVE (E) SOFFIT VENTS.
- ⑫ PROTECT IN PLACE CMU WALLS, NAILERS, TOP PLATES, FLOORING, AND OTHER STRUCTURAL ELEMENTS.
- ⑬ PROTECT (E) PUMPS, CONTROL PANELS, ELECTRICAL PANELS, TREATMENT PROCESSES, LIGHTING, WIRING, AND ALL OTHER INTERIOR NONSTRUCTURAL ELEMENTS.

REVISIONS	DATE	BY

**2025 ROOF REPLACEMENTS**

**MAMMOTH COMMUNITY WATER DISTRICT**  
 P.O. Box 597 Mammoth Lakes, CA 93546  
 (760) 934-2596 FAX: (760) 934-2143



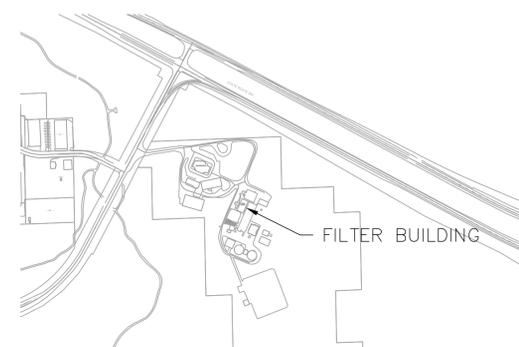
DRAWN NPH
CHECKED NPH
DATE 7/9/2025
PROJECT NUMBER 25WW03
SCAN NUMBER
SHEET NO. <b>2</b>
2 OF 7 SHEETS

**FILTER BUILDING ROOF REPLACEMENT - DEMOLITION NOTES:**

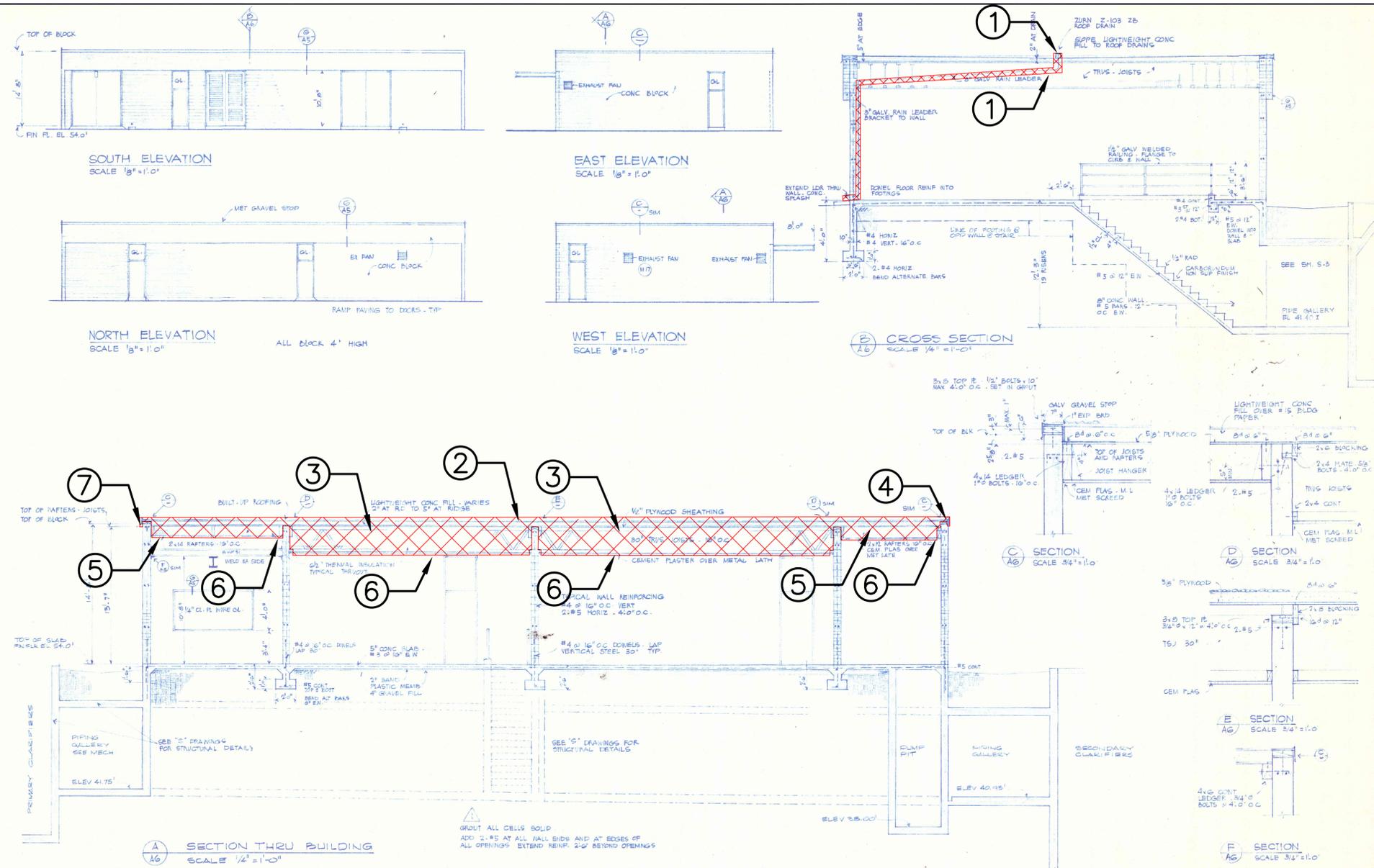
- The Filter building houses active treatment processes, electrical controls, motor controls, pumps, and other essential equipment to the MCWD Wastewater Treatment Plant (WWTP). These components must remain powered and active to maintain 100% uptime at the WWTP.
- Conduit, electrical and low-voltage control wiring, and lighting may be encountered between the ceiling and existing built-up roofing and are not to be disturbed. Suitable protection from the elements, demolition, and construction activities is to be provided during construction to protect these components.
- See Bid Documents and construction plans by MCWD for demolition scope and replacement roof design, and Filter Building Roof Designs by Holmes, Inc. for replacement roof plans. Existing trus-joists, rafters, blocking, etc. are not to be removed unless approved by MCWD.
- While existing conditions are believed to be as shown in the 1971 plans excerpted on pages 2 and 3 of this plan set, Contractor is to verify relevant field conditions as necessary.
- Existing roof drain system via rain leaders to be replaced during roof replacement.

Submitted By:

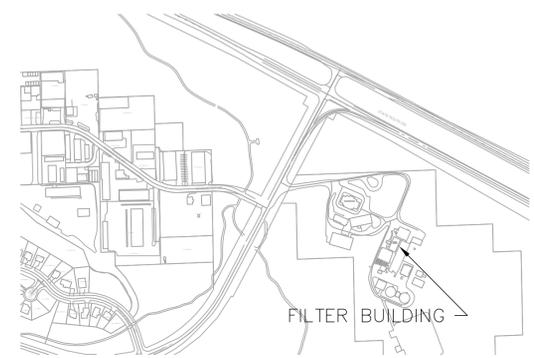
Nicholas P. Holt  
 R.C.E. # 96285  
 EXP: 9/30/26



V:\newdr\2\MCWD Engineering\Projects\Asset Management\Seismic Risk Assessment and Mitigation\2025 Roof Replacement\2025 Roof Replacement Plans\CADD\Demolition Plans\Roof Replacement Demolition Plans.dwg, 7/9/2025 9:09:29 PM



- ### DEMOLITION NOTES
- ① REMOVE (E) ROOF DRAINS AND RAIN LEADERS.
  - ② REMOVE (E) BUILT UP ROOFING, LIGHTWEIGHT CONCRETE, (IF PRESENT) AND ROOF SHEATHING.
  - ③ REMOVE (E) TRUSSES. PROTECT (E) 2x4 LEDGERS FOR REUSE PER STRUCTURAL PLANS.
  - ④ PROTECT (E) LIGHTNING PROTECTION SYSTEM, RADIO ANTENNAE, AND OTHER NONSTRUCTURAL ELEMENTS.
  - ⑤ REMOVE (E) RAFTERS AND LEDGERS.
  - ⑥ REMOVE (E) LATHE AND PLASTER CEILING AND ANY INSULATION. PROTECT (E) CONDUITS, CABLES, ETC.
  - ⑦ REMOVE (E) FLASHING, DRIP CAP, CLADDING, ETC.
  - ⑧ REMOVE (E) STEEL I-BEAM DURING DEMOLITION. SAVE BEAM FOR REINSTALLATION.
  - ⑨ REMOVE (E) ROOF ACCESS HATCH(ES) AND LADDER(S).
  - ⑩ REMOVE (E) ROOF JOISTS AS NEEDED FOR ACCESS TO INSTALL (N) TAPERED MICROLAM LVL.
  - ⑪ REMOVE (E) SOFFIT VENTS.
  - ⑫ PROTECT IN PLACE CMU WALLS, NAILERS, TOP PLATES, FLOORING, AND OTHER STRUCTURAL ELEMENTS.
  - ⑬ PROTECT (E) PUMPS, CONTROL PANELS, ELECTRICAL PANELS, TREATMENT PROCESSES, LIGHTING, WIRING, AND ALL OTHER INTERIOR NONSTRUCTURAL ELEMENTS.



**John Bartlett Associates, Architects**

**MOLINA engineering consultants, inc.**  
PLANNING • ENVIRONMENTAL SYSTEMS • RESEARCH

MAMMOUTH COUNTY WATER DISTRICT  
MECHANICAL BUILDING - ELEVATIONS, SECTIONS & DETAILS

SHEET  
A-6  
OF 7

REVISIONS	JOB NO.	DATE	DESCRIPTION	BY	APPROVED
1	25-001	7/9/2025	25-001-01-01	SC	Approved

#### FILTER BUILDING ROOF REPLACEMENT - DEMOLITION NOTES:

- The Filter building houses active treatment processes, electrical controls, motor controls, pumps, and other essential equipment to the MCWD Wastewater Treatment Plant (WWTP). These components must remain powered and active to maintain 100% uptime at the WWTP.
- Conduit, electrical and low-voltage control wiring, and lighting may be encountered between the ceiling and existing built-up roofing and are not to be disturbed. Suitable protection from the elements, demolition, and construction activities is to be provided during construction to protect these components.
- See Bid Documents and construction plans by MCWD for demolition scope and replacement roof design, and Filter Building Roof Designs by Holmes, Inc. for replacement roof plans.
- While existing structural conditions are believed to be as shown in the 1971 plans excerpted on pages 2 and 3 of this plan set, Contractor is to verify relevant field conditions as necessary. Interior equipment, conduits, wiring, lighting, etc. has changed multiple times during WWTP upgrades.
- Existing roof drain system via rain leaders to be replaced during roof replacement.

Submitted By:  
  
 Nicholas P. Holt  
 R.C.E. # 96285  
 EXP: 9/30/26

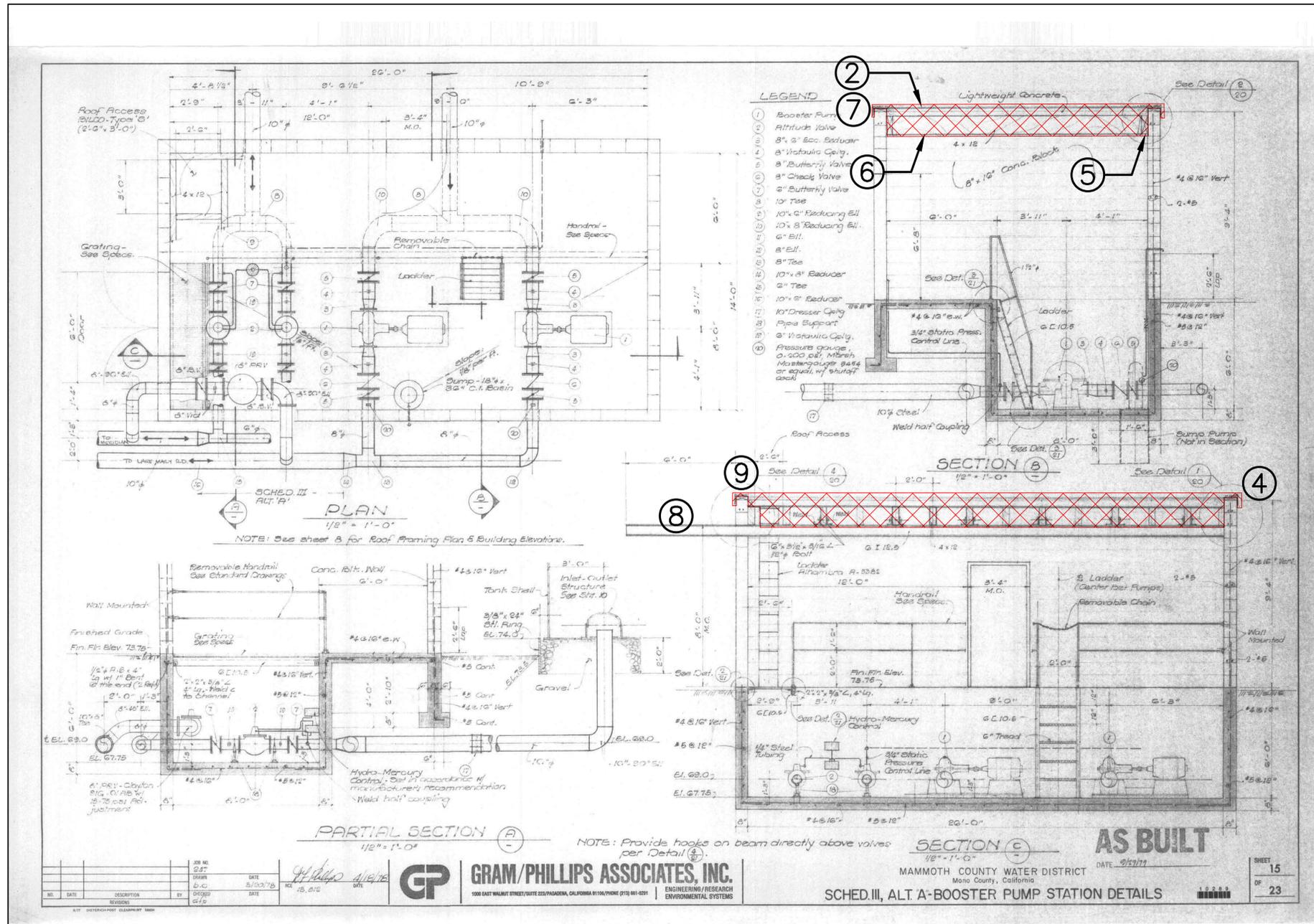
REVISIONS	DATE	BY

FILTER BUILDING ROOF - DEMOLITION  
**2025 ROOF REPLACEMENTS**

**MAMMOUTH COMMUNITY WATER DISTRICT**  
 P.O. Box 597 Mammoth Lakes, CA 93546  
 (760) 934-2596 FAX: (760) 934-2143



DRAWN NPH
CHECKED NPH
DATE 7/9/2025
PROJECT NUMBER 25WW03
SCAN NUMBER
SHEET NO. <b>3</b>
3 OF 7 SHEETS



- ### DEMOLITION NOTES
- ① REMOVE (E) ROOF DRAINS AND RAIN LEADERS.
  - ② REMOVE (E) BUILT UP ROOFING, LIGHTWEIGHT CONCRETE, (IF PRESENT) AND ROOF SHEATHING.
  - ③ REMOVE (E) TRUSSES. PROTECT (E) 2x4 LEDGERS FOR REUSE PER STRUCTURAL PLANS.
  - ④ PROTECT (E) LIGHTNING PROTECTION SYSTEM, RADIO ANTENNAE, AND OTHER NONSTRUCTURAL ELEMENTS.
  - ⑤ REMOVE (E) RAFTERS AND LEDGERS.
  - ⑥ REMOVE (E) LATHE AND PLASTER CEILING AND ANY INSULATION. PROTECT (E) CONDUITS, CABLES, ETC.
  - ⑦ REMOVE (E) FLASHING, DRIP CAP, CLADDING, ETC.
  - ⑧ REMOVE (E) STEEL I-BEAM DURING DEMOLITION. SAVE BEAM FOR REINSTALLATION.
  - ⑨ REMOVE (E) ROOF ACCESS HATCH(ES) AND LADDER(S).
  - ⑩ REMOVE (E) ROOF JOISTS AS NEEDED FOR ACCESS TO INSTALL (N) TAPERED MICROLAM LVL.
  - ⑪ REMOVE (E) SOFFIT VENTS.
  - ⑫ PROTECT IN PLACE CMU WALLS, NAILERS, TOP PLATES, FLOORING, AND OTHER STRUCTURAL ELEMENTS.
  - ⑬ PROTECT (E) PUMPS, CONTROL PANELS, ELECTRICAL PANELS, TREATMENT PROCESSES, LIGHTING, WIRING, AND ALL OTHER INTERIOR NONSTRUCTURAL ELEMENTS.

#### JUNIPER RIDGE PUMP STATION ROOF REPLACEMENT - DEMOLITION NOTES:

- The Juniper Ridge Pump Station building houses pumps, pressure reducing valves, control valves, electrical controls, motor controls, and other essential equipment to the MCWD drinking water distribution system. These components must remain powered and active to maintain 100% uptime at the pump station.
- Conduit, electrical and low-voltage control wiring, and lighting may be encountered between the ceiling and existing built-up roofing and is not to be disturbed. Suitable protection from the elements is to be provided during construction to protect these components. Structural support for these components to be provided by existing walls and structure where possible.
- See Bid Documents by MCWD for demolition scope and Juniper Ridge Pump Station Roof Designs by Holmes, Inc. for replacement roof plans. Existing rafters, blocking, etc. are not to be removed unless approved by MCWD. Protect ledger bolts and anchors for reuse in structural retrofit as noted in structural plans.
- While existing conditions are believed to be as shown in the 1978 plans excerpted on page 3 of this plan set, Contractor is to verify relevant field conditions as necessary.
- Roof access hatch will not be replaced in retrofit roof installation.
- At least 2 layers of built up roofing were observed at the Juniper Ridge Pump Station. Full roof, rafters, ledgers, insulation, and ceiling are to be removed.

Submitted By:

Nicholas P. Holt  
R.C.E. # 96285  
EXP: 9/30/26

REVISIONS	DATE	BY

JUNIPER RIDGE P.S. ROOF - DEMOLITION  
  
**2025 ROOF REPLACEMENTS**

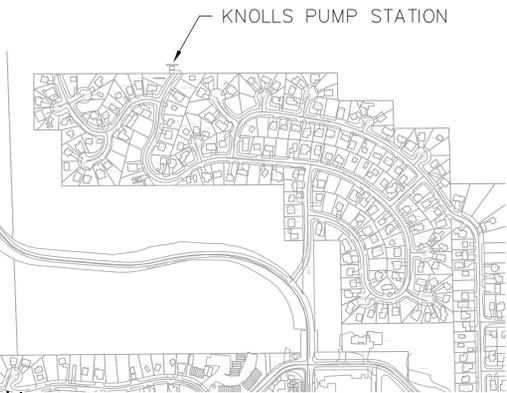
**MAMMOTH COMMUNITY WATER DISTRICT**  
 P.O. Box 597 Mammoth Lakes, CA 93546  
 (760) 934-2596 FAX: (760) 934-2143



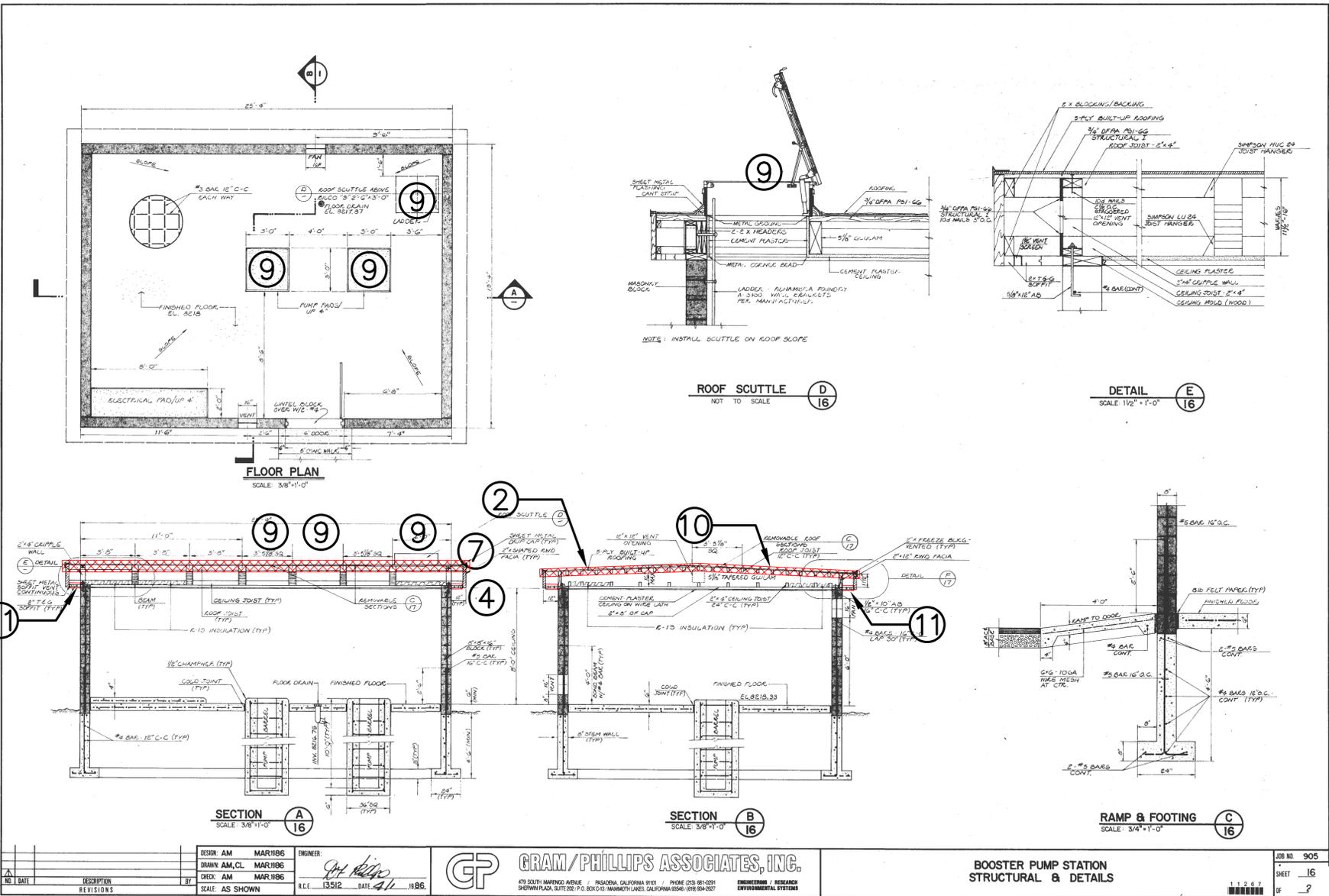
DRAWN NPH	
CHECKED NPH	
DATE 7/9/2025	
PROJECT NUMBER 25WW03	SCAN NUMBER
SHEET NO. <b>4</b>	
4	7 SHEETS

**DEMOLITION NOTES**

- ① REMOVE (E) ROOF DRAINS AND RAIN LEADERS.
- ② REMOVE (E) BUILT UP ROOFING, LIGHTWEIGHT CONCRETE, (IF PRESENT) AND ROOF SHEATHING.
- ③ REMOVE (E) TRUSSES. PROTECT (E) 2x4 LEDGERS FOR REUSE PER STRUCTURAL PLANS.
- ④ PROTECT (E) LIGHTNING PROTECTION SYSTEM, RADIO ANTENNAE, AND OTHER NONSTRUCTURAL ELEMENTS.
- ⑤ REMOVE (E) RAFTERS AND LEDGERS.
- ⑥ REMOVE (E) LATHE AND PLASTER CEILING AND ANY INSULATION. PROTECT (E) CONDUITS, CABLES, ETC.
- ⑦ REMOVE (E) FLASHING, DRIP CAP, CLADDING, ETC.
- ⑧ REMOVE (E) STEEL I-BEAM DURING DEMOLITION. SAVE BEAM FOR REINSTALLATION.
- ⑨ REMOVE (E) ROOF ACCESS HATCH(ES) AND LADDER(S).
- ⑩ REMOVE (E) ROOF JOISTS AS NEEDED FOR ACCESS TO INSTALL (N) TAPERED MICROLAM LVL.
- ⑪ REMOVE (E) SOFFIT VENTS.
- ⑫ PROTECT IN PLACE CMU WALLS, NAILERS, TOP PLATES, FLOORING, AND OTHER STRUCTURAL ELEMENTS.
- ⑬ PROTECT (E) PUMPS, CONTROL PANELS, ELECTRICAL PANELS, TREATMENT PROCESSES, LIGHTING, WIRING, AND ALL OTHER INTERIOR NONSTRUCTURAL ELEMENTS.



Submitted By:  
  
 Nicholas P. Holt  
 R.C.E. # 96285  
 EXP: 9/30/26



**KNOLLS PUMP STATION ROOF REPLACEMENT - DEMOLITION NOTES:**

- The Knolls Pump Station building houses pumps, pressure reducing valves, control valves, electrical controls, motor controls, and other essential equipment to the MCWD drinking water distribution system. These components must remain powered and active to maintain 100% uptime at the pump station.
- Conduit, electrical and low-voltage control wiring, and lighting may be encountered between the ceiling and existing built-up roofing and are not to be disturbed. Suitable protection from the elements, demolition, and construction activities is to be provided during construction to protect these components.
- See Bid Documents by MCWD for demolition scope and Knolls Pump Station Roof Designs by Holmes, Inc. for replacement roof plans. Existing rafters, blocking, etc. are not to be removed unless approved by MCWD.
- While existing conditions are believed to be as shown in the 1986 plans excerpted above, Contractor is to verify relevant field conditions as necessary.
- Some roof joists or blocking are anticipated to require removal to provide access for sistering new LVL beams to existing glulam beams. Replace any removed roof joists or blocking during replacement roof construction.
- Roof access hatches will not be replaced in retrofit roof installation.
- The ceiling, ceiling joists, interior lighting, and insulation in the Knolls Pump Station are not anticipated to require removal for structural retrofit.

REVISIONS	DATE	BY

**KNOLLS P.S. ROOF - DEMOLITION**  
**2025 ROOF REPLACEMENTS**

**MAMMOTH COMMUNITY WATER DISTRICT**  
 P.O. Box 597 Mammoth Lakes, CA 93546  
 (760) 934-2596 FAX: (760) 934-2143

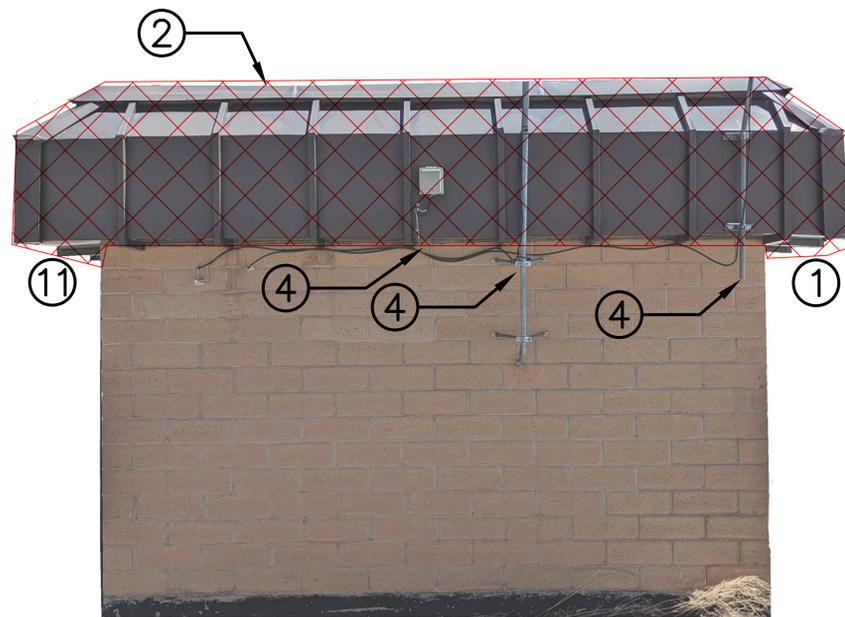


DRAWN NPH	
CHECKED NPH	
DATE 7/9/2025	
PROJECT NUMBER 25WW03	SCAN NUMBER
SHEET NO. <b>5</b>	
5	OF 7 SHEETS

V:\newdvt2\MCWD Engineering\Projects\Asset Management\Seismic Risk Assessment and Mitigation\2025 Roof Replacements\AL\_P586\Plans\CADD\Demolition Plans\Roof Replacement Demolition Plans.dwg, 7/9/2025, 8:49:48 PM



Timber Ridge Pump Station – Exterior Front View (facing north to Davison Rd.)



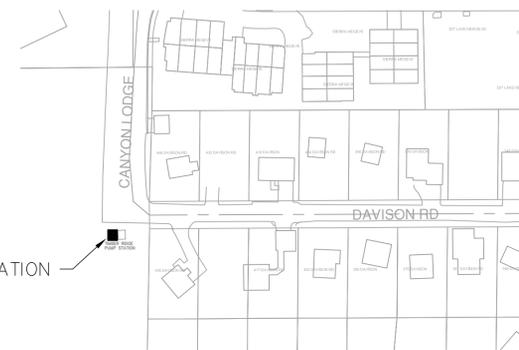
Timber Ridge Pump Station – Exterior Side View (facing west)



Timber Ridge Pump Station – Interior Ceiling View

**DEMOLITION NOTES**

- ① REMOVE (E) ROOF DRAINS AND RAIN LEADERS.
- ② REMOVE (E) BUILT UP ROOFING, LIGHTWEIGHT CONCRETE, (IF PRESENT) AND ROOF SHEATHING.
- ③ REMOVE (E) TRUSSES. PROTECT (E) 2x4 LEDGERS FOR REUSE PER STRUCTURAL PLANS.
- ④ PROTECT (E) LIGHTNING PROTECTION SYSTEM, RADIO ANTENNAE, AND OTHER NONSTRUCTURAL ELEMENTS.
- ⑤ REMOVE (E) RAFTERS AND LEDGERS.
- ⑥ REMOVE (E) LATHE AND PLASTER CEILING AND ANY INSULATION. PROTECT (E) CONDUITS, CABLES, ETC.
- ⑦ REMOVE (E) FLASHING, DRIP CAP, CLADDING, ETC.
- ⑧ REMOVE (E) STEEL I-BEAM DURING DEMOLITION. SAVE BEAM FOR REINSTALLATION.
- ⑨ REMOVE (E) ROOF ACCESS HATCH(ES) AND LADDER(S).
- ⑩ REMOVE (E) ROOF JOISTS AS NEEDED FOR ACCESS TO INSTALL (N) TAPERED MICROLAM LVL.
- ⑪ REMOVE (E) SOFFIT VENTS.
- ⑫ PROTECT IN PLACE CMU WALLS, NAILERS, TOP PLATES, FLOORING, AND OTHER STRUCTURAL ELEMENTS.
- ⑬ PROTECT (E) PUMPS, CONTROL PANELS, ELECTRICAL PANELS, TREATMENT PROCESSES, LIGHTING, WIRING, AND ALL OTHER INTERIOR NONSTRUCTURAL ELEMENTS.



**TIMBER RIDGE PUMP STATION ROOF REPLACEMENT - DEMOLITION NOTES:**

- The Timber Ridge Pump Station building houses pumps, pressure reducing valves, control valves, electrical controls, motor controls, and other essential equipment to the MCWD drinking water distribution system. These components must remain powered and active to maintain 100% uptime at the pump station.
- Conduit, electrical and low-voltage control wiring, and lighting may be encountered between the ceiling and existing built-up roofing and are not to be disturbed. Suitable protection from the elements, demolition, and construction activities is to be provided during construction to protect these components.
- See Bid Documents and construction plans by MCWD for demolition scope and replacement roof design, and Timber Ridge Pump Station Roof Designs by Holmes, Inc. for structural plans.
- No record drawings exist for the Timber Ridge Pump Station. Plans are drawn from field measurements and observations. Contractor is to verify relevant field conditions as necessary.
- No demolition or construction work is anticipated in the basement level.
- Take proper safety precautions due to overhead power lines near pump station building.

Submitted By:  
  
 Nicholas P. Holt  
 R.C.E. # 96285  
 EXP: 9/30/26

REVISIONS	DATE	BY

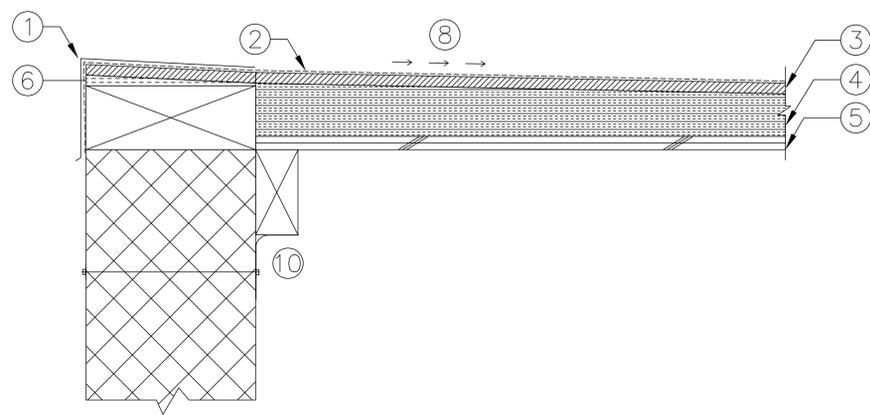
TIMBER RIDGE P.S. ROOF - DEMOLITION

**2025 ROOF REPLACEMENTS**

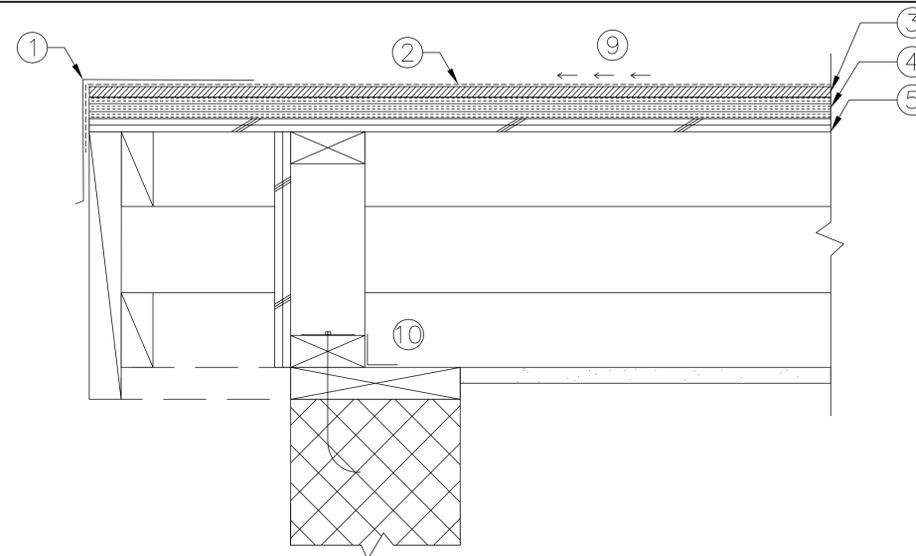
**MAMMOTH COMMUNITY WATER DISTRICT**  
 P.O. Box 597 Mammoth Lakes, CA 93546  
 (760) 934-2596 FAX: (760) 934-2143



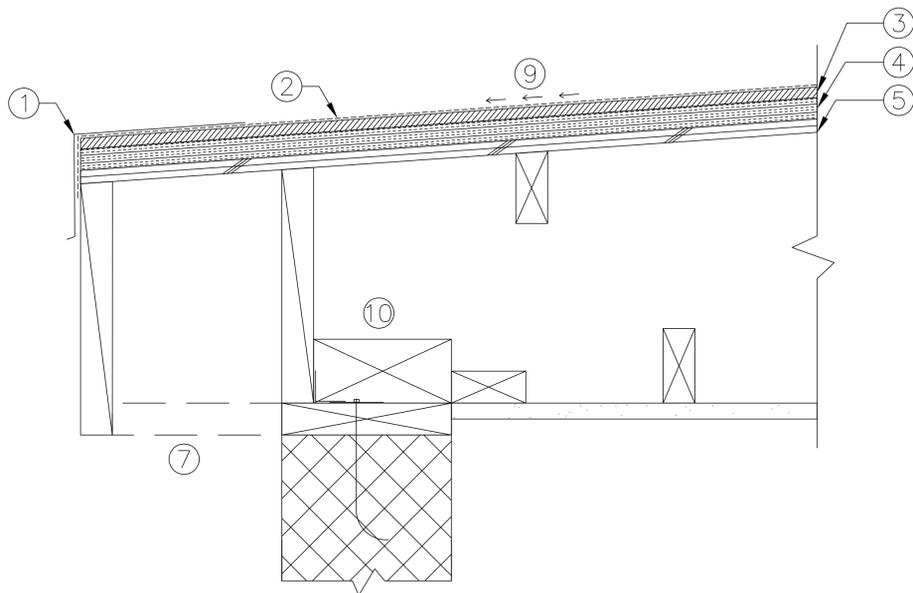
DRAWN  
NPH  
 CHECKED  
NPH  
 DATE  
7/9/2025  
 PROJECT NUMBER  
25WW03  
 SCAN NUMBER  
 SHEET NO.  
**6**  
 6 OF 7 SHEETS



FILTER BUILDING, JUNIPER RIDGE, AND TIMBER RIDGE ROOF AND MEMBRANE REPLACEMENT DETAIL



KNOLLS ROOF AND MEMBRANE REPLACEMENT DETAIL – GLULAM PARALLEL TO WALL



KNOLLS ROOF AND MEMBRANE REPLACEMENT DETAIL – GLULAM PERPENDICULAR TO WALL

**CONSTRUCTION NOTES**

- ①(N) STAINLESS STEEL COPING WITH DRIP EDGE.
- ②(N) 60 MIL THERMOPLASTIC ROOF MEMBRANE.
- ③(N) 1/2" COVER BOARD.
- ④(N) MINIMUM 1" THICK INSULATION SHEETING
- ⑤(N) PLYWOOD ROOF SHEATHING
- ⑥(N) TAPERED INSULATION AND COVER BOARD OVER (E) NAILERS AND ROOF EDGES
- ⑦(N) WUI-COMPLIANT VENTILATION MESH.
- ⑧ MIN. 2% ROOF SLOPE FOR DRAINAGE
- ⑨ MATCH EXIST. SLOPE ON KNOLLS ROOF
- ⑩ SEE STRUCTURAL DESIGNS FOR EXISTING AND NEW STRUCTURAL MEMBERS.

**ROOF REPLACEMENT CONSTRUCTION NOTES:**

- Refer to PVC Membrane technical specifications for membrane, cover board, and insulation installation requirements.
- Refer to corresponding structural plans by Holmes, Inc. and original AsBUILTs where available for reference.
- Conduit, electrical and low-voltage control wiring, and lighting may be encountered between the ceiling and existing built-up roofing and are not to be disturbed. Suitable protection from the elements, demolition, and construction activities is to be provided during construction to protect these components.
- Install coping, flashing, or other durable edge material at all roof edges, particularly where water runs off of roof. No gutters are to be installed.
- Filter Building Drainage: The Filter Building roof slopes to the center. Drainage to be directed into 2 (two) 4" roof drains and piping to a new penetration at the southeast end of the building. Exact drain, piping, and penetration details to be established by change order after demolition.
- Juniper, Knolls, and Timber Ridge Pump Station Drainage: Match existing roof slopes and drainage direction(s).

APPROXIMATE ROOF DIMENSIONS		
BUILDING	FOOTPRINT	SQUARE FOOTAGE
Filter Building	41'-4" X 80'	3,307 FT <sup>2</sup>
Juniper Pump Station	27'-4" X 15'-4"	419 FT <sup>2</sup>
Knolls Pump Station	27'-4" X 21'-4"	583 FT <sup>2</sup>
Timber Ridge Pump Station	14'-5" X 15'-9"	228 FT <sup>2</sup>

Submitted By:



Nicholas P. Holt  
R.C.E. # 96285  
EXP: 9/30/26

REVISIONS	DATE	BY

ROOF REPLACEMENT NOTES

2025 ROOF REPLACEMENTS

MAMMOTH COMMUNITY WATER DISTRICT  
P.O. Box 597 Mammoth Lakes, CA 93546  
(760) 934-2596 FAX: (760) 934-2143



DRAWN  
NPH

CHECKED  
NPH

DATE  
7/9/2025

PROJECT NUMBER  
25WW03

SCAN NUMBER

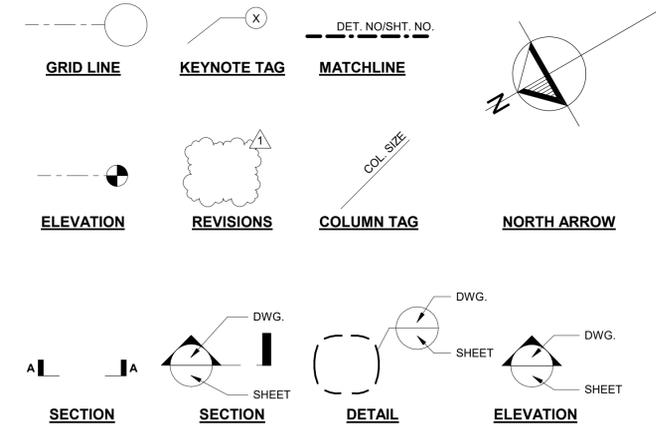
SHEET NO.

7

7 OF 7 SHEETS



SHEET LIST	
SHEET NUMBER	SHEET NAME
S0.0	COVER SHEET
S0.1	GENERAL NOTES
S0.2	GENERAL NOTES & SPECIAL INSPECTIONS
S2.1	ROOF FRAMING PLAN
S3.1	TRUSS ELEVATIONS
S4.1	DETAILS



2 S0.0 GENERAL SYMBOLS 1/4" = 1'-0"

(A)	ABOVE	LLV	LONG LEG VERTICAL
A.B.	ANCHOR BOLT	LV.	LEVEL
ADDL.	ADDITIONAL	L.S.	LAG SCREW
ADJ.	ADJACENT	LVL	LAMINATED VENEER LUMBER
A.F.F.	ARCHITECTURAL FINISHED FLOOR	L.W.	LIGHT WEIGHT
APPROX.	APPROXIMATE	MANUF.	MANUFACTURER
ARCH.	ARCHITECT	MAX.	MAXIMUM
A.T.R.	ALL THREAD ROD	M.B.	MACHINE BOLT
(B)	BELOW	MECH.	MECHANICAL
BLDG.	BUILDING	MIN.	MINIMUM
BLKG.	BLOCKING	MISC.	MISCELLANEOUS
BM.	BEAM	ML.	MICROLLAM
B.N.	BOUNDARY NAILING	MTL.	METAL
B.O.	BOTTOM OF	(N)	NEW
BOT.	BOTTOM	N.I.C.	NOT IN CONTRACT
BTWN.	BETWEEN	N.S.	NEAR SIDE
☐	CENTERLINE	N.T.S.	NOT TO SCALE
C.F.	CUBIC FEET	N.W.	NORMAL WEIGHT
C.I.P.	CAST IN PLACE	O.C.	ON CENTER
C.J.	CONSTRUCTION JOINT	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	OPNG.	OPENING
CMU	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
CNTR.	CENTER	PAR.	PARALLEL
COL.	COLUMN	PERP.	PERPENDICULAR
CNTRSNK.	COUNTER SUNK	PL	PLATE
COLL.	COLLECTOR	PSL	PARALLEL STRAND LUMBER
COMP.	COMPACTED	PLYWD.	PLYWOOD
CONC.	CONCRETE	P.T.	PRESSURE TREATED
COND.	CONDITION	P/T	POST TENSIONED
CONN.	CONNECTION	REF.	REFERENCE
CONT.	CONTINUOUS	R.C.	RELATIVE COMPACTION
DBL.	DOUBLE	REINF.	REINFORCING
DET.	DETAIL	REQ'D	REQUIRED
DIA. Ø	DIAMETER	REV.	REVISION
DIAPH.	DIAPHRAGM	S.A.D.	SEE ARCHITECTURAL DRAWINGS
DIM.	DIMENSION	S.C.D.	SEE CIVIL DRAWINGS
DN.	DOWN	S.L.D.	SEE LANDSCAPE DRAWINGS
DWG.	DRAWING	S.M.D.	SEE MECHANICAL DRAWINGS
(E)	EXISTING	SCH.	SCHEDULE
EA.	EACH	SHT.	SHEET
E/E	EACH END	SHTG.	SHEATHING
E/F	EACH FACE	SIMP.	SIMPSON
EL.	ELEVATION	SIM.	SIMILAR
EMB.	EMBEDMENT	S.O.G.	SLAB ON GRADE
E.N.	EDGE NAILING	SPEC.	SPECIFICATIONS
EQ.	EQUAL	SQ.	SQUARE
EQUIV.	EQUIVALENT	STAG.	STAGGERED
E/S	EACH SIDE	STD.	STANDARD
E/W	EACH WAY	STIFF.	STIFFENER
EXT.	EXTERIOR	STL.	STEEL
FDN.	FOUNDATION	S.W.	SHEAR WALL
FIN.	FINISH	SYM.	SYMMETRIC
FLR.	FLOOR	T&B	TOP AND BOTTOM
F.N.	FIELD NAILING	T&G	TONGUE AND GROOVE
F.S.	FAR SIDE	THK.	THICK
FT.	FEET	THRD.	THREADED
FTG.	FOOTING	THRU	THROUGH
GA.	GAUGE	T.O.	TOP OF
GALV.	GALVANIZED	T.O.C.	TOP OF CONCRETE
G.L.	GRID LINE	T.O.S.	TOP OF SLAB/STEEL
GLB.	GLUED LAMINATED BEAM	TRNSV.	TRANSVERSE
HD	HOLD DOWN	TS	TUBE STEEL
H.D.G.	HOT DIP GALVANIZED	TYP.	TYPICAL
HDR.	HEADER	U.O.N	UNLESS OTHERWISE NOTED
HORIZ.	HORIZONTAL	VERT.	VERTICAL
HT.	HEIGHT	V.I.F.	VERIFY IN FIELD
HSS	HOLLOW STRUCTURAL STEEL	V.W.A.	VERIFY WITH ARCHITECT
I.D.	INSIDE DIAMETER	W/	WITH
IN.	INCH	WD.	WOOD
INT.	INTERIOR	W/O	WITHOUT
LB	POUND	W.P.	WORKING POINT
LONG.	LONGITUDINAL	WT.	WEIGHT

1 S0.0 ABBREVIATIONS N.T.S.



PROJECT NAME / LOCATION

MCWCD  
FILTER BUILDING  
MERIDIAN BLVD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

COVER SHEET

S0.0

**STRUCTURAL GENERAL NOTES**

SCOPE OF WORK: VOLUNTARY SEISMIC AND SNOW RETROFIT

GOVERNING CODE:

THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE AND 2017 ASCE 41.

LIMITATIONS:

THE SEISMIC STRENGTHENING SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE, AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

**1. GENERAL**

MATERIALS AND QUALITY OF WORK TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.
B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES IN A REASONABLE AND TIMELY MANNER. DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES ARE RESOLVED. DO NOT SCALE DRAWINGS.
C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.
F. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE AT ALL TIMES FOR THE CONDITIONS OF THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
a. SAFETY OF PERSONS, PROPERTY AND STRUCTURES,
b. MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION,
c. COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
d. ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

**2. SUBMITTALS**

- A. SUBMIT (1) HARD COPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION. FOR THE ITEMS LISTED BELOW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SHOP DRAWINGS WITH ALL TRADES AND FIELD CONDITIONS.
D. NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION. WHERE NEW STRUCTURAL ELEMENTS ARE LOCATED WITHIN AN EXISTING STRUCTURE, SHOP DRAWINGS SHALL INCLUDE THE COORDINATION OF THE NEW STRUCTURAL ELEMENTS WITH THE EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS. ALL SHOP DRAWING SUBMITTALS SHALL CLEARLY IDENTIFY THE SET-OUT OF NEW STRUCTURAL ELEMENTS RELATIVE TO THE RELEVANT PORTIONS OF THE EXISTING STRUCTURE, EXTENT OF ANY REQUIRED DEMOLITION, AND SHALL COORDINATE ALL OF THE RELEVANT TRADES.
1) STRUCTURAL AND MISCELLANEOUS STEEL
a. MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS.
b. SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS, AND DIMENSIONS. WELD PROCEDURE SPECIFICATIONS, INCLUDING NEW WELDS TO EXISTING STRUCTURAL STEEL, AND PROCEDURE QUALIFICATION RECORDS FOR WELDS THAT ARE NOT PREQUALIFIED, FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
c. MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT, INCLUDING COLOR CHARTS.
2) THE FOLLOWING SUBMITTALS SHALL BE STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CONSTRUCTION, AND SHALL INCLUDE DRAWINGS AND CALCULATIONS.
a. SHORING FOR ALL ELEMENTS AFFECTED BY THE CONTRACTOR'S DEMOLITION AND MEANS-AND-METHODS OF CONSTRUCTION.
3) DEFERRED AND DELEGATED DESIGN SUBMITTALS SHALL BE STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CONSTRUCTION, AND SHALL INCLUDE DRAWINGS AND CALCULATIONS AND BE SUBMITTED TO THE ENGINEER AND ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO SUBMISSION TO THE AUTHORITY HAVING JURISDICTION FOR PLAN CHECK AND BUILDING PERMIT AND PRIOR TO FABRICATION. THE DESIGN SHALL BE IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND PROJECT-SPECIFIC DESIGN CRITERIA LISTED IN SECTION 5.
a. OPEN WEB WOOD JOISTS
A. INCLUDE LAYOUT AND DETAILING NECESSARY FOR DETERMINING FIT AND PLACEMENT

**3. SPECIAL INSPECTION REQUIREMENTS AND TESTING**

REFER TO SHEET S0.2

**4. STRUCTURAL OBSERVATIONS**

- A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.
B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE.

C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:

- 1) WOOD FRAMING
2) WALL ANCHORS

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.

D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.

E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

**5. DESIGN BASIS**

A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.

B. DESIGN LIVE LOADS (PSF):
ROOF LIVE 20

C. DESIGN DEAD LOADS
1) SUPERIMPOSED DEAD LOADS NOTED ON PLANS

D. EARTHQUAKE DESIGN DATA
1) RISK CATEGORY: IV
2) ASCE 41 PERFORMANCE OBJECTIVE: BPOE
3) ASCE 41 BSE-2E SPECTRAL RESPONSE ACCELERATIONS:
a. SXS = 1.58 g
b. SX1 = 0.77 g
4) ASCE 41 BSE-1E SPECTRAL RESPONSE ACCELERATIONS:
a. SXS = 0.84 g
b. SX1 = 0.42 g
5) BASIC SEISMIC-FORCE RESISTING SYSTEM: REINFORCED MASONRY SHEAR WALLS
6) (ASCE 41 PROJECTS) Fp @ BSE-2E: 0.80Wp
7) (ASCE 41 PROJECTS) Fp @ BSE-1E: 0.62Wp

E. DESIGN SNOW LOADS
1) GROUND SNOW LOAD, Pg: 230 PSF
2) FLAT-ROOF SNOW LOAD, Pf: 209 PSF
3) SNOW EXPOSURE FACTOR, Ce: 0.9 PSF
4) SNOW LOAD IMPORTANCE FACTOR, I: 1.2
5) THERMAL FACTOR, Ci: 1.2

**6. FRAMING LUMBER**

A. ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 17.

B. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.

C. ALL POSTS AND BEAMS SHALL BE DOUGLAS FIR, #1.

D. ALL FLOOR AND ROOF JOISTS SHALL BE DOUGLAS FIR, #1.

E. ALL STUDS, PLATES, ETC., SHALL BE DOUGLAS FIR, CONSTRUCTION GRADE.

F. ENGINEERED WOOD PRODUCTS MAY BE USED AS SUBSTITUTES FOR SAWN LUMBER UPON REQUEST BY THE CONTRACTOR AND APPROVAL FROM THE ARCHITECT AND ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TESTING REPORTS FOR APPROVAL.

**7. PLYWOOD (PW) OR ORIENTED STRAND BOARD (OSB)**

A. EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE, TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCT STANDARD PS-1. PLYWOOD GRADE SHALL CONFORM TO CD-X FOR PLYWOOD OR TYPE 2-M-W FOR ORIENTED STRAND BOARD, UNLESS OTHERWISE NOTED.

B. WHERE PLYWOOD IS PERMANENTLY EXPOSED TO WEATHER, IT SHALL BE EXTERIOR TYPE. OTHERWISE, PANEL SHEATHING SHALL BE EXPOSURE 1. PLYWOOD TO BE CC GRADE AT LOCATIONS EXPOSED TO WEATHER; CC OR CD GRADE ELSEWHERE.

C. PANELS TO BE 5-PLY MINIMUM, EXCEPT 3/8" PANELS TO BE 3-PLY MINIMUM.

D. PLYWOOD SHEETS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS. PLYWOOD AT FLOORS SHALL BE GLUED TO FRAMING BELOW (USE SOLVENT BASED GLUE COMPLYING WITH ASTM D3498 AND VOLATILE ORGANIC COMPOUND (VOC) LIMITS PER CALGREEN). LN-950 BY LIQUID NAILS OR APPROVED EQUIVALENT, UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT. PROVIDE RING-SHANK NAILS AT FLOOR AND ROOF SHEATHING.

E. PLYWOOD SHEETS ON WALLS SHALL BE LAID WITH LONG DIMENSION VERTICAL. BLOCK ALL EDGES WITH A MINIMUM OF 3x BLOCK AND/MEMBERS. ALL NAILING SHALL HAVE 3/8" EDGE DISTANCE FOR FRAMING, BLOCKING AND PLYWOOD EDGES. USE SMOOTH-SHANK NAILS FOR PLYWOOD WALL SHEATHING.

F. STAPLES FOR PLYWOOD DIAPHRAGMS SHALL BE 14 GAGE ROUND SEMI-FLATTENED OR FLATTENED, PLAIN OR ZINC-COATED STEEL WIRE, WITH A NOMINAL CROWN WIDTH OF 7/16", DRIVEN BY PNEUMATIC OR MECHANICAL DEVICE.

G. PROVIDE 1/8" GAP BETWEEN PANELS UNLESS OTHERWISE NOTED.

H. PANELS SHALL HAVE THE FOLLOWING PROPERTIES UNLESS OTHERWISE NOTED.
1) 3/8" NOMINAL SHALL BE 3/8" ACTUAL THICKNESS WITH 24/0 SPAN RATING.
2) 1/2" NOMINAL SHALL BE 15/32" ACTUAL THICKNESS WITH 32/16 SPAN RATING.
3) 5/8" NOMINAL SHALL BE 19/32" ACTUAL THICKNESS WITH 40/20 SPAN RATING.
4) 3/4" NOMINAL SHALL BE 23/32" ACTUAL THICKNESS WITH 48/24 SPAN RATING.
5) 1 1/8" NOMINAL SHALL BE 1 1/8" ACTUAL THICKNESS WITH 48 O.C. FLOOR SPAN RATING.

**8. ROUGH CARPENTRY**

A. FOR SCHEDULE OF MINIMUM NAILING TABLE 2304.10.2 OF THE 2022 CBC/2021 IBC 16d VINYL COATED SINKERS MAY BE SUBSTITUTED FOR 16d BOX OR COMMON NAILS FOR ROUGH FRAMING. SINKERS SHALL NOT BE USED WITH METAL CONNECTORS.

B. SILLS AND LEDGERS ON CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED DOUGLAS FIR. SILLS AND LEDGERS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE AND A FASTENER NO FURTHER THAN 9 INCHES FROM END OF EACH PIECE, UNLESS OTHERWISE NOTED.

C. PLACE JOISTS WITH CROWN UP.

D. RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.

E. WHEN METAL CONNECTORS, ANCHORS OR FASTENERS ITEMS ARE EXPOSED TO WEATHER AND/OR PRESSURE TREATED LUMBER THE METAL ITEMS ARE TO BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN

ACCORDANCE WITH ASTM A153. SEE ADDITIONAL COATING REQUIREMENTS AS NOTED IN THE PRESSURE TREATMENT SECTION.

F. DOUBLE ALL JOISTS UNDER ALL PARALLEL PARTITIONS UNLESS NOTED OTHERWISE.

G. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2x SOLID BLOCKING. BLOCK AND BRIDGE ROOF JOISTS AT 10'-0" AND FLOOR JOISTS AT 8'-0" UNLESS OTHERWISE NOTED.

H. 2x JOISTS SHALL BE SISTERED (VERTICAL SCREW LAMINATED) WITH SDWS 0.220x3 MIN. LENGTH AT 6" O.C. IN (2) ROWS STAGGERED UNLESS OTHERWISE NOTED.

I. ALL POSTS LOCATED OVER WOOD WALLS SHALL HAVE A POST OF EQUAL OR GREATER SIZE LOCATED IN THE WALL DIRECTLY BELOW UNLESS OTHERWISE NOTED.

J. THE STRUCTURAL DESIGN ASSUMES THAT ALL FLOORS AND ROOFS ARE CONSTRUCTED AND LOADED WITH FINISHES (OR EQUIVALENT WEIGHT) FOR A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE TIME OF DOOR AND WINDOW INSTALLATION.

K. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON STRONG-TIE'S STANDARD FASTENERS OR APPROVED EQUIVALENT INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. USP LUMBER CONNECTORS WITH REFERENCE NUMBERS FOR SUBSTITUTION MAY BE USED IN LIEU OF SIMPSON HARDWARE. ENGINEER MAY APPROVE OF OTHER SUBSTITUTIONS UPON THE FOLLOWING:
1) WRITTEN REQUEST FOR OTHER BRANDS
2) SUBMISSION OF MANUFACTURER'S TESTING REPORTS
3) REFERENCES TO PERTINENT DETAILS WHERE SUBSTITUTIONS ARE TO BE APPLIED.

L. ALL STRUCTURAL WOOD WALLS SHALL BE FRAMED WITH 2x4 MINIMUM STUDS AT 16" ON CENTER UNLESS OTHERWISE NOTED.

M. PRE-DRILL HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD.

**9. OPEN WEB WOOD JOIST (OWWJ)**

A. DESIGN OF OWWJ SHALL BE BY THE MANUFACTURER. LOADING, SPANS, AND GENERAL DIMENSIONS SHALL BE PER THESE DRAWINGS.

B. DESIGN SHALL INCLUDE ALL NECESSARY BRIDGING AND BLOCKING DETAILS.

C. OWWJ BASIS OF DESIGN: REDBUILT OPEN-WEB TRUSSES, ICC ESR-1774.

D. SUBMITTALS SHALL BE PER SECTION 2 OF THESE GENERAL NOTES.

E. FOLLOW ALL MANUFACTURERS INSTRUCTIONS FOR HANDLING, STORING, AND INSTALLATION OF OWWJ.

**10. STRUCTURAL STEEL**

A. STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED:
1) PLATES AND BARS, INCLUDING DOUBLER PLATES, CONTINUITY PLATES, BASE PLATES, GUSSET PLATES, AND SHEAR TABS: ASTM A572 GRADE 50.
2) WIDE FLANGES (W): ASTM A992 (Fy = 50 KSI).
3) MISCELLANEOUS (M), AMERICAN STANDARD (S), CHANNEL (C), MISCELLANEOUS CHANNEL (MC), AND ANGLES (L): ASTM A36 (Fy = 36 KSI).
4) BEARING PILES (HP): ASTM A572 GRADE 50 (Fy = 50 KSI).
5) RECTANGULAR HSS (HSS): ASTM A500 Gr. C (Fy = 50 KSI).
6) ROUND HSS (HSS): ASTM A500 Gr. C (Fy = 46 KSI).
7) PIPE (P): ASTM A53 GRADE B (Fy = 35 KSI)
8) STRUCTURAL TEES (WT, MT, AND ST) SHALL CONFORM TO THE ASTM SPECIFICATION OF THE CORRESPONDING FULL DEPTH SHAPE (WT SHALL CONFORM TO ASTM SPECIFICATION FOR W, ETC.)

B. STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED.
1) ERECTION, CEMENT GROUTED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A.
2) THREADED RODS: ASTM A36.
3) HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.

C. ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.

D. LOCATE AND INSTALL ALL ANCHOR RODS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS. FURNISH ANCHOR RODS WITH DOUBLE HEAVY HEX NUTS JAMMED AT THE EMBEDDED CONCRETE END. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR RODS WHILE PLACING CONCRETE. COORDINATE ANCHOR ROD INSTALLATION WITH REINFORCING AND FORMWORK. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE PLATE MATERIAL SHALL NOT BE ENLARGED BY BURNING. ANCHOR ROD LOCATIONS SHALL BE INSPECTED BY THE OWNER'S TESTING AGENCY PRIOR TO CONCRETE PLACEMENT.

E. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.

F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE OR MASONRY) WITH ONE COAT OF PRIMER STANDARD TNE MEC V10 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S SPECIFICATIONS.

G. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCING FABRICATION.

H. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANS/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES U O.N. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3, USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E), WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOINT PREPARATIONS AND WELDING PROCEDURES.

**11. FINISHES - FOR WORK ON EXISTING BUILDINGS**

A. REPLACE ALL DAMAGED FINISH MATERIALS WITH NEW MATERIALS OF EQUIVALENT QUALITY AND KIND. SUBMIT SAMPLES AND/OR PRESENT SAMPLE INSTALLATION TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.



523 West 6th St, STE 1122
Los Angeles, CA 90014 USA
T: 213-481-5630 holmes.us



PROJECT NAME / LOCATION

MCWVD
FILTER BUILDING
MERIDIAN BLVD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

Table with 3 columns: No., DESCRIPTION, DATE. Row 1: BID/PERMIT SET, 5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

GENERAL NOTES

S0.1

12. SELF-DRILLING SCREWS

- A. SCREWS FOR WOOD AND WOOD TO STEEL SELF-DRILLING CONNECTIONS SHALL BE SHOWN IN THE STRUCTURAL DRAWINGS FROM THE FOLLOWING APPROVED MANUFACTURERS.

APPROVED SELF-DRILLING SCREWS		
SCREW TYPE (CALLOUT)	MANUFACTURER	ICC REPORT
SDS SERIES WOOD SCREWS (SDS)	SIMPSON STRONG-TIE	ESR-2236
SDWS SERIES WOOD SCREWS (SDWS)	SIMPSON STRONG-TIE	IAPMO UES ER-192

- B. SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, INCLUDING ALL CURRENT TECHNICAL BULLETINS AND GUIDANCE.

REQUIRED VERIFICATION AND INSPECTION FOR SEISMIC RESISTANCE (CBC SECTION 1705.12)			
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:			CBC SEC. 1705.12.2
a. INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS*, WOOD SHEAR PANELS*, WOOD DIAPHRAGMS*, DRAG STRUTS, BRACES, AND HOLD-DOWNS.	-	X	* SPECIAL INSPECTIONS NOT REQUIRED WHERE FASTENER SPACING OF SHEATHING IS MORE THAN 4" O.C.

2 MINIMUM INSPECTION FOR SEISMIC RESISTANCE N.T.S.

STATEMENT OF SPECIAL INSPECTIONS

- SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY APPROVED BY THE JURISDICTION FOR SUCH WORK AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
- THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.
- THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
- THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 3 DAYS NOTICE TO THE APPROVED TESTING AGENCY PRIOR TO ANY REQUIRED INSPECTIONS.
- IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS OR CORRECTIONS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE AND IN ADDITION TO THE SPECIAL INSPECTION REPORTS.
- SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS, AND SPECIFICALLY BRING ANY NON-CONFORMING ITEMS TO THE ATTENTION OF THE REVIEWER.
- SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.
  - DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: "N/A"  
SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC SYSTEMS, ARCHITECTURAL COMPONENTS, MEP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS, AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.
- SPECIAL INSPECTIONS FOR WIND RESISTANCE SHALL BE PERFORMED FOR THE MAIN WIND FORCE RESISTING SYSTEM AND WIND RESISTING COMPONENTS WHEN APPLICABLE AND AS PER SECTION 1705.11 OF THE CODE.
  - MAIN WIND FORCE RESISTING SYSTEM/WIND RESISTING COMPONENT: "N/A"  
SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, AND WIND-RESISTING COMPONENTS.
- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
- STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE REQUIREMENTS OF AISC 360, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ADDITIONAL REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:
  - ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
  - NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE WHERE THE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.
  - CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS, ON GRADE.
- MASONRY CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.4 OF THE CODE AND IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE REQUIREMENTS, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- DEEP FOUNDATIONS: SPECIAL INSPECTIONS FOR DRIVEN AND CAST-IN-PLACE DEEP FOUNDATIONS SHALL BE AS REQUIRED BY SECTIONS 1705.7 AND 1705.8 OF THE CODE RESPECTIVELY, INCLUDING THE TESTS AND INSPECTIONS CONTAINED WITHIN THE APPROVED GEOTECHNICAL REPORT, AND INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

1 STATEMENT OF SPECIAL INSPECTIONS N.T.S.



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213 481 5630 holmes.us

STAMP



PROJECT NAME / LOCATION

MCWVD  
FILTER BUILDING  
MAMMOTH BLVD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

GENERAL NOTES & SPECIAL INSPECTIONS

S0.2

STAMP



PROJECT NAME / LOCATION

**MCWVD  
FILTER BUILDING**  
MERIDIAN BLVD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
1	BID/PERMIT SET	5/16/2025

SCALE AS NOTED  
IF PRINT SIZE IS  
24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

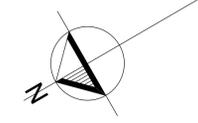
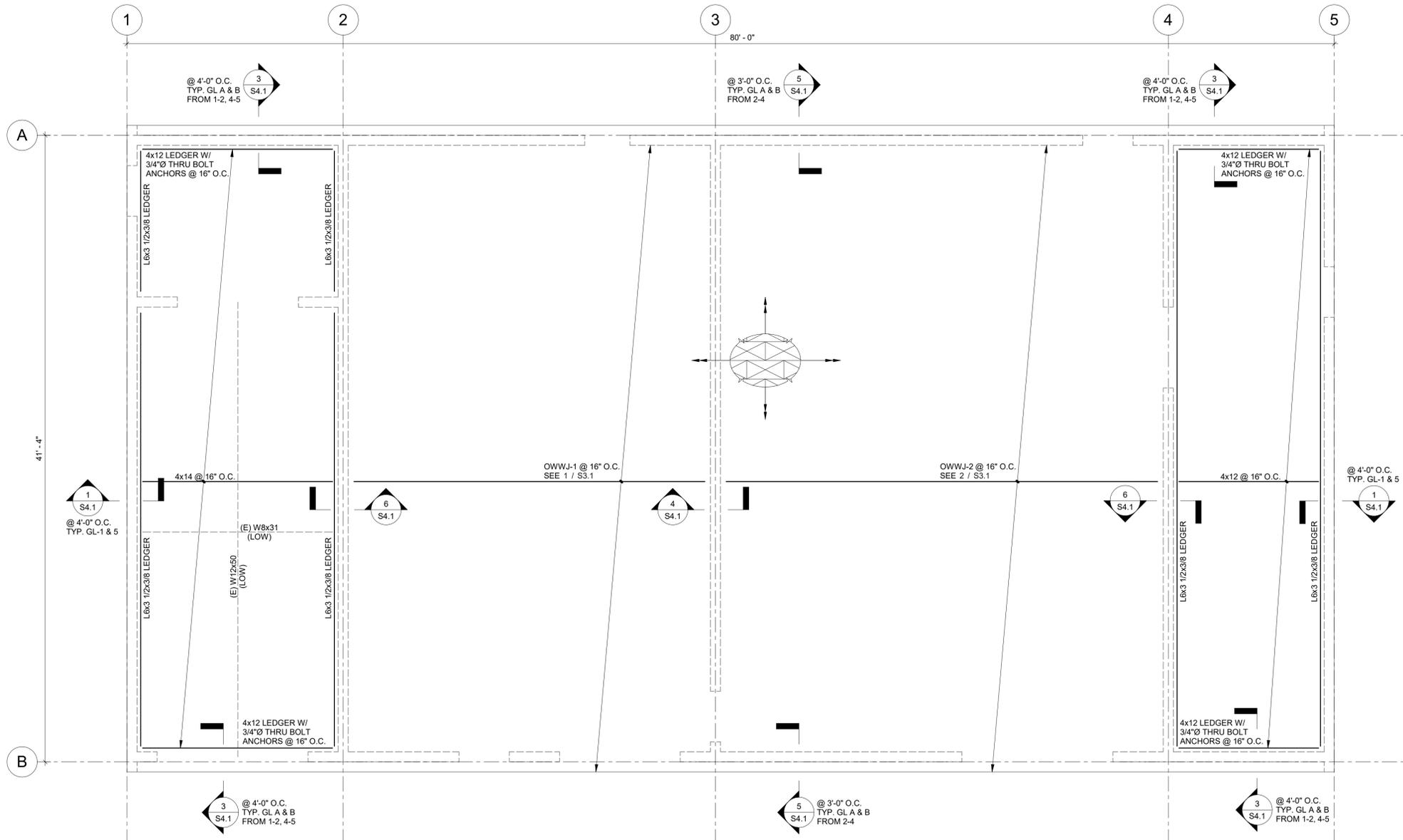
DRAWING TITLE

**ROOF FRAMING  
PLAN**

**S2.1**

**LEGEND:**

- (E) FULLY GROUTED CMU WALL (B) W/ #4 @ 16" VERT. & (2) #5 @ 4'-0" HORIZ., V.I.F.
- WD. OR STL. BEAM
- SIZE @ XX"O.C. JOIST SPAN
- OWWJ-X 30" DEEP RED-M OPEN WEB WOOD JOIST BY REDBUILT. SEE S3.1 FOR LOADING INFO
- 4x BLOCKED 19/32" PLYWOOD SHTG. W/ 10d NAILS (4" O.C. B.N. & 6" O.C. E.N. & 12" O.C. F.N.)



**1 ROOF FRAMING PLAN**  
S2.1 1/4" = 1'-0"

STAMP



PROJECT NAME / LOCATION

**MCWVD  
FILTER BUILDING**  
MERIDIAN BLVD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED  
IF PRINT SIZE IS  
24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

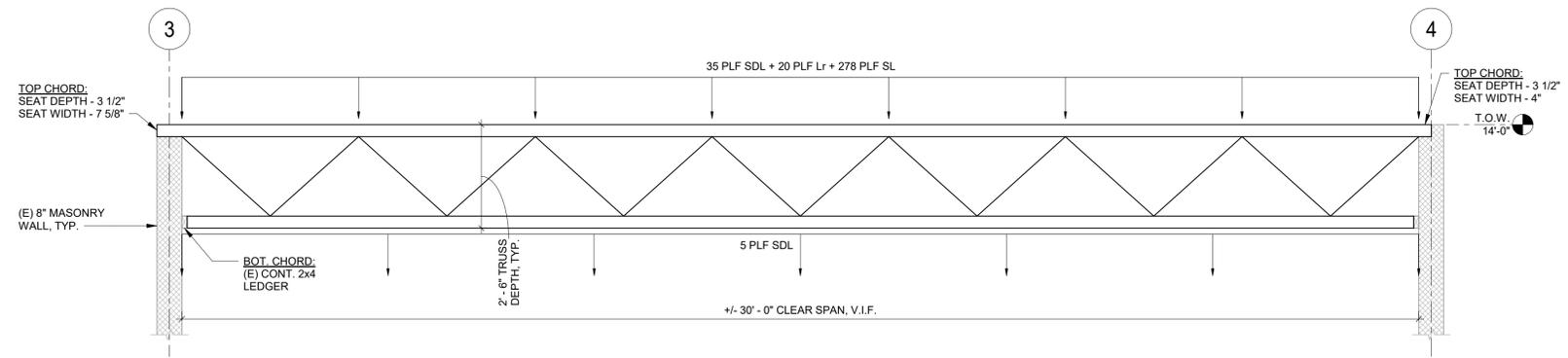
DRAWING TITLE

**TRUSS ELEVATIONS**

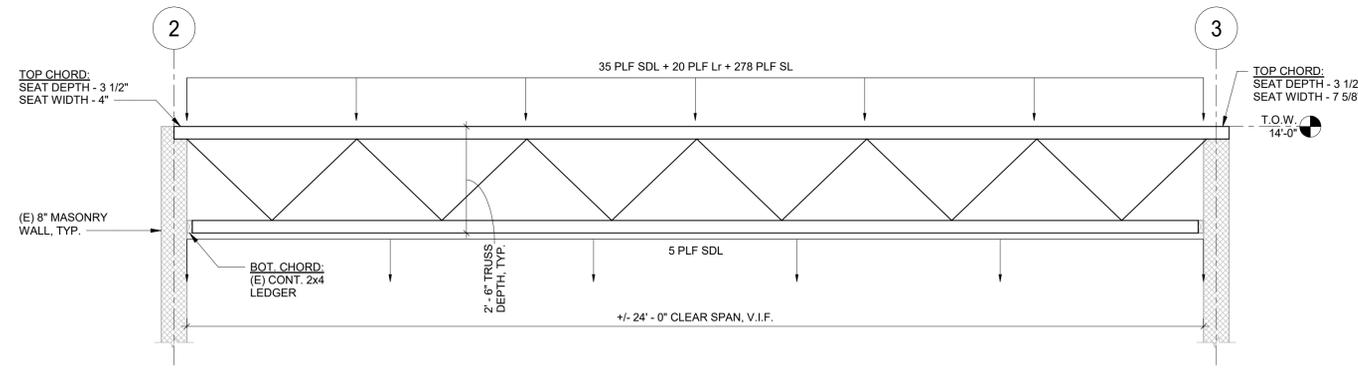
**S3.1**

**SHEET NOTES:**

- LOAD ABBREVIATIONS ARE AS FOLLOWS:  
SDL = SUPERIMPOSED DEAD LOAD  
Lr = ROOF LIVE LOAD  
SL = SNOW LOAD
- LOADS SHOWN ARE SERVICE LEVEL  
(I.E. UN-FACTORED)



**2 OWWJ-2 ELEVATION**  
S3.1 N.T.S.



**1 OWWJ-1 ELEVATION**  
S3.1 N.T.S.



PROJECT NAME / LOCATION

**MCWVD  
FILTER BUILDING**  
MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED  
IF PRINT SIZE IS  
24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

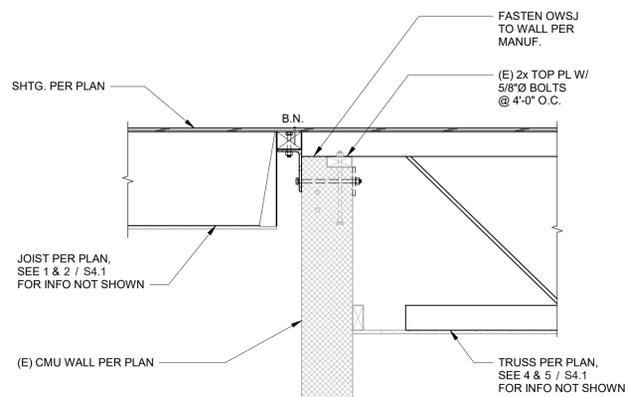
PROJECT No. 24199.10

DRAWING TITLE

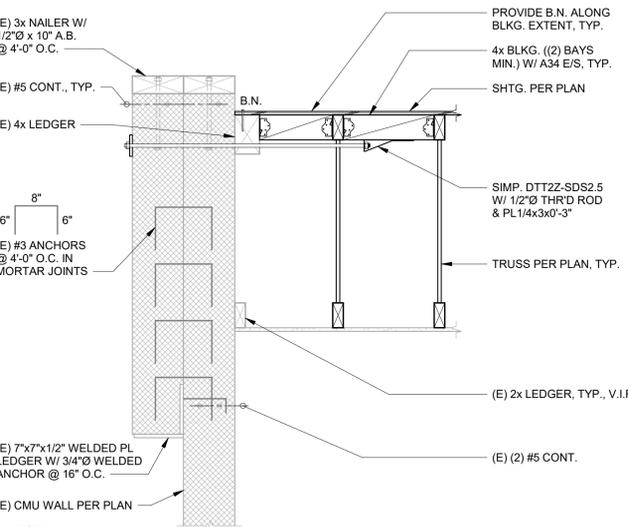
**DETAILS**

**S4.1**

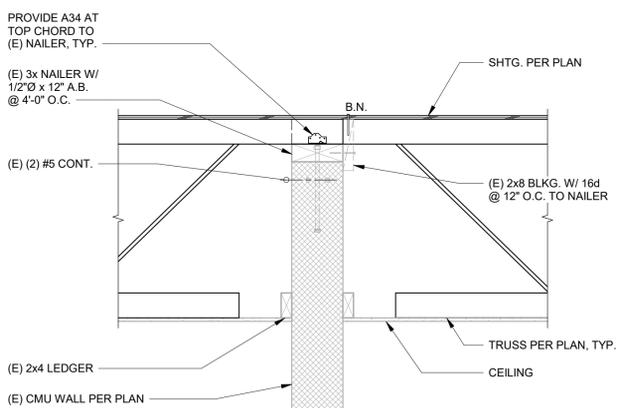
NAILING SCHEDULE	
CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOE NAIL	(3) 8d
2. BRIDGING TO JOIST, TOE NAIL E/E	(2) 8d
3. 1" x 6" SUBFLOOR OR LESS TO EA. JOIST, FACE NAIL	(2) 8d
4. WIDER THAN 1" x 6" SUBFLOOR TO EA. JOIST, FACE NAIL	(3) 8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL	(2) 16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL SOLE PLATE TO JOIST, AT BRACED WALL PANELS	16d @ 16" O.C. (3) 16d @ 16" O.C.
7. TOP PLATE TO STUD, END NAIL	(2) 16d
8. STUD TO SOLE PLATE	(4) 8d TOE NAIL OR (2) 16d END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" O.C.
10. DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE (PARTITION)	16d @ 16" O.C. (8) 16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 16" O.C.
13. TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	(2) 16d
14. CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d
16. CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
17. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3) 16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d MIN. SEE 2019 CBC TABLE 2308.7.3.1
19. RAFTER TO PLATE, TOE NAIL	(3) 8d
20. BUILT-UP GIRDER & BEAMS	20d @ 32" O.C. FACE NAIL T&B STAGG. ON OPP. SIDES & (2) 20d FACE NAIL AT ENDS AND SPLICES
21. 2" PLANKS, FACE NAIL	16d @ EACH BEARING
22. ROOF RAFTER TO 2x RIDGE BEAM	(2) 16d TOE NAIL (2) 16d FACE NAIL
23. JOIST TO BAND JOIST, FACE NAIL	(3) 16d
24. LEDGER STRIP, FACE NAIL AT EACH JOIST	(3) 16d
25. WOOD STRUCTURAL PANELS SUBFLOOR, ROOF & WALL SHEATHING (TO FRAMING)	10d



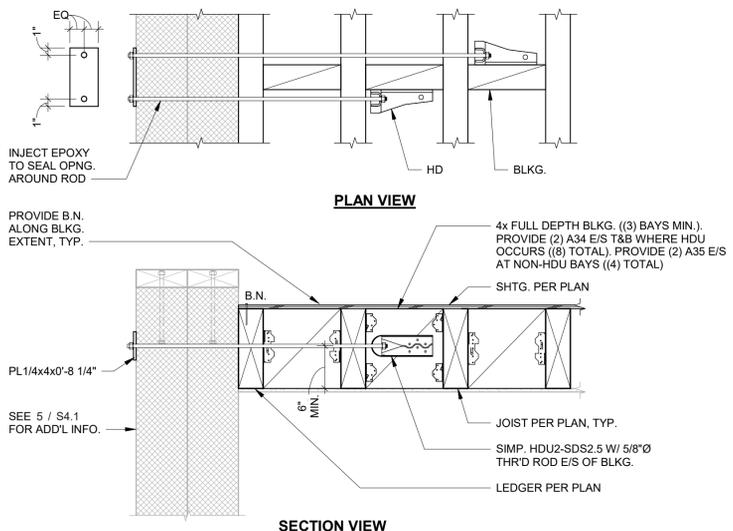
**6 ROOF CONNECTION DETAIL - TRUSS & JOIST TO CMU WALL** N.T.S.



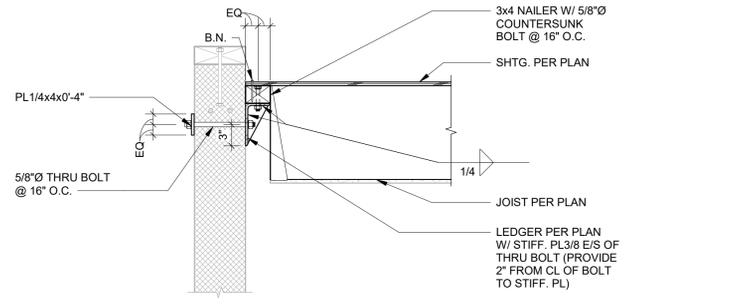
**5 ROOF CONNECTION DETAIL - TRUSSES PARALLEL TO WALL** 1" = 1'-0"



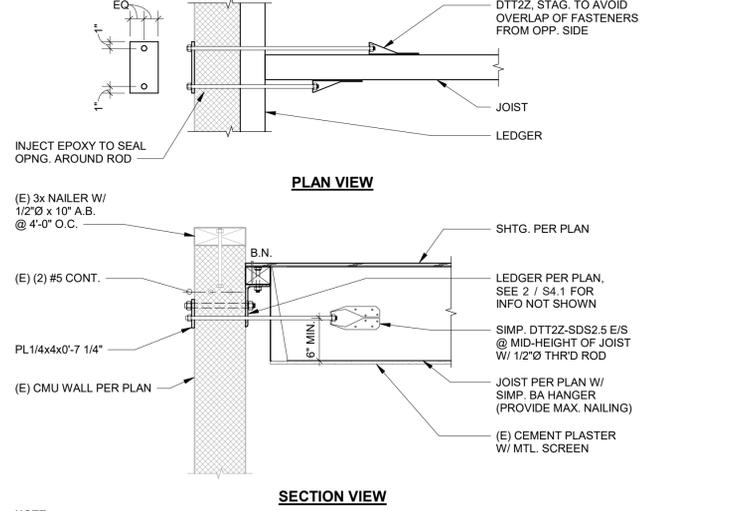
**4 TYPICAL ROOF TRUSS TO CMU WALL** N.T.S.



**3 ROOF CONNECTION DETAIL - JOISTS PARALLEL TO WALL** 1" = 1'-0"

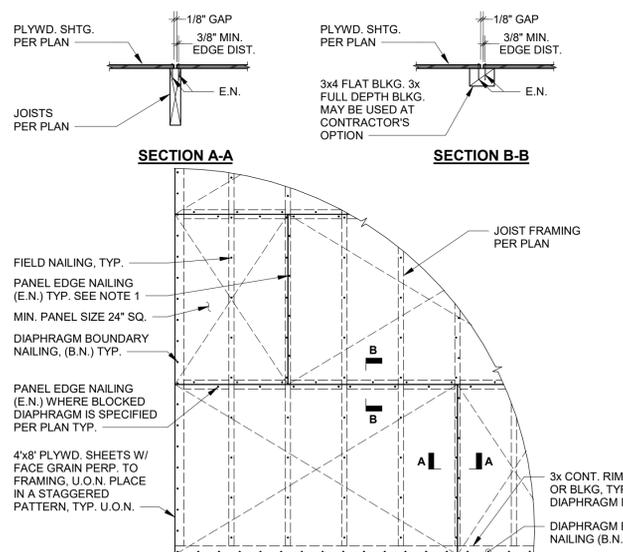


**2 TYPICAL (N) ROOF JOIST TO CMU WALL** N.T.S.



**1 ROOF CONNECTION DETAIL - JOISTS PERPENDICULAR TO WALL** N.T.S.

**8 NAILING SCHEDULE** N.T.S.



**7 TYPICAL DIAPHRAGM FRAMING** 1/2" = 1'-0"



**STRUCTURAL GENERAL NOTES**

SCOPE OF WORK: VOLUNTARY SEISMIC AND SNOW RETROFIT

GOVERNING CODE:

THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE AND 2017 ASCE 41.

LIMITATIONS:

THE SEISMIC STRENGTHENING SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE, AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

**1. GENERAL**

MATERIALS AND QUALITY OF WORK TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.
B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES IN A REASONABLE AND TIMELY MANNER. DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES ARE RESOLVED. DO NOT SCALE DRAWINGS.
C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED 'NEW' UNLESS OTHERWISE NOTED.
F. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE AT ALL TIMES FOR THE CONDITIONS OF THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
a. SAFETY OF PERSONS, PROPERTY AND STRUCTURES,
b. MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION,
c. COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
d. ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

**2. SUBMITTALS**

- A. SUBMIT (1) HARD COPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION. FOR THE ITEMS LISTED BELOW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SHOP DRAWINGS WITH ALL TRADES AND FIELD CONDITIONS.
D. NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION. WHERE NEW STRUCTURAL ELEMENTS ARE LOCATED WITHIN AN EXISTING STRUCTURE, SHOP DRAWINGS SHALL INCLUDE THE COORDINATION OF THE NEW STRUCTURAL ELEMENTS WITH THE EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS. ALL SHOP DRAWING SUBMITTALS SHALL CLEARLY IDENTIFY THE SET-OUT OF NEW STRUCTURAL ELEMENTS RELATIVE TO THE RELEVANT PORTIONS OF THE EXISTING STRUCTURE, EXTENT OF ANY REQUIRED DEMOLITION, AND SHALL COORDINATE ALL OF THE RELEVANT TRADES.
1) STRUCTURAL AND MISCELLANEOUS STEEL
a. MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS.
b. SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS, AND DIMENSIONS. WELD PROCEDURE SPECIFICATIONS, INCLUDING NEW WELDS TO EXISTING STRUCTURAL STEEL, AND PROCEDURE QUALIFICATION RECORDS FOR WELDS THAT ARE NOT PREQUALIFIED, FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
c. MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT, INCLUDING COLOR CHARTS.
2) THE FOLLOWING SUBMITTALS SHALL BE STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CONSTRUCTION, AND SHALL INCLUDE DRAWINGS AND CALCULATIONS.
a. SHORING FOR ALL ELEMENTS AFFECTED BY THE CONTRACTOR'S DEMOLITION AND MEANS-AND-METHODS OF CONSTRUCTION.

REFER TO SHEET S0.02

**4. STRUCTURAL OBSERVATIONS**

- A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.
B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE.
C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:
1) WOOD FRAMING
2) WALL ANCHORS

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.

D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.

E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

**5. DESIGN BASIS**

- A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.
B. DESIGN LIVE LOADS (PSF):
ROOF LIVE 20
C. DESIGN DEAD LOADS
1) SUPERIMPOSED DEAD LOADS NOTED ON PLANS
D. EARTHQUAKE DESIGN DATA
1) RISK CATEGORY: IV
2) ASCE 41 PERFORMANCE OBJECTIVE: BPOE
3) ASCE 41 BSE-2E SPECTRAL RESPONSE ACCELERATIONS:
a. SXS = 1.197 g
b. SX1 = 0.698 g
4) ASCE 41 BSE-1E SPECTRAL RESPONSE ACCELERATIONS:
a. SXS = 0.772 g
b. SX1 = 0.382 g
5) (ASCE 41 PROJECTS) Fp @ BSE-2E: 0.72Wp
6) (ASCE 41 PROJECTS) Fp @ BSE-1E: 0.71Wp
E. DESIGN SNOW LOADS
1) GROUND SNOW LOAD, Pg: 300 PSF
2) FLAT-ROOF SNOW LOAD, Pf: 277 PSF
3) SNOW EXPOSURE FACTOR, Ce: 1.0
4) SNOW LOAD IMPORTANCE FACTOR, I: 1.2
5) THERMAL FACTOR, Ct: 1.1

**6. FRAMING LUMBER**

- A. ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 17.
B. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.
C. ALL POSTS AND BEAMS SHALL BE DOUGLAS FIR, #1.
D. ALL FLOOR AND ROOF JOISTS SHALL BE DOUGLAS FIR, #1.
E. ALL STUDS, PLATES, ETC., SHALL BE DOUGLAS FIR, CONSTRUCTION GRADE.
F. ENGINEERED WOOD PRODUCTS MAY BE USED AS SUBSTITUTES FOR SAWN LUMBER UPON REQUEST BY THE CONTRACTOR AND APPROVAL FROM THE ARCHITECT AND ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TESTING REPORTS FOR APPROVAL.

**7. PLYWOOD (PW) OR ORIENTED STRAND BOARD (OSB)**

- A. EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE, TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCT STANDARD PS-1. PLYWOOD GRADE SHALL CONFORM TO CD-X FOR PLYWOOD OR TYPE 2-M-W FOR ORIENTED STRAND BOARD, UNLESS OTHERWISE NOTED.
B. WHERE PLYWOOD IS PERMANENTLY EXPOSED TO WEATHER, IT SHALL BE EXTERIOR TYPE. OTHERWISE, PANEL SHEATHING SHALL BE EXPOSURE 1. PLYWOOD TO BE CC GRADE AT LOCATIONS EXPOSED TO WEATHER; CC OR CD GRADE ELSEWHERE.
C. PANELS TO BE 5-PLY MINIMUM, EXCEPT 3/8" PANELS TO BE 3-PLY MINIMUM.
D. PLYWOOD SHEETS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS. PLYWOOD AT FLOORS SHALL BE GLUED TO FRAMING BELOW (USE SOLVENT BASED GLUE COMPLYING WITH ASTM D3498 AND VOLATILE ORGANIC COMPOUND (VOC) LIMITS PER CALGREEN). LN-950 BY LIQUID NAILS OR APPROVED EQUIVALENT, UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT. PROVIDE RING-SHANK NAILS AT FLOOR AND ROOF SHEATHING.
E. PLYWOOD SHEETS ON WALLS SHALL BE LAID WITH LONG DIMENSION VERTICAL. BLOCK ALL EDGES WITH A MINIMUM OF 3x BLOCK AND/MEMBERS. ALL NAILING SHALL HAVE 3/8" EDGE DISTANCE FOR FRAMING, BLOCKING AND PLYWOOD EDGES. USE SMOOTH-SHANK NAILS FOR PLYWOOD WALL SHEATHING.
F. STAPLES FOR PLYWOOD DIAPHRAGMS SHALL BE 14 GAGE ROUND SEMI-FLATTENED OR FLATTENED, PLAIN OR ZINC-COATED STEEL WIRE, WITH A NOMINAL CROWN WIDTH OF 7/16", DRIVEN BY PNEUMATIC OR MECHANICAL DEVICE.
G. PROVIDE 1/8" GAP BETWEEN PANELS UNLESS OTHERWISE NOTED.
H. PANELS SHALL HAVE THE FOLLOWING PROPERTIES UNLESS OTHERWISE NOTED.
1) 3/8" NOMINAL SHALL BE 3/8" ACTUAL THICKNESS WITH 24/0 SPAN RATING.
2) 1/2" NOMINAL SHALL BE 15/32" ACTUAL THICKNESS WITH 32/16 SPAN RATING.
3) 5/8" NOMINAL SHALL BE 19/32" ACTUAL THICKNESS WITH 40/20 SPAN RATING.
4) 3/4" NOMINAL SHALL BE 23/32" ACTUAL THICKNESS WITH 48/24 SPAN RATING.
5) 1 1/8" NOMINAL SHALL BE 1 1/8" ACTUAL THICKNESS WITH 48 O.C. FLOOR SPAN RATING.

**8. ROUGH CARPENTRY**

- A. FOR SCHEDULE OF MINIMUM NAILING TABLE 2304.10.2 OF THE 2022 CBC/2021 IBC 16d VINYL COATED SINKERS MAY BE SUBSTITUTED FOR 16d BOX OR COMMON NAILS FOR ROUGH FRAMING. SINKERS SHALL NOT BE USED WITH METAL CONNECTORS.
B. SILLS AND LEDGERS ON CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED DOUGLAS FIR. SILLS AND LEDGERS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE AND A FASTENER NO FURTHER THAN 9 INCHES FROM END OF EACH PIECE, UNLESS OTHERWISE NOTED.
C. PLACE JOISTS WITH CROWN UP.
D. RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.
E. WHEN METAL CONNECTORS, ANCHORS OR FASTENERS ITEMS ARE EXPOSED TO WEATHER AND/OR PRESSURE TREATED LUMBER THE METAL ITEMS ARE TO BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. SEE ADDITIONAL COATING REQUIREMENTS AS NOTED IN THE PRESSURE TREATMENT SECTION.
F. DOUBLE ALL JOISTS UNDER ALL PARALLEL PARTITIONS UNLESS NOTED OTHERWISE.
G. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2x SOLID BLOCKING. BLOCK AND BRIDGE ROOF JOISTS AT 10'-0" AND FLOOR JOISTS AT 8'-0" UNLESS OTHERWISE NOTED.

H. 2x JOISTS SHALL BE SISTERED (VERTICAL SCREW LAMINATED) WITH SDWS 0.220x3 MIN. LENGTH AT 6" O.C. IN (2) ROWS STAGGERED UNLESS OTHERWISE NOTED.

I. ALL POSTS LOCATED OVER WOOD WALLS SHALL HAVE A POST OF EQUAL OR GREATER SIZE LOCATED IN THE WALL DIRECTLY BELOW UNLESS OTHERWISE NOTED.

J. THE STRUCTURAL DESIGN ASSUMES THAT ALL FLOORS AND ROOFS ARE CONSTRUCTED AND LOADED WITH FINISHES (OR EQUIVALENT WEIGHT) FOR A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE TIME OF DOOR AND WINDOW INSTALLATION.

K. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON STRONG-TIE'S STANDARD FASTENERS OR APPROVED EQUIVALENT INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. USP HARDWARE CONNECTORS WITH REFERENCE NUMBERS FOR SUBSTITUTION MAY BE USED IN LIEU OF SIMPSON HARDWARE. ENGINEER MAY APPROVE OF OTHER SUBSTITUTIONS UPON THE FOLLOWING:
1) WRITTEN REQUEST FOR OTHER BRANDS
2) SUBMISSION OF MANUFACTURER'S TESTING REPORTS
3) REFERENCES TO PERTINENT DETAILS WHERE SUBSTITUTIONS ARE TO BE APPLIED.

L. ALL STRUCTURAL WOOD WALLS SHALL BE FRAMED WITH 2x4 MINIMUM STUDS AT 16" ON CENTER UNLESS OTHERWISE NOTED.

M. PRE-DRILL HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD.

**9. STRUCTURAL STEEL**

- A. STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED:
1) PLATES AND BARS, INCLUDING DOUBLER PLATES, CONTINUITY PLATES, BASE PLATES, GUSSET PLATES, AND SHEAR TABS: ASTM A572 GRADE 50.
2) MISCELLANEOUS (M), AMERICAN STANDARD (S), CHANNEL (C), MISCELLANEOUS CHANNEL (MC), AND ANGLES (L): ASTM A36 (Fy = 36 KSI).
B. STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED.
1) ERECTION, CEMENT GROUDED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A.
2) THREADED RODS: ASTM A36.
3) HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.
C. ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.
D. LOCATE AND INSTALL ALL ANCHOR RODS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS. FURNISH ANCHOR RODS WITH DOUBLE HEAVY HEX NUTS JAMMED AT THE EMBEDDED CONCRETE END. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR RODS WHILE PLACING CONCRETE. COORDINATE ANCHOR ROD INSTALLATION WITH REINFORCING AND FORMWORK. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE PLATE MATERIAL SHALL NOT BE ENLARGED BY BURNING. ANCHOR ROD LOCATIONS SHALL BE INSPECTED BY THE OWNER'S TESTING AGENCY PRIOR TO CONCRETE PLACEMENT.
E. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.
F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE OR MASONRY) WITH ONE COAT OF PRIMER STANDARD TNE MEC V10 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S SPECIFICATIONS.
G. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCING FABRICATION.
H. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES U.O.N. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3, USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E), WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOINT PREPARATIONS AND WELDING PROCEDURES.

**10. FINISHES - FOR WORK ON EXISTING BUILDINGS**

- A. REPLACE ALL DAMAGED FINISH MATERIALS WITH NEW MATERIALS OF EQUIVALENT QUALITY AND KIND. SUBMIT SAMPLES AND/OR PRESENT SAMPLE INSTALLATION TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.

6/23/2025 12:11:12 PM Autodesk Docs/2/4/199\_10 Mammoth Lakes Seismic & Structural Svcs/2/199\_10-MCWD Juniper Ridge Bldg. R24.rvt



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213-481-5630 holmes.us

STAMP

PROJECT NAME / LOCATION

MCWD JUNIPER RIDGE BUILDING JUNIPER DR., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

**GENERAL NOTES**

S0.1



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213 481 5630 holmes.us

STAMP

PROJECT NAME / LOCATION

MCWD JUNIPER RIDGE  
BUILDING  
JUNIPER DR., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED  
IF PRINT SIZE IS  
24"x36"

S.E.R. TS/JR

DESIGN CP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

SPECIAL  
INSPECTIONS

S0.2

REQUIRED VERIFICATION AND INSPECTION FOR SEISMIC RESISTANCE (CBC SECTION 1705.12)			
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:			CBC SEC. 1705.12.2
a. INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS*, WOOD SHEAR PANELS*, WOOD DIAPHRAGMS*, DRAG STRUTS, BRACES, AND HOLD-DOWNS.	-	X	* SPECIAL INSPECTIONS NOT REQUIRED WHERE FASTENER SPACING OF SHEATHING IS MORE THAN 4" O.C.

2 MINIMUM INSPECTION FOR SEISMIC RESISTANCE N.T.S.

STATEMENT OF SPECIAL INSPECTIONS

- SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY APPROVED BY THE JURISDICTION FOR SUCH WORK AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
- THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.
- THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
- THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 3 DAYS NOTICE TO THE APPROVED TESTING AGENCY PRIOR TO ANY REQUIRED INSPECTIONS.
- IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS OR CORRECTIONS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE AND IN ADDITION TO THE SPECIAL INSPECTION REPORTS.
- SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS, AND SPECIFICALLY BRING ANY NON-CONFORMING ITEMS TO THE ATTENTION OF THE REVIEWER.
- SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.
  - DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: **WRITE IN APPLICABLE SYSTEM(S) OR "N/A"**. SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC SYSTEMS, ARCHITECTURAL COMPONENTS, MEP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS, AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.
- SPECIAL INSPECTIONS FOR WIND RESISTANCE SHALL BE PERFORMED FOR THE MAIN WIND FORCE RESISTING SYSTEM AND WIND RESISTING COMPONENTS WHEN APPLICABLE AND AS PER SECTION 1705.11 OF THE CODE.
  - MAIN WIND FORCE RESISTING SYSTEM/WIND RESISTING COMPONENT: **WRITE IN APPLICABLE SYSTEM(S) OR "N/A"**. SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, AND WIND-RESISTING COMPONENTS.
- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
- STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ADDITIONAL REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:
  - ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
  - NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE WHERE THE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.
  - CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS, ON GRADE.
- MASONRY CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.4 OF THE CODE AND IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE REQUIREMENTS, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- DEEP FOUNDATIONS: SPECIAL INSPECTIONS FOR DRIVEN AND CAST-IN-PLACE DEEP FOUNDATIONS SHALL BE AS REQUIRED BY SECTIONS 1705.7 AND 1705.8 OF THE CODE RESPECTIVELY, INCLUDING THE TESTS AND INSPECTIONS CONTAINED WITHIN THE APPROVED GEOTECHNICAL REPORT, AND INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

1 STATEMENT OF SPECIAL INSPECTIONS N.T.S.

STAMP

PROJECT NAME / LOCATION

**MCWD JUNIPER RIDGE  
BUILDING**  
JUNIPER DR., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED  
IF PRINT SIZE IS  
24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

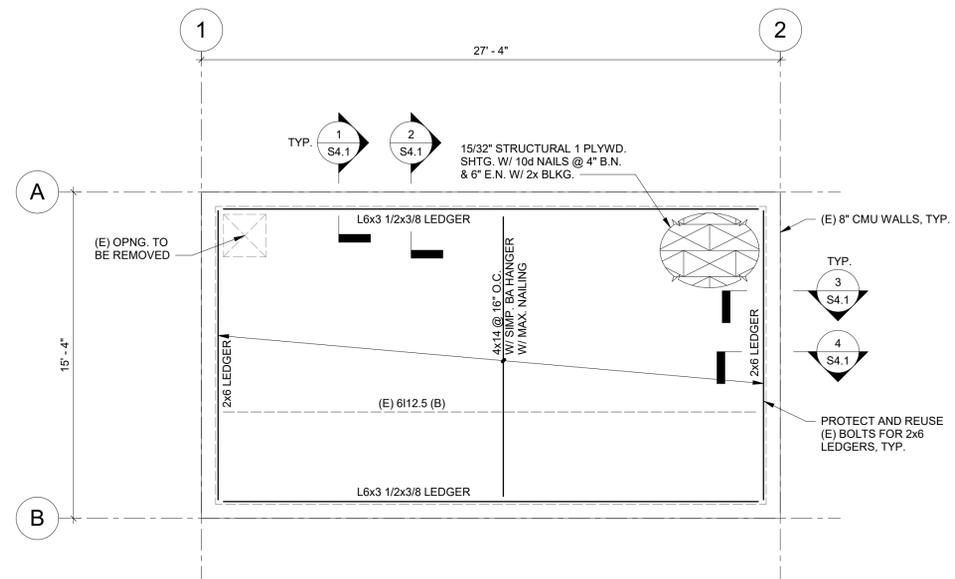
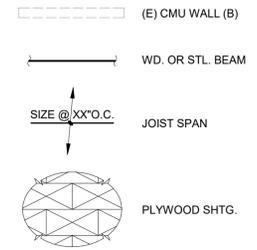
PROJECT No. 24199.10

DRAWING TITLE

**ROOF FRAMING  
PLAN**

**S2.1**

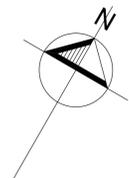
**LEGEND:**



**NOTE:**  
1. TOP OF FRAMING IS +0'-2" RELATIVE TO EXISTING FRAMING  
2. STEEL BEAM TO BE REINSTALLED W/ CONNECTIONS TO FRAMING TO MATCH EXISTING

**1 ROOF FRAMING PLAN**

1/4" = 1'-0"



STAMP

PROJECT NAME / LOCATION

**MCWD JUNIPER RIDGE BUILDING**  
JUNIPER DR., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

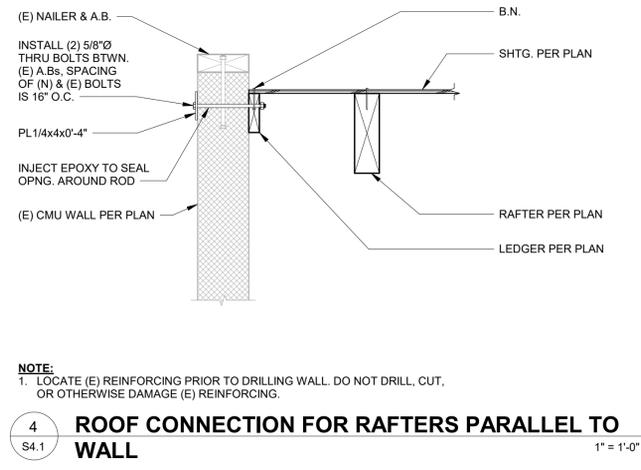
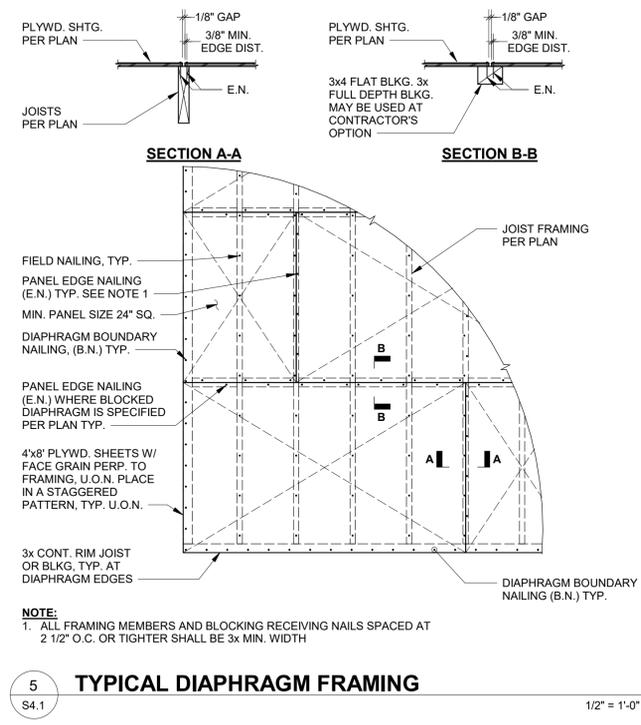
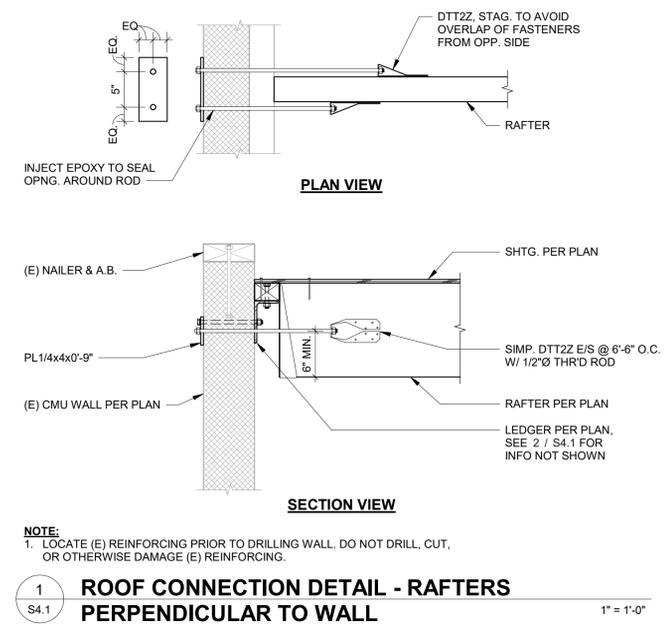
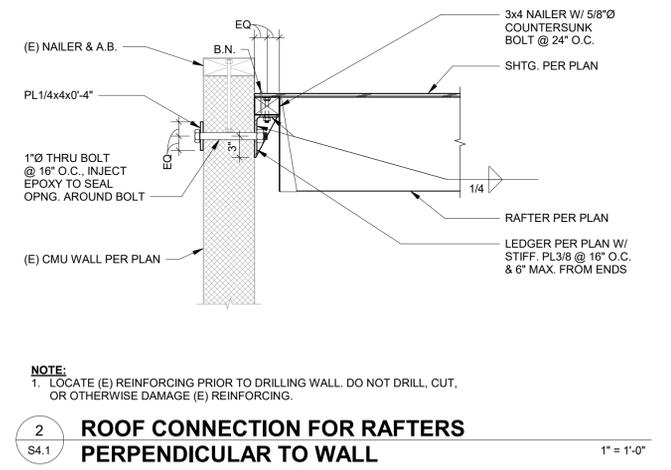
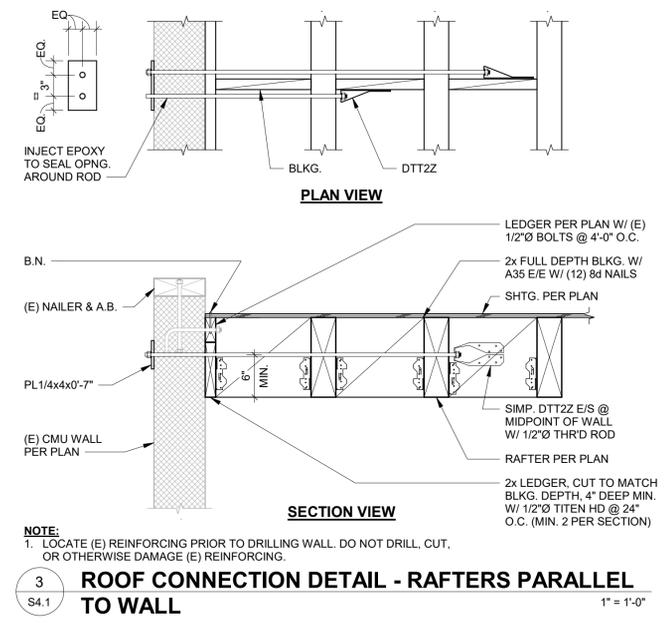
DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

**DETAILS**

**S4.1**

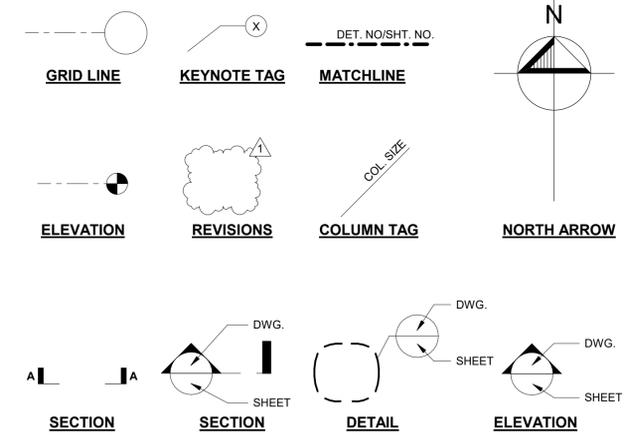


NAILING SCHEDULE	
CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOE NAIL	(3) 8d
2. BRIDGING TO JOIST, TOE NAIL E/E	(2) 8d
3. 1" x 6" SUBFLOOR OR LESS TO EA. JOIST, FACE NAIL	(2) 8d
4. WIDER THAN 1" x 6" SUBFLOOR TO EA. JOIST, FACE NAIL	(3) 8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL	(2) 16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL SOLE PLATE TO JOIST, AT BRACED WALL PANELS	16d @ 16" O.C. (3) 16d @ 16" O.C.
7. TOP PLATE TO STUD, END NAIL	(2) 16d
8. STUD TO SOLE PLATE	(4) 8d TOE NAIL OR (2) 16d END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" O.C.
10. DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE (PARTITION)	16d @ 16" O.C. (8) 16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 16" O.C.
13. TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	(2) 16d
14. CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d
16. CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
17. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3) 16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d MIN. SEE 2019 CBC TABLE 2308.7.3.1
19. RAFTER TO PLATE, TOE NAIL	(3) 8d
20. 1" DIAGONAL BRACE TO EA. STUD & PLATE, FACE NAIL	(2) 8d
21. 1" x 8" SHEATHING OR LESS TO EA. BEARING, FACE NAIL	(2) 8d
22. WIDER THAN 1" x 8" SHEATHING TO EA. BEARING, FACE NAIL	(3) 8d
23. BUILT-UP CORNER STUDS	16d @ 24" O.C.
24. BUILT-UP GIRDER & BEAMS	20d @ 32" O.C. FACE NAIL T&B STAGG. ON OPP. SIDES & (2) 20d FACE NAIL AT ENDS AND SPLICES
25. 2" PLANKS, FACE NAIL	16d @ EACH BEARING
26. COLLAR TIE TO RAFTER, FACE NAIL	(3) 10d
27. JACK RAFTER TO HIP	(3) 10d TOE NAIL (2) 16d FACE NAIL
28. ROOF RAFTER TO 2x RIDGE BEAM	(2) 16d TOE NAIL (2) 16d FACE NAIL
29. JOIST TO BAND JOIST, FACE NAIL	(3) 16d
30. LEDGER STRIP, FACE NAIL AT EACH JOIST	(3) 16d
31. WOOD STRUCTURAL PANELS SUBFLOOR, ROOF & WALL SHEATHING (TO FRAMING)	10d
32. PANEL SIDING (TO FRAMING)	8d
33. FIBERBOARD SHEATHING	8d
34. INTERIOR PANELING	6d

6/23/2025 12:11:12 PM Autodesk Docs/24199.10 Mammoth Lakes Seismic & Structural Svcs/24199.10-MCWD Juniper Ridge Bldg. R24.rvt



SHEET LIST	
SHEET NUMBER	SHEET NAME
S0.0	COVER SHEET
S0.1	GENERAL NOTES
S0.2	GENERAL NOTES & SPECIAL INSPECTIONS
S2.1	ROOF FRAMING PLAN
S4.1	DETAILS
S4.2	DETAILS



2 GENERAL SYMBOLS 1/4" = 1'-0"

(A)	ABOVE	LLV	LONG LEG VERTICAL
A.B.	ANCHOR BOLT	LV.	LEVEL
ADDL.	ADDITIONAL	L.S.	LAG SCREW
ADJ.	ADJACENT	LVL	LAMINATED VENEER LUMBER
A.F.F.	ARCHITECTURAL FINISHED FLOOR	L.W.	LIGHT WEIGHT
APPROX.	APPROXIMATE	MANUF.	MANUFACTURER
ARCH.	ARCHITECT	MAX.	MAXIMUM
A.T.R.	ALL THREAD ROD	M.B.	MACHINE BOLT
(B)	BELOW	MECH.	MECHANICAL
BLDG.	BUILDING	MIN.	MINIMUM
BLKG.	BLOCKING	MISC.	MISCELLANEOUS
BM.	BEAM	ML.	MICROLLAM
B.N.	BOUNDARY NAILING	MTL.	METAL
B.O.	BOTTOM OF	(N)	NEW
BOT.	BOTTOM	N.I.C.	NOT IN CONTRACT
BTWN.	BETWEEN	N.S.	NEAR SIDE
☐	CENTERLINE	N.T.S.	NOT TO SCALE
C.F.	CUBIC FEET	N.W.	NORMAL WEIGHT
C.I.P.	CAST IN PLACE	O.C.	ON CENTER
C.J.	CONSTRUCTION JOINT	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	OPNG.	OPENING
CMU	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
CNTR.	CENTER	PAR.	PARALLEL
COL.	COLUMN	PERP.	PERPENDICULAR
CNTRSNK.	COUNTER SUNK	PL	PLATE
COLL.	COLLECTOR	PSL	PARALLEL STRAND LUMBER
COMP.	COMPACTED	PLYWD.	PLYWOOD
CONC.	CONCRETE	P.T.	PRESSURE TREATED
COND.	CONDITION	P/T	POST TENSIONED
CONN.	CONNECTION	REF.	REFERENCE
CONT.	CONTINUOUS	R.C.	RELATIVE COMPACTION
DBL.	DOUBLE	REINF.	REINFORCING
DET.	DETAIL	REQ'D	REQUIRED
DIA. Ø	DIAMETER	REV.	REVISION
DIAPH.	DIAPHRAGM	S.A.D.	SEE ARCHITECTURAL DRAWINGS
DIM.	DIMENSION	S.C.D.	SEE CIVIL DRAWINGS
DN.	DOWN	S.L.D.	SEE LANDSCAPE DRAWINGS
DWG.	DRAWING	S.M.D.	SEE MECHANICAL DRAWINGS
(E)	EXISTING	SCH.	SCHEDULE
EA.	EACH	SHEET	SHEET
E/E	EACH END	SHTG.	SHEATHING
E/F	EACH FACE	SIMP.	SIMPSON
EL.	ELEVATION	SIM.	SIMILAR
EMB.	EMBEDMENT	S.O.G.	SLAB ON GRADE
E.N.	EDGE NAILING	SPEC.	SPECIFICATIONS
EQ.	EQUAL	SQ.	SQUARE
EQUIV.	EQUIVALENT	STAG.	STAGGERED
E/S	EACH SIDE	STD.	STANDARD
E/W	EACH WAY	STIFF.	STIFFENER
EXT.	EXTERIOR	STL.	STEEL
FDN.	FOUNDATION	S.W.	SHEAR WALL
FIN.	FINISH	SYM.	SYMMETRIC
FLR.	FLOOR	T&B	TOP AND BOTTOM
F.N.	FIELD NAILING	T&G	TONGUE AND GROOVE
F.S.	FAR SIDE	THK.	THICK
FT.	FEET	THRD.	THREADED
FTG.	FOOTING	THRU	THROUGH
GA.	GAUGE	T.O.	TOP OF
GALV.	GALVANIZED	T.O.C.	TOP OF CONCRETE
G.L.	GRID LINE	T.O.S.	TOP OF SLAB/STEEL
GLB.	GLUED LAMINATED BEAM	TRNSV.	TRANSVERSE
HD	HOLD DOWN	TS	TUBE STEEL
H.D.G.	HOT DIP GALVANIZED	TYP.	TYPICAL
HDR.	HEADER	U.O.N	UNLESS OTHERWISE NOTED
HORIZ.	HORIZONTAL	VERT.	VERTICAL
HT.	HEIGHT	V.I.F.	VERIFY IN FIELD
HSS	HOLLOW STRUCTURAL STEEL	V.W.A.	VERIFY WITH ARCHITECT
I.D.	INSIDE DIAMETER	W/	WITH
IN.	INCH	WD.	WOOD
INT.	INTERIOR	W/O	WITHOUT
LB	POUND	W.P.	WORKING POINT
LONG.	LONGITUDINAL	WT.	WEIGHT

1 ABBREVIATIONS N.T.S.



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213-481-5630 holmes.us



PROJECT NAME / LOCATION

MCWCD KNOLLS BUILDING  
MAMMOTH KNOLLS RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

COVER SHEET

S0.0

## STRUCTURAL GENERAL NOTES

SCOPE OF WORK: VOLUNTARY SEISMIC AND SNOW RETROFIT

GOVERNING CODE:

THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE AND 2017 ASCE 41.

LIMITATIONS:

THE SEISMIC STRENGTHENING SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE, AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

### 1. GENERAL

MATERIALS AND QUALITY OF WORK TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES IN A REASONABLE AND TIMELY MANNER. DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES ARE RESOLVED. DO NOT SCALE DRAWINGS.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
- DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
- ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE AT ALL TIMES FOR THE CONDITIONS OF THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
  - SAFETY OF PERSONS, PROPERTY AND STRUCTURES,
  - MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION,
  - COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
  - ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

### 2. SUBMITTALS

- SUBMIT (1) HARD COPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
- SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
- SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION. FOR THE ITEMS LISTED BELOW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SHOP DRAWINGS WITH ALL TRADES AND FIELD CONDITIONS.
- NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION. WHERE NEW STRUCTURAL ELEMENTS ARE LOCATED WITHIN AN EXISTING STRUCTURE, SHOP DRAWINGS SHALL INCLUDE THE COORDINATION OF THE NEW STRUCTURAL ELEMENTS WITH THE EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS. ALL SHOP DRAWING SUBMITTALS SHALL CLEARLY IDENTIFY THE SET-OUT OF NEW STRUCTURAL ELEMENTS RELATIVE TO THE RELEVANT PORTIONS OF THE EXISTING STRUCTURE, EXTENT OF ANY REQUIRED DEMOLITION, AND SHALL COORDINATE ALL OF THE RELEVANT TRADES.
  - STRUCTURAL AND MISCELLANEOUS STEEL
    - MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS.
    - SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS, AND DIMENSIONS. WELD PROCEDURE SPECIFICATIONS, INCLUDING NEW WELDS TO EXISTING STRUCTURAL STEEL, AND PROCEDURE QUALIFICATION RECORDS FOR WELDS THAT ARE NOT PREQUALIFIED, FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
    - MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT, INCLUDING COLOR CHARTS.
  - THE FOLLOWING SUBMITTALS SHALL BE STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CONSTRUCTION, AND SHALL INCLUDE DRAWINGS AND CALCULATIONS.
    - SHORING FOR ALL ELEMENTS AFFECTED BY THE CONTRACTOR'S DEMOLITION AND MEANS-AND-METHODS OF CONSTRUCTION.

### 3. SPECIAL INSPECTION REQUIREMENTS AND TESTING

REFER TO SHEET S0.2

### 4. STRUCTURAL OBSERVATIONS

- STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.
- THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE.
- UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:
  - WOOD FRAMING
  - WALL ANCHORS

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.
- AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

### 5. DESIGN BASIS

- CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.
- DESIGN LIVE LOADS (PSF):
  - ROOF LIVE 20
- DESIGN DEAD LOADS
  - 1) SUPERIMPOSED DEAD LOADS NOTED ON PLANS
- EARTHQUAKE DESIGN DATA
  - 1) RISK CATEGORY, IV
  - 2) ASCE 41 PERFORMANCE OBJECTIVE, BPOE
  - 3) ASCE 41 BSE-2E SPECTRAL RESPONSE ACCELERATIONS:
    - a. SXS = 1.220 g
    - b. SX1 = 0.720 g
  - 4) ASCE 41 BSE-1E SPECTRAL RESPONSE ACCELERATIONS:
    - a. SXS = 0.784 g
    - b. SX1 = 0.390 g
  - 5) (ASCE 41 PROJECTS) F<sub>p</sub> @ BSE-2E: 0.80W<sub>p</sub>
  - 6) (ASCE 41 PROJECTS) F<sub>p</sub> @ BSE-1E: 0.79W<sub>p</sub>
- DESIGN SNOW LOADS
  - 1) GROUND SNOW LOAD, P<sub>g</sub>: 294 PSF
  - 2) FLAT-ROOF SNOW LOAD, P<sub>f</sub>: 249 PSF
  - 3) SNOW EXPOSURE FACTOR, C<sub>e</sub>: 1.0
  - 4) SNOW LOAD IMPORTANCE FACTOR, I: 1.1
  - 5) THERMAL FACTOR, C<sub>t</sub>: 1.1

### 6. FRAMING LUMBER

- ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 17.
- ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.
- ALL POSTS AND BEAMS SHALL BE DOUGLAS FIR, #1.
- ALL FLOOR AND ROOF JOISTS SHALL BE DOUGLAS FIR, #1.
- ALL STUDS, PLATES, ETC., SHALL BE DOUGLAS FIR, CONSTRUCTION GRADE.
- ENGINEERED WOOD PRODUCTS MAY BE USED AS SUBSTITUTES FOR SAWN LUMBER UPON REQUEST BY THE CONTRACTOR AND APPROVAL FROM THE ARCHITECT AND ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TESTING REPORTS FOR APPROVAL.

### 7. I-JOIST, LAMINATED VENEER LUMBER AND WOOD TRUSSES

- ALL ENGINEERED WOOD PRODUCTS (EWP) PERFORMING THE SAME FUNCTION IN THIS PROJECT SHALL BE SUPPLIED BY ONE MANUFACTURER.
- A CURRENT ESR REPORT SHALL BE PROVIDED FOR ALL I-JOIST, PSL, LVL AND WOOD TRUSS MEMBERS.
- ALL MICROLAM LVL FRAMING MEMBERS SHALL BE FABRICATED BY TRUS JOIST WITH THE FOLLOWING ALLOWABLE STRESSES: F<sub>b</sub> = 2600 PSI, F<sub>v</sub> = 285 PSI, E = 2,000,000 PSI. MOISTURE CONTENT AT THE TIME OF FABRICATION SHALL NOT EXCEED 9%.
- ALL PARALLAM PSL FRAMING MEMBERS SHALL BE FABRICATED BY TRUS JOIST WITH THE FOLLOWING ALLOWABLE STRESSES: F<sub>b</sub> = 2900 PSI, F<sub>v</sub> = 290 PSI, E = 2,200,000 PSI. MOISTURE CONTENT AT THE TIME OF FABRICATION SHALL NOT EXCEED 9%.

### 8. GLUE LAMINATED TIMBER

- GLUED-LAMINATED (GLULAM) MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI STANDARD A190.1, AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER OR OTHER CODE-APPROVED DESIGN, MANUFACTURING AND/OR QUALITY ASSURANCE PROCEDURES. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK OR BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER THE SHOP OR THE FIELD.
- GLULAM MEMBERS SHALL BE FRAMING (HIDDEN) OR ARCHITECTURAL (EXPOSED) APPEARANCE CLASSIFICATION AND OF THE STRENGTHS INDICATED BELOW:

GLUE-LAMINATED MEMBERS						
USE	COMBINATION SYMBOL (SPECIES)	FLEXURAL STRESS, F <sub>b</sub> (PSI)	COMPRESSION PERP TO GRAIN F <sub>c⊥</sub> (PSI)	SHEAR STRESS PERP TO GRAIN F <sub>v</sub> (PSI)	COMPRESSION PARALLEL TO GRAIN F <sub>c</sub> (PSI)	MODULUS OF ELASTICITY (PSI)
BEAMS - SIMPLE SPAN	24F-V4 (DF/DF)	+2,400/-1,850	650	265	1650	1,800,000
BEAMS - CONTINUOUS OR CANTILEVER	24F-V8 (DF/DF)	+/-2,400	650	265	1650	1,800,000
COLUMNS	DF L2	+/-1,800	560	230	1950	1,600,000

- ADHESIVE SHALL BE WET-USE EXTERIOR, WATERPROOF GLUE.
- FIELD NOTCHING AND BORING OF GLULAM MEMBERS IS NOT ALLOWED UNLESS APPROVED BY THE ENGINEER.
- GLULAM MEMBERS SHALL BE SUPPLIED TO THE PROJECT WITH BETWEEN 3,500 AND 5,000 FOOT STANDARD MILL CAMBER WITH TOLERANCES AS ALLOWED BY ANSI A190.1. THE DRAWINGS WILL INDICATE WHETHER ADDITIONAL CAMBER IS REQUIRED.
- SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW.

G. ALL SURFACES OF VISUALLY EXPOSED GLULAM MEMBERS SHALL BE PROVIDED WITH TWO COATS OF SANSIN KP-12UVW PROTECTIVE COATING, OR APPROVED EQUIVALENT. ALL EXPOSED SURFACES OF EXTERIOR EXPOSED GLULAM MEMBERS TO RECEIVE SDF TOPCOAT BY SANSIN CORPORATION, OR APPROVED EQUIVALENT, WITH RE-APPLICATION EVERY FOUR YEARS UNLESS A LESS FREQUENT MAINTENANCE PLAN IS JUSTIFIED.

### 9. PLYWOOD (PW) OR ORIENTED STRAND BOARD (OSB)

- EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE, TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCT STANDARD PS-1. PLYWOOD GRADE SHALL CONFORM TO CD-X FOR PLYWOOD OR TYPE 2-M-W FOR ORIENTED STRAND BOARD, UNLESS OTHERWISE NOTED.
- WHERE PLYWOOD IS PERMANENTLY EXPOSED TO WEATHER, IT SHALL BE EXTERIOR TYPE. OTHERWISE, PANEL SHEATHING SHALL BE EXPOSURE 1. PLYWOOD TO BE CC GRADE AT LOCATIONS EXPOSED TO WEATHER, CC OR CD GRADE ELSEWHERE.
- PANELS TO BE 5-PLY MINIMUM, EXCEPT 3/8" PANELS TO BE 3-PLY MINIMUM.
- PLYWOOD SHEETS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS. PLYWOOD AT FLOORS SHALL BE GLUED TO FRAMING BELOW (USE SOLVENT BASED GLUE COMPLYING WITH ASTM D3498 AND VOLATILE ORGANIC COMPOUND (VOC) LIMITS PER CALGREEN). LN-950 BY LIQUID NAILS OR APPROVED EQUIVALENT, UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT. PROVIDE RING-SHANK NAILS AT FLOOR AND ROOF SHEATHING.
- PLYWOOD SHEETS ON WALLS SHALL BE LAID WITH LONG DIMENSION VERTICAL. BLOCK ALL EDGES WITH A MINIMUM OF 3x BLOCK AND/MEMBERS. ALL NAILING SHALL HAVE 3/8" EDGE DISTANCE FOR FRAMING, BLOCKING AND PLYWOOD EDGES. USE SMOOTH-SHANK NAILS FOR PLYWOOD WALL SHEATHING.
- STAPLES FOR PLYWOOD DIAPHRAGMS SHALL BE 14 GAGE ROUND SEMI-FLATTENED OR FLATTENED, PLAIN OR ZINC-COATED STEEL WIRE, WITH A NOMINAL CROWN WIDTH OF 7/16", DRIVEN BY PNEUMATIC OR MECHANICAL DEVICE.
- PROVIDE 1/8" GAP BETWEEN PANELS UNLESS OTHERWISE NOTED.
- PANELS SHALL HAVE THE FOLLOWING PROPERTIES UNLESS OTHERWISE NOTED.
  - 3/8" NOMINAL SHALL BE 3/8" ACTUAL THICKNESS WITH 24/0 SPAN RATING.
  - 1/2" NOMINAL SHALL BE 15/32" ACTUAL THICKNESS WITH 32/16 SPAN RATING.
  - 5/8" NOMINAL SHALL BE 19/32" ACTUAL THICKNESS WITH 40/20 SPAN RATING.
  - 3/4" NOMINAL SHALL BE 23/32" ACTUAL THICKNESS WITH 48/24 SPAN RATING.
  - 1 1/8" NOMINAL SHALL BE 1 1/8" ACTUAL THICKNESS WITH 48 O.C. FLOOR SPAN RATING.

### 10. ROUGH CARPENTRY

- FOR SCHEDULE OF MINIMUM NAILING TABLE 2304.10.2 OF THE 2022 CBC/2021 IBC 16d VINYL COATED SINKERS MAY BE SUBSTITUTED FOR 16d BOX OR COMMON NAILS FOR ROUGH FRAMING. SINKERS SHALL NOT BE USED WITH METAL CONNECTORS.
- SILLS AND LEDGERS ON CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED DOUGLAS FIR. SILLS AND LEDGERS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE AND A FASTENER NO FURTHER THAN 9 INCHES FROM END OF EACH PIECE, UNLESS OTHERWISE NOTED.
- PLACE JOISTS WITH CROWN UP.
- RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.
- WHEN METAL CONNECTORS, ANCHORS OR FASTENERS ITEMS ARE EXPOSED TO WEATHER AND/OR PRESSURE TREATED LUMBER THE METAL ITEMS ARE TO BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. SEE ADDITIONAL COATING REQUIREMENTS AS NOTED IN THE PRESSURE TREATMENT SECTION.
- DOUBLE ALL JOISTS UNDER ALL PARALLEL PARTITIONS UNLESS NOTED OTHERWISE.
- BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2x SOLID BLOCKING. BLOCK AND BRIDGE ROOF JOISTS AT 10'-0" AND FLOOR JOISTS AT 8'-0" UNLESS OTHERWISE NOTED.
- 2x JOISTS SHALL BE SISTERED (VERTICAL SCREW LAMINATED) WITH SDWS 0.220x3 MIN. LENGTH AT 6" O.C. IN (2) ROWS STAGGERED UNLESS OTHERWISE NOTED.
- ALL POSTS LOCATED OVER WOOD WALLS SHALL HAVE A POST OF EQUAL OR GREATER SIZE LOCATED IN THE WALL DIRECTLY BELOW UNLESS OTHERWISE NOTED.
- THE STRUCTURAL DESIGN ASSUMES THAT ALL FLOORS AND ROOFS ARE CONSTRUCTED AND LOADED WITH FINISHES (OR EQUIVALENT WEIGHT) FOR A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE TIME OF DOOR AND WINDOW INSTALLATION.
- ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON STRONG-TIE'S STANDARD FASTENERS OR APPROVED EQUIVALENT INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. USP LUMBER CONNECTORS WITH REFERENCE NUMBERS FOR SUBSTITUTION MAY BE USED IN LIEU OF SIMPSON HARDWARE. ENGINEER MAY APPROVE OF OTHER SUBSTITUTIONS UPON THE FOLLOWING:
  - WRITTEN REQUEST FOR OTHER BRANDS
  - SUBMISSION OF MANUFACTURER'S TESTING REPORTS
  - REFERENCES TO PERTINENT DETAILS WHERE SUBSTITUTIONS ARE TO BE APPLIED.
- ALL STRUCTURAL WOOD WALLS SHALL BE FRAMED WITH 2x4 MINIMUM STUDS AT 16" ON CENTER UNLESS OTHERWISE NOTED.
- PRE-DRILL HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD.

### 11. STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED:
  - PLATES AND BARS, INCLUDING DOUBLER PLATES, CONTINUITY PLATES, BASE PLATES, GUSSET PLATES, AND SHEAR TABS: ASTM A572 GRADE 50.
  - MISCELLANEOUS (M), AMERICAN STANDARD (S), CHANNEL (C), MISCELLANEOUS CHANNEL (MC), AND ANGLES (L): ASTM A36 (F<sub>y</sub> = 36 KSI).
- STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED.
  - ERECTION, CEMENT GROUTED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A.
  - THREADED RODS: ASTM A36.
  - HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.
- ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.
- LOCATE AND INSTALL ALL ANCHOR RODS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS. FURNISH ANCHOR RODS WITH DOUBLE HEAVY HEX NUTS JAMMED AT THE EMBEDDED CONCRETE END. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR RODS WHILE PLACING CONCRETE. COORDINATE ANCHOR ROD INSTALLATION WITH REINFORCING AND FORMWORK. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE PLATE MATERIAL SHALL NOT BE ENLARGED BY BURNING. ANCHOR ROD LOCATIONS SHALL BE INSPECTED BY THE OWNER'S TESTING AGENCY PRIOR TO CONCRETE PLACEMENT.

**Holmes**

523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213-481-5630 holmes.us

STAMP



PROJECT NAME / LOCATION

MCWVD KNOLLS  
BUILDING  
MAMMOTH-KNOLLS RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

GENERAL NOTES

S0.1

- E. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.
- F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE OR MASONRY) WITH ONE COAT OF PRIMER STANDARD TMEC V10 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S SPECIFICATIONS.
- G. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCING FABRICATION.
- H. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSII/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES U.O.N. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3. USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E). WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOINT PREPARATIONS AND WELDING PROCEDURES.

12. **FINISHES - FOR WORK ON EXISTING BUILDINGS**

- A. REPLACE ALL DAMAGED FINISH MATERIALS WITH NEW MATERIALS OF EQUIVALENT QUALITY AND KIND. SUBMIT SAMPLES AND/OR PRESENT SAMPLE INSTALLATION TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.

13. **LAMINATED VENEER LUMBER**

- A. LAMINATED VENEER LUMBER (LVL) MEMBERS SHALL BE FABRICATED BY WAYERHAEUSER. IN CONFORMANCE WITH APA PRODUCT REPORT PR-L324. EACH MEMBER SHALL BEAR AN APA-EWS IDENTIFICATION MARK OR BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE.
- B. LVL MEMBERS SHALL BE OF THE STRENGTH INDICATED BELOW (ON EDGE):

LVL, LSL, PSL MEMBERS (ICC-ESR 1387)						
USE	GRADE	FLEXURAL STRESS, F <sub>b</sub> (PSI)	COMPRESSION PERP. TO GRAIN F <sub>c⊥</sub> (PSI)	SHEAR STRESS PERP. TO GRAIN F <sub>v</sub> (PSI)	COMPRESSION PARALLEL TO GRAIN F <sub>c</sub> (PSI)	MODULUS OF ELASTICITY (PSI)
BEAMS	2.0E LVL	2,600	750	285	2,510	2,000,000

- C. FIELD NOTCHING AND BORING OF LVL MEMBERS IS NOT ALLOWED UNLESS APPROVED BY ENGINEER.

14. **SELF-DRILLING SCREWS**

- A. SCREWS FOR WOOD AND WOOD TO STEEL SELF-DRILLING CONNECTIONS SHALL BE SHOWN IN THE STRUCTURAL DRAWINGS FROM THE FOLLOWING APPROVED MANUFACTURERS.

APPROVED SELF-DRILLING SCREWS		
SCREW TYPE (CALLOUT)	MANUFACTURER	ICC REPORT
SDS SERIES WOOD SCREWS (SDS)	SIMPSON STRONG-TIE	ESR-2236
SDWS SERIES WOOD SCREWS (SDWS)	SIMPSON STRONG-TIE	IAPMO UES ER-192
WSV WOOD SCREWS	SIMPSON STRONG-TIE	ESR-1472
SDCP, SDCF, SDHR SCREWS	SIMPSON STRONG-TIE	ESR-3046
SWG STRUCTURAL SCREWS (ASSY)	MYTICON TIMBER CONNECTORS	ESR-3178 & ESR-3179

- B. SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, INCLUDING ALL CURRENT TECHNICAL BULLETINS AND GUIDANCE.

REQUIRED VERIFICATION AND INSPECTION FOR SEISMIC RESISTANCE (CBC SECTION 1705.12)			
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:			CBC SEC. 1705.12.2
a. INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS*, WOOD SHEAR PANELS*, WOOD DIAPHRAGMS*, DRAG STRUTS, BRACES, AND HOLD-DOWNS.	-	X	* SPECIAL INSPECTIONS NOT REQUIRED WHERE FASTENER SPACING OF SHEATHING IS MORE THAN 4" O.C.

2 **MINIMUM INSPECTION FOR SEISMIC RESISTANCE** N.T.S.

**STATEMENT OF SPECIAL INSPECTIONS**

- SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY APPROVED BY THE JURISDICTION FOR SUCH WORK AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
- THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.
- THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
- THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 3 DAYS NOTICE TO THE APPROVED TESTING AGENCY PRIOR TO ANY REQUIRED INSPECTIONS.
- IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS OR CORRECTIONS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE AND IN ADDITION TO THE SPECIAL INSPECTION REPORTS.
- SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS, AND SPECIFICALLY BRING ANY NON-CONFORMING ITEMS TO THE ATTENTION OF THE REVIEWER.
- SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.
  - DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: "N/A"
  - SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC SYSTEMS, ARCHITECTURAL COMPONENTS, MEP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS, AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.
- SPECIAL INSPECTIONS FOR WIND RESISTANCE SHALL BE PERFORMED FOR THE MAIN WIND FORCE RESISTING SYSTEM AND WIND RESISTING COMPONENTS WHEN APPLICABLE AND AS PER SECTION 1705.11 OF THE CODE.
  - MAIN WIND FORCE RESISTING SYSTEM/WIND RESISTING COMPONENT: "N/A"
  - SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, AND WIND-RESISTING COMPONENTS.
- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
- STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ADDITIONAL REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:
  - ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
  - NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE WHERE THE EFFECTIVE PRESTRESS IN THE CONCRETE IS LESS THAN 150 PSI.
  - CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS, ON GRADE.
- MASONRY CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.4 OF THE CODE AND IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE REQUIREMENTS, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- DEEP FOUNDATIONS: SPECIAL INSPECTIONS FOR DRIVEN AND CAST-IN-PLACE DEEP FOUNDATIONS SHALL BE AS REQUIRED BY SECTIONS 1705.7 AND 1705.8 OF THE CODE RESPECTIVELY, INCLUDING THE TESTS AND INSPECTIONS CONTAINED WITHIN THE APPROVED GEOTECHNICAL REPORT, AND INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

1 **STATEMENT OF SPECIAL INSPECTIONS** N.T.S.



PROJECT NAME / LOCATION

**MCWCD KNOLLS BUILDING**  
 MAMMOTH KNOLLS RD., MAMMOTH LAKES, CA 93546

**ISSUE / REVISION**

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

**GENERAL NOTES & SPECIAL INSPECTIONS**

**S0.2**



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213 481 5630 holmes.us

STAMP



PROJECT NAME / LOCATION

**MCWVD KNOLLS BUILDING**  
MAMMOTH KNOLLS RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED  
IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

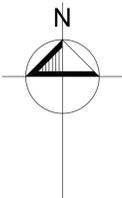
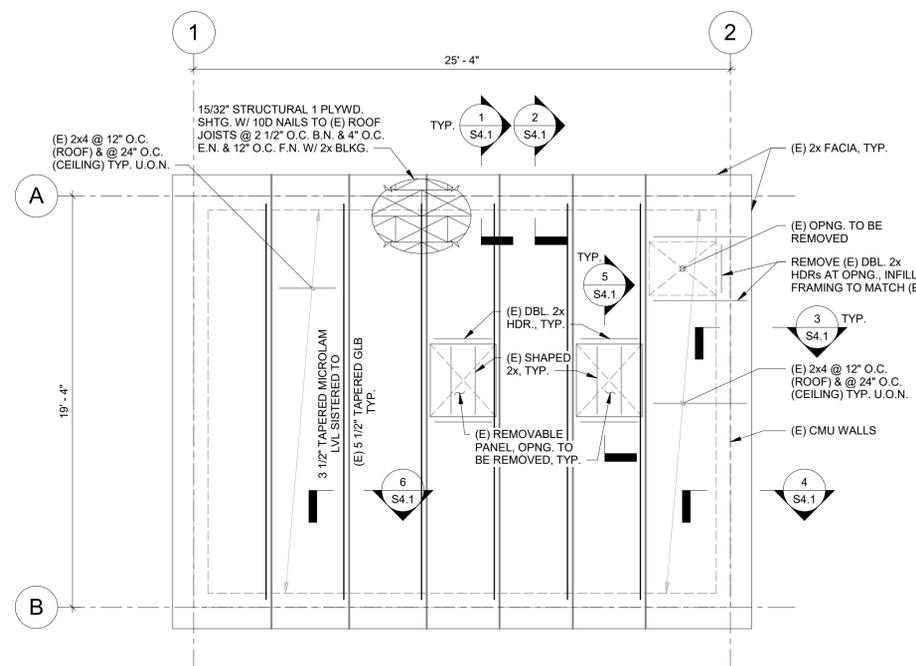
DRAWING TITLE

**ROOF FRAMING PLAN**

**S2.1**

**LEGEND:**

- (E) FULLY GROUTED CMU WALL (B) W/ #5 @ 16" VERT. & #5 @ 16" HORIZ., V.I.F.
- WD. OR STL. BEAM
- SIZE @ XX" O.C. JOIST SPAN
- PLYWOOD SHTG.



**1 ROOF FRAMING PLAN**

1/4" = 1'-0"



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213-481-5630 holmes.us

STAMP



PROJECT NAME / LOCATION

**MCWVD KNOLLS BUILDING**  
MAMMOTH KNOLLS RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

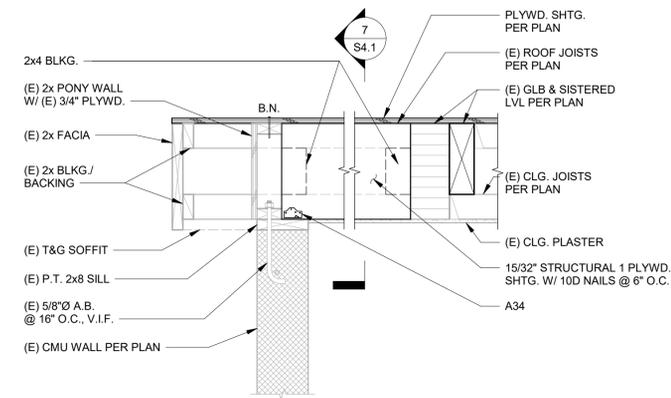
DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

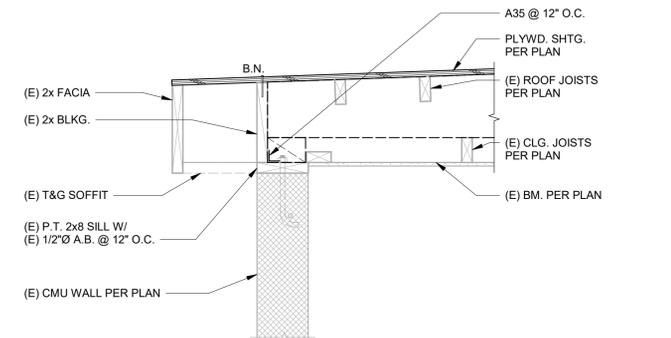
**DETAILS**

**S4.1**

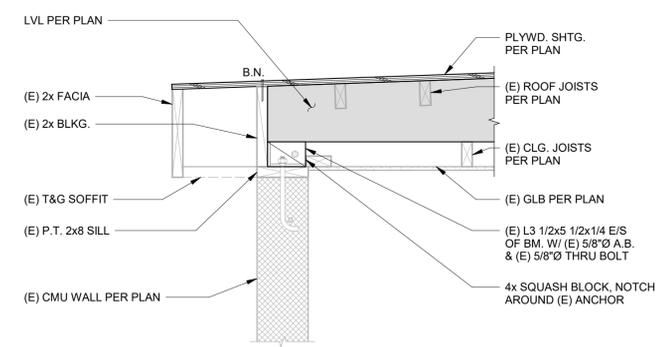


**3 ROOF CONNECTION DETAIL - GLULAM PARALLEL TO WALL**  
1" = 1'-0"

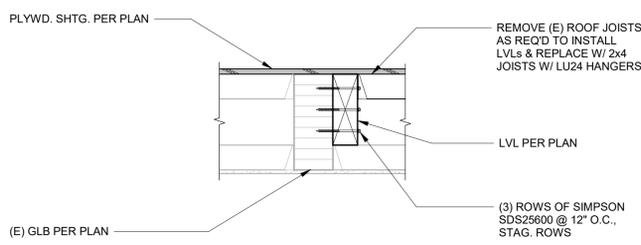
NOTES:  
1. CONNECTION TO BE SPACED @ 4'-0" O.C., MAX.  
2. NOTIFY EOR IF SPACING OF ANCHOR BOLTS DIFFERS.



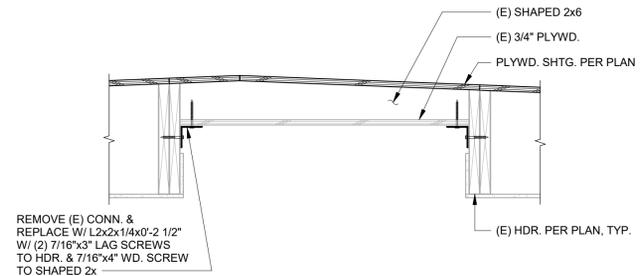
**2 ROOF CONNECTION DETAIL - GLULAM PERPENDICULAR TO WALL**  
1" = 1'-0"



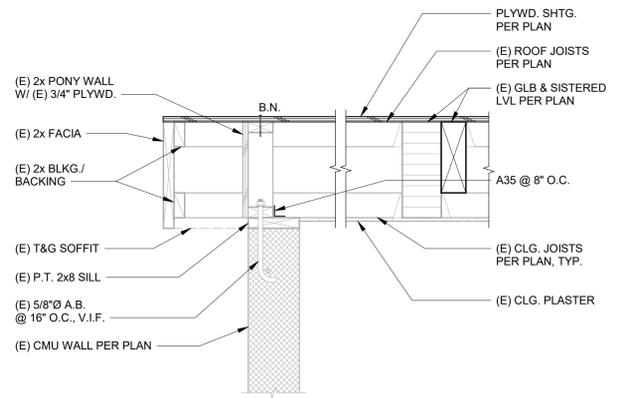
**1 ROOF CONNECTION DETAIL - GLULAM PERPENDICULAR TO WALL**  
1" = 1'-0"



**6 DETAIL OF SISTERED BEAM CONDITION (TYPICAL)**  
1" = 1'-0"

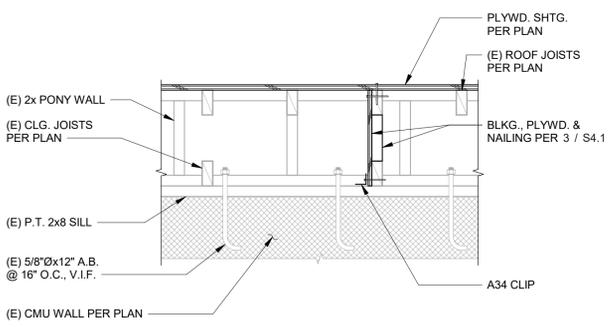


**5 DETAIL OF REMOVABLE PANEL**  
1" = 1'-0"



**4 ROOF CONNECTION DETAIL - GLULAM PARALLEL TO WALL**  
1" = 1'-0"

NOTES:  
1. NOTIFY EOR IF SPACING OF ANCHOR BOLTS DIFFERS.



**7 ROOF CONNECTION DETAIL - GLULAM PARALLEL TO WALL**  
1" = 1'-0"

Autocheck: Docs/24199.10 Mammmoth Lakes Seismic & Structural/Sves24199.10-MCWVD Knolls Bldg. R24.RVT

5/16/2025 1:08:47 PM



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213 481 5630 holmes.us

STAMP



PROJECT NAME / LOCATION

**MCWVD KNOLLS BUILDING**  
 MAMMOTH KNOLLS RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

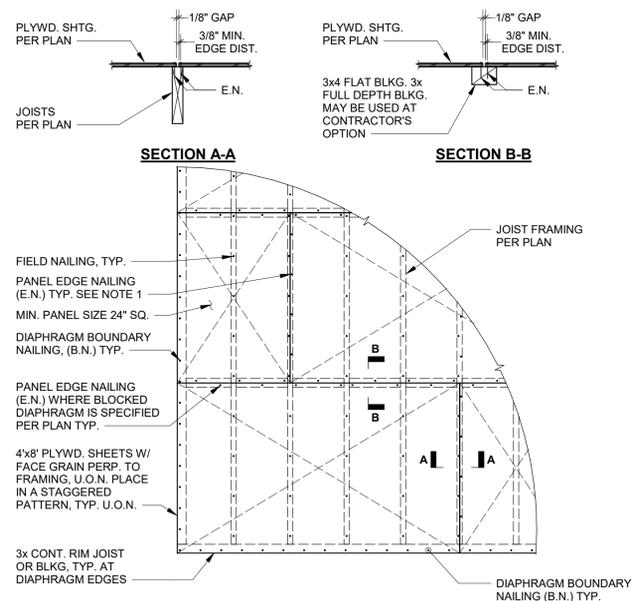
PROJECT No. 24199.10

DRAWING TITLE

**DETAILS**

**S4.2**

NAILING SCHEDULE	
CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOE NAIL	(3) 8d
2. BRIDGING TO JOIST, TOE NAIL E/E	(2) 8d
3. 1" x 6" SUBFLOOR OR LESS TO EA. JOIST, FACE NAIL	(2) 8d
4. WIDER THAN 1" x 6" SUBFLOOR TO EA. JOIST, FACE NAIL	(3) 8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL	(2) 16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL SOLE PLATE TO JOIST, AT BRACED WALL PANELS	16d @ 16" O.C. (3) 16d @ 16" O.C.
7. TOP PLATE TO STUD, END NAIL	(2) 16d
8. STUD TO SOLE PLATE	(4) 8d TOE NAIL OR (2) 16d END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" O.C.
10. DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE (PARTITION)	16d @ 16" O.C. (8) 16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 16" O.C.
13. TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	(2) 16d
14. CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d
16. CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
17. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3) 16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d MIN. SEE 2019 CBC TABLE 2308.7.3.1
19. RAFTER TO PLATE, TOE NAIL	(3) 8d
20. 1" DIAGONAL BRACE TO EA. STUD & PLATE, FACE NAIL	(2) 8d
21. 1" x 8" SHEATHING OR LESS TO EA. BEARING, FACE NAIL	(2) 8d
22. WIDER THAN 1" x 8" SHEATHING TO EA. BEARING, FACE NAIL	(3) 8d
23. BUILT-UP CORNER STUDS	16d @ 24" O.C.
24. BUILT-UP GIRDER & BEAMS	20d @ 32" O.C. FACE NAIL T&B STAGG. ON OPP. SIDES & (2) 20d FACE NAIL AT ENDS AND SPLICES
25. 2" PLANKS, FACE NAIL	16d @ EACH BEARING
26. COLLAR TIE TO RAFTER, FACE NAIL	(3) 10d
27. JACK RAFTER TO HIP	(3) 10d TOE NAIL (2) 16d FACE NAIL
28. ROOF RAFTER TO 2x RIDGE BEAM	(2) 16d TOE NAIL (2) 16d FACE NAIL
29. JOIST TO BAND JOIST, FACE NAIL	(3) 16d
30. LEDGER STRIP, FACE NAIL AT EACH JOIST	(3) 16d
31. WOOD STRUCTURAL PANELS SUBFLOOR, ROOF & WALL SHEATHING (TO FRAMING)	10d
32. PANEL SIDING (TO FRAMING)	8d
33. FIBERBOARD SHEATHING	8d
34. INTERIOR PANELING	6d



**NOTE:**  
1. ALL FRAMING MEMBERS AND BLOCKING RECEIVING NAILS SPACED AT 2 1/2" O.C. OR TIGHTER SHALL BE 3x MIN. WIDTH

**4 TYPICAL DIAPHRAGM FRAMING**

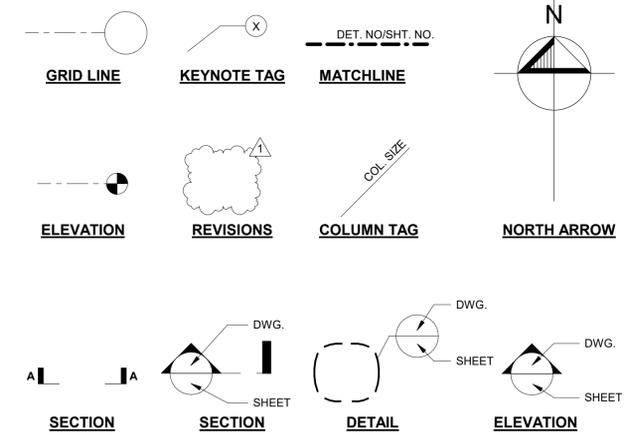
1/2" = 1'-0"

**1 NAILING SCHEDULE**

N.T.S.



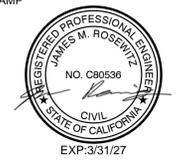
SHEET LIST	
SHEET NUMBER	SHEET NAME
S0.0	COVER SHEET
S0.1	GENERAL NOTES
S0.2	SPECIAL INSPECTIONS
S2.1	ROOF FRAMING PLAN
S4.1	DETAILS



**2** GENERAL SYMBOLS 1/4" = 1'-0"

(A)	ABOVE	LLV	LONG LEG VERTICAL
A.B.	ANCHOR BOLT	LV.	LEVEL
ADDL.	ADDITIONAL	L.S.	LAG SCREW
ADJ.	ADJACENT	LVL	LAMINATED VENEER LUMBER
A.F.F.	ARCHITECTURAL FINISHED FLOOR	L.W.	LIGHT WEIGHT
APPROX.	APPROXIMATE	MANUF.	MANUFACTURER
ARCH.	ARCHITECT	MAX.	MAXIMUM
A.T.R.	ALL THREAD ROD	M.B.	MACHINE BOLT
(B)	BELOW	MECH.	MECHANICAL
BLDG.	BUILDING	MIN.	MINIMUM
BLKG.	BLOCKING	MISC.	MISCELLANEOUS
BM.	BEAM	ML.	MICROLLAM
B.N.	BOUNDARY NAILING	MTL.	METAL
B.O.	BOTTOM OF	(N)	NEW
BOT.	BOTTOM	N.I.C.	NOT IN CONTRACT
BTWN.	BETWEEN	N.S.	NEAR SIDE
☐	CENTERLINE	N.T.S.	NOT TO SCALE
C.F.	CUBIC FEET	N.W.	NORMAL WEIGHT
C.I.P.	CAST IN PLACE	O.C.	ON CENTER
C.J.	CONSTRUCTION JOINT	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	OPNG.	OPENING
CMU	CONCRETE MASONRY UNIT	OPP.	OPPOSITE
CNTR.	CENTER	PAR.	PARALLEL
COL.	COLUMN	PERP.	PERPENDICULAR
CNTRSNK.	COUNTER SUNK	PL	PLATE
COLL.	COLLECTOR	PSL	PARALLEL STRAND LUMBER
COMP.	COMPACTED	PLYWD.	PLYWOOD
CONC.	CONCRETE	P.T.	PRESSURE TREATED
COND.	CONDITION	P/T	POST TENSIONED
CONN.	CONNECTION	REF.	REFERENCE
CONT.	CONTINUOUS	R.C.	RELATIVE COMPACTION
DBL.	DOUBLE	REINF.	REINFORCING
DET.	DETAIL	REQ'D	REQUIRED
DIA. Ø	DIAMETER	REV.	REVISION
DIAPH.	DIAPHRAGM	S.A.D.	SEE ARCHITECTURAL DRAWINGS
DIM.	DIMENSION	S.C.D.	SEE CIVIL DRAWINGS
DN.	DOWN	S.L.D.	SEE LANDSCAPE DRAWINGS
DWG.	DRAWING	S.M.D.	SEE MECHANICAL DRAWINGS
(E)	EXISTING	SCH.	SCHEDULE
EA.	EACH	SHEET	SHEET
E/E	EACH END	SHTG.	SHEATHING
E/F	EACH FACE	SIMP.	SIMPSON
EL.	ELEVATION	SIM.	SIMILAR
EMB.	EMBEDMENT	S.O.G.	SLAB ON GRADE
E.N.	EDGE NAILING	SPEC.	SPECIFICATIONS
EQ.	EQUAL	SQ.	SQUARE
EQUIV.	EQUIVALENT	STAG.	STAGGERED
E/S	EACH SIDE	STD.	STANDARD
E/W	EACH WAY	STIFF.	STIFFENER
EXT.	EXTERIOR	STL.	STEEL
FDN.	FOUNDATION	S.W.	SHEAR WALL
FIN.	FINISH	SYM.	SYMMETRIC
FLR.	FLOOR	T&B	TOP AND BOTTOM
F.N.	FIELD NAILING	T&G	TONGUE AND GROOVE
F.S.	FAR SIDE	THK.	THICK
FT.	FEET	THRD.	THREADED
FTG.	FOOTING	THRU	THROUGH
GA.	GAUGE	T.O.	TOP OF
GALV.	GALVANIZED	T.O.C.	TOP OF CONCRETE
G.L.	GRID LINE	T.O.S.	TOP OF SLAB/STEEL
GLB.	GLUED LAMINATED BEAM	TRNSV.	TRANSVERSE
HD	HOLD DOWN	TS	TUBE STEEL
H.D.G.	HOT DIP GALVANIZED	TYP.	TYPICAL
HDR.	HEADER	U.O.N	UNLESS OTHERWISE NOTED
HORIZ.	HORIZONTAL	VERT.	VERTICAL
HT.	HEIGHT	V.I.F.	VERIFY IN FIELD
HSS	HOLLOW STRUCTURAL STEEL	V.W.A.	VERIFY WITH ARCHITECT
I.D.	INSIDE DIAMETER	W/	WITH
IN.	INCH	WD.	WOOD
INT.	INTERIOR	W/O	WITHOUT
LB	POUND	W.P.	WORKING POINT
LONG.	LONGITUDINAL	WT.	WEIGHT

**1** ABBREVIATIONS N.T.S.



PROJECT NAME / LOCATION

**MCWD TIMBER RIDGE BUILDING**  
 DAVIDSON RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

**COVER SHEET**

**S0.0**

**STRUCTURAL GENERAL NOTES**

SCOPE OF WORK: VOLUNTARY SEISMIC AND SNOW RETROFIT

GOVERNING CODE:

THE STRUCTURAL DESIGN OF BUILDING COMPONENTS DESCRIBED ON THESE DRAWINGS IS IN ACCORDANCE WITH THE 2022 CALIFORNIA BUILDING CODE AND 2017 ASCE 41.

LIMITATIONS:

THE SEISMIC STRENGTHENING SHOWN ON THESE DRAWINGS IS DESIGNED TO ACHIEVE MINIMUM REQUIRED STANDARDS FOR STRUCTURAL SEISMIC RESISTANCE, AND IS INTENDED TO REDUCE THE RISK OF LIFE LOSS OR INJURY. THIS WORK WILL NOT NECESSARILY PREVENT LOSS OF LIFE OR INJURY, NOR PREVENT EARTHQUAKE DAMAGE TO NEW OR REHABILITATED BUILDINGS.

**1. GENERAL**

MATERIALS AND QUALITY OF WORK TO CONFORM TO THE BUILDING CODE DEFINED ABOVE AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- A. THESE NOTES APPLY TO ALL DRAWINGS AND GOVERN UNLESS OTHERWISE NOTED OR SPECIFIED. WHENEVER THERE APPEARS TO BE A CONFLICT BETWEEN THE NOTES, DRAWINGS, OR SPECIFICATIONS, CONTACT THE OWNER'S REPRESENTATIVE FOR CLARIFICATION.
B. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND PROPOSED DIMENSIONS AT JOB SITE. COMPARE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS BEFORE COMMENCING WORK. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES IN A REASONABLE AND TIMELY MANNER. DO NOT PROCEED WITH AFFECTED WORK UNTIL DISCREPANCIES ARE RESOLVED. DO NOT SCALE DRAWINGS.
C. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, USE SIMILAR DETAILS OF CONSTRUCTION, SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER.
D. DETAILS NOTED AS "TYPICAL" IN THEIR TITLE OR ON SHEETS TITLED "TYPICAL DETAILS" APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED. SUCH DETAILS ARE NOT NOTED AT EACH LOCATION THAT THEY OCCUR.
E. ALL ELEMENTS INDICATED ON THE DRAWINGS SHALL BE ASSUMED "NEW" UNLESS OTHERWISE NOTED.
F. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE AT ALL TIMES FOR THE CONDITIONS OF THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:
a. SAFETY OF PERSONS, PROPERTY AND STRUCTURES,
b. MEANS, METHODS, PROCEDURES, TECHNIQUES OR SEQUENCES OF CONSTRUCTION,
c. COMPLIANCE WITH APPLICABLE CAL/OSHA REQUIREMENTS AND GUIDELINES,
d. ALL NECESSARY INDEPENDENT ENGINEERING REVIEWS OF THESE CONDITIONS.

THE CONTRACTOR SHALL BRACE OR SHORE THE CONSTRUCTION AS REQUIRED TO PROVIDE A SAFE AND TRUE STRUCTURE. WHERE BRACING OR SHORING IS INDICATED IN THE DRAWINGS, IT IS DONE SO ONLY AS A COURTESY TO THE CONTRACTOR AND SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COORDINATE THE WORK WITH THE AFOREMENTIONED PROVISIONS. THE ARCHITECT'S OR ENGINEER'S JOB SITE REVIEW IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.

**2. SUBMITTALS**

- A. SUBMIT (1) HARD COPY OR ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) COPY OF REQUIRED SUBMITTALS TO OWNER'S REPRESENTATIVE FOR REVIEW. MULTIPLE COPIES OF THE SAME SUBMITTAL WILL NOT BE RETURNED. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR MAKING ANY ADDITIONAL COPIES OF REVIEWED SUBMITTALS, AS MAY BE REQUIRED. THE ENGINEER SHALL HAVE 15 WORKING DAYS FROM DATE OF RECEIPT TO COMPLETE AND RETURN THE SUBMITTAL REVIEW.
B. SUBSTITUTION REQUESTS SHALL DEMONSTRATE THE REQUESTED SUBSTITUTION'S ABILITY TO MEET OR EXCEED THE REQUIREMENTS OF THE ORIGINALLY SPECIFIED ITEM. THE REQUEST SHALL ALSO INCLUDE A ROUGH COST SAVINGS ESTIMATE TO THE OWNER, REFERENCES TO DETAILS WHERE SUBSTITUTION IS PROPOSED TO BE APPLIED, AND ALL SUPPORTING DOCUMENTATION REQUIRED FOR THE ITEM BY THIS SECTION OF THE NOTES.
C. SHOP DRAWINGS, MILL CERTIFICATES, AND/OR OTHER RELEVANT CERTIFICATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BEFORE FABRICATION. FOR THE ITEMS LISTED BELOW, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SHOP DRAWINGS WITH ALL TRADES AND FIELD CONDITIONS.
D. NOTE: SUBMITTING COPIES OF THE STRUCTURAL DRAWINGS IS UNACCEPTABLE AND WILL BE REJECTED FOR COMPLETE REVISION. WHERE NEW STRUCTURAL ELEMENTS ARE LOCATED WITHIN AN EXISTING STRUCTURE, SHOP DRAWINGS SHALL INCLUDE THE COORDINATION OF THE NEW STRUCTURAL ELEMENTS WITH THE EXISTING STRUCTURAL AND ARCHITECTURAL ELEMENTS. ALL SHOP DRAWING SUBMITTALS SHALL CLEARLY IDENTIFY THE SET-OUT OF NEW STRUCTURAL ELEMENTS RELATIVE TO THE RELEVANT PORTIONS OF THE EXISTING STRUCTURE, EXTENT OF ANY REQUIRED DEMOLITION, AND SHALL COORDINATE ALL OF THE RELEVANT TRADES.
1) STRUCTURAL AND MISCELLANEOUS STEEL
a. MILL CERTIFICATIONS FOR ALL STEEL AND ALL FASTENERS.
b. SHOP DRAWINGS INCLUDING AT A MINIMUM ASTM MATERIAL DESIGNATIONS, MEMBER SIZES, SIZES AND TYPES OF WELDS, SIZES AND TYPES OF BOLTS, AND DIMENSIONS. WELD PROCEDURE SPECIFICATIONS, INCLUDING NEW WELDS TO EXISTING STRUCTURAL STEEL, AND PROCEDURE QUALIFICATION RECORDS FOR WELDS THAT ARE NOT PREQUALIFIED, FOR EACH TYPE OF WELD TO BE USED AND PRODUCT DATA FOR WELDING FILLER METAL.
c. MANUFACTURER'S PRODUCT DATA FOR PRIMER AND FINISH PAINT, INCLUDING COLOR CHARTS.
2) THE FOLLOWING SUBMITTALS SHALL BE STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CONSTRUCTION, AND SHALL INCLUDE DRAWINGS AND CALCULATIONS.
a. SHORING FOR ALL ELEMENTS AFFECTED BY THE CONTRACTOR'S DEMOLITION AND MEANS-AND-METHODS OF CONSTRUCTION.

**3. SPECIAL INSPECTION REQUIREMENTS AND TESTING**

REFER TO SHEET S0.2

**4. STRUCTURAL OBSERVATIONS**

- A. STRUCTURAL OBSERVATIONS WILL BE UNDERTAKEN BY PERSONNEL UNDER THE SUPERVISION OF THE ENGINEER OF RECORD. STRUCTURAL OBSERVATIONS ARE SEPARATE FROM THE SPECIAL INSPECTION REQUIREMENTS OUTLINED ABOVE.
B. THE PURPOSE OF STRUCTURAL OBSERVATIONS IS TO REVIEW THE OVERALL PROGRESS OF CONSTRUCTION AND ASCERTAIN ITS GENERAL COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS, THESE GENERAL NOTES, AND OTHER SPECIFICATIONS, WHERE APPLICABLE. OBSERVATIONS WILL BE NOTED IN REGULAR SITE REPORTS ISSUED TO THE OWNER'S REPRESENTATIVE.
C. UNLESS OTHERWISE AGREED UPON, THE ENGINEER OF RECORD SHALL BE ENGAGED TO PROVIDE, AT MINIMUM, A LEVEL OF CONSTRUCTION INVOLVEMENT NEEDED TO OBSERVE THE FOLLOWING AT SIGNIFICANT MILESTONES DURING THE CONSTRUCTION PROCESS:
1) WOOD FRAMING
2) WALL ANCHORS

ADDITIONAL ENGINEER INVOLVEMENT MAY BE DESIRED. ANY AGREEMENT TO THAT EFFECT SHALL BE MADE PRIOR TO THE START OF CONSTRUCTION.

D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 3 DAYS PRIOR TO TIME OF OBSERVATION AND PROVIDE ACCESS FOR THE OBSERVATIONS.

E. AN OWNER'S REPRESENTATIVE MAY BE DESIGNATED, BY THE OWNER'S SPECIFIC AUTHORIZATION PRIOR TO THE START OF CONSTRUCTION, WHO WILL HAVE THE AUTHORITY TO REQUEST ADDITIONAL ENGINEER INVOLVEMENT OUTSIDE OF THE NORMAL DUTIES ASSOCIATED WITH STRUCTURAL OBSERVATION.

**5. DESIGN BASIS**

- A. CONSTRUCT IN CONFORMANCE WITH THE BUILDING CODE NOTED ABOVE.
B. DESIGN LIVE LOADS (PSF):
ROOF LIVE 20
C. DESIGN DEAD LOADS
1) SUPERIMPOSED DEAD LOADS NOTED ON PLANS
D. EARTHQUAKE DESIGN DATA
1) RISK CATEGORY: IV
2) ASCE 41 PERFORMANCE OBJECTIVE: BPOE
3) ASCE 41 BSE-2E SPECTRAL RESPONSE ACCELERATIONS:
a. SXS = 1.197 g
b. SX1 = 0.698 g
4) ASCE 41 BSE-1E SPECTRAL RESPONSE ACCELERATIONS:
a. SXS = 0.722 g
b. SX1 = 0.383 g
5) (ASCE 41 PROJECTS) Fp @ BSE-2E: 0.69Wp
6) (ASCE 41 PROJECTS) Fp @ BSE-1E: 0.68Wp
E. DESIGN SNOW LOADS
1) GROUND SNOW LOAD, Pg: 311 PSF
2) FLAT-ROOF SNOW LOAD, Pf: 264 PSF
3) SNOW EXPOSURE FACTOR, Ce: 1.0
4) SNOW LOAD IMPORTANCE FACTOR, I: 1.1
5) THERMAL FACTOR, Ci: 1.1

**6. FRAMING LUMBER**

- A. ALL FRAMING LUMBER SHALL BE GRADED PER WCLIB GRADING RULES NO. 17.
B. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19% AT TIME OF INSTALLATION.
C. ALL POSTS AND BEAMS SHALL BE DOUGLAS FIR, #1.
D. ALL FLOOR AND ROOF JOISTS SHALL BE DOUGLAS FIR, #1.
E. ALL STUDS, PLATES, ETC., SHALL BE DOUGLAS FIR, CONSTRUCTION GRADE.
F. ENGINEERED WOOD PRODUCTS MAY BE USED AS SUBSTITUTES FOR SAWN LUMBER UPON REQUEST BY THE CONTRACTOR AND APPROVAL FROM THE ARCHITECT AND ENGINEER OF RECORD. CONTRACTOR SHALL SUBMIT MANUFACTURER'S TESTING REPORTS FOR APPROVAL.

**7. PLYWOOD (PW) OR ORIENTED STRAND BOARD (OSB)**

- A. EACH PANEL SHALL BE IDENTIFIED WITH THE APPROPRIATE GRADE, TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE U.S. PRODUCT STANDARD PS-1. PLYWOOD GRADE SHALL CONFORM TO CD-X FOR PLYWOOD OR TYPE 2-M-W FOR ORIENTED STRAND BOARD, UNLESS OTHERWISE NOTED.
B. WHERE PLYWOOD IS PERMANENTLY EXPOSED TO WEATHER, IT SHALL BE EXTERIOR TYPE. OTHERWISE, PANEL SHEATHING SHALL BE EXPOSURE 1. PLYWOOD TO BE CC GRADE AT LOCATIONS EXPOSED TO WEATHER; CC OR CD GRADE ELSEWHERE.
C. PANELS TO BE 5-PLY MINIMUM, EXCEPT 3/8" PANELS TO BE 3-PLY MINIMUM.
D. PLYWOOD SHEETS AT FLOORS AND ROOFS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO JOISTS AND RAFTERS. PLYWOOD AT FLOORS SHALL BE GLUED TO FRAMING BELOW (USE SOLVENT BASED GLUE COMPLYING WITH ASTM D3498 AND VOLATILE ORGANIC COMPOUND (VOC) LIMITS PER CALGREEN). LN-950 BY LIQUID NAILS OR APPROVED EQUIVALENT, UNLESS OTHERWISE SPECIFIED BY THE ARCHITECT. PROVIDE RING-SHANK NAILS AT FLOOR AND ROOF SHEATHING.
E. PLYWOOD SHEETS ON WALLS SHALL BE LAID WITH LONG DIMENSION VERTICAL. BLOCK ALL EDGES WITH A MINIMUM OF 3x BLOCK AND/MEMBERS. ALL NAILING SHALL HAVE 3/8" EDGE DISTANCE FOR FRAMING, BLOCKING AND PLYWOOD EDGES. USE SMOOTH-SHANK NAILS FOR PLYWOOD WALL SHEATHING.
F. STAPLES FOR PLYWOOD DIAPHRAGMS SHALL BE 14 GAGE ROUND SEMI-FLATTENED OR FLATTENED, PLAIN OR ZINC-COATED STEEL WIRE, WITH A NOMINAL CROWN WIDTH OF 7/16", DRIVEN BY PNEUMATIC OR MECHANICAL DEVICE.
G. PROVIDE 1/8" GAP BETWEEN PANELS UNLESS OTHERWISE NOTED.
H. PANELS SHALL HAVE THE FOLLOWING PROPERTIES UNLESS OTHERWISE NOTED.
1) 3/8" NOMINAL SHALL BE 3/8" ACTUAL THICKNESS WITH 24/0 SPAN RATING.
2) 1/2" NOMINAL SHALL BE 15/32" ACTUAL THICKNESS WITH 32/16 SPAN RATING.
3) 5/8" NOMINAL SHALL BE 19/32" ACTUAL THICKNESS WITH 40/20 SPAN RATING.
4) 3/4" NOMINAL SHALL BE 23/32" ACTUAL THICKNESS WITH 48/24 SPAN RATING.
5) 1 1/8" NOMINAL SHALL BE 1 1/8" ACTUAL THICKNESS WITH 48 O.C. FLOOR SPAN RATING.

**8. ROUGH CARPENTRY**

- A. FOR SCHEDULE OF MINIMUM NAILING TABLE 2304.10.2 OF THE 2022 CBC/2021 IBC 16d VINYL COATED SINKERS MAY BE SUBSTITUTED FOR 16d BOX OR COMMON NAILS FOR ROUGH FRAMING. SINKERS SHALL NOT BE USED WITH METAL CONNECTORS.
B. SILLS AND LEDGERS ON CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED DOUGLAS FIR. SILLS AND LEDGERS SHALL BE FASTENED TO THE CONCRETE WITH A MINIMUM OF TWO FASTENERS PER PIECE AND A FASTENER NO FURTHER THAN 9 INCHES FROM END OF EACH PIECE, UNLESS OTHERWISE NOTED.
C. PLACE JOISTS WITH CROWN UP.
D. RE-TIGHTEN ALL BOLTS PRIOR TO CLOSING IN WALLS.
E. WHEN METAL CONNECTORS, ANCHORS OR FASTENERS ITEMS ARE EXPOSED TO WEATHER AND/OR PRESSURE TREATED LUMBER THE METAL ITEMS ARE TO BE OF HOT DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER. THE COATING WEIGHTS FOR ZINC-COATED FASTENERS SHALL BE IN ACCORDANCE WITH ASTM A153. SEE ADDITIONAL COATING REQUIREMENTS AS NOTED IN THE PRESSURE TREATMENT SECTION.
F. DOUBLE ALL JOISTS UNDER ALL PARALLEL PARTITIONS UNLESS NOTED OTHERWISE.
G. BLOCK ALL JOISTS AT SUPPORTS AND UNDER ALL PARTITIONS WITH MINIMUM 2x SOLID BLOCKING. BLOCK AND BRIDGE ROOF JOISTS AT 10'-0" AND FLOOR JOISTS AT 8'-0" UNLESS OTHERWISE NOTED.

H. 2x JOISTS SHALL BE SISTERED (VERTICAL SCREW LAMINATED) WITH SDWS 0.220x3 MIN. LENGTH AT 6" O.C. IN (2) ROWS STAGGERED UNLESS OTHERWISE NOTED.

I. ALL POSTS LOCATED OVER WOOD WALLS SHALL HAVE A POST OF EQUAL OR GREATER SIZE LOCATED IN THE WALL DIRECTLY BELOW UNLESS OTHERWISE NOTED.

J. THE STRUCTURAL DESIGN ASSUMES THAT ALL FLOORS AND ROOFS ARE CONSTRUCTED AND LOADED WITH FINISHES (OR EQUIVALENT WEIGHT) FOR A MINIMUM OF SEVEN (7) DAYS PRIOR TO THE TIME OF DOOR AND WINDOW INSTALLATION.

K. ALL TIMBER FASTENERS NOT SPECIFICALLY DETAILED ON THE DRAWINGS SHALL BE SIMPSON STRONG-TIE'S STANDARD FASTENERS OR APPROVED EQUIVALENT INSTALLER PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. USP LUMBER CONNECTORS WITH REFERENCE NUMBERS FOR SUBSTITUTION MAY BE USED IN LIEU OF SIMPSON HARDWARE. ENGINEER MAY APPROVE OF OTHER SUBSTITUTIONS UPON THE FOLLOWING:
1) WRITTEN REQUEST FOR OTHER BRANDS
2) SUBMISSION OF MANUFACTURER'S TESTING REPORTS
3) REFERENCES TO PERTINENT DETAILS WHERE SUBSTITUTIONS ARE TO BE APPLIED.

L. ALL STRUCTURAL WOOD WALLS SHALL BE FRAMED WITH 2x4 MINIMUM STUDS AT 16" ON CENTER UNLESS OTHERWISE NOTED.

M. PRE-DRILL HOLES AS REQUIRED TO PREVENT SPLITTING OF WOOD.

**9. STRUCTURAL STEEL**

- A. STRUCTURAL STEEL SHALL CONFORM TO FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED:
1) PLATES AND BARS, INCLUDING DOUBLER PLATES, CONTINUITY PLATES, BASE PLATES, GUSSET PLATES, AND SHEAR TABS: ASTM A572 GRADE 50.
2) MISCELLANEOUS (M), AMERICAN STANDARD (S), CHANNEL (C), MISCELLANEOUS CHANNEL (MC), AND ANGLES (L): ASTM A36 (Fy = 36 KSI).
B. STRUCTURAL FASTENERS INCLUDING BOLTS, THREADED RODS, AND ANCHOR RODS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS, UNLESS OTHERWISE NOTED.
1) ERECTION, CEMENT GROUDED, AND TIMBER CONNECTION BOLTS: ASTM A307 WITH WELDABILITY SUPPLEMENT S1 GRADE A.
2) THREADED RODS: ASTM A36.
3) HIGH STRENGTH THREADED RODS: ASTM A193 GRADE B7.
C. ALL BOLTS FOR EXTERIOR USE SHALL BE ZINC-COATED BY THE BOLT MANUFACTURER BY EITHER THE HOT-DIP PROCESS IN ACCORDANCE WITH ASTM A153, CLASS C OR THE MECHANICAL DEPOSIT PROCESS IN ACCORDANCE WITH ASTM B695, CLASS 50.
D. LOCATE AND INSTALL ALL ANCHOR RODS, EPOXY ANCHORS, AND MECHANICAL ANCHORS BEFORE FABRICATING STEEL CONNECTION ELEMENTS. FURNISH ANCHOR RODS WITH DOUBLE HEAVY HEX NUTS JAMMED AT THE EMBEDDED CONCRETE END. A RIGID STEEL TEMPLATE SHALL BE USED TO LOCATE ANCHOR RODS WHILE PLACING CONCRETE. COORDINATE ANCHOR ROD INSTALLATION WITH REINFORCING AND FORMWORK. NO HEATING OR BENDING OF THE ANCHOR RODS IS PERMITTED. HOLES IN THE BASE PLATE MATERIAL SHALL NOT BE ENLARGED BY BURNING. ANCHOR ROD LOCATIONS SHALL BE INSPECTED BY THE OWNER'S TESTING AGENCY PRIOR TO CONCRETE PLACEMENT.
E. ALL STRUCTURAL STEEL MEMBERS EXPOSED TO WEATHER OR CALLED OUT AS HOT DIP GALVANIZED (HDG) ON PLAN OR STRUCTURAL STEEL MEMBERS LOCATED IN EXTERIOR ENVIRONMENTS SHALL BE HDG IN ACCORDANCE WITH ASTM A123. ANY MEMBER THAT HAS HAD ITS HDG COATING DAMAGED OR REMOVED DURING TRANSPORT OR ERECTION SHALL HAVE ITS COATING REPAIRED USING ZRC GALVILITE REPAIR COMPOUND OR EQUAL. REPAIR GALVANIZING AFTER WELDING IN ACCORDANCE WITH ASTM A780.
F. PAINT STEEL (EXCEPT GALVANIZED STEEL AND PORTIONS TO BE ENCASED IN CONCRETE OR MASONRY) WITH ONE COAT OF PRIMER STANDARD TNEPEC V10 OR EQUIVALENT SUBJECT TO ENGINEER'S APPROVAL. ALTERNATES WILL BE CONSIDERED UPON REQUEST AND SUBMISSION OF THE MANUFACTURER'S SPECIFICATIONS.
G. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST AISC 'SPECIFICATIONS' FOR DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS. SHOP DRAWINGS SHALL BE SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER PRIOR TO COMMENCING FABRICATION.
H. WELDING SHALL CONFORM TO THE LATEST EDITION OF THE ANSI/AWS D1.1 STRUCTURAL WELDING CODE. USE E70XX ELECTRODES U.O.N. WELDING OF METAL DECK AND OTHER SHEET METAL SHALL CONFORM TO THE LATEST EDITION OF AWS D1.3. USE E70XX ELECTRODES. ALL WELD SIZES SPECIFIED ON THE DRAWINGS ARE EFFECTIVE WELD SIZES (E). WELDS SHOWN ON SHOP DRAWINGS (S) SHALL BE INCREASED AS REQUIRED TO ACHIEVE WHAT IS SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE JOINT PREPARATIONS AND WELDING PROCEDURES.

**10. FINISHES - FOR WORK ON EXISTING BUILDINGS**

- A. REPLACE ALL DAMAGED FINISH MATERIALS WITH NEW MATERIALS OF EQUIVALENT QUALITY AND KIND. SUBMIT SAMPLES AND/OR PRESENT SAMPLE INSTALLATION TO OWNER FOR APPROVAL PRIOR TO INSTALLATION.
11. SELF-DRILLING SCREWS
A. SCREWS FOR WOOD AND WOOD TO STEEL SELF-DRILLING CONNECTIONS SHALL BE SHOWN IN THE STRUCTURAL DRAWINGS FROM THE FOLLOWING APPROVED MANUFACTURERS.

Table with 3 columns: SCREW TYPE (CALLOUT), MANUFACTURER, ICC REPORT. Rows include SDS SERIES WOOD SCREWS (SDS), SDWS SERIES WOOD SCREWS (SDWS), WSV WOOD SCREWS, SDCP, SDCF, SDHR SCREWS, and SWG STRUCTURAL SCREWS (ASSY).

B. SCREWS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, INCLUDING ALL CURRENT TECHNICAL BULLETINS AND GUIDANCE.



523 West 6th St, STE 1122
Los Angeles, CA 90014 USA
T: 213-481-5630 holmes.us

**STAMP**



**PROJECT NAME / LOCATION**

MCWD TIMBER RIDGE BUILDING
DAVIDSON RD., MAMMOTH LAKES, CA 93546

**ISSUE / REVISION**

Table with 3 columns: No., DESCRIPTION, DATE. Row 1: BID/PERMIT SET, 5/16/2025

**SCALE**

AS NOTED IF PRINT SIZE IS 24"x36"

**S.E.R.**

TS/JR

**DESIGN**

CHP/SA

**DRAWN**

IK

**PROJECT No.**

24199.10

**DRAWING TITLE**

**GENERAL NOTES**

S0.1



523 West 6th St, STE 1122  
Los Angeles, CA 90014 USA  
T: 213 481 5630 holmes.us

STAMP



PROJECT NAME / LOCATION

MCWD TIMBER RIDGE  
BUILDING  
DAVIDSON RD., MAMMOTH LAKES, CA 93546

REQUIRED VERIFICATION AND INSPECTION FOR SEISMIC RESISTANCE (CBC SECTION 1705.12)			
VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD
1. STRUCTURAL WOOD SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE:			CBC SEC. 1705.12.2
a. INSPECTION OF NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS*, WOOD SHEAR PANELS*, WOOD DIAPHRAGMS*, DRAG STRUTS, BRACES, AND HOLD-DOWNS.	-	X	* SPECIAL INSPECTIONS NOT REQUIRED WHERE FASTENER SPACING OF SHEATHING IS MORE THAN 4" O.C.

**2** MINIMUM INSPECTION FOR SEISMIC RESISTANCE  
S0.2 N.T.S.

**STATEMENT OF SPECIAL INSPECTIONS**

- SPECIAL INSPECTIONS AND TESTS SHALL BE PERFORMED BY AN INDEPENDENT QUALIFIED INSPECTION AND/OR TESTING AGENCY APPROVED BY THE JURISDICTION FOR SUCH WORK AND IN ACCORDANCE WITH CHAPTER 17 OF THE CODE. THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS PERFORMED BY THE BUILDING OFFICIAL.
- THE OWNER SHALL BE RESPONSIBLE FOR RETAINING THE SPECIAL INSPECTION AND/OR TESTING AGENCY.
- THE SPECIAL INSPECTION AND/OR TESTING AGENCY SHALL KEEP RECORDS AND SUBMIT SPECIAL INSPECTION AND TEST REPORTS TO THE BUILDING OFFICIAL AND THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH SECTIONS 1704.2.4 AND 1704.5 OF THE CODE AND JURISDICTION-SPECIFIC REQUIREMENTS.
- THE CONTRACTOR SHALL NOTIFY THE TESTING LAB A MINIMUM OF 48 HOURS PRIOR TO TIME OF INSPECTION.
- THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION OR TESTING IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION OR TESTING PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS OR TESTS. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 3 DAYS NOTICE TO THE APPROVED TESTING AGENCY PRIOR TO ANY REQUIRED INSPECTIONS.
- IF INITIAL TESTS OR INSPECTIONS MADE BY THE OWNER'S TESTING OR INSPECTION AGENCY REVEAL THAT ANY PORTION OF THE WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, ADDITIONAL TESTS, INSPECTIONS, AND NECESSARY REPAIRS OR CORRECTIONS SHALL BE MADE AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER IMMEDIATELY OF NON-CONFORMING WORK. THIS NOTIFICATION SHALL SPECIFICALLY ADDRESS THE NON-CONFORMING WORK AND SHALL BE SEPARATE AND IN ADDITION TO THE SPECIAL INSPECTION REPORTS.
- SPECIAL INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER AT THE TIME OF COMPLETION FOR REVIEW OF CONFORMANCE WITH THE REQUIREMENTS OF THE STRUCTURAL DRAWINGS, AND SPECIFICALLY BRING ANY NON-CONFORMING ITEMS TO THE ATTENTION OF THE REVIEWER.
- SPECIAL INSPECTIONS AND TESTS FOR SEISMIC RESISTANCE SHALL BE PERFORMED FOR THE DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING COMPONENT WHEN APPLICABLE AND AS PER SECTIONS 1705.12 & 1705.13 OF THE CODE.
  - DESIGNATED SEISMIC SYSTEM/SEISMIC FORCE RESISTING SYSTEM: **WRITE IN APPLICABLE SYSTEM(S) OR "N/A"**. SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION AND TEST REQUIREMENTS FOR STRUCTURAL STEEL, STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, DESIGNATED SEISMIC SYSTEMS, ARCHITECTURAL COMPONENTS, MEP COMPONENTS, STORAGE RACKS, SEISMIC ISOLATIONS SYSTEMS, AND COLD-FORMED STEEL SPECIAL BOLTED MOMENT FRAMES.
- SPECIAL INSPECTIONS FOR WIND RESISTANCE SHALL BE PERFORMED FOR THE MAIN WIND FORCE RESISTING SYSTEM AND WIND RESISTING COMPONENTS WHEN APPLICABLE AND AS PER SECTION 1705.11 OF THE CODE.
  - MAIN WIND FORCE RESISTING SYSTEM/WIND RESISTING COMPONENT: **WRITE IN APPLICABLE SYSTEM(S) OR "N/A"**. SEE THE ABOVE-REFERENCED CODE SECTIONS FOR ADDITIONAL SPECIAL INSPECTION REQUIREMENTS FOR STRUCTURAL WOOD, COLD-FORMED STEEL LIGHT-FRAME CONSTRUCTION, AND WIND-RESISTING COMPONENTS.
- EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED ABOVE SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THIS STATEMENT OF SPECIAL INSPECTIONS.
- STEEL CONSTRUCTION: SPECIAL INSPECTIONS FOR STEEL ELEMENTS OF BUILDINGS AND STRUCTURES SHALL BE AS REQUIRED BY SECTION 1705.2 OF THE CODE AND IN ACCORDANCE WITH THE QUALITY ASSURANCE INSPECTION REQUIREMENTS OF AISC 360, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. SEE ADDITIONAL REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- CONCRETE CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLE SHOWN HEREIN. CONCRETE SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR:
  - ISOLATED SPREAD FOOTINGS OF BUILDINGS 3 STORIES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
  - NONSTRUCTURAL CONCRETE SLABS SUPPORTED DIRECTLY ON THE GROUND, INCLUDING PRESTRESSED SLABS ON GRADE.
  - CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS, ON GRADE.
- MASONRY CONSTRUCTION: SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.4 OF THE CODE AND IN ACCORDANCE WITH TMS 402/ACI 530/ASCE 5 AND TMS 602/ACI 530.1/ASCE 6 QUALITY ASSURANCE REQUIREMENTS, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- WOOD CONSTRUCTION: SPECIAL INSPECTIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE CODE. SEE ALSO REQUIREMENTS NOTED FOR SEISMIC AND WIND RESISTANCE OF INSPECTION NOTES #8 AND #9.
- SOILS: SPECIAL INSPECTIONS FOR EXISTING SOIL CONDITIONS, FILL PLACEMENT, AND LOAD BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTIONS 1705.6 THROUGH 1705.9 OF THE CODE, INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.
- DEEP FOUNDATIONS: SPECIAL INSPECTIONS FOR DRIVEN AND CAST-IN-PLACE DEEP FOUNDATIONS SHALL BE AS REQUIRED BY SECTIONS 1705.7 AND 1705.8 OF THE CODE RESPECTIVELY, INCLUDING THE TESTS AND INSPECTIONS CONTAINED WITHIN THE APPROVED GEOTECHNICAL REPORT, AND INCLUDING THE SPECIAL INSPECTION TABLES SHOWN HEREIN.

**1** STATEMENT OF SPECIAL INSPECTIONS  
S0.2 N.T.S.

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

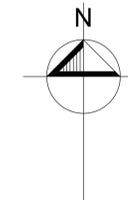
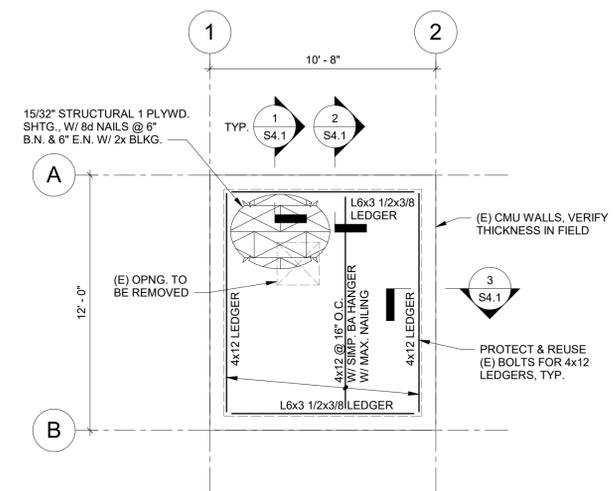
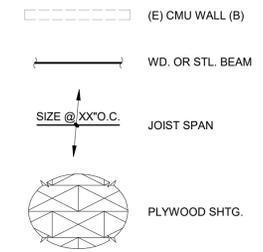
PROJECT No. 24199.10

DRAWING TITLE

**SPECIAL INSPECTIONS**

**S0.2**

**LEGEND:**



1 ROOF FRAMING PLAN  
S2.1

1/4" = 1'-0"



523 West 6th St, STE 1122  
 Los Angeles, CA 90014 USA  
 T: 213 481 5630 holmes.us

STAMP



PROJECT NAME / LOCATION

**MCWD TIMBER RIDGE BUILDING**  
 DAVIDSON RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DRAWING TITLE

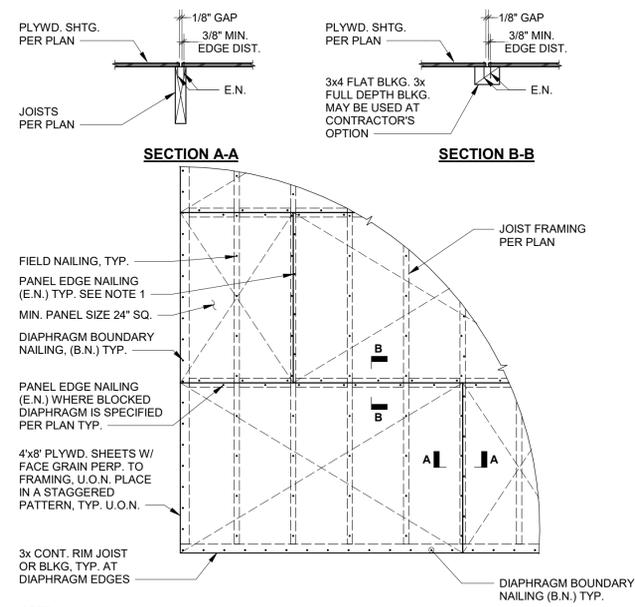
**ROOF FRAMING PLAN**

**S2.1**

NAILING SCHEDULE	
CONNECTION	NAILING
1. JOIST TO SILL OR GIRDER, TOE NAIL	(3) 8d
2. BRIDGING TO JOIST, TOE NAIL E/E	(2) 8d
3. 1" x 6" SUBFLOOR OR LESS TO EA. JOIST, FACE NAIL	(2) 8d
4. WIDER THAN 1" x 6" SUBFLOOR TO EA. JOIST, FACE NAIL	(3) 8d
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND & FACE NAIL	(2) 16d
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL SOLE PLATE TO JOIST, AT BRACED WALL PANELS	16d @ 16" O.C. (3) 16d @ 16" O.C.
7. TOP PLATE TO STUD, END NAIL	(2) 16d
8. STUD TO SOLE PLATE	(4) 8d TOE NAIL OR (2) 16d END NAIL
9. DOUBLE STUDS, FACE NAIL	16d @ 24" O.C.
10. DOUBLE TOP PLATES, FACE NAIL DOUBLE TOP PLATES, LAP SPLICE (PARTITION)	16d @ 16" O.C. (8) 16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	(3) 8d
12. RIM JOIST TO TOP PLATE, TOE NAIL	8d @ 16" O.C.
13. TOP PLATES, LAP AND INTERSECTIONS, FACE NAIL	(2) 16d
14. CONTINUOUS HEADER, TWO PIECES	16d @ 16" O.C. ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOE NAIL	(3) 8d
16. CONTINUOUS HEADER TO STUD, TOE NAIL	(4) 8d
17. CEILING JOISTS, LAP OVER PARTITIONS, FACE NAIL	(3) 16d
18. CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d MIN. SEE 2019 CBC TABLE 2308.7.3.1
19. RAFTER TO PLATE, TOE NAIL	(3) 8d
20. 1" DIAGONAL BRACE TO EA. STUD & PLATE, FACE NAIL	(2) 8d
21. 1" x 8" SHEATHING OR LESS TO EA. BEARING, FACE NAIL	(2) 8d
22. WIDER THAN 1" x 8" SHEATHING TO EA. BEARING, FACE NAIL	(3) 8d
23. BUILT-UP CORNER STUDS	16d @ 24" O.C.
24. BUILT-UP GIRDER & BEAMS	20d @ 32" O.C. FACE NAIL T&B STAGG. ON OPP. SIDES & (2) 20d FACE NAIL AT ENDS AND SPLICES
25. 2" PLANKS, FACE NAIL	16d @ EACH BEARING
26. COLLAR TIE TO RAFTER, FACE NAIL	(3) 10d
27. JACK RAFTER TO HIP	(3) 10d TOE NAIL (2) 16d FACE NAIL
28. ROOF RAFTER TO 2x RIDGE BEAM	(2) 16d TOE NAIL (2) 16d FACE NAIL
29. JOIST TO BAND JOIST, FACE NAIL	(3) 16d
30. LEDGER STRIP, FACE NAIL AT EACH JOIST	(3) 16d
31. WOOD STRUCTURAL PANELS SUBFLOOR, ROOF & WALL SHEATHING (TO FRAMING)	10d
32. PANEL SIDING (TO FRAMING)	8d
33. FIBERBOARD SHEATHING	8d
34. INTERIOR PANELING	6d

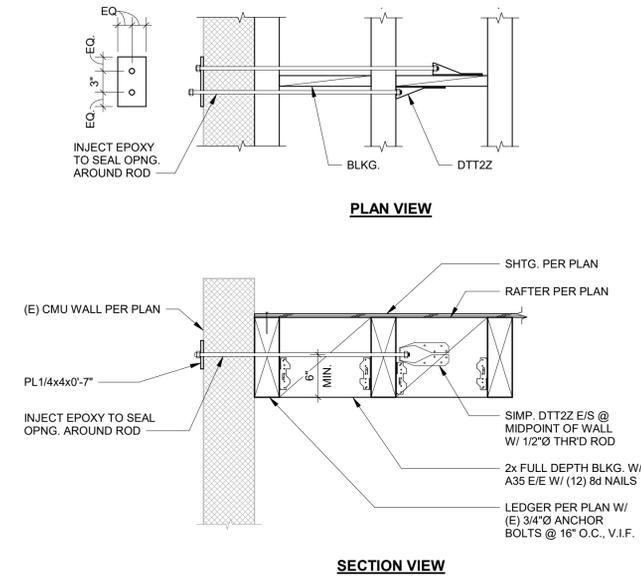
7 NAILING SCHEDULE

N.T.S.



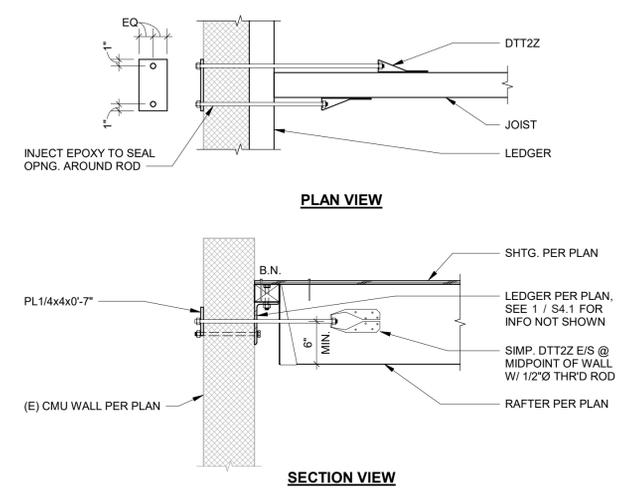
4 TYPICAL DIAPHRAGM FRAMING

1/2" = 1'-0"



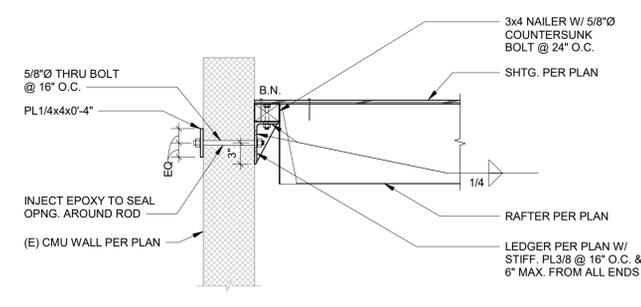
3 ROOF CONNECTION DETAIL - RAFTERS PARALLEL TO WALL

N.T.S.



2 ROOF CONNECTION DETAIL - RAFTERS PERPENDICULAR TO WALL

N.T.S.



1 ROOF CONNECTION DETAIL - RAFTERS PERPENDICULAR TO WALL

N.T.S.



PROJECT NAME / LOCATION

MCWD TIMBER RIDGE BUILDING  
DAVIDSON RD., MAMMOTH LAKES, CA 93546

ISSUE / REVISION

No.	DESCRIPTION	DATE
	BID/PERMIT SET	5/16/2025

SCALE AS NOTED IF PRINT SIZE IS 24"x36"

S.E.R. TS/JR

DESIGN CHP/SA

DRAWN IK

PROJECT No. 24199.10

DETAILS

S4.1

# **EXHIBIT C**

## **THERMOPLASTIC ROOFING SPECIFICATIONS**

**Mammoth Community Water District**

**Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and  
Timber Ridge Pump Station Roof Replacements**

**Mammoth Lakes, CA**



SECTION 07 54 00  
PVC THERMOPLASTIC SINGLE-PLY ROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Mechanically attached PVC thermoplastic single-ply roofing system.
- B. Roof insulation.
- C. Flashing accessories.
- D. Edgings and terminations.

1.2 RELATED SECTIONS

- A. Section 03 30 00 - Cast-in-Place Concrete.
- B. Section 03 51 13 - Cementitious Wood Fiber Decks.
- C. Section 03 52 13 - Composite Concrete Roof Insulation.
- D. Section 05 36 00 - Composite Metal Decking.
- E. Section 06 10 00 - Rough Carpentry.
- F. Section 07 53 13 - Chlorinated-Polyethylene Roofing.
- G. Section 07 54 23 - Thermoplastic-Polyolefin Roofing.
- H. Section 07 62 00 - Sheet Metal Flashing and Trim.
- I. Section 07 70 00 - Roof and Wall Specialties and Accessories.
- J. Section 08 60 00 - Roof Windows and Skylights.
- K. Section 22 30 00 - Plumbing Equipment.

1.3 REFERENCES

- A. American Society of Civil Engineers (ASCE) - ASCE 7 - Minimum Design Loads for Buildings and Other Structures, Current Revision.
- B. ASTM International (ASTM):
  - 1. ASTM C 208 - Standard Specification for Cellulosic Fiber Insulating Board.
  - 2. ASTM C 578 - Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
  - 3. ASTM C 1289 - Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.
  - 4. ASTM D 41 - Standard Specification for Asphalt Primer Used in Roofing,

- 5. Dampproofing, and Waterproofing.
  - 6. ASTM D 226 - Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
  - 7. ASTM D 312 - Standard Specification for Asphalt Used in Roofing.
  - 8. ASTM D 412 - Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
  - 9. ASTM D 1079 - Standard Terminology Relating to Roofing, Waterproofing, and Bituminous Materials.
  - 10. ASTM D 2178 - Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing.
  - 11. ASTM D 4263 - Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
  - 12. ASTM D 4434 - Standard Specification for Poly (Vinyl Chloride) Sheet Roofing.
  - 13. ASTM D 4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity.
  - 14. ASTM D 4869 - Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
  - 15. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials.
- C. Factory Mutual (FM Global):
    - 1. Approval Guide.
      - a. Factory Mutual Standard 4470 - Approval Standard for Class 1 Roof Covers.
      - b. Loss Prevention Data Sheets 1-28, 1-29.
- D. International Code Council (ICC):
    - 1. International Building Code (IBC).
- E. National Roofing Contractors Association (NRCA) - Low Slope Roofing and Waterproofing Manual, Current Edition.
- F. Sheet Metal and Air Conditioning Contractors National Association, Inc. (SMACNA) - Architectural Sheet Metal Manual.
- G. Underwriters Laboratories (UL):
    - 1. TGFU R1306 - "Roofing Systems and Materials Guide".
    - 2. UL-790 - Standard Test Method for Fire Tests of Roof Coverings.

#### 1.4 DESIGN CRITERIA

- A. Wind Uplift Performance:
  - 1. Roof system is designed to withstand wind uplift forces as calculated using the current revision of ASCE-7.
- B. Fire Resistance Performance:
  - 1. Roof system will achieve a UL Class A rating when tested in accordance with UL-790.
- C. Building Codes:
  - 1. Roof system will meet the requirements of all federal, state and local code bodies having jurisdiction.

#### 1.5 LEED CERTIFICATION:

- A. Coordinate with Section 01 11 13 - Work Covered by Contract Documents.
- B. Submittals Required:
  - 1. SSc7.2 Heat Island Effect - Roof (LEED Form).
  - 2. MRc4 Recycled Content (LEED Form).

3. MRc5 Local and Regional Materials (LEED Form).
4. EQc4.1 Low-Emitting Materials - Adhesives and Sealants (LEED Form).

#### 1.6 SUBMITTALS

- A. Submit under provisions of Section 01 30 00.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  1. Preparation instructions and recommendations.
  2. Storage and handling requirements and recommendations.
  3. Installation methods.
- C. Detail Drawings:
  1. Submit approved plan, section, elevation or isometric drawings which detail the appropriate methods for all flashing conditions found on the project.
  2. Coordinate approved drawings with locations found on the Contract Drawings.
- D. Selection Samples: For each finish product specified, two complete sets of chips representing manufacturer's full range of available colors, membranes, and thicknesses.
- E. Verification Samples: For each finish product specified, two samples, minimum size 4 inches (100 mm) square representing actual product, color, and patterns.

#### 1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of twenty (20) years experience.
- B. Installer Qualifications:
  1. All products listed in this section are to be installed by a single installer with a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified.
  2. Installer shall be capable of extending the Manufacturer's Labor and Materials guarantee.
  3. Installer shall be capable of extending the Manufacturer's No Dollar Limit guarantee.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened packaging until ready for installation.
- B. Store and dispose of hazardous materials, and materials contaminated by hazardous materials, in accordance with requirements of local authorities having jurisdiction.

#### 1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

#### 1.10 WARRANTY

- A. At project closeout, provide to Owner or Owners Representative an executed copy of the manufacturer's Total System warranty, outlining its terms, conditions, and exclusions from coverage.
  1. Duration: 20 Years.
  2. Coverage to be extended to include roof edge metal water tightness in accordance with terms stated in the Warranty document.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Carlisle SynTec Systems, which is located at: P. O. Box 7000; Carlisle, PA 17013; ASD Toll Free Tel: ; 800-4-SYNTEC; Tel: ; 717-245-7000; Fax: ; 717-245-7053; Email: [info@carlisesyntec.com](mailto:info@carlisesyntec.com); Web: <https://www.carlisesyntec.com>.
- B. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements and must be submitted by the bid question submission deadline

### 2.2 SCOPE / APPLICATION

- A. Roof System: Provide a waterproof roof system, capable of withstanding uplift forces as specified in this section.
  - 1. Membrane Attachment: Mechanically Attached.
- B. Insulation: Provide a roof insulation system beneath the finish membrane.

### 2.3 MEMBRANE ATTACHMENT: MECHANICALLY ATTACHED

- A. Sure-Flex PVC Membrane as manufactured by Carlisle SynTec Systems:
  - 1. Membrane consists of polyester fabric that is encapsulated between the monolithically formed PVC based top and bottom plies. The combination of the fabric and PVC plies provide Sure-Flex Reinforced PVC membranes with high breaking strength, tearing strength, and puncture resistance.
  - 2. Color: Gray.
  - 3. Membrane Thickness: 60 mil nominal.
    - a. Thickness over Scrim (ASTM D 4434): 0.027 inches (0.686 mm) minimum.
    - b. Breaking Strength (ASTM D 751): 330 lbf/in (58 kN/m) minimum.
    - c. Tearing Strength (ASTM D 751): 130 lbf/in (578 N/m) minimum.
    - d. Elongation (ASTM D 751): 30 percent minimum.
    - e. Field Sheet Width: 120 inches (3048 mm) maximum.
    - f. Length: 100 feet (30.5 m) maximum.

### 2.4 INSULATION

- A. Polyisocyanurate: A foam core insulation board covered on both sides with glass fiber reinforced facer (GRF) meeting ASTM C 1289, Type II, Class 1. Carlisle InsulBase.
  - 1. Compressive Strength: Grade 2 (20 psi) (138 kPa).
- B. Moisture-, mold- and impact-resistant, nonstructural fiber-reinforced gypsum panel made from 95 percent recycled materials. Securock, distributed by Carlisle.
  - 1. Board Thickness: 1/4 inch (6 mm).

### 2.5 FLASHING ACCESSORIES

- A. Sure-Flex PVC Inside Corners: Pre-molded corner flashing for inside corners. 60 mil thickness.
  - 1. Color: Gray.
- B. Sure-Flex PVC Outside Corners: Pre-molded corner flashing for outside corners. 60 mil thickness.
  - 1. Color: Gray.
- C. Sure-Flex PVC T-Joint Covers: 60 mil thick non-reinforced PVC flashing cut into a 4.5 inch (114 mm) diameter circle used to seal step-offs at splice intersections.
  - 1. Color: Gray.

- D. Sure-Flex PVC Molded Pipe Flashings: A pre-molded flashing and clamping ring used for pipe penetrations. Available for 3/4 inch to 8 inch (19 to 203 mm) diameter pipes.
- E. Sure-Flex PVC Split Pipe Seals: Pre-fabricated flashing consisting of 60 mil thick reinforced Sure-Flex Membrane for pipes 1 inch to 6 inch (25 to 152 mm) in diameter. A split (cut) and overlap tab are incorporated to allow the pipe seal to be opened and wrapped around the pipe when it is not possible to pull a standard pipe flashing over a round penetration.
- F. Sure-Flex PVC Square Tubing Wraps: Fabricated flashings made of 60 mil thick reinforced Sure-Flex membrane for square tubing. A split (cut) and overlap tab are incorporated into these parts to allow the seals to be opened and wrapped around a square penetration. Available for 3 inches, 4 inches and 6 inches (76, 102, 152 mm) diameter square tubing. Available in white or gray.
- G. Sure-Flex PVC Heat Weldable Walkway Rolls: Sure-Flex Membrane offering superior tear, puncture and weather resistance and designed to protect Sure-Flex membrane in those areas exposed to repetitive foot traffic or other hazards. Walkway material may be heat welded to Sure-Flex membrane using an automated heat welder or hand held heat welder. Walkway Rolls are 36 inches (914 mm) wide by 60 feet (18.3 M) long and are nominal 110 mils thick. Color - Gray.
- H. Sure-Flex PVC Non-Reinforced Flashing: 60 mil thick rolls 12 inches (305 mm) and 24 inches (610 mm) wide. Used for inside/outside corners and field fabricated pipe flashings when use of pre-molded accessories is not feasible. Available in white, gray, light gray slate gray and tan.

## 2.6 CLEANERS, PRIMERS, ADHESIVES AND SEALANTS

- A. CAV-GRIP PVC Aerosol Contact Adhesive: a low-VOC, methylene chloride-free adhesive that can be used for a variety of applications including: adhering PVC bareback membranes to a variety of horizontal substrates and vertical walls (cannot be used with any KEE or KEE HP bareback membranes), as well as adhering FleeceBACK membranes to vertical walls. Coverage rate is approximately 400 sq. ft. per #40 cylinder and 800 sq. ft. per #85 cylinder as an adhesive for vertical walls, in a double-sided application; 750 sq. ft. per #40 cylinder and 1,500 sq. ft. per #85 cylinder as an adhesive, horizontally, for the field of the roof, in a double-sided applications.
- B. Water Cut-Off Mastic: A one-component, low viscosity, self wetting, Butyl blend mastic used as a compression sealing agent between membrane and applicable substrates.
- C. Universal Single-Ply Sealant: A 100 percent solids, solvent free, one-part polyether sealant that is used as a termination bar sealant. Available in white only.

## 2.7 FASTENERS

- A. HP-X Fastener: A heavy duty #15 threaded fastener with a #3 Phillips drive used with Carlisle's Piranha Fastening Plate to secure Mechanically Fastened Roofing Systems. It is used on minimum 22 gauge steel decks or minimum 15/32 inch (12 mm) CDX plywood decks. It is also designed to offer an optimum combination of driving performance, back-out and corrosion resistance with excellent pullout performance.
- B. InsulFast Fasteners: A threaded Phillips drive fastener used with Carlisle Insulation Plates for insulation attachment to steel or wood decks.
- C. Piranha Plate: A 2-3/8 inches (60 mm) diameter metal barbed fastening plate used with Carlisle HP-X, CD-10 or HD 14-10 Fasteners for membrane or insulation securement. This plate can be used for membrane or insulation securement on Mechanically Fastened

## Roofing Systems.

- D. Insulation Fastening Plate: A nominal 3 inches (76 mm) metal plate used for insulation attachment in conjunction with the appropriate Carlisle Fastener.

### 2.8 EDGINGS AND TERMINATIONS

- A. SecurEdge 2000: An anchor bar roof edge fascia system consisting of 0.100 inch (2.5 mm) thick extruded aluminum bar, corrosion resistant stainless steel fasteners and snap-on fascia cover.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Do not commence Work until all other work trades have completed jobs that require them to traverse the deck on foot or with equipment.
- D. A vapor retarder / temporary roof (Carlisle VapAir Seal725 TR Air & Vapor Barrier/Temporary Roof or Carlisle VapAir Seal MD Air & Vapor Barrier) may be applied to protect the inside of the structure prior to the roof system installation.

### 3.3 SUBSTRATE PREPARATION

- A. Wood Deck (Plywood Deck):
  1. Plywood sheathing shall be CDX grade, minimum 4 ply, and not less than 15/32 inch (12 mm) thick.
  2. Install deck over joists spaced 24 inches (610 mm) o.c. or less. Install deck with all sides bearing on and secured to joist and cross blocking.

### 3.4 INSULATION PLACEMENT

- A. Install insulation or membrane underlayment over the substrate with boards butted tightly together with no joints or gaps greater than 1/4 inch (6 mm). Stagger joints both horizontally and vertically if multiple layers are provided.
- B. Secure insulation to the substrate with the required mechanical fasteners or insulation adhesive in accordance with the manufacturer's current application guidelines.
- C. Do not install wet, damaged or warped insulation boards.
- D. Stagger joints in one direction unless joints are to be taped. Install insulation boards snug. Gaps between board joints shall not exceed 1/4 inch (6 mm). Fill all gaps in excess of 1/4 inch (6 mm) with same insulation material.
- E. Wood nailers must be at least 3 1/2 inches (89 mm) wide or 1 inch (25 mm) wider than

adjacent metal flange. Thickness must equal that of insulation but not less than 1 inch (25 mm) thickness.

- F. Miter and fill the edges of the insulation boards at ridges, valleys and other changes in plane to prevent open joints or irregular surfaces. Avoid breaking or crushing of the insulation at the corners.
- G. Do not install any more insulation than will be completely waterproofed each day.

### 3.5 INSULATION ATTACHMENT

- A. Securely attach insulation to the roof deck for Mechanically Fastened Roofing Systems. Attachment must have been successfully tested to meet or exceed the calculated uplift pressure required by the International Building Code (ASCE-7) or ANSI/SPRI WD-1.

### 3.6 MEMBRANE PLACEMENT AND ATTACHMENT (Mechanically Attached)

- A. Unroll and position membrane without stretching. Provide and secure both perimeter and field membrane sheets in accordance with the manufacturer's most current specifications and details.
- B. Secure the membrane with the required Carlisle Fasteners and Plates centered over the pre-printed marks approximately 1 1/2 inches (39 mm) from the edge of the membrane sheet.
- C. Install adjoining membrane sheets in the same manner in accordance with the manufacturer's current application requirements.

### 3.7 SEAM WELDING

- A. Hot-air weld membrane using an Automatic Hot Air Welding Machine or Hot Air Hand Welder in accordance with the manufacturer's current guidelines. At all splice intersections, roll the seam with a silicone roller to ensure a continuous hot air welded seam.
- B. Overlay all splice intersections with Sure-Flex T-Joint Covers.
- C. Probe all seams once the hot air welds have thoroughly cooled (approximately 30 minutes).
- D. Repair all seam deficiencies the same day they are discovered.
- E. Apply Cut Edge Sealant on all cut edges of reinforced membrane (where the scrim reinforcement is exposed) after seam probing is complete. Cut Edge Sealant is not required but recommended on flat surfaces and is not required on vertical splices.

### 3.8 FLASHING

- A. Flashing of parapets, curbs, expansion joints and other parts of the roof must be performed using Sure-Flex reinforced membrane. Sure-Flex non-reinforced membrane may be used for flashing pipe penetrations, Sealant Pockets, and scuppers, as well as inside and outside corners, when the use of pre-molded accessories is not feasible.
- B. Follow manufacturer's typical flashing procedures for all wall, curb, and penetration flashing including metal edging/coping and roof drain applications.

### 3.9 DAILY SEALS

- A. On phased roofing, when the completion of flashings and terminations is not achieved by the end of the work day, a daily seal must be performed to temporarily close the membrane to prevent water infiltration.

- B. Complete an acceptable membrane seal in accordance with the manufacturer's requirements.

### 3.10 CLEAN UP

- A. Perform daily clean-up to collect all wrappings, empty containers, paper, and other debris from the project site. Upon completion, all debris must be disposed of in a legally acceptable manner.
- B. Prior to the manufacturer's inspection for warranty, the applicator must perform a pre-inspection to review all work and to verify all flashing has been completed as well as the application of all caulking.

### 3.11 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

# **EXHIBIT D**

## **ASBESTOS TESTING SURVEYS**

**Mammoth Community Water District**

**Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and  
Timber Ridge Pump Station Roof Replacements**

**Mammoth Lakes, CA**

**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
FILTER BUILDING  
1315 MERIDIAN BOULEVARD  
MAMMOTH LAKES, CALIFORNIA**

Project No. 024-25026  
April 30, 2025

Prepared for:  
Mammoth Community Water District  
Nick Holt  
1315 Meridian Boulevard  
Mammoth Lakes, California 93546  
(760) 934-2596

Prepared by:  
Krazan & Associates, Inc.  
215 West Dakota Avenue  
Clovis, California 93612  
(559) 348-2200

**TABLE OF CONTENTS**  
**Project No. 024-25026**

	Page
1.0 INTRODUCTION .....	1
2.0 PURPOSE AND SCOPE OF WORK.....	1
3.0 BUILDING DESCRIPTION.....	1
4.0 INVESTIGATIVE METHODS .....	2
4.1 Sampling Protocols .....	2
4.2 Laboratory Analytical Methods .....	2
5.0 RESULTS OF INVESTIGATION .....	2
6.0 CONCLUSIONS .....	3
7.0 LIMITATIONS .....	3

**Figures**

Asbestos Survey Results.....	following text
Floor Plan.....	following Results

**Appendices**

Analytical Results and Chain-of-Custody Record .....	A
DOSH Certifications .....	B

April 30, 2025

Project No. 024-25026

**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
FILTER BUILDING  
1315 MERIDIAN BOULEVARD  
MAMMOTH LAKES, CALIFORNIA**

## **1.0 INTRODUCTION**

This report presents the results of our asbestos survey for the filter building structure located at 1315 Meridian Blvd. in Mammoth Lakes, California. The asbestos survey was conducted under the conditions of Krazan & Associates, Inc.'s (Krazan's) Proposal No. P25-176R, dated April 17, 2025. Jeffrey Beatty gave written authorization on April 22, 2025, for Krazan to proceed with the asbestos survey.

## **2.0 PURPOSE AND SCOPE OF WORK**

The purpose of the asbestos survey was to identify and quantify the presence of potential asbestos-containing materials (ACMs) at the on-site structure. The scope of work for the asbestos survey included conducting a visual survey of the structure and conducting bulk sampling and analysis of materials suspected to contain asbestos. This survey was performed in accordance with applicable local, state, and federal regulations.

## **3.0 BUILDING DESCRIPTION**

The site is located on the east side of Meridian, south of Highway 203 in Mammoth Lakes, California. The filter building structure was a single-story structure with concrete slab-on-grade foundation, brick exterior walls, with mineral surface rolled roofing. Interior construction included plaster ceilings; brick walls; and concrete floors.

## 4.0 INVESTIGATIVE METHODS

### 4.1 Sampling Protocols

Eight (8) samples of suspected ACMs were collected from throughout the on-site structure. Sample locations for this survey were chosen in a semi-random fashion with emphasis placed on minimizing damage to the sampled materials. The samples were collected by carefully removing a small amount of the suspect material in a non-abrasive manner. If possible, samples were collected from existing damaged areas or loose pieces of materials. Each sample was placed in a separate sealed plastic bag, and labeled with the project number and sample number. Refer to the Floor Plan following the text for the bulk sample locations.

### 4.2 Laboratory Analytical Methods

The bulk samples collected were analyzed by E.H.S. Laboratories of Richmond, Virginia, to detect the presence, type, and percentage of asbestos by polarized light microscopy/dispersion staining, following the procedure described in 40 CFR 763, Subpart E, Appendix A (ASHERA). Copies of the Analytical Results and Chain-of-Custody Record are included in Appendix A.

## 5.0 RESULTS OF INVESTIGATION

As stated previously, 8 samples of suspected ACMs were collected from throughout the structure. Analytical laboratory results and field observations of the materials sampled have been summarized on Table I, following the text of this report. Information presented within the table includes the sample number, the sample description, the location where the sample was obtained, the asbestos content, the volume of ACMs identified (typically expressed in square feet), the condition of the material sampled, and a listing of locations where similar (homogenous) ACMs were also noted (although not necessarily sampled in these areas). In addition, footnotes have been provided to convey pertinent information regarding the specific sample or homogenous material.

The following materials were identified as containing at least one percent asbestos:

No samples collected from this structure contained detectable amounts of asbestos.

## 6.0 CONCLUSIONS

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) defines regulated asbestos-containing materials (RACM) as the following: friable materials containing more than one percent asbestos as determined by polarized light microscopy; Category I non-friable materials (i.e., floor tiles, asphalt roofing products) containing more than one percent asbestos that have become friable, have been subjected to or will be subjected to sanding, grinding, cutting, or abrading; and Category II non-friable materials (i.e., non-friable asbestos-containing materials that are not Category I materials) containing more than one percent asbestos that have a high probability of becoming or have already been reduced to a friable condition by demolition or renovation activities. The above-noted samples did not contain greater than one percent asbestos and would, therefore, not meet the definition of a RACM under the NESHAP. In addition, the California Division of Occupational Safety and Health (Cal-OSHA) defines asbestos-containing construction material (ACCM) as greater than 0.1 percent asbestos. The above-noted samples did not contain greater than 0.1 percent asbestos and, therefore, would not meet the definition of an ACCM.

The Great Basin Unified Air Pollution Control District (APCD) is the responsible agency on the local level to enforce the NESHAP. The APCD Regional Office requires that asbestos-containing materials (ACM) be removed prior to renovation or demolition activities. Additionally, the APCD must be notified prior to any demolition and/or renovation activities.

## 7.0 LIMITATIONS

This survey and review of the subject property has been limited in scope. This investigation is undertaken with the risk that visual observations and random sampling alone would not reveal the presence, full nature, and extent of asbestos-containing materials. Krazan makes no representation as to the asbestos content of materials not sampled or that were inaccessible to our inspector (i.e., between walls, beneath floors, in pipe chases, etc.). The asbestos sample locations and building dimensions were measured/located in the field by tape measurement from existing features. Therefore, the sample locations, building dimensions, and approximate square footage of asbestos-containing materials should be considered accurate only to the degree implied by the methods used.

The findings presented in this report were based on field observations, random sampling and analysis, review of available data, and discussions with local regulatory and advisory agencies. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used. The information presented herewith was based on professional interpretation using presently accepted methods with a degree of conservatism deemed proper as of the report date. We do not warrant that future technical developments cannot supersede such data.

This asbestos survey is not intended to be the sole basis for asbestos removal bids. Confirmation of the condition and volume of the ACMs should be conducted by prospective removal contractors prior to accepting removal bids. This report is provided for the exclusive use of the client noted on the cover page and is subject to the terms and conditions in the applicable contract between the Client and Krazan. The client is the only party to whom Krazan has explained the risks involved and has been involved in the shaping of the scope of services needed to satisfactorily manage those risks, if any, from the client's point of view. Any third party use of this report, including use by the Client's lender, prospective purchaser, or lessee will be subject to the terms and conditions governing the contractual work between the Client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report, without the expressed written consent of Krazan, is strictly prohibited and will be without risk or liability to Krazan.

Asbestos analysis was conducted by a laboratory accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST). The results of the asbestos analyses are accurate only to the degree and care of ensuring the testing accuracy and the representative nature of the samples obtained.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,  
KRAZAN & ASSOCIATES, INC.



Jeffrey R. Noët  
DOSH Certified Asbestos Consultant  
No. 00-2828

JRN/mlt

**KRAZAN & ASSOCIATES, INC.**

*With Offices Serving the Western United States*

**TABLE I**  
**ASBESTOS ANALYSIS RESULTS**  
Mammoth Community Water District Roofs - Filter Building  
1315 Meridian Boulevard  
Mammoth Lakes, California  
April 24, 2025 Sampling

Sample No.	Sample Description	Sample Location	Asbestos Content	Approx. Sq. Ft.	Condition / Friability	Notes/ Additional locations
1	Roof core	roof	ND	NC	NA	full depth core to wood substrate
2	Roof tar	roof	ND	NC	NA	between roofing layers and seams
3	Roof mastic	roof	ND	NC	NA	roof penetrations
4	Plaster	interior ceiling	ND	NC	NA	homogenous throughout
5	Plaster	interior ceiling	ND	NC	NA	homogenous throughout
6	Plaster	interior ceiling	ND	NC	NA	homogenous throughout
7	Lightweight concrete	roof	ND	NC	NA	under wood substrate
8	Roofing felt	roof	ND	NC	NA	under # 8
NA	= Not applicable		F	= Fair condition		
NC	= Not calculated		G	= Good condition		
ND	= None detected		NF	= Non-friable		
Trace	= Less than one percent (<1%) chrysotile asbestos		FR	= Friable		



**EXPLANATION**

▲ BUILDING MATERIAL SAMPLE LOCATION

**FLOOR PLAN WITH BUILDING MATERIAL  
SAMPLE LOCATIONS**

MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
FILTER BUILDING  
1315 MERIDIAN BOULEVARD  
MAMMOTH LAKES, CALIFORNIA

Scale: NOT TO SCALE	Date: 4 / 25
Drawn by: J. R. N.	Approved by: J.R.N
Project No. 024-25026	Figure No. 1



# *Appendix A*



# Asbestos Bulk Analysis Report

7469 Whitepine Rd  
North Chesterfield, VA 23237  
Telephone: 800.347.4010

**Report Number:** 25-04-04979

**Client:** Krazan & Associates Inc.  
215 West Dakota Ave  
Clovis, CA 93612

**Received Date:** 04/28/2025  
**Analyzed Date:** 04/28/2025  
**Reported Date:** 04/29/2025

**Project/Test Address:** 024-25026; MCWD Roofs; 1315 Meridian Blvd (Filter Bldg)

**Client Number:**  
05-5650

**Fax Number:**  
559-348-2201

## Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04979-001	1	--	Black Tar-Like; Fibrous; White Aggregate; Inhomogenous	NAD	15% Fibrous Glass 85% Non-Fibrous
25-04-04979-002	2	--	Black Tar-Like; Homogenous	NAD	4% Fibrous Glass 96% Non-Fibrous
25-04-04979-003	3	--	Black Tar-Like; Homogenous	NAD	10% Cellulose 90% Non-Fibrous
25-04-04979-004	4	--	Gray/White Cementitious; Inhomogenous	NAD	100% Non-Fibrous
25-04-04979-005	5	--	Gray/White Cementitious; Inhomogenous	NAD	100% Non-Fibrous

# Environmental Hazards Services, L.L.C

**Client Number:** 05-5650

**Report Number:** 25-04-04979

**Project/Test Address:** 024-25026; MCWD Roofs; 1315 Meridian Blvd (Filter Bldg)

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04979-006	6	--	Gray/White Cementitious; Inhomogenous	NAD	100% Non-Fibrous
25-04-04979-007	7	--	Beige Granular; Gold/Silver Platelets; Homogenous	NAD	100% Non-Fibrous
25-04-04979-008	8	--	Black Fibrous; Homogenous	NAD	88% Cellulose 12% Non-Fibrous

**QC Sample:** 94-M12018-4

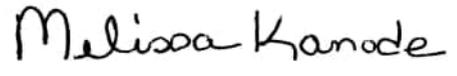
**QC Blank:** SRM 1866 Fiberglass

**Reporting Limit:** 1% Asbestos

**Method:** EPA Method 600/R-93/116, EPA Method 600/M4-82-020

**Analyst:** Kay Harris

Reviewed By Authorized Signatory:



*Melissa Kanode*  
QA/QC Clerk

These results are based on a comparative visual estimate. The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection. . NVLAP #101882-0 VELAP 460172

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

LEGEND: NAD = no asbestos detected



# *Appendix B*

DEPARTMENT OF INDUSTRIAL RELATIONS

**Division of Occupational Safety and Health-Asbestos & Carcinogen Unit**

1750 Howe Avenue, Suite 460

Sacramento, CA 95825

(916) 574-2993 Office <http://www.dir.ca.gov/dosh/asbestos.html> [actu@dir.ca.gov](mailto:actu@dir.ca.gov)



009132828C

210

August 21, 2024

Jeffrey Ronald Noel  
1055 Chennault Avenue  
Clovis CA 93611

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/ mailing information within 15 days of the change.

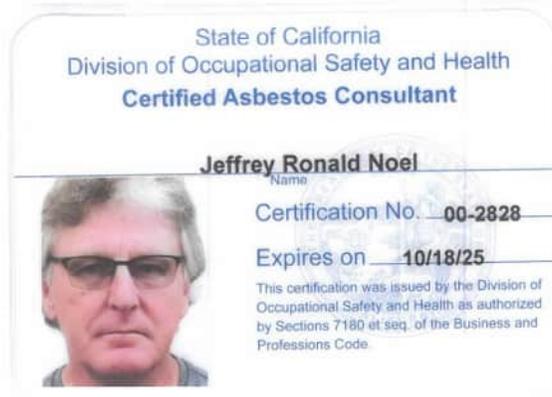
Sincerely,

Dean Mochrie, CAC  
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (08/24)



**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
JUNIPER RIDGE PUMP STATION  
11 JUNIPER ROAD  
MAMMOTH LAKES, CALIFORNIA**

Project No. 024-25026  
April 30, 2025

Prepared for:  
Mammoth Community Water District  
Nick Holt  
1315 Meridian Boulevard  
Mammoth Lakes, California 93546  
(760) 934-2596

Prepared by:  
Krazan & Associates, Inc.  
215 West Dakota Avenue  
Clovis, California 93612  
(559) 348-2200

**TABLE OF CONTENTS**  
**Project No. 024-25026**

	Page
1.0 INTRODUCTION .....	1
2.0 PURPOSE AND SCOPE OF WORK.....	1
3.0 BUILDING DESCRIPTION.....	1
4.0 INVESTIGATIVE METHODS .....	2
4.1 Sampling Protocols .....	2
4.2 Laboratory Analytical Methods .....	2
5.0 RESULTS OF INVESTIGATION .....	2
6.0 CONCLUSIONS .....	3
7.0 LIMITATIONS .....	3

**Figures**

Asbestos Survey Results.....	following text
Floor Plan.....	following Results

**Appendices**

Analytical Results and Chain-of-Custody Record .....	A
DOSH Certifications .....	B

April 30, 2025

Project No. 024-25026

**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
JUNIPER RIDGE PUMP STATION  
11 JUNIPER ROAD  
MAMMOTH LAKES, CALIFORNIA**

## **1.0 INTRODUCTION**

This report presents the results of our asbestos survey for the pump station structure located at 11 Juniper Rd. in Mammoth Lakes, California. The asbestos survey was conducted under the conditions of Krazan & Associates, Inc.'s (Krazan's) Proposal No. P25-176R, dated April 17, 2025. Jeffrey Beatty gave written authorization on April 22, 2025, for Krazan to proceed with the asbestos survey.

## **2.0 PURPOSE AND SCOPE OF WORK**

The purpose of the asbestos survey was to identify and quantify the presence of potential asbestos-containing materials (ACMs) at the on-site structure. The scope of work for the asbestos survey included conducting a visual survey of the structure and conducting bulk sampling and analysis of materials suspected to contain asbestos. This survey was performed in accordance with applicable local, state, and federal regulations.

## **3.0 BUILDING DESCRIPTION**

The site is located on the north side of Juniper, east of Lake Mary Rd. in Mammoth Lakes, California. The structure was a single-story structure with concrete slab-on-grade foundation, concrete block exterior walls, with mineral surface rolled roofing. Interior construction included gypsum board cover by foil coated foam panel ceiling; concrete block and foil coated foam panel walls; and concrete floors.

## 4.0 INVESTIGATIVE METHODS

### 4.1 Sampling Protocols

Eleven (11) samples of suspected ACMs were collected from throughout the on-site structure. Sample locations for this survey were chosen in a semi-random fashion with emphasis placed on minimizing damage to the sampled materials. The samples were collected by carefully removing a small amount of the suspect material in a non-abrasive manner. If possible, samples were collected from existing damaged areas or loose pieces of materials. Each sample was placed in a separate sealed plastic bag, and labeled with the project number and sample number. Refer to the Floor Plan following the text for the bulk sample locations.

### 4.2 Laboratory Analytical Methods

The bulk samples collected were analyzed by E.H.S. Laboratories of Richmond, Virginia, to detect the presence, type, and percentage of asbestos by polarized light microscopy/dispersion staining, following the procedure described in 40 CFR 763, Subpart E, Appendix A (ASHERA). Copies of the Analytical Results and Chain-of-Custody Record are included in Appendix A.

## 5.0 RESULTS OF INVESTIGATION

As stated previously, 11 samples of suspected ACMs were collected from throughout the structure. Analytical laboratory results and field observations of the materials sampled have been summarized on Table I, following the text of this report. Information presented within the table includes the sample number, the sample description, the location where the sample was obtained, the asbestos content, the volume of ACMs identified (typically expressed in square feet), the condition of the material sampled, and a listing of locations where similar (homogenous) ACMs were also noted (although not necessarily sampled in these areas). In addition, footnotes have been provided to convey pertinent information regarding the specific sample or homogenous material.

The following materials were identified as containing at least one percent asbestos:

No samples collected from this structure contained detectable amounts of asbestos.

## 6.0 CONCLUSIONS

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) defines regulated asbestos-containing materials (RACM) as the following: friable materials containing more than one percent asbestos as determined by polarized light microscopy; Category I non-friable materials (i.e., floor tiles, asphalt roofing products) containing more than one percent asbestos that have become friable, have been subjected to or will be subjected to sanding, grinding, cutting, or abrading; and Category II non-friable materials (i.e., non-friable asbestos-containing materials that are not Category I materials) containing more than one percent asbestos that have a high probability of becoming or have already been reduced to a friable condition by demolition or renovation activities. The above-noted samples did not contain greater than one percent asbestos and would, therefore, not meet the definition of a RACM under the NESHAP. In addition, the California Division of Occupational Safety and Health (Cal-OSHA) defines asbestos-containing construction material (ACCM) as greater than 0.1 percent asbestos. The above-noted samples did not contain greater than 0.1 percent asbestos and, therefore, would not meet the definition of an ACCM.

The Great Basin Unified Air Pollution Control District (APCD) is the responsible agency on the local level to enforce the NESHAP. The APCD Regional Office requires that asbestos-containing materials (ACM) be removed prior to renovation or demolition activities. Additionally, the APCD must be notified prior to any demolition and/or renovation activities.

## 7.0 LIMITATIONS

This survey and review of the subject property has been limited in scope. This investigation is undertaken with the risk that visual observations and random sampling alone would not reveal the presence, full nature, and extent of asbestos-containing materials. Krazan makes no representation as to the asbestos content of materials not sampled or that were inaccessible to our inspector (i.e., between walls, beneath floors, in pipe chases, etc.). The asbestos sample locations and building dimensions were measured/located in the field by tape measurement from existing features. Therefore, the sample locations, building dimensions, and approximate square footage of asbestos-containing materials should be considered accurate only to the degree implied by the methods used.

The findings presented in this report were based on field observations, random sampling and analysis, review of available data, and discussions with local regulatory and advisory agencies. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used. The information presented herewith was based on professional interpretation using presently accepted methods with a degree of conservatism deemed proper as of the report date. We do not warrant that future technical developments cannot supersede such data.

This asbestos survey is not intended to be the sole basis for asbestos removal bids. Confirmation of the condition and volume of the ACMs should be conducted by prospective removal contractors prior to accepting removal bids. This report is provided for the exclusive use of the client noted on the cover page and is subject to the terms and conditions in the applicable contract between the Client and Krazan. The client is the only party to whom Krazan has explained the risks involved and has been involved in the shaping of the scope of services needed to satisfactorily manage those risks, if any, from the client's point of view. Any third party use of this report, including use by the Client's lender, prospective purchaser, or lessee will be subject to the terms and conditions governing the contractual work between the Client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report, without the expressed written consent of Krazan, is strictly prohibited and will be without risk or liability to Krazan.

Asbestos analysis was conducted by a laboratory accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST). The results of the asbestos analyses are accurate only to the degree and care of ensuring the testing accuracy and the representative nature of the samples obtained.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,  
KRAZAN & ASSOCIATES, INC.

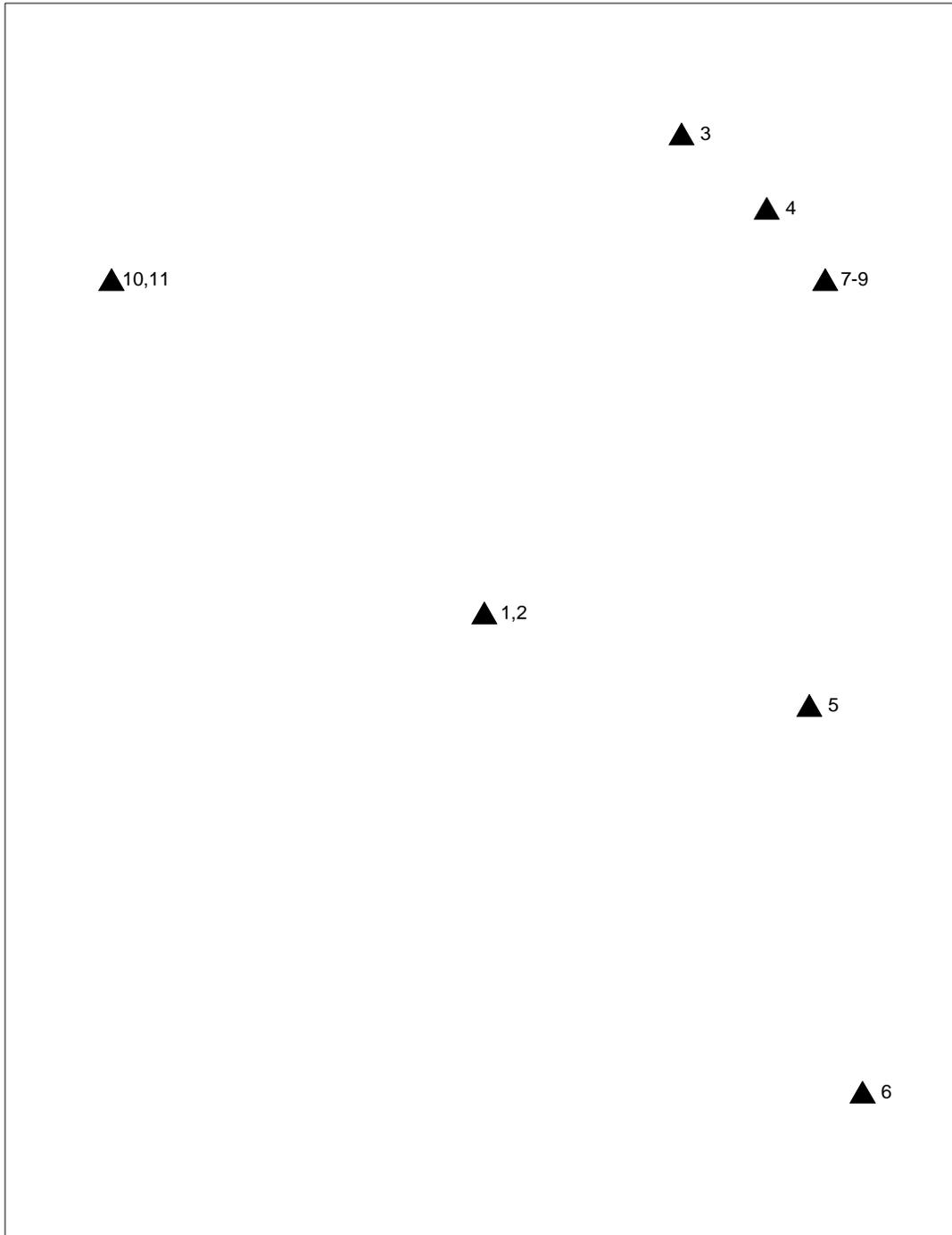


Jeffrey R. Noët  
DOSH Certified Asbestos Consultant  
No. 00-2828

JRN/mlt

**TABLE I**  
**ASBESTOS ANALYSIS RESULTS**  
Mammoth Community Water District Roofs - Juniper Ridge Pump Station  
11 Juniper Road  
Mammoth Lakes, California  
April 24, 2025 Sampling

Sample No.	Sample Description	Sample Location	Asbestos Content	Approx. Sq. Ft.	Condition / Friability	Notes/ Additional locations
1	Roof core	roof	ND	NC	NA	full depth core to wood substrate
2	Roof tar	roof	ND	NC	NA	between roofing layers and seams
3	roof n	roof	ND	NC	NA	roof penetrations
4	Gypsum board / texture	interior ceiling	ND	NC	NA	homogenous throughout
5	Gypsum board / texture	interior ceiling	ND	NC	NA	homogenous throughout
6	Gypsum board / texture	interior ceiling	ND	NC	NA	homogenous throughout
7	Roofing felt	roof	ND	NC	NA	between 2 layers of wood substrate
8	Roofing felt	roof	ND	NC	NA	between 2 layers of wood substrate
9	Roofing felt	roof	ND	NC	NA	between 2 layers of wood substrate
10	Roof core	roof	ND	NC	NA	bottom layer of roofing under air gap
11	Concrete	roof	ND	NC	NA	under # 10
NA	= Not applicable		F	= Fair condition		
NC	= Not calculated		G	= Good condition		
ND	= None detected		NF	= Non-friable		
Trace	= Less than one percent (<1%) chrysotile asbestos		FR	= Friable		



**EXPLANATION**

▲ BUILDING MATERIAL SAMPLE LOCATION

**FLOOR PLAN WITH BUILDING MATERIAL  
SAMPLE LOCATIONS**

MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
JUNIPER RIDGE PUMP STATION  
11 JUNIPER ROAD  
MAMMOTH LAKES, CALIFORNIA

Scale: NOT TO SCALE	Date: 4 / 25
Drawn by: J. R. N.	Approved by: J.R.N
Project No. 024-25026	Figure No. 1



# *Appendix A*



# Asbestos Bulk Analysis Report

7469 Whitepine Rd  
North Chesterfield, VA 23237  
Telephone: 800.347.4010

**Report Number:** 25-04-04983

**Client:** Krazan & Associates Inc.  
215 West Dakota Ave  
Clovis, CA 93612

**Received Date:** 04/28/2025  
**Analyzed Date:** 04/28/2025  
**Reported Date:** 04/29/2025

**Project/Test Address:** 024-25026; MCWD Roofs; 11 Juniper Road (Juniper Ridge PS)

**Client Number:**  
05-5650

**Fax Number:**  
559-348-2201

## Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04983-001	1		Gray Aggregate; Black Tar-Like; Fibrous; Inhomogeneous	NAD	15% Fibrous Glass 85% Non-Fibrous
25-04-04983-002	2		Black Tar-Like; Homogeneous	NAD	100% Non-Fibrous
25-04-04983-003	3		Black Tar-Like; Fibrous; Homogeneous	NAD	5% Cellulose 15% Fibrous Glass 80% Non-Fibrous
25-04-04983-004	4		Beige Paint-Like; Brown Fibrous; White/Off-White Chalky; Inhomogeneous	NAD	25% Cellulose 75% Non-Fibrous
25-04-04983-005	5		Beige Paint-Like; Brown Fibrous; White/Off-White Chalky; Inhomogeneous	NAD	25% Cellulose 75% Non-Fibrous

# Environmental Hazards Services, L.L.C

**Client Number:** 05-5650

**Report Number:** 25-04-04983

**Project/Test Address:** 024-25026; MCWD Roofs; 11 Juniper Road (Juniper Ridge PS)

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04983-006	6		Beige Paint-Like; Brown Fibrous; White/Off-White Chalky; Inhomogeneous	NAD	25% Cellulose 75% Non-Fibrous
25-04-04983-007	7		Black Tar-Like; Fibrous; Homogeneous	NAD	5% Cellulose 15% Fibrous Glass 80% Non-Fibrous
25-04-04983-008	8		Black Tar-Like; Fibrous; Homogeneous	NAD	5% Cellulose 25% Fibrous Glass 70% Non-Fibrous
25-04-04983-009	9		Black Tar-Like; Fibrous; Homogeneous	NAD	5% Cellulose 25% Fibrous Glass 70% Non-Fibrous
25-04-04983-010	10		Gray Aggregate; Black Tar-Like; Fibrous; Inhomogeneous	NAD	15% Fibrous Glass 85% Non-Fibrous
25-04-04983-011	11		Gray Cementitious; Homogeneous	NAD	100% Non-Fibrous

# Environmental Hazards Services, L.L.C

**Client Number:** 05-5650  
**Project/Test Address:** 024-25026; MCWD Roofs; 11 Juniper Road (Juniper Ridge PS)

**Report Number:** 25-04-04983

---

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
-------------------	----------------------	------------	-----------------------	----------	-----------------

---

**QC Sample:** 97-M22013-2  
**QC Blank:** SRM 1866 Fiberglass  
**Reporting Limit:** 1% Asbestos  
**Method:** EPA Method 600/R-93/116, EPA Method 600/M4-82-020  
**Analyst:** Ken Cheng



Reviewed By Authorized Signatory:

Tasha Eaddy  
QA/QC Clerk

These results are based on a comparative visual estimate. The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection. . NVLAP #101882-0 VELAP 460172

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

---

LEGEND: NAD = no asbestos detected

---



# *Appendix B*

DEPARTMENT OF INDUSTRIAL RELATIONS

**Division of Occupational Safety and Health-Asbestos & Carcinogen Unit**

1750 Howe Avenue, Suite 460

Sacramento, CA 95825

(916) 574-2993 Office <http://www.dir.ca.gov/dosh/asbestos.html> [actu@dir.ca.gov](mailto:actu@dir.ca.gov)



009132828C

210

August 21, 2024

Jeffrey Ronald Noel  
1055 Chennault Avenue  
Clovis CA 93611

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/ mailing information within 15 days of the change.

Sincerely,

Dean Mochrie, CAC  
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (08/24)

State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

---

**Jeffrey Ronald Noel**  
Name

---

Certification No. 00-2828

Expires on 10/18/25

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
KNOLLS PUMP STATION  
436 MAMMOTH KNOLLS  
MAMMOTH LAKES, CALIFORNIA**

Project No. 024-25026  
April 30, 2025

Prepared for:  
Mammoth Community Water District  
Nick Holt  
1315 Meridian Boulevard  
Mammoth Lakes, California 93546  
(760) 934-2596

Prepared by:  
Krazan & Associates, Inc.  
215 West Dakota Avenue  
Clovis, California 93612  
(559) 348-2200

**TABLE OF CONTENTS**  
**Project No. 024-25026**

	Page
1.0 INTRODUCTION .....	1
2.0 PURPOSE AND SCOPE OF WORK.....	1
3.0 BUILDING DESCRIPTION.....	1
4.0 INVESTIGATIVE METHODS .....	2
4.1 Sampling Protocols .....	2
4.2 Laboratory Analytical Methods .....	2
5.0 RESULTS OF INVESTIGATION .....	2
6.0 CONCLUSIONS .....	3
7.0 LIMITATIONS .....	4

**Figures**

Asbestos Survey Results.....	following text
Floor Plan.....	following Results

**Appendices**

Analytical Results and Chain-of-Custody Record .....	A
DOSH Certifications .....	B

April 30, 2025

Project No. 024-25026

**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
KNOLLS PUMP STATION  
436 MAMMOTH KNOLLS  
MAMMOTH LAKES, CALIFORNIA**

## **1.0 INTRODUCTION**

This report presents the results of our asbestos survey for the pump station structure located at 436 Mammoth Knolls in Mammoth Lakes, California. The asbestos survey was conducted under the conditions of Krazan & Associates, Inc.'s (Krazan's) Proposal No. P25-176R, dated April 17, 2025. Jeffrey Beatty gave written authorization on April 22, 2025, for Krazan to proceed with the asbestos survey.

## **2.0 PURPOSE AND SCOPE OF WORK**

The purpose of the asbestos survey was to identify and quantify the presence of potential asbestos-containing materials (ACMs) at the on-site structure. The scope of work for the asbestos survey included conducting a visual survey of the structure and conducting bulk sampling and analysis of materials suspected to contain asbestos. This survey was performed in accordance with applicable local, state, and federal regulations.

## **3.0 BUILDING DESCRIPTION**

The site is located on the west side of Mammoth Knolls, north of St Moritz Rd. in Mammoth Lakes, California. The structure was a single-story structure with concrete slab-on-grade foundation, concrete block exterior walls, with mineral surface rolled roofing. Interior construction included gypsum board ceiling; concrete block walls; and concrete floors.

## **4.0 INVESTIGATIVE METHODS**

### **4.1 Sampling Protocols**

Six (6) samples of suspected ACMs were collected from throughout the on-site structure. Sample locations for this survey were chosen in a semi-random fashion with emphasis placed on minimizing damage to the sampled materials. The samples were collected by carefully removing a small amount of the suspect material in a non-abrasive manner. If possible, samples were collected from existing damaged areas or loose pieces of materials. Each sample was placed in a separate sealed plastic bag, and labeled with the project number and sample number. Refer to the Floor Plan following the text for the bulk sample locations.

### **4.2 Laboratory Analytical Methods**

The bulk samples collected were analyzed by E.H.S. Laboratories of Richmond, Virginia, to detect the presence, type, and percentage of asbestos by polarized light microscopy/dispersion staining, following the procedure described in 40 CFR 763, Subpart E, Appendix A (ASHERA). Copies of the Analytical Results and Chain-of-Custody Record are included in Appendix A.

## **5.0 RESULTS OF INVESTIGATION**

As stated previously, 6 samples of suspected ACMs were collected from throughout the structure. Analytical laboratory results and field observations of the materials sampled have been summarized on Table I, following the text of this report. Information presented within the table includes the sample number, the sample description, the location where the sample was obtained, the asbestos content, the volume of ACMs identified (typically expressed in square feet), the condition of the material sampled, and a listing of locations where similar (homogenous) ACMs were also noted (although not necessarily sampled in these areas). In addition, footnotes have been provided to convey pertinent information regarding the specific sample or homogenous material.

The following materials were identified as containing at least one percent asbestos:

Roof mastic – roof penetrations (Sample No. 3). This material would be considered a Category I non-friable ACM under the NESHAP Regulations.

## 6.0 CONCLUSIONS

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) defines regulated asbestos-containing materials (RACM) as the following: friable materials containing more than one percent asbestos as determined by polarized light microscopy; Category I non-friable materials (i.e., floor tiles, asphalt roofing products) containing more than one percent asbestos that have become friable, have been subjected to or will be subjected to sanding, grinding, cutting, or abrading; and Category II non-friable materials (i.e., non-friable asbestos-containing materials that are not Category I materials) containing more than one percent asbestos that have a high probability of becoming or have already been reduced to a friable condition by demolition or renovation activities. The above-noted samples that contain greater than one percent asbestos may meet the definition of a RACM under the NESHAP depending on the abatement method employed. In addition, the California Division of Occupational Safety and Health (Cal-OSHA) defines asbestos-containing construction material (ACCM) as greater than 0.1 percent asbestos. The above-noted samples that contain greater than 0.1 percent asbestos would meet the definition of an ACCM.

If these asbestos-containing materials are left in place, the occupants of the structure should avoid buffing, sanding, grinding, or abrading these materials in any way. These activities could potentially release asbestos fibers. An Operations and Maintenance Program (O&M Program) could be developed for the management of asbestos-containing materials if left in place. The development and implementation of such a program would require the designation and training of an asbestos program manager. The asbestos program manager would be responsible for conducting periodic inspections of the asbestos-containing materials, record keeping requirements, and providing awareness training necessary for any maintenance or custodial personnel required to clean or repair these materials. Furthermore, it is recommended that the asbestos program manager notify all potentially affected individuals.

When building maintenance, repair, renovation, or other activities disturb or damage ACMs, asbestos fibers may be released creating a potential hazard. Therefore, removal of friable and non-friable ACMs that have the potential to become friable during demolition and/or renovation is federally regulated under the NESHAP. The Great Basin Unified Air Pollution Control District (APCD) is the responsible agency on the local level to enforce the NESHAP. The APCD Regional Office requires that asbestos-containing materials (ACM) be removed prior to renovation or demolition activities. Additionally, the APCD must be notified prior to any demolition and/or renovation activities.

## 7.0 LIMITATIONS

This survey and review of the subject property has been limited in scope. This investigation is undertaken with the risk that visual observations and random sampling alone would not reveal the presence, full nature, and extent of asbestos-containing materials. Krazan makes no representation as to the asbestos content of materials not sampled or that were inaccessible to our inspector (i.e., between walls, beneath floors, in pipe chases, etc.). The asbestos sample locations and building dimensions were measured/located in the field by tape measurement from existing features. Therefore, the sample locations, building dimensions, and approximate square footage of asbestos-containing materials should be considered accurate only to the degree implied by the methods used.

The findings presented in this report were based on field observations, random sampling and analysis, review of available data, and discussions with local regulatory and advisory agencies. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used. The information presented herewith was based on professional interpretation using presently accepted methods with a degree of conservatism deemed proper as of the report date. We do not warrant that future technical developments cannot supersede such data.

This asbestos survey is not intended to be the sole basis for asbestos removal bids. Confirmation of the condition and volume of the ACMs should be conducted by prospective removal contractors prior to accepting removal bids. This report is provided for the exclusive use of the client noted on the cover page and is subject to the terms and conditions in the applicable contract between the Client and Krazan. The client is the only party to whom Krazan has explained the risks involved and has been involved in the shaping of the scope of services needed to satisfactorily manage those risks, if any, from the client's point of view. Any third party use of this report, including use by the Client's lender, prospective purchaser, or lessee will be subject to the terms and conditions governing the contractual work between the Client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report, without the expressed written consent of Krazan, is strictly prohibited and will be without risk or liability to Krazan.

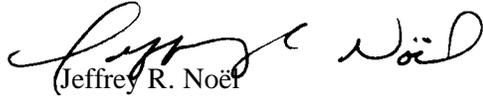
Asbestos analysis was conducted by a laboratory accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST). The results of the asbestos analyses are accurate only to the degree and care of ensuring the testing accuracy and the representative nature of the samples obtained.

**KRAZAN & ASSOCIATES, INC.**

*With Offices Serving the Western United States*

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,  
KRAZAN & ASSOCIATES, INC.

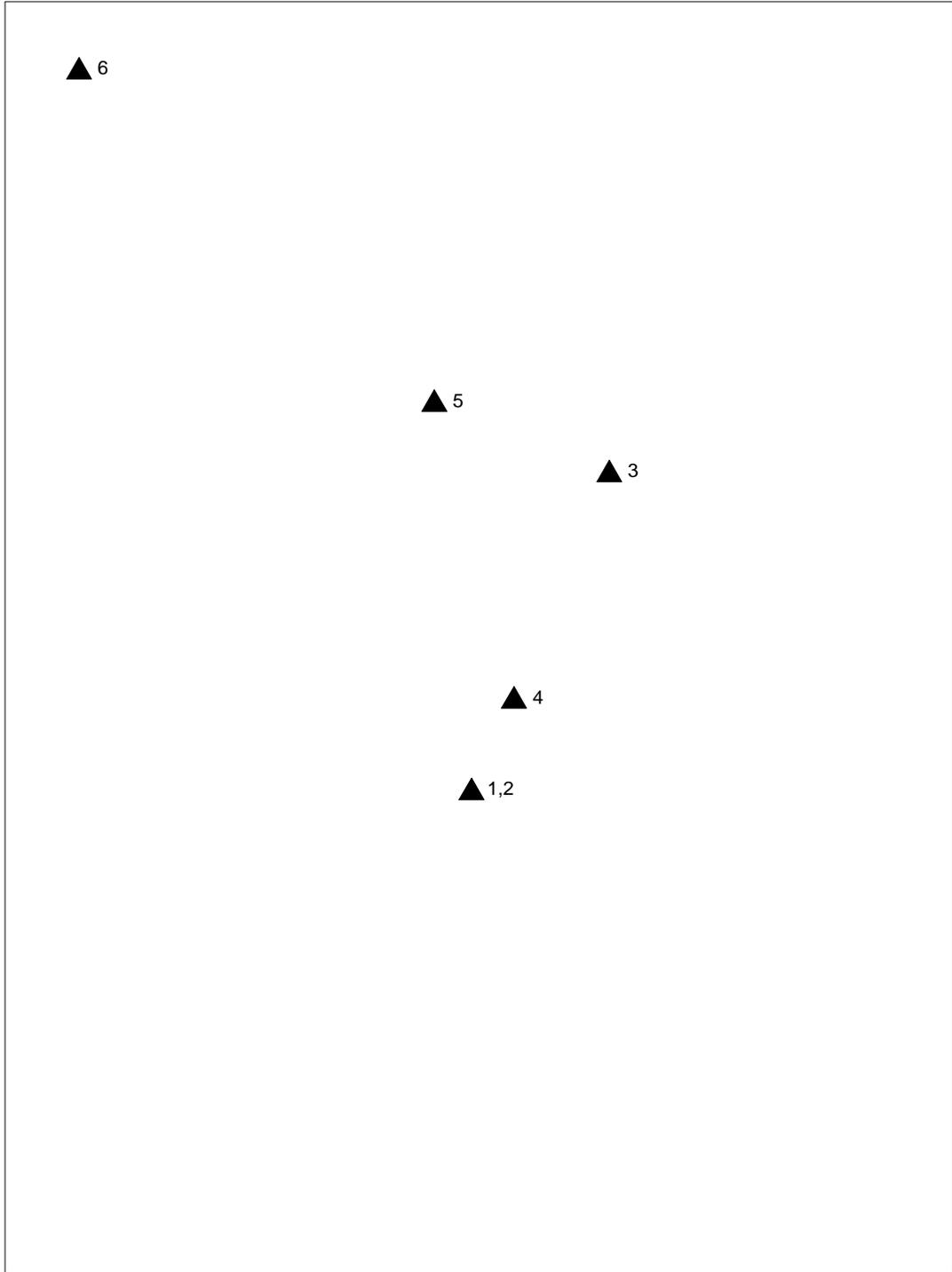


Jeffrey R. Noël  
DOSH Certified Asbestos Consultant  
No. 00-2828

JRN/mlt

**TABLE I**  
**ASBESTOS ANALYSIS RESULTS**  
Mammoth Community Water District Roofs - Knolls Pump Station  
436 Mammoth Knolls  
Mammoth Lakes, California  
April 24, 2025 Sampling

Sample No.	Sample Description	Sample Location	Asbestos Content	Approx. Sq. Ft.	Condition / Friability	Notes/ Additional locations
1	Roof core	roof	ND	NC	NA	full depth core to wood substrate
2	Roof tar	roof	ND	NC	NA	between roofing layers and seams
<b>3</b>	<b>Roof mastic</b>	<b>roof</b>	<b>6%</b>	<b>&lt;25</b>	<b>G/NF</b>	<b>roof penetrations</b>
4	Gypsum board / taping material	interior ceiling	ND	NC	NA	homogenous throughout
5	Gypsum board / taping material	interior ceiling	ND	NC	NA	homogenous throughout
6	Gypsum board / taping material	interior ceiling	ND	NC	NA	homogenous throughout
NA	= Not applicable		F	= Fair condition		
NC	= Not calculated		G	= Good condition		
ND	= None detected		NF	= Non-friable		
Trace	= Less than one percent (<1%) chrysotile asbestos		FR	= Friable		



**EXPLANATION**

▲ BUILDING MATERIAL SAMPLE LOCATION



**FLOOR PLAN WITH BUILDING MATERIAL  
SAMPLE LOCATIONS**

MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
KNOLLS PUMP STATION  
436 MAMMOTH KNOLLS  
MAMMOTH LAKES, CALIFORNIA

Scale: NOT TO SCALE	Date: 4 / 25
Drawn by: J. R. N.	Approved by: J.R.N
Project No. 024-25026	Figure No. 1



# *Appendix A*



# Asbestos Bulk Analysis Report

7469 Whitepine Rd  
 North Chesterfield, VA 23237  
 Telephone: 800.347.4010

**Report Number:** 25-04-04977

**Client:** Krazan & Associates Inc.  
 215 West Dakota Ave  
 Clovis, CA 93612

**Received Date:** 04/28/2025  
**Analyzed Date:** 04/28/2025  
**Reported Date:** 04/29/2025

**Project/Test Address:** 024-25026; MCWD Roofs; 436 Mammoth Knolls (Knolls PS)

**Client Number:**  
 05-5650

**Fax Number:**  
 559-348-2201

## Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04977-001	1		Gray Aggregate; Black Tar-Like; Fibrous; Inhomogeneous	NAD	20% Fibrous Glass 80% Non-Fibrous
25-04-04977-002	2		Black Tar-Like; Homogeneous	NAD	5% Fibrous Glass 95% Non-Fibrous
25-04-04977-003	3		Black Tar-Like; Homogeneous	6% Chrysotile	94% Non-Fibrous
<b>Total Asbestos: 6%</b>					
25-04-04977-004	4		Off-White Paint-Like; Blue/Brown Fibrous; White/Tan Chalky; Inhomogeneous	NAD	20% Cellulose 5% Fibrous Glass 75% Non-Fibrous
25-04-04977-005	5		Blue/Brown Fibrous; White/Tan Chalky; Inhomogeneous	NAD	20% Cellulose 5% Fibrous Glass 75% Non-Fibrous

# Environmental Hazards Services, L.L.C

**Client Number:** 05-5650

**Report Number:** 25-04-04977

**Project/Test Address:** 024-25026; MCWD Roofs; 436 Mammoth Knolls (Knolls PS)

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04977-006	6		Off-White Paint-Like; Blue/Brown Fibrous; White/Tan Chalky; Inhomogeneous	NAD	20% Cellulose 5% Fibrous Glass 75% Non-Fibrous

**QC Sample:** 97-M22013-2

**QC Blank:** SRM 1866 Fiberglass

**Reporting Limit:** 1% Asbestos

**Method:** EPA Method 600/R-93/116, EPA Method 600/M4-82-020

**Analyst:** Ken Cheng

Reviewed By Authorized Signatory:



Tasha Eaddy  
QA/QC Clerk

These results are based on a comparative visual estimate. The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection. . NVLAP #101882-0 VELAP 460172

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

LEGEND: NAD = no asbestos detected



# *Appendix B*

DEPARTMENT OF INDUSTRIAL RELATIONS

**Division of Occupational Safety and Health-Asbestos & Carcinogen Unit**

1750 Howe Avenue, Suite 460

Sacramento, CA 95825

(916) 574-2993 Office <http://www.dir.ca.gov/dosh/asbestos.html> [actu@dir.ca.gov](mailto:actu@dir.ca.gov)



009132828C

210

August 21, 2024

Jeffrey Ronald Noel  
1055 Chennault Avenue  
Clovis CA 93611

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/ mailing information within 15 days of the change.

Sincerely,

Dean Mochrie, CAC  
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (08/24)

State of California  
Division of Occupational Safety and Health  
**Certified Asbestos Consultant**

**Jeffrey Ronald Noel**  
Name

Certification No. **00-2828**

Expires on **10/18/25**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
TIMBER RIDGE PUMP STATION  
445 DAVISON ROAD  
MAMMOTH LAKES, CALIFORNIA**

Project No. 024-25026  
April 30, 2025

Prepared for:  
Mammoth Community Water District  
Nick Holt  
1315 Meridian Boulevard  
Mammoth Lakes, California 93546  
(760) 934-2596

Prepared by:  
Krazan & Associates, Inc.  
215 West Dakota Avenue  
Clovis, California 93612  
(559) 348-2200

**TABLE OF CONTENTS**  
**Project No. 024-25026**

	Page
1.0 INTRODUCTION .....	1
2.0 PURPOSE AND SCOPE OF WORK.....	1
3.0 BUILDING DESCRIPTION.....	1
4.0 INVESTIGATIVE METHODS .....	2
4.1 Sampling Protocols .....	2
4.2 Laboratory Analytical Methods .....	2
5.0 RESULTS OF INVESTIGATION .....	2
6.0 CONCLUSIONS .....	3
7.0 LIMITATIONS .....	3

**Figures**

Asbestos Survey Results.....	following text
Floor Plan.....	following Results

**Appendices**

Analytical Results and Chain-of-Custody Record .....	A
DOSH Certifications .....	B

April 30, 2025

Project No. 024-25026

**ASBESTOS SURVEY  
MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
TIMBER RIDGE PUMP STATION  
445 DAVISON ROAD  
MAMMOTH LAKES, CALIFORNIA**

## **1.0 INTRODUCTION**

This report presents the results of our asbestos survey for the pump station structure located at 445 Davison Rd. in Mammoth Lakes, California. The asbestos survey was conducted under the conditions of Krazan & Associates, Inc.'s (Krazan's) Proposal No. P25-176R, dated April 17, 2025. Jeffrey Beatty gave written authorization on April 22, 2025, for Krazan to proceed with the asbestos survey.

## **2.0 PURPOSE AND SCOPE OF WORK**

The purpose of the asbestos survey was to identify and quantify the presence of potential asbestos-containing materials (ACMs) at the on-site structure. The scope of work for the asbestos survey included conducting a visual survey of the structure and conducting bulk sampling and analysis of materials suspected to contain asbestos. This survey was performed in accordance with applicable local, state, and federal regulations.

## **3.0 BUILDING DESCRIPTION**

The site is located on the south side of Davison, west of Lake Mary Rd. in Mammoth Lakes, California. The structure was a single-story structure with concrete slab-on-grade foundation, metal and concrete block exterior walls, with mineral surface rolled roofing. Interior construction included open-framed ceiling; concrete block walls; and concrete floors.

## **4.0 INVESTIGATIVE METHODS**

### **4.1 Sampling Protocols**

Four (4) samples of suspected ACMs were collected from throughout the on-site structure. Sample locations for this survey were chosen in a semi-random fashion with emphasis placed on minimizing damage to the sampled materials. The samples were collected by carefully removing a small amount of the suspect material in a non-abrasive manner. If possible, samples were collected from existing damaged areas or loose pieces of materials. Each sample was placed in a separate sealed plastic bag, and labeled with the project number and sample number. Refer to the Floor Plan following the text for the bulk sample locations.

### **4.2 Laboratory Analytical Methods**

The bulk samples collected were analyzed by E.H.S. Laboratories of Richmond, Virginia, to detect the presence, type, and percentage of asbestos by polarized light microscopy/dispersion staining, following the procedure described in 40 CFR 763, Subpart E, Appendix A (AHERA). Copies of the Analytical Results and Chain-of-Custody Record are included in Appendix A.

## **5.0 RESULTS OF INVESTIGATION**

As stated previously, 4 samples of suspected ACMs were collected from throughout the structure. Analytical laboratory results and field observations of the materials sampled have been summarized on Table I, following the text of this report. Information presented within the table includes the sample number, the sample description, the location where the sample was obtained, the asbestos content, the volume of ACMs identified (typically expressed in square feet), the condition of the material sampled, and a listing of locations where similar (homogenous) ACMs were also noted (although not necessarily sampled in these areas). In addition, footnotes have been provided to convey pertinent information regarding the specific sample or homogenous material.

The following materials were identified as containing at least one percent asbestos:

No samples collected from this structure contained detectable amounts of asbestos.

## 6.0 CONCLUSIONS

The National Emissions Standards for Hazardous Air Pollutants (NESHAP) defines regulated asbestos-containing materials (RACM) as the following: friable materials containing more than one percent asbestos as determined by polarized light microscopy; Category I non-friable materials (i.e., floor tiles, asphalt roofing products) containing more than one percent asbestos that have become friable, have been subjected to or will be subjected to sanding, grinding, cutting, or abrading; and Category II non-friable materials (i.e., non-friable asbestos-containing materials that are not Category I materials) containing more than one percent asbestos that have a high probability of becoming or have already been reduced to a friable condition by demolition or renovation activities. The above-noted samples did not contain greater than one percent asbestos and would, therefore, not meet the definition of a RACM under the NESHAP. In addition, the California Division of Occupational Safety and Health (Cal-OSHA) defines asbestos-containing construction material (ACCM) as greater than 0.1 percent asbestos. The above-noted samples did not contain greater than 0.1 percent asbestos and, therefore, would not meet the definition of an ACCM.

The Great Basin Unified Air Pollution Control District (APCD) is the responsible agency on the local level to enforce the NESHAP. The APCD Regional Office requires that asbestos-containing materials (ACM) be removed prior to renovation or demolition activities. Additionally, the APCD must be notified prior to any demolition and/or renovation activities.

## 7.0 LIMITATIONS

This survey and review of the subject property has been limited in scope. This investigation is undertaken with the risk that visual observations and random sampling alone would not reveal the presence, full nature, and extent of asbestos-containing materials. Krazan makes no representation as to the asbestos content of materials not sampled or that were inaccessible to our inspector (i.e., between walls, beneath floors, in pipe chases, etc.). The asbestos sample locations and building dimensions were measured/located in the field by tape measurement from existing features. Therefore, the sample locations, building dimensions, and approximate square footage of asbestos-containing materials should be considered accurate only to the degree implied by the methods used.

The findings presented in this report were based on field observations, random sampling and analysis, review of available data, and discussions with local regulatory and advisory agencies. Therefore, the data obtained are clear and accurate only to the degree implied by the sources and methods used. The information presented herewith was based on professional interpretation using presently accepted methods with a degree of conservatism deemed proper as of the report date. We do not warrant that future technical developments cannot supersede such data.

This asbestos survey is not intended to be the sole basis for asbestos removal bids. Confirmation of the condition and volume of the ACMs should be conducted by prospective removal contractors prior to accepting removal bids. This report is provided for the exclusive use of the client noted on the cover page and is subject to the terms and conditions in the applicable contract between the Client and Krazan. The client is the only party to whom Krazan has explained the risks involved and has been involved in the shaping of the scope of services needed to satisfactorily manage those risks, if any, from the client's point of view. Any third party use of this report, including use by the Client's lender, prospective purchaser, or lessee will be subject to the terms and conditions governing the contractual work between the Client and Krazan. The unauthorized use of, reliance on, or release of the information contained in this report, without the expressed written consent of Krazan, is strictly prohibited and will be without risk or liability to Krazan.

Asbestos analysis was conducted by a laboratory accredited under the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST). The results of the asbestos analyses are accurate only to the degree and care of ensuring the testing accuracy and the representative nature of the samples obtained.

If you have any questions or if we may be of further assistance, please do not hesitate to contact our office at (559) 348-2200.

Respectfully submitted,  
KRAZAN & ASSOCIATES, INC.

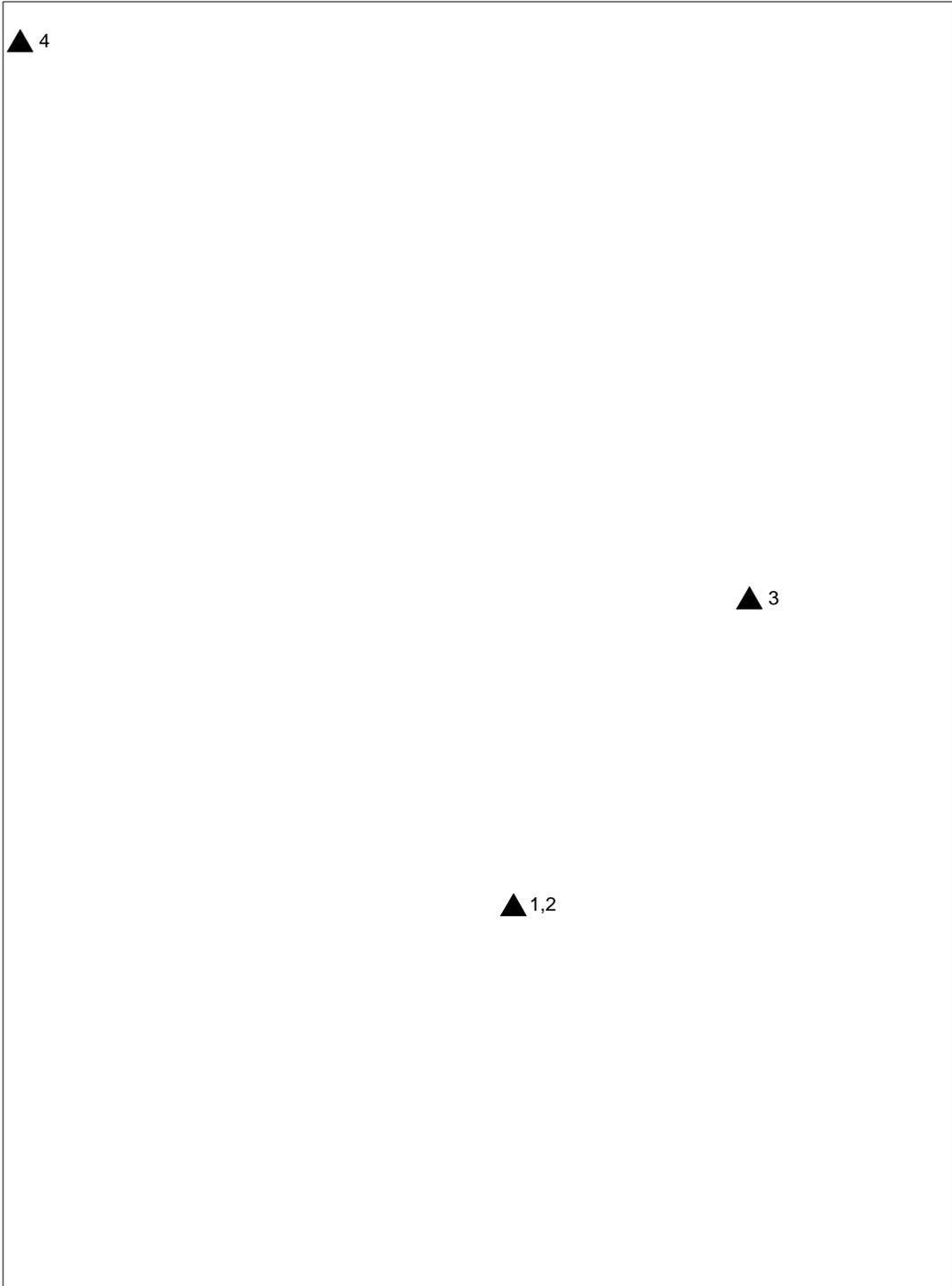


Jeffrey R. Noët  
DOSH Certified Asbestos Consultant  
No. 00-2828

JRN/mlt

**TABLE I**  
**ASBESTOS ANALYSIS RESULTS**  
Mammoth Community Water District Roofs - Timber Ridge Pump Station  
445 Davison Road  
Mammoth Lakes, California  
April 24, 2025 Sampling

Sample No.	Sample Description	Sample Location	Asbestos Content	Approx. Sq. Ft.	Condition / Friability	Notes/ Additional locations
1	Roof core	roof	ND	NC	NA	full depth core to wood substrate
2	Roof tar	roof	ND	NC	NA	between roofing layers and seams
3	Roof mastic	roof	ND	NC	NA	roof penetrations
4	Roof mastic	roof	ND	NC	NA	roof patch
NA	= Not applicable		F	= Fair condition		
NC	= Not calculated		G	= Good condition		
ND	= None detected		NF	= Non-friable		
Trace	= Less than one percent (<1%) chrysotile asbestos		FR	= Friable		



**EXPLANATION**

▲ BUILDING MATERIAL SAMPLE LOCATION



**FLOOR PLAN WITH BUILDING MATERIAL  
SAMPLE LOCATIONS**

MAMMOTH COMMUNITY WATER DISTRICT ROOFS  
TIMBER RIDGE PUMP STATION  
445 DAVISON ROAD  
MAMMOTH LAKES, CALIFORNIA

Scale: NOT TO SCALE	Date: 4 / 25
Drawn by: J. R. N.	Approved by: J.R.N
Project No. 024-25026	Figure No. 1



# *Appendix A*



# Asbestos Bulk Analysis Report

7469 Whitepine Rd  
 North Chesterfield, VA 23237  
 Telephone: 800.347.4010

**Report Number:** 25-04-04970

**Client:** Krazan & Associates Inc.  
 215 West Dakota Ave  
 Clovis, CA 93612

**Received Date:** 04/28/2025  
**Analyzed Date:** 04/28/2025  
**Reported Date:** 04/29/2025

**Project/Test Address:** 024-25026; MCWD Roofs; 445 Davison Road (Timber Ridge PS)

**Client Number:**  
 05-5650

**Fax Number:**  
 559-348-2201

## Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
25-04-04970-001	1		Black Adhesive; Fibrous; Brown Aggregate; Inhomogenous	NAD	12% Fibrous Glass 5% Synthetic 83% Non-Fibrous
25-04-04970-002	2		Black Tar-Like; Homogenous	NAD	100% Non-Fibrous
25-04-04970-003	3		Black Tar-Like; Homogenous	NAD	8% Cellulose 92% Non-Fibrous
25-04-04970-004	4		Black Tar-Like; Brown Aggregate; Inhomogenous	NAD	7% Cellulose 2% Fibrous Glass 1% Synthetic 90% Non-Fibrous

# Environmental Hazards Services, L.L.C

**Client Number:** 05-5650

**Report Number:** 25-04-04970

**Project/Test Address:** 024-25026; MCWD Roofs; 445 Davison Road (Timber Ridge PS)

---

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
-------------------	----------------------	------------	-----------------------	----------	-----------------

---

**QC Sample:** 94-M12018-4

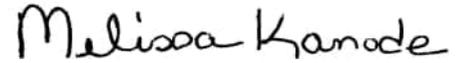
**QC Blank:** SRM 1866 Fiberglass

**Reporting Limit:** 1% Asbestos

**Method:** EPA Method 600/R-93/116, EPA Method 600/M4-82-020

**Analyst:** Kay Harris

Reviewed By Authorized Signatory:



Melissa Kanode  
QA/QC Clerk

These results are based on a comparative visual estimate. The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Each distinct component in an inhomogeneous sample was analyzed separately and reported as a composite. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection. . NVLAP #101882-0 VELAP 460172

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

400 Point Count Analysis, where noted, performed per EPA Method 600/R-93/116 with a Reporting Limit of 0.25%.

---

LEGEND: NAD = no asbestos detected

---



# *Appendix B*

DEPARTMENT OF INDUSTRIAL RELATIONS

**Division of Occupational Safety and Health-Asbestos & Carcinogen Unit**

1750 Howe Avenue, Suite 460

Sacramento, CA 95825

(916) 574-2993 Office <http://www.dir.ca.gov/dosh/asbestos.html> [actu@dir.ca.gov](mailto:actu@dir.ca.gov)



009132828C

210

August 21, 2024

Jeffrey Ronald Noel  
1055 Chennault Avenue  
Clovis CA 93611

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. **To maintain your certification, you must abide by the rules printed on the back of the certification card.**

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email w any changes in your contact/ mailing information within 15 days of the change.

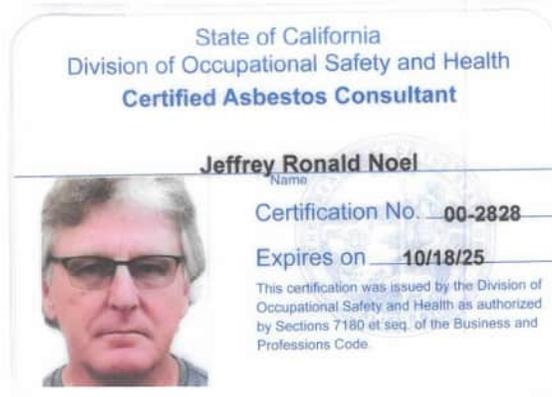
Sincerely,

Dean Mochrie, CAC  
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (08/24)



**EXHIBIT E**

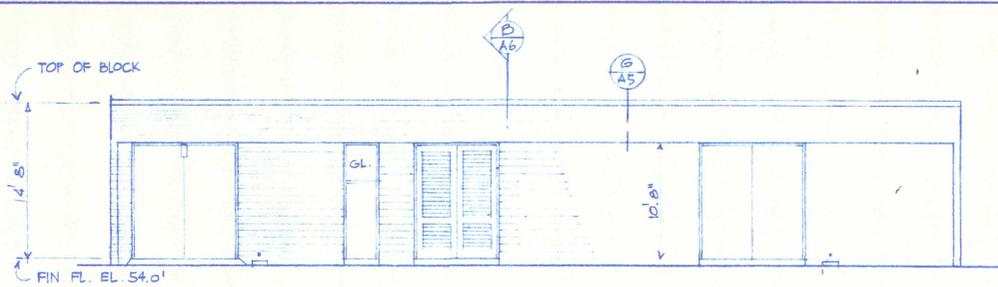
**ORIGINAL STRUCTURAL PLANS**

**Mammoth Community Water District**

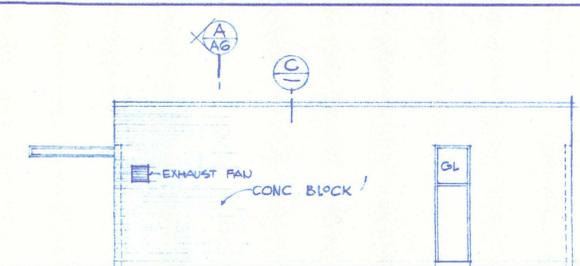
**Filter Building, Juniper Ridge Pump Station, Knolls Pump Station, and  
Timber Ridge Pump Station Roof Replacements**

**Mammoth Lakes, CA**

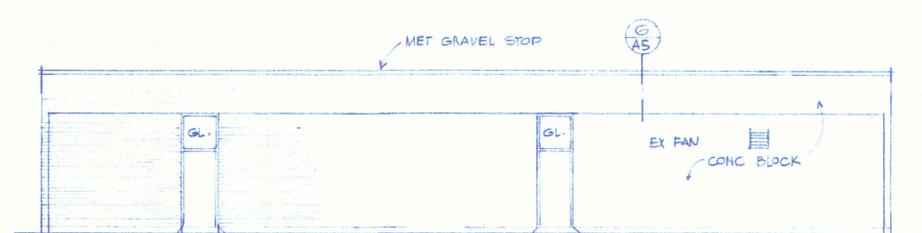




**SOUTH ELEVATION**  
SCALE 1/8" = 1'-0"

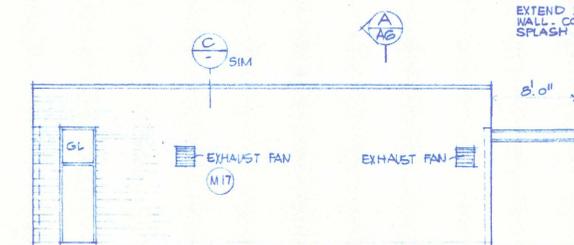


**EAST ELEVATION**  
SCALE 1/8" = 1'-0"

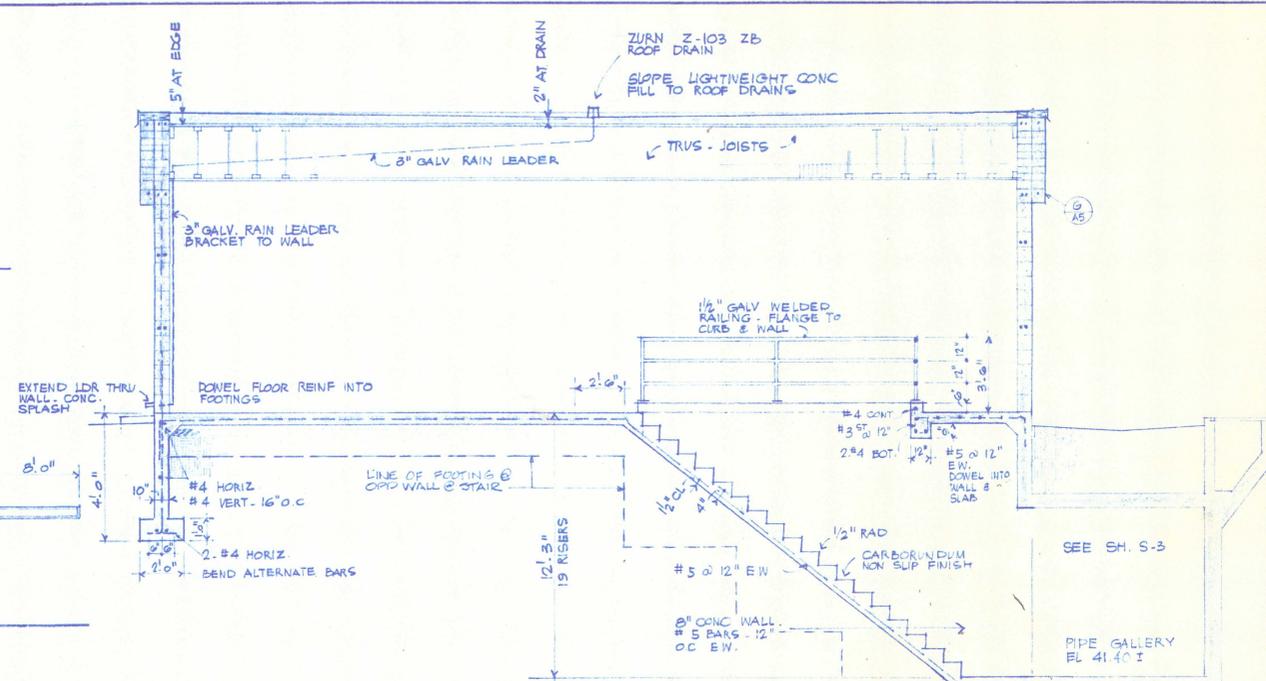


**NORTH ELEVATION**  
SCALE 1/8" = 1'-0"

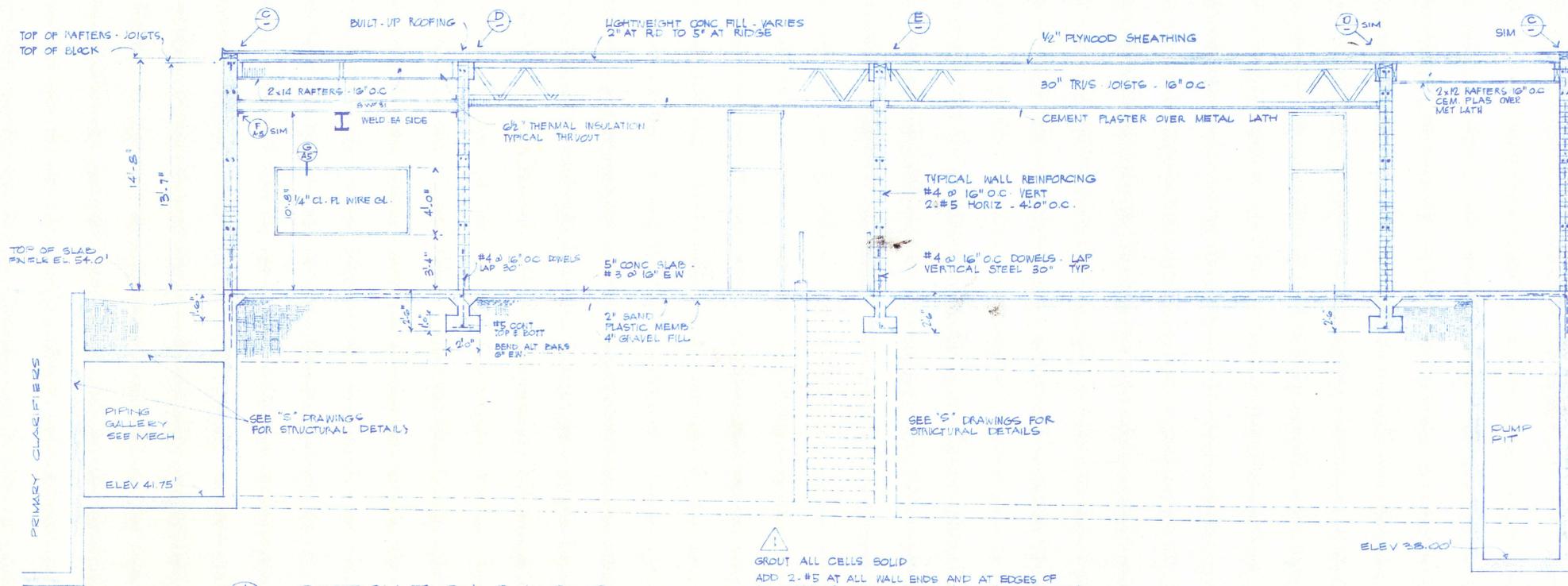
ALL BLOCK 4" HIGH



**WEST ELEVATION**  
SCALE 1/8" = 1'-0"

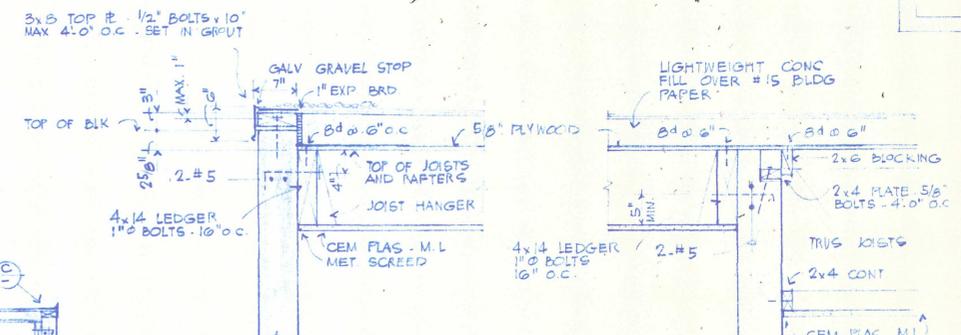


**B CROSS SECTION**  
SCALE 1/4" = 1'-0"

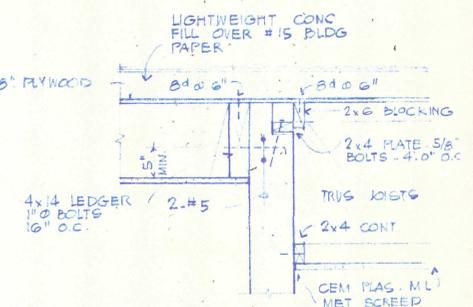


**A SECTION THRU BUILDING**  
SCALE 1/4" = 1'-0"

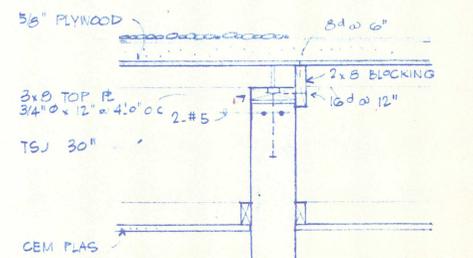
GROUT ALL CELLS SOLID  
ADD 2-#5 AT ALL WALL ENDS AND AT EDGES OF ALL OPENINGS. EXTEND REINF. 2'-0" BEYOND OPENINGS



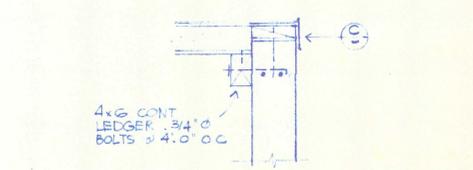
**C SECTION**  
SCALE 3/4" = 1'-0"



**D SECTION**  
SCALE 3/4" = 1'-0"



**E SECTION**  
SCALE 3/4" = 1'-0"



**F SECTION**  
SCALE 3/4" = 1'-0"

**John Bartlett Associates, Architects**

**MOLINA engineering consultants, inc.**  
PLANNING • ENVIRONMENTAL SYSTEMS • RESEARCH

MAMMOTH COUNTY WATER DISTRICT  
MECHANICAL BUILDING - ELEVATIONS, SECTIONS & DETAILS

REVISIONS				JOB NO.	
No.	Date	Description	By	Drawn	Date
1	11/19/77	DELETED NOTE PER ADDENDUM NO. 1	EC		
				Chk'd	Date

# MAMMOTH COUNTY WATER DISTRICT

## MONO COUNTY, CALIFORNIA

### BOARD OF DIRECTORS

WILLIAM J. MURPHY - President  
 F. E. AXFORD - Vice President  
 M. V. DYE  
 EDGAR F. HAZELTON  
 DONALD L. RAKE

ROBERT E. REARDON - District Manager

#### GENERAL NOTES:

- All work shown on these plans shall be performed in strict accordance with the specifications. The Contractor shall conduct all his operations to minimize disturbances and damage to private property. If conditions are encountered which may threaten to damage private property, the Contractor shall take any and all immediate measures to protect the property and shall immediately notify the Engr.
- The locations of public and private underground utilities shown on the plans were obtained from available records and subsequent field surveys. The Contractor shall take all such measures as necessary to protect utilities encountered during construction shall be immediately repaired to the satisfaction of the Engineer and/or the utility owner.
- The Contractor shall coordinate all his work with the various utilities and shall notify all utilities a minimum of 48 hours prior to commencing any work. The existing public utilities and agencies having facilities or jurisdiction in the area of work.

Mammoth County Water District (714) 934 - 2596  
 Southern California Edison Co. (714) 873 - 3568  
 Mammoth Electric - Cable TV (714) 934 - 2935  
 Continental Telephone Co (714) 873 - 4221  
 Turner Gas (714) 934 - 2343  
 Petrolane Gas Service (714) 934 - 2213

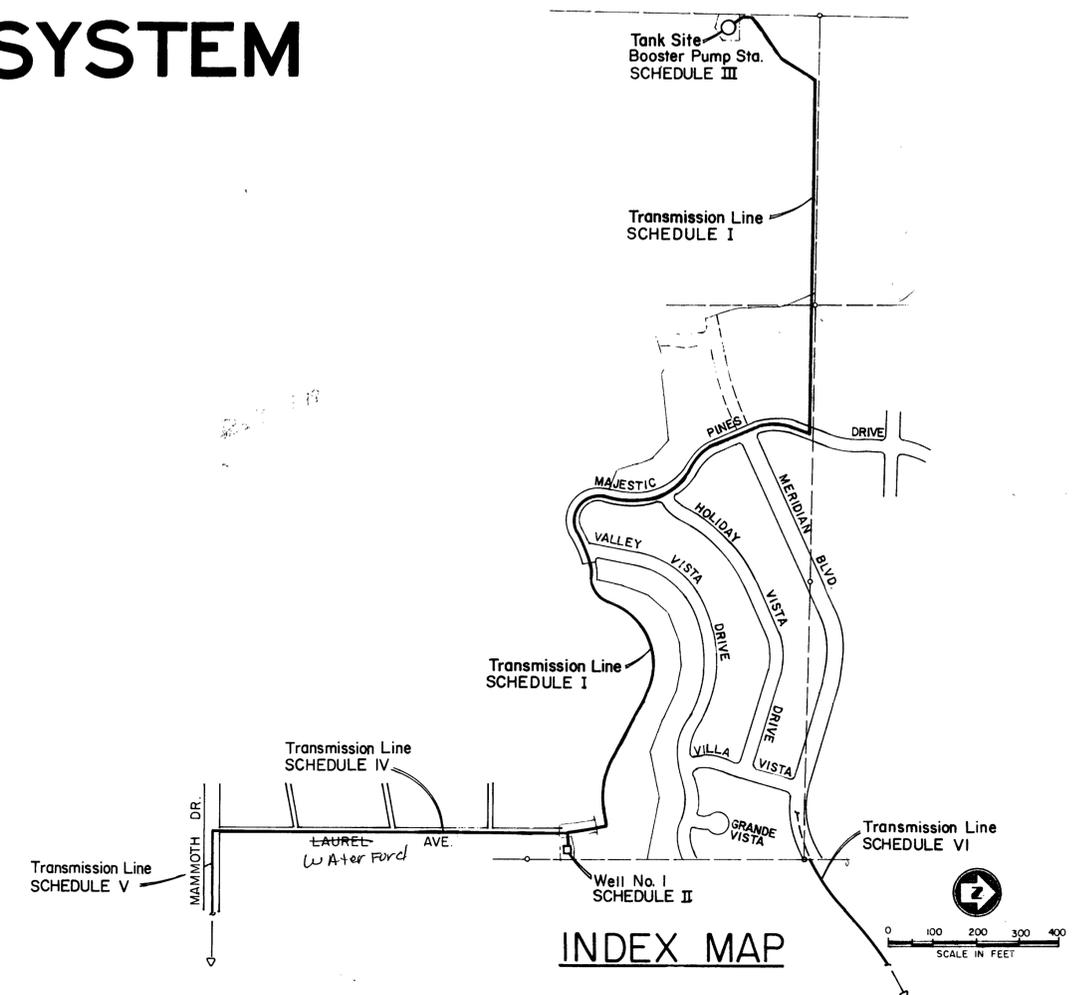
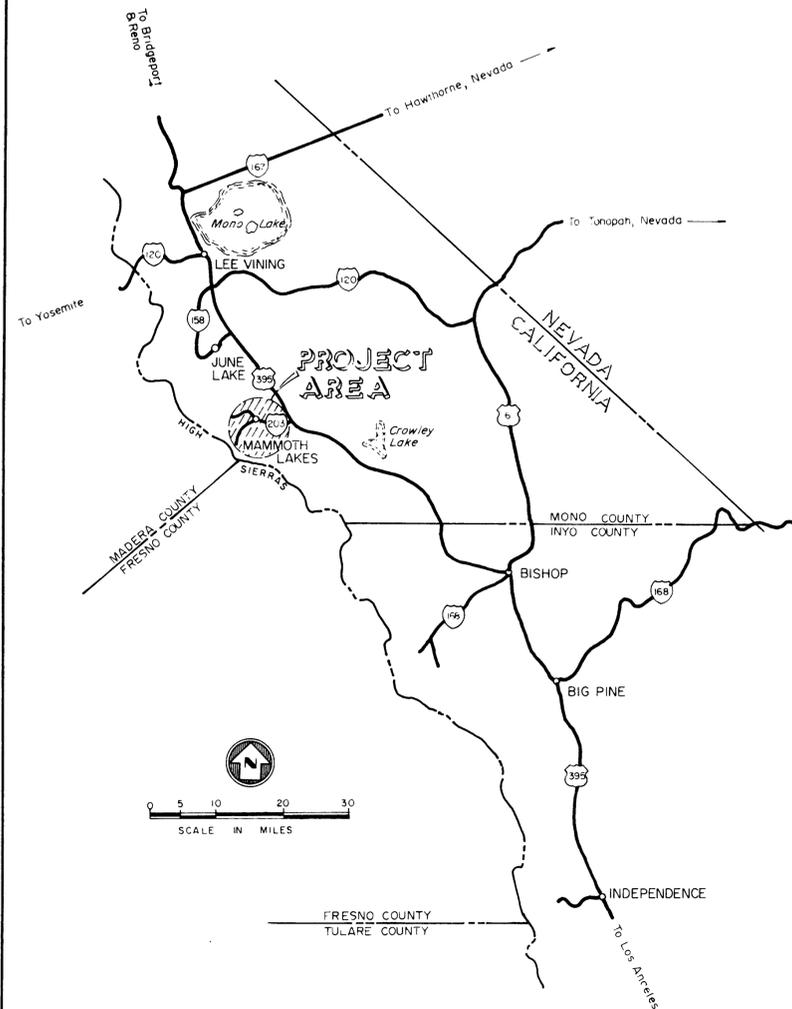
#### GENERAL NOTES: (Cont'd)

- All construction within County rights of way, including shoulder areas, shall be performed in strict accordance with the County Encroachment Permit included in the specifications.
- BENCH MARK:  
 Highway monument marked E. 203 at 777 + 02.19: Elevation - 8221.54

# PLANS FOR THE CONSTRUCTION OF SUPPLEMENTAL WATER SYSTEM

### INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET, GENERAL NOTES AND INDEX TO DRAWINGS
Schedule I, Alternates 'A' and 'B'	
2	PLAN and PROFILE, TRANSMISSION LINE, Sta. 0+50 to Sta. 16+00
3	PLAN and PROFILE, TRANSMISSION LINE, Sta. 16+00 to Sta. 30+85
4	PLAN and PROFILE, TRANSMISSION LINE, Sta. 30+33 to Sta. 44+97
5	PLAN and PROFILE, TRANSMISSION LINE, Sta. 44+97 to Sta. 54+05
Schedule IV, Alternates 'A' and 'B'	
6	PLAN and PROFILE, TRANSMISSION LINE, Sta. 1+75 to Sta. 16+40
Schedule V, Alternates 'A' and 'B'	
7	PLAN and PROFILE, TRANSMISSION LINE, Sta. 16+40 to Sta. 29+50
8	PLAN and PROFILE, TRANSMISSION LINE, Sta. 29+50 to Sta. 42+70
9	PLAN and PROFILE, TRANSMISSION LINE, Sta. 42+70 to Sta. 55+00
10	PLAN and PROFILE, TRANSMISSION LINE, Sta. 55+00 to Sta. 68+08
11	PLAN and PROFILE, TRANSMISSION LINE, Sta. 68+08 to Sta. 77+65
Schedule VI, Alternates 'A' and 'B'	
12	PLAN and PROFILE, TRANSMISSION LINE, Sta. 0+00 to Sta. 13+15
13	PLAN and PROFILE, TRANSMISSION LINE, Sta. 13+15 to Sta. 20+75
Schedule III, Alternates 'A' and 'B'	
14	SITE PLAN and MISCELLANEOUS DETAILS
15	BOOSTER PUMP STATION DETAILS
16	RESERVOIR VAULT PIPING and MISCELLANEOUS DETAILS
17	MISCELLANEOUS DETAILS
18	WATER TANK DETAILS
Schedule II	
19	WELL SITE PLAN and MISCELLANEOUS DETAILS
20	WELL - PUMP STATION DETAILS
21	MISCELLANEOUS DETAILS
22	ELECTRICAL
23	ELECTRICAL



AREA MAP

INDEX MAP

NO.	DATE	DESCRIPTION	BY	CHECKED	DATE

JOB NO. 247  
 DRAWN DATE  
 CHECKED DATE  
 DATE 4/18/78



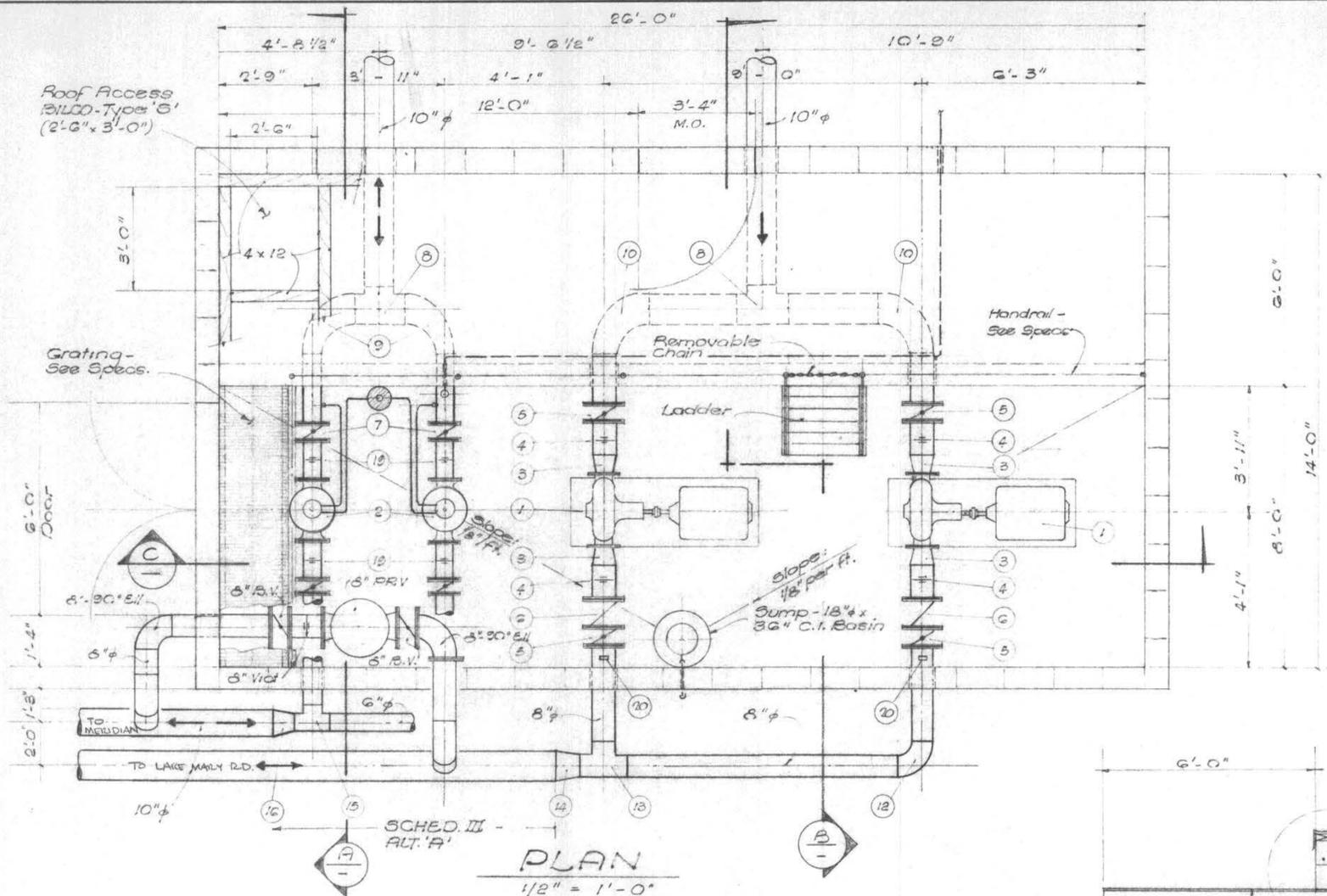
**GRAM PHILLIPS ASSOCIATES, INC.**  
 1000 EAST WALNUT STREET/SUITE 223/PASADENA, CALIFORNIA 91106/PHONE (213) 681-0291  
 ENGINEERING / RESEARCH  
 ENVIRONMENTAL SYSTEMS

**AS BUILT SET**

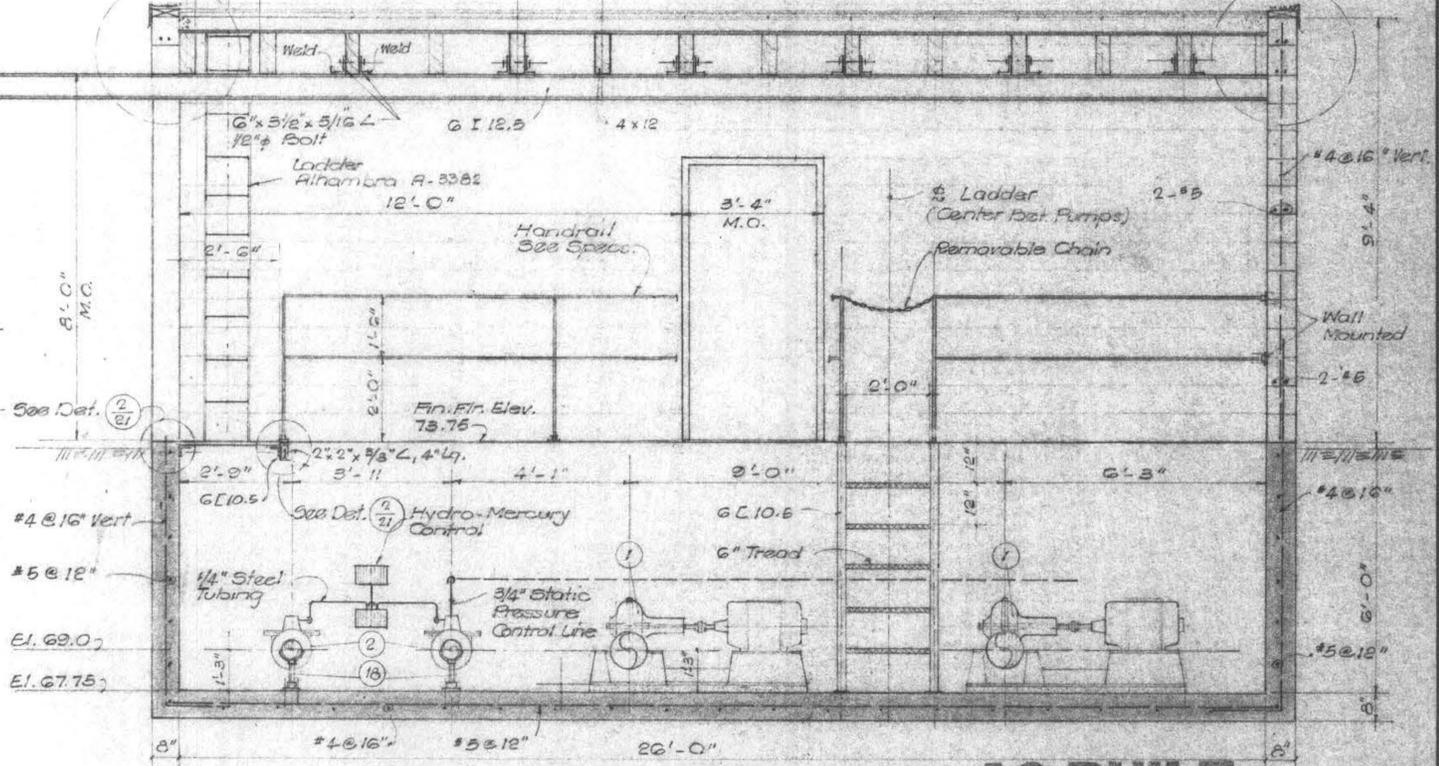
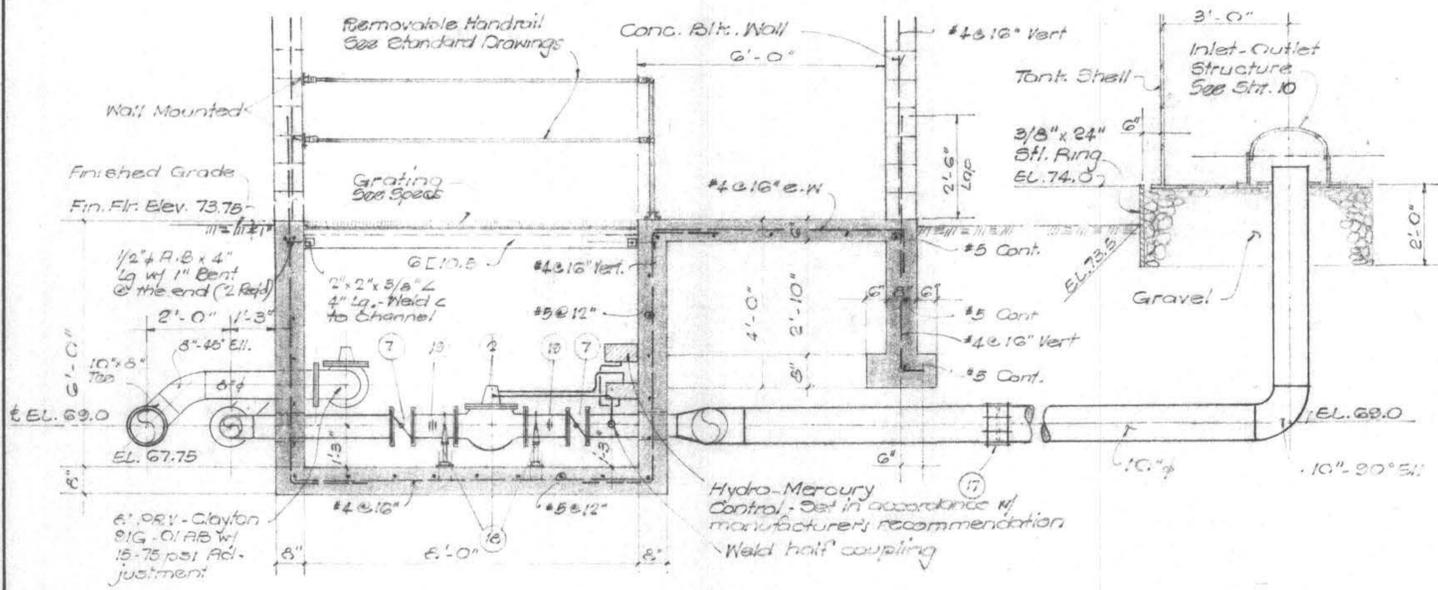
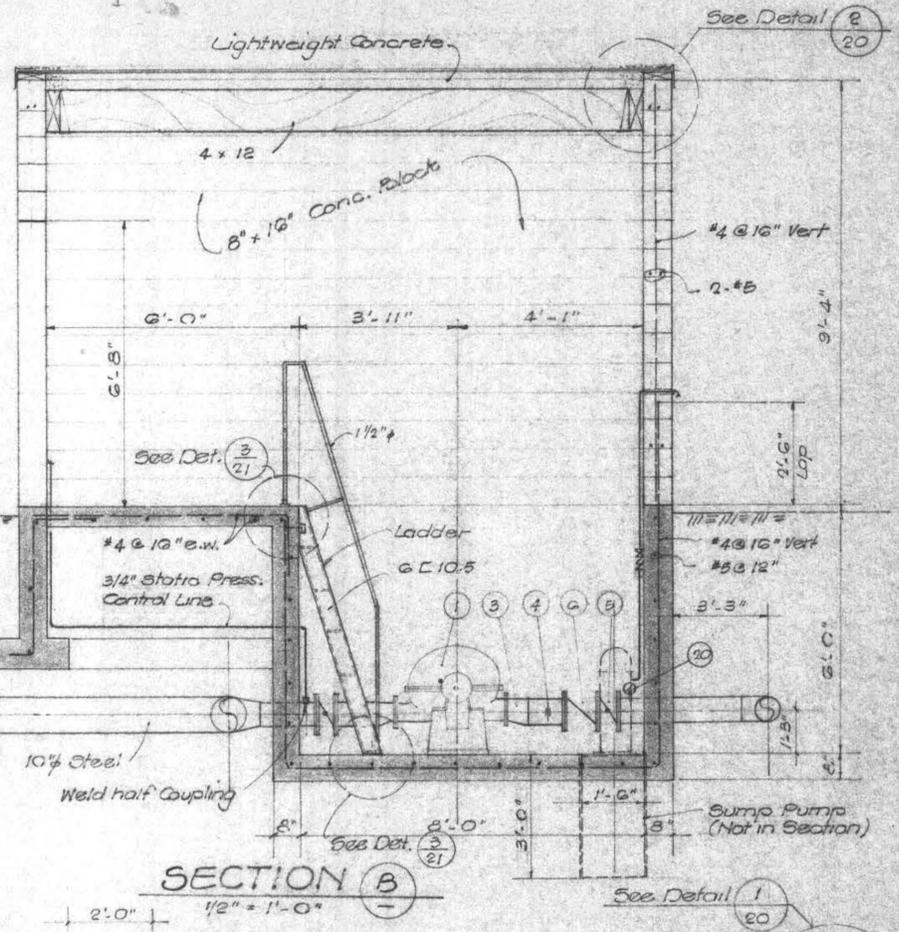
10277

SHEET 1  
 OF 23





- LEGEND**
- 1 Booster Pump
  - 2 Altitude Valve
  - 3 8" x 6" Ecc. Reducer
  - 4 8" Victaulic Cplg.
  - 5 8" Butterfly Valve
  - 6 8" Check Valve
  - 7 6" Butterfly Valve
  - 8 10" Tee
  - 9 10" x 6" Reducing Eli.
  - 10 10" x 8" Reducing Eli.
  - 11 6" Eli.
  - 12 8" Eli.
  - 13 8" Tee
  - 14 10" x 8" Reducer
  - 15 2" Tee
  - 16 10" x 6" Reducer
  - 17 10" Dresser Cplg.
  - 18 Pipe Support
  - 19 8" Victaulic Cplg.
  - 20 Pressure gauge, 0-200 psi, Marsh Mastergauge 3454 or equal, w/ shutoff cock



NOTE: Provide hooks on beam directly above valves per Detail 4/20.

**AS BUILT**

NO.	DATE	DESCRIPTION	BY	CHECKED
		REVISIONS		

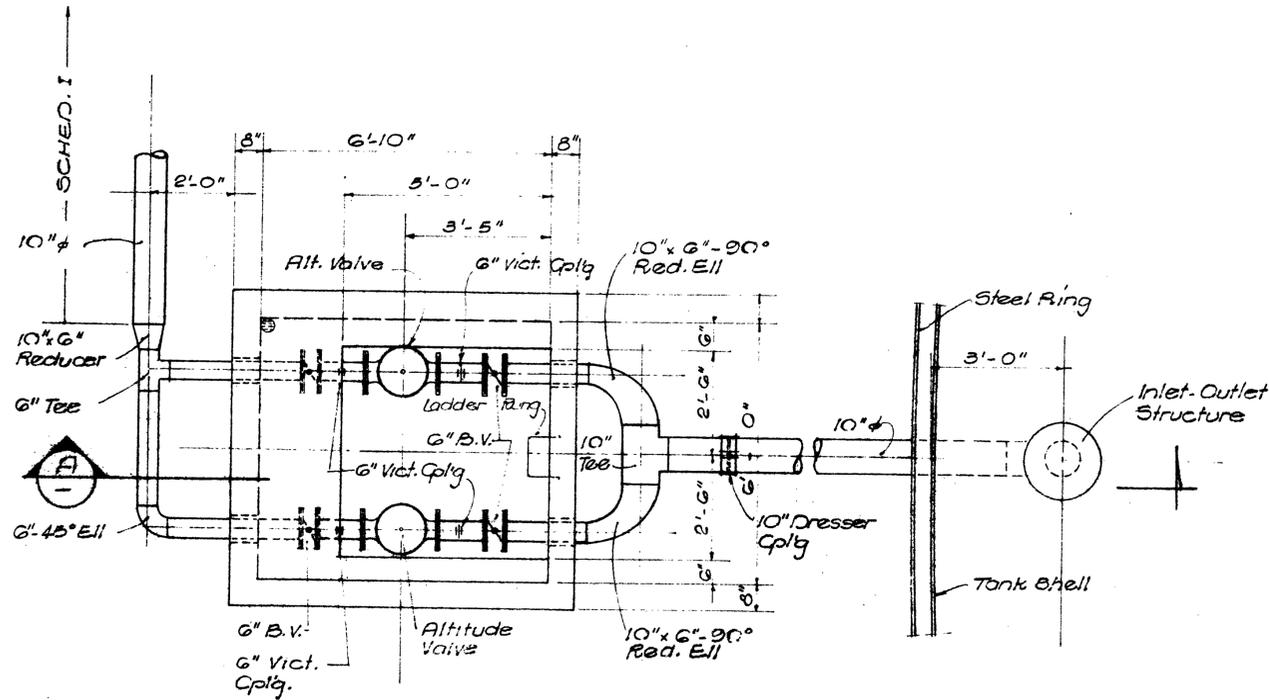
  

JOB NO.	DATE	DATE
247	3/20/78	4/18/78
DRAWN	DATE	DATE
B.C.	13, 3/8	

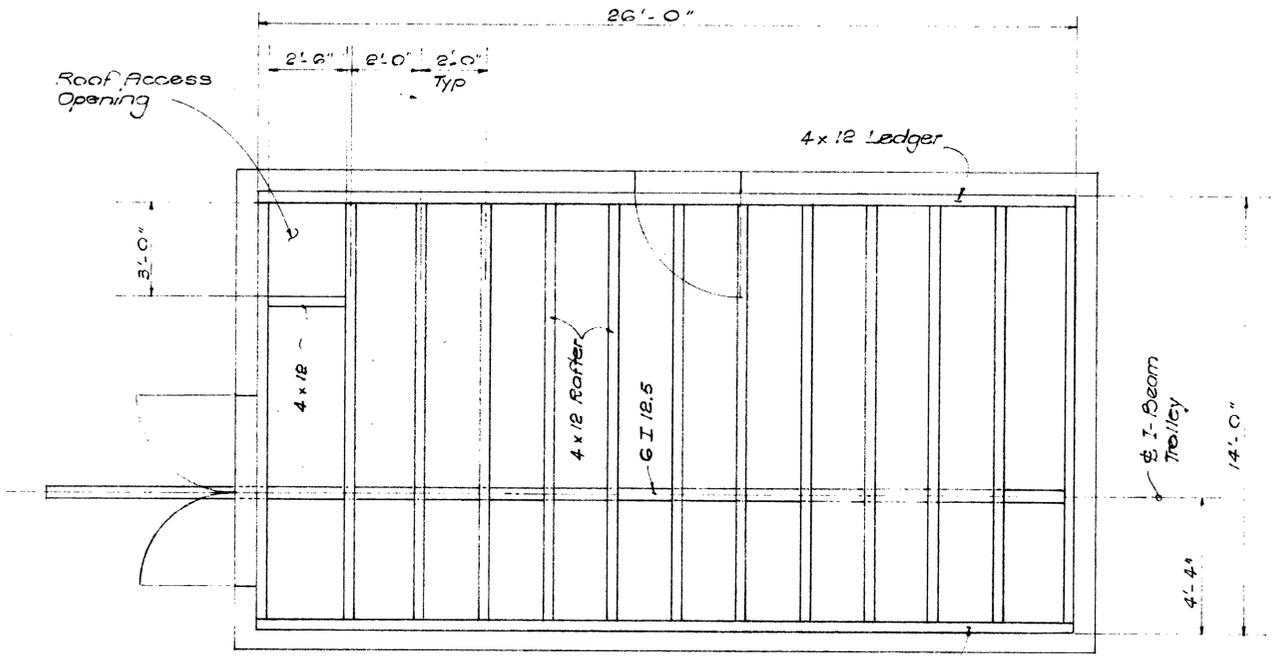
**GP** **GRAM/PHILLIPS ASSOCIATES, INC.**  
 1000 EAST WALNUT STREET/SUITE 223/PASADENA, CALIFORNIA 91106/PHONE (213) 661-0291  
 ENGINEERING/RESEARCH ENVIRONMENTAL SYSTEMS

MAMMOTH COUNTY WATER DISTRICT  
 Mono County, California

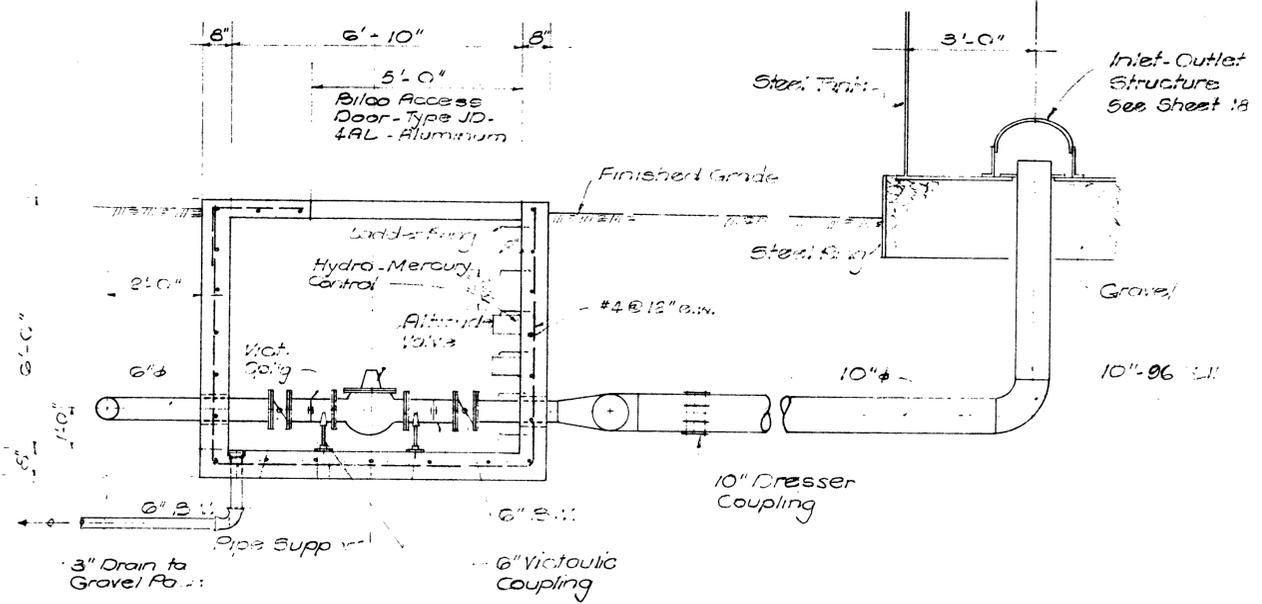
**SCHED. III, ALT. 'A'-BOOSTER PUMP STATION DETAILS**



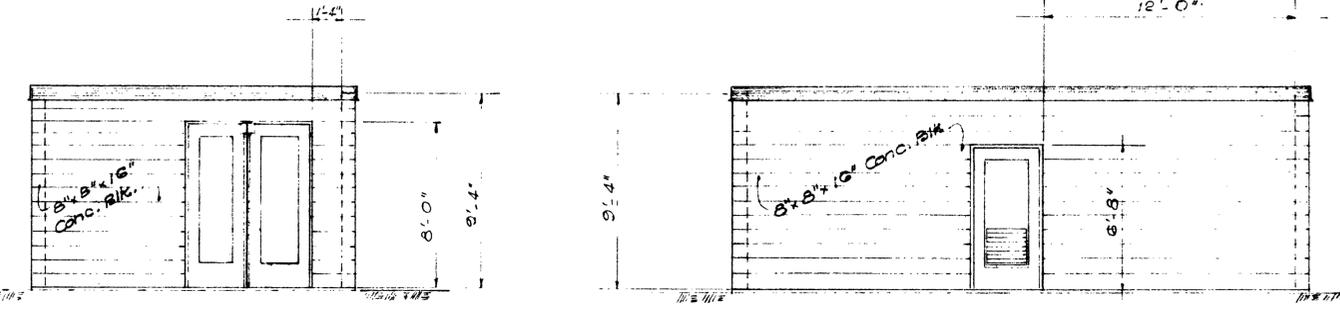
**PLAN**  
1/8" = 1'-0"



**ROOF FRAMING PLAN**  
(BOOSTER PUMP STATION)  
3/8" = 1'-0"



**SECTION (A)**  
1/2" = 1'-0"  
VAULT PIPING DETAILS (ALTERNATE B, SCHED. III)



**WEST ELEVATION** 1/4" = 1'-0"  
**NORTH ELEVATION** 1/4" = 1'-0"

**BOOSTER PUMP STATION**  
SCHEDULE III-ALT. A.

**AS BUILT**  
DATE 9/29/79

NO.	DATE	DESCRIPTION	BY

JOB NO. 247	DRAWN E.S.	DATE 12/1/78	BY E.S.
CHECKED E.S.	DATE 12/1/78	DATE 12/1/78	DATE 12/1/78

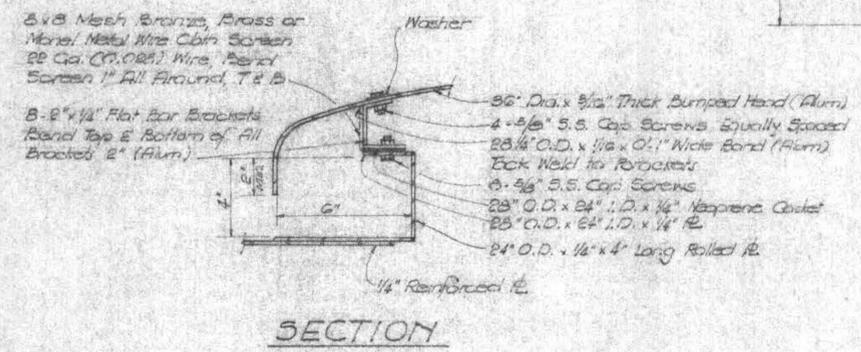
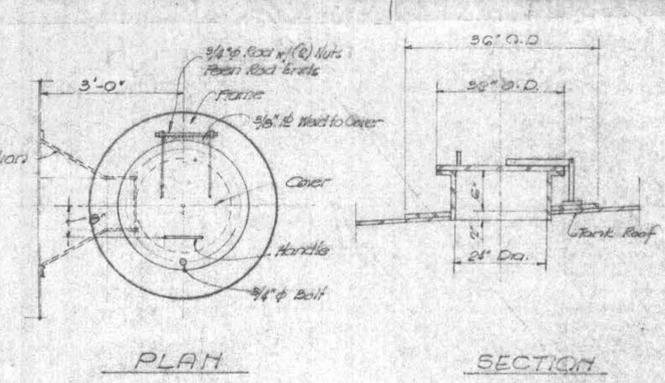
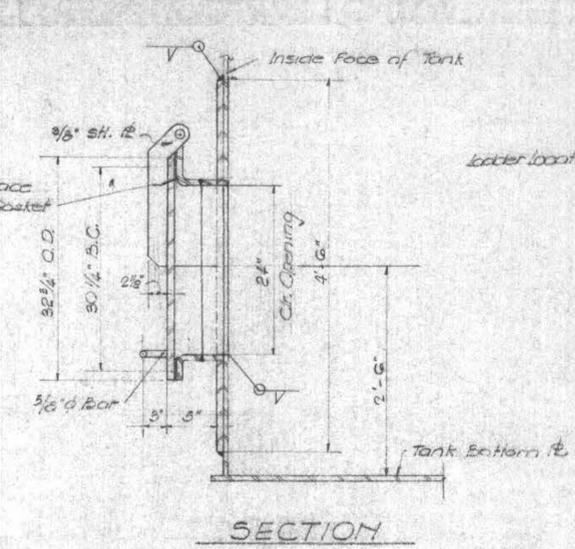
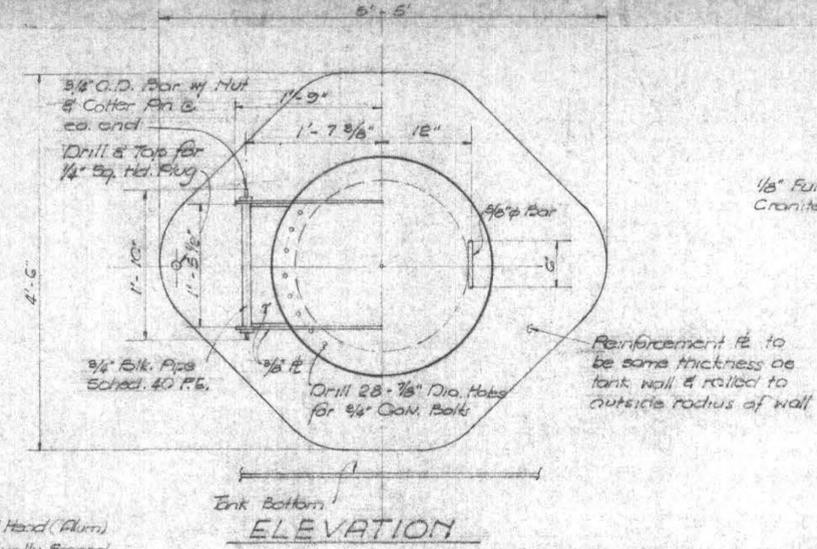
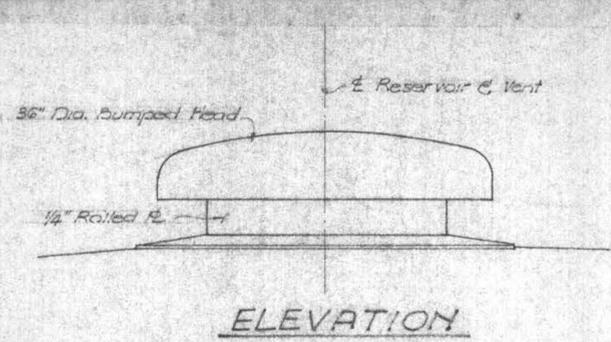


**GRAM/PHILLIPS ASSOCIATES, INC.**  
1000 EAST WALNUT STREET/SUITE 223/PASADENA, CALIFORNIA 91106/PHONE (213) 681-0291  
ENGINEERING/RESEARCH ENVIRONMENTAL SYSTEMS

MAMMOTH COUNTY WATER DISTRICT  
Mono County, California  
**RESERVOIR VAULT PIPING DETAILS AND BUILDING DETAILS**

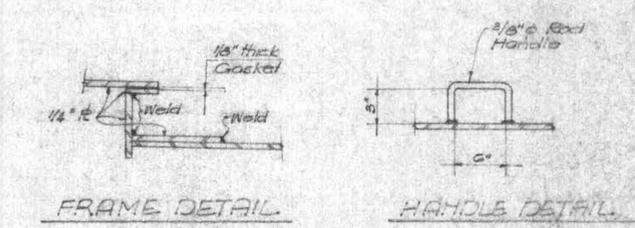
10280  
SHEET  
16  
OF  
23



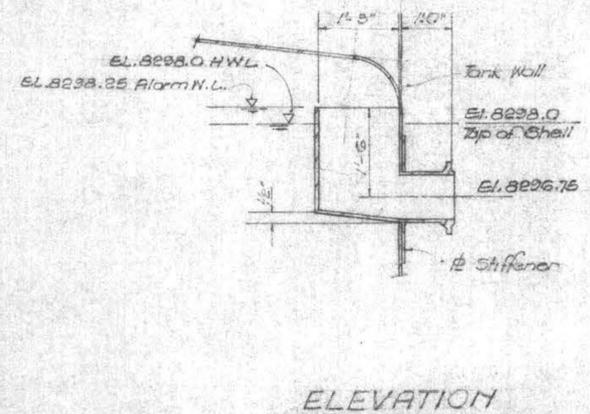
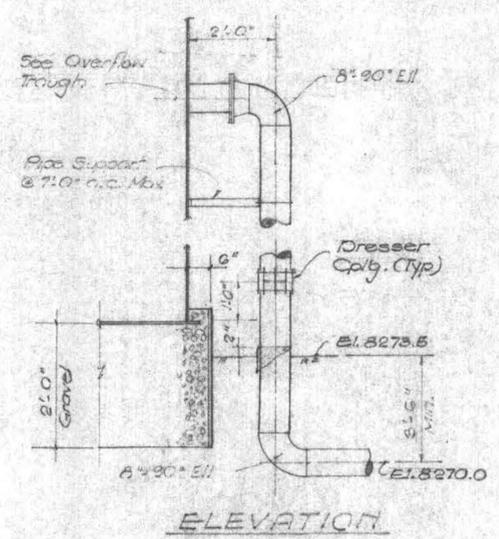
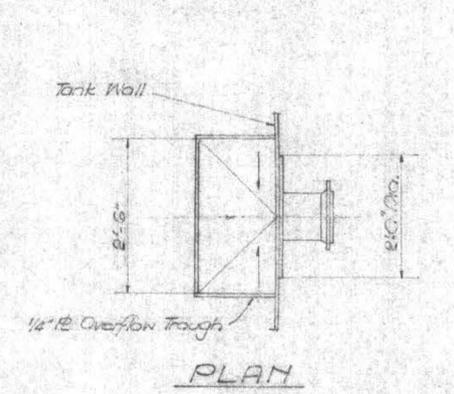


**ROOF VENT DETAILS (1)**  
Not to Scale

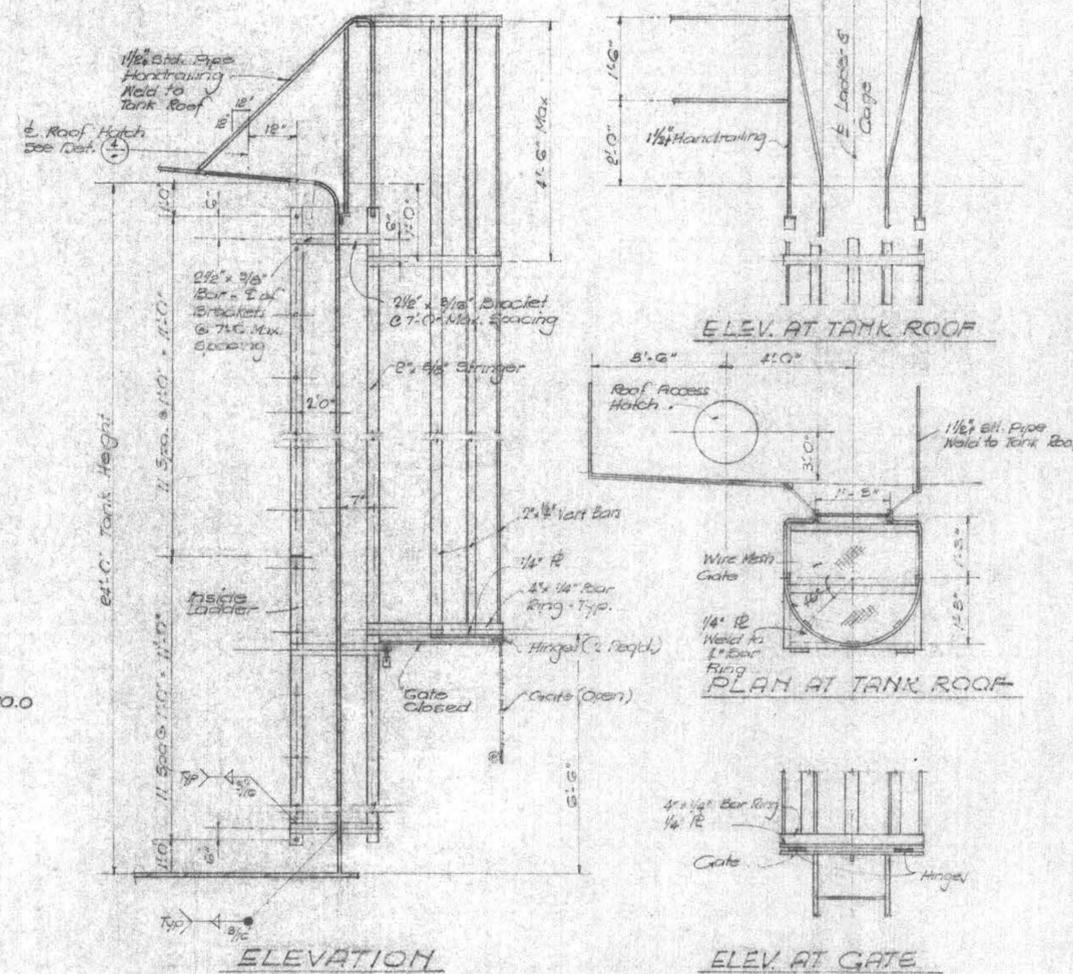
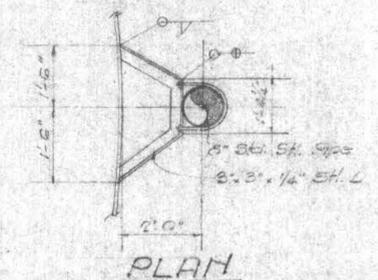
**ACCESS MANHOLE DETAIL (5)**



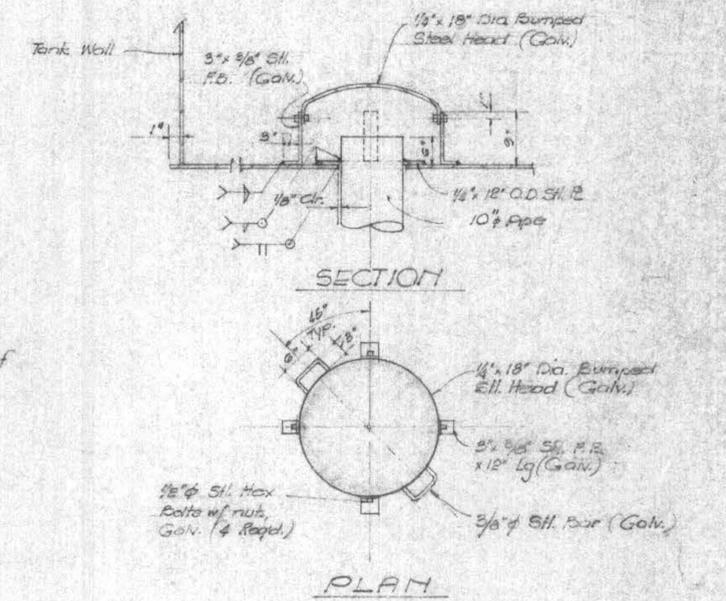
**ROOF ACCESS HATCH DETAILS (4)**  
Not to Scale



**OVERFLOW TROUGH DETAILS (2)**  
Not to Scale



**INTERIOR & EXTERIOR LADDER DETAILS (3)**  
(ALTERNATE "B")



**INLET-OUTLET DETAIL (6)**  
Not to Scale

**AS BUILT**  
DATE 9/29/79

NO.	DATE	DESCRIPTION	BY	CHECKED	DATE
REVISIONS					
JOB NO. 227					
DRAWN DATE					
E.C. DATE					
RCE DATE					

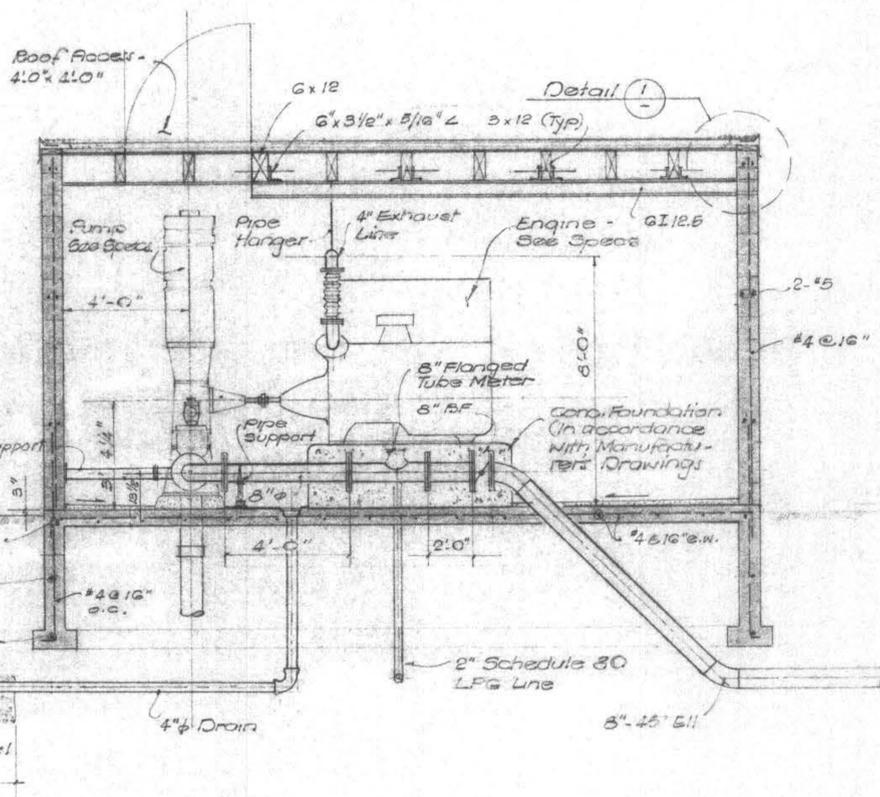
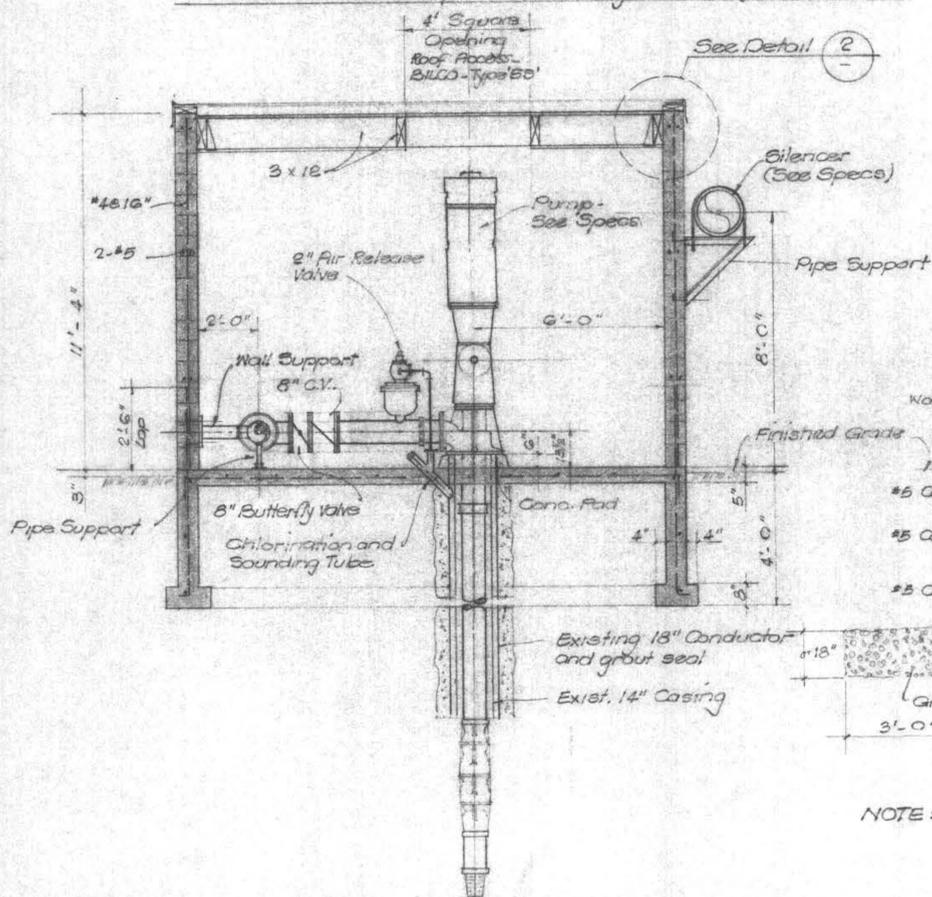
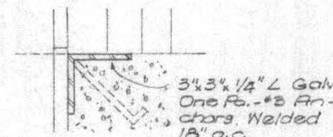
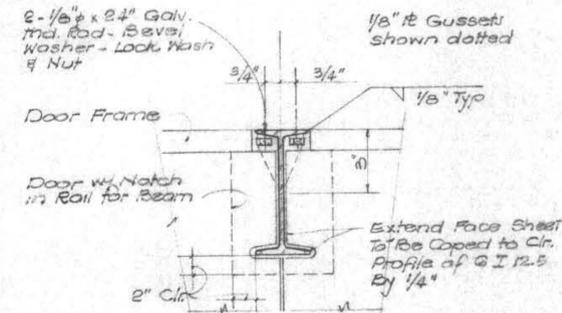
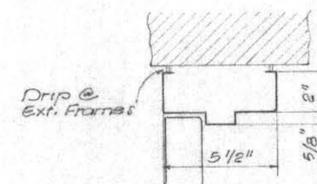
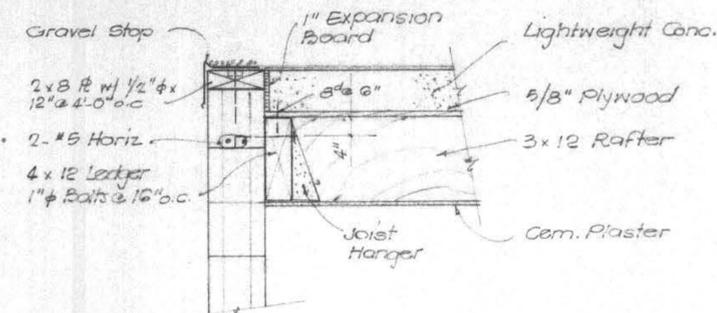
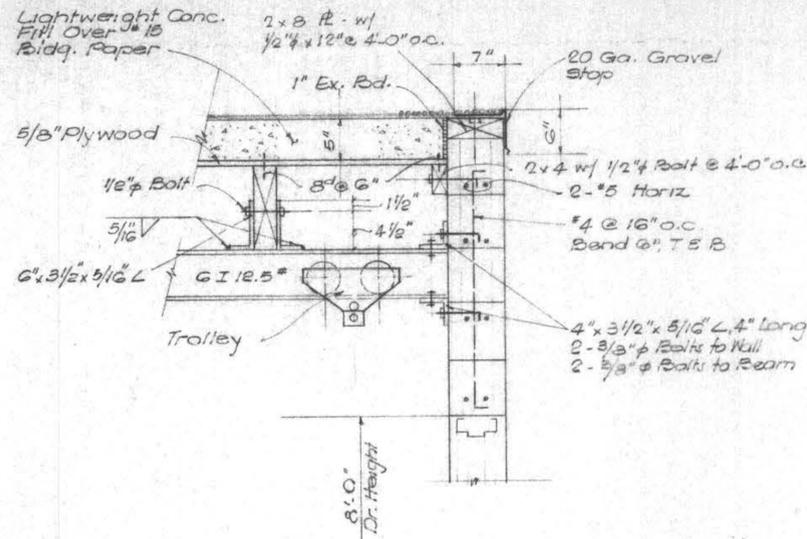
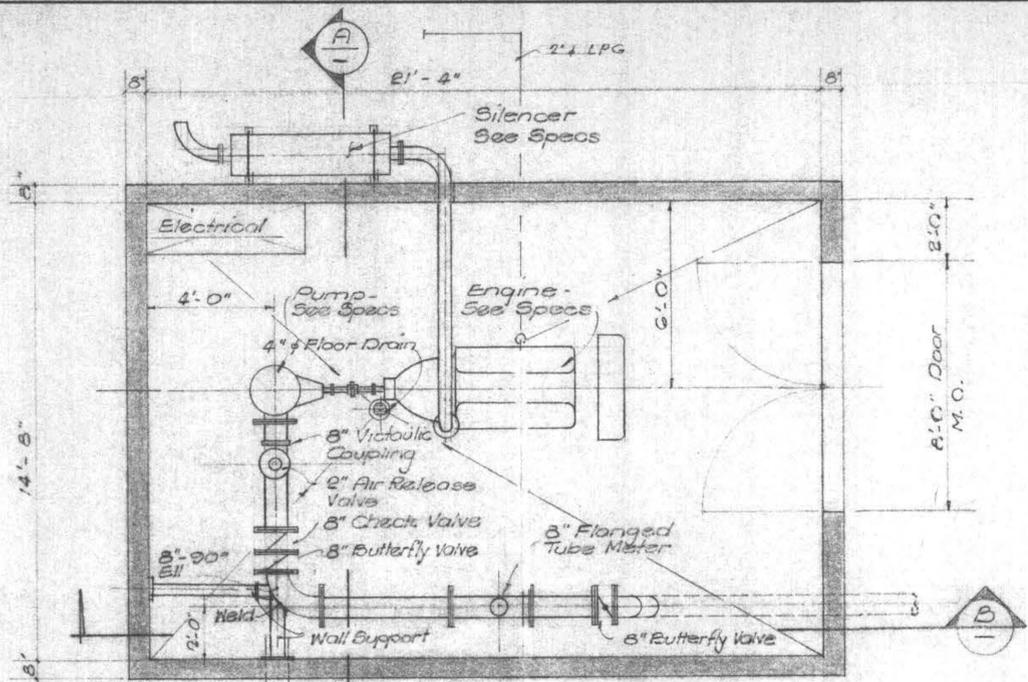


**GRAM/PHILLIPS ASSOCIATES, INC.**  
1000 EAST WALNUT STREET/SUITE 223/PASADENA, CALIFORNIA 91106/PHONE (213) 681-0291  
ENGINEERING / RESEARCH  
ENVIRONMENTAL SYSTEMS

MAMMOTH COUNTY WATER DISTRICT  
Mono County, California  
**SCHED. III - WATER TANK DETAILS**



SHEET 18  
OF 23



NOTE: Provide hooks on beam directly above valves per Detail 4/21  
All concrete slab cells solid grouted.

**AS BUILT**

DATE 9/29/77

NO.	DATE	DESCRIPTION	BY	CHECKED

JOB NO. 247	DATE 2/24/78	DATE 12, 5, 72
DRAWN bc	DATE 2/23/78	DATE 4/16/78



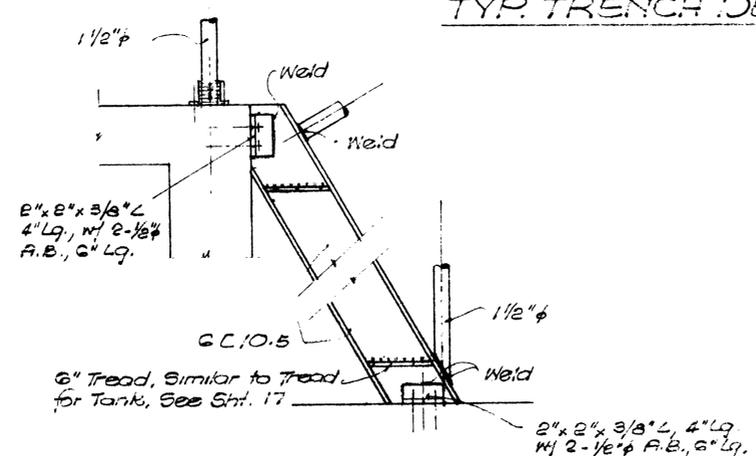
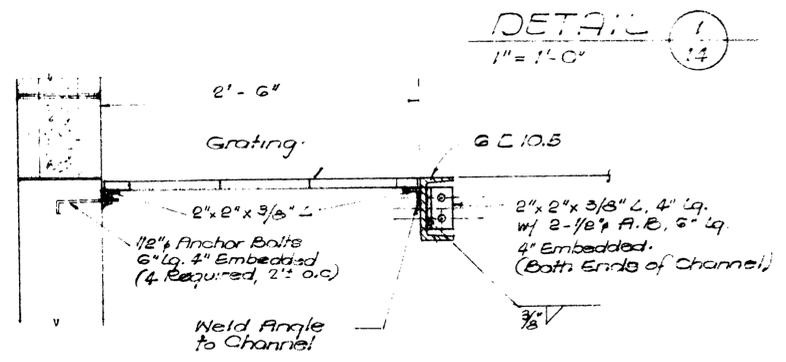
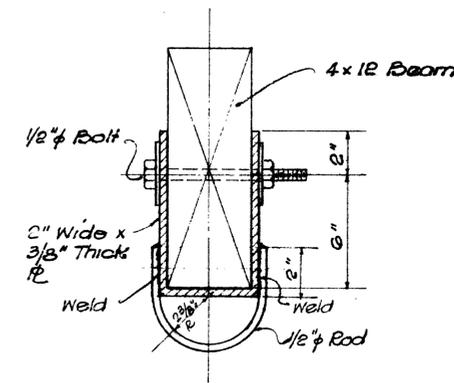
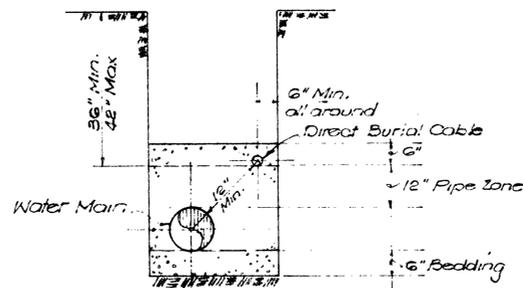
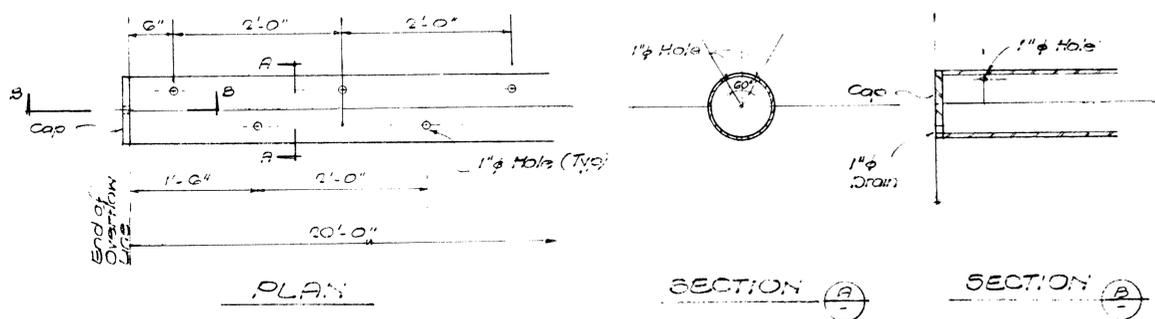
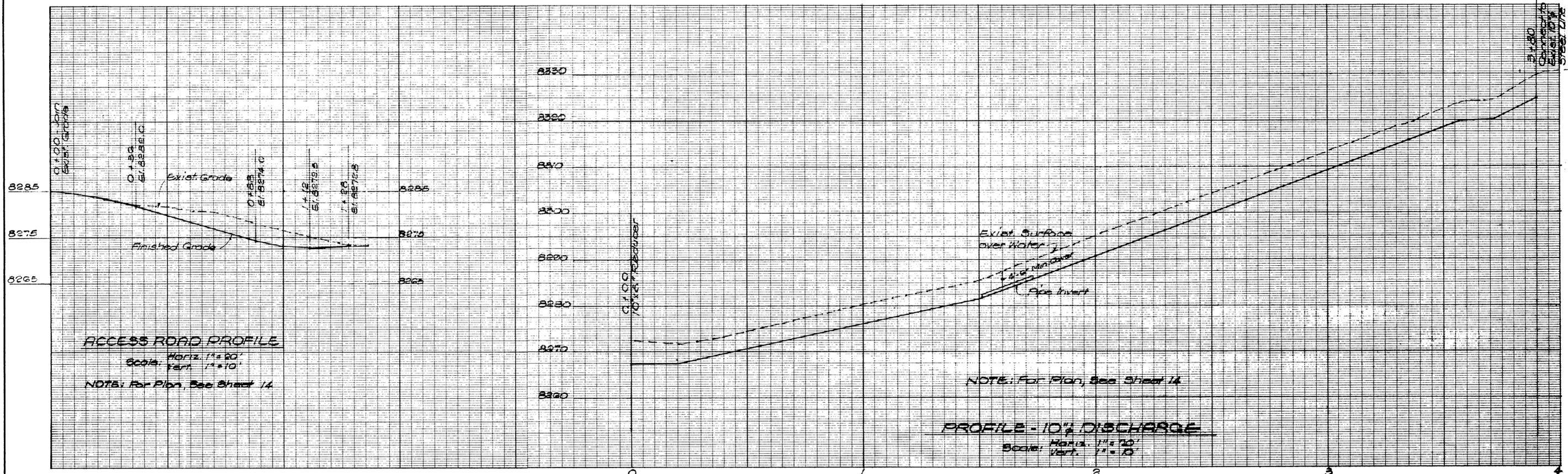
**GRAM/PHILLIPS ASSOCIATES, INC.**  
1000 EAST WALNUT STREET/SUITE 223/PASADENA, CALIFORNIA 91106/PHONE (213) 681-0291  
ENGINEERING/RESEARCH ENVIRONMENTAL SYSTEMS

MAMMOTH COUNTY WATER DISTRICT  
Mono County, California

SCHED II, WELL - PUMP STATION DETAILS

10293

SHEET  
20  
OF  
23



**AS BUILT**  
DATE 9/29/79

JOB NO. 247		DATE 4/18/78	
DRAWN b.c.		DATE 4/14/78	
CHECKED d.f.p.		DATE 4/14/78	
BY		DATE	

*[Signature]* 4/18/78  
RCE 13, 5/12



**GRAM/PHILLIPS ASSOCIATES, INC.**  
1000 EAST WALNUT STREET/SUITE 222/PASADENA, CALIFORNIA 91106/PHONE (213) 881-0291  
ENGINEERING / RESEARCH  
ENVIRONMENTAL SYSTEMS

PROFILES & MISCELLANEOUS DETAILS

10294



CONTRACTOR TO PROVIDE  
2'x2'x3/4" PLYWOOD BACKBOARD  
FOR TELEPHONE CO. PROVIDE  
1" O.C. TO BACKBOARD

TIME SWITCH

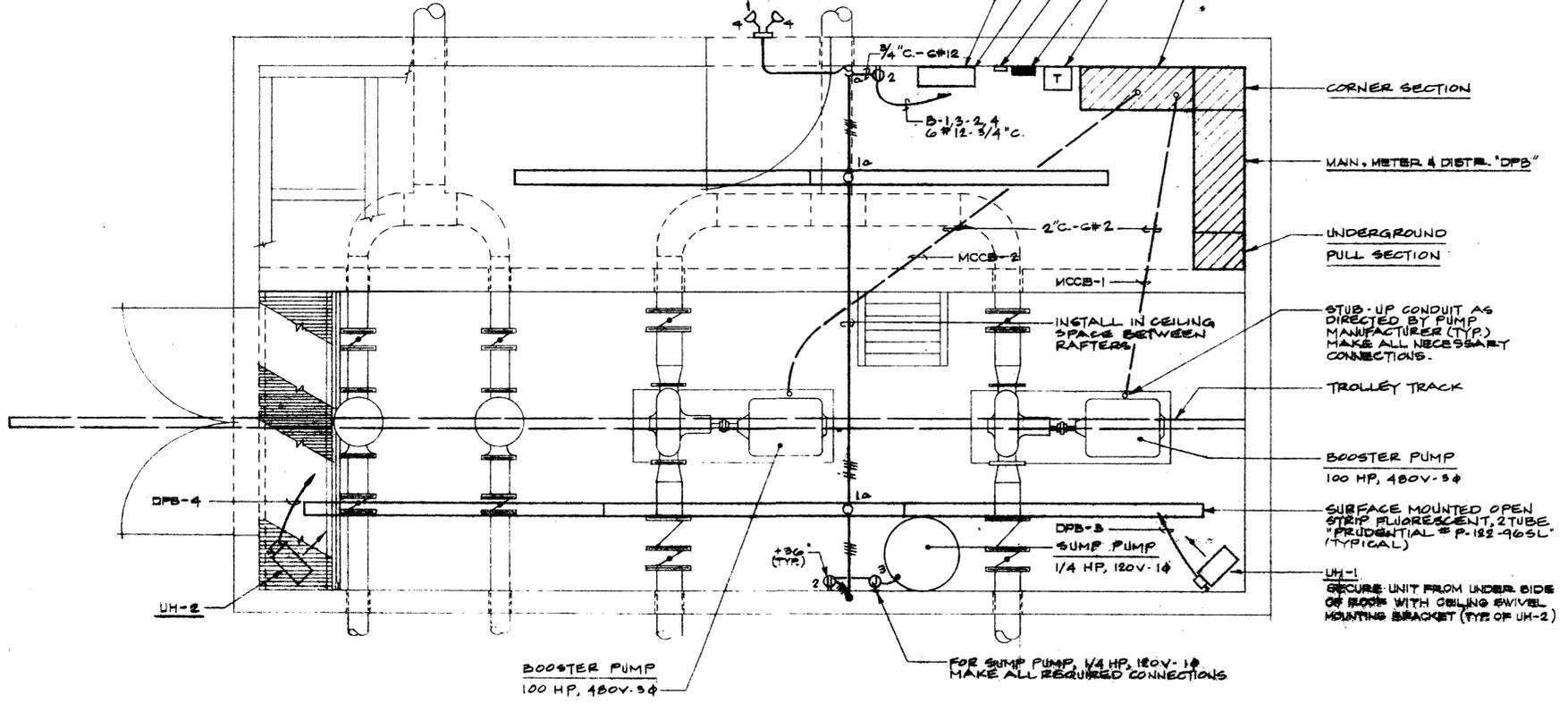
PANEL "B"

1.5 KVA TRANSFORMER & 5 KVA TRANSF  
480V TO 120/240V, 1Ø, 3W STACK TRANSF  
ON WALL W/1/2" VERTICAL SEPARATION

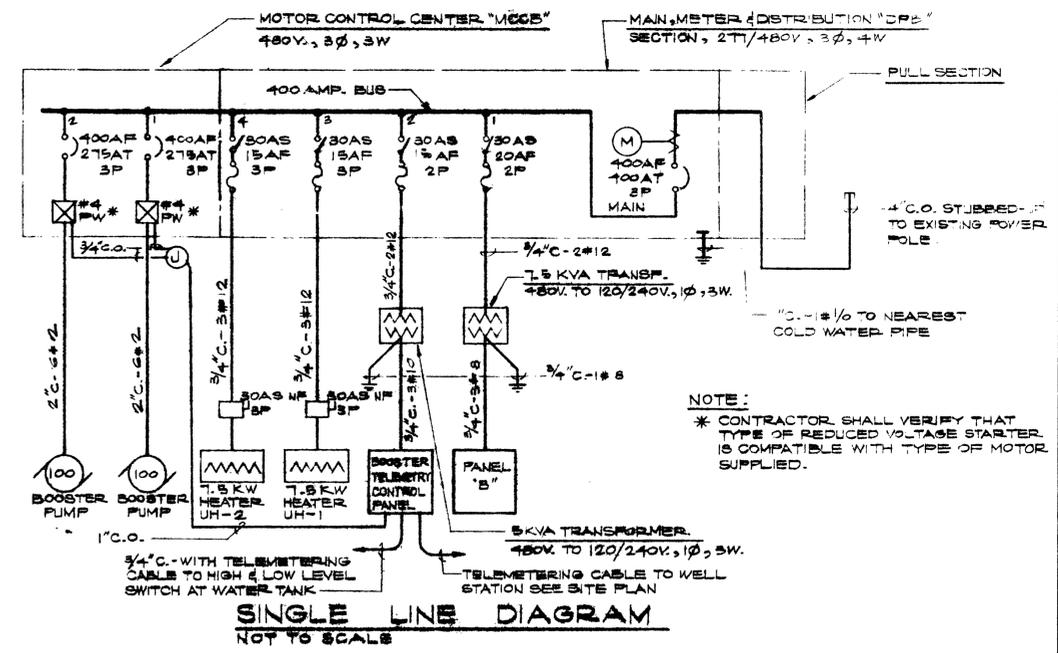
MOTOR CONTROL CENTER "MCCB"  
480V, 3Ø, 3W

W.P FLOOD, "STONCO" # (2) 67005  
WITH 67-25 CANDY & 68 TO WIRE  
GUARD, 150W, R40 MOUNT + 12"  
ABOVE DOOR OPENING

BOOSTER TELEMETRY CONTROL PANEL  
VERIFY LOCATION W/OBANNER PRIOR TO  
ANY ROUGH-IN.



**BOOSTER PUMP STATION FLOOR PLAN**  
SCALE: 1/2" = 1'-0"  
BM-2



**SINGLE LINE DIAGRAM**  
NOT TO SCALE

**PANEL "B" SCHEDULE**  
120/240V, 1Ø, 3W, 100A. BUS SURFACE MTD.

CKT. #	BKR. P-A	OUTLET	WATTS		LCL	DESCRIPTION
			L-1	L-2		
1.			850			GEN. LTS.
2.			850			GENY. REC.
3.				700		SUMP PUMP
4.				560		OUTDOOR LT.
5.			500			CONTROL TIME SWITCH
6.			1000			SPARE
7.				1000		
8.				1000		
			2710	3060		TOTAL CONN. AMPS = 24
			LCL:	803		TOTAL AMPS W/L.G.L. = 25.3
			TOTAL:	6075		

● CONTROLLED BY A SPST TIME SWITCH "TORK # 7100 ZL"  
⊖ PROVIDE LOCK-ON DEVICE

**LOAD SUMMARY**  
DISTRIBUTION "DPB" 277/480V, 3Ø, 4W

CKT. NO.	DESCRIPTION	HP	KW	AMPS
1	1.5 KVA TRANSFORMER		7.5	15.6
2	5 KVA TRANSFORMER		5.0	10.4
3	HEATER UH-1		7.5	9.0
4	HEATER UH-2		7.5	9.0
5	MCCB	2(100)		24.8
TOTAL			200	272
TOTAL + 25% OF LARGEST MOTOR = 272 + 31 = 303 AMPS. AT 480 V, 3Ø				

**UNIT HEATER SCHEDULE**

MARK	CFM	HEATING BTUH	KW	VOLT/PH	TYPE	OPER. WT. LBS.	MANUFACTURER & MODEL NO.	REMARKS
UH-112-1								
UH-112-2	670	24570	7.5	480/3	HORIZ	55	CHROMALOX MODEL LUH-07-08	COMPLETE UNIT W/INTEGRAL THERMOSTAT & NO. WUH-05 CEILING SWIVEL MOUNTING BRACKET
UH-112-3								
UH-112-4								

NO.	DATE	DESCRIPTION	BY	CHECKED	DATE

JOB NO. \_\_\_\_\_  
DATE 4/13/78  
DRAWN D.S. I.C.W.  
BY \_\_\_\_\_  
CHECKED \_\_\_\_\_  
DATE \_\_\_\_\_



**GRAM/PHILLIPS ASSOCIATES, INC.**  
ENGINEERING/RESEARCH ENVIRONMENTAL SYSTEMS  
1000 EAST WALTON STREET, SUITE 220, PARRISDALE, CALIFORNIA 91101/PHONE (213) 861-0201

**STORMS & LOWE**  
CONSULTING ENGINEERS  
606 WILSHIRE BLVD.  
SANTA MONICA, CALIF. 90401  
383-3724 870-8671  
JOB NO: 2013  
Date: 4/13/78

**AS BUILT**  
DATE 9/29/79  
**ELECTRICAL**

# MAMMOTH COUNTY WATER DISTRICT

MAMMOTH LAKES, CALIFORNIA

## BOARD OF DIRECTORS

T. K. JOHNSON.....President  
 J. N. OGNISTY.....Vice President  
 G. T. FLINT.....Member  
 D. LYSTER.....Member  
 D. C. PROEHL.....Member  
 O. R. BUTTERFIELD...General Manager

## GENERAL NOTES

1. ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD DRAWINGS AND SPECIFICATIONS OF THE MAMMOTH COUNTY WATER DISTRICT.
2. THE LOCATIONS OF PUBLIC AND PRIVATE UNDERGROUND UTILITIES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE RECORDS AND SUBSEQUENT FIELD SURVEYS. THE CONTRACTOR SHALL TAKE ALL SUCH MEASURES NECESSARY TO PROTECT UTILITIES ENCOUNTERED DURING CONSTRUCTION WORK WHETHER SHOWN ON THE PLANS OR NOT. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED TO THE SATISFACTION OF THE ENGINEER AND/OR THE UTILITY OWNER.
3. ALL CONSTRUCTION WITHIN DEDICATED COUNTY ROADS INCLUDING SHOULDER AREAS SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE MONO COUNTY ENCROACHMENT PERMIT ISSUED TO THE CONTRACTOR.
4. WATER LINES SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF 4'-6" UNLESS SPECIFICALLY SHOWN OTHERWISE.
5. THRUST BLOCKS WILL BE PROVIDED ON ALL PIPING IN ACCORDANCE WITH DETAIL B/9 ON SHEET 9, AND SPECIFICATION SECTION 5.20.K.

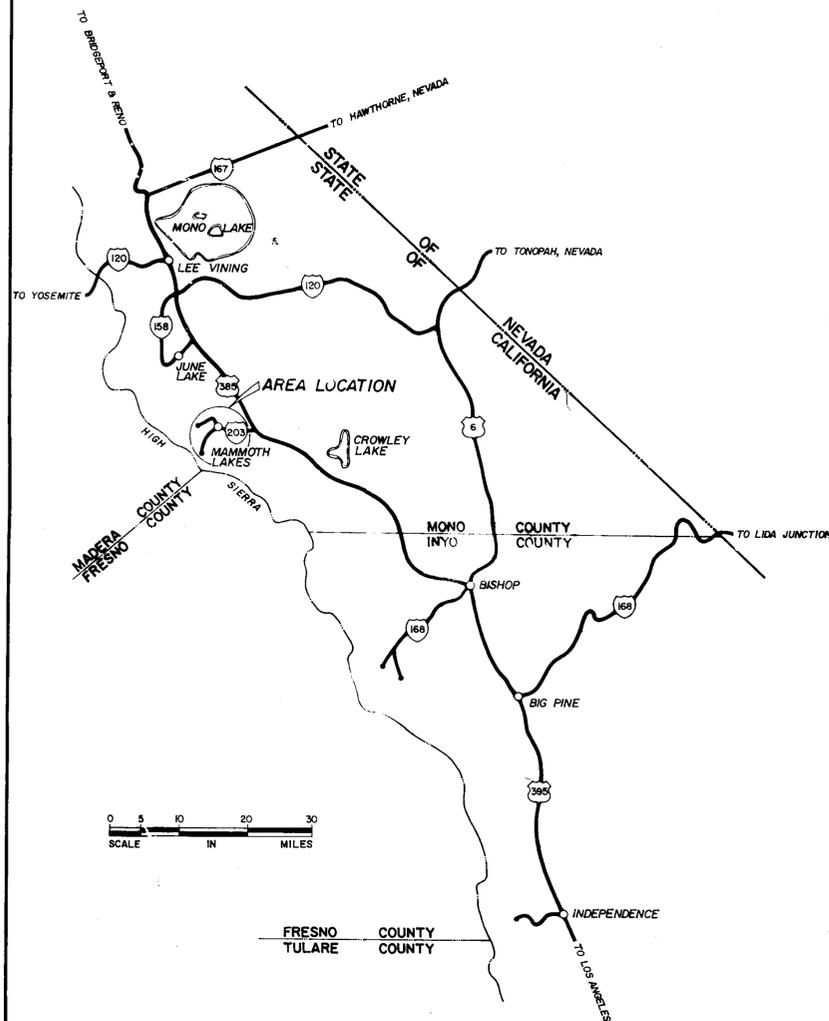
# PLANS FOR THE CONSTRUCTION OF WATER SYSTEM IMPROVEMENTS A STEEL WATER RESERVOIR, PUMP STATION, PIPELINES, AND PRESSURE REDUCING STATION INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN & PROFILE - STA. 2 + 57± TO 12 + 52.54
3	PLAN & PROFILE - STA. 12 + 52.54 TO 22 + 29.35
4	PLAN & PROFILE - STA. 22 + 29.35 TO 36 + 31.44
5	PLAN & PROFILE - STA. 36 + 31.44 TO 45 + 44.96
6	TANK GRADING PLAN & SECTIONS
7	TANK LADDERS
8	TANK DETAILS
9	TANK & PIPING DETAILS
10	PIPING DETAILS
11	PLAN & PROFILE - STA. 0 + 73± TO 9 + 03.28
12	PLAN & PROFILE - STA. 9 + 03.28 TO 17 + 01.88
13	PLAN & PROFILE - STA. 17 + 01.88 TO 27 + 32±
14	MECHANICAL
15	MECHANICAL & DETAILS
16	STRUCTURAL & DETAILS
17	STRUCTURAL & DETAILS
18	ELECTRICAL - SITE PLAN & LEGEND
19	ELECTRICAL - SINGLE LINE DIAGRAM
20	PRESSURE REDUCING STATION

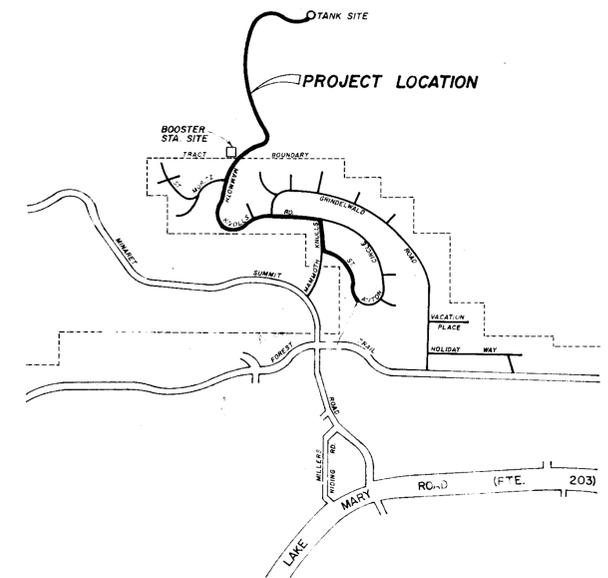
PUMP STATION TO TANK

PUMP STATION TO KLOSTERS COURT

BOOSTER PUMP STATION



**AREA MAP**



**LOCATION MAP**

DESIGN: DFP	FEB 1986	ENGINEER:	
DRAWN: AG, BJ, CL	FEB 1986		
CHECK: AM	FEB 1986	R.C.E. 13512	DATE 4/1 1986
SCALE: AS SHOWN			



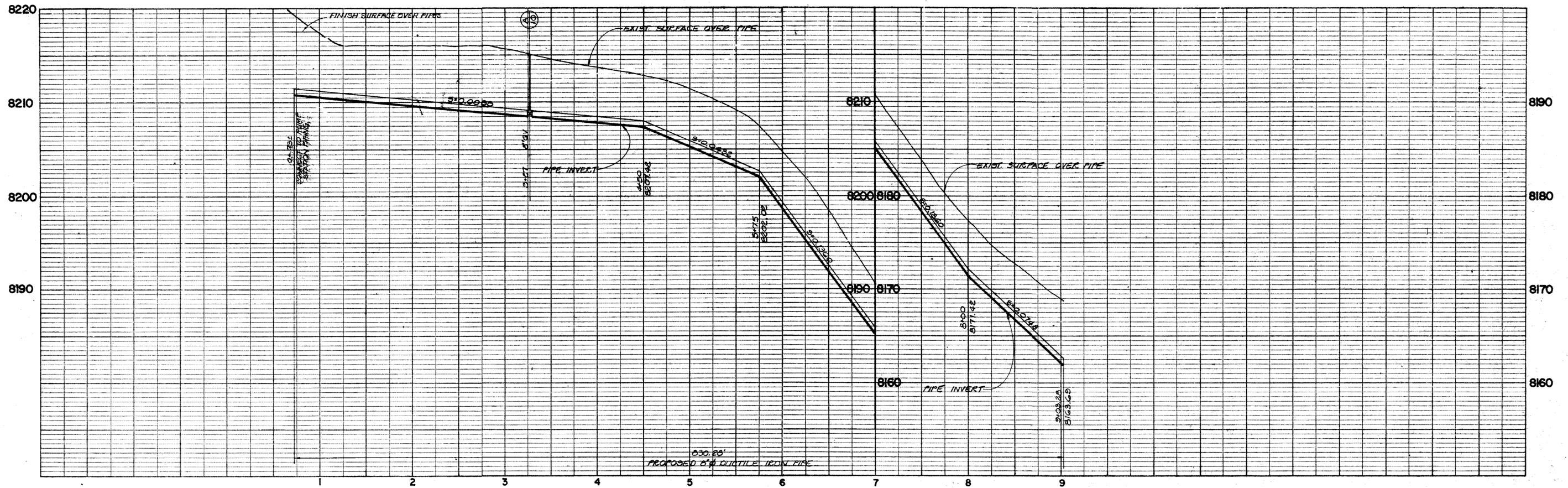
**GRAM/PHILLIPS ASSOCIATES, INC.**

479 SOUTH MARENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 881-0291  
 SHERWIN PLAZA, SUITE 202 / P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93546 / (619) 934-2627

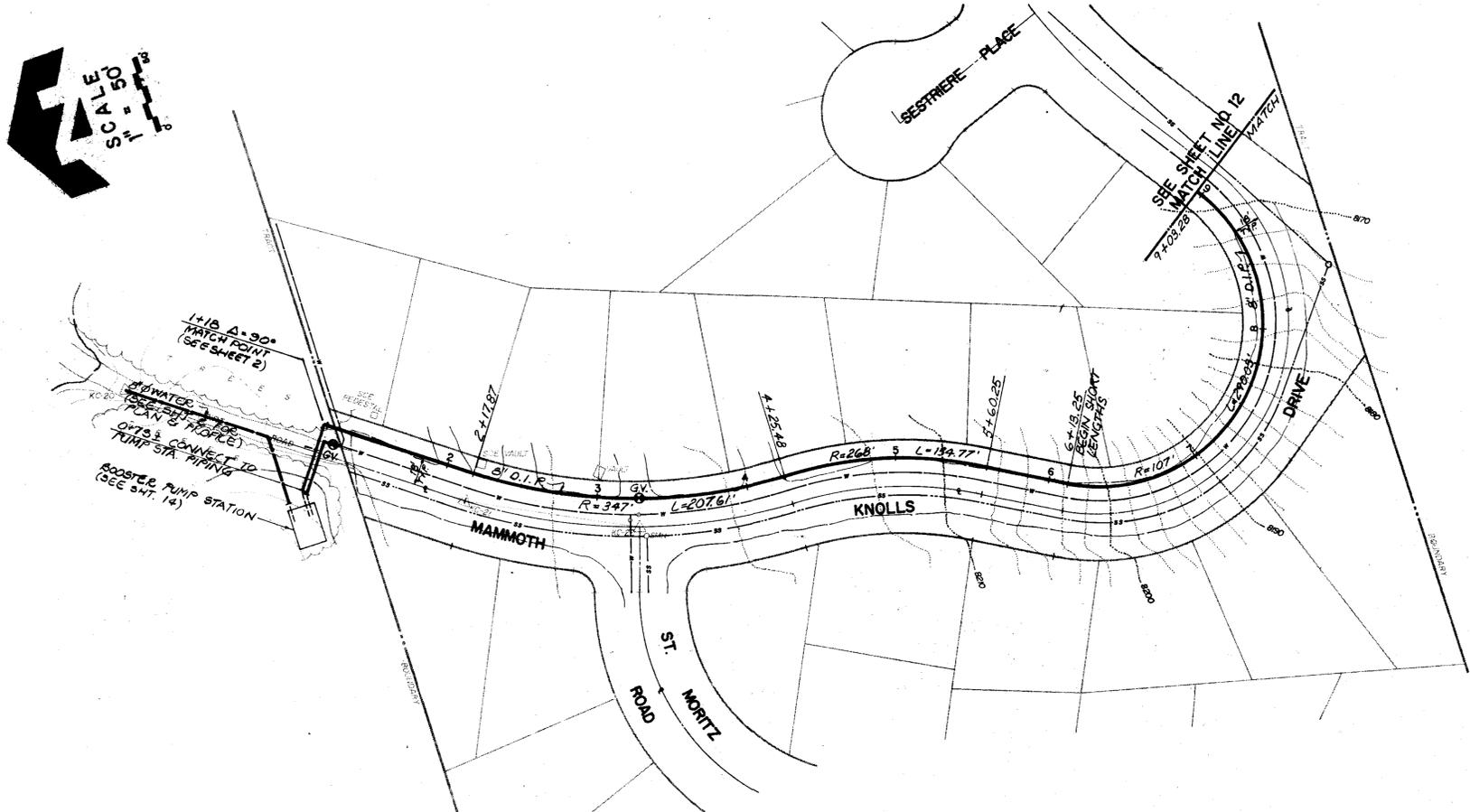
ENGINEERING / RESEARCH  
 ENVIRONMENTAL SYSTEMS

TITLE SHEET

JOB NO. 9C5  
 SHEET 1  
 OF 20



PROFILE SCALES  
 HORIZ: 1" = 50'  
 VERT: 1" = 5'



NO.	DATE	DESCRIPTION	BY

DESIGN: DFP FEB. 1986  
 DRAWN: CL, AG FEB. 1986  
 CHECK: AM FEB. 1986  
 SCALE: AS SHOWN

ENGINEER: *[Signature]*  
 R.C.E. 13512 DATE *[Signature]*, 1986

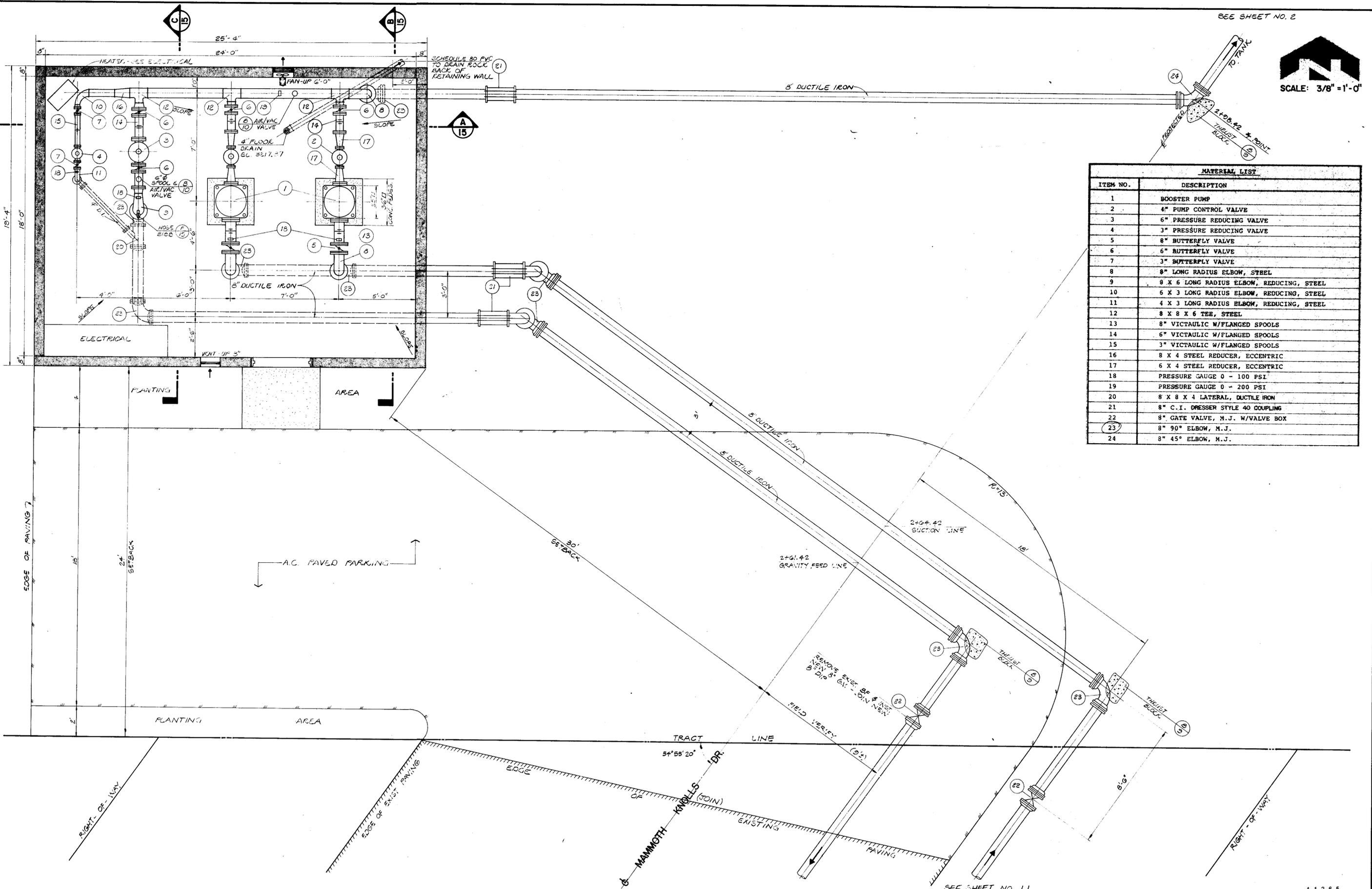
**GP** GRAM/PHILLIPS ASSOCIATES, INC.  
 479 SOUTH MARENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 861-0291  
 SHERWIN PLAZA, SUITE 202 / P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93546 / (619) 934-2627

ENGINEERING / RESEARCH  
 ENVIRONMENTAL SYSTEMS

PLAN & PROFILE  
 PUMP STATION TO KLOSTERS COURT - STA. 0+73± TO 9+03.28

11262  
 JOB NO. 905  
 SHEET 11  
 OF 20

SEE SHEET NO. 2



MATERIAL LIST	
ITEM NO.	DESCRIPTION
1	BOOSTER PUMP
2	4" PUMP CONTROL VALVE
3	6" PRESSURE REDUCING VALVE
4	3" PRESSURE REDUCING VALVE
5	8" BUTTERFLY VALVE
6	6" BUTTERFLY VALVE
7	3" BUTTERFLY VALVE
8	8" LONG RADIUS ELBOW, STEEL
9	8 X 6 LONG RADIUS ELBOW, REDUCING, STEEL
10	6 X 3 LONG RADIUS ELBOW, REDUCING, STEEL
11	4 X 3 LONG RADIUS ELBOW, REDUCING, STEEL
12	8 X 8 X 6 TEE, STEEL
13	8" VICTAULIC W/FLANGED SPOOLS
14	6" VICTAULIC W/FLANGED SPOOLS
15	3" VICTAULIC W/FLANGED SPOOLS
16	8 X 4 STEEL REDUCER, ECCENTRIC
17	6 X 4 STEEL REDUCER, ECCENTRIC
18	PRESSURE GAUGE 0 - 100 PSI
19	PRESSURE GAUGE 0 - 200 PSI
20	8 X 8 X 4 LATERAL, DUCTILE IRON
21	8" C.I. DRESSER STYLE 40 COUPLING
22	8" GATE VALVE, M.J. W/VALVE BOX
23	8" 90° ELBOW, M.J.
24	8" 45° ELBOW, M.J.

DESIGN: DFP	FEB 1986	ENGINEER:	<i>John Phillips</i>
DRAWN: CL	FEB 1986	R.C.E.:	13512
CHECK: AM	FEB 1986	DATE:	4/11/1986
SCALE:	AS SHOWN		

**GP** GRAM/PHILLIPS ASSOCIATES, INC.

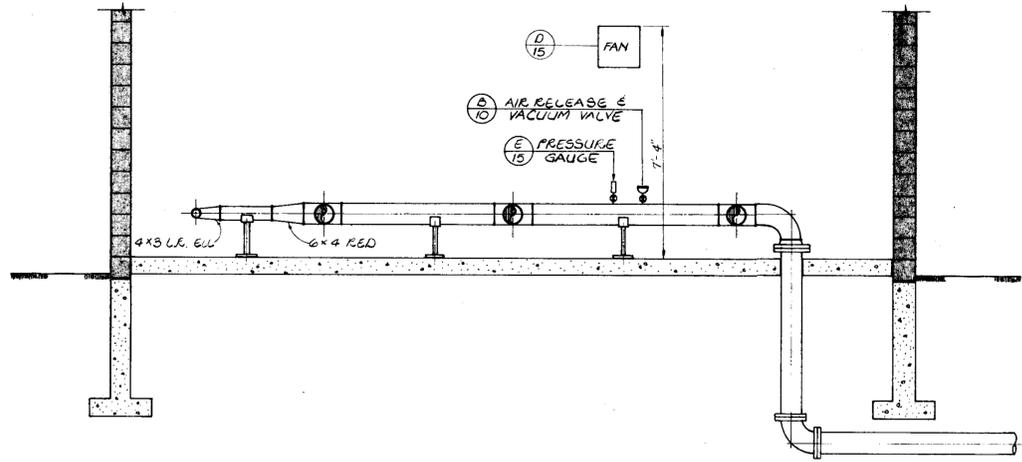
479 SOUTH MARIENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 881-0291  
 SHERWIN PLAZA, SUITE 202 / P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93546 / (818) 934-2827

ENGINEERING / RESEARCH  
ENVIRONMENTAL SYSTEMS

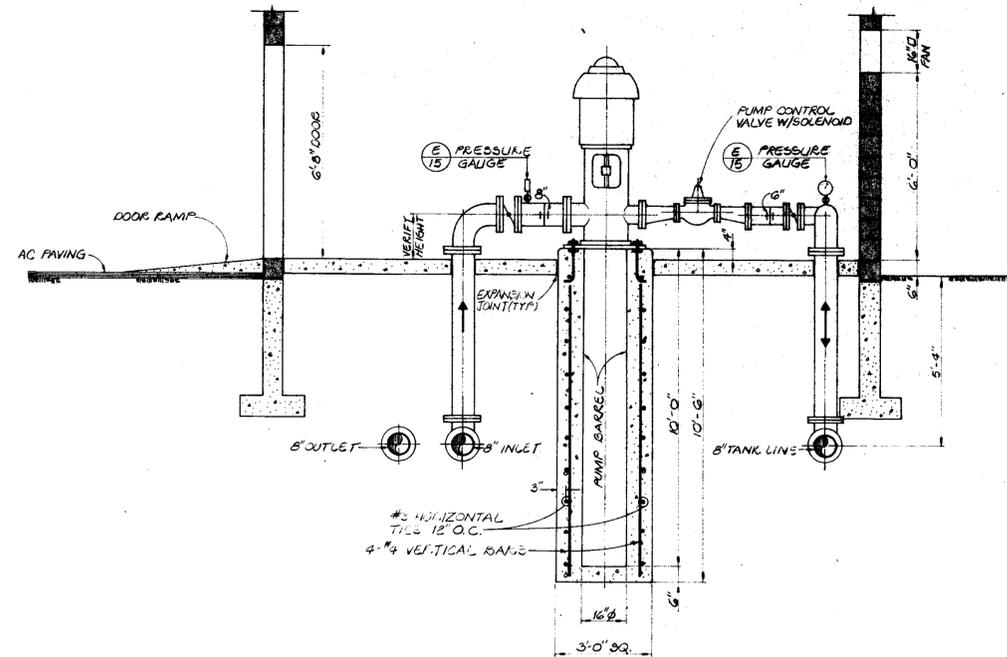
1 1 2 6 5

**BOOSTER PUMP STATION  
MECHANICAL**

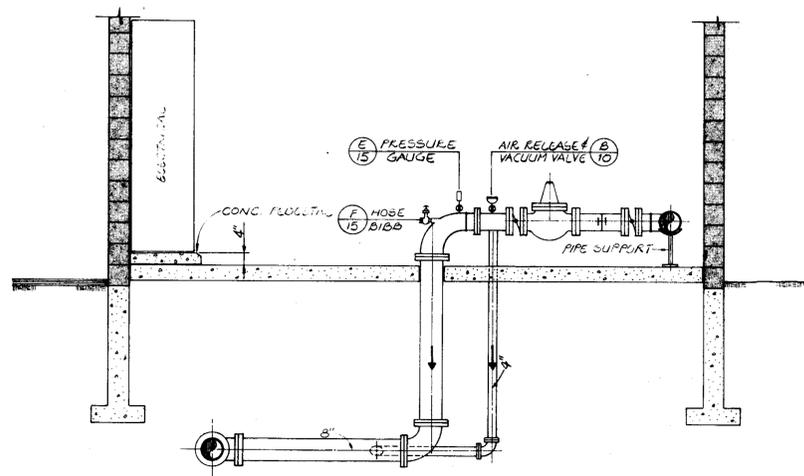
JOB NO. 905  
SHEET 14  
OF 20



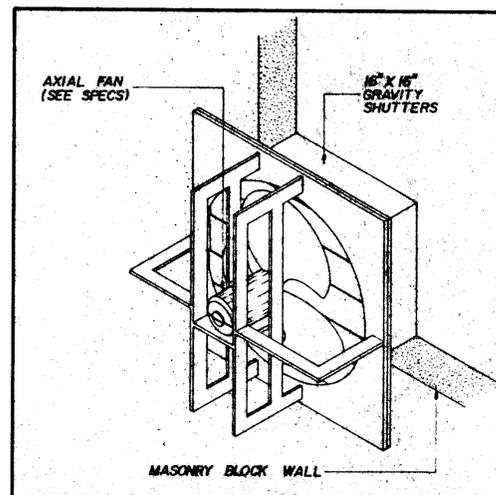
**SECTION A**  
SCALE: 3/8" = 1'-0"  
**A**  
**15**



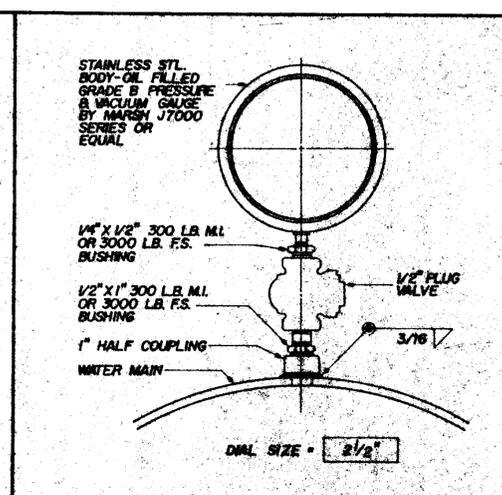
**SECTION B**  
SCALE: 3/8" = 1'-0"  
**B**  
**15**



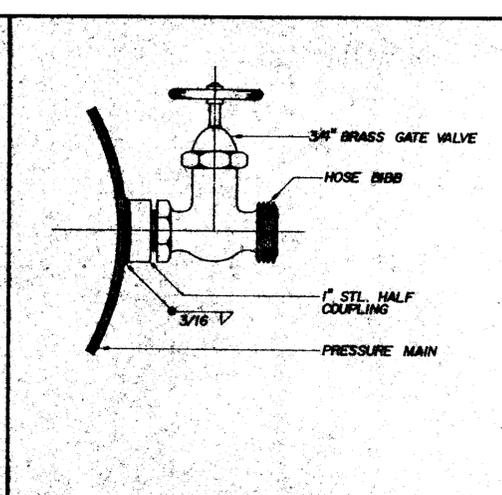
**SECTION C**  
SCALE: 3/8" = 1'-0"  
**C**  
**15**



**VENTILATION FAN**  
**D**  
**15**



**PRESSURE GAUGE**  
**E**  
**15**



**HOSE BIBB**  
**F**  
**15**

NO.	DATE	DESCRIPTION	BY

DESIGN: DFP MAR.1986  
DRAWN: BJ,CL MAR.1986  
CHECK: AM MAR.1986  
SCALE: AS SHOWN

ENGINEER:  
*John Phillips*  
R.C.E. 13512 DATE 2/11/1986



**GRAM/PHILLIPS ASSOCIATES, INC.**

479 SOUTH MARENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 681-0291  
SHERWIN PLAZA, SUITE 202 / P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93546 / (619) 934-2827

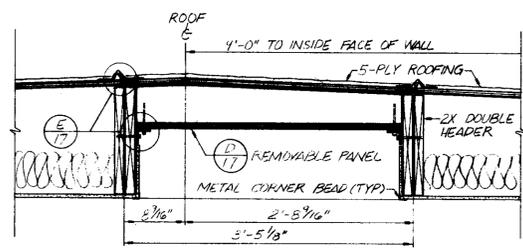
ENGINEERING / RESEARCH  
ENVIRONMENTAL SYSTEMS

**BOOSTER PUMP STATION  
MECHANICAL AND DETAILS**

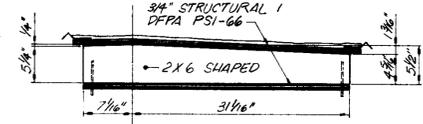
JOB NO. 905  
SHEET 15  
OF 20



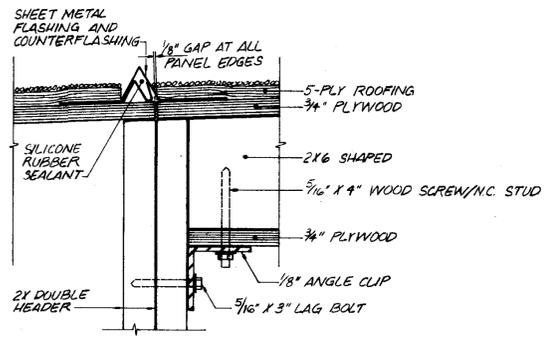




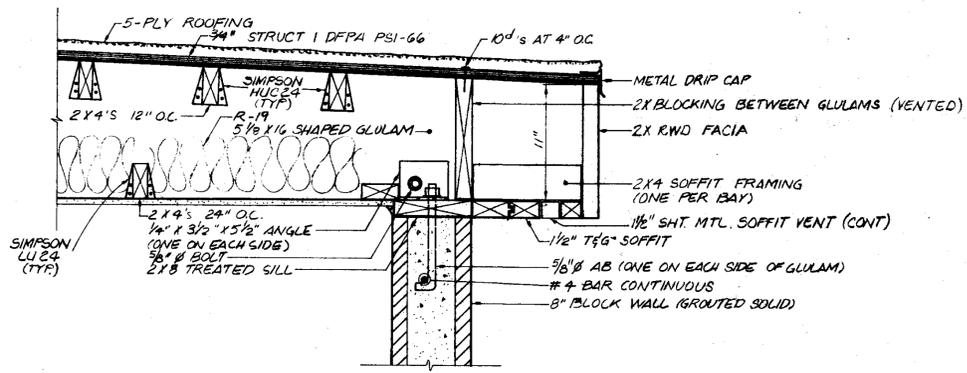
**SECTION C**  
SCALE: 1"=1'-0"



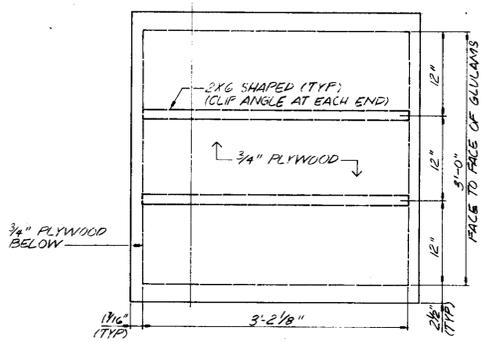
**DETAIL D**  
SCALE: 1"=1'-0"



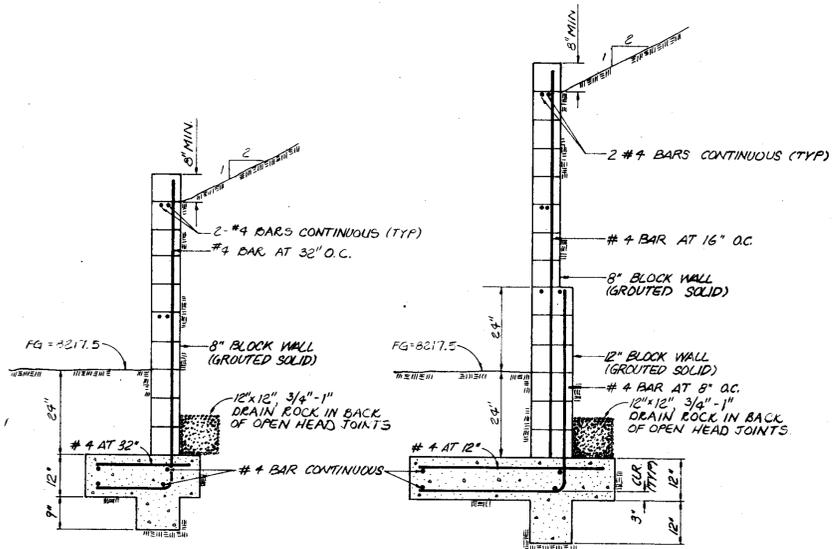
**DETAIL E**  
SCALE: 3"=1'-0"



**DETAIL F**  
SCALE: 1/2"=1'-0"

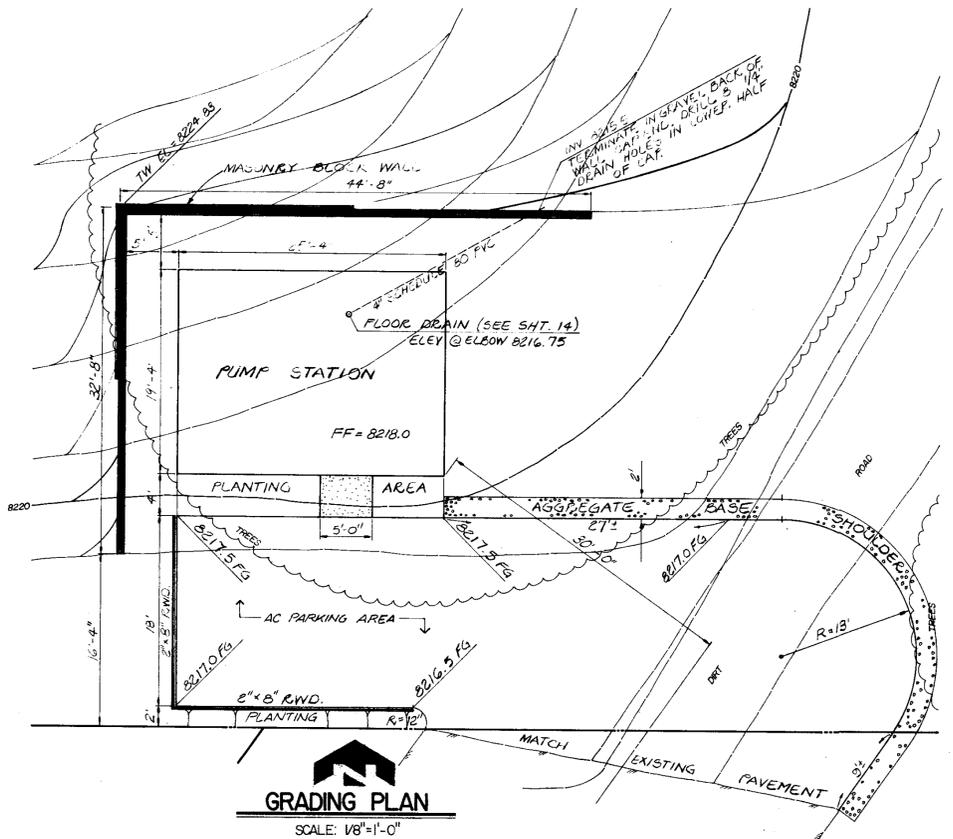


**PLAN VIEW OF PANEL**  
FLASHING AND ROOFING NOT SHOWN  
SCALE: 1"=1'-0"

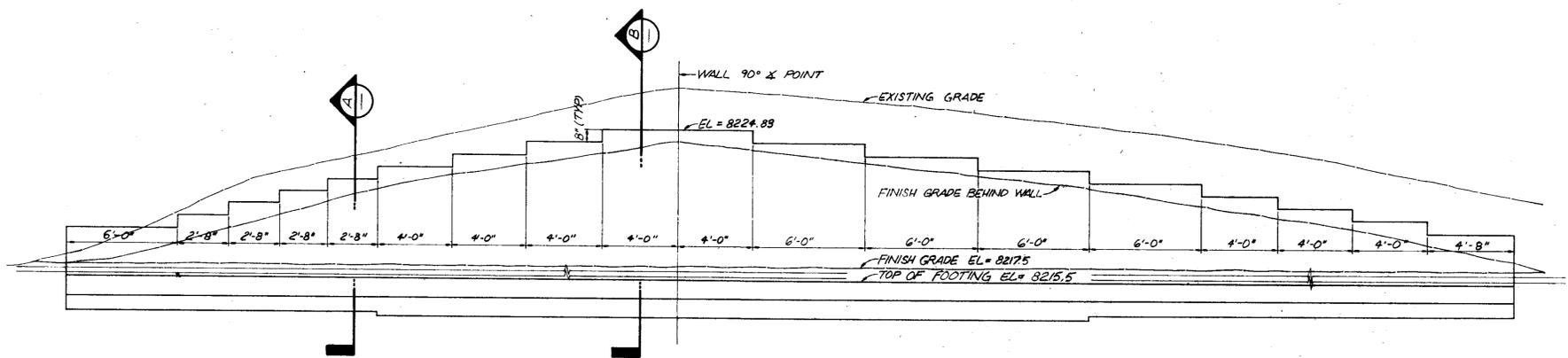


**SECTION A**  
SCALE: 1/2"=1'-0"

**SECTION B**  
SCALE: 1/2"=1'-0"



**GRADING PLAN**  
SCALE: 1/8"=1'-0"



**RETAINING WALL ELEVATION**  
SCALE: 1/4"=1'-0"

NO.	DATE	DESCRIPTION	BY

DESIGN: DFP	MAR. 1986	ENGINEER:	
DRAWN: AG	MAR. 1986	R.C.E.:	13512 DATE: 4/11/86
CHECK: AM	MAR. 1986		
SCALE: AS SHOWN			

**GP** **GRAM/PHILLIPS ASSOCIATES, INC.**  
479 SOUTH MARENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 681-0291  
SHERWIN PLAZA, SUITE 202 / P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93546 / (619) 934-2827  
ENGINEERING / RESEARCH ENVIRONMENTAL SYSTEMS

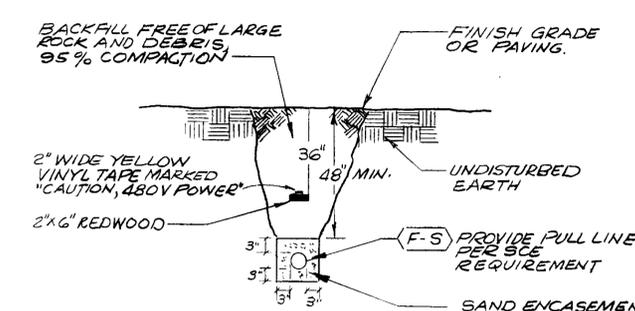
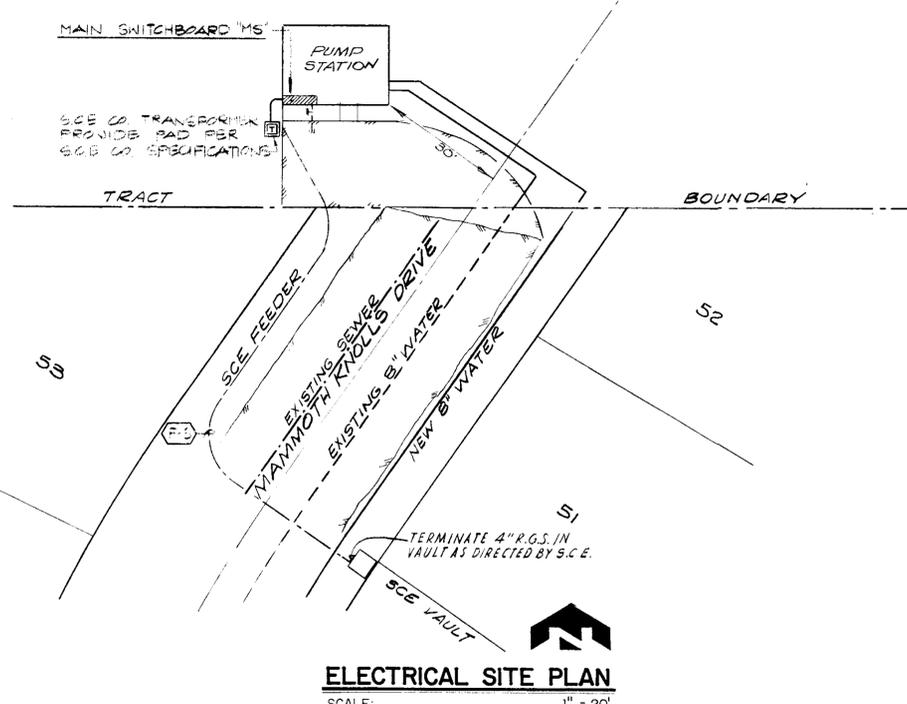
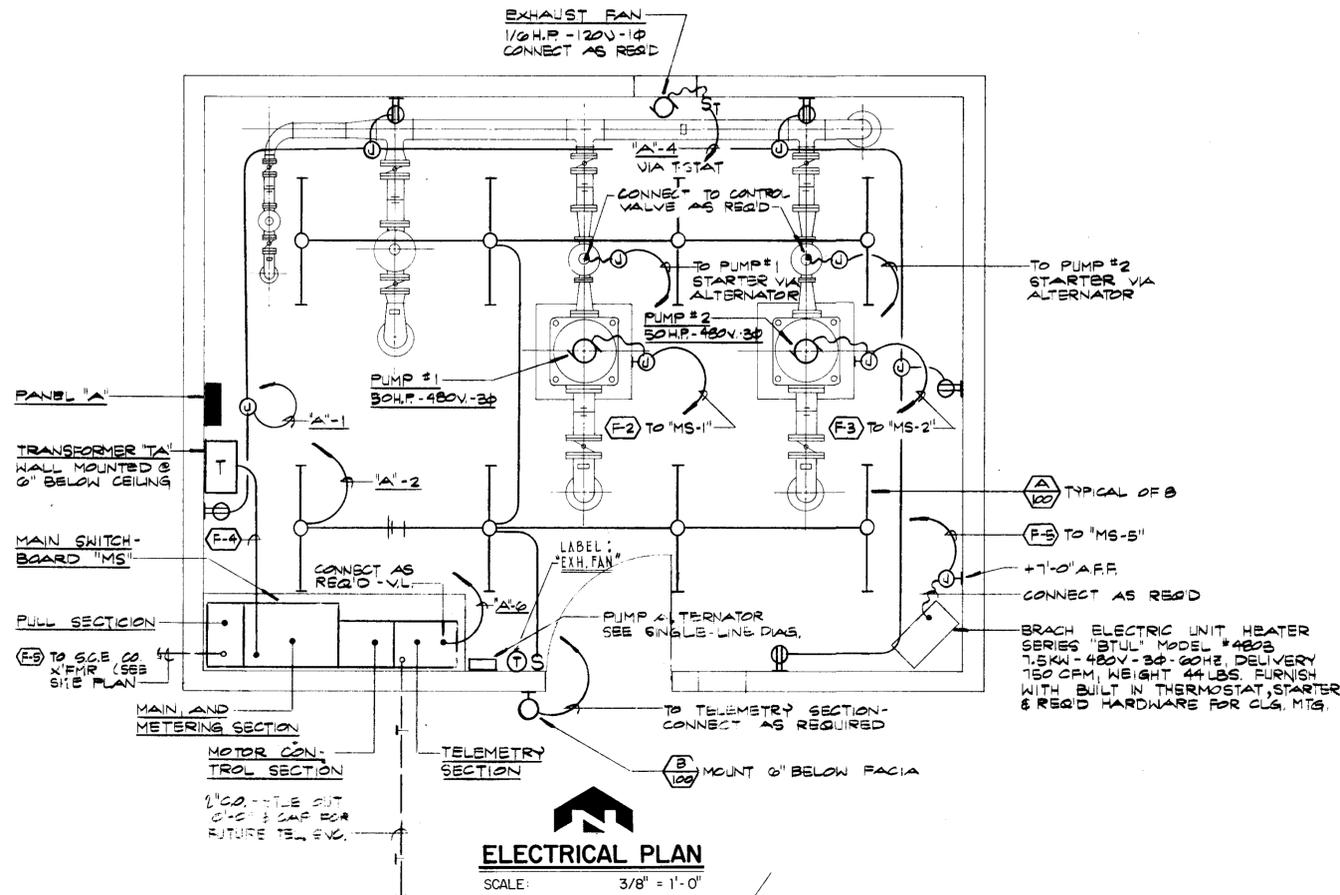
**BOOSTER PUMP STATION STRUCTURAL & DETAILS**  
JOB NO. 905  
SHEET 17  
OF 20

# LEGEND

SYMBOL	DESCRIPTION
	INDUSTRIAL FLUORESCENT LIGHT FIXTURE, SURFACE MTD.
	DUPLEX CONVENIENCE RECEPTACLE, 20A, 120V, AC, GROUNDING TYPE, HT + 12" UNLESS OTHERWISE NOTED
	THERMOSTAT OUTLET + 4'-0" (120 VOLT-LINE VOLTAGE TYPE)
	JUNCTION BOX WITH COVER
	JUNCTION BOX WITH COVER, WALL MOUNTED
	MOTOR OUTLET
	MAGNETIC MOTOR STARTER, SIZE 1, 3-POLE UNLESS NOTED
	GROUND
	1/2" C - 3 #12
	3/4" C - 4 OR 5 #12
	1" C - 6 TO 9 #12
	HOME RUN TO PANEL "LA" CKT. 1, 3
	CONDUIT STUB-OUT AND CAP
	INCANDESCENT LIGHT FIXTURE WALL MOUNTED
	DISCONNECT SWITCH, 30A, 3P (OR AS NOTED) "F" INDICATES FUSED TYPE
	LIGHTING PANEL + 6'-6" TO TOP
	POWER PANEL, SWITCHBOARD
	TRANSFORMER
	FLEXIBLE CONDUIT
	SINGLE POLE, SINGLE THROW TOGGLE SWITCH 20 AMPS, 277 VAC MTG. HEIGHT + 4'-0"
	MANUAL MOTOR STARTER W/THERMAL OVERLOAD PROTECTION MTG HT. + 4'-0"
	LIGHT FIXTURE TYPE "A", 100 WATTS
	INDICATES REFERENCE NOTES ON DRAWING
	DETAIL "A" ON DRAWING E-2
	WEATHERPROOF
	NOT IN THIS SECTION OF SPECIFICATION
	CONDUIT RUN CONCEALED IN CEILING OR WALL 1/2" C 2#12 UNLESS NOTED
	CONDUIT ONLY WITH PULL-LINE
	VERIFY EXACT LOCATION
	ABOVE FINISH FLOOR
	CONDUIT RUN CONCEALED IN OR BELOW FLOOR SLAB OR BELOW GRADE 3/4" C 2#12 UNLESS NOTED
	CONDUIT RUN EXPOSED - 1/2" C 2#12, UNLESS NOTED
	FURNISHED UNDER SEPARATE CONTRACT, INSTALLED BY THIS CONTRACTOR
	RIGID GALVANIZED STEEL

## GENERAL NOTES

- VERIFY EXACT POINT OF CONNECTION TO S.C.E. CO. SYSTEM PRIOR TO INSTALLATION (S.C.E. CO. CUSTOMER EXTENSION PLANNER - MR. TERRY KERR - TELE. (619) 934-6011)
- CONTRACTOR SHALL INCLUDE IN HIS BID ALL WORK & SHALL INCLUDE BUT NOT BE LIMITED TO ALL REQUIRED LABOR AND MATERIAL FOR A COMPLETE AND OPERABLE TELEMETRY CONTROL SYSTEM. CONTRACTOR SHALL VERIFY, PROVIDE & COORDINATE ALL REQUIRED CONTROLS, CONDUIT WIRING CONNECTIONS FOR TELEMETRY CONTROL SYSTEM (NOT SHOWN ON ELECTRICAL DRAWINGS) WITH AUTOMATIC CONTROL COMPANY - TELE. (213) 540-4117



NOTE:  
ALL TRENCHING & CONDUIT INSTALLATION IN TRENCH SHALL BE PER S.C.E. CO. REQUIREMENTS

## LIGHTING FIXTURE SCHEDULE

SYMBOL	FLUORESCENT / INCANDESCENT	NOMINAL SIZE	MOUNTING	DESCRIPTION	LAMPS	SIMILAR OR EQUAL TO
	FLUORESCENT	4'	SURFACE	4' long industrial fluorescent fixture with one piece white baked enamel steel housing and one piece white baked enamel removable reflector 120V integral ballast. Mounting hardware as required RF shielding.	(2) F40-T12 RS-CW	COLUMBIA #E1-240-MIG
	INCANDESCENT	100W	WALL	Enclosed and gasketed light fixture with rust resistant metal body, ruby coated glass guard and tamper-proof hardware. Fixture shall be listed as "suitable for wet locations".	100W - A19 CLEAR M50 BASE	HUBBELL #WC-100

DESIGN: DFP	MAR. 1986	ENGINEER: VAN HILL ASSOCIATES
DRAWN: CL	MAR. 1986	V.H.A. 1005 W. 190TH STREET, SUITE 200
CHECK: DFP	MAR. 1986	MAMMOTH LAKES, CALIFORNIA 93248
SCALE: AS SHOWN		R.C.E. 13512 DATE 3-22-1986

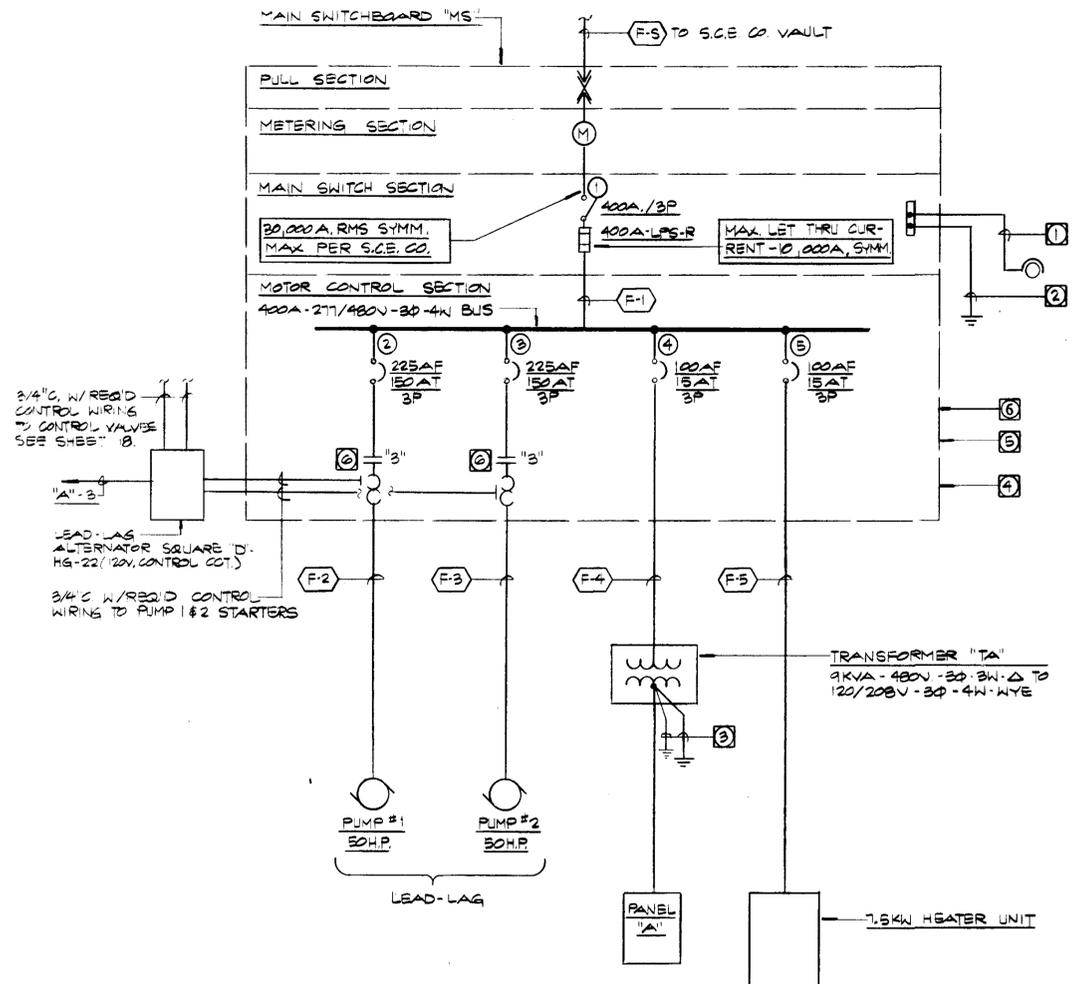
**GP GRAM/PHILLIPS ASSOCIATES, INC.**  
479 SOUTH MARENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 681-0291  
SHERWIN PLAZA, SUITE 202, P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93248 / (619) 934-2627

ENGINEERING / RESEARCH ENVIRONMENTAL SYSTEMS

**BOOSTER PUMP STATION**  
**ELECTRICAL - SITE PLAN & LEGEND**

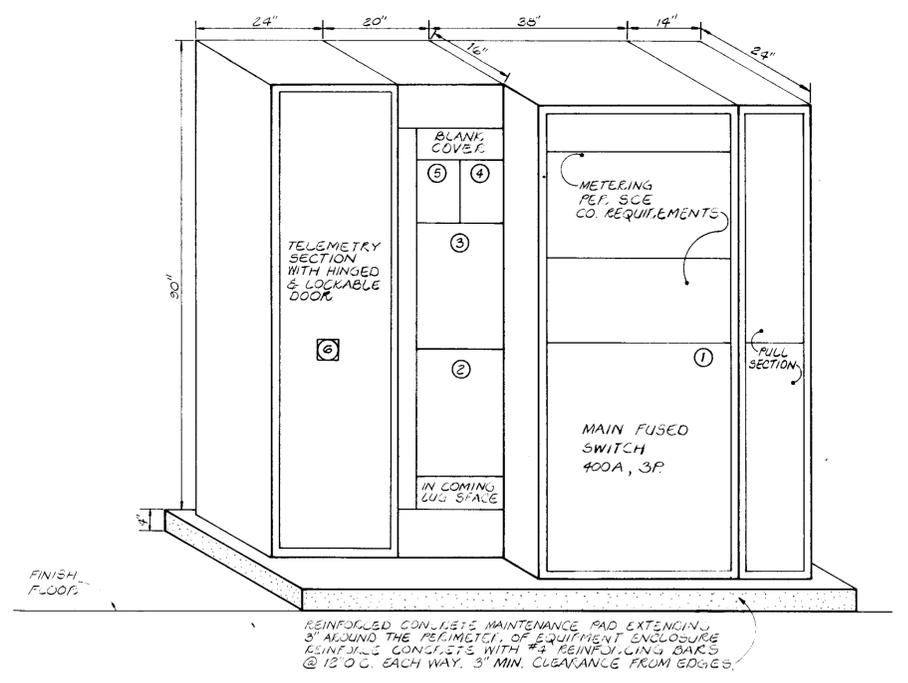
JOB NO. 905  
SHEET 18 OF 20

11269



**SINGLE-LINE DISTRIBUTION DIAGRAM**  
NO SCALE

FEEDER AND LOAD SCHEDULE								
FEEDER DESIGNATION	FROM	TO	CONDUIT SIZE	WIRE SIZE	KVA	VOLTS PHASE	AMPS	
							CONN	LCL
F-5	S.C.E. CO. VAULT & XFMR SWITCH BD 'MS'	MAIN SERVICE CONDUIT	4" R.G.B. CONDUIT	CONDUCTORS BY S.C.E. CO.	125	277/480V 3Φ	150	129
F-1	MAIN FUSED SWITCH	MOTOR CONTROL SECTION	—	400A BUS	125	480V-3Φ	—	—
F-2	MOTOR CONTROL SECTION	PUMP #1	1/4"	3#2	54		65	81
F-3		PUMP #2	1/4"	3#2	54		65	81
F-4		XFMR 'TA'	3/4"	3#12	9		10.8	13.5
F-5		HEATER UNIT	3/4"	3#12	7.5		9	11
F-A	XFMR 'TA'	PANEL 'A'	3/4"	4#10		120/208V 3Φ		



**MAIN SWITCHBOARD - "MS" - ELEVATION**  
NOT TO SCALE

**NUMBERED NOTES:**  
(THIS SHEET ONLY)

- ① 1/2" 1#10 TO NEAREST ACCESSIBLE METALLIC COLD WATER PIPE
- ② 1#10 G.C. TO "UPPER" BRUNN. "UPPER" GROUND SHALL CONSIST OF 60' OF 1#10 B.C. CONDUCTOR RUN WITHIN AND 3" ABOVE BOTTOM OF CONCRETE FOUNDATION IN DIRECT CONTACT WITH EARTH. BOUND CONDUCTOR TO FOUNDATION REINFORCING STEEL BARS
- ③ 2 1/4" 1#5 TO C.W. PIPE GROUND TO MAIN SWBD. "MS" GROUND LUG AT SWITCHBOARD
- ④ ALL CIRCUIT BREAKERS SHALL MEET JF. EXCISED AND RE-INDICATED IN THE SINGLE LINE DIAGRAM OR THEIR RESPECTIVE PANEL SCHEDULE
- ⑤ CONTRACTOR SHALL INCLUDE IN HIS BID ALL TELEMETRY CONTROL REQUIREMENTS AS REQUIRED BY AUTOMATIC CONTROL COMPANY TEL. # (313) 546-4717 INCLUDING BUT NOT LIMITED TO ALL CONTROL WIRING CONDUITS & DEVICES.
- ⑥ MOTOR STARTER SHALL BE PER PUMP MANUFACTURER'S RECOMMENDATION. VERIFY & COORDINATE WITH AUTOMATIC CONTROL SYSTEM AS REQUIRED PRIOR TO BID STARTERS SHALL BE OF THE REDUCED VOLTAGE STARTING TYPE. PROVIDES 480 TO 120V. CONTROL XFMR.

PANEL "A" 120/208 VOLTS 3 Φ 4 WIRE											
CIR. NO.	BKR	AMP	POLE	LTS.	REC.	MISC.	REMARKS	VOLT-AMPS			
								L-1	L-2	L-3	LCL
1	20				5		GENERAL USE RECEIPTS	100			200
2				2			LIGHTING	800			800
3						1	ALTERNATOR		300		300
4						1	EXHAUST FAN		528		528
5							SPARE			500	500
6						1	TELEMETRY			1000	1000
7							SPARE				
8											
9									140		140
10											
11											
12											
13							BUSSED SPACE				
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											
29											
30											

MAIN 30A-3P SUB. TOTAL 1700 1028 1500 3228  
 12 AMPS. CONNECTED TOTAL 4228 25% 332  
 13 AMPS. W/LCL TOTAL 4228  
 FEEDER = (F-A) TOTAL 4500

SURFACE MOUNTED  
 LOCATION PUMP RM.

NO.	DATE	DESCRIPTION	BY

DESIGN: DFP	MAR 1986	ENGINEER: VAN HILL ASSOCIATES	VHA #
DRAWN: BJ,CL	MAR 1986	1000 W. 190TH STREET, SUITE 200	06-13
CHECK: DFP	MAR 1986	478 SOUTH MARENGO AVENUE	
SCALE: AS SHOWN		PASADENA, CALIFORNIA 91101	
		PHONE (213) 681-0291	
		ENGINEERING / RESEARCH	
		ENVIRONMENTAL SYSTEMS	

**GP** **GRAM/PHILLIPS ASSOCIATES, INC.**  
 478 SOUTH MARENGO AVENUE / PASADENA, CALIFORNIA 91101 / PHONE (213) 681-0291  
 SHERWIN PLAZA, SUITE 202 / P.O. BOX C-13 / MAMMOTH LAKES, CALIFORNIA 93546 / (619) 934-2627

**BOOSTER PUMP STATION**  
**ELECTRICAL - SINGLE LINE DIAGRAM**

