



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0016

JOHN ELIAS BALDACCI
GOVERNOR

DAVID A. COLE
COMMISSIONER

December 28, 2006
Subject: **Topsham**
Pin No. 14062.11
Amendment No. 2

Dear Sir/Ms:

Please make the following changes to the Bid Documents:

In the Bid Book REMOVE the "Schedule of Items" dated 061128 one page total.

REMOVE in its entirety the "Contract Agreement, Offer & Award" two sets, eight pages total. And REPLACE with attached updated "Contract Agreement, Offer & Award" two sets, eight pages total.

REMOVE the existing "Special Provision, Section 656, Temporary Soil Erosion and Water Pollution Control" four pages total and REPLACE with the attached updated "Special Provision, Section 656, Temporary Soil Erosion and Water Pollution Control" dated December 4, 2006 one page total.

ADD "Special Provision, Section 700, Materials, General Statement" one page total.

REMOVE the existing "Special Provision, Section 815, Buildings" one page total and REPLACE with the attached updated "Special Provision, Section 815, Buildings" dated December 8, 2006 one page total.

ADD "Special Provision, Plumbing Fixtures and Materials" one page total.

REMOVE the existing "Table of Contents" one page total and REPLACE with the attached updated "Table of Contents" dated December 6, 2006 one page total.

ADD "Division 13, Pre-Engineered Metal Building System", ten pages total.

In "Division 1, General Requirements" REMOVE the existing Section 0101 that includes sub-sections 0101.01 Location of Work, 0101.02 Work Under This Contract and 0101.03



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Abbreviations and Symbols one page total and REPLACE with the attached updated "Section 0101, Summary of Work" dated December 6, 2006 one page total.

In "Division 2, Site Work" under Section 0229, Borrow and Bedding Material, within sub-section 0229.06 Crushed Stone, ADD the following to the end of the paragraph: "Crushed stone shall be of quarried stone and meet the applicable requirements of State of Maine, Department of Transportation, Standard Specifications, Section 703.07(a) Coarse Aggregate. The aggregate shall meet the following gradation requirements:

Sieve Designation	Percent of Weight Passing Square Mesh Sieves
1 inch	100
¾ inch	60 - 90
½ inch	10 - 35
⅜ inch	2 - 15
No. 4	0 - 5

Make this change in pen and ink.

In Division 2, Site Work, under Section 0229 Borrow and Bedding Material, within sub-section 0229.08 Placement and Compaction, ADD the following to the end of the last paragraph: "Testing for moisture content and density may be done in accordance with the State of Maine, Department of Transportation, Standard Specifications." Make this Change in pen and ink.

In Division 3, Concrete, under Section 0331 Cast-in-Place Concrete ADD the following sub-section:

0331.07 QUALITY ASSURANCE

Installer must have completed concrete Work similar in material, design, and extent to that indicated for this Project with a record of successful in-service performance.

Manufacturer must be certified according to the Department of Transportation's "Certificate of Ready Mixed Concrete Production Facilities".

Air-Entraining Admixtures and Water-Reducing Admixtures shall be products listed on the Maine Department of Transportation's Approved Product List.

At least 30 days prior to the first placement, a concrete mix design shall be submitted by the Contractor to the Department for approval. No concrete shall be placed on a project until the concrete mix design is approved by the Department. No change in source or character of the mix ingredients may be made without notice to the Department.

Deicer Protection shall be placed on all exterior concrete: Saltgard as manufactured by Pro So Co, Inc., or approved equal.

Water and Oil Repellent shall be placed on interior concrete: A clear penetrating silane compound with oil repellency additives which shall be products listed on the Maine Department of Transportation's Approved Product List or approved equal.

Do not air entrain concrete to trowel-finished interior floors. Do not allow entrapped air content to exceed 3 percent.

The Contractor shall be responsible to notify MDOT a minimum of 48 Hours prior to all required quality control testing." Make this change in pen and ink.

In Division 15, Mechanical, under Section 15001 Water System, DELETE in its entirety sub-section 2.2A, and REPLACE with the new updated sub-section 2.2 A that reads as follows:

2.2 DOMESTIC HOT AND COLD WATER SYSTEM

- A. "Copper tubing for cold water shall be Type "L" for above ground, ASTM B-88. Tubing for domestic hot water or boiler feed is to be type M copper, ASTM B-88." Make this change in pen and ink.

In Division 15, Mechanical, under Section 15650 Heating, Ventilation and Air Conditioning, DELETE in its entirety sub-section 2.1A, and REPLACE with the new updated sub-section 2.1 A that reads as follows:

2.1 PIPING

- A. Hot Water - Type M hard drawn copper tubing, above grade and 1/2" ID Kitec with Aluminum Oxide barrier within concrete, to be installed in exactly 300' lengths as per manufacturer's recommendations." Make this change in pen and ink.

In Division 16, Electrical, under Section 16401 Electrical Work, DELETE in its entirety sub-section 2.15 Electrical Service and Distribution System, and REPLACE with the new updated sub-section 2.15 that reads as follows:

2.15 ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM

The contractor's work will begin where the existing PIN 14062.10 Topsham Maintenance Facility Site Work Project work ends.

The Contractor shall furnish all labor, materials, etc. necessary for a complete approved electrical service as required by the structure, including inspection and approval by the utility and local inspection departments.

The Contractor shall notify the utility company in writing, with a copy to the Engineer, no later than 10 days after signing construction contracts, as to when the building power service will be required." Make this change in pen and ink.

In the Plan Sheets, DISCARD the entire set of plans and REPLACE with the attached new set of plans.

On the Title Sheet named T-1 under "Index of Sheets" ADD the following plansheets: "1st and 2nd Floor Hot & Cold Water Piping Plan", sheet # P-3, "Water Piping Plan", sheet # P-4 and "Manifold Piping Plan", sheet # H-7. Make these changes in pen and ink.

On plan sheet "H-6, Building Radiant Heat Boiler Room Details" under "Notes" DELETE in its entirety Note 2 that begins "All dom. Cold water..." and REPLACE with the new updated Note 2 that reads: "All Dom. Cold water and heat pipes are to be insulated with Armaflex Insulation, minimum ½" thickness ." Make this change in pen and ink.

On plan sheet "S-1, Building Foundation Plan" under "Notes" DELETE in its entirety Note 2 that begins "Sand or Crushed Stone..." and REPLACE with the new updated Note 2 that reads: "Granular borrow meeting the requirement of MDOT Standard Specification 703.18 Granular Borrow or crushed stone is to be used for backfill around footings and walls." Make this change in pen and ink.

On plan sheet "S-1, Building Foundation Plan" DELETE in its entirety Note 3 that begins "All subsurface material..." and REPLACE with the new updated note that reads "All subsurface material added under floor is to meet the requirement of MDOT Standard Specification 703.18 Granular Borrow or crushed stone placed in 6" maximum lifts and compacted to a 95% compaction before adding next lift." Make this change in pen and ink.

The following questions have been received.

Question: There aren't any specifications on the metal building in our bid package. Are we missing something?

Response: See the attached Special Provision, Section 13, Pre-Engineered Metal Building System.

Question: The spec book includes Division 2 Site work, but the plans do not include site work pages. Are we to include site work in our bid or has this section already been awarded under a separate contract?

Response: PIN 14062.10 New Topsham Facility Site Work Project is currently under contract. The site work under PIN 14062.11 Topsham Highway Maintenance Garage includes all labor and materials required to provide site work for the building as described in the Contract Documents. This includes but is not necessarily limited to grading, erosion control, excavation and backfill, and connection to existing utilities. Please refer

to PIN 14062.10 East Site Grading and Erosion Control Plan. (Plansheet #7 of 15 attached)

Question: There is no description (make or model) for the 1'-0" x 4'-0" fixtures in front of office area or the upstairs area. Is there a preferred fixture type? Also there are three 2x2 fixtures in front of office area. Is there a preferred fixture type for these? Are the light fixtures in boiler room and mechanical room to match office lights? If so, give make and model. All questions reference Drawing E-3.

Response: All light fixtures are described on the attached new drawing E-3A, Notes 1,2 and 7. Lights in Mechanical Room are the same as in the office.

Question: Division 16 Electrical, General Section 16401, 2:15, Electrical Service and Distribution System states all cost chargeable by the utility company for service shall be obtained by the subcontractor, and included in his bid. Who is the contact at CMP that we may call to get the projected cost of their work?

Response: The contractor's work will begin where the existing PIN 14062.10 Topsham Maintenance Facility Site Work Project work ends. Please see revised Special Provision, Section 16401 Electrical Work, 2.15 Electrical Service".

Question: What are the following design requirements?

1. Building Code
2. Ground Snow Load
3. Seismic Load
 - site class
 - Ss
 - S1
4. Wind Load & Exposure
5. Collateral Load

Are the roof and wall panels colored?

Response: See attached Division 13, Pre-Engineered Metal Building System added earlier in this amendment.

Question: Section 0331, Cast in Place Concrete. What method of quality control will be required for this project?

Response: Comply with specifications.

Question: On drawing MZ-2 Section A-A, is this footing detail only on line shown, or at all columns? It is not shown on Section C-C.

Response: Drawing MZ-2 has been removed and replaced by the attached plansheet A-5A, and revisions have been made to Section A-A.

Question: On Drawing MZ-2, there are no dimensions, clear layout, or description of structural elements.

Response: The structural members have been identified on the attached A-5A plansheet.

Question: Drawing MZ-2. What is construction of stairs?

Response: Stair details have been added on the attached A-5A plansheet.

Question: Drawing A-1. There are no dimensions for layout of rooms.

Response: Room dimensions have been added to updated A-1B plansheet

Question: Drawing A-7 Section A-A calls for 26 bollards required, the actual count is 28 on that drawing. Which is correct?

Response: Drawing A-7 has been removed and replaced by the attached plansheet A-7A, and the bollard quantity has been changed to 28.

Question: Drawing A-8. In the office and lunchroom there appears to be some casework. Is contractor to supply? There are no elevations or details.

Response: A Lunch Room Vanity has been added to show casework in lunch room.

Question: Drawing A-8. What are the construction details of the fire rated assemblies?

Response: A One Hour Fire Rated Wall Detail has been added to the attached updated Drawing A-8.

Question: Drawing A-8. Insulation schedule is Thermax insulation. What is actually required for perimeter and under slab? Typically extruded Styrofoam is used.

Response: Thermax is called out on the drawing and a substitute can be used as long as it has the R value of Thermax and is an approved equivalent.

Question: Drawing S-1. There appears to be interior column footings missing on two lines. Is this correct?

Response: Drawing S-1 shows the proper amount of interior columns.

Question: Drawing S-2. Is the top of slab elevation 108.0 or 92.1?

Response: Drawing S-2 has been removed and replaced by the attached plansheet S-2A, the elevation is 92.1

Question: There is no specification for the pre-engineered metal building?

Response: See attached Special Provision, Section 13, Pre-Engineered Metal Building System.

Question: There is not enough architectural detail on the plan to prepare a bid.

Response: See attached Special Provision, Section 13, Pre-Engineered Metal Building System.

Question: Is the contractor to supply toilet accessories? There are none called out in the documents.

Response: The contractor shall provide all toilet accessories which should be all American Standard ADA or equal, including an ADA toilet, ADA wall mounted sink, ADA 36" fiberglass shower w/fiberglass door, toilet paper hanger. Also 1 - eye wash station, and 1 - hand wash basin as shown.

Question: There is no plumbing fixture schedule or specification.

Response: See attached Special Provision Plumbing Fixtures and Materials added earlier in this amendment.

Question: There is no floor drain or trench drain schedule or specification.

Response: Trench Drains: Comply with ASME A112.21.1M.. Zurn-Z882, 12" wide trench drain system with integral pitch at 1% minimum. as indicated on the drawings.

The entire trench assembly shall be constructed of high density polyethylene structural composite material. Provide 22" sediment trap catch basin by trench drain manufacturer, cast iron dura coated slotted grate with H 20 load rating. The system shall be complete with interlocking ends and combination tie-down/leveling devices. Provide 4" no-hub outlet and piping as indicated on the drawings.

Question: Plan H-5 shows 1 boiler and H-6 shows 2 boilers.

Response: There are two boilers. A second boiler has been added to the attached updated Drawing H-5A.

Question: There appears to be no heat in the office areas.

Response: Radiant heat in the office has been added to the attached updated Drawing H-1A.

Question: There is no location or specification for the oil tank.

Response: An oil tank and shelter has been added to the attached updated Drawing H-7A.

Question: H-6 notes to use Type M copper for Domestic Hot Water and Boiler Feed while spec 15001 notes to use Type L only.

Response: H-6 is correct. Use Type M copper for Domestic Hot Water and Boiler Feed. In Division 15, Mechanical, under Section 15001 Water System, sub-section 2.2A has been replaced with the new updated sub-section 2.1 A earlier in this amendment.

Question: There is no mention of pipe insulation thickness.

Response: On plan sheet "H-6, Building Radiant Heat Boiler Room Details" under "Notes", Note 2 has been replaced to read: "... minimum 1/2" thickness."

Question: H-5 calls for Kitec radiant tubing while spec calls for Entran Onix. These are very different types of tubing.

Response: Kitec Tubing is to be used. In Division 15, Mechanical, under Section 15650 Heating, Ventilation and Air Conditioning, sub-section 2.1A has been replaced with the new updated sub-section 2.1 A earlier in this amendment.

Question: Where are the dust collectors being located? There needs to be a CA run to them.

Response: There are no dust collectors on this project. The references to them have been removed in the attached updated Drawing V-1.

Question: The V-1 Equipment schedule appears to be (1) 5-Ton CU, (1) 5-Ton AHU and (2) 5-Ton DX Coils. Is this the intent?

Response: The intent is to use one 5 ton unit and what is required for associated equipment.

Question: Where is the paint room noted to have an exhaust fan on V-1?

Response: There is no paint room. The equipment specifications on Drawing V-1 have been revised on the attached updated Drawing V-1. It is now shown as a mechanical room.

Question: There is no Domestic Water Plan/Sizing/Layout.

Response: This is shown on the new attached Drawings P-3 and P-4.

Question: Are there any hose bibs required in the garage space/wash bays?

Response: There are hose bibs and they are shown on the added attached drawing P-4.

Question: Is there supposed to be a hot water circulation line or heat trace for this project?

Response: There is no hot water recirculation line nor heat trace required.

Question: Is there supposed to be an emergency eye wash /shower for this project?

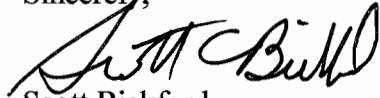
Response: An emergency eye wash station has been added to the attached updated Drawing A-1B.

Question: The elevation drawings show (7) overhead doors on the front and (8) on the rear. The plan view appear to show only (7) in the rear.

Response: There are seven doors in the rear. This has been corrected and shown on the attached updated Drawing A-2B.

Consider these changes and information prior to submitting your bid on January 10, 2006.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Bickford". The signature is fluid and cursive, with the first name "Scott" and last name "Bickford" clearly distinguishable.

Scott Bickford

Contracts & Specifications Engineer

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and _____

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

The Department and the Contractor, in consideration of the mutual promises set forth in this Agreement (the "Contract"), hereby agree as follows:

A. The Work

The Contractor agrees to complete all Work as specified or indicated in the Contract including Extra Work in conformity with the Contract, **Pin: 14062.11**, for the Construction of a **Topsham Highway Maintenance Garage** in the town of **Topsham**, County of **Sagadahoc**, in The **State of, Maine**. The Work includes construction, maintenance during construction, warranty as provided in the Contract, and other incidental work.

The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time

The Contractor agrees to complete all Work, except warranty work, on or before **September 28, 2007**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price

The LUMP SUM Bid Price will be used as the basis for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$ _____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract

This Contract, which may be amended, modified, or supplemented in writing only, consists of the Contract documents as defined in the Plans, Standard Specifications, Revision of December 2002, Standard Details, Revision of 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds. It is agreed and understood that this Contract will be governed by the documents listed above.

E. Certifications

By signing below, the Contractor hereby certifies that to the best of the Contractor's knowledge and belief:

1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to the Division 100 General Conditions (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer

The undersigned, having carefully examined the site of work, the Plans, Standard Specifications, Revision of December 2002, Standard Details, Revision of December 2002 as updated through advertisement, Supplemental Specifications, Special Provisions, Contract Agreement; and Contract Bonds contained herein for construction of: A **Topsham Highway Maintenance Garage** in the Town of **Topsham** State of Maine, on which bids will be received until the time specified in the "Notice to Contractors" do(es) hereby bid and offer to enter into this contract to supply all the materials, tools, equipment and labor to construct the whole of the Work in strict accordance with the terms and conditions of this Contract".

The Offeror agrees to perform the work required at the price specified above and in" strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents, including Section 109.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications, Revision of December 2002, and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Fifth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in

any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David A. Cole, Commissioner

Witness

CONTRACT AGREEMENT, OFFER & AWARD

AGREEMENT made on the date last signed below, by and between the State of Maine, acting through and by its Department of Transportation (Department), an agency of state government with its principal administrative offices located at Child Street, Augusta, Maine, with a mailing address at 16 State House Station, Augusta, Maine 04333-0016, and _____

_____ a corporation or other legal entity organized under the laws of the State of _____, with its principal place of business located at _____

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The Contractor shall be responsible for furnishing all supervision, labor, equipment, tools supplies, permanent materials and temporary materials required to perform the Work including construction quality control including inspection, testing and documentation, all required documentation at the conclusion of the project, warranting its work and performing all other work indicated in the Contract.

The Department shall have the right to alter the nature and extent of the Work as provided in the Contract; payment to be made as provided in the same.

B. Time

The Contractor agrees to complete all Work, except warranty work, on or before **September 28, 2007**. Further, the Department may deduct from moneys otherwise due the Contractor, not as a penalty, but as Liquidated Damages in accordance with Sections 107.7 and 107.8 of Standard Specifications, Revision of December 2002 and related Special Provisions.

C. Price

The LUMP SUM Bid Price will be used as the basis for determining the amounts of the required Performance Surety Bond and Payment Surety Bond, and that the amount of this offer is _____

\$ _____ Performance Bond and Payment Bond each being 100% of the amount of this Contract.

D. Contract

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E. Certifications

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1. All of the statements, representations, covenants, and/or certifications required or set forth in the Bid and the Bid Documents, including those in Appendix A to the Division 100 General Conditions (Federal Contract Provisions Supplement), and the Contract are still complete and accurate as of the date of this Agreement.
2. The Contractor knows of no legal, contractual, or financial impediment to entering into this Contract.
3. The person signing below is legally authorized by the Contractor to sign this Contract on behalf of the Contractor and to legally bind the Contractor to the terms of the Contract.

F. Offer

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The Offeror agrees to perform the work required at the price specified above and in" strict accordance with the terms of this solicitation, and to provide the appropriate insurance and bonds if this offer is accepted by the Government in writing.

As Offeror also agrees:

First: To do any extra work, which may be ordered by the Resident, and to accept as full compensation the amount determined upon a "Force Account" basis as provided in the Standard Specifications, Revision of December 2002, and as addressed in the contract documents, including Section 109.

Second: That the bid bond at 5% of the bid amount or the official bank check, cashier's check, certificate of deposit or U. S. Postal Money Order in the amount given in the "Notice to Contractors", payable to the Treasurer of the State of Maine and accompanying this bid, shall be forfeited, as liquidated damages, if in case this bid is accepted, and the undersigned shall fail to abide by the terms and conditions of the offer and fail to furnish satisfactory insurance and Contract bonds under the conditions stipulated in the Specifications within 15 days of notice of intent to award the contract.

Third: To begin the Work as stated in Section 107.2 of the Standard Specifications, Revision of December 2002, and complete the Work within the time limits given in the Special Provisions of this Contract.

Fourth: That this offer shall remain open for 30 calendar days after the date of opening of bids.

Fifth: The Bidder hereby certifies, to the best of its knowledge and belief that: the Bidder has not, either directly or indirectly, entered into any agreement, participated in

any collusion, or otherwise taken any action in restraint of competitive bidding in connection with its bid, and its subsequent contract with the Department.

IN WITNESS WHEREOF, the Contractor, for itself, its successors and assigns, hereby execute two duplicate originals of this Agreement and thereby binds itself to all covenants, terms, and obligations contained in the Contract Documents.

CONTRACTOR

Date

(Signature of Legally Authorized Representative
of the Contractor)

Witness

(Name and Title Printed)

G. Award

Your offer is hereby accepted. This award consummates the Contract, and the documents referenced herein.

MAINE DEPARTMENT OF TRANSPORTATION

Date

By: David A. Cole, Commissioner

Witness

SPECIAL PROVISION
SECTION 656
Temporary Soil Erosion and Water Pollution Control

Standard Specifications, Section 656 is deleted and replaced by this Special Provision.

1. All Work involving earth disturbance shall be in compliance with the Erosion and Sedimentation Control Plan as specified in the site development plans for the Maintenance Facility (PIN 14062.10) Plan Sheets 7, 8, and 11. Any work such as stock piles and laydown areas must be approved by the Maine Department of Transportation.
2. The Contractor shall comply with the requirements of the **Site Location of Development and Natural Resources Protection Act Permit** (December 27, 2005) as applicable.
3. Any costs related to the implementation and maintenance of the erosion and sedimentation control practices shall be incidental to the pay item #659.10.

SPECIAL PROVISION
SECTION 700
Materials

GENERAL STATEMENT

For all materials used in the work for which there is no specified testing by the project Inspectors or the Laboratory, the Contractor shall submit a Materials Certification Letter in accordance with Standard Specification, Section 700 –Materials - General Statement, prior to acceptance as specified in Section 107.9.4:

SPECIAL PROVISION
SECTION 815
Buildings

Description The work shall consist of the construction of the building and the associated work in accordance with the contract documents.

Within ten days after signing the Notice to Proceed, the Contractor shall submit a schedule of values for the following items. This breakdown shall show on the applications for payment. The Contractor will prepare a monthly requisition form which shall be signed by both the Inspector and Contractor's representative indicating complete agreement and approval of quantities listed. Applications shall be made on approved forms.

Site Work

The work under this item includes all labor and materials required to provide site work for the building expansion area as described in the Contract Documents. This includes but is not necessarily limited to rip-rap, grading, erosion control, excavation, SDR 26 PVC pipe and fittings, connection to existing utilities, , compaction, fill, base gravel, screened gravel, crushed stone, layout, loam and seed and cleanup.

Concrete

The work under this item includes all labor and materials required to provide the concrete work as described in the Contract Documents. This includes but is not necessarily limited to cast-in-place reinforced concrete and appurtenances. This item also includes supplying and installing the 4" diameter perforated perimeter drain pipe, crushed stone, filter fabric, and 4" PVC pipe to daylight.

Carpentry

The work under this item includes all labor and materials required to provide a complete building addition as described in the Contract Documents. This includes but is not necessarily limited to windows and doors, door operators, building construction, framing, strapping, vapor barrier, sheathing, trusses,

roofing, ridge vent, insulation, sheetrock, siding and trim, fasteners, and any other items necessary to provide a complete building addition.

The work under this item also includes all labor and materials required to provide a complete paint and finish system as called for in the Contract Documents. This also includes but is not necessarily limited to all paint, stains, polyurathanes, clean up and any other items necessary to provide a complete paint / finish system.

Plumbing and Heating

The work under this item includes all labor and materials required to complete the plumbing / heating systems for the building as called for in the Contract Documents. This includes but is not necessarily limited to floor drains, furnaces and piping, copper piping, circular pumps, thermostats, and any other items necessary to complete to plumbing and heating systems.

Electrical

The work under this item includes all labor and materials to provide a complete electrical system as described in the Contract Documents. This includes but is not necessarily limited to all exterior and interior electrical work. Included are any and all conduits (interior and exterior), wire, main service breakers, exterior and interior lighting fixtures and wiring, all circuit breakers and wiring, panel boards, meter trim, complete alarm systems and wiring, heater wiring, telephone wiring, thermostat wiring and other associated work needed to provide complete electrical systems for the building renovations and as specified.

Basis of Payment The accepted building project will be paid for at the contract lump sum price which shall be full compensation for the work indicated on the plans and as called for in the contract, including excavation, compacted fill, labor, equipment and materials for building construction, and connection of the building to utilities installed under site contract, MaineDOT PIN 14602.10 and the excavation, grading and backfill to construct the foundation and floor and other contract related incidentals necessary to complete the work .

Topsham
14062.11
Highway Maintenance Garage
December 8, 2006

SPECIAL PROVISION
PLUMBING FIXTURES & MATERIALS

- 2- toilets-Kohler k-3427 Highline elongated w/open front seats

- 1- Urinal-Kohler k-5016 Dexter w/1 gallon flushometer valve

- 2- Lavatories ADA-Kohler k2027 18 x 16 Greenwich
- 2- K-1808 Brackets
- 2- K-15198-f faucets
- 2- K-8998 chrome traps
- 2- K13885 Drains

- 1- Kitchen sink K-3352 Undertone w/K-8801 strainer
- 1- K-15173-cp Coralais faucet

- 1- Mop sink-Fiat MSB 24 x 24 mop basin
- 1- Fiat 889 cc hanger
- 1- Fiat 830A basin fitting w/vacuum breaker
- 1-Fiat 832 AA hose & bracket

- 2- ADA Showers—AquaGlass Model 833941 equipped with Delta & Alson's fittings & chrome curtain rods.

- 2- Zurn 2" cast iron floor drains w/bronze strainer & nickel finish
- 2- floor drain trap primers
- 1- Zurn cast iron 4" cleanout floor cover bronze

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DIVISION 13

PRE-ENGINEERED METAL BUILDING SYSTEM

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SECTION 13
PRE-ENGINEERED METAL BUILDING SYSTEM

PART 1 GENERAL

1.01 WORK INCLUDED

A. This section covers the work necessary to design, furnish, coordinate the details and construction with the concrete foundations, and install, complete, the prefabricated metal building specified herein.

1.02 GENERAL

A. Like items provided hereunder shall be the end products of one manufacturer in order to achieve standardization for appearance, operation, maintenance, spare parts, and manufacturer's service.

B. See CONDITIONS OF THE CONTRACT and Division 1, GENERAL REQUIREMENTS, which contain information and requirements that apply to the work specified herein and are mandatory for this project.

1.03 STANDARDS

A. Meet design, fabrication, and erection requirements specified herein and as applicable in following documents:

Structural Steel for Buildings".

2. AISI "Specification for the Design of Light-Gauge Cold Formed Steel Structural Members".

3. AISI "Specification for the Design of Cold-Formed Steel Structural Members".

4. AISC "Code of Standard Practice for Steel Buildings and Bridges".

5. MBMA "Metal Building Systems Manual".

6. Steel Door Institute.

7. Architectural Aluminum Manufacturers Association.

8. Applicable sections of American Welding Society's "Structural Welding Code"

AWS D1.1 relating to welding procedures.

9. International Building Code

1.04 SUBMITTALS

A. Submittals shall be made in accordance with Section SUBMITTALS in Division 1, GENERAL REQUIREMENTS. In addition, the following specific information shall be provided:

1. Product Data:

a. Manufacturer's Standard Details and Structural Calculations: Clearly mark those portions that apply to specific project and those parts that do not apply.

b. Manufacturer's Literature and Technical Data:

Indicate deviations from Drawings or Specifications required for complete installation of proposed prefabricated metal building.

c. Painting system: Specifications including paint manufacturer's name, product trade-name, and preparation for shop and field coats.

2. Shop Drawings:

a. Show materials, components (including doors and other accessories), finishes, fastenings, method of joining, sealants, and structural calculations to include as a minimum these Drawings:

1) Foundations and Footings: Dimensions: Revised as necessary from that shown on Contract Drawings.

Details of Anchorages: Show coordination with building's foundation requirements.

Anchor Bolt Plan: Anchor bolt, shear angle, and baseplate details, including all sizes and dimensions.

2) Building Roof Plan: Show size and location of structural members and bracing.

3) Elevations and Rigid Frame details: With building elevations, show size and location of wall structural members, bracing, and structural wind columns as required.

4) Calculations: Complete structural stress and deflection analysis of structural components and connections; consider prying action of bolts should proposed design use bolted moment-resistant connections in main frames.

5) Doors, Other Openings, and Accessories: Provide details.

3. Samples:

a. Color Samples: Submit for components requiring color selection.

4. Quality Control Submittals:

a. Installation by Specialist:

1) Documentation of past 5 years' experience record for erection of specified manufacturers' prefabricated metal buildings or equal, to include project name, location, type and date completed, building manufacturer and owner's contact person.

2) Certification of licensing by manufacturer.

b. Certification of Compliance: By manufacturer certifying product compliance with requirements specified herein.

c. Manufacturer's Written Instructions: Shipping, handling, storage, protection and erection or installation of building or components.

d. Manufacturer's written standards for manufacturing.

e. Manufacturer's certification or proof of current membership in Metal Building Manufacturer's Association (MBMA).

5. Contract Closeout Submittal:

a. Manufacturer's certification of proper installation.

b. Operations and Maintenance Manual.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Complete fabrication and prepare for shipment knocked down, including necessary crating or bundling.

B. Ship in accordance with manufacturer's instructions.

C. Store, handle, and protect building components, prior to and during erection or installation, in accordance with manufacturer's written instructions, as approved.

1.06 WARRANTY

A. Provide extended warranties for manufacturer's standard paint film as specified below:

1. Paint film on Roof Panels: Will not crack, check, blister, peel, flake, chip, or lose adhesion for a period of 20 years from date of final acceptance, under normal weather and atmospheric conditions at the project site; and

2. Paint film on Wall Panels: Will not:

a. Chalk in excess of ASTM D659, No. 8 rating, within 20 years from date of final acceptance.

b. Fade more than 5 NBS units within 10 years from the shipment date.

- c. Crack, check, blister, peel, flake, chip, or lose adhesion within 20 years from date of final acceptance, under normal weather and atmospheric conditions at the project site.
- B. The plant where the building components are manufactured shall be certified by AISC for Category MB Metal Buildings.

PRODUCTS

PART 2

2.01 GENERAL

- A. The use of the manufacturer's name and model or catalog number is for the purpose of establishing the standard of quality and general configuration desired only. Other manufacturer's equipment will be considered in accordance with the General Conditions.
- B. Provide manufacturer's standard components as required, unless otherwise specified.

2.02 DESIGN LOADS

Description Load

- A. Steel Building Own dead load
- B. Roof Snow Load 60 psf (pounds per square foot)
- C. Design Wind Load 98 mph, Exposure B, importance factor 1.0
- D. Earthquake Load Seismic Zone 2
- E. Design roof system including support framing, roof panels, and fasteners for uplift wind loads to meet requirements of the BOCA National Building Code/1999.
- F. No live load or snow load reductions are allowed.

2.03 MANUFACTURERS

- A. Varco-Pruden Metal Building Systems, Pine Bluff, AR.
- B. Butler Building Systems, Galesburg, IL.
- C. A & S Building Systems, Inc., Caryville, Tenn.
- D. Or equal.

2.04 BUILDING DESCRIPTION

- A. Framing System: Steel Frame.
- B. Column Locations: 20' o.c. mm. spacing, see plans.
- C. Minimum Roof Slope: 1/2": 12"
- D. Bracing: As required by the manufacturer. At minimum, provide one braced wall bay, brace the corresponding roof bay, and provide wind columns at all

column locations in the wall containing multiple vehicle doors.

E. Interior Clear Height: 24 Feet.

F. Roof Panels:

1. Exterior: Standing seam.
2. Interior: Smooth steel.

G. Wall Panels:

1. Exterior: Ribbed steel.
2. Interior Smooth steel.

H. Insulation: Encapsulated between panels.

2.05 FOUNDATION AND FOOTINGS

A. Concrete Work: As specified in Division 3, Concrete.

B. Anchor Bolts: As required by building manufacturer and building designer.

2.06 FRAMING

A. Structural:

1. Steel: ASTM A36 minimum.
2. Factory Primer: Compatible with finish coat as specified herein.

B. Wall Openings:

1. Stiffen with flange channels as provided by building manufacturer.
2. Provide accessory clips as required.

2.07 PANELS .GENERAL

A. Ribbed steel panel construction (exterior).

B. Smooth steel panel construction (interior).

C. Material:

1. Galvanized steel with roll-formed corrugations for structural stiffness and appearance.
2. ASTM A525.
3. Federal Specification QQ-SS-775A, Type 1, Class D.

D. Finish:

1. Factory-applied baked enamel.

2. Color:

- a. Interior: To match glazed concrete masonry units.
- b. Exterior: Siding on top and trim is to be Moss Green in color siding on bottom is to be Dark Green, as approved by the Maine Department of Transportation. Roof is to be Dark Green in color, as approved by the Maine Department of Transportation. Overhead doors are to be white. Manufacturer's as shown on the exterior finish schedule.

E. Panel Design: Expansion and contraction capability for ambient temperature range of 120 degrees F without buckling, opening of joints, or other detrimental effects.

F. Wall Panels, 26-gauge:

1. Insulated.
2. One-piece from base to building eave or door guide channel with factory-cut openings.
3. Major exterior and minor interior face corrugations.

G. Roof Panels. 24-gauge:

1. Insulated.

2. Type: Standing lock seam.
3. One-piece from eave to ridge except factory-punched penetrations at cave structural.
4. Maximum length to minimize endlaps with major corrugations along panel sides.
5. Provide thermal spacer blocks over purlins.

H. Sidelaps: Minimum one full corrugation, caulked and fastened as follows:

1. Wall Panels: Self-tapping screws.
2. Roof Panels: Folded lock seam.
1. endlaps: 6 inches minimum.

J. Panel Joints: Self-sealing.

K. Frame Connections: Provide panel-to-panel and panel-to-structural connections with self-tapping screws; movable clip folded into lock seam; maintain weathertight seal.

L. Roof Ridge Panels:

1. Same configuration as roof panels.
2. One-piece factory-formed to fit roof slope and match roof.
3. Extend beyond first purlin from centerline of building.

M. Closure Sections: Provide to seal building corners, gables, and other panel intersections.

N. Insulation: Flame spread less than **25**; ASTM E84.

2.08 TRANSLUCENT SKYLIGHT PANELS N/A

2.09 METAL BUILDING BLANKET INSULATION

A. As specified in Outline Specification.

B. Thickness: (Walls) 6-1/4 inch R19 or better.

(Roof) 6-1/4 inch R19+4 inch Ru zTotal R30

C. Vapor Barrier:

1. 2-mil thick white vinyl vapor barrier backing.
 2. Water Vapor Permeance Rating: 0.1 maximum; ASTM E96, Procedure A.
- D. Application Area: Underside of roof panels and inside of wall panels.

2.10 INSULATED METAL DOORS AND FRAMES

A. See outline Specification.

2.11 ROLL-UP DOOR

A. See Outline Specification.

2.12 GLAZING N/A

2.13 RIDGE VENTILATOR

A. Mount in base, marked to match roof slope at peak of building, complete with

all-weather guards, rain caps, damper, and operator.
B. Factory assemble to form weathertight unit.

2.14 FIXED LOUVERS

A. Per manufacturer's recommendations.

2.15 HEATING

A. See Outline Specification.

2.16 TRIM

A. Factory-formed and factory-painted.

B. Include ridge cap, rake trim, simple eave trim, panel side trim, corner trim, door trim, and other trim as necessary.

2.17 MISCELLANEOUS

A. Provide panel fasteners, weather sealing compounds, roofjacks, roof curbs, bolts, nuts, gaskets, and other necessary components in accordance with manufacturer's instructions.

2.18 PAINTING

A. See interior and exterior finish schedule.

2.19 FABRICATION

A. Factory fabricate to manufacturers written standards and AISC Specification for the Design, Fabrication, and Erection of Structural Steel Buildings, and as specified herein.

B. Building Parts: Accurate and true to dimension to facilitate building erection.

2.20 MANSARD

A. Mansard to be 4211 high.

B. Mansard to be insulated around internal gutter at eaves.

2.21 INTERNAL GUTTER

A. Internal gutter to be uninsulated on bottom and side toward interior of

building.

B. Internal gutters to be connected to 3 6" PVC down spouts.

PART 3 EXECUTION

3.01 PREPARATION

A. Prior to performing work of this section, verify that work of other trades, as applicable, is complete for commencement of installation.

B. Obtain manufacturer's written instructions before commencing erection or installation.

3.02 FOUNDATION AND FOOTINGS

A. Provide as shown and as modified by building manufacturer selected.

B. Floor Slab: Minimum thickness 8".

C. Concrete Work: As specified in Division 3.

D. Anchor Bolts: Provided by building manufacturer and installed per building manufacturer's instructions and in accordance with these Specifications.

3.03 BUILDING ERECTION

A. In accordance with manufacturer's standards.

B. Structural Parts: No field cutting permitted.

C. Panels or Accessories:

1. Field Cutting or Patching: Not permitted unless otherwise approved by Engineer.

2. Approved Field Modification: Perform in manner not to impair appearance, weather tightness, or structural quality of material or structure.

D. Insulation: As specified in 2.09.

E. Insulated Metal Doors and Frames: As specified in 0810 DOORS AND FRAMES.

F. Roll-up Doors: As specified in 0810.

G. Electrical System: As specified in Division 16.

H. Field Painting: As per the Interior and Exterior Finish Schedule.

I. Replace or Restore Following to Original Condition:

1. Surface finishes damaged prior to or during erection.

2. Components where material and workmanship does not meet specified requirements.

J. Minor Scratches, Dents, and Holes: Repair and paint with similar enamel of thickness and color to match original coating only if allowed by the Engineer.

3.04 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Furnish a minimum of 3 days of manufacturer's representative at jobsite for installation assistance, inspection, and certification of installation.

SECTION 0101
SUMMARY OF WORK

0101.01 LOCATION OF WORK

All work under this contract is located in TOPSHAM, MAINE.

0101.02 WORK UNDER THIS CONTRACT

Work under this contract is generally described as the construction of the MaineDOT TOPSHAM HIGHWAY MAINTENANCE GARAGE

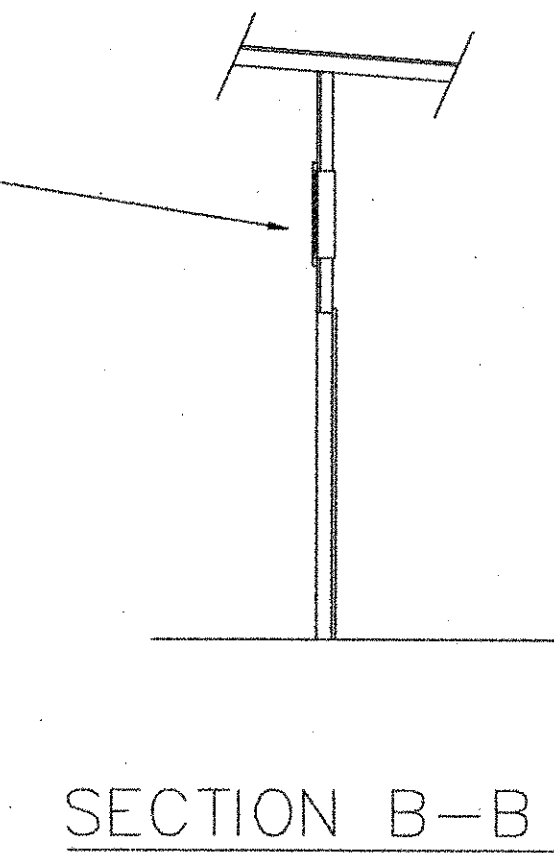
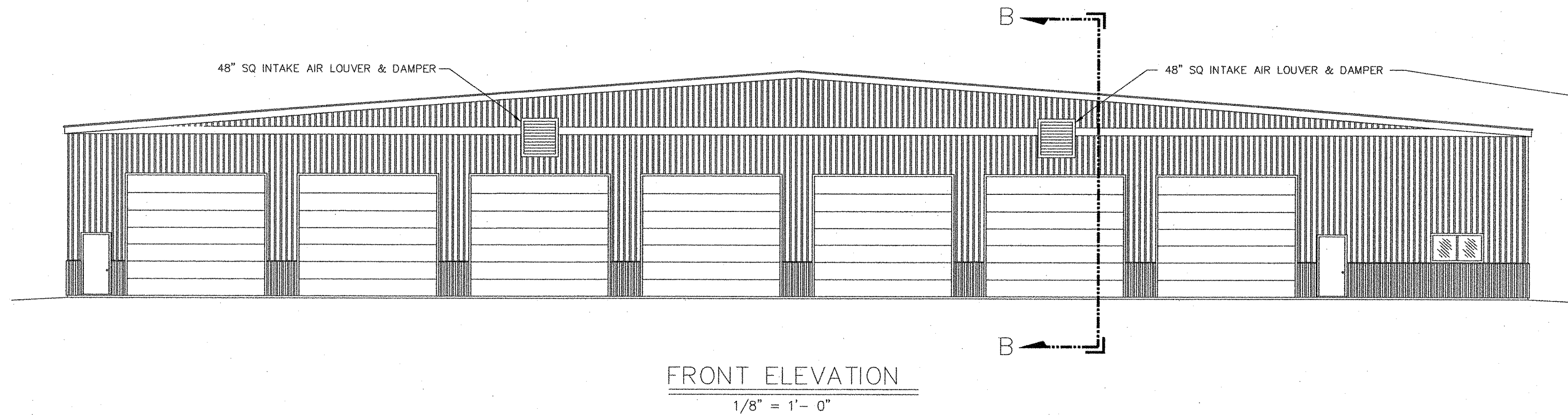
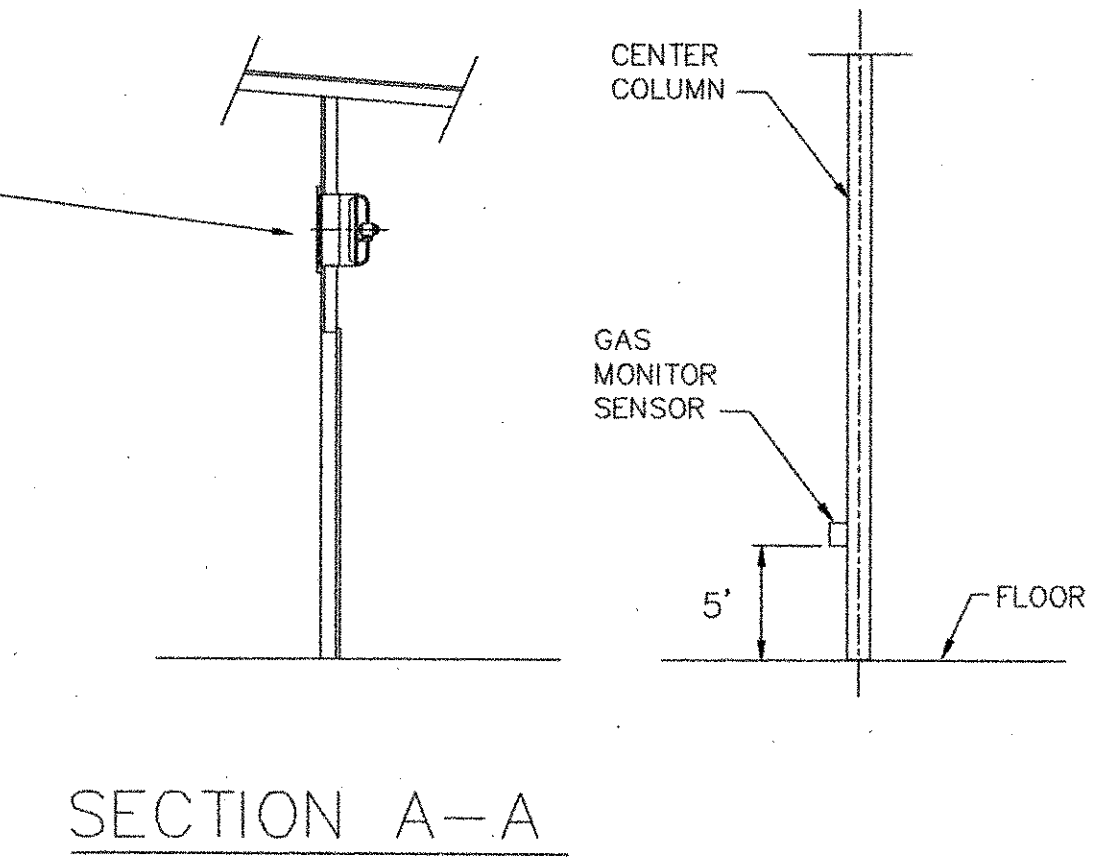
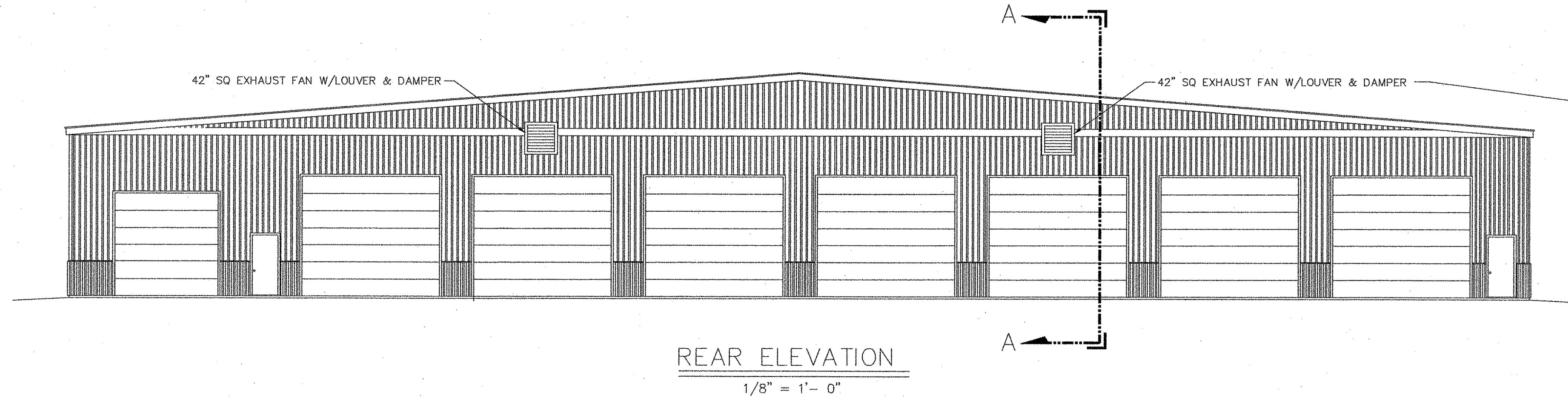
0101.03 ABBREVIATIONS AND SYMBOLS

The following abbreviations may be used in these specifications:

AASHO	-American Association of State Highway Officials
ANSI	-American National Standards Institute
AWWA	-American Water Works Association
ACI	-American Concrete Institute
ASTM	-American Society of Testing Material
AISC	-American Institute of Steel Construction
ASCE	-American Society of Civil Engineers
CPI	-Clay Pipe Institute

Where reference is made to a publication by one of the above mentioned or other association, it is understood that the latest revisions thereof shall apply unless otherwise designated.

In case of conflict, this specification will take precedence over the above references.

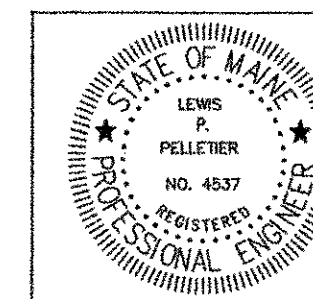


EQUIPMENT SPECIFICATIONS:

- INDUSTRIAL EXHAUST FAN (QTY. 2)
CARNES 42" SIDEWALL PROP EXHAUST FAN
1 1/2 HP, 12,700 CFM, WITH MOTORIZED DAMPER
- INDUSTRIAL INTAKE DAMPER (QTY. 2)
CARNES 48" SIDEWALL INTAKE LOUVER & DAMPER
WITH MOTORIZED DAMPER
- FANS ARE CONTROLLED BY SPECIALTY SENSORS
GAS MONITOR/TRANSMITTER GMT SERIES
TO BE LOCATED IN THE CENTER OF THE BUILDING
AT AN ELEVATION 5' ABOVE THE FLOOR.

NOTE:

1. FANS ARE LOCATED AS SHOWN IN THE REAR ELEVATION OF THE BUILDING AND IN SECTION A-A.



NO	DATE	DESCRIPTION

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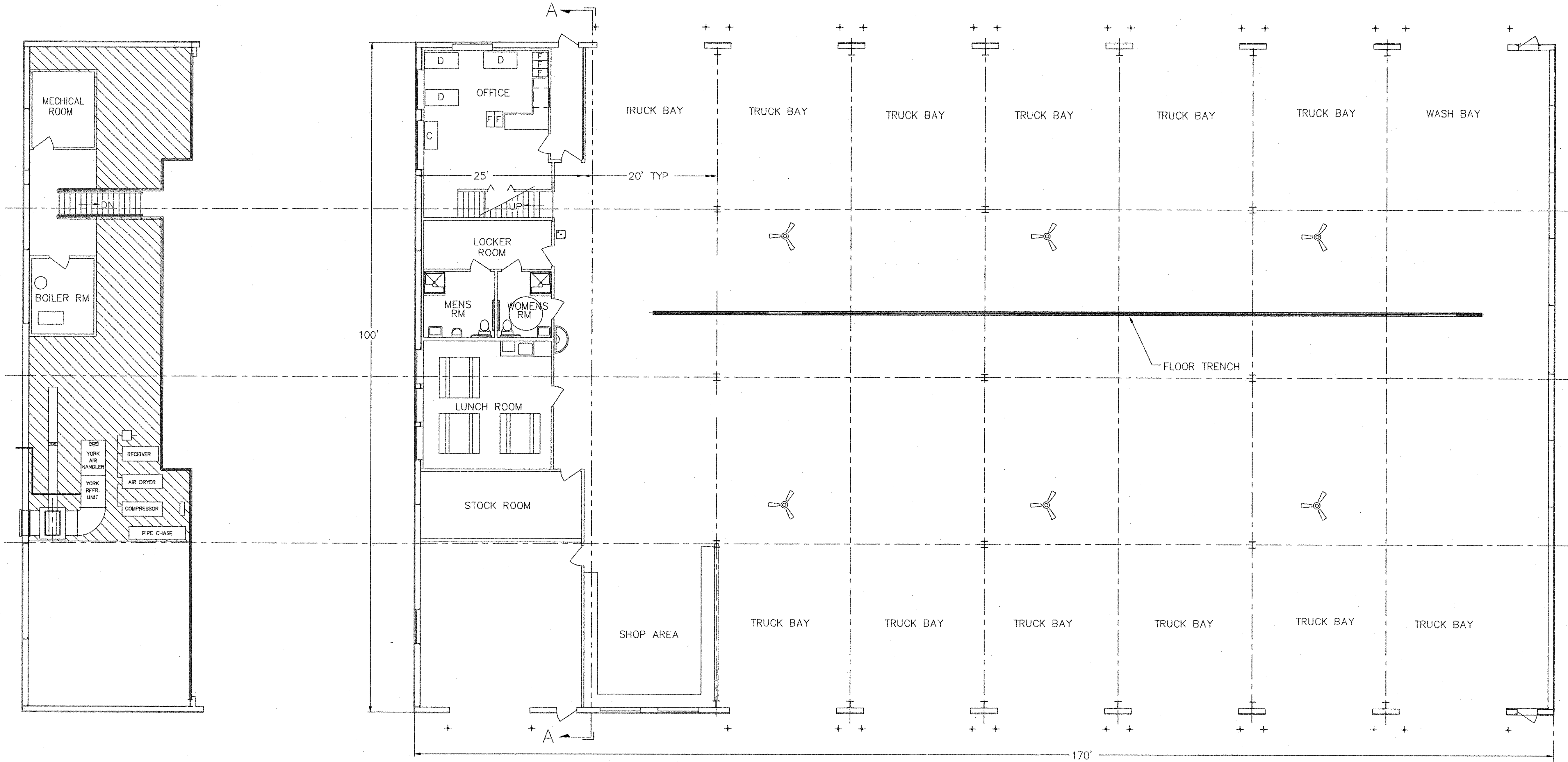
CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

ENGINEERING

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

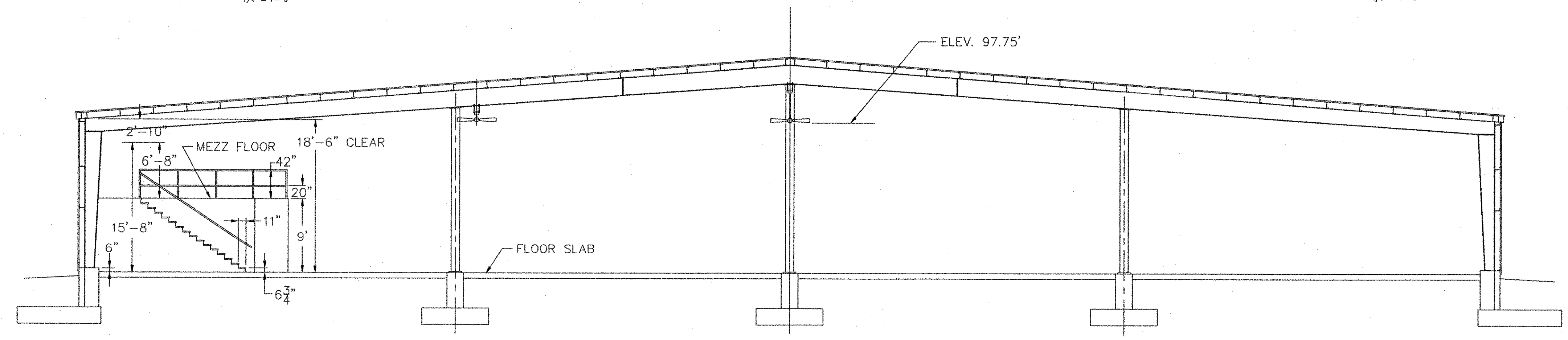
TITLE
BUILDING EXHAUST PLAN

DATE 11-01-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO V-3
BY L P Pelletier	CHKD		



SECOND FLOOR PLAN
1/4" = 1'-0"

FIRST FLOOR PLAN
1/8" = 1'-0"



SECTION A-A
1/8" = 1'-0"

EQUIPMENT SPECIFICATIONS:

INDUSTRIAL FAN
NUTONE PROLINE INDUSTRIAL FAN
MODEL PFC-56BWN, 56" T9 WITH 36" EXTENSION

NOTE:

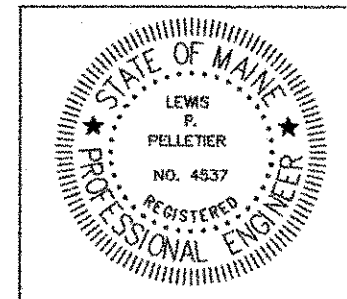
1. FANS ARE LOCATED IN THE CENTER OF THE BUILDING AT ELEVATION SHOWN IN SECTION VIEW.

PIN 14062.11

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TOPSHAM, MAINE

TITLE
CIRCULATION FAN PLAN



DATE	SCALE	JOB NO	DRAWING NO
05-19-06	AS SHOWN		
BY	CHKD	LP ENG 300-01-06	V-2
L. P. Pelletier			

EQUIPMENT SPECIFICATIONS:

AIR HANDLERS (1):
 YORK MODEL # N4AHD20A06
 2250 RATED CFM, 208/230V-1-60, 15 AMP, 14AWG WIRE SIZE
 1FRO604 FILTER RACKS
 2TT06700406 TRANSFORMER RELAYS

COILS (2):
 YORK MODEL # G3HC060S
 58.5 MBH (41.7 SENSIBLE)

CONDENSING UNITS (1):
 YORK MODEL # H1DB060A06, 10 SEER, 5.98 KW,
 208/230-1-60, 45 AMP MOD, 8AWG WIRE SIZE
 3/8"19 LIQUID LINE, 5/8"19 SUCTION OD
 2TD08700124 ANTI CYCLE TIMER

OUTSIDE AIR:
 ONE 0871-0900 MIXING BOX BY MICROMELT (SPEC. DWG. #2)
 MODULATING ECONIMIZER W/ENTHALPY CONTROL FOR MIXING BOX
 MODEL # 1008-0100

CONTROLS:
 FIELD PROVIDE 75 VA CONTROL TRANSFORMER TO ALLOW FOR TANDEM
 OPERATION OF AIR HANDLERS. THERMOSTAT WILL BE TWO STAGE
 COOLING ONLY, YORK MODEL 2TH04701224

WELDING EXHAUST FANS:
 FANS ARE TO BE AEROVENT DIRECT DRIVE 2400 CFM TUBE AXIAL FAN
 16"19 MODEL 16L428-TABD, 2600 RPM 1HP, W/DAMPER

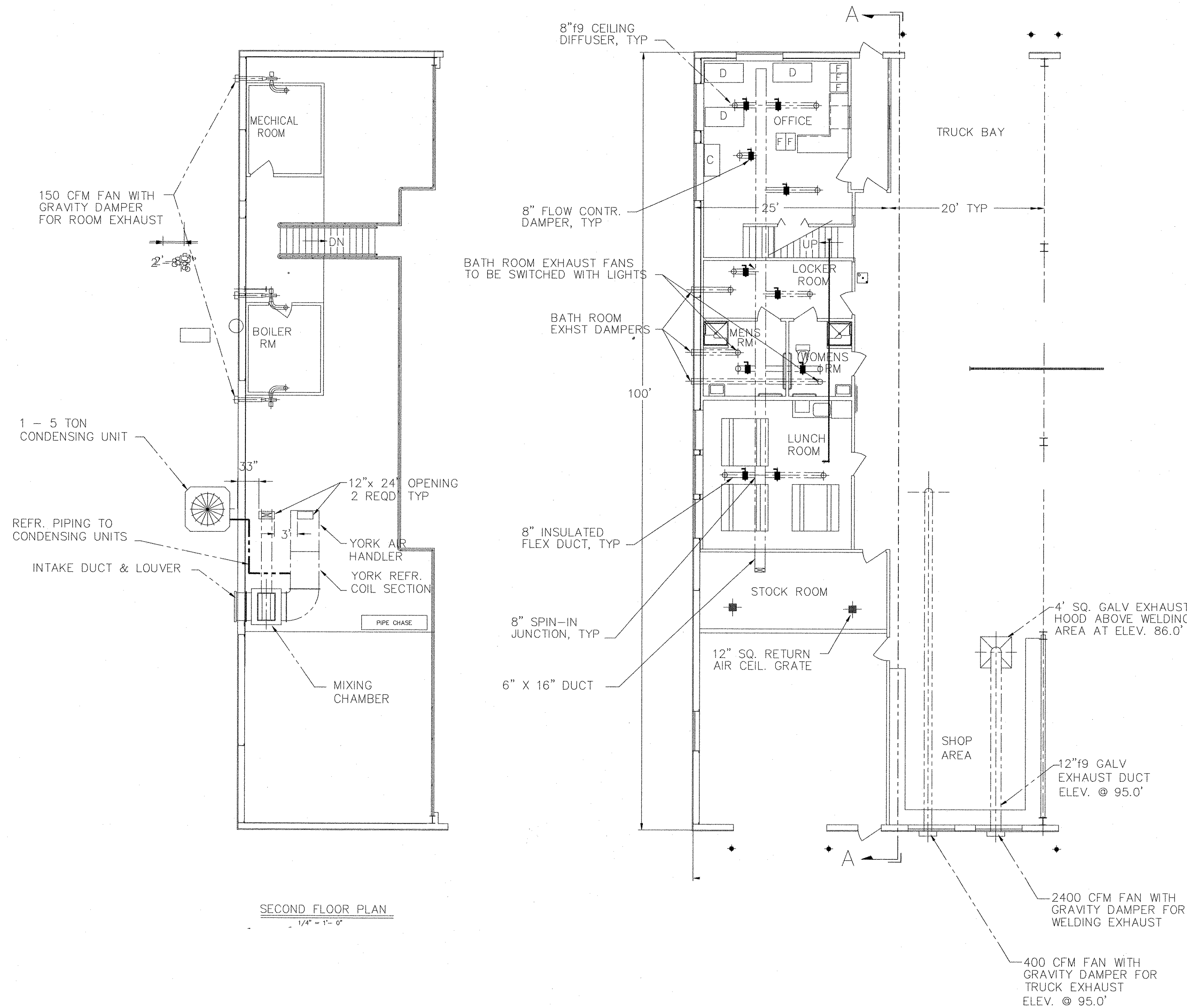
TRUCK EXHAUST FAN:
 FANS ARE TO BE AEROVENT DIRECT DRIVE 400 CFM TUBE AXIAL FAN
 12"19 MODEL 12M622, 3450 RPM, 12HP W/DAMPER

MECHANICAL & BOILER ROOM EXHAUST FAN:
 FANS ARE TO BE AEROVENT DIRECT DRIVE 150 CFM CENTRIFUGAL BLOWER
 4"19 MODEL PB8-A-14 1725 RPM, 1/4 HP W/DAMPER

BATH ROOM EXHAUST FANS:
 FANS ARE TO BE NUTONE DELUXE CEILING EXHAUST FAN
 MODEL NO. 8814 CEILING BLOWER W/ 4" DUCT SIZE.

NOTE:

- SEE SHEET V-2 FOR ELEVATION & SECTION.
- SPACE ABOVE CEILING IS TO BE USED AS A RETURN AIR PLENUM.
- 6" CONCRETE SLAB TO BE PLACED UNDER CONDENSERS.
- ALL CEILING DIFUSSERS ARE TO BE 8"19.
- CONDENSATE DRAIN FROM AIR HANDLER TO BE TRAPPED AND PIPED THRU OUTSIDE WALL AND PIPED TO GROUND.
- ALL COLD AIR SUPPLY DUCTS ARE TO BE INSULATED.
- CONDENSATE DRAIN FROM AIR HANDLER TO BE TRAPPED AND PIPED THRU OUTSIDE WALL AND PIPED TO GROUND.
- ALL INSTALLATION WORK TO BE ACCORDING TO SMACNA CODE.
- THREE TORIT DUST COLLECTORS ARE TO BE INSTALLED, TWO UNITS ARE TO BE RELOCATED FROM EXISTING GARAGE AND THE THIRD UNIT IS TO BE NEW.
- THIS DRAWING HAS BEEN PREPARED TO SHOW ONLY THE SCOPE OF WORK, AND IS INTENDED TO BE USED BY A CONTRACTOR WHO IS FAMILIAR WITH THIS TYPE OF CONSTRUCTION.
- THIS DRAWING SHALL NOT BE USED BY ANY PERSON ON ANY PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNATED HEREON.



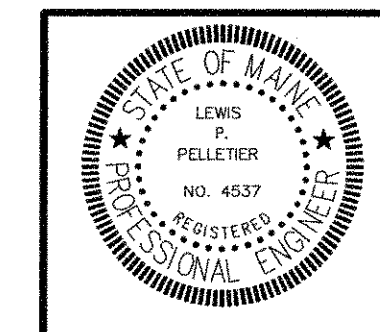
SECOND FLOOR PLAN
 1/4" = 1'-0"

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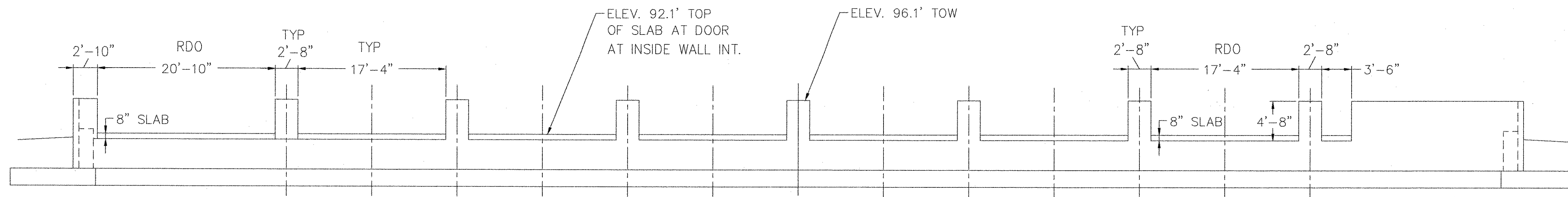
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 TOPSHAM, MAINE

TITLE
 VENTILATION PLAN

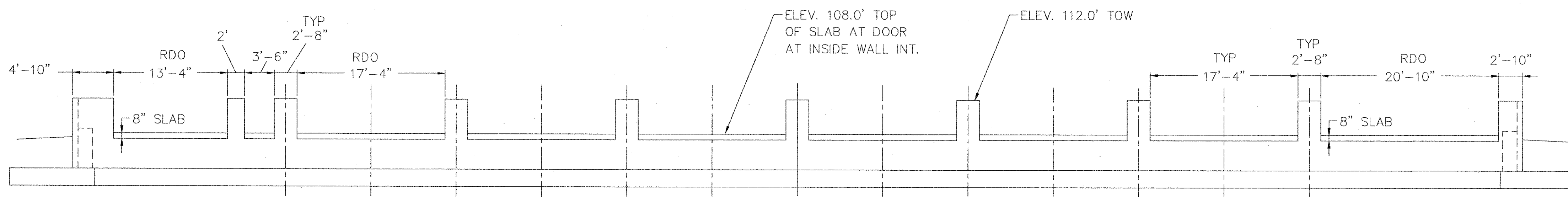


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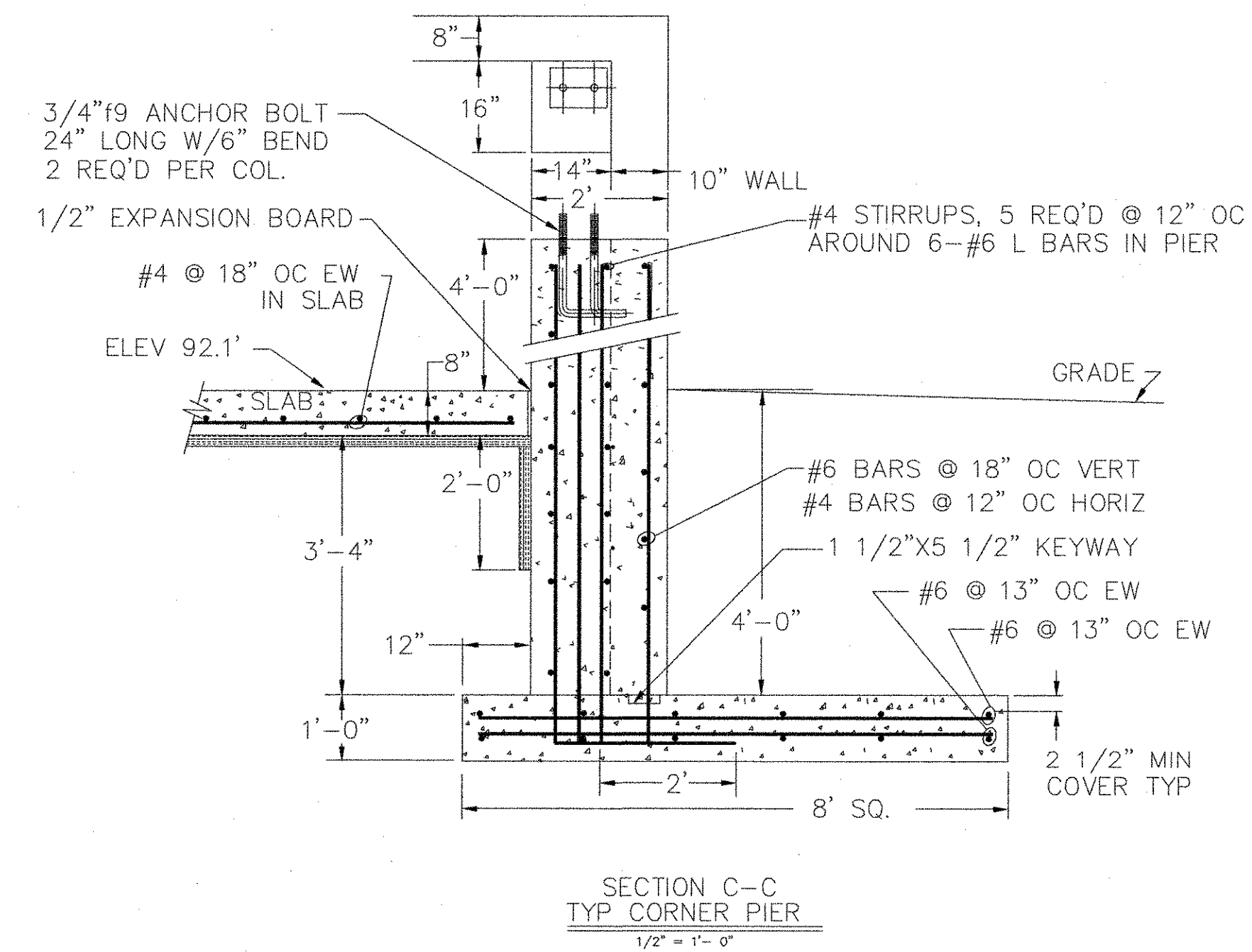
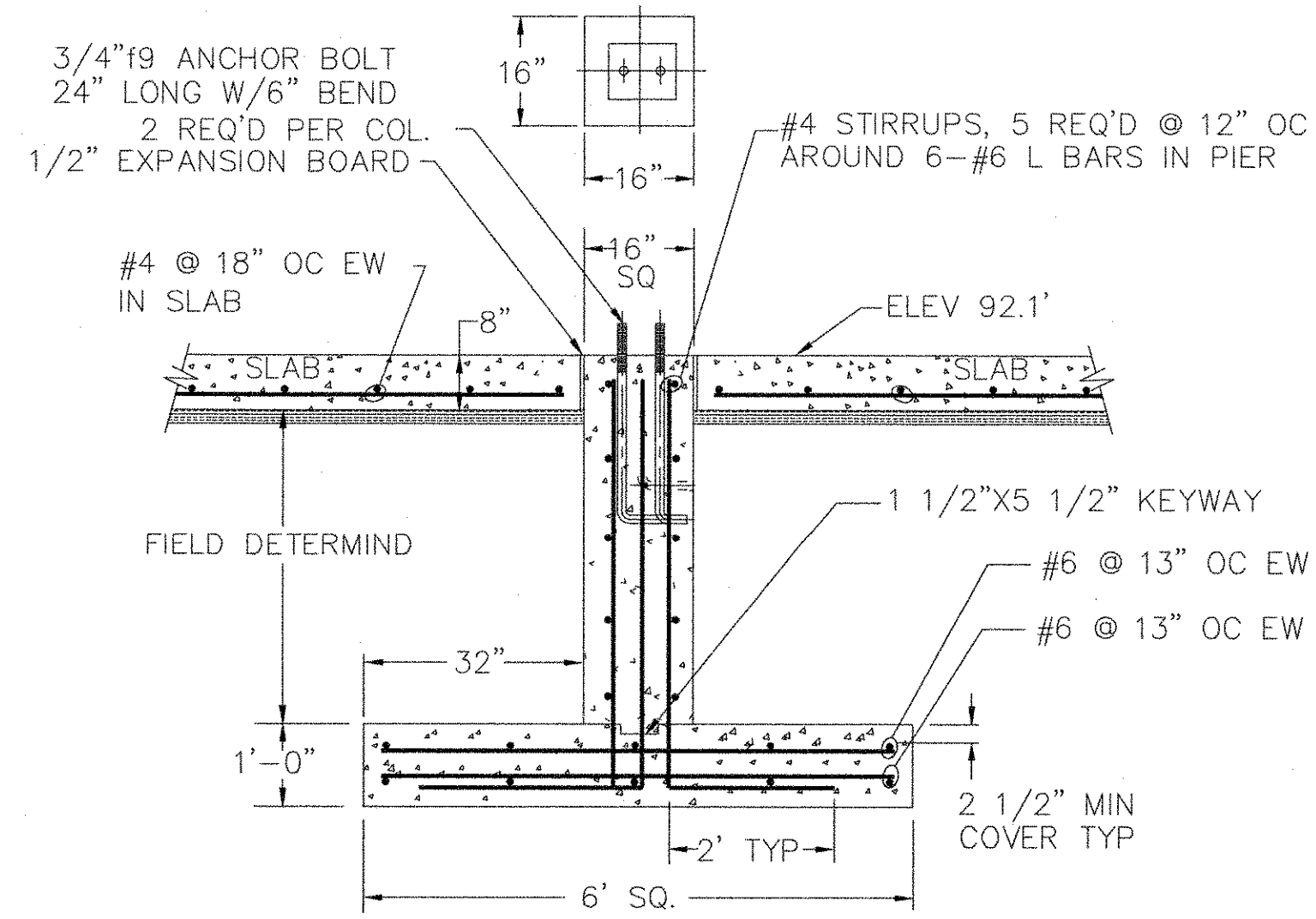
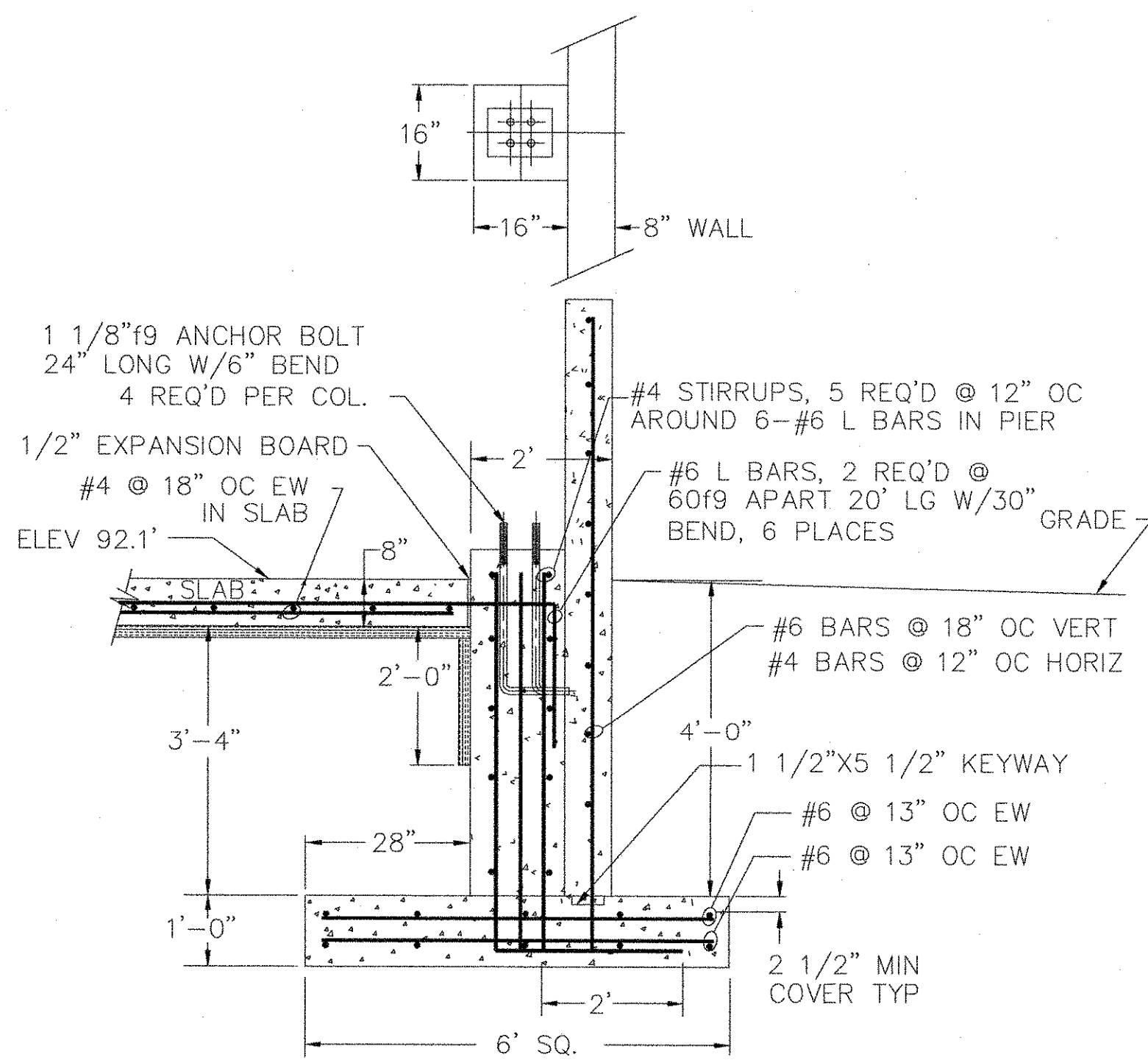
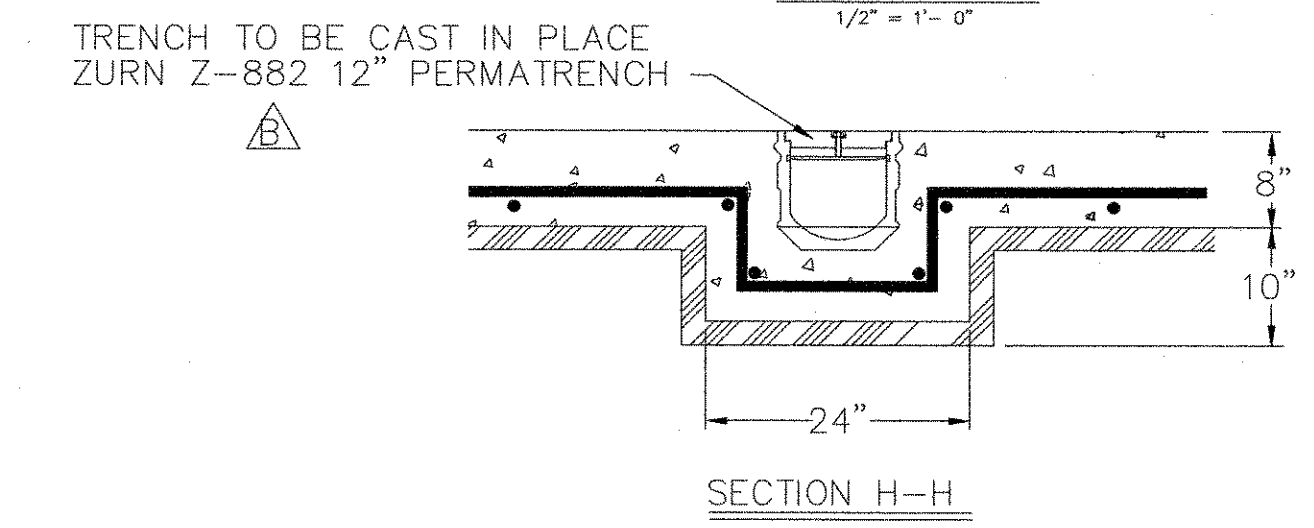
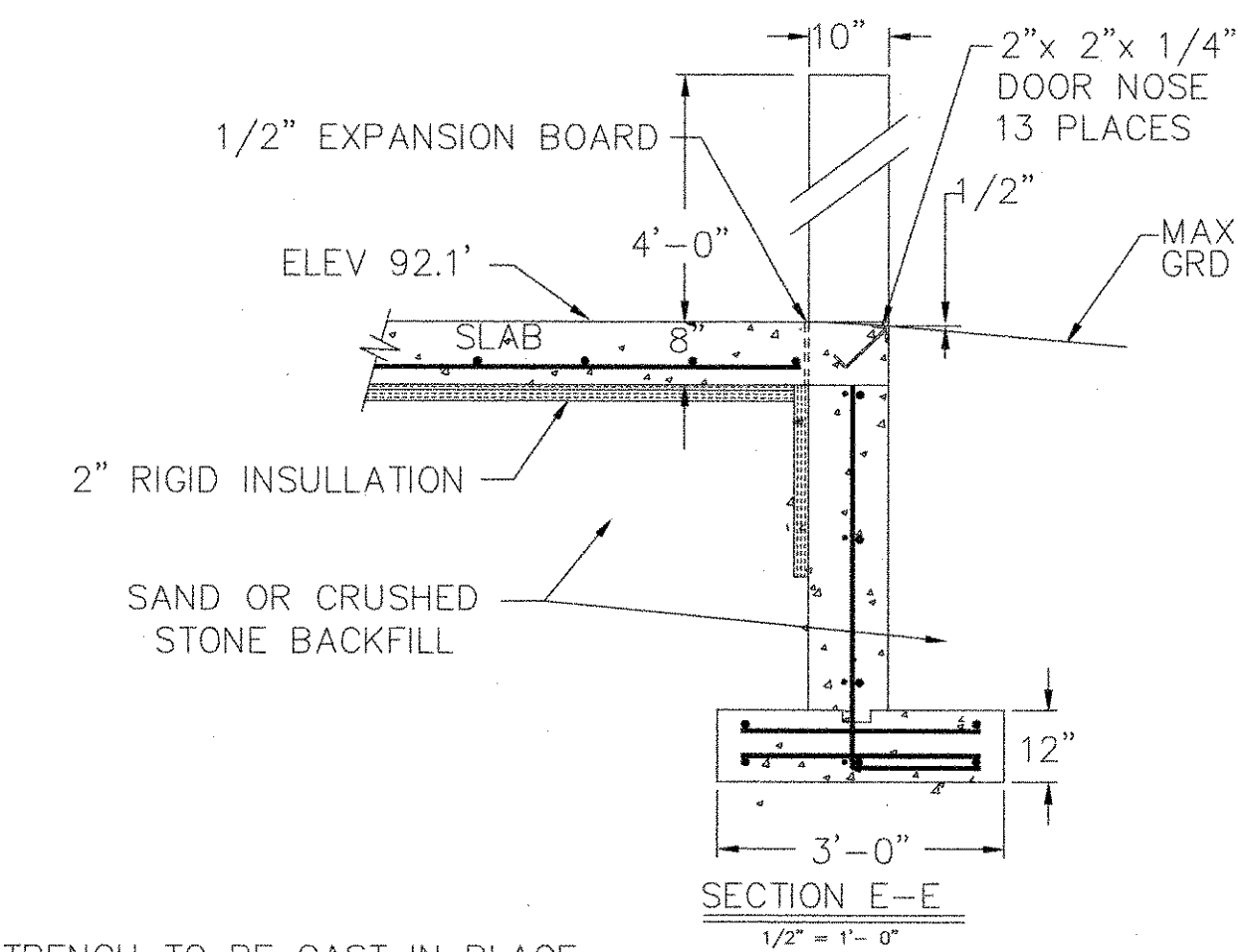
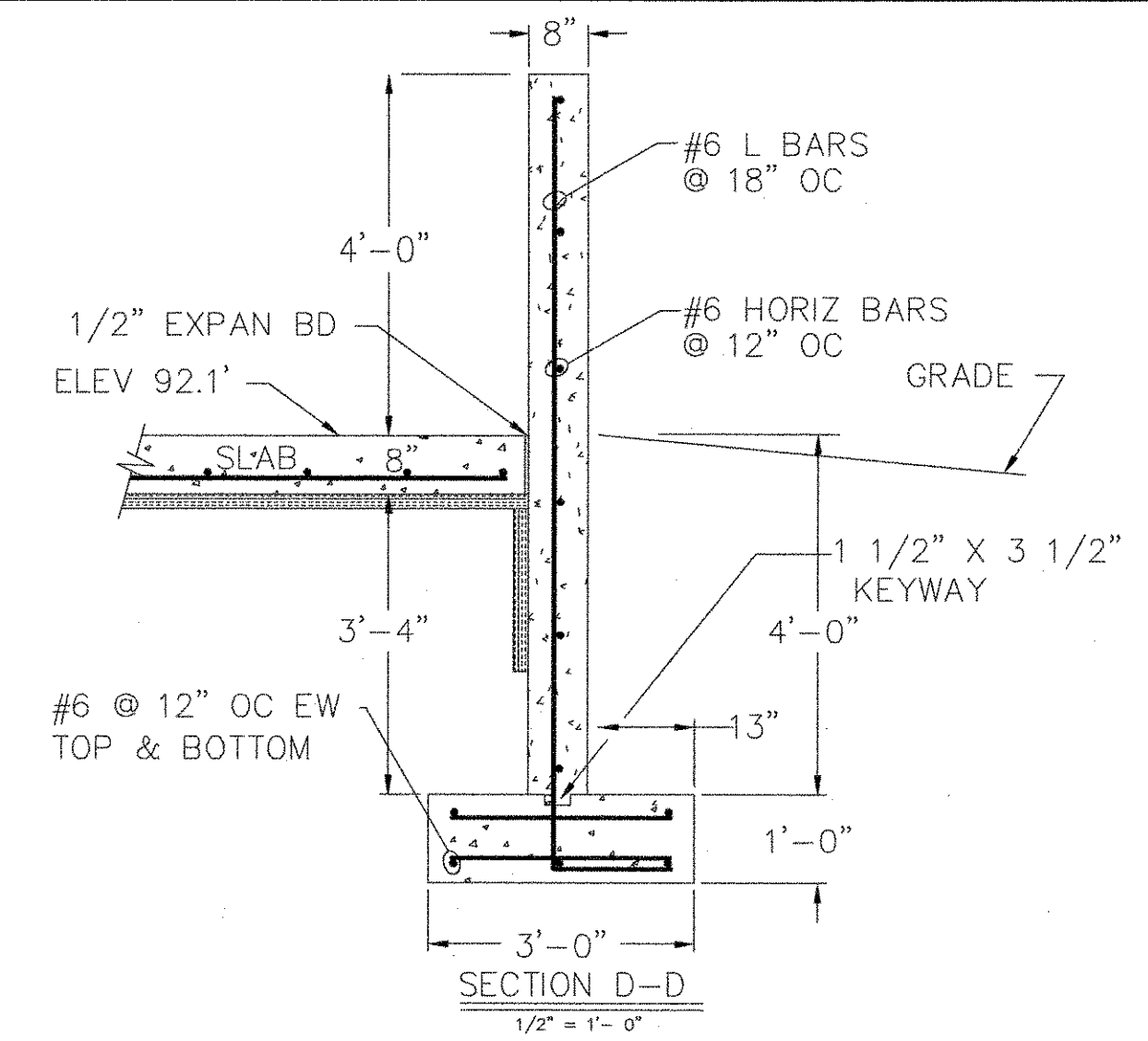
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BY L P Pelletier	CHKD		



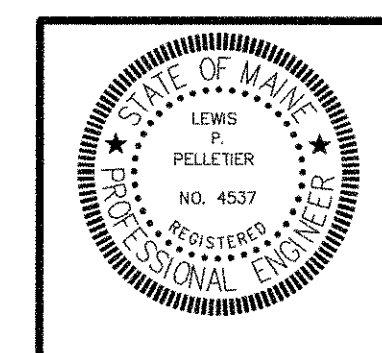
VIEW G-G
1/8" = 1'-0"



VIEW F-F
1/8" = 1'-0"



- NOTES:
1. ALL FOOTINGS FOR WALLS AND PIERS ARE TO BE PLACED ON UNDISTURBED SOIL.
 2. SAND OR CRUSHED STONE IS TO BE USED FOR ALL BACKFILL AROUND FOOTINGS AND WALLS.
 3. ALL SUBSURFACE MATERIAL ADDED UNDER FLOOR SLAB IS TO BE SAND OR CRUSHED STONE, PLACED IN 6" MAXIMUM LIFTS AND COMPACTED TO A 95% COMPACTION BEFORE ADDING NEXT LIFT.
 4. 2" OF RIGID INSULATION (THERMAX TYPE OR EQUAL) TO BE PLACED UNDER INTIRE SLAB, SEE SHEET A-8.
 5. ALL CONCRETE FOR FOOTINGS AND WALLS TO BE 4000 PSI CONCRETE.
 6. ALL CONCRETE FOR SLAB TO BE 4000 PSI CONCRETE AND SURFACE TREATED WITH HARDENER.
 7. SLAB CONTROL JOINTS ARE TO BE AT BAY LINES
 8. THE BOTTOM OF ALL OVERHEAD AND MAN DOOR ROUGH OPENINGS ARE AT TOP OF SLAB, ELEV. 92.1'



NO	DATE	DESCRIPTION
A	12-21-06	ADDED NOTE AT
A	12-08-06	REVISED SECTIONS A-A, C-C, D-D

PIN 14062.11

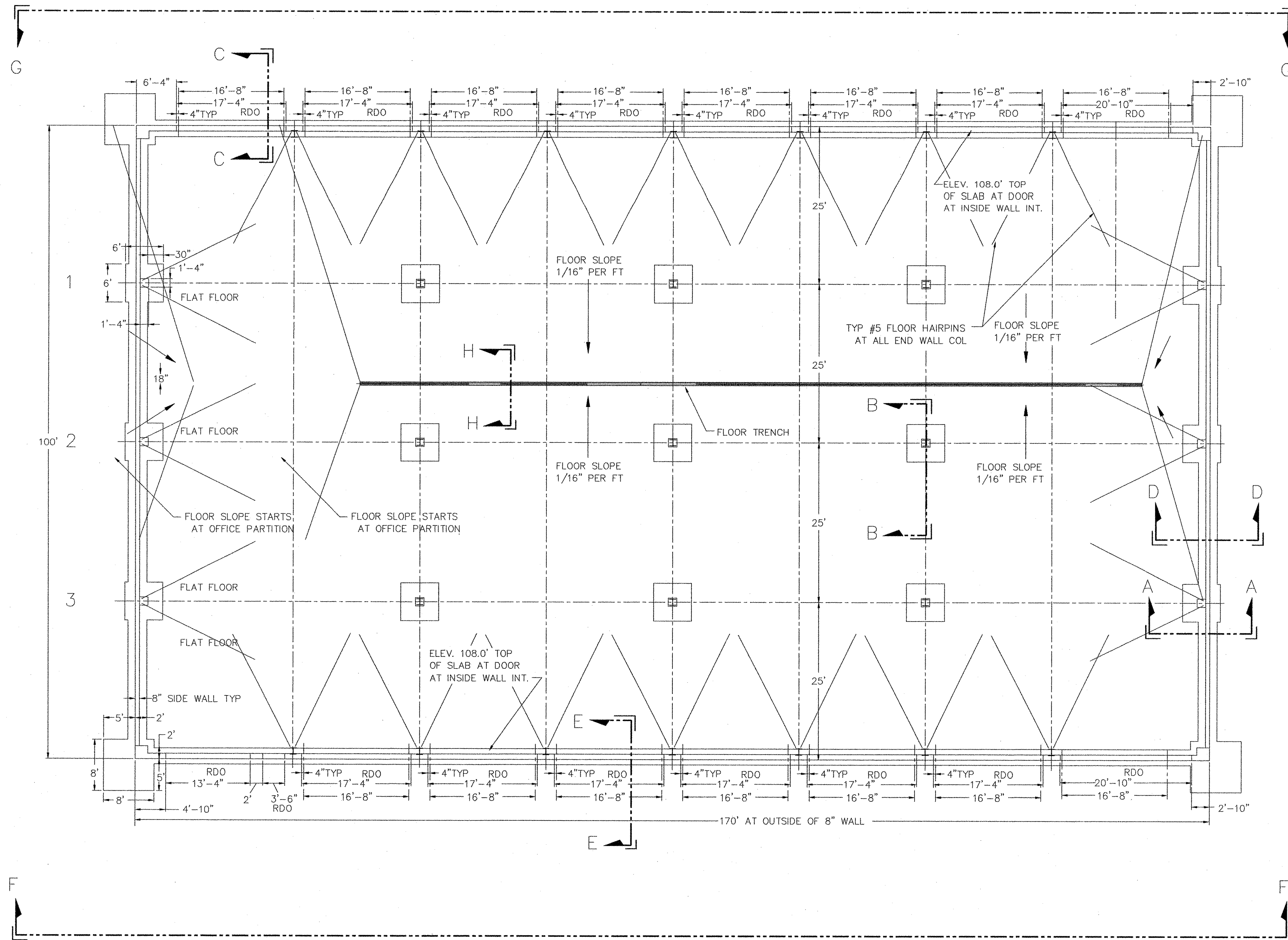
ENGINEERING

CONSULTING
1265 ALBION ROAD
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(PH & FAX) 207-873-4928

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM MAINE

TITLE
BUILDING FOUNDATION
ELEVATIONS & DETAILS

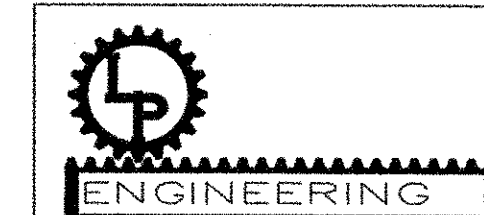
DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO S-2B
BY L P Pelletier	CHKD		



NOTES:

1. ALL FOOTINGS FOR WALLS AND PIERS ARE TO BE PLACED ON UNDISTURBED SOIL.
2. SAND OR CRUSHED STONE IS TO BE USED FOR ALL BACKFILL AROUND FOOTINGS AND WALLS.
3. ALL SUBSURFACE MATERIAL ADDED UNDER FLOOR SLAB IS TO BE SAND OR CRUSHED STONE, PLACED IN 6" MAXIMUM LIFTS AND COMPACTED TO A 95% COMPACTION BEFORE ADDING NEXT LIFT.
4. 2" OF RIDGID INSULATION (THERMAX TYPE OR EQUAL) TO BE PLACED UNDER INTIRE SLAB, SEE SHEET A-8.
5. ALL CONCRETE FOR FOOTINGS AND WALLS TO BE 4000 PSI CONCRETE.
6. ALL CONCRETE FOR SLAB TO BE 4000 PSI CONCRETE AND SURFACE TREATED WITH HARDENER.
7. SLAB CONTROL JOINTS ARE TO BE AT BAY LINES
8. THE BOTTOM OF ALL OVERHEAD AND MAN DOOR ROUGH OPENINGS ARE AT TOP OF SLAB, ELEV. 92.1"

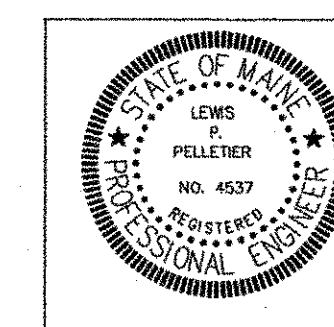
PIN 14062.11



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(PH & FAX) 207-873-4928

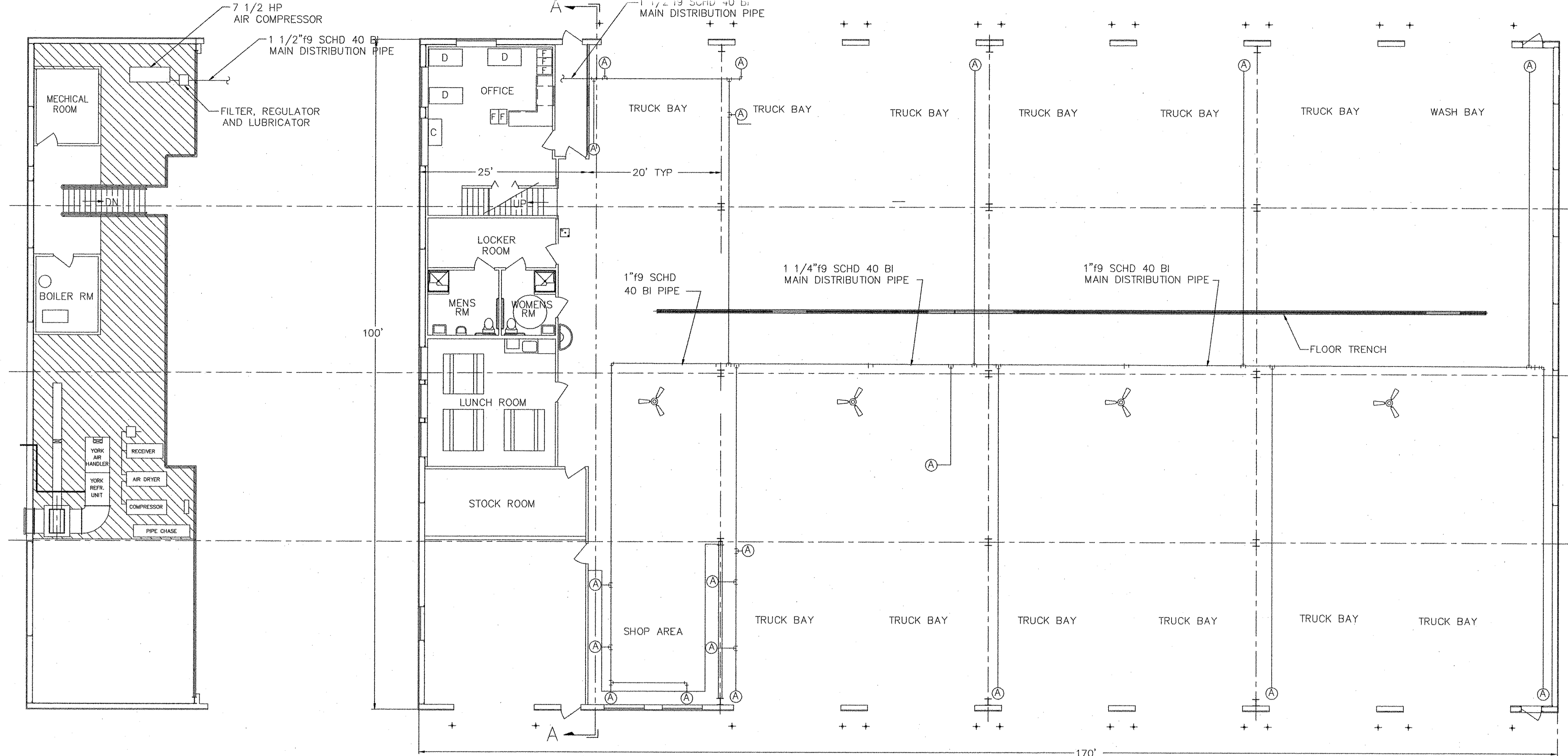
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM MAINE

TITLE
BUILDING FOUNDATION PLAN



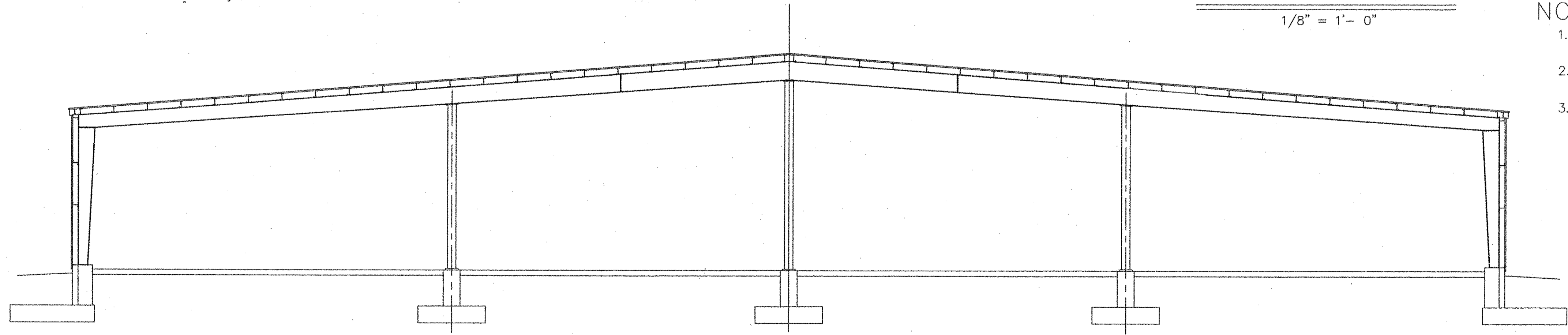
NO	DATE	DESCRIPTION

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO S-1
BY L P Pelletier	CHKD CHKD		



SECOND FLOOR PLAN
1/4" = 1'-0"

FIRST FLOOR PLAN
1/8" = 1'-0"



SECTION A-A
1/8" = 1'-0"

EQUIPMENT SPECIFICATIONS:

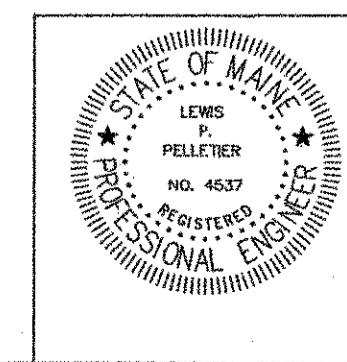
INDUSTRIAL COMPRESSOR
 INGERSOLL RAND INDUSTRIAL AIR COMPRESSOR
 MODEL 2545 7.5 HP WITH 120 GAL. HOR. RECEIVER,
 230V/1PH/60HZ ODP MOTOR, E-SERIES MOTOR STARTER
 MOUNTED AND WIRED, POST-DRAIN AUTOMATIC TIMED DRAIN
 VALVE AND LOW OIL LEVEL SWITCH.
 UNIT RATED FOR 26.6ACFM @ 175PSI

NOTE:

- AIR COMPRESSOR IS TO BE LOCATED ON THE MEZZANINE AS SHOWN IN THE PLAN AND SECTION VIEW.
- MAIN DISTRIBUTION PIPE TO BE 1 1/2" SCHD. 40 BI. AS SHOWN IN THE PLAN AND SECTION VIEW.
- BRANCH PIPING TO BE 1" SCHD. 40 BI FOR TORIT DUST COLLECTORS AND 1/2" SCHD. 40 BI FOR ALL OTHER AIR STATIONS.

LEGEND:

- (A) AIR STATION WITH QUICK DISCONNECT
- BI PIPE TEE
- BI PIPE ELBOW
- BI PIPE REDUCER



NO	DATE	DESCRIPTION

PIN 14062.11

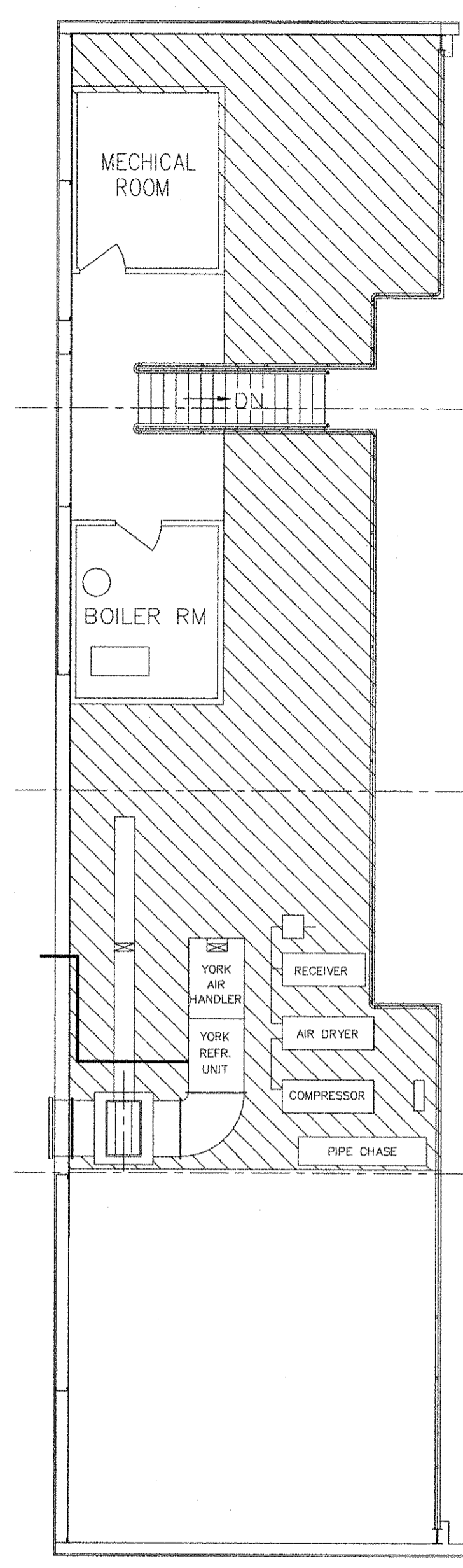
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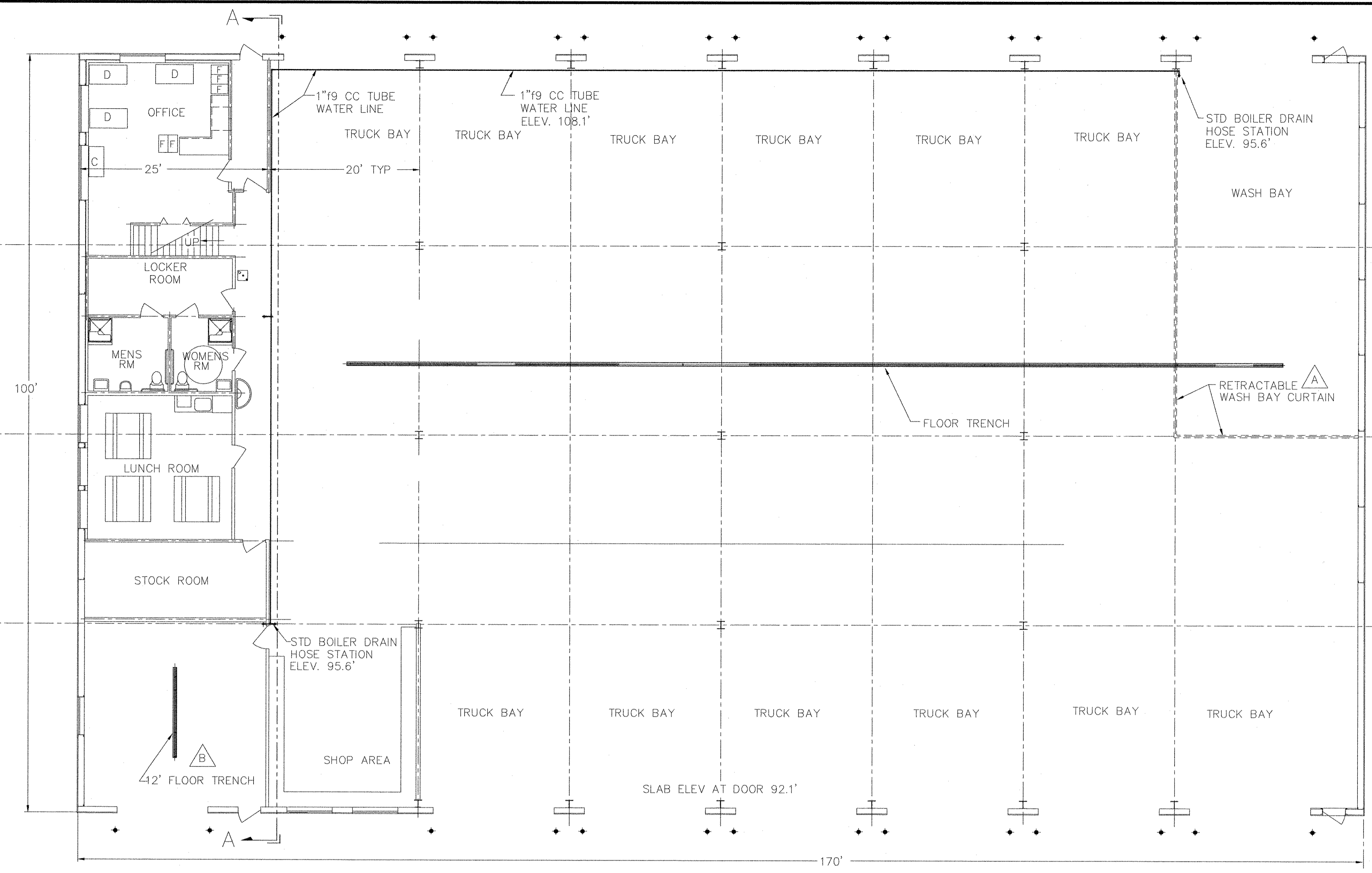
PROJ.
 TOPSHAM HIGHWAY MAINTENANCE GARAGE
 TOPSHAM, MAINE

TITLE
 PNEUMATIC PIPING PLAN

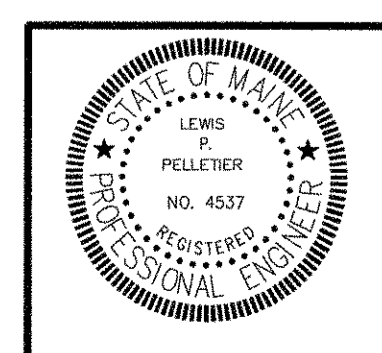
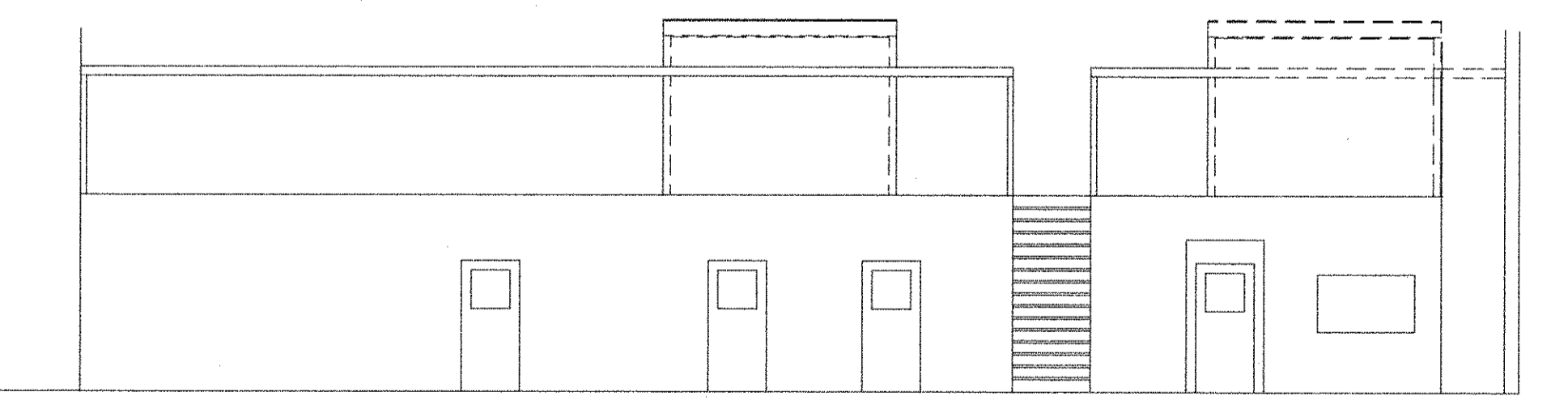
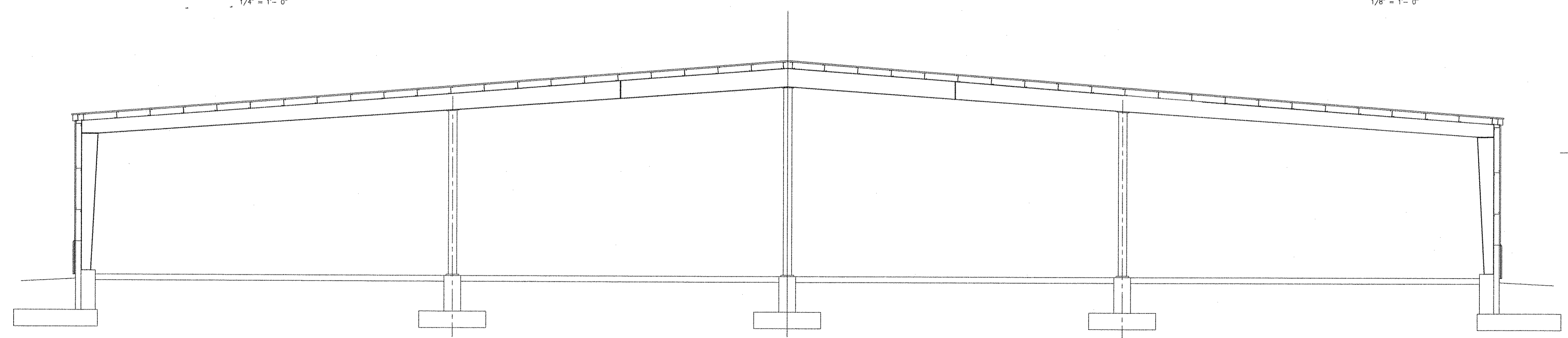
DATE 05-19-06	SCALE AS SHOWN	JOB NO. LP ENG 300-01-06	DRAWING NO. PN-1
BY L. P. Pelletier	CHKD		



SECOND FLOOR PLAN
1/4" = 1'-0"



FIRST FLOOR PLAN
1/8" = 1'-0"



NO	DATE	DESCRIPTION

PIN 14062.11

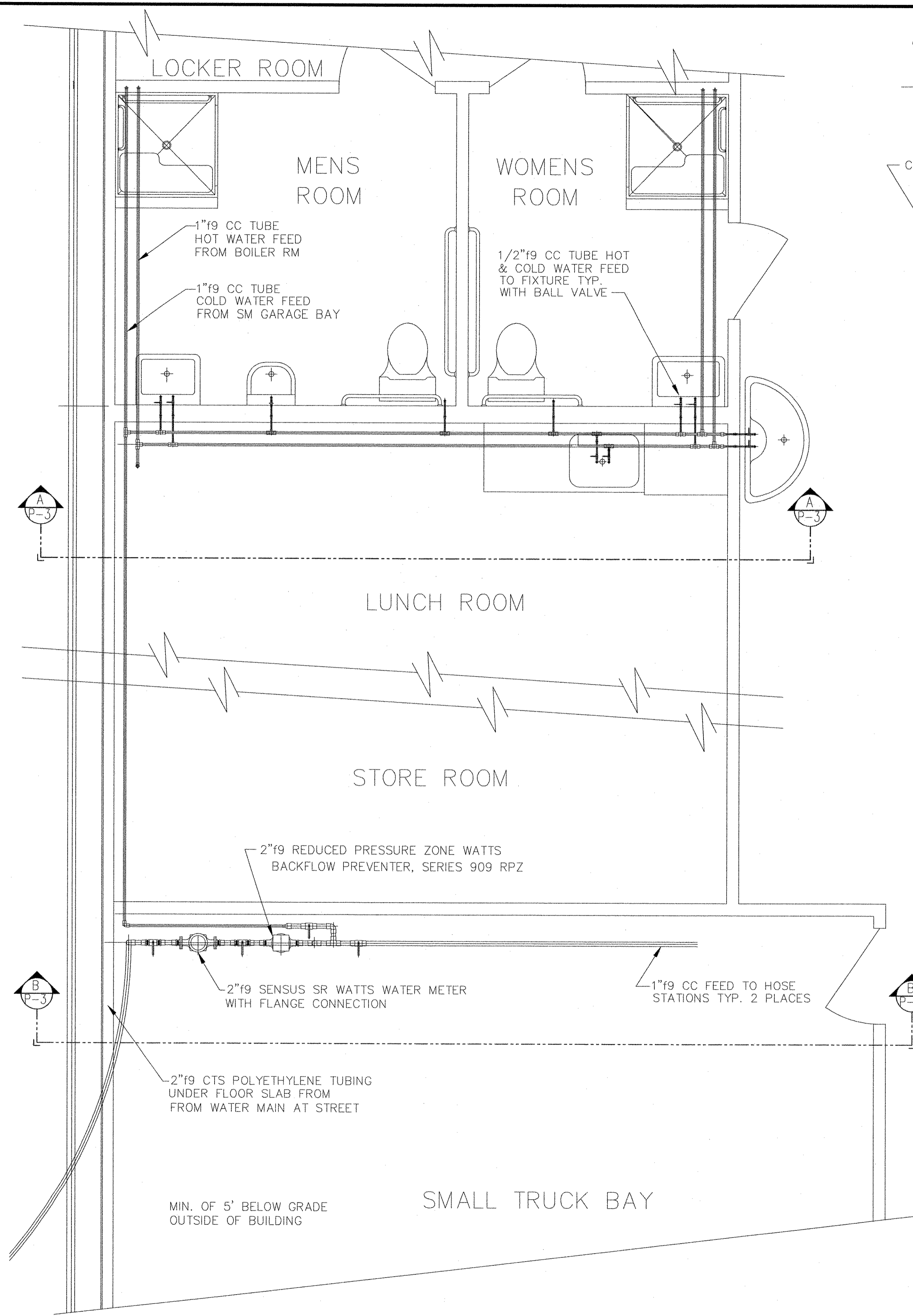
ENGINEERING

CONSULTING
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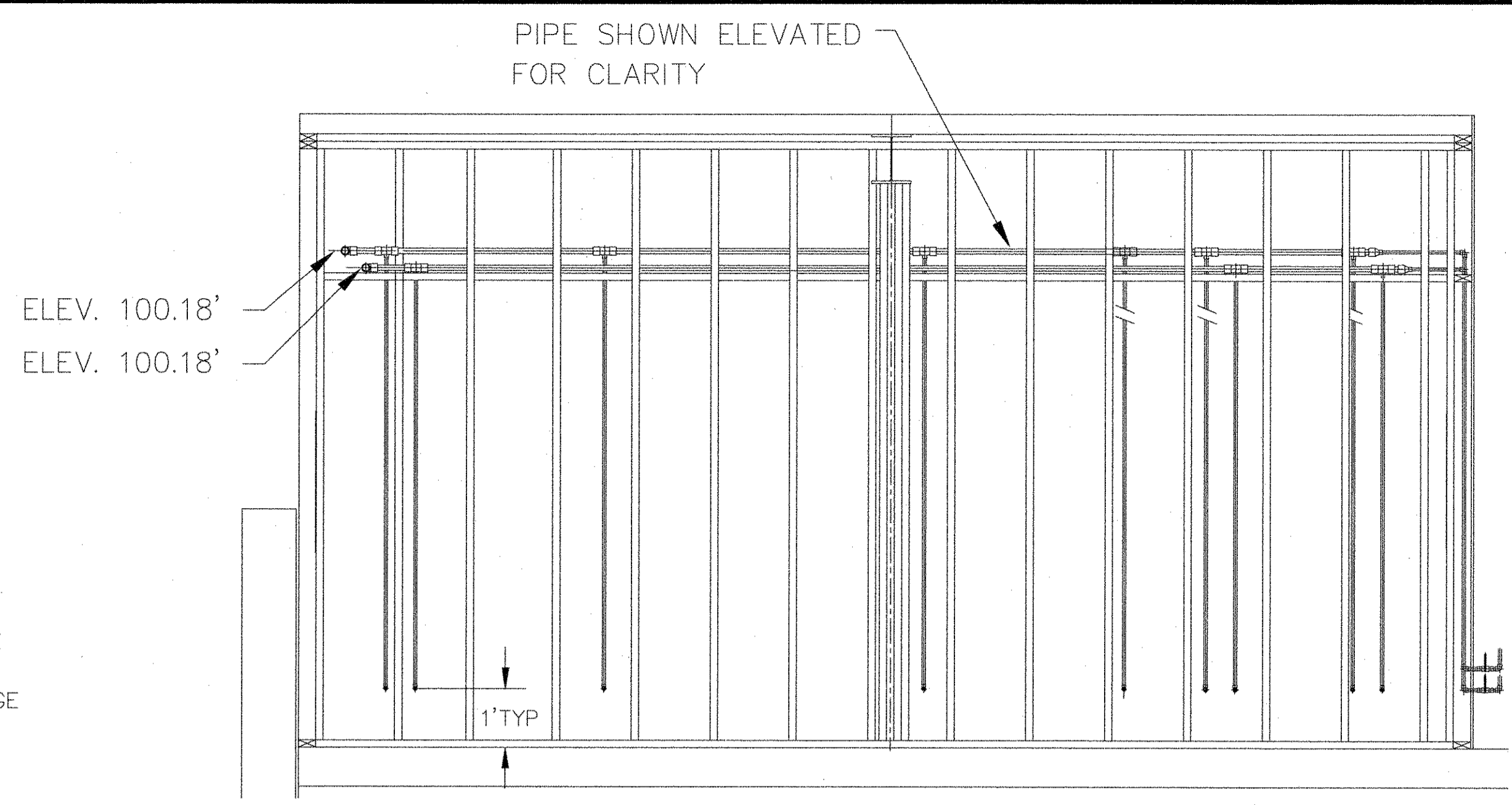
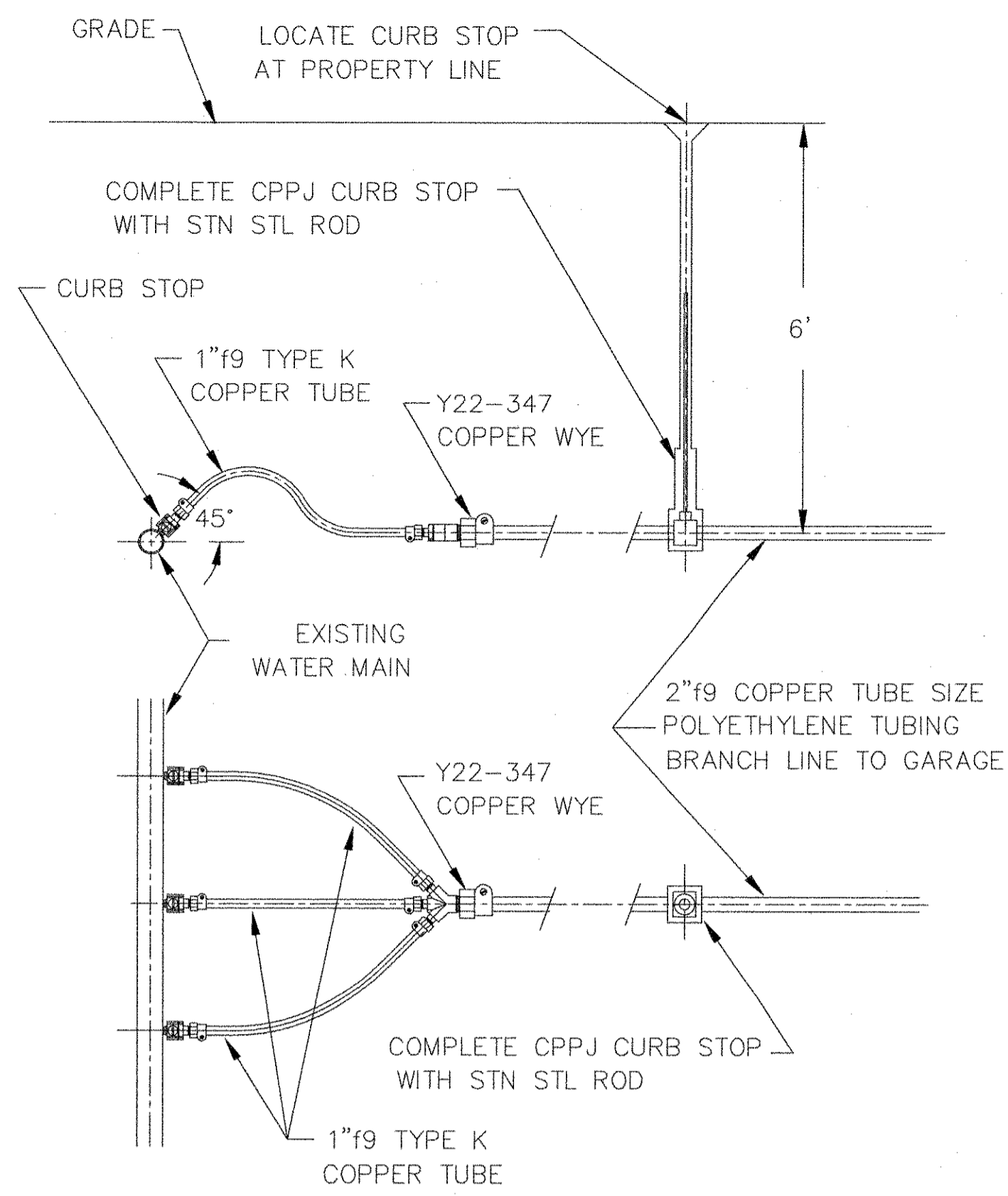
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
WATER PIPING PLAN

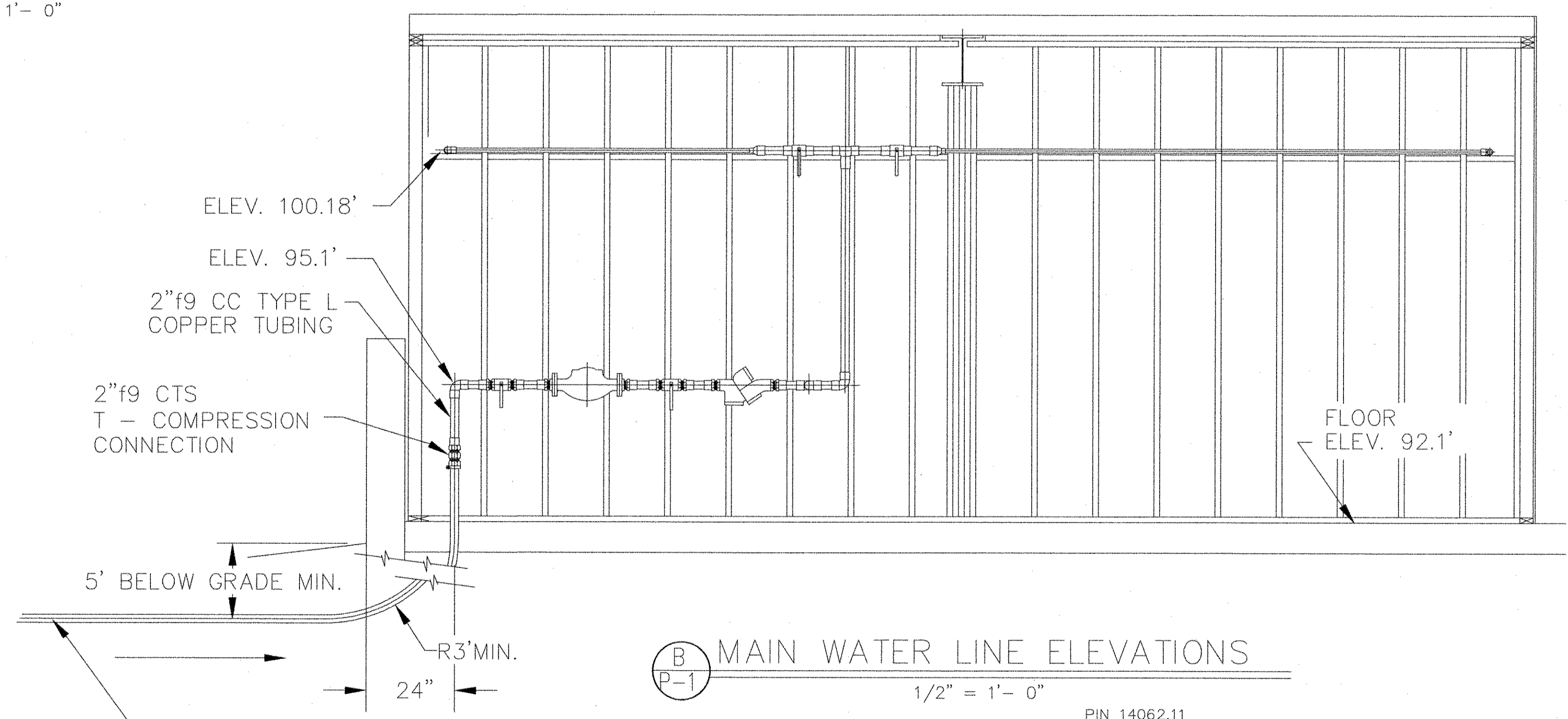
DATE 12-11-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO P-4
BY L. P. Pelletier	CHKD		



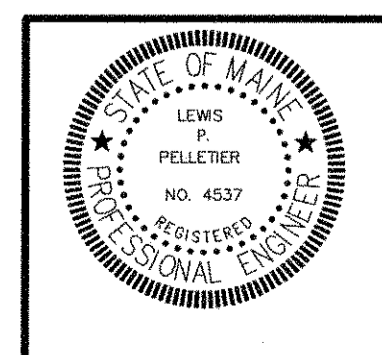
FIRST FLOOR PLAN
1/2" = 1'- 0"



PLUMBING ELEVATIONS
3/8" = 1'- 0"



MAIN WATER LINE ELEVATIONS
1/2" = 1'- 0"



NO	DATE	DESCRIPTION

PIN 14062.11

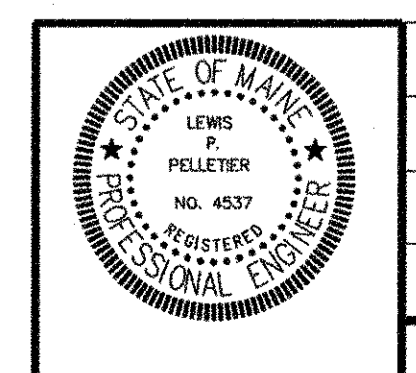
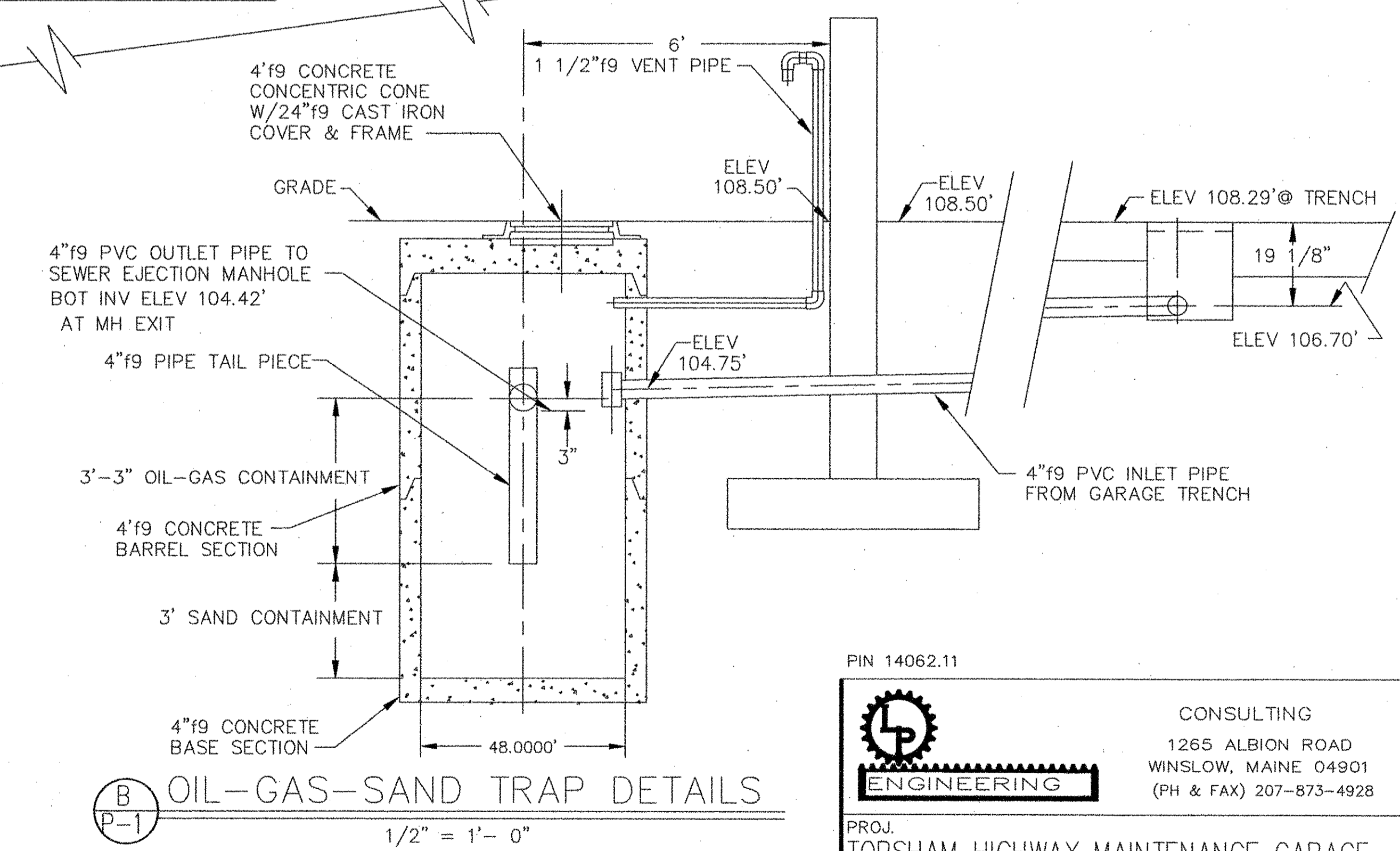
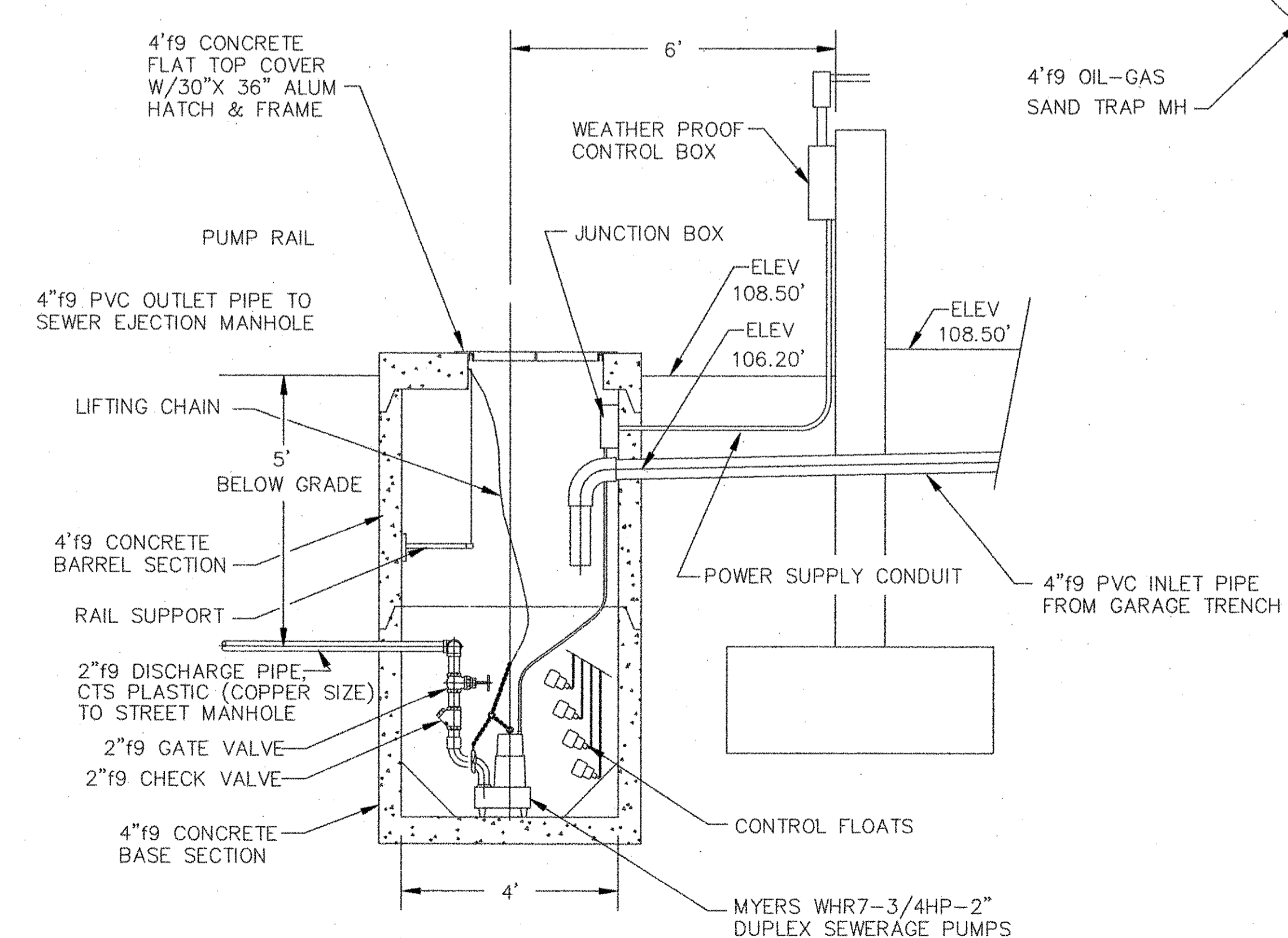
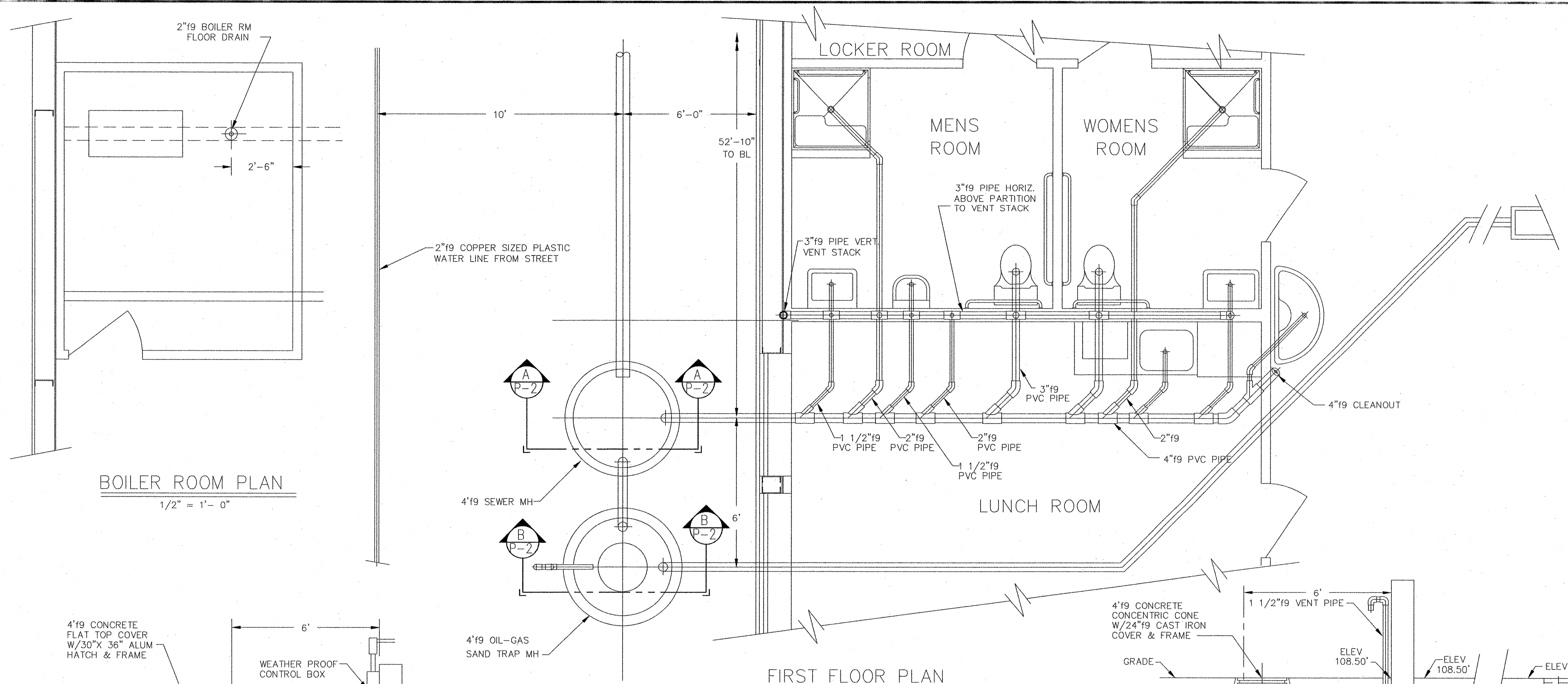
ENGINEERING

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PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
1ST & 2ND FLOOR HOT & COLD
WATER PIPING PLAN & DETAILS

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO P-3
BY L. P. Pelletier	CHKD CHKD		



NO	DATE	DESCRIPTION

PIN 14062.11

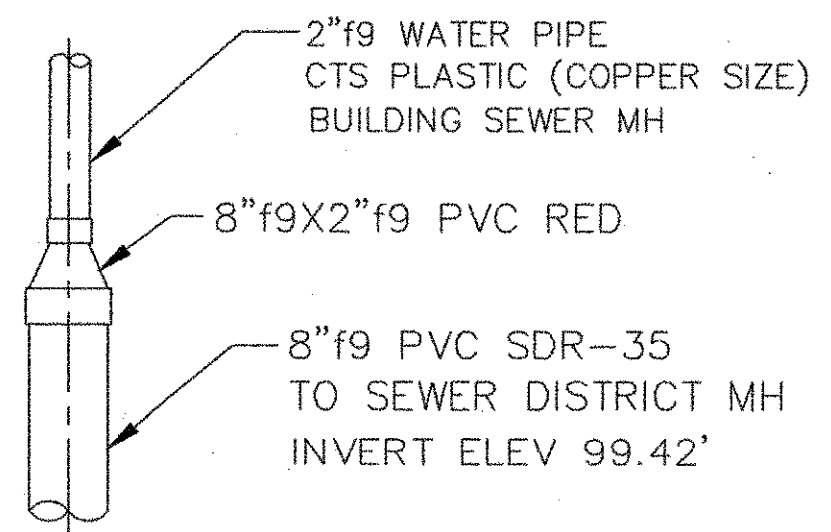
ENGINEERING

CONSULTING
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WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

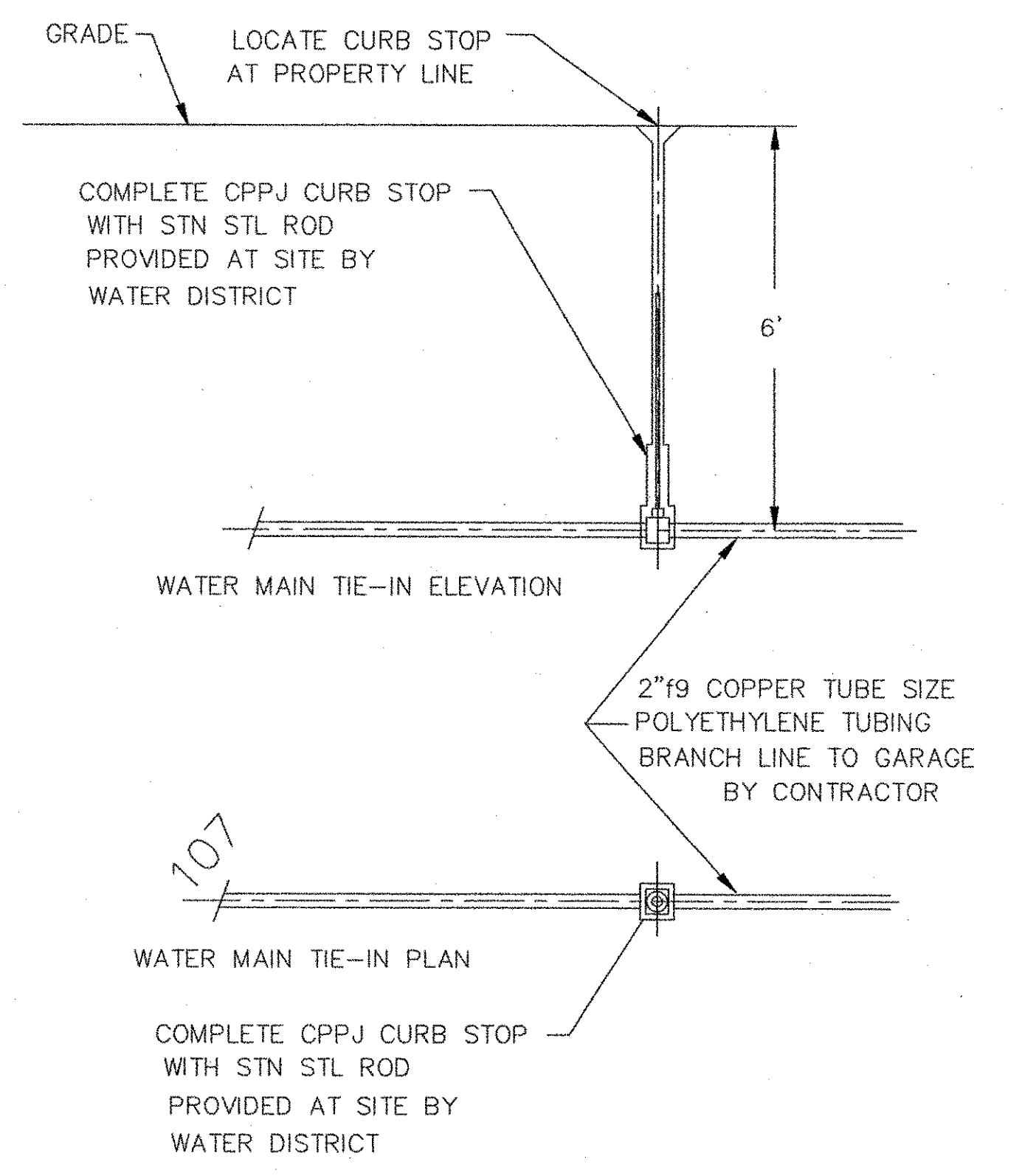
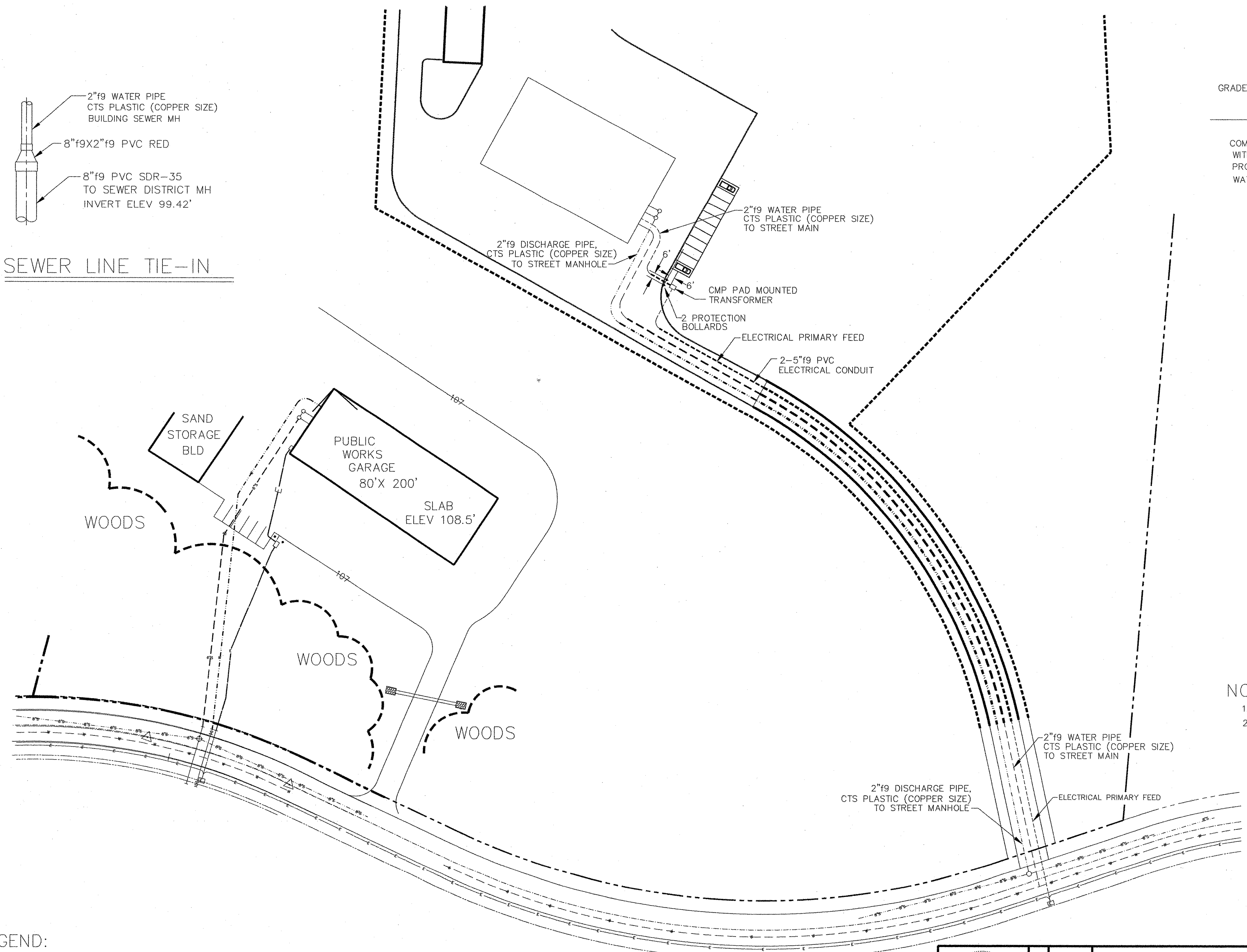
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
1ST & 2ND FLOOR WASTE
PLUMBING PLAN & DETAILS

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO P-2
BY L P Pelletier	CHKD CHKD		



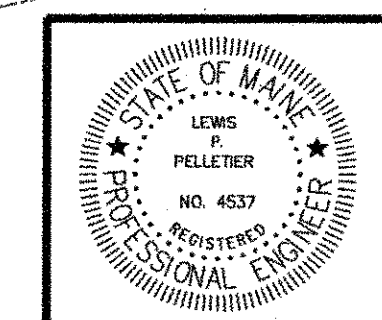
SEWER LINE TIE-IN



WATER MAIN TAP

- NOTE:
1. ALL PIPES TO BE BURIED A MINIMUM OF 5' BELOW GRADE.
 2. ALL BURIED PIPES ARE TO HAVE A MINIMUM OF 6" LAYER OF SAND BENEATH AND ABOVE BEFORE FINAL BACKFILL.

LEGEND:
 2 - 5" f9 PVC ELECTRICAL CONDUIT -----
 2" f9 COPPER SIZED PLASTIC WATER LINE - - - - -
 2" f9 COPPER SIZED PLASTIC WATER LINE - - - - -
 PROPERTY BOUNDARY - - - - -
 WOODLINE ~ ~ ~ ~ ~



NO	DATE	DESCRIPTION

PIN 14062.11

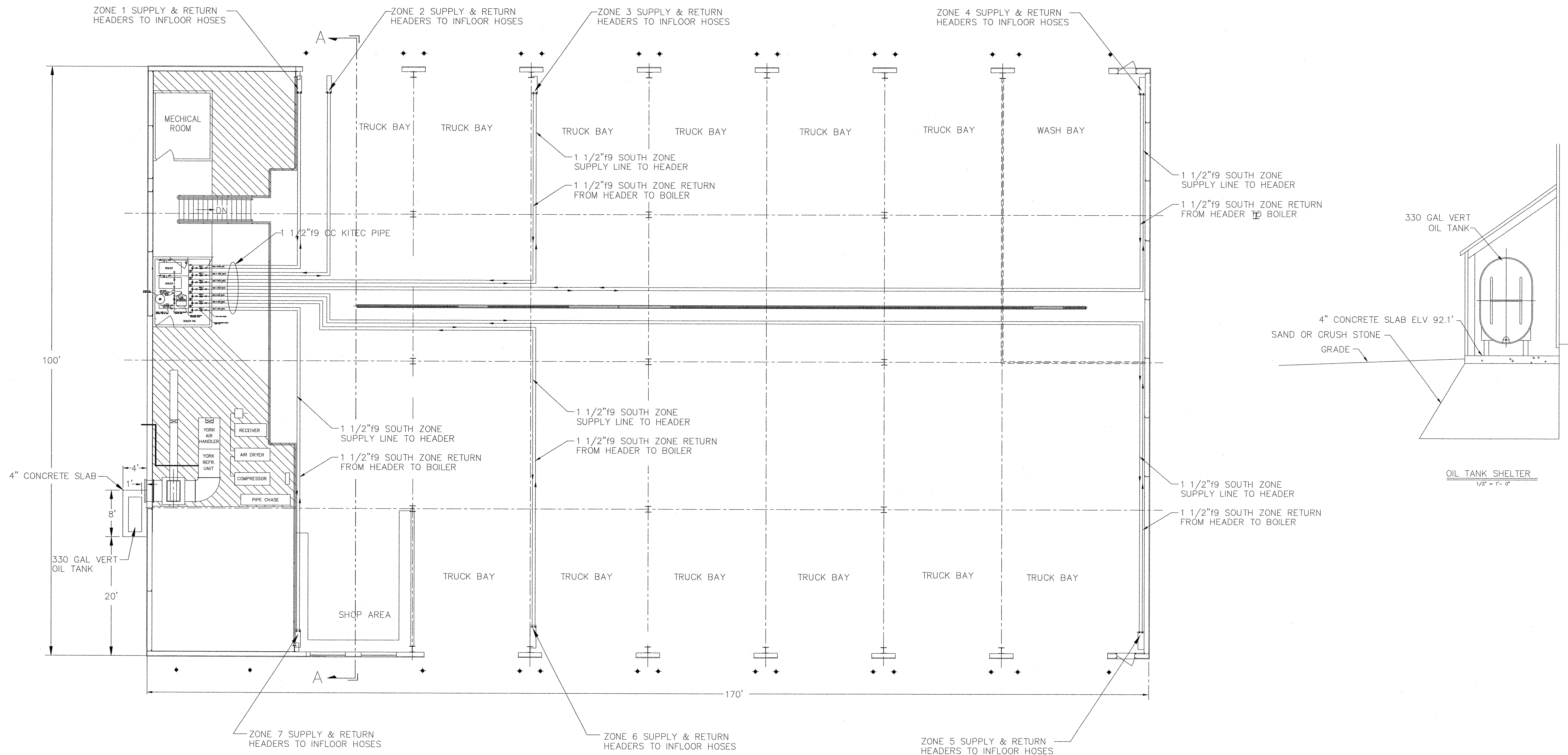
LP ENGINEERING

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 WINSLOW, MAINE 04901
 (PH & FAX) 207-873-4928

PROJ.
 TOPSHAM HIGHWAY MAINTENANCE GARAGE
 TOPSHAM, MAINE

TITLE
 SEWER & DOMESTIC WATER
 PIPING PLAN & DETAILS

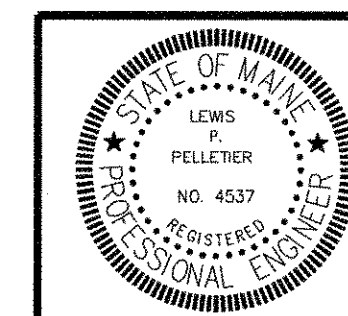
DATE 05-19-06	SCALE 1/16" = 3'-0"	JOB NO LP ENG 300-01-06	DRAWING NO P-1
L. P. Pelletier	CHKD		



FIRST FLOOR PLAN
1/8" = 1'-0"

NOTES:

1. ALL ZONE SUPPLY AND RETURN LINES ARE TO BE TYPE L COPPER TUBE ABOVE FLOOR AND KITEC TUBE BELOW SLAB.
2. ALL ZONE SUPPLY AND RETURN LINES ARE TO BE INSULATED WITH ARMAFLEX ELASTOMETRIC FLEXIBLE THERMALINSULATION.
3. ALL SPLIT ZONES ARE TO BE PIPED SO THAT TO HAVE EQUAL PRESSURE LOSS RESISTANCE.
4. ALL PIPES AND COMPONENTS ARE TO BE INSTALLED AND SUPPORTED ACCORDING TO MFG'S. RECOMMENDATIONS.
5. OIL TANK TO BE AN UPRIGHT 330 GAL CAPACITY, AND HOUSED BY A LEAN-TO CONSTRUCTED SHELTER WITH MATCHING SIDING AND ROOF, AND WITH AN ACCESS DOOR ON ONE END FOR MAINTENANCE.



NO	DATE	DESCRIPTION	DATE	SCALE	JOB NO	DRAWING NO
	12-15-06		AS SHOWN	LP ENG 300-01-06	H-7	
BY	CHKD					
L. P. Pelletier						

PIN 14062.11

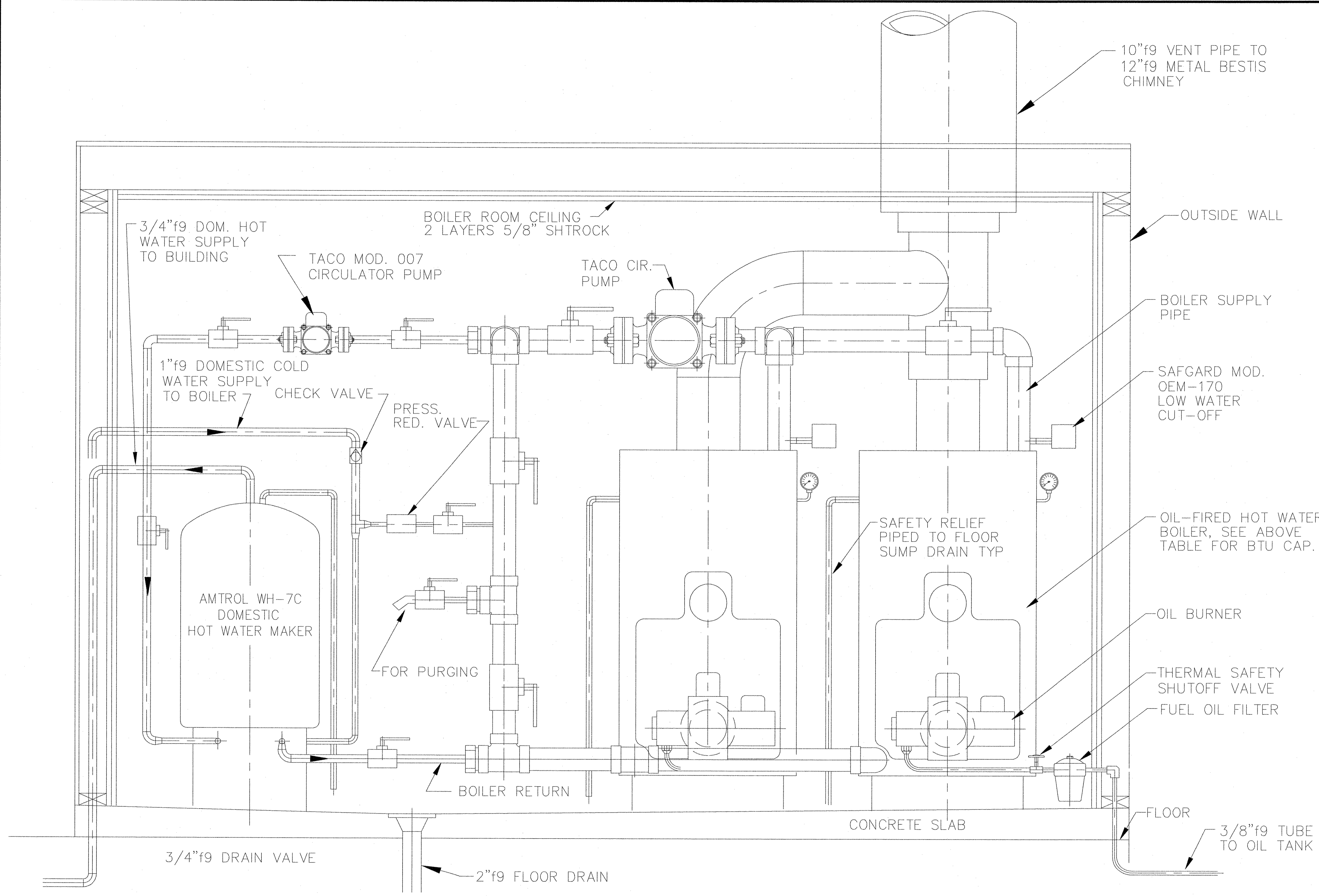
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PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

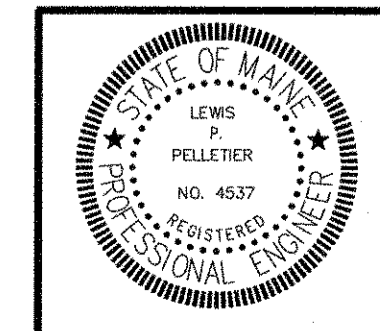
TITLE
MANIFOLD PIPING PLAN

- EQUIPMENT SPECS:**
1. BOILERS TO BE PEERLESS SERIES EC-06 OIL FIRED W/ NET HOT WATER OUTPUT OF 2490,000BTU/HR EA.
 2. HOT WATER MAKER TO BE AMTROL WH-7L.
 3. MAIN CIRCULATOR TO BE TACO MODEL 0012 CARTRIDGE SERIES TYPE, OTHER CIRCULATORS TO BE TACO MODEL 007, 0010 & 0011 AS SHOWN.
 4. LOW WATER CUT-OFF VALVE TO BE SAFEGUARD MODEL DEM-170.
 5. AIR AND EXPANSION CONTROL TO BE TACO AIR SCOOP (SEPARATOR) PROD. NO. 434.
 6. EXPANSION TANK TO BE VENT-RITE VRSX110F.
 7. BOILER FEED WATER TO BE EQUIPT WITH A WATTS COMBINATION BACKFLOW PREVENTER AND PRESSURE REGULATOR MODEL NO. 911.
 8. TACO AIR SCOOP TO HAVE A TACO HY-VENT PROD. NO. 423.
 9. ZONE CONTROL THERMOSTATS TO BE HONEYWELL MODEL NO. T87.
 10. BOILER TO BE EQUIPT WITH A HONEYWELL AQUASTAT RELAY IMMERSION TYPE CONTROLLER MODEL NO. L8148J.
 11. ALL DOMESTIC COLD WATER PIPING TO BE INSULATED WITH ARMSTRONG AP ARMAFLEX PIPE INSULATION.
 12. ALL TUBING USED FOR DOMESTIC HOT WATER OR BOILER FEED IS TO BE TYPE M COPPER.
 13. ALL TUBING USED FOR ZONE HEAT PIPING AND BOILER PIPING IS TO BE TYPE M COPPER & KITEC.
 14. HEAT ZONE HEADER PIPING TO BE A36 SCHD.40 B.I. PIPE.
 15. ONE 20 AMP, 1 PH, 120VAC CIRCUIT IS TO BE PROVIDED FOR BOILER ELECTRICAL REQUIREMENTS.
 16. 30VAC TO 120VAC CONTROL RELAY TO BE USED TO CONTROL EACH HEATING ZONE AND INTERCONNECTED WITH THE BOILER CONTROL.
 17. ALL PRESSURE RELIEF VALVES ARE TO BE PIPED TO FLOOR DRAIN.

- NOTES:**
1. NEW PEERLESS SERIES CAST IRON, OIL FIRED BOILERS TO BE INSTALLED IN BOILER ROOM WITH EXPANSION TANK, HOT WATER MAKER AND PIPING.
 2. ALL DOM. COLD WATER AND HEAT PIPES ARE TO BE INSULATED WITH ARMORFLEX PIPE INSULATION.
 3. 10"f9 FLUE TO VENT INTO 12"f9 METLVENT MODEL TD1200' CHIMNEY PIPE THRU ROOF.
 4. SEE SHT. H-1,2,3 FOR BLD. HEAT PIPING PLAN.
 5. SEE SHT. H-4 FOR BLD. HEAT PIPING HEADER DISTR.
 6. SEE THIS SHT. & H-5 FOR BOILER PIPING PLAN.
 7. SEE SHT H-7 FOR MANIFOLD PIPING PLAN.
 8. THIS DWG. HAS BEEN PREPARED TO SHOW ONLY THE SCOPE OF WORK, AND IS INTENDED TO BE USED BY A CONTRACTOR WHO IS FAMILIAR WITH THIS TYPE OF CONSTRUCTION.
 9. THIS DRAWING SHALL NOT BE USED BY ANY PERSON ON ANY PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNATED HEREON.



BOILER PIPING ELEVATION
SCALE 1"=1'-0"



NO	DATE	DESCRIPTION
A	12-15-06	REVISED NOTE NO 6, 7 & 8 AND ADDED NO 9
	05-19-06	SCALE AS SHOWN
BY	CHKD	JOB NO
L P Pelletier	LP ENG 300-01-06	DRAWING NO
		H-6A

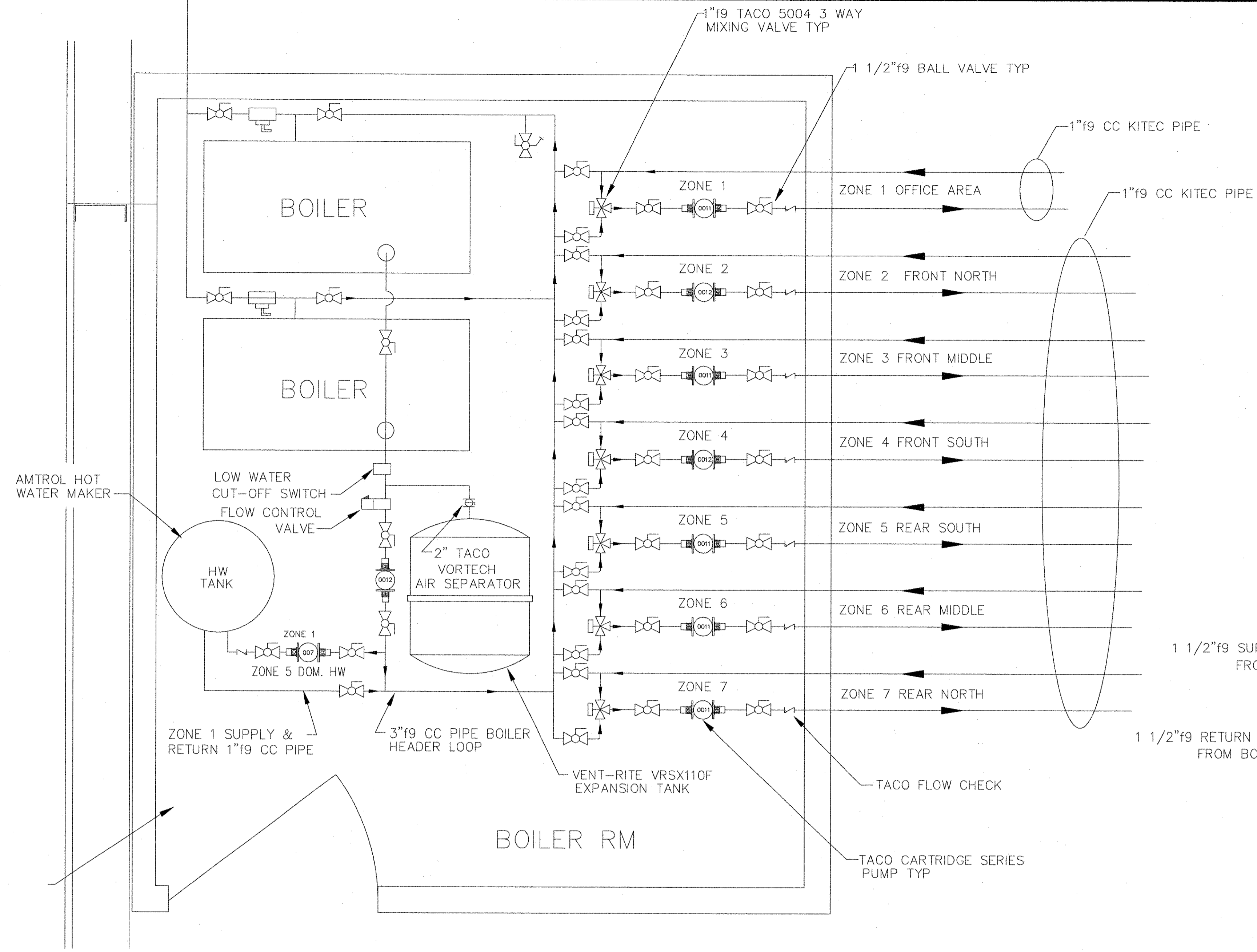
PIN 14062.11

ENGINEERING

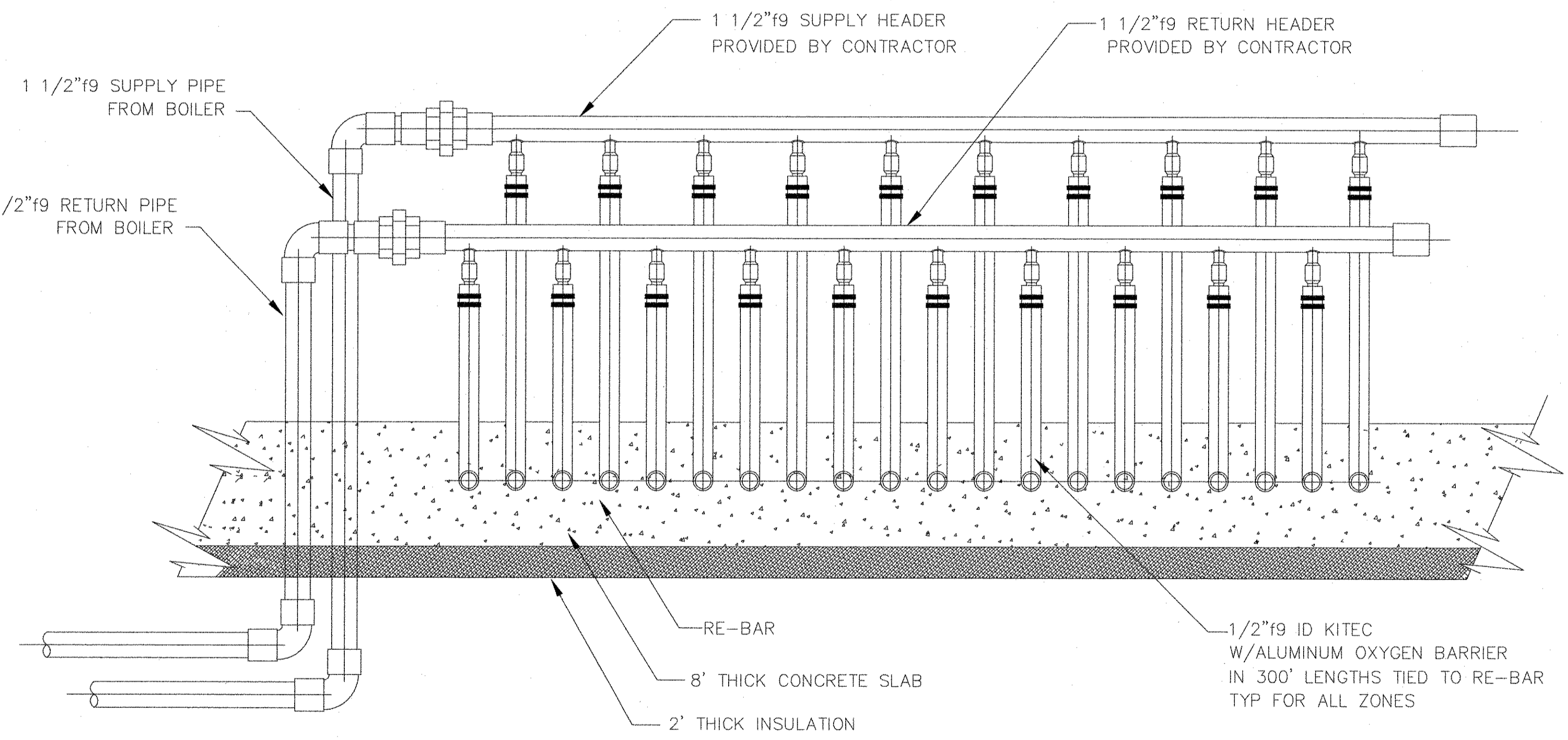
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PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
BUILDING RADIANT HEAT
BOILER ROOM DETAILS

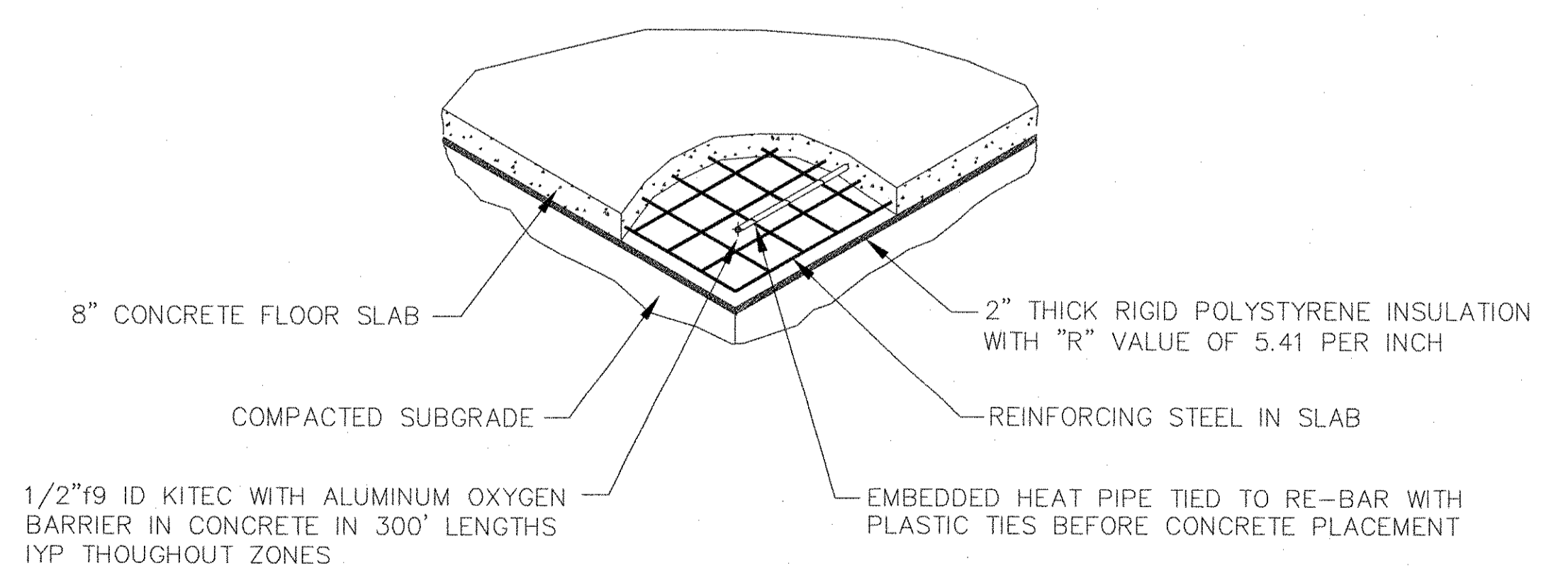


ZONE SCHEDULE			
ZONE	CIRCULATOR	HEADER SIZE	MIX VALVE
1 OFFICE	TACO 007	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
2 FRONT N	TACO 0011	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
3 FRONT MID	TACO 0011	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
4 FRONT S	TACO 0011	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
5 REAR S	TACO 0011	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
6 REAR MID	TACO 0011	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
7 REAR N	TACO 0011	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
8 DOM HW	TACO 007	1" f9 KITEC PIPE	1" f9 TACO 3 WAY
BOILER			
2 - PEERLESS EC-05, 249,000. NET BTU (WATER)			



BOILER ROOM PIPING
1/4" = 1'- 0"

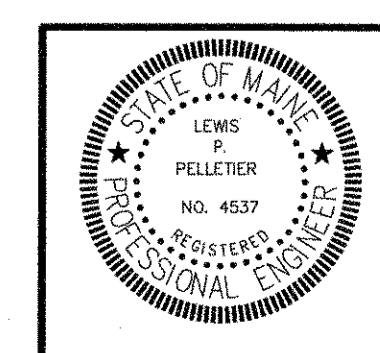
IN FLOOR TUBING MANIFOLD
1/4" = 1'- 0"



FLOOR HEAT TUBE
1/4" = 1'- 0"

NOTES:

1. SEE DWG. H-1 FOR OVERALL RADIANT INFLOOR TUBING LAYOUT.
2. SEE DWG. H-2,3,4 FOR RADIANT INFLOOR TUBING LAYOUT.
3. SEE DWG. H-6 FOR BOILER ROOM ELEVATION PIPING DETAILS.
4. SEE DWG. H-7 FOR MANIFOLD PIPING PLAN.



NO	DATE	DESCRIPTION
A	12-15-06	CHANGE BOILER ROOM PIPING & ZONE SCHEDULE

PIN 14062.11

ENGINEERING

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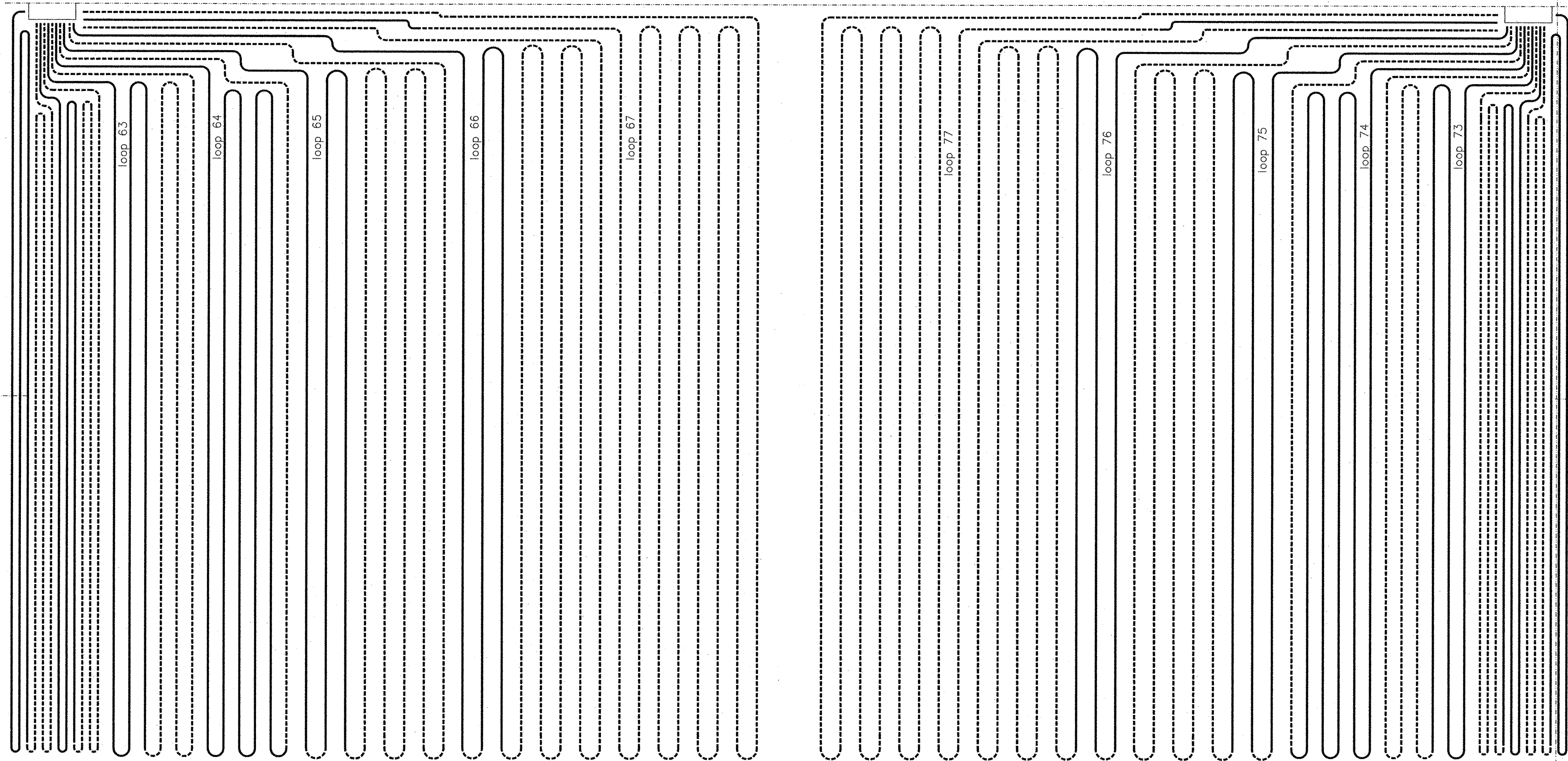
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
BUILDING RADIANT HEAT SYSTEM DETAILS

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO H-5A
BY L P Pelletier	CHKD		

MF 6 MF 8

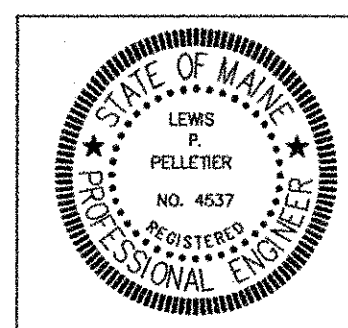
loop 61
loop 62
6" sp
12" sp
15" sp



MF 7
loop 71
loop 72
loop 71-72 6" sp
loop 73-75 12" sp
loop 76-77 15" sp


NOTE:
58 LOOPS
300 FT LOOP LENGTH TYP
9",12",15" SPACING
1/2" KITEC W/OXYGEN BARRIER
8 MANIFOLDS

1. SEE DWG. H-3 FOR BOILER PIPING DETAILS.
2. SEE DWG. H-3 FOR RADIANT INFLOOR TUBING DETAILS.
3. SEE DWG. H-3 FOR RADIANT INFLOOR HEADER DETAILS.
4. SEE DWG. H-2 FOR HEADER PIPING.
5. SEE DWG. H-4 FOR BOILER ROOM PIPING DETAILS.



NO	DATE	DESCRIPTION

PIN 14062.11

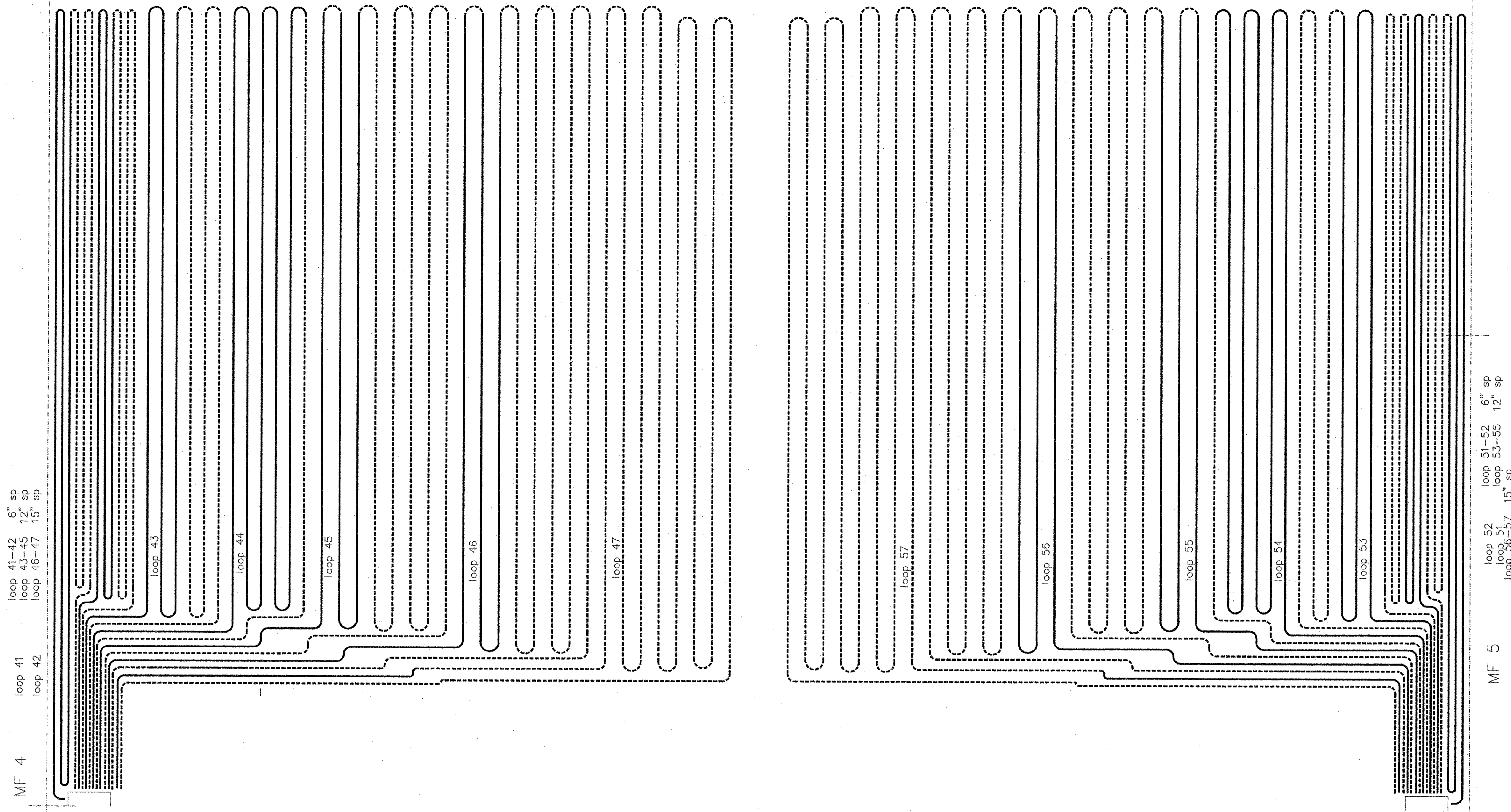


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PROJ. TOPSHAM HIGHWAY MAINTENANCE GARAGE
Topsham, Maine

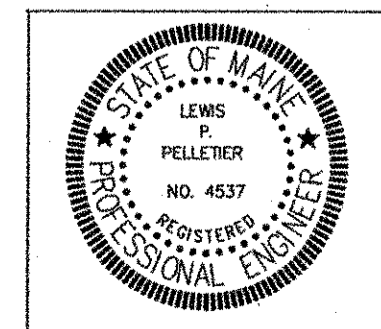
TITLE BUILDING RADIANT HEAT
INFLOOR PIPING PLAN NORTH END

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO H-4
BY L P Pelletier	CHKD		



NOTE:
 58 LOOPS
 300 FT LOOP LENGTH TYP
 9",12",15" SPACING
 1/2" KITEC W/OXYGEN BARRIER
 8 MANIFOLDS

1. SEE DWG. H-3 FOR BOILER PIPING DETAILS.
2. SEE DWG. H-3 FOR RADIANT INFLOOR TUBING DETAILS.
3. SEE DWG. H-3 FOR RADIANT INFLOOR HEADER DETAILS.
4. SEE DWG. H-2 FOR HEADER PIPING.
5. SEE DWG. H-4 FOR BOILER ROOM PIPING DETAILS.



NO	DATE	DESCRIPTION

PIN 14062.11

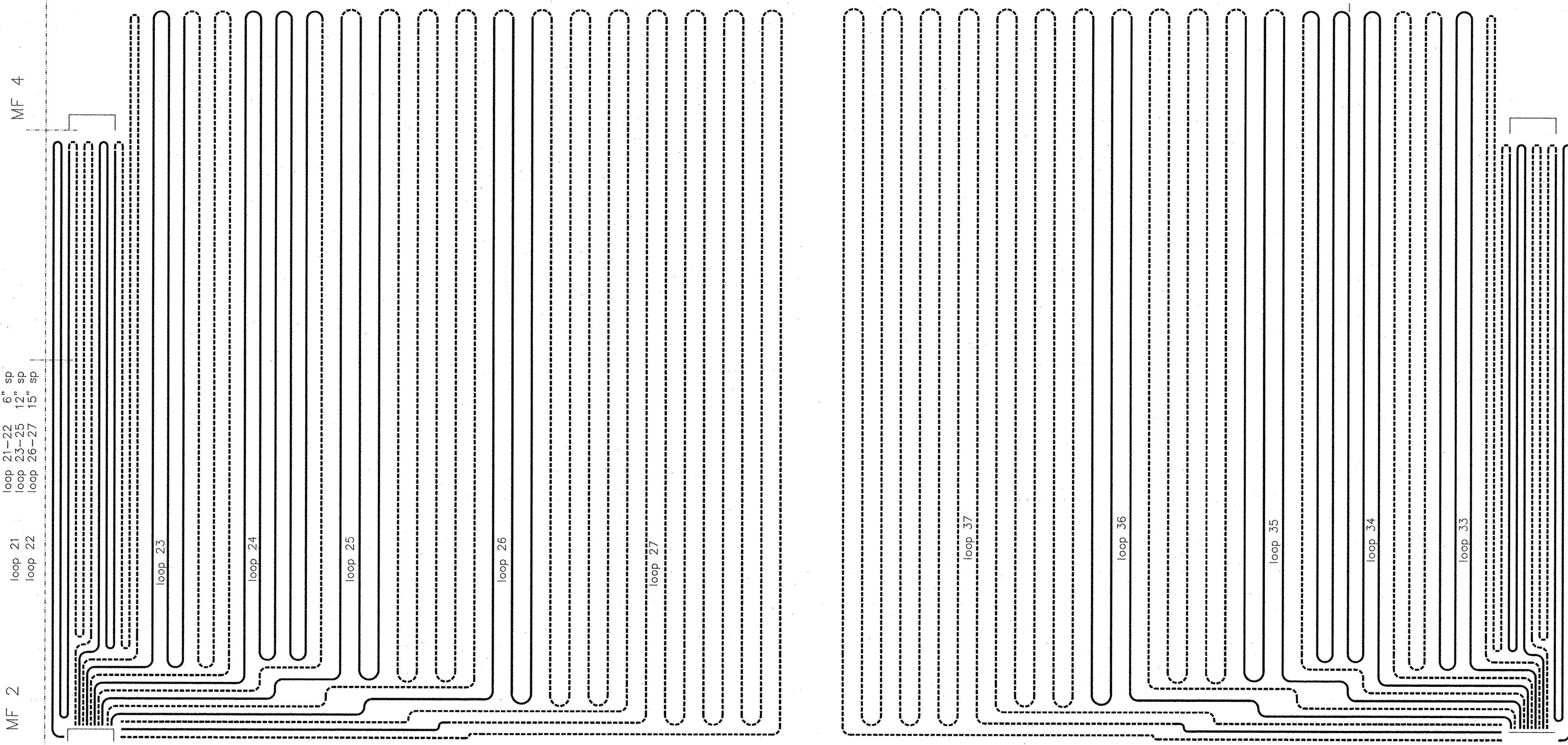
ENGINEERING

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 1265 ALBION ROAD
 WINSLOW, MAINE 04901
 (PH & FAX) 207-873-4928

PROJ.
 TOPSHAM HIGHWAY MAINTENANCE GARAGE
 Topsham, Maine

TITLE
 BUILDING RADIANT HEAT
 INFLOOR PIPING PLAN MID SECT

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO H-3
BY L P Pelletier	CHKD		



loop 21-22 6" sp
 loop 23-25 12" sp
 loop 26-27 15" sp

MF 4

MF 2

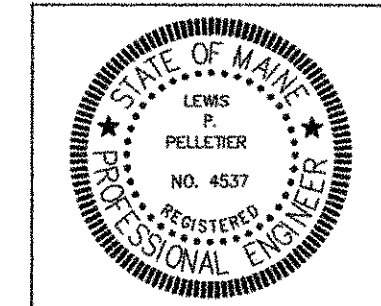
loop 31-32 6" sp
 loop 33-35 12" sp
 loop 36-37 15" sp

MF 3

NOTE:


- 58 LOOPS
- 300 FT LOOP LENGTH TYP
- 9",12",15" SPACING
- 1/2" KITEC W/OXYGEN BARRIER
- 8 MANIFOLDS

1. SEE DWG. H-3 FOR BOILER PIPING DETAILS.
2. SEE DWG. H-3 FOR RADIANT INFLOOR TUBING DETAILS.
3. SEE DWG. H-3 FOR RADIANT INFLOOR HEADER DETAILS.
4. SEE DWG. H-2 FOR HEADER PIPING.
5. SEE DWG. H-4 FOR BOILER ROOM PIPING DETAILS.



NO	DATE	DESCRIPTION

PIN 14062.11



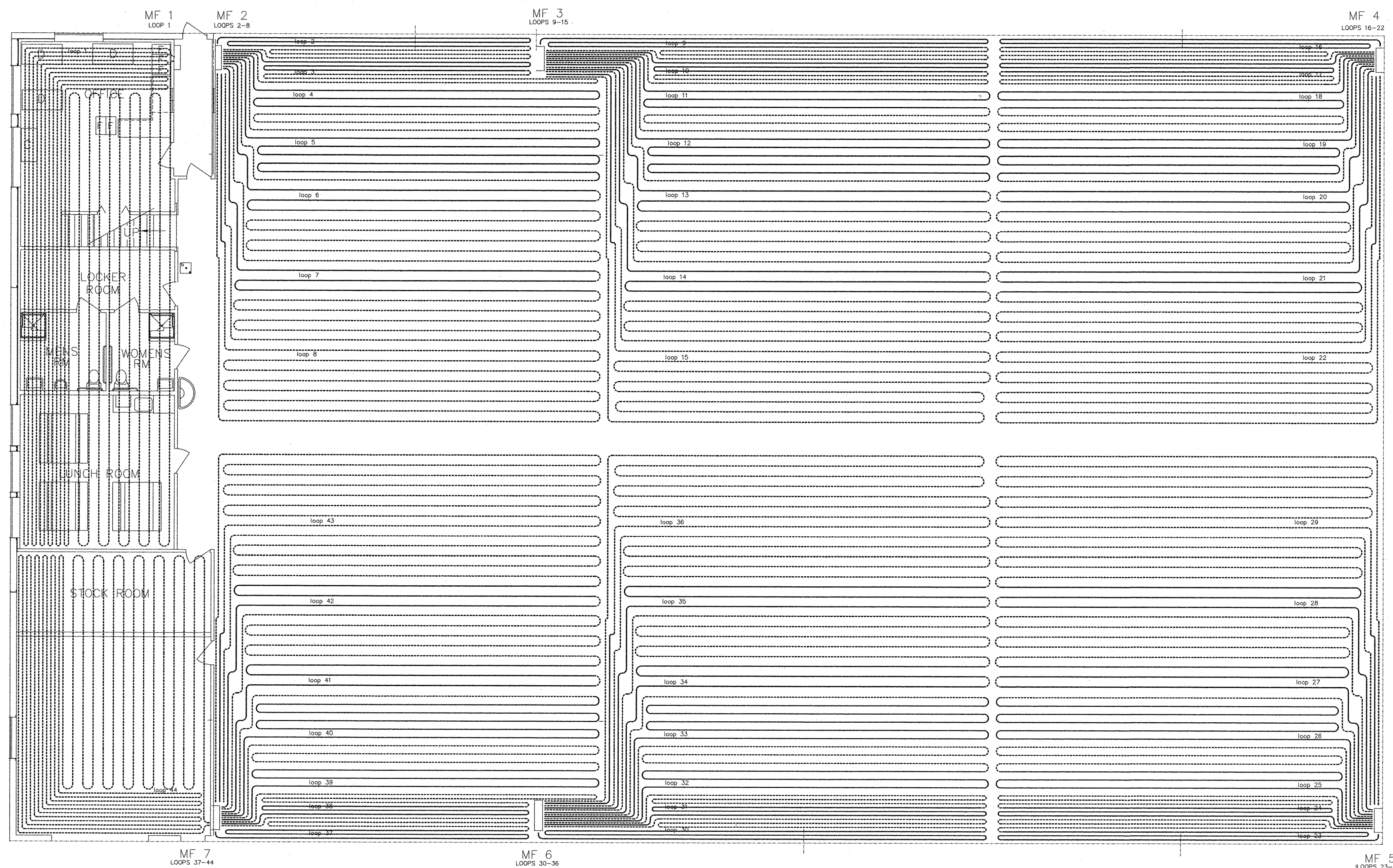
ENGINEERING

CONSULTING
 1265 ALBION ROAD
 WINSLOW, MAINE 04901
 (PH & FAX) 207-873-4928

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
 Topsham, Maine

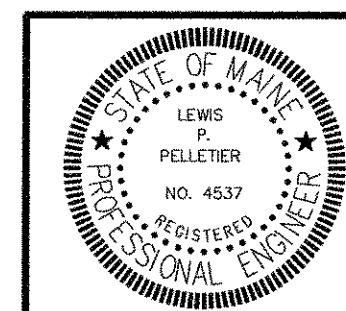
TITLE
**BUILDING RADIANT HEAT
 INFLOOR PIPING PLAN SOUTH END**

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO H-2
BY L P Pelletier	CHKD		



NOTE:

1. SEE DWG. H-2,3, & 4 FOR RADIANT INFLOOR TUBING LAYOUT.
2. SEE DWG. H-5 & 6 FOR BOILER ROOM PIPING DETAILS.
3. SEE DWG. H-7 FOR MANIFOLD SUPPLY AND RETURN PIPING.
4. THERE ARE 6 MANIFOLDS AND 44-300' IN-SLAB LOOPS.
5. IN-SLAB LOOP SPACING TO BE 6" - 12" - 15".
6. ALL IN-SLAB LOOPS TO BE OF 1/2" f9 KITEC TUBING.



NO	DATE	DESCRIPTION
A	12-15-06	ADDED MANIFOLD AND HEAT ZONE FOR OFFICE AREA

PIN 14062.11

ENGINEERING

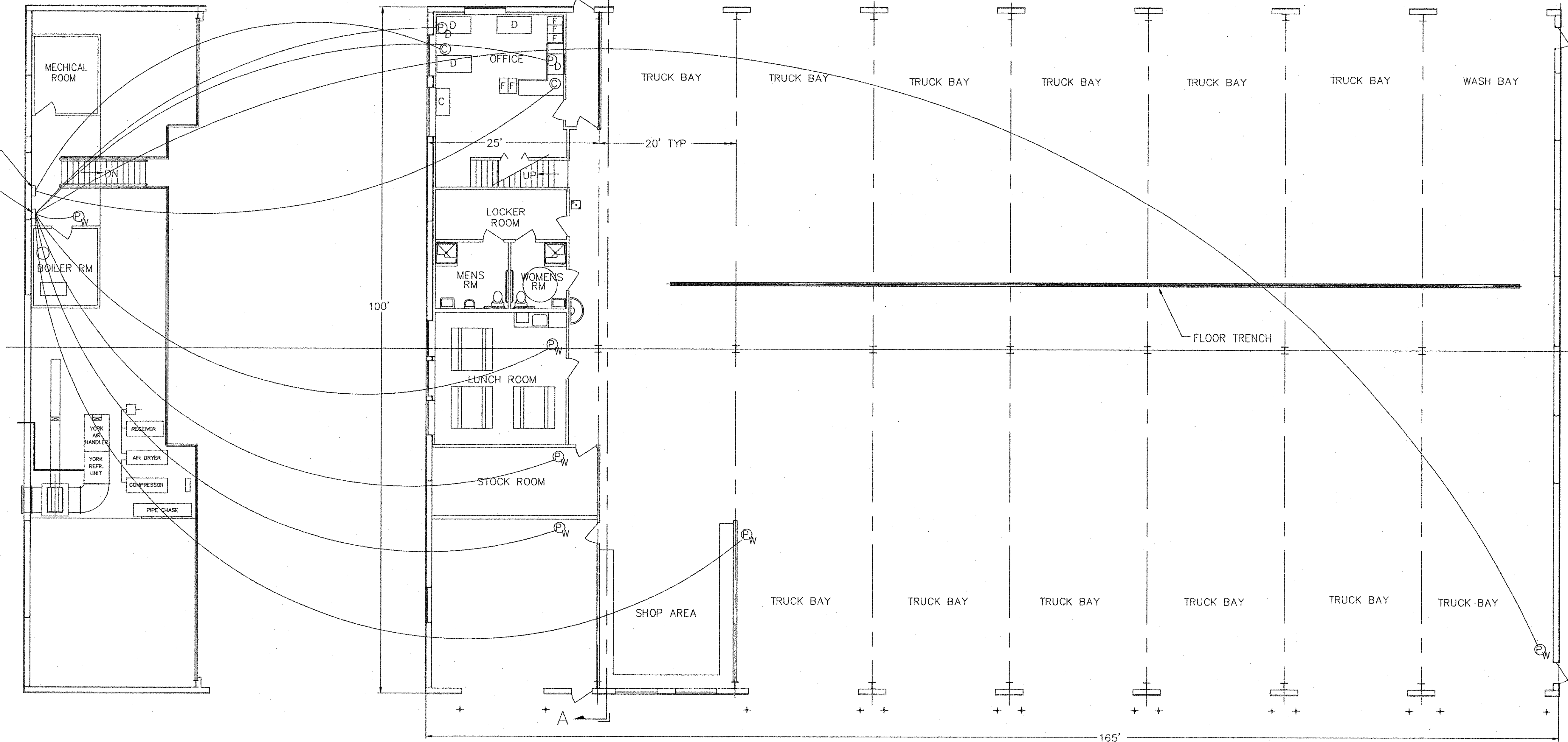
CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
Topsham, Maine

TITLE
BUILDING RADIANT HEAT
INFLOOR PIPING PLAN

DATE 05-19-06	SCALE AS SHOWN	JOB NO	DRAWING NO
BY L P Pelletier	CHKD	LP ENG 300-01-06	H-1A

MAIN CABLE BOARD
MAIN TELEPHONE BOARD



SECOND FLOOR PLAN
1/4" = 1'-0"

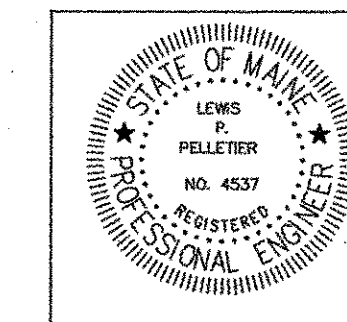
FIRST FLOOR PLAN
1/8" = 1'-0"

NOTE:

1. ALL PRIMARY TELEPHONE CABLE TO BE DIRECT BURIAL.
2. ALL SECONDARY INTERNAL WIRING TO BE 6 CONDUCTOR BASE WIRE.
3. SIX 3 - LINE TELEPHONES REQUIRED, 2 - DESK TYPE AND 4 - WALL TYPE.

LEGEND:

- DESK TELEPHONE
- WALL TELEPHONE
- CABLE RECEPTACLE



NO	DATE	DESCRIPTION

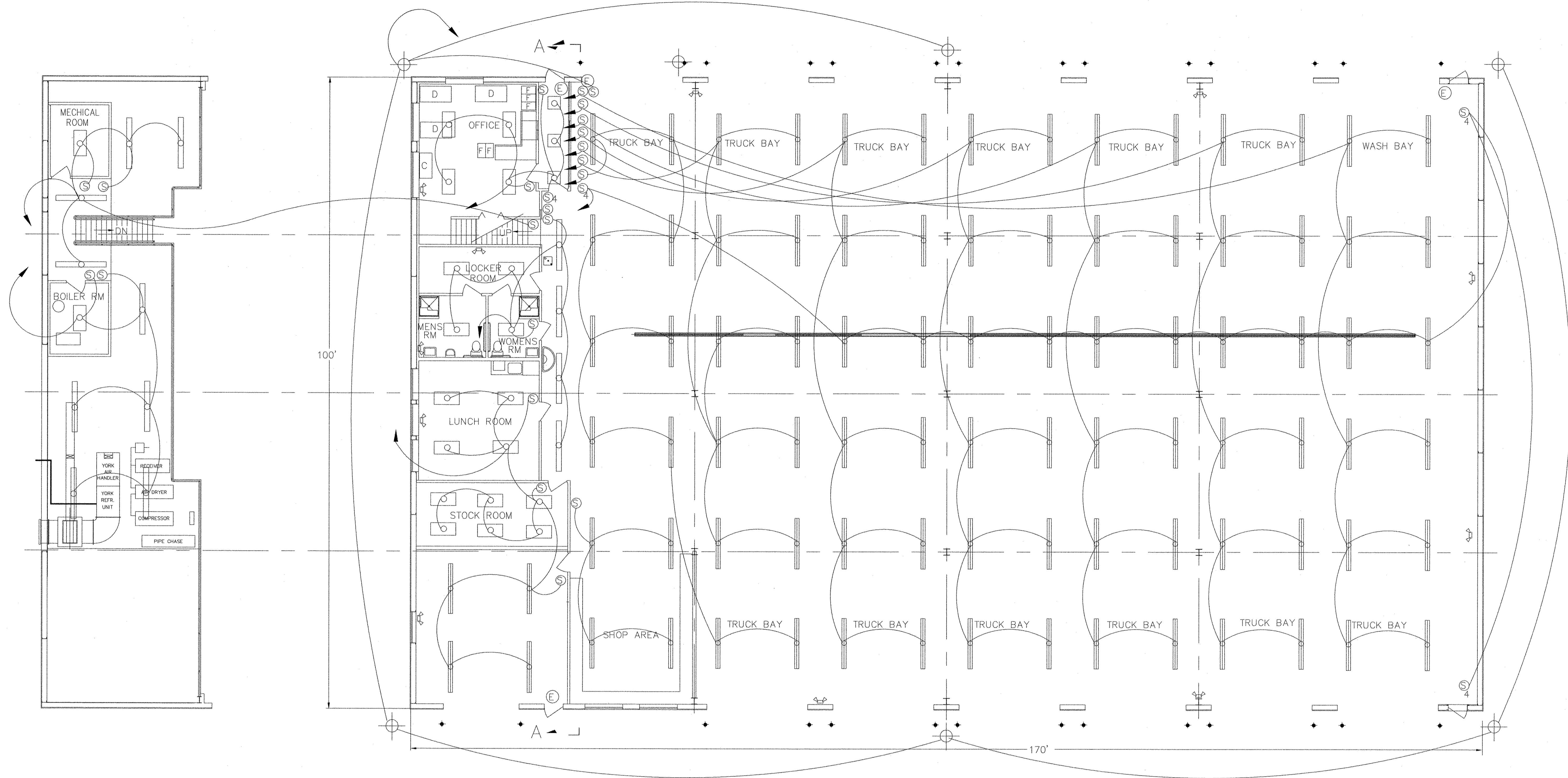
PIN 14062.11

ENGINEERING
CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
BUILDING TELEPHONE & CABLE
WIRING PLAN

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO E-4
BY L. P. Pelletier	CHKD. 		



SECOND FLOOR PLAN

1/4" = 1'-0"

BUILDING LIGHTING PLAN

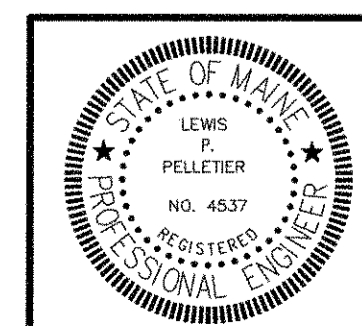
1/8" = 1'-0"

NOTE:

1. ALL LIGHT FIXTURES IN GARAGE BAYS ARE TO BE METALUX DIM-296HO-120V-LE3, (2-LAMP)
2. ALL LIGHT FIXTURES IN OFFICE AREA ARE TO BE 4 LAMP 40 WATT FLORECENT FIXTURES.
3. ALL OUTDOOR FIXTURES ARE TO BE 250 WATT SODIUM EXTERIOR.
4. ALL TRUCK BAY FIXTURES ARE TO BE MOUNTED AT 16'-0" ABOVE THE FLOOR
5. ALL EXTERIOR LIGHT FIXTURES ARE TO BE MOUNTED AT 17'-6" ABOVE FINISH GRADE AT FOUNDATION.
6. LUMINATED EXIT SIGNS ARE TO BE INSTALLED OVER ALL 3'X7' MANDOOR ACCESSSES, LOCATED AT (E)PEXL3RENW.
7. ALL LIGHT FIXTURES IN HALLWAY AREA ARE TO BE 4 LAMP 20 WATT FLORECENT FIXTURES.

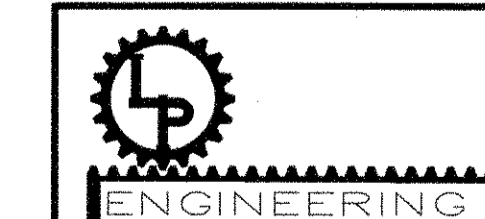
LEGEND:

- FEED FROM MAIN PANEL →
- SINGLE POLE SWITCH ⊙
- THREE WAY SWITCH ⊙₃
- FOUR WAY SWITCH ⊙₄
- EXIT SIGN ↵
- EMERGENCY LIGHTS ⚡



NO	DATE	DESCRIPTION
B	12-08-06	ADDED EXTERIOR FIXTURES
A	12-08-06	ADDED NOTE #7

PIN 14062.11

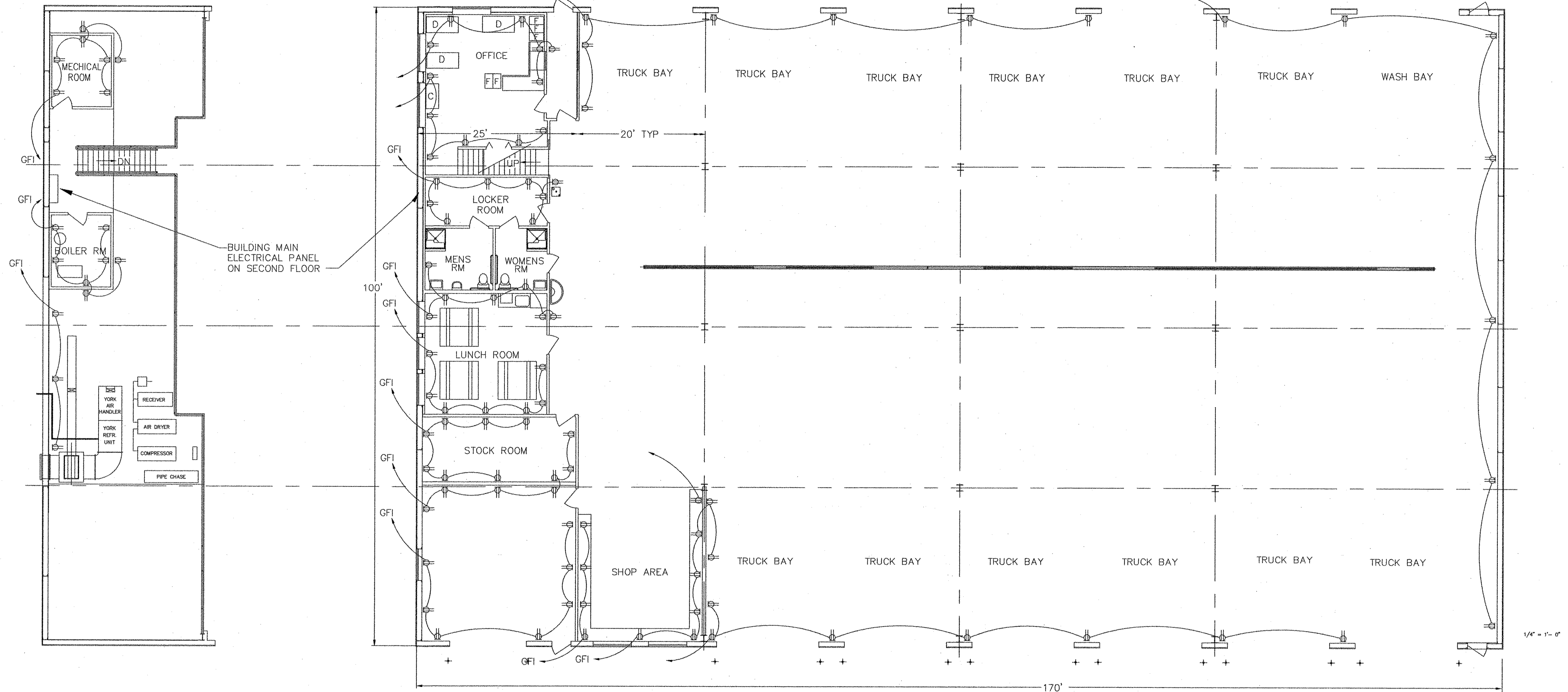


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(PH & FAX) 207-873-4928

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
BUILDING LIGHTING PLAN

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO E-3B
BY L.P. Pelletier	CHKD		



SECOND FLOOR PLAN
1/8" = 1'-0"

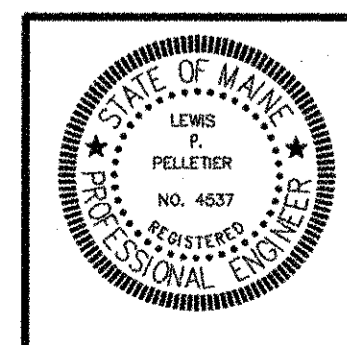
BUILDING ELECTRICAL PLAN
1/8" = 1'-0"

NOTE:

1. ALL 120V RECEPTACLE CIRCUITS ARE TO BE NO.12-2 CABLE W/GR. WITHIN EMT CONDUIT.
2. ALL 240V CIRCUITS FOR WELD RECEPTACLES ARE TO BE NO. 6 CABLE W/GR. WITHIN EMT CONDUIT.

LEGEND:

- PRIMARY FEED OVERHEAD
- PRIMARY FEED UNDERGROUND
- SECONDARY FEED FROM METER
- 120V WALL RECEPTACLE
- 240V WELD RECEPTACLE
- CIRCUIT FEED FROM MAIN PANEL



NO	DATE	DESCRIPTION

PIN 14062.11

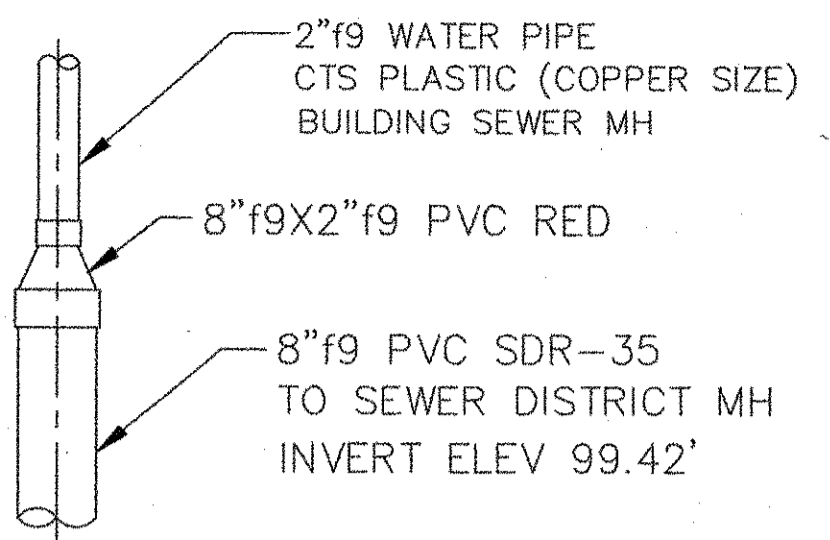
ENGINEERING

CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

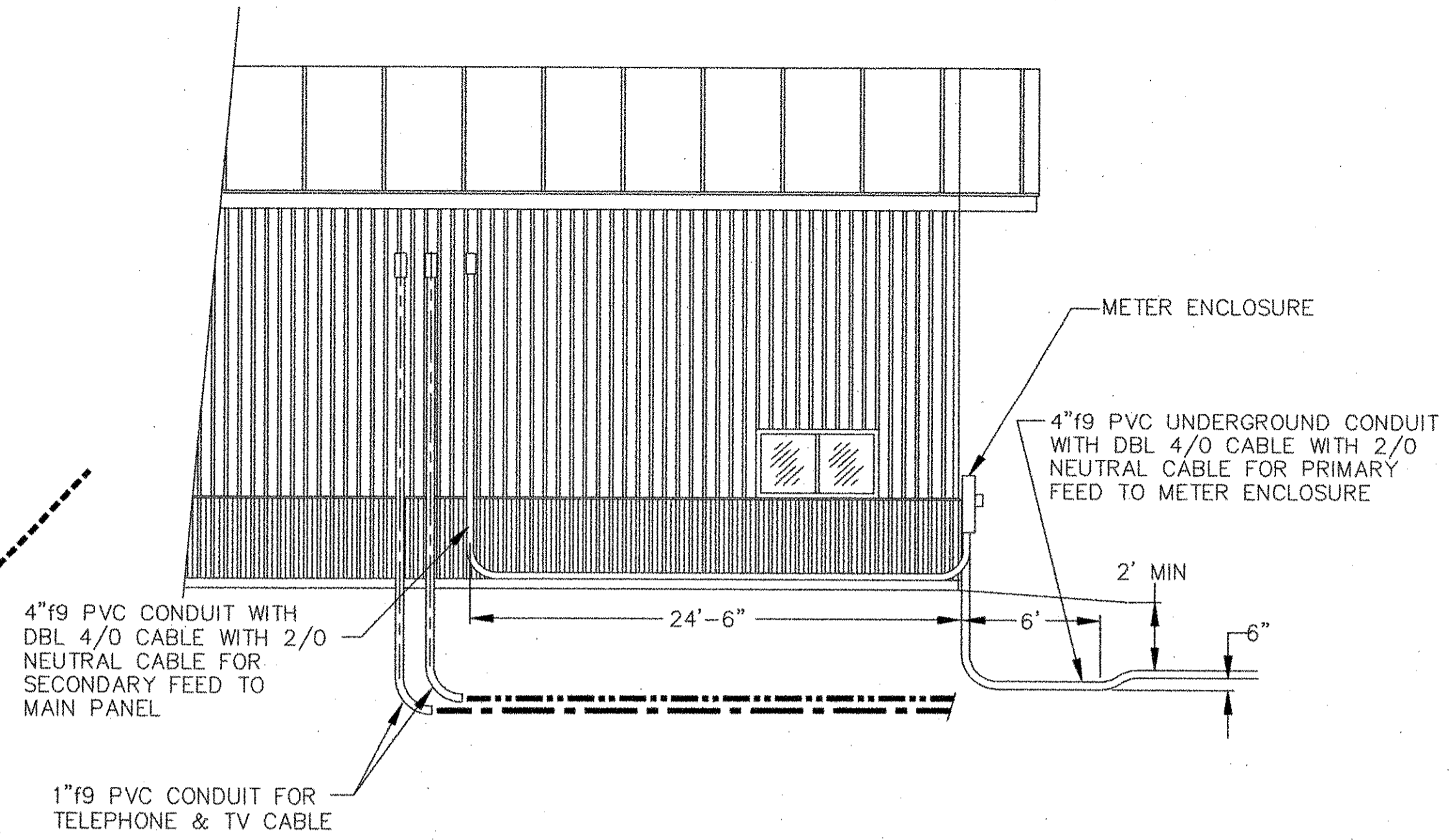
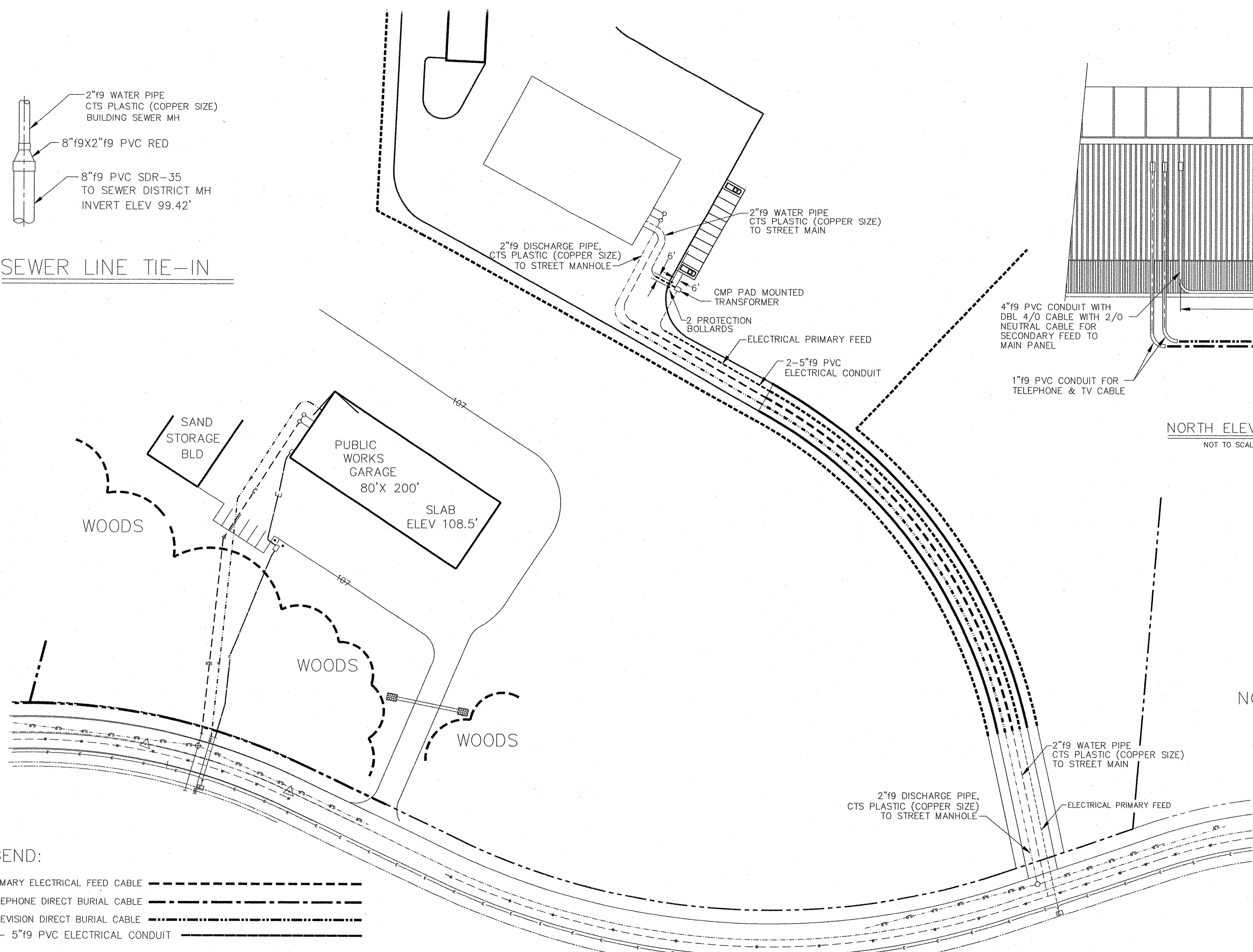
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
ELECTRICAL RECEPTACLE PLAN

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO E-2
BY L P Pelletier	CHKD		



SEWER LINE TIE-IN

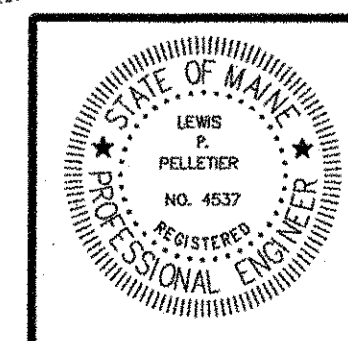


NORTH ELEVATION
NOT TO SCALE

- NOTE:
1. ALL CONDUIT TO BE BURIED A MINIMUM OF 5' BELOW GRADE.
 2. ALL BURIED CONDUIT ARE TO HAVE A MINIMUM OF 6" LAYER OF SAND BENEATH AND ABOVE BEFORE FINAL BACKFILL.

LEGEND:

- PRIMARY ELECTRICAL FEED CABLE
- TELEPHONE DIRECT BURIAL CABLE
- TELEVISION DIRECT BURIAL CABLE
- 2 - 5" f9 PVC ELECTRICAL CONDUIT
- 6" f9 SDR-35 SEWER PIPE
- 2" f9 COPPER SIZED PLASTIC WATER LINE
- PROPERTY BOUNDARY
- WOODLINE



NO	DATE	DESCRIPTION

PIN 14062.11

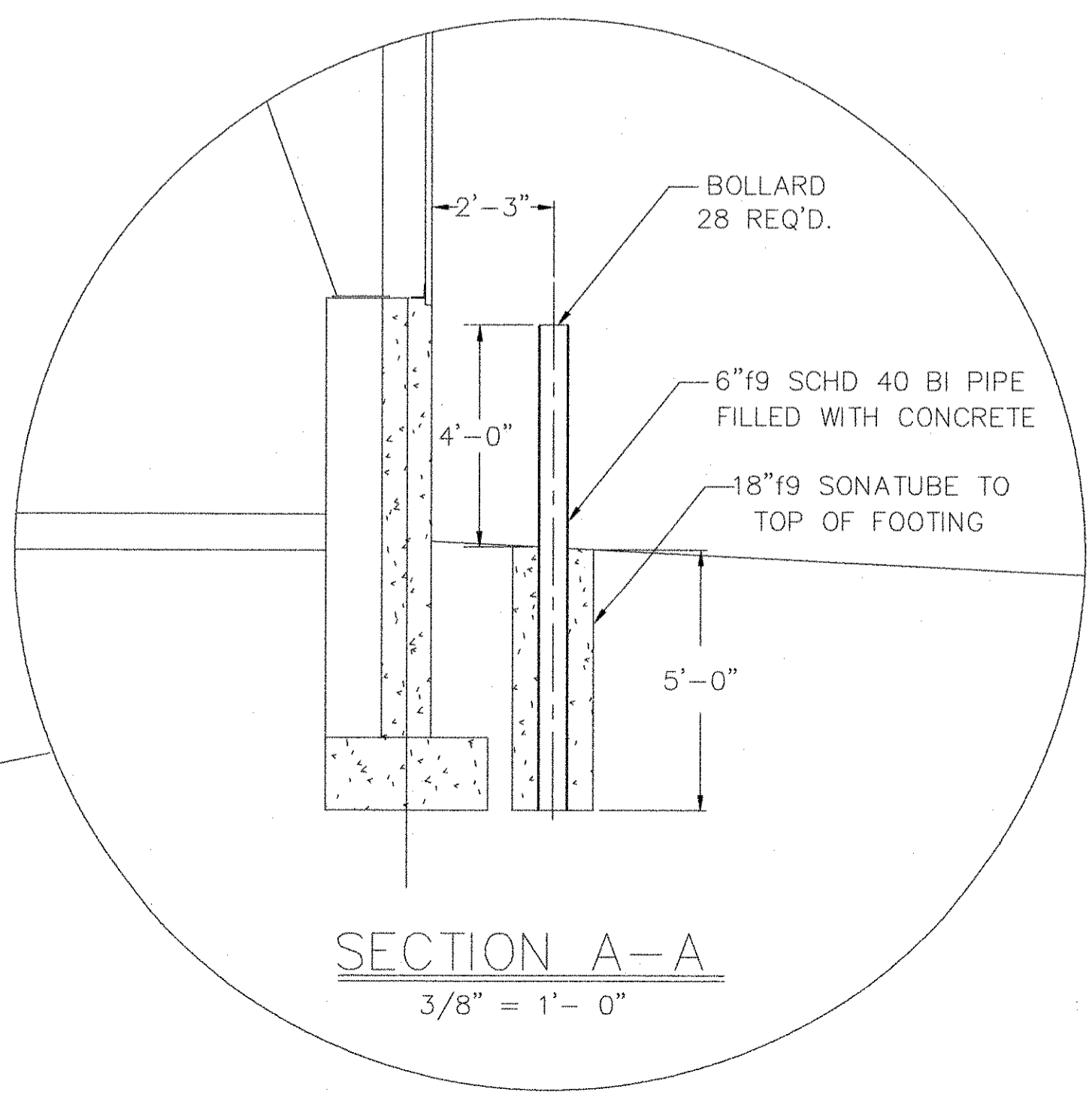
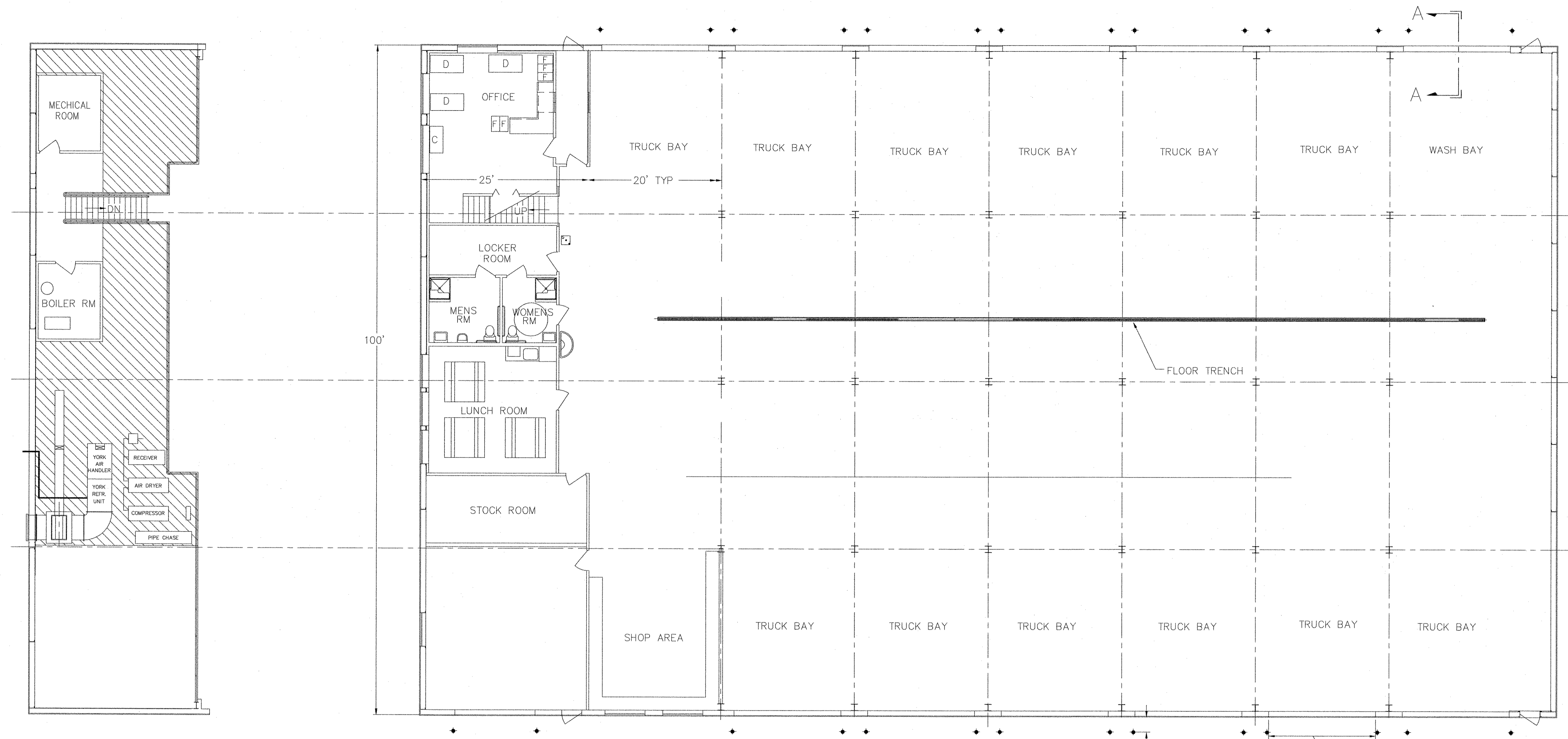
ENGINEERING

CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04907
(PH & FAX) 207-873-492

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

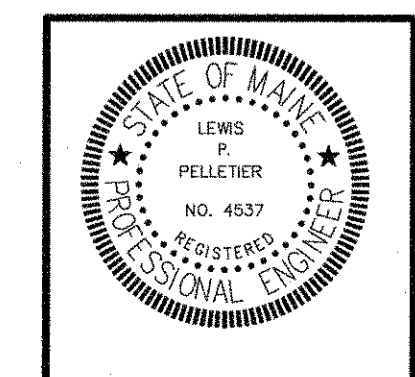
TITLE
PRIMARY ELECTRICAL PLAN

DATE 05-19-06	SCALE 1/16" = 3'-0"	JOB NO. LP ENG 300-01-06	DRAWING NO. E-1
L. P. Pelletier		CHR	



BOLLARD LOCATION PLAN
1/8" = 1'-0"

NOTE:
1. 28 BOLLARDS ARE TO BE INSTALLED PLUMB AND IN LOCATIONS SHOWN IN THE PLAN AND SECTION VIEW.



NO	DATE	DESCRIPTION
A	12-11-06	BOLLARD QTY CHANGED TO 28 IN SECTION A-A

PIN 14062.11

ENGINEERING

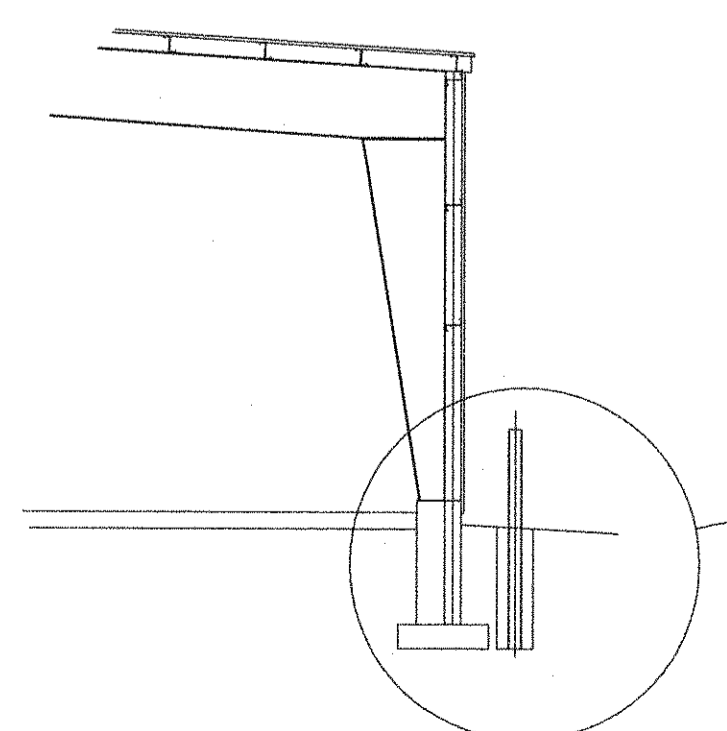
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(PH & FAX) 207-873-4928

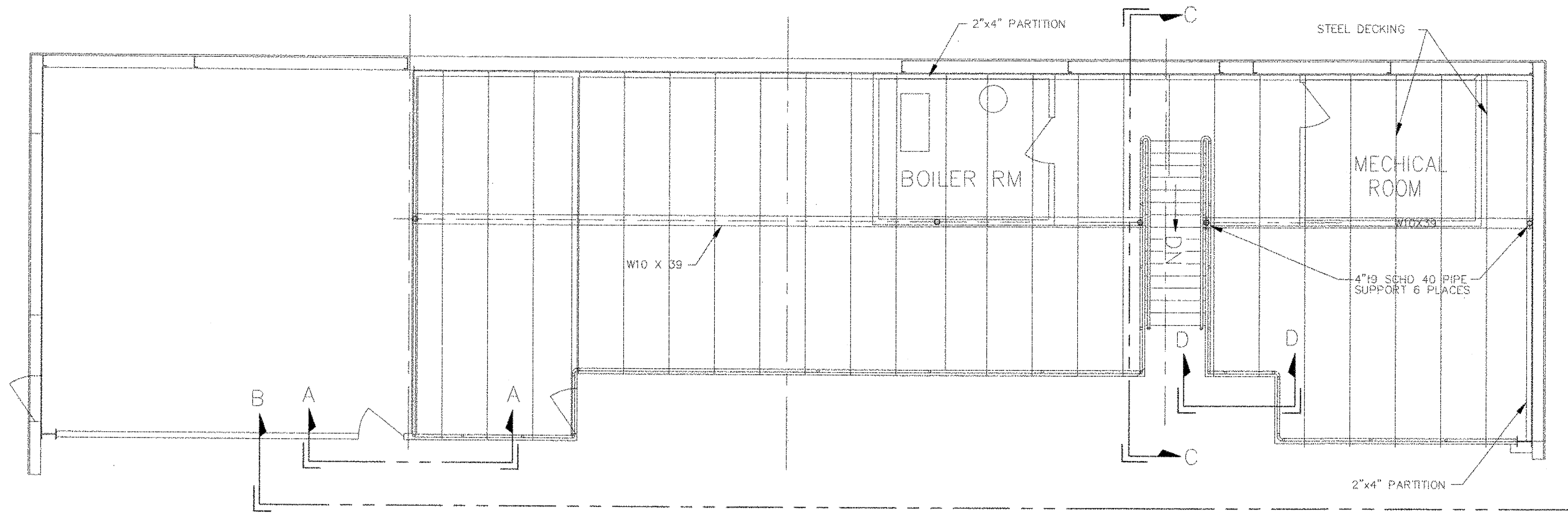
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
BUILDING BOLLARD PLAN & DETAILS

DATE 05-19-06	SCALE AS SHOWN	JOB NO LP ENG 30-1-01	DRAWING NO A-7A
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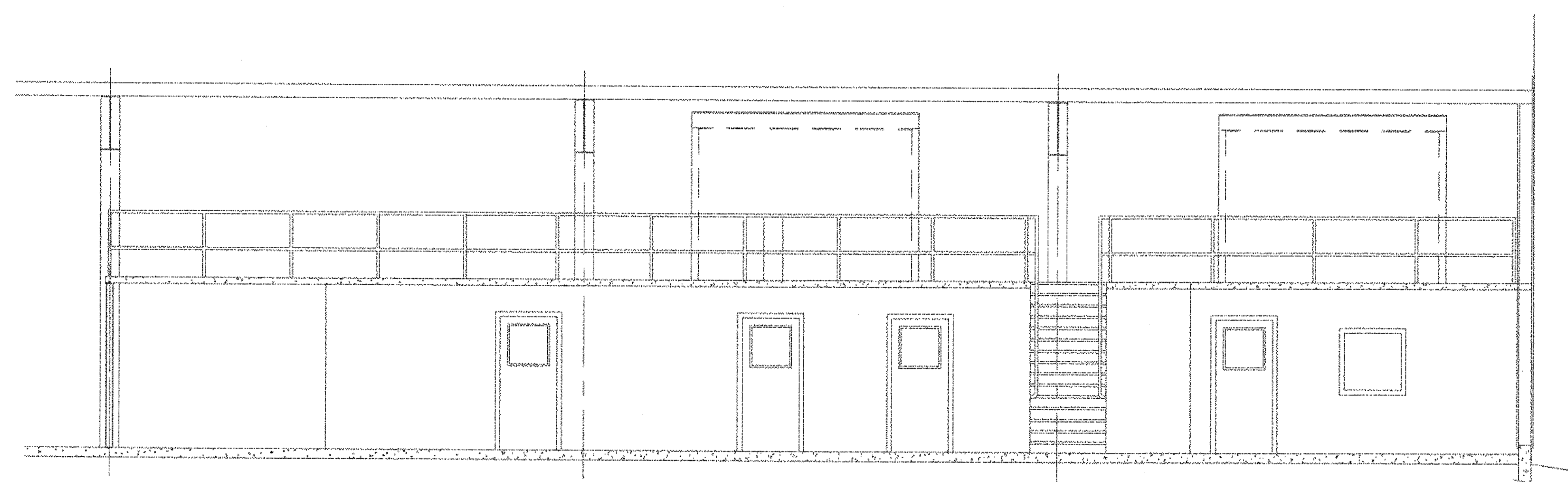
BY
L. P. Pelletier



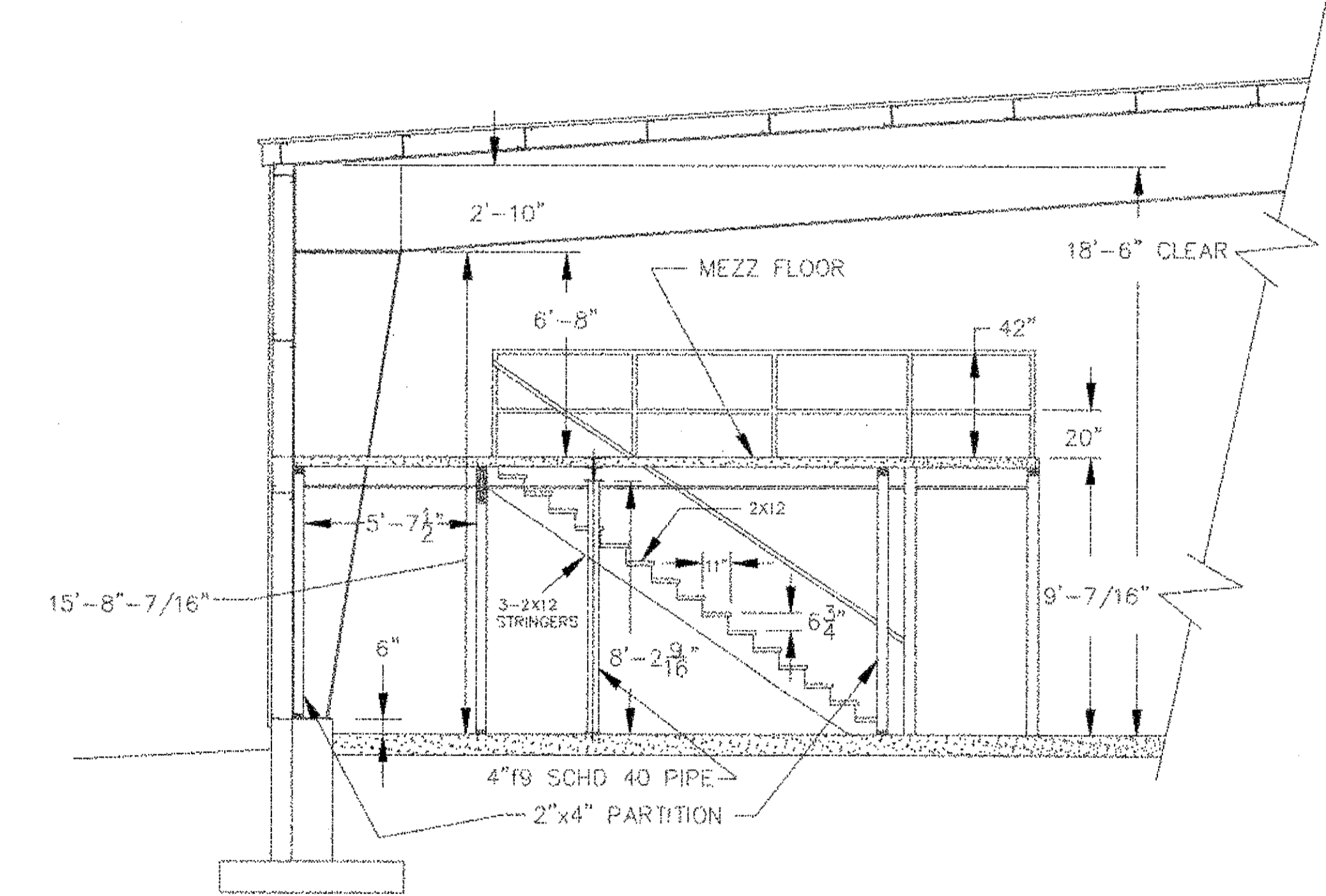


NOTES:

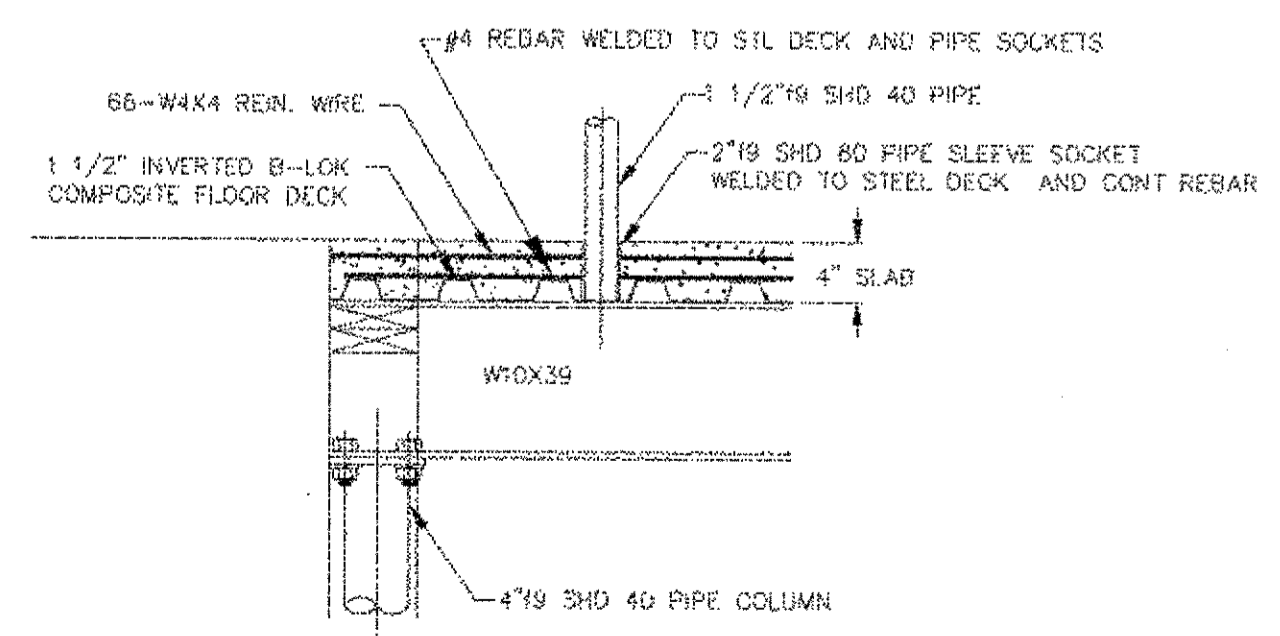
1. 4" f9 SCH 40 STEEL PIPE POST, 8'-2 1/16" LG, W/6" X 6" X 1/2" THK PLT ON BOTT END.
2. 1 1/2" INVERTED B-LOK COMPOSITE FLOOR DECK 22 GA., 6" SPAN, PAINTED ON BOTTOM. BY UNITED STEEL DECK, INC.
3. 4" THK. CONCRETE SLAB, MEASURED FROM BOTTOM OF DECK RIB. CONCRETE TO BE 4000 PSI MIX.
4. ALL BOLTS TO BE 3/4" f9 A325 HIGH STRENGTH, IN ALL BEAM CONNECTIONS.
5. BEAM SPLICE CONNECTION TO BE OVER COLUMNS, WITH 6" X 3/8" SPLICE PLTS ON BOTH SIDES OF FLANGE.
6. HAND RAIL POST SUPPORT SLEEVES TO BE 2" f9 SHD 80 PIPE 4" LG., WELDED TO STEEL DECK AND CONT #4 REBAR.
7. HAND RAIL AND POST TO BE 1 1/2" f9 SCH 40 PIPE.
8. 1/4 X 6 STEEL BAR KICK PLATE TO BE WELDED TO THE BOTTOM OF HAND RAIL POST.
9. TOP & BOT COLUMN PLATE TO BE 1/2 X 6 X 6 W/TOP BOLTED TO BEAM AND BOTTOM ANCHORED TO CONCRETE FLOOR W/1/2" f9 ANCHORS 4" MIN. LG.
10. STRUCTURAL STEEL TO BE TEMPORARY CROSS BRACED BETWEEN COLUMNS DURING ASSY & CONCRETE PLACEMENT.
11. STEEL DECK TO BE SHORED AT MID SPAN DURING CONCRETE PLACEMENT AND UNTIL 7 DAYS AFTER PLACEMENT.
12. SLAB TO BE REINFORCED WITH 66-#4X4 WIRE MESH. MESH TO BE PLACED 1" FROM TOP OF SLAB.
13. BONDOUTS FOR HEAT, AIR AND WATER PIPES AND HVAC DUCTS ARE TO BE FIELD LOCATED.



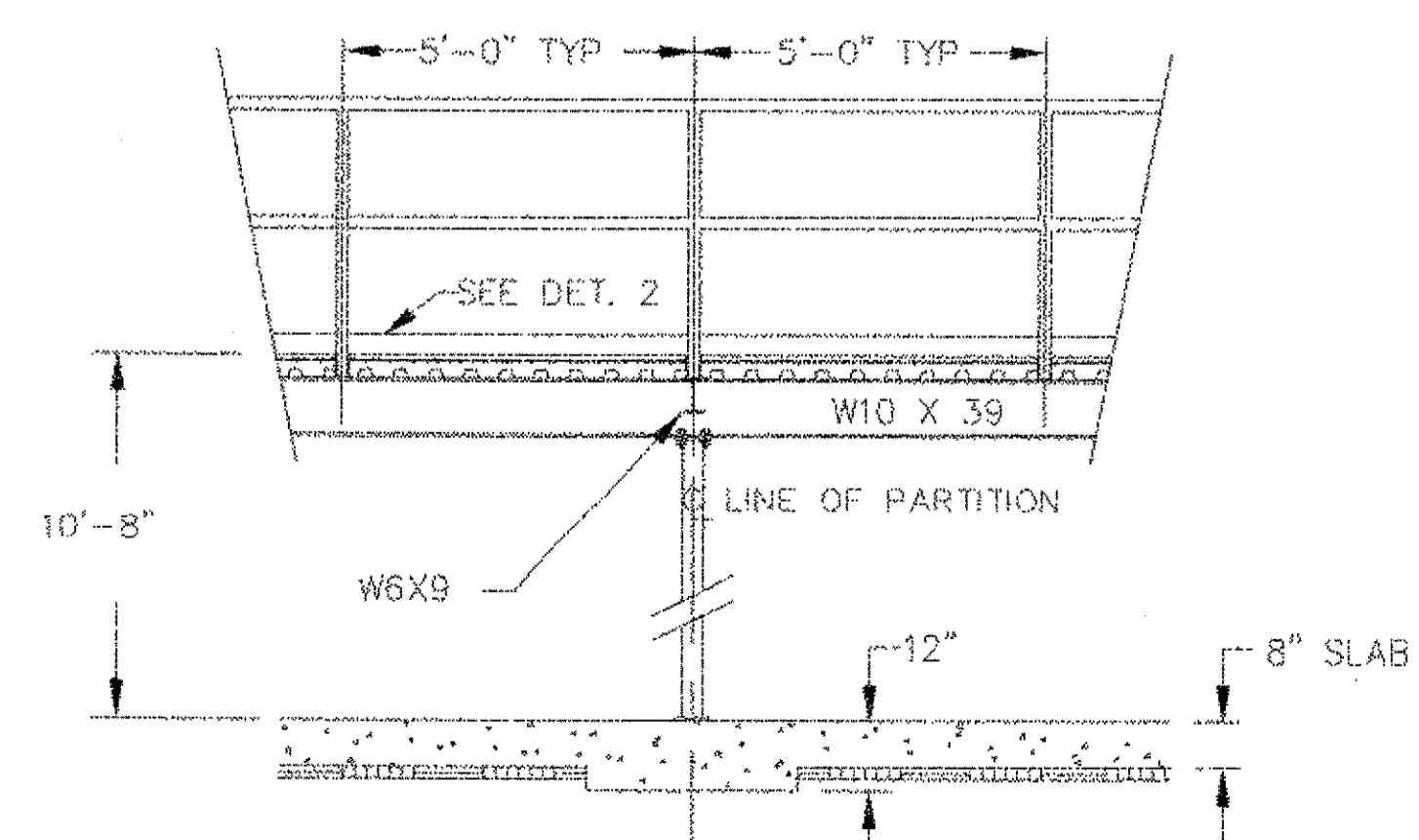
SECTION B-B
1/8" = 1'-0"



SECTION C-C
1/8" = 1'-0"



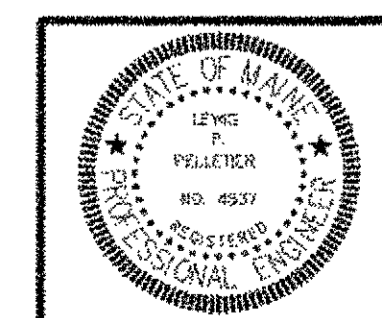
SECTION A-A
1 1/2" = 1'-0"



SECTION D-D
3/8" = 1'-0"

NOTE:

1. OFFICE, LUNCH ROOM, BATH ROOMS AND LOCKER ROOM TO HAVE 1 HOUR FIRED RATED EXTERIOR WALLS, CEILING, AND DOORS.



NO	DATE	DESCRIPTION
A	12-08-06	ADDED STAIR DETS AND ADDED SECTION D-D
	05-19-06	AS SHOWN
		CHKD
		L.P. Pelletier

PIN 14062.11

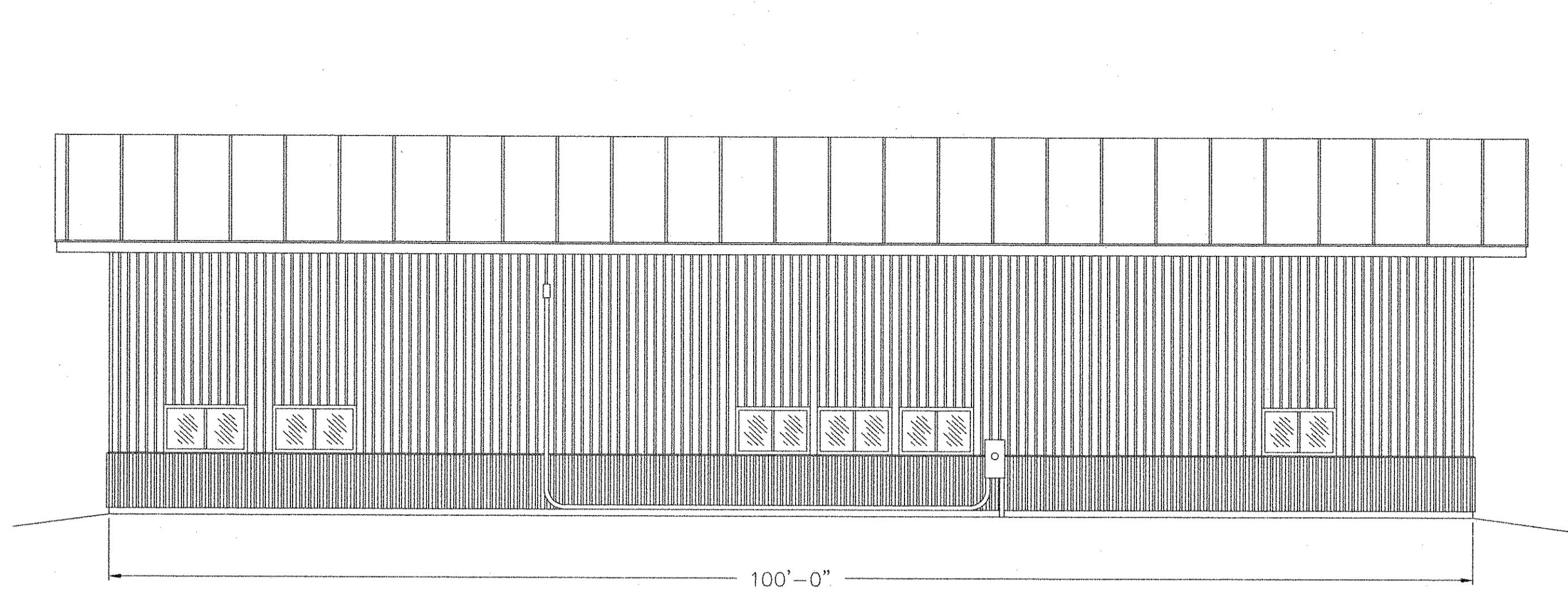
ENGINEERING

CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

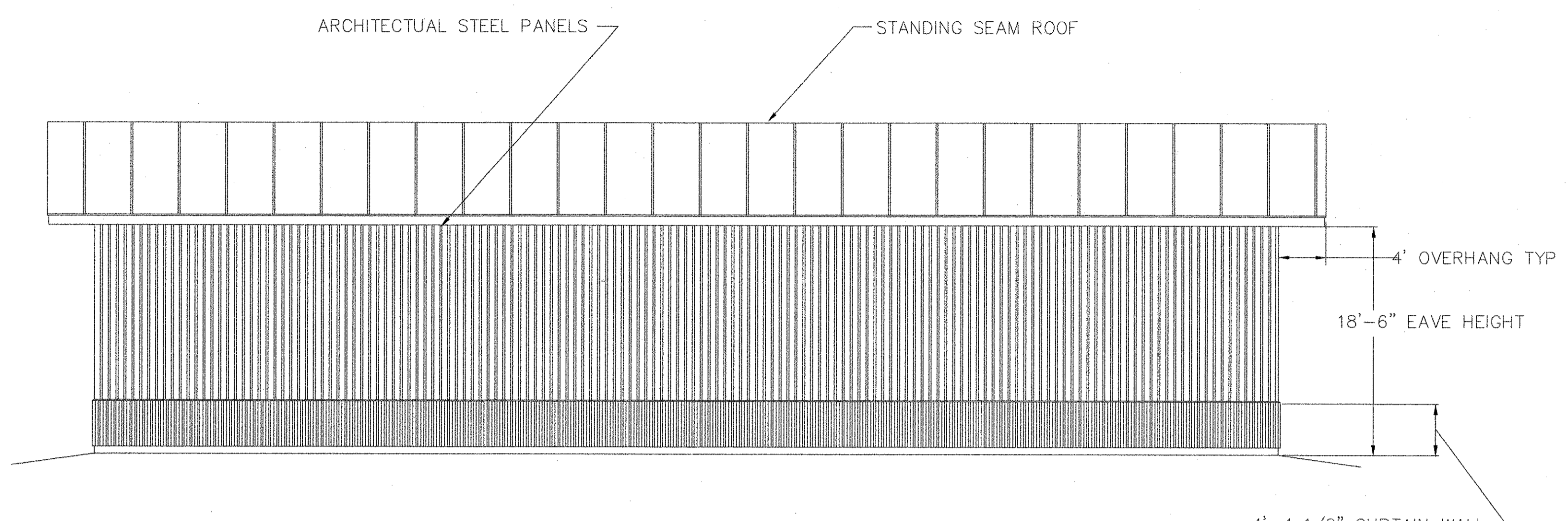
PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
2ND FLOOR MEZZANENE
FOUNDATION PLAN & SECTION

DATE	SCALE	JOB NO	DRAWING NO
05-19-06	AS SHOWN	LP ENG 300-01-06	A-5A
BY	CHKD		
L.P. Pelletier			



SOUTH ELEVATION
1/8" = 1'- 0"



NORTH ELEVATION
1/8" = 1'- 0"

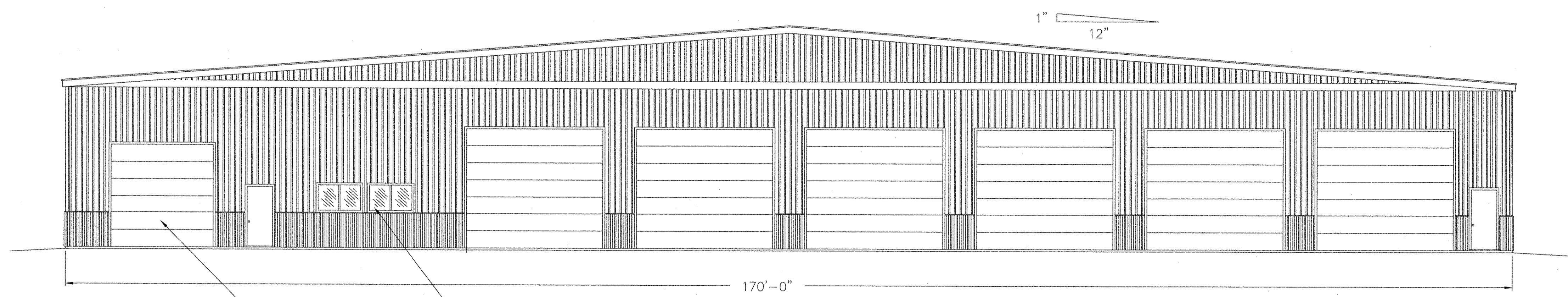
ARCHITECTURAL STEEL PANELS

STANDING SEAM ROOF

4' OVERHANG TYP

18'-6" EAVE HEIGHT

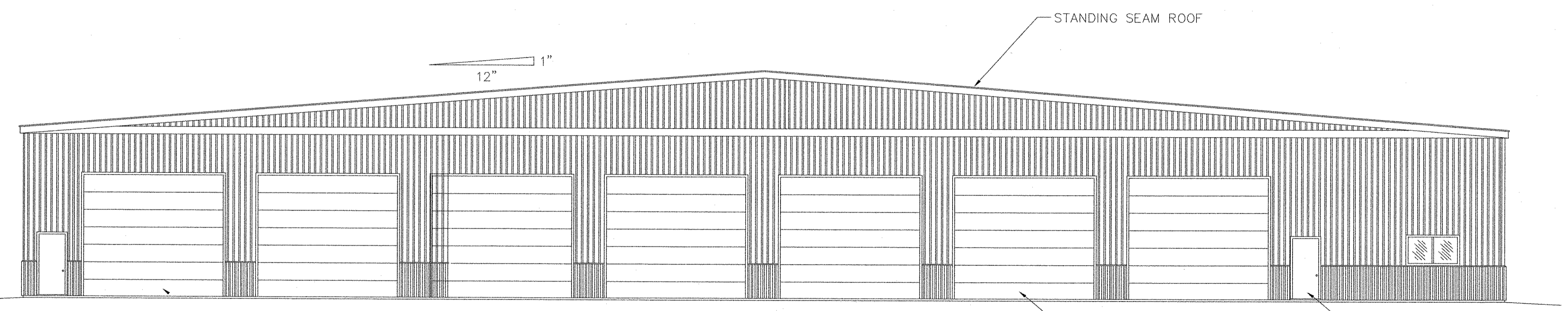
4'-4 1/2" CURTAIN WALL
BEHIND SHEATHING



REAR ELEVATION
1/8" = 1'- 0"

12' X 12' RAYNOR
OVERHEAD DOOR

1" / 12"

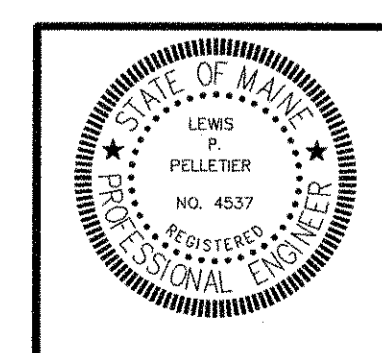


FRONT ELEVATION
1/8" = 1'- 0"

STANDING SEAM ROOF

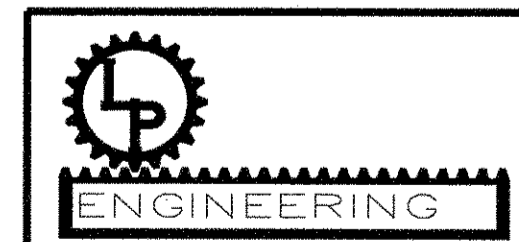
16' X 14' RAYNOR OVERHEAD
DOOR TYP. 14 PLACES

STEEL MAN DOOR
TYP. 4 PLACES



NO	DATE	DESCRIPTION
B	12-15-06	REPLACED DOOR WITH 2-WINDOWS AT \triangle
A	12-11-06	REVISED OVERHEAD DOOR SIZE AND ADDED \triangle

PIN 14062.11



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TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

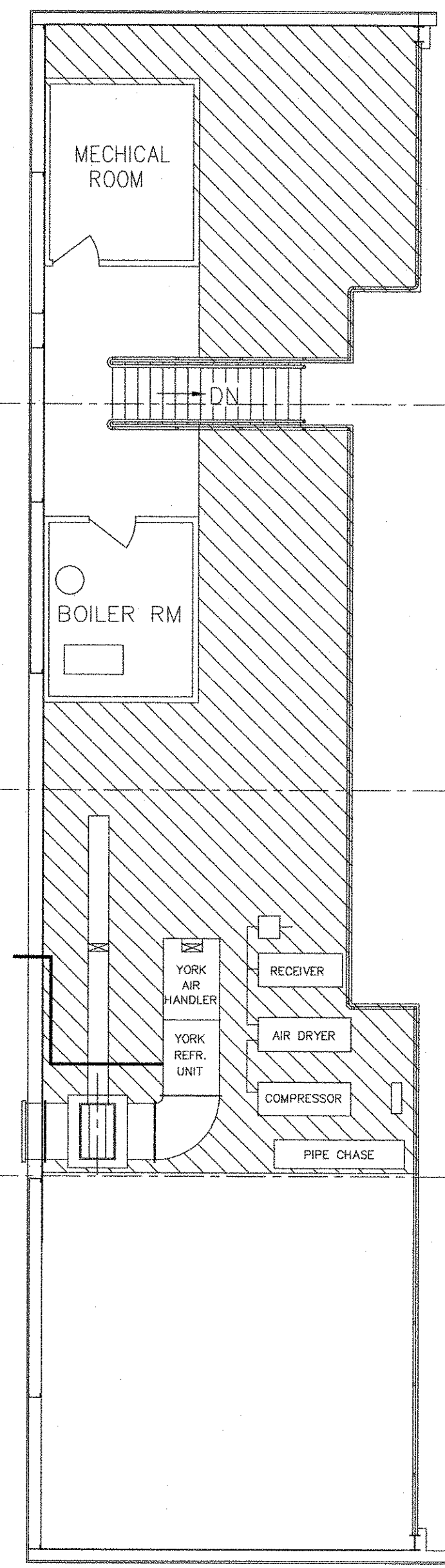
TITLE
BUILDING ELEVATIONS

DATE	SCALE	JOB NO	DRAWING NO
05-19-06	AS SHOWN	LP ENG 300-01-06	A-2B

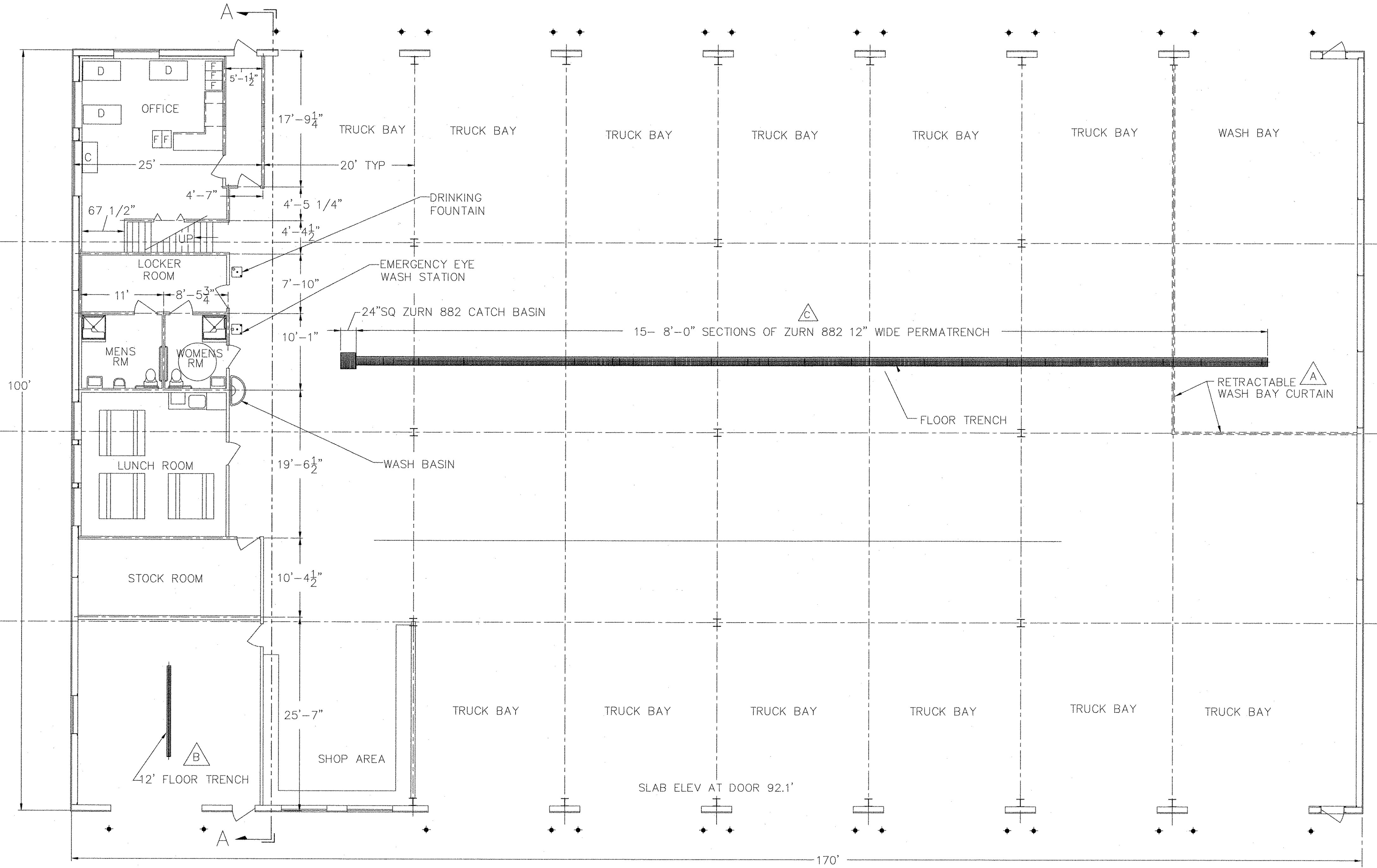
BY
L.P. Pelletier

CHKD

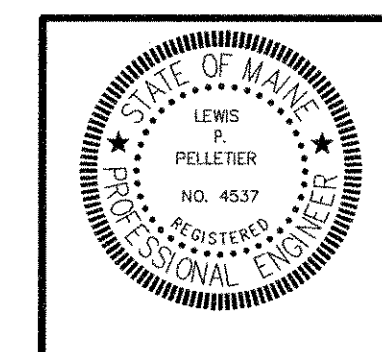
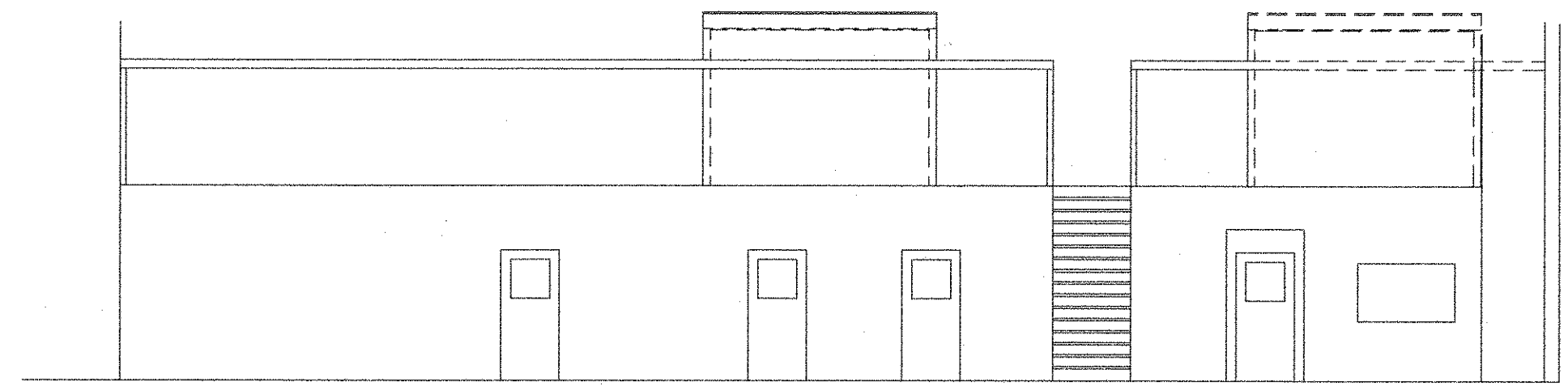
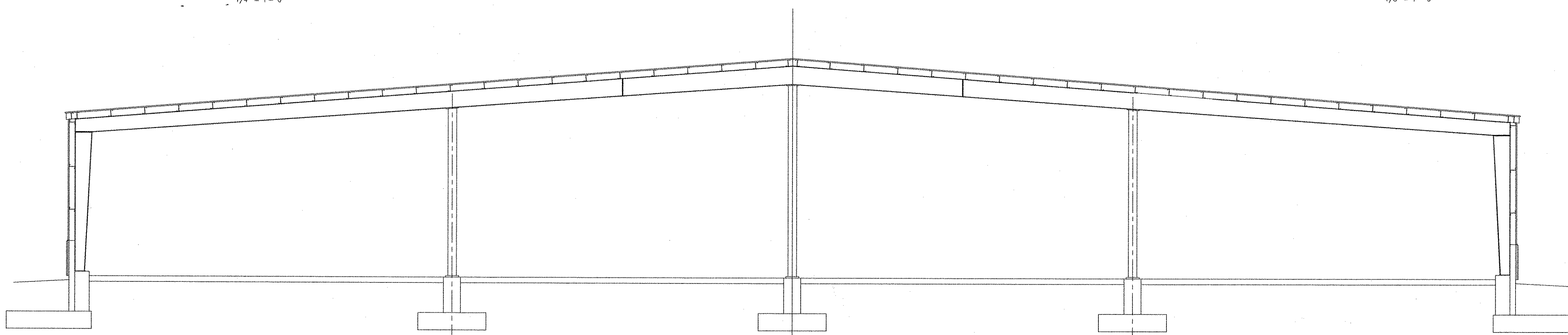
LP ENG 300-01-06



SECOND FLOOR PLAN
1/4" = 1'-0"



FIRST FLOOR PLAN
1/8" = 1'-0"



NO	DATE	DESCRIPTION
C	12-21-06	ADDED ZURN FLOOR TRENCH AT \triangle
B	12-11-06	ADDED FLOOR TRENCH AT \triangle AND EYE WASH STATION
A	12-08-06	ADDED NOTE AT \triangle & OFFICE DIM

PIN 14062.11

ENGINEERING

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1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

PROJ.
TOPSHAM HIGHWAY MAINTENANCE GARAGE
TOPSHAM, MAINE

TITLE
BUILDING PLAN

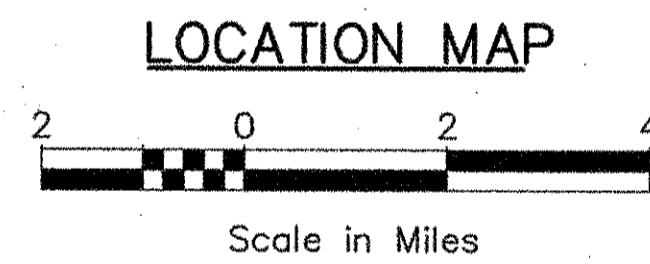
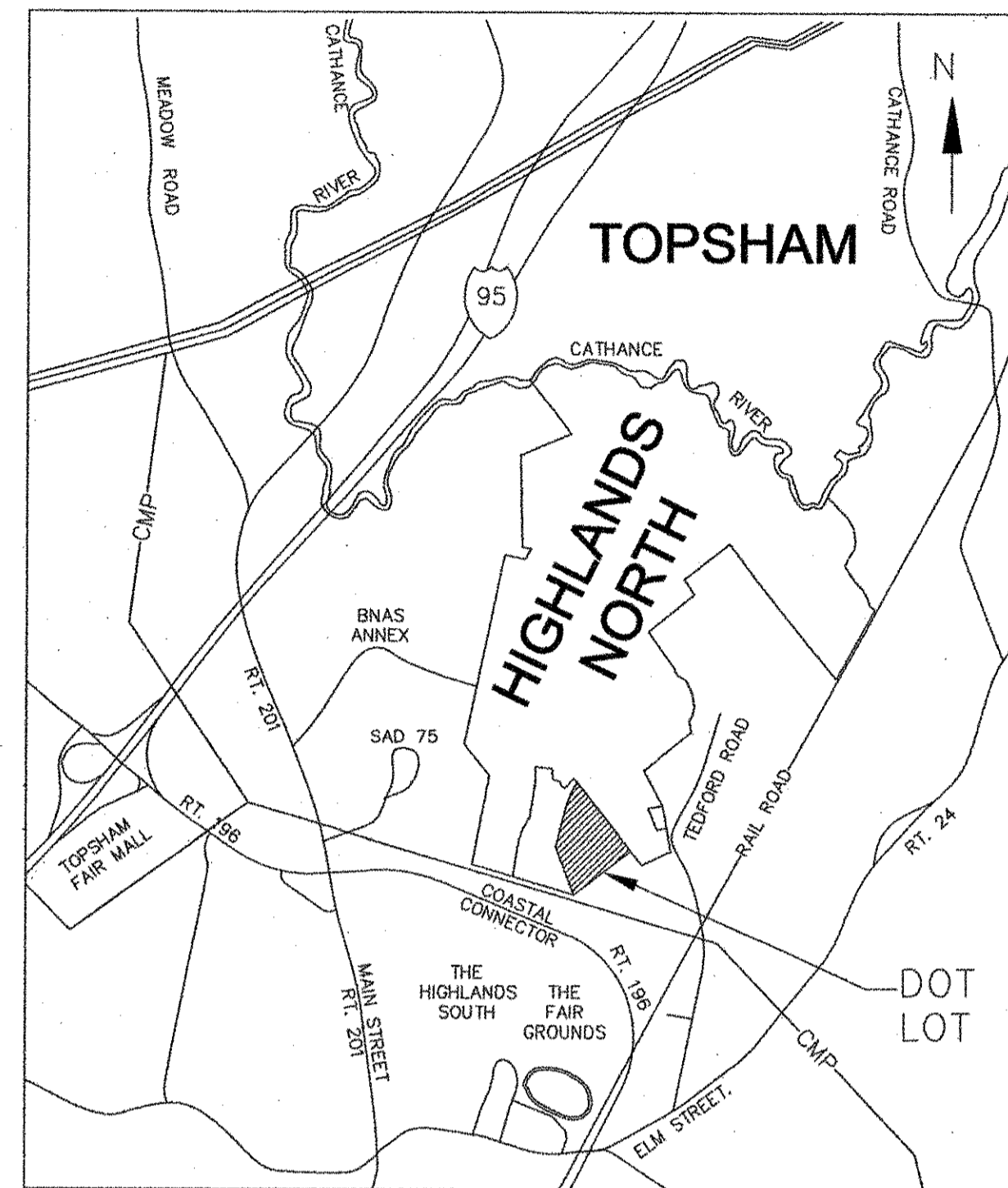
DATE 08-19-06	SCALE AS SHOWN	JOB NO LP ENG 300-01-06	DRAWING NO A-1C
BY L. P. Pelletier	CHKD		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION



TOPSHAM
SAGADAHOC COUNTY
14062.11

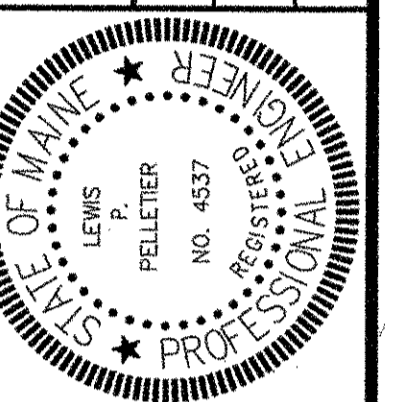
PROJECT LENGTH : NA
HIGHWAY MAINTENANCE GARAGE



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Description	Sheet No.
Title Sheet	T-1
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Building Elevations	A-2
Mezzanene Plan & Sections	A-5
Bollard Plan & Det's.	A-7
Building Schedule	A-8
Primary Electrical Plan	E-1
Electrical Receptacle Plan	E-2
Electrical Lighting Plan	E-3
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Radiant Heat Piping Plan	H-1
Radiant Heat South End Piping Plan	H-2
Radiant Heat Mid Section Piping Plan	H-3
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Building Exhaust Plan & Det's.	V-3

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED
COMMISSIONER: [Signature]
CHIEF ENGINEER: [Signature]
DATE: 11/28/06



4537
DATE: [Signature]

PROJECT INFORMATION	
PROGRAM	
BUILDING PROGRAM MANAGER	Gail MacMunn
DESIGNER	Lewis P. Pelletier, P.E.
CONSULTANT	
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

PIN 14062.11

TOPSHAM
MAINTENANCE GARAGE

SHEET NUMBER
T-1
1 OF 24

Lewis P. Pelletier, P.E.
CONSULTING
1265 ALBION ROAD
WINSLOW, MAINE 04901
(PH & FAX) 207-873-4928

Date:
Username:
Division:
Filename: