



Department of Management Services
Purchasing Division
241 West South Street
Kalamazoo, MI 49007-4796
Phone: 269.337.8020
Fax: 269.337.8500
www.kalamazoo.org
purchasing@kalamazoo.org

NON-MANDATORY PRE-BID MEETING – Wednesday, October 4, 2023, at 9 a.m.
Harrison Facility - Conference Room A
1415 Harrison Street, Kalamazoo, MI 49001

INVITATION FOR BIDS (IFB)

The City of Kalamazoo, Michigan is soliciting sealed bids for:

PROJECT NAME: Bac T Lab & Office Renovations

BID REFERENCE #: 90900-015.0

IFB ISSUE DATE: September 25, 2023

BID DUE/OPENING DATE: October 18, 2023 @ 3:00 p.m. Local Time (ET)
Facsimile Bids Will Not Be Accepted.

MAILING ADDRESS & INSTRUCTIONS

Mail to:
Purchasing Division
241 W. South Street
Kalamazoo, MI 49007

Questions about this IFB should be directed to:
Chris Nelson, Collections & Plant Maintenance
Manager at nelsonc1@kalamazoo.org or
(269) 337-8539

Include on the Envelope the Project Name and Bid Reference Number. All Envelopes Must Be Sealed.

You are invited to submit a bid for this project. Specifications, terms, conditions and instructions for submitting bids are contained herein. This Invitation for Bids with all pages, documents and attachments contained herein, or subsequently added to and made a part hereof, submitted as a fully and properly executed bid shall constitute the contract between the City and the successful bidder when approved and accepted on behalf of the City by an authorized official or agent of the City. Please review the bid document as soon as possible and note the **DEADLINE FOR QUESTIONS** in the Instructions to Bidders.

All bidders shall complete and return the Bid and Award page(s) and submit all information requested herein in order for a bid to be responsive. The bid document shall be returned in its entirety, in a properly identified and sealed envelope to the Purchasing Division at the above address. **BIDS MUST BE RECEIVED BEFORE THE DUE DATE - LATE BIDS WILL NOT BE CONSIDERED.** The City reserves the right to postpone the bid opening for its own convenience.

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STATEMENT OF NO BID

NOTE: If you DO NOT intend to bid on this commodity or service, please complete and return this form immediately. Your response will assist us in evaluating all responses for this important project and to improve our bid solicitation process.

The Purchasing Division of the City of Kalamazoo wishes to keep its bidders list file up-to-date. If, for any reason you cannot supply the commodity/service noted in this bid solicitation, this form must be completed and returned to remain on the particular bid list for future projects of this type.

If you do not respond to this inquiry within the time set for the bid opening date and time noted, we will assume that you can no longer supply this commodity/service, and your name will be removed from this bid list.

- _____ Specifications too "tight", i.e. geared toward one brand or manufacturer only (explain below).
- _____ Specifications are unclear (explain below).
- _____ We are unable to meet specifications.
- _____ Insufficient time to respond to the Invitation for Bid.
- _____ Our schedule would not permit us to perform.
- _____ We are unable to meet bond requirements.
- _____ We are unable to meet insurance requirements.
- _____ We do not offer this product or service.
- _____ Remove us from your bidders list for this commodity or service.
- _____ Other (specify below).

REMARKS: _____

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL: _____

**SECTION I
INSTRUCTIONS TO BIDDERS**

1. **EXAMINATION OF BID DOCUMENT**-Before submitting a bid, bidders shall carefully examine the specifications and shall fully inform themselves as to all existing conditions and limitations. The bidder shall indicate in the bid the sum to cover the cost of all items included on the bid form.
2. **PREPARATION OF BID**-The bid shall be legibly prepared in ink or typed. If a unit price or extension already entered by the bidder on the Bid and Award form is to be altered, it shall be crossed out and the new unit price or extension entered above or below and initialed by the bidder with ink. The bid shall be legally signed, and the complete address of the bidder given thereon.

All bids shall be tightly sealed in an envelope plainly marked SEALED BID and identified by project name, bid opening date and time. Bids opened by mistake, due to improper identification, will be so documented and resealed. The Purchasing Division will maintain and guarantee confidentiality of the contents until the specified opening date and time. Bids submitted electronically will not be accepted.

3. **EXPLANATION TO BIDDERS**-Any binding explanation desired by a bidder regarding the meaning or interpretation of the Invitation for Bids (IFB) and attachments must be requested in writing, **at least 5 business days before the bid opening** so a reply may reach all prospective bidders prior to the submission of bids. Any information given to a prospective bidder concerning the IFB will be furnished to all prospective bidders as an amendment or addendum to the IFB if such information would be prejudicial to uninformed bidders. Receipt of amendments or addenda by a bidder must be acknowledged in the bid by attachment, or by letter or fax received before the time set for opening of bids. Oral explanation or instructions given prior to the opening will not be binding.
4. **CASH DISCOUNTS**-Discount offered for payment of less than thirty (30) days will not be considered in evaluating bids for award. Offered discounts of less than thirty (30) days will be taken if payment is made within the discount period, even though not considered in evaluation of the bid.
5. **WITHDRAWAL OF BIDS**-Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the exact time set for receipt of bid. No bid may be withdrawn for at least ninety (90) days after bid opening.
6. **ALTERNATE BIDS**-bidders are cautioned that any alternate bid, unless specifically requested or any changes, insertions or omissions to the terms and conditions, specifications or any other requirement of this IFB may be considered non-responsive, and at the option of the City, result in rejection of the alternate bid.
7. **LATE BIDS**-Any bid received at the office designated herein after the exact time specified for receipt will not be considered. (Note: The City reserves the right to consider bids that have been determined by the City to be received late due to mishandling by the City after receipt of the bid and no award has been made.)
8. **UNIT PRICES**-If there is a discrepancy between unit prices and their extension, unit prices shall prevail.
9. **BID SUBMITTAL**- Bidders can submit sealed bids in one of the following ways:
 - 9.1. **Mail your bid**, to be received before the bid due date and time indicated in the bid document, to the City of Kalamazoo at the following address:

City of Kalamazoo
Purchasing Division
241 West South Street
Kalamazoo, MI 49007

- 9.2. **Deliver your bid to City Hall In-Person** before the bid due date and time indicated in the bid document.
- 9.3. **Deliver your bid to the Treasurer’s Office Payment Drop Box** located in the northwest corner of City Hall (see photos below) before the bid due date and time indicated in the bid document.



1. Open drop box located at City Hall.



2. Insert SEALED BID here.



- 10. **BID TABULATIONS-** The Purchasing Division makes an effort to post bid tabulations to the City of Kalamazoo website within 24 hours after the bid opening date and time at: <https://www.kalamazoo.org/bidopportunities>. However, in certain cases the posting of the bid tabulation may extend beyond the 24-hour window.

SECTION II
BID AND AWARD

The undersigned having become thoroughly familiar with all of the bid/contract documents incorporated herein, the project site and the location conditions affecting the work, hereby proposes to perform everything required to be performed in strict conformity with the requirements of these documents, and to provide and furnish all labor, materials, tools, equipment, and services necessary to complete in a professional manner the furnishing and installing of all of the following, meeting or exceeding the specifications as set forth herein for the prices as stated below.

BAC T LAB & OFFICE RENOVATIONS

Furnish all labor, materials, tools, equipment, and services necessary to complete the Bac T Lab & Office Renovations project as stated in the Specifications and Drawings/Plans.	LS	\$
TOTAL AMOUNT		\$

Bidder shall provide all of the information as requested herein with their bid. **Failure to do so and/or failure to provide post-bid requested information may be cause for rejecting the bid as non-responsive.**

Work shall start within 1 working days of receipt of notification by Contractor of Notice to Proceed and shall be completed within 365 working days thereafter. The selected Contractor agrees to develop a schedule with the Owner as a condition of this contract and agrees to project completion **September 2024**, substantial completion **October 2024**, and final completion **December 31, 2024**.

Bidder/Contractor has examined and carefully studied the bidding documents and attachments, and acknowledges receipt of the following addenda:

Addendum No: _____

Dated: _____

By my signature below, I certify that the firm bidding on this contract, when making hiring decisions, does not use a past criminal conviction as a bar to or preclude a person with a criminal conviction from being considered for employment with the bidding firm unless otherwise precluded by federal or state law. I further certify that I have read and agree to be bound by the provisions of the City’s Non-Discrimination Clause found in Appendix A as updated by City Ordinance 1856.

Signed: _____ Name: _____

Title: _____

CITY OF KALAMAZOO EX-OFFENDER POLICY CHECKLIST

As part of the City's commitment to reducing unacceptable poverty, encouraging rehabilitation, reducing recidivism and strengthening families in Kalamazoo, the City has updated its Purchasing Policy to ensure that firms with whom the City does business share in this commitment by utilizing hiring practices that do not unfairly deny people with arrest and conviction records gainful employment. *(Important: This requirement also extends to any subcontractors the bidder intends to use to fulfill the contract for goods or services being sought from the City.)*

Part I: Proof that the bidder does not inquire about an individual's past arrest or criminal history on the bidders employment application form

- Attach a copy of the current application for employment being used by the bidder

Part II: Certification that the bidder does not use an individual's past arrest or criminal history to unlawfully discriminate against them by checking *one or more* of the following:

- That pursuant to federal or state law bidder is precluded from hiring persons with certain criminal records from holding particular positions or engaging in certain occupations by providing a cite to the applicable statute or regulation; if checking this box, provide a citation to the applicable statute or rule upon which the bidder is relying: _____
- That bidder conducts criminal history background checks only as necessary, and only after making a conditional offer of employment; that any withdrawal of an offer of employment to an individual because of a past criminal history is job-related and consistent with business necessity after the individual has been provided an individualized assessment opportunity to review and challenge or supplement the history of past criminal conduct being relied upon by the bidder;
- That the use by bidder of criminal history background checks complies with the U.S. Equal Employment Opportunity Commission's Enforcement Guidance on the Consideration of Arrest and Conviction Records in Employment Decisions and that the bidder has not had a determination rendered against it in past 7 years that it discriminated against a person through the use of an individual's arrest or criminal history

I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE.

Date

Signature

Printed Name

Position

SUB-CONTRACTING INFORMATION

Using the table below provide information regarding the sub-contractors that will be working to fulfill the requirements of this contract. Submit as complete a list as possible at the time of your bid. You will have two business days after the bid opening to update the list as needed. The information provided will be used for evaluating your bid and to assist in determining if you qualify as a Kalamazoo County Bidder.

INSTRUCTIONS:

Nature of Contract - State a brief description of the work or product that will be provided.

BIDDER – Provide the percentage of services or construction activity that will be provided by your firm.

Subcontractors:

- Provide the Name and Address for each subcontractor providing services or construction activities for this contract.
- Indicate with **YES** or **NO** under the “Local?” box if they qualify as a “Kalamazoo County bidder” (see local preference certification page)
- Provide the percentage for the dollar amount of the contract work they will be performing.

If there are not enough lines in the table below make additional copies as needed.

Nature of Contract:		
Subcontractor Name/Address	Local?	% Of Total Contract
<i>BIDDER</i>		

Does this List of Subcontractors need to be updated after the bid opening? **Yes** __ **No** __

REFERENCE QUESTIONNAIRE

Please answer the following questions completely.

- 1. Firm name: _____
- 2. Established: Year _____ Number of Employees: _____
- 3. Type of organization:
 - a. Individual: _____
 - b. Partnership: _____
 - c. Corporation: _____
 - d. Other: _____
- 4. Former firm name(s) if any, and year(s) in business:

- 5. Include at least 3 references of contracts for similar work performed over the last five (5) years. Include: owner, contact person and phone number and description of work performed.
 - 5.1 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - 5.2 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____
 - 5.3 Company Name: _____
Address: _____
Phone: _____
Contact: _____
Type of work or contract: _____

I hereby certify that all of the information provided is true and answered to the best of my ability.

Signed: _____ Name: _____
(type or print)

Title: _____ Date: _____

**CITY OF KALAMAZOO
LOCAL PREFERENCE POLICY AND CERTIFICATION**

The lowest responsive Kalamazoo County bidder whose bid is not low but falls within 2% of the lowest responsive bid is afforded the opportunity to become the successful bidder if it agrees to reduce its bid to match the lowest responsive bid. The City of Kalamazoo is the sole determiner whether a bidder is responsive, qualifies as a Kalamazoo County bidder, and if its bid is responsive to the City’s specifications, terms and conditions.

If the lowest Kalamazoo County bidder chooses not to match the lowest bid, the next lowest responsive Kalamazoo County bidder whose bid falls within 2% of the lowest bid is given the opportunity to match the lowest responsive bid.

To qualify as a Kalamazoo County bidder, the bidder must meet both the following criteria:

1. Have a physical presence in Kalamazoo County by maintaining a permanent office, factory or other facility in Kalamazoo County with employees working in Kalamazoo County.
2. Have paid real or personal property taxes related to said business to the City of Kalamazoo, County of Kalamazoo or other municipal corporation within Kalamazoo County in the previous tax year, except that a non-profit entity need not meet this requirement.

This local preference policy applies only to purchases for materials, supplies, capital outlay, and services for maintenance, repair or operation of City facilities that are over \$25,000. If more than 50% of the contract is sub-contracted to firms located outside of Kalamazoo County that bid does not qualify for the local preference policy outlined above. The local preference policy will not apply if prohibited by law. The Purchasing Agent has the authority to finally determine if the bidder qualifies as a Kalamazoo County bidder as set forth herein. The Purchasing Agent may take into account the permanency of the business in Kalamazoo, and whether the business appears to be claiming to be a Kalamazoo County business solely or primarily to qualify as a Kalamazoo County business under this Resolution, and any other material factors.

CERTIFICATION

If you qualify as a Kalamazoo County bidder and wish to be considered for the local preference provisions as provided above, please certify that fact by providing the information requested below and attesting to its accuracy.

Firm Name: _____

Street Address of Business: _____

City, State, and Zip Code: _____

Number of employees working in Kalamazoo County: _____

Name the city or township to which business real and/or personal property taxes are paid or provide non-profit status:

The above information is accurate:
Signature: _____ Date: _____

Title: _____

I hereby state that all of the information I have provided is true, accurate and complete. I hereby state that I have the authority to submit this bid which will become a binding contract if accepted by the City of Kalamazoo. I hereby state that I have not communicated with nor otherwise colluded with any other bidder, nor have I made any agreement with nor offered/accepted anything of value to/from an official or employee of the City of Kalamazoo that would tend to destroy or hinder free competition.

The firm's identification information provided will be used by the City for purchase orders, payment and other contractual purposes. If the contractual relationship is with, or the payment made to, another firm please provide a complete explanation on your letterhead and attach to your bid. Please provide for accounts payable purposes:

Tax Identification Number (Federal ID): _____

Remittance Address: _____

Financial Contact Name: _____ Financial Contact Phone Number: _____

Financial Contact Email Address: _____

I hereby state that I have read, understand and agree to be bound by all terms and conditions of this bid document.

SIGNED: _____ NAME: _____
(Type or Print)

TITLE: _____ DATE: _____

FIRM NAME: _____
(if any)

ADDRESS: _____
(Street address) (City) (State) (Zip)

PHONE: _____ FAX: _____

EMAIL ADDRESS: _____

FOR CITY USE ONLY - DO NOT WRITE BELOW

**SECTION III
CITY OF KALAMAZOO
INDEMNITY AND INSURANCE**

Contractor, or any of their subcontractors, shall not commence work under this contract until they have obtained the insurance required under this paragraph, and shall keep such insurance in force during the entire life of this contract. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and acceptable to the City of Kalamazoo within ten (10) days of the Notice of Award. The requirements below should not be interpreted to limit the liability of the Contractor. All deductibles and SIR's are the responsibility of the Contractor.

The Contractor shall procure and maintain the following insurance coverage:

Workers' Compensation Insurance including Employers' Liability Coverage, in accordance with all applicable statutes of the State of Michigan.

Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and aggregate. Coverage shall include the following extensions: (A) Contractual Liability; (B) Products and Completed Operations; (C) Independent Contractors Coverage; (D) Broad Form General Liability Extensions or equivalent, if not already included and (E) XCU coverage if the nature of the contract requires XC or U work.

Automobile Liability in accordance with all applicable statutes of the State of Michigan, with limits of liability not less than \$1,000,000 per occurrence, combined single limit for Bodily Injury, and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles, and all hired vehicles.

Additional Insured: Commercial General Liability and Automobile Liability, as described above, shall include an endorsement stating that the following shall be *Additional Insureds*: The City of Kalamazoo, all elected and appointed officials, all employees and volunteers, all boards, commissions, and/or authorities and board members, including employees and volunteers thereof. It is understood and agreed that by naming the City of Kalamazoo as additional insured, coverage afforded is considered to be primary and any other insurance the City of Kalamazoo may have in effect shall be considered secondary and/or excess.

To the fullest extent permitted by law the Contractor agrees to pay on behalf of, indemnify, and hold harmless the City of Kalamazoo, its elected and appointed officials, and employees against any claims, demands, suits, or loss, including all costs connected therewith, and for any damages which may be asserted, claimed, or recovered against or from the City of Kalamazoo, by reason of personal injury, including bodily injury or death and/or property damage, including loss of use thereof, caused in whole or part by any negligent act or omission by the Contractor, its employees, agents, or officers which arises out of, or is in any way connected or associated with, this contract.

Cancellation Notice: All policies, as described above, shall include an endorsement stating that it is understood and agreed that thirty (30) days, or ten (10) days for non-payment of premium, Advance Written Notice of Cancellation, Non-Renewal, Reduction, and/or Material Change shall be sent to: City of Kalamazoo, Purchasing Division, 241 W. South Street, Kalamazoo, MI 49007.

Proof of Insurance Coverage: The Contractor shall provide the City of Kalamazoo at the time that the contracts are returned by him/her for execution, or within 10 days of Notice of Award, whichever is earlier, a Certificate of Insurance as well as the required endorsements. In lieu of required endorsements, if applicable, a copy of the policy sections where coverage is provided for additional insured and cancellation notice would be acceptable. Copies or certified copies of all policies mentioned above shall be furnished, if so requested.

INDEMNITY AND INSURANCE
Continued

If any of the above coverages expire during the term of this contract, the Contractor shall deliver renewal certificates and/or policies to City of Kalamazoo at least ten (10) days prior to the expiration date.

Scope of Coverage: The above requirements and conditions shall not be interpreted to limit the liability of the Contractor under this Contract but shall be interpreted to provide the greatest benefit to the City and its officers and employees. The above listed coverages shall protect the Contractor, its employees, agents, representatives, and subcontractors against claims arising out of the work performed. It shall be the Contractor's responsibility to provide similar insurance for each subcontractor or to provide evidence that each subcontractor carries such insurance in like amount prior to the time such subcontractor proceeds to perform under the contract.

SECTION IV
SPECIAL REQUIREMENTS

1. BID BOND/GUARANTEE

The bid must be accompanied by a bid bond which shall not be less than five (5%) percent of the total amount of the bid. No bid will be considered unless it is accompanied by the required guarantee. The bid guarantee shall ensure the execution of the bid and award, and the furnishing of a performance bond and a labor and material bond (A and B below) by the successful bidder. (Contractors Note: A cashier's or certified check in lieu of a bid bond is **NOT** acceptable.)

A. PERFORMANCE BOND

A performance bond shall be furnished in the full amount of the contract ensuring the City of faithful performance of all the provisions of the contract, and the satisfactory performance of any equipment required hereunder. The bond shall also ensure the City against defective workmanship and/or materials.

B. LABOR AND MATERIAL (PAYMENT) BOND

A labor and material (payment) bond shall be furnished for the period covered by the contract, in the full amount of the contract for the protection of labor and material suppliers and sub-contractors.

Bonds shall be secured by a guaranty, or a surety company listed in the latest issue of the U.S. Treasury, circular 570, and licensed to do business in the State of Michigan, and written in favor of the City of Kalamazoo. The amount of such bonds shall be within the maximum amount specified for such company in said circular 570. The bonds shall be accompanied by a power of attorney showing authority of the bonding agent to sign such bonds on behalf of the guaranty or surety company. The cost of the bonds shall be borne by the Contractor.

Failure of the Contractor to supply the required bonds within ten (10) days after Notice of Award, or within such extended period as the Purchasing Agent may agree to, shall constitute a default and the City of Kalamazoo may either award this contract to the next lowest bidder or re-advertise for bids and may charge against the Contractor for the difference between the amount of the bid and the amount for which a contract for the work is subsequently executed, irrespective of whether the amount thus due exceeds the amount of the bid bond. If a more favorable bid is received by re-advertising, the defaulting bidder shall have no claim against the City of Kalamazoo for a refund.

2. WAIVERS OF LIEN

Upon completion of all work and request for final payment, the Contractor shall furnish a 100% waiver of lien from each supplier and sub-contractor covering all items of the work. Failure to supply waivers of lien for the entire job upon completion and final payment request will be considered grounds for withholding final payment.

3. SUBCONTRACTORS

- A. Contractors shall state on the Bid and Award page any and all subcontractors to be associated with their bid, including the type work to be performed. Any and all subcontractors shall be bound by all of the terms, conditions and requirements of the contract; however, the prime contractor shall be responsible for the performance of the total work requirements.
- B. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women business enterprise, and shall use its best efforts to ensure that minority and women business enterprises have maximum practicable opportunity to compete for subcontract work under this agreement.

4. PREVAILING WAGES

The successful bidder will be required to comply with Section 2-125 of the Code of Ordinances of the City of Kalamazoo regarding prevailing wages and Appendix B attached, incorporated herein by reference. Special note: This provision applies only to projects in excess of \$100,000 for City (\$2,000 federal) funded projects.

The City's requirements as it relates to prevailing wages includes a meeting with the City's Purchasing Division **prior** to work and payroll and work monitoring during the duration of the contract. Please contact Purchasing at (269) 337-8020 if you have any questions regarding Davis-Bacon provisions.

**SECTION V
GENERAL PROVISIONS**

1. INTENT

It is the intent of these specifications and drawings/plans to provide for a contractor who shall provide all labor, materials, tools, equipment, and services necessary to perform in a professional manner the *Bac T Lab & Office Renovations* project as described in the specifications and bid document.

2. SCOPE OF WORK

This contract includes but is not limited to: All work as shown for the *Bac T Lab & Office Renovations* project as stated in the attached project manual and drawings/plans.

3. QUANTITIES

The quantities shown or indicated on the specifications and plans are only estimated. Payment will be made based upon unit pricing of quantities installed.

4. UNIT PRICING

The unit price, including its pro-rata share of overhead, multiplied by the quantity shown shall represent the total bid and shall be held firm for the life of this contract. Any bid not conforming to this requirement may be rejected as non-responsive.

5. INSPECTION OF WORK

The City may maintain inspectors on the job who shall at all times have access to work.

6. INSPECTION OF SITE

Each bidder shall visit the site of the proposed work and fully acquaint himself/herself with the existing conditions relating to construction and labor and shall fully inform himself/herself as to the facilities involved and the difficulties and restrictions attending the performance of this contract. The bidder shall thoroughly examine and become familiar with the drawings, specifications and all other bid/contract documents. The Contractor, by the execution of this contract, shall in no way be relieved of any obligation under it due to his/her failure to receive or examine any form or legal instrument, or to visit the site and acquaint himself/herself with the conditions there existing. No allowance shall be made subsequently in this connection in behalf of the Contractor for any negligence of his/her part. For inspection call the Public Services Department.

7. INSPECTION AND TESTING

The Contractor shall give the Project Manager timely notice of readiness of the work for all required inspections, tests or approvals, and shall cooperate with inspections and testing personnel to facilitate required inspections or tests. The City will provide for materials and construction testing including but not limited to compaction of subbase and backfill material, concrete testing and asphalt testing. The cost of said testing shall be borne by the City. Verification that testing required by the contract has been completed on one phase of the project prior to proceeding to the next phase is the responsibility of the Contractor. In the event that the project has proceeded without required testing, the Contractor shall insure that the required testing is obtained retroactively and shall provide access for testing as necessary at his/her sole expense.

8. MATERIALS INSPECTION AND RESPONSIBILITY

- 8.1 The Project Manager shall have the right to inspect any materials to be used in carrying out the terms of the contract.
- 8.2 The City does not assume any responsibility for the contracted quality and standard of all materials, equipment, components or completed work furnished under this contract.
- 8.3 Any materials, equipment, components or completed work which does not comply with contract specifications, MDOT, or State codes may be rejected by the City, and shall be replaced by the Contractor at no cost to the City.
- 8.4 Any materials, equipment or components rejected shall be removed within a reasonable period of time from the premises of the City at the entire expense of the Contractor after notice has been given by the City to the Contractor that such materials, equipment or components have been rejected.

9. LAYING OUT WORK

Before submitting a bid the Contractor shall verify all measurements and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between actual dimensions and the measurements indicated on the drawings. Any difference that may be found shall be submitted to the City Engineer for consideration before proceeding. The City Engineer will provide staking for the project.

10. SUPERVISION

The Contractor shall employ an experienced superintendent or foreperson on the job at all times.

11. TEMPORARY UTILITIES

Temporary or construction water will NOT be available on the sites. The Contractor must provide for drinking water.

12. SITE SECURITY

The Contractor shall be responsible for job site security of all materials and tools provided by him/her and no claim for loss or damage will be considered by the City.

13. TARDINESS

Construction delays resulting from tardiness on the part of the Contractor will be reviewed by the City in the event of any request for contract extension by the Contractor.

14. PROGRESS SCHEDULE

- 14.1 After receipt of Notice to Proceed, work shall start within 1 working days unless otherwise agreed to by the Project Manager.
- 14.2 Contractor shall have project completion **September 2024**, substantial completion **October 2024**, and final completion **December 31, 2024**.

PROGRESS SCHEDULE (cont.)

- 14.3 Work of a similar nature may be added to this contract if agreed to by the City and the Contractor. In the event that work is added, the progress schedule for the work will remain unchanged. Any contract time added for additional work will be applied to that additional work only and cannot be added to items in the original contract. Any work done on the items in the original contract past the number of working days stated herein will be subject to liquidated damages regardless of any work that may be added at a later date.
- 14.4 The Contractor will be required to meet with the Public Services representatives to work out detailed progress schedule. The schedule for this meeting will be within two weeks after contract award has been made.
- 14.5 The named sub-contractor(s) for all items shall also be present at the scheduled meeting and they will be required to sign the Progress Schedule to indicate their approval of the scheduled dates of work set forth in the Progress Schedule.
- 14.6 The Progress Schedule shall include, as a minimum, the starting and completion dates for major items, and where specified in the bid document the date the project is to be opened to traffic as well as the final project completion date specified in the bid documents. The Progress Schedule shall be coordinated with all aspects of the work occurring at the site.
- 14.7 Failure on the part of the Contractor to carry out the provisions of the Progress Schedule as established may be considered sufficient cause to prevent bidding future projects until a satisfactory rate of progress is again established.
- 14.8 The starting date and the contract time to the completion date for this project may be adjusted by Public Services without imposing liquidated damages upon the receipt of satisfactory documented evidence that unforeseen delayed delivery of critical materials will prevent the orderly prosecution the work.

15. CONSTRUCTION SCHEDULE AND COORDINATION

- 15.1 The Contractor shall supply the City with an agreeable construction schedule before commencing work on this contract. This schedule shall detail beginning and completion dates for each major component of the project.
- 15.2 The Contractor shall coordinate and cooperate with all other contractors who may be working on the site in order to allow for the orderly progress of work being done.
- 15.3 The Contractor is required to keep the Project Manager fully informed of any proposed work which will tend to interfere with the existing operations at the site.
- 15.4 The Contractor shall schedule all work to accommodate the City's schedule. In the event Contractor's schedule falls on weekends, nights or overtime work is required, no additional compensation will be allowed. All work shall be part of this contract without regard to when it is done.

16. CONTRACTOR COORDINATION

- 16.1 The Contractor shall make every effort to coordinate every aspect of his work with that of other contractors on the site to assure an efficiently managed and proper installation.
- 16.2 Consideration shall be given to timing of construction, maintaining adequate construction access, and construction staging. Any costs associated with this coordination shall be included in the contract.

17. COORDINATING CLAUSE (NO TRAFFIC CONTROL IN THIS PROJECT)

The Contractor's attention is called to Article 104.08 of the 2012 MDOT Standard Specifications for Construction entitled "Cooperation by Contractor" and the project specifications contained within this contract.

18. ADDITIONS

- 18.1 Any modification to the contract shall be subject to prior approval by the Purchasing Agent. City Commission approval may also be required.
- 18.2 Prices for additional work required are not requested in the itemized listing contained herein for the base project. Should additional work be authorized, compensation shall be made on the basis of price or prices to be mutually agreed upon. Such additional work shall not begin until a Change Order has been approved.

20. LIQUIDATED DAMAGES

- 20.1 Liquidated damages, if applicable, shall be \$500.00 a day regardless of contract size.

21. REMOVAL OF RUBBISH

The Contractor shall daily remove all rubbish and accumulated materials due to his/her construction.

22. SITE ACCESS

The City will provide fair and reasonable access to the job site within the working schedules of both parties.

23. GUARANTEE

The Contractor shall guarantee all of his/her work for a period of two (2) years following the date of final acceptance of the completed work and shall repair, replace or make good any materials or work which fail to function or perform or be found defective, without cost to the City.

24. SAFETY

The Contractor shall comply with all applicable OSHA and MIOSHA regulations.

25. PAY ESTIMATES

The Contractor shall be responsible for the generation of invoices for payment. Contractor shall use One-Drive Project Spreadsheet. Payment will be generated by the City based upon an approved invoice. Recommended frequency of payment is monthly, however, frequency of payment will not

exceed bi-weekly.

26. PRODUCT/SYSTEM SUBSTITUTIONS

Submit a written request, to be received not later than 10 days prior to scheduled bid opening, for Substitution of any Product not named. If no substitutions are submitted, it will be reasonably concluded by the Owner that the specified product will be incorporated into the Work and the Bidder will be committed to supplying the specified product.

26.1 Describe in detail any variance to the Product specified. All proposed substitution for specified items shall be substantially the same size (height, length, width, diameter, etc.), type, color, construction quality and shall meet the design intent to be considered for substitution for the Product specified.

PRODUCT/SYSTEM SUBSTITUTIONS (cont.)

26.2 Document each request with complete data substantiating compliance of proposed Substitution with Product specified including written certification that Product conforms to or exceeds all requirements of the Product specified.

26.3 Document all coordination information, including a list of changes or modifications needed to the Contract Documents or other parts of the Work and to construction performed by the Owner and Separate Contractors that will become necessary to accommodate the proposed substitution.

26.4 Provide name, address and telephone number of manufacturer's authorized representative.

26.5 Submit three copies of all documents for each request for Substitution for consideration.

26.6 Approval of the Substitution request, if given, will be in the form of an addendum issued prior to scheduled opening date and hour at local time.

27. SAMPLES AND DEMONSTRATIONS

Evidence in the form of samples may be requested. Such samples are to be furnished after the date of bid opening only upon request of The City unless otherwise stated in the bid proposal. If samples should be requested, such samples must be received by The City no later than seven (7) days after formal request is made. When required, The City may request full demonstrations of any unit(s) bid prior to the award of any contract. Samples, when requested, must be furnished free of expense to The City and if not used in testing or destroyed, will upon request within thirty (30) days of bid award be returned at the bidder's request.

28. ACCEPTANCE OF MATERIAL

The material delivered under this proposal shall remain the property of the seller until a physical inspection and actual usage of the material and/or services is made and thereafter accepted to the satisfaction of The City and must comply with the terms herein, and be full in accord with specifications and of the highest quality. In the event the material and/or service supplied to The City is found to be defective or does not conform to specifications, The City reserves the right to cancel the order upon written notice to the seller and return the product to seller at the seller's expense.

29. VARIATIONS TO SPECIFICATIONS

For purposes of evaluation, the bidder **MUST** indicate any variances from our specifications, terms and/or conditions, no matter how slight. If variations are not stated in the proposal, it will be assumed that the product or service fully complies with our specifications, terms and conditions.

30. SAFETY STANDARDS

The bidder warrants that the products supplied to The City conform in all respects to the standards set forth in the Occupational Safety and Health Act of 1970 and its amendments and the failure to comply with this condition will be considered a breach of contract.

31. MANUFACTURER'S CERTIFICATION

The City reserves the right to request from bidders separate manufacturer certification of all statements made in the bid.

32. PROTECTION OF WORK

The Contractor shall maintain adequate protection of all his/her work from damage and shall protect all public and private abutting property from injury or loss arising in connection with this contract.

33. PROTECTION OF PROPERTY

33.1 The Contractor shall confine his/her equipment and operations to those areas of the work site necessary for the completion of the work, or as authorized by the Project Manager. The Contractor shall protect and preserve from damage any facilities, utilities or features including trees, shrubs and turf which are not required to be disturbed by the requirements of the work.

33.2 The Contractor shall be responsible to determine the location of and to protect from damage any utilities or other improvements.

34. WORK HOURS

All work shall be done between the hours of 7 am to 7 pm (Monday – Saturday). Work done outside of these times will be at the discretion of the Project Manager.

No work shall be done on Sunday, unless otherwise approved by the Project Manager in writing.

No work shall be done on City Holidays, unless otherwise approved by the Project Manager in writing.

The Contractor shall conduct their work in such a manner that no excavations are left open overnight. If this is not possible, the Contractor shall provide and install a temporary fence to protect the excavation, at the Contractor's expense.

35. PROJECT MANAGER'S STATUS

The City Engineer (Engineer) or his/her duly authorized representative shall be the City's Project Manager and shall have the duties and responsibilities as provided in the contract.

The Project Manager shall have the authority to reject any work or materials which do not conform to the contract and to decide questions or interpretations which may arise from the contract documents.

The Contractor shall immediately report to the Project Manager any questionable or obvious error or omission which may be apparent in the contract documents and shall not proceed with work until the Project Manager has resolved the error or omission.

36. **NON-MANDATORY PRE-BID MEETING**

All prospective contractors and subcontractors are invited to attend a **NON-MANDATORY Pre-Bid Meeting with representatives from the City of Kalamazoo on Wednesday, October 4, at 9:00 a.m.** local time at the Harrison Facility, Conference Room A, 1415 Harrison Street, Kalamazoo, MI 49007. **Questions may be emailed to Chris Nelson at nelsonc1@kalamazoocity.org by 10:00 a.m. on October 10, 2023.**

37. **QUESTIONS**

Bidders shall address questions regarding the specifications to Chris Nelson, Collections & Plant Maintenance Manager at nelsonc1@kalamazoocity.org or (269) 337-8539 (This does not relieve the requirements of Page 1, Item 3.). Questions regarding terms, conditions and other related bid requirements may be addressed to Nicole Kling, Buyer at klingn@kalamazoocity.org or (269) 337-8746.

**SECTION VI
TERMS AND CONDITIONS**

1. AWARD OF CONTRACT

- A. This contract will be awarded to that responsible bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all bids and waive informalities and minor irregularities in bids received. Other factors include, as an example but not limited to, delivery time, conformance to specifications, incidental costs such as demurrage and deposits, etc.

Notification of award will be in writing by the Purchasing Agent. Upon notification, the Contractor shall submit to the Purchasing Division all required insurance certificates (if required) and such other documentation as may be requested or required hereunder. Upon their receipt and subsequent approval by the City, the Purchasing Agent will forward to the Contractor a written **NOTICE TO PROCEED**. Work shall **NOT** be started until such **NOTICE TO PROCEED** is received by the Contractor.

- B. Unilateral changes in bid prices by the bidder shall not be allowed. However, the City, at its sole option, reserves the right to negotiate with bidders in the event of, but not limited to:
- 1) No bids received;
 - 2) A single bid being received; or
 - 3) Prices quoted are over budget and/or unreasonable.

2. COMPLETE CONTRACT

This bid document together with its addenda, amendments, attachments and modifications, when executed, becomes the complete contract between the parties hereto, and no verbal or oral promises or representations made in conjunction with the negotiation of this contract shall be binding on either party.

3. SUBCONTRACTORS – NON-ASSIGNMENT

Bidders shall state in writing any and all sub-contractors to be associated with this bid, including the type of work to be performed. The Contractor shall cooperate with the City of Kalamazoo in meeting its commitments and goals with regard to maximum utilization of minority and women-owned business enterprises.

The Contractor hereby agrees and understands that the contract resulting from this solicitation shall not be transferred, assigned or sublet without prior written consent of the City of Kalamazoo.

4. TAXES

The City of Kalamazoo is exempt from all federal excise tax and state sales and use taxes.

5. INVOICING

All original invoice(s) will be sent to the Financial Services Division, 241 W. South Street, Kalamazoo, MI 49007 or via email at apinvoice@kalamazoo.org. The Finance Division processes payments after receipt of an original invoice from the Contractor and approval by the department. The City of Kalamazoo’s policy is to pay invoice(s) within 30 days from the receipt of the original invoice, if the services or supplies are satisfactory and the proper paperwork and procedures have been followed. **In order to guarantee payment to the vendor on a timely basis, the vendor needs to receive a purchase order number before supplying the City of Kalamazoo with goods or services.** All original, and copies of original invoice(s), will clearly state which purchase order they are being billed against.

The City of Kalamazoo is a government municipality and therefore is tax exempt from all sales tax.

The vendor is responsible for supplying the Finance Division with a copy of their W9 if they are providing a service to the City of Kalamazoo.

6. PAYMENTS

Upon issuance of certificates of Payment by the Architect/Engineer for labor and material incorporated in the work and the materials suitably stored at the site payment shall be made up to ninety (90%) percent of the value thereof.

When the cumulative total of payment is equal to fifty (50%) percent of the contract sum, subsequent payments will be made in the full amount for labor and material certified by the Architect/Engineer.

The amount retained shall be held until final acceptance of the work, receipt of all payrolls, releases, and waiver of liens.

7. CHANGES AND/OR CONTRACT MODIFICATIONS

The City reserves the right to increase or decrease quantities, service or requirements, or make any changes necessary at any time during the term of this contract, or any negotiated extension thereof. Price adjustments due to any of the foregoing changes shall be negotiated and mutually agreed upon by the Contractor and the City.

Changes of any nature after contract award which reflect an increase or decrease in requirements or costs shall not be permitted without prior approval by the Purchasing Agent. City Commission approval may also be required.

ANY CHANGES PERFORMED IN ADVANCE OF PURCHASING AGENT APPROVAL, MAY BE SUBJECT TO DENIAL AND NON-PAYMENT.

8. LAWS, ORDINANCES AND REGULATIONS

The Contractor shall keep himself/herself fully informed of all local, state and federal laws, ordinances and regulations in any manner affecting those engaged or employed in the work and the equipment used. Contractor and/or employees shall, at all times, serve and comply with such laws, ordinances and regulations.

Any permits, licenses, certificates or fees required for the performance of the work shall be obtained and paid for by the Contractor.

This contract shall be governed by the laws of the State of Michigan.

9. RIGHT TO AUDIT

The City or its designee shall be entitled to audit all of the Contractor's records, and shall be allowed to interview any of the Contractor's employees, throughout the term of this contract and for a period of three years after final payment or longer if required by law to the extent necessary to adequately permit evaluation and verification of:

- A. Contractor compliance with contract requirements,
- B. Compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of his payees.

10. HOLD HARMLESS

If the negligent acts or omissions of the Contractor/Vendor or its employees, agents or officers, cause injury to person or property, the Contractor/Vendor shall indemnify and save harmless the City of Kalamazoo, its agents, officials, and employees against all claims, judgments, losses, damages, demands, and payments of any kind to persons or property to the extent occasioned from any claim or demand arising therefrom.

11. DEFAULT

The City may at any time, by written notice to the Contractor, terminate this contract and the Contractor's right to proceed with the work, for just cause, which shall include, but is not limited to the following:

- A. Failure to provide insurance and bonds (when called for), in the exact amounts and within the time specified or any extension thereof.
- B. Failure to make delivery of the supplies, or to perform the services within the time specified herein, or any extension thereof.
- C. The unauthorized substitution of articles for those bid and specified.
- D. Failure to make progress if such failure endangers performance of the contract in accordance with its terms.
- E. Failure to perform in compliance with any provision of the contract.

DEFAULT (cont.)

- F. **Standard of Performance** - Contractor guarantees the performance of the commodities, goods or services rendered herein in accordance with the accepted standards of the industry or industries concerned herein, except that if this specification calls for higher standards, then such higher standards shall be provided.

Upon notice by the City of Contractor's failure to comply with such standards or to otherwise be in default of this contract in any manner following the Notice to Proceed, Contractor shall immediately remedy said defective performance in a manner acceptable to the City. Should Contractor fail to immediately correct said defective performance, said failure shall be considered a breach of this contract and grounds for termination of the same by the City.

In the event of any breach of this contract by Contractor, Contractor shall pay any cost to the City caused by said breach including but not limited to the replacement cost of such goods or services with another Contractor.

The City reserves the right to withhold any or all payments until any defects in performance have been satisfactorily corrected.

In the event the Contractor is in breach of this contract in any manner, and such breach has not been satisfactorily corrected, the City may bar the Contractor from being awarded any future City contracts.

- G. All remedies available to the City herein are cumulative and the election of one remedy by the City shall not be a waiver of any other remedy available to the City.

12. TERMINATION OF CONTRACT

The City may, at any time and without cause, suspend the work of this contract for a period of not more than ninety days after providing notice in writing to the Contractor. The Contractor shall be allowed an adjustment in the contract price or an extension of the contract times, or both, directly attributable to the suspension if Contractor makes an approved claim.

The City may, without prejudice to any other right or remedy of the City, and with or without cause, terminate the contract by giving seven days written notice to the Contractor. In such case the Contractor shall be paid, without duplication, for the following items:

- A. Completed and acceptable work executed in accordance with the contract documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such work;
- B. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the contract documents in connection with uncompleted work, plus fair and reasonable sums for overhead and profit on such expenses;
- C. All documented claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and
- D. Reasonable expenses directly attributable to termination.

The Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

13. INDEPENDENT CONTRACTOR

At all times, the Contractor, any of his/her employees, or his/her sub-contractors and their subsequent employees shall be considered independent contractors and not as City employees. The Contractor shall exercise all supervisory control and general control over all workers' duties, payment of wages to Contractor's employees and the right to hire, fire and discipline their employees and workers. As an independent contractor, payment under this contract shall not be subject to any withholding for tax, social security or other purposes, nor shall the Contractor or his/her employees be entitled to sick leave, pension benefit, vacation, medical benefits, life insurance or workers' unemployment compensation or the like.

14. PROJECT SUPERVISOR

The Contractor shall employ an individual to act as Project Supervisor. The Project Supervisor shall be available to the Contractor's workers and the Project Manager at all times by use of a beeper or other reliable means. The Project Supervisor shall prepare daily work plans for the employees, monitor employee performance, attendance and punctuality; and work closely with the City's Project Manager in assuring contract compliance.

15. MEETINGS

The Contractor and/or Project Supervisor shall be available to meet with the Department Head or Project Manager at a mutually agreeable time to discuss problems, issues or concerns relative to the contract. Either party may call a meeting at any time. When such a request for a meeting is made, the meeting date shall, in no case exceed five (5) working days after the request; and, if in the sole opinion of the Department Head, the severity of the circumstance warrants, no more than one (1) working day.

16. INSPECTION OF WORK SITE

Before submitting bids or quotes for work, the Contractor shall be responsible for examining the work site and satisfying himself/herself as to the existing conditions under which he/she will be obligated to operate, or that in any way affects the work under this contract. No allowance shall be made subsequently, on behalf of the Contractor, for any negligence on his/her part.

17. CONTRACT PERIOD, EXTENSIONS, CANCELLATION

- A. The contract shall be in effect for the term stated in the specifications.
- B. The City may opt to extend this contract upon mutual agreement of both parties. The number of extensions shall be limited to that stated in the specifications.
- C. The City may, from time to time, find it necessary to continue this contract on a month-to-month basis only, not to exceed a six (6) month period. Such month-to-month extended periods shall be by mutual agreement of both parties, with all provisions of the original contract or any extension thereof remaining in full force and effect.
- D. All contracts, extensions and cost increases are subject to availability of funds and the approval of the City Commission (if required).
- E. The City reserves the right to cancel the contract due to non-appropriation of funds by the City with thirty (30) days written notice.

CONTRACT PERIOD, EXTENSIONS, CANCELLATION (*cont.*)

- F. Either party may terminate the contract (or any extension thereof) without cause at the end of any twelve (12) month term by giving written notice of such intent at least 60 days prior to the end of said twelve (12) month term.
- G. All notices are in effect commencing with the date of mailing. Written notices may be delivered in person or sent by First Class mail; faxed or emailed to the last known address.
- H. If cancellation is for default of contract due to non-performance, the contract may be canceled at any time (see Item 11, DEFAULT)

APPENDIX A
NON-DISCRIMINATION CLAUSE FOR ALL CITY OF KALAMAZOO CONTRACTS

The Contractor agrees to comply with the Federal Civil Rights Act of 1964 as amended; the Federal Civil Rights Act of 1991 as amended; the Americans With Disabilities Act of 1990 as amended; the Elliott-Larson Civil Rights Act, Act. No. 453, Public Act of 1976 as amended; the Michigan Handicappers Civil Rights Act, Act No. 220, Public Act of 1976 as amended, City Ordinance 1856 and all other applicable Federal and State laws. The Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability, family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position. Such action shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination; rates of pay or other forms of compensations; and selection for training, including apprenticeship.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, national origin, sex, age, height, weight, marital status, physical or mental disability family status, sexual orientation or gender identity that is unrelated to the individual's ability to perform the duties of the particular job or position.
3. If requested by the City, the Contractor shall furnish information regarding practices, policies and programs and employment statistics for the Contractor and subcontractors. The Contractor and subcontractors shall permit access to all books, records and accounts regarding employment practices by agents and representatives of the City duly charged with investigative duties to assure compliance with this clause.
4. Breach of the covenants herein may be regarded as a material breach of the contract or purchasing agreement as provided in the Elliott-Larsen Civil Rights Act and City Ordinance 1856.
5. The Contractor will include or incorporate by reference the provisions of the foregoing paragraphs 1 through 4 in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission* and will provide in every subcontract or purchase order that said provision will be binding upon each subcontractor or seller.
6. The Contractor will not preclude a person with a criminal conviction from being considered for employment unless otherwise precluded by federal or state law. (for contracts over \$25,000)

The Elliott-Larson Civil Rights Act, Sec. 202 of Act. No. 453 of 1976 reads in part as follows:

Sec. 202. (1) An employer shall not:

- (a) Fail or refuse to hire, or recruit, or discharge or otherwise discriminate against an individual with respect to employment, compensation, or a term condition or privilege of employment because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (b) Limit, segregate or classify an employee or applicant for employment in a way which deprives or tends to deprive the employee or applicant of an employment opportunity or otherwise adversely affects the status of an employee or applicant because of religion, race, color, national origin, age, sex, height, weight or marital status.
- (c) Segregate, classify or otherwise discriminate against a person on the basis of sex with respect to a term, condition or privilege of employment, including a benefit plan or system.

* Except for contracts entered into with parties employing less than three employees.

APPENDIX B - PREVAILING WAGES

Prevailing wages are applicable to this contract, therefore, rates will apply as follows:

- (XX) Project is funded by City of Kalamazoo monies and is estimated to be in excess of \$100,000.00. The applicable prevailing wage rates are attached.

Specifications for projects in which the City of Kalamazoo is party for construction, alterations and/or repair including painting and decorating of public buildings or public works in or for the City of Kalamazoo and which requires or involves the employment of mechanics and/or laborers shall contain the following provisions stating the minimum wages to be paid the various classes of laborers and mechanics for the project. Prevailing wage rates determined by the U.S. Department of Labor under Davis Bacon and related acts will be used for City of Kalamazoo construction projects.

By the incorporation of prevailing wage rates within this specification, the City of Kalamazoo stipulates that:

- ✓ Contractor or his/her subcontractor shall pay all mechanics and laborers employed directly upon the site of the work, unconditionally and not less than once a week and without subsequent deduction or rebate on any account the full amount, accrued at the time of payment, computed at wage rates as incorporated herein regardless of any contractual relationship which may be alleged to exist between the contractor or subcontractor and such laborers and mechanics;
- ✓ The scale of wages to be paid shall be posted by the contractor in a prominent and easily accessible place at the site of the work;
- ✓ The Prime Contractor and all subcontractors shall submit weekly certified payrolls documenting the hours worked and wages paid by work classification. **NOTE: Contactor shall not include Social Security numbers of employees on certified payrolls.**
- ✓ There may be withheld from the contractor's accrued payments the amount considered necessary by the City's Contracting Official to pay to laborers and mechanics employed by the contractor or any subcontractor on the work for the difference between the rates of wages required by the contract and the rates of wages received by such laborers and mechanics except those amounts properly deducted or refunded pursuant to the terms of the Davis-Bacon Act (USC, Title 40, Sec. 276a) and interpretations thereof.

Special Note: The City's requirements as it relates to prevailing wages **includes a meeting with the City's Purchasing Agent prior to starting work and the submission of weekly certified payrolls by prime contractors and all subcontractors.** The City will monitor certified payrolls, work progress, and conduct interviews with the mechanics and labors employed directly upon the site during the duration of the contract Please contact the Purchasing Department at (269) 337-8020 if you have any questions regarding prevailing wage provision.

The overtime pay to which a laborer or mechanic is entitled under this contract shall be that overtime pay to which he/she is entitled by any agreement made with the contractor or subcontractor or by any applicable provision of law; but in no event shall such amount be less than the prevailing wage in the Kalamazoo community for such overtime.

Revised 4-08



PREVAILING WAGES

Bac T Lab & Office Renovations

Bid Reference #: 90900-015.0

September 2023

"General Decision Number: MI20230087 09/08/2023

Superseded General Decision Number: MI20220087

State: Michigan

Construction Type: Building

County: Kalamazoo County in Michigan.

BUILDING CONSTRUCTION PROJECTS (does not include single family homes or apartments up to and including 4 stories).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

<p>If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$16.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2023.
<p>If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:</p>	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.15 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2023.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/06/2023
1	02/03/2023

2	04/14/2023
3	05/05/2023
4	07/21/2023
5	09/08/2023

* ASBE0047-002 07/01/2023

	Rates	Fringes
ASBESTOS WORKER/HEAT & FROST INSULATOR.....	\$ 36.62	19.78

BOIL0169-001 01/01/2021

	Rates	Fringes
BOILERMAKER.....	\$ 35.95	34.52

BRMI0009-031 08/01/2020

	Rates	Fringes
BRICKLAYER.....	\$ 31.01	20.36
TILE FINISHER.....	\$ 23.17	13.79
TILE SETTER.....	\$ 24.23	15.56

CARP0525-013 06/01/2021

	Rates	Fringes
CARPENTER (Including Acoustical Ceiling Installation, Drywall Hanging, Form Work, Metal Stud Installation & Scaffold Builder).....	\$ 25.94	20.59

CARP1102-001 06/01/2019

	Rates	Fringes
MILLWRIGHT.....	\$ 28.59	24.79

ELEC0131-001 06/01/2022

	Rates	Fringes
ELECTRICIAN Excludes Low Voltage Wiring.	\$ 37.66	8.95+27%

ENGI0324-002 06/01/2023

	Rates	Fringes
OPERATOR: Power Equipment		
GROUP 1.....	\$ 45.48	25.25
GROUP 2.....	\$ 42.18	25.25
GROUP 3.....	\$ 40.50	25.25
GROUP 4.....	\$ 37.82	25.25
GROUP 5.....	\$ 37.82	25.25
GROUP 6.....	\$ 31.96	25.25
GROUP 7.....	\$ 29.48	25.25

FOOTNOTES:

Crane operator with main boom and jib 300' or longer: \$1.50 per hour above the group 1 rate.

Crane operator with main boom and jib 400' or longer: \$3.00 per hour above the group 1 rate.

PAID HOLIDAYS: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Crane operator with main boom and jib 400', 300', or 220' or longer.

GROUP 2: Crane operator with main boom and jib 140' or longer, tower crane, gantry crane, whirley derrick

GROUP 3: Backhoe/Excavator/Trackhoe; Crane; Concrete Pump; Grader/Blade; Highlift; Hoist; Loader; Roller; Scraper; Stiff Leg Derrick; Trencher

GROUP 4: Bobcat/Skid Loader; Broom/Sweeper; Fork Truck (over 20' lift)

GROUP 5: Boom Truck (non-swinging)

GROUP 6: Fork Truck (20' lift and under for masonry work)

GROUP 7: Oiler

IRON0025-005 06/01/2022

	Rates	Fringes
IRONWORKER (REINFORCING).....	\$ 31.43	34.77
IRONWORKER (STRUCTURAL).....	\$ 34.50	38.44

LAB00355-022 06/01/2022

	Rates	Fringes
LABORER Common or General; Grade Checker; Mason Tender - Brick; Mason Tender - Cement/Concrete; Sandblaster.....	\$ 26.70	12.95
Pipelayer.....	\$ 20.34	12.85

PAIN0312-002 06/01/2023

	Rates	Fringes
PAINTER: Brush and Roller.....	\$ 23.74	13.35
PAINTER: Drywall Finishing/Taping.....	\$ 23.74	13.35
PAINTER: Spray.....	\$ 26.18	15.86

PLAS0016-003 04/01/2014

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 22.31	12.83

PLUM0357-001 07/01/2020

Excluding Fort Custer

	Rates	Fringes
PIPEFITTER, Includes HVAC Pipe and Unit Installation.....	\$ 35.20	22.35
PLUMBER, Excludes HVAC Pipe and Unit Installation.....	\$ 35.20	22.35

ROOF0070-002 06/01/2022

	Rates	Fringes
ROOFER.....	\$ 30.03	16.84

SFMI0669-001 04/01/2023

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 40.48	25.22

SHEE0007-010 05/01/2023

	Rates	Fringes
SHEET METAL WORKER (HVAC Duct Installation Only).....	\$ 38.09	19.66

* SUMI2011-012 02/01/2011

	Rates	Fringes
IRONWORKER, ORNAMENTAL.....	\$ 18.48	7.93
LABORER: Landscape & Irrigation.....	\$ 10.38 **	0.50
OPERATOR: Bulldozer.....	\$ 19.68	6.64
OPERATOR: Tractor.....	\$ 19.10	8.48
SHEET METAL WORKER, Excludes HVAC Duct and Unit Installation.....	\$ 23.59	5.66
TRUCK DRIVER: Dump Truck.....	\$ 17.26	11.42
TRUCK DRIVER: Lowboy Truck.....	\$ 14.50 **	0.44
TRUCK DRIVER: Tractor Haul Truck.....	\$ 13.57 **	1.18

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====
** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$16.20) or 13658 (\$12.15). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and

non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"



Jones & Henry
Engineers

Drawings

Bac T Lab & Office Renovations

Bid Reference #: 90900-015.0

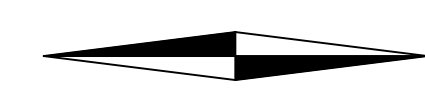
September 2023



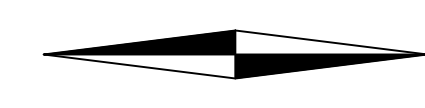
CITY OF KALAMAZOO, MICHIGAN KWRP BAC-T LAB AND OFFICE IMPROVEMENTS



LOCATION MAP

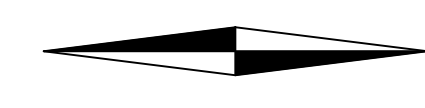


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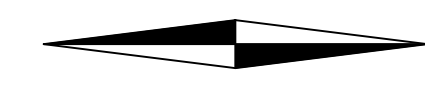
ADMINISTRATION

- JAMES RITSEMA - CITY MANAGER
- JAMES J. BAKER, PE - PUBLIC SERVICES DIRECTOR & CITY ENGINEER
- JIM CORNELL - WASTEWATER DIVISION MANAGER
- STEVE HELMER - TREATMENT OPERATIONS SUPERINTENDENT
- CHRIS NELSON - COLLECTIONS AND PLANT MAINTENANCE MANAGER
- RYAN STOUGHTON, PE - ASSISTANT CITY ENGINEER - WASTEWATER



MEMBERS OF COMMISSION

- DAVID ANDERSON - MAYOR
- DON COONEY - VICE MAYOR
- JEANNE HESS
- CHRIS PRAEDEL
- QIANNA DECKER
- STEPHANIE HOFFMAN
- ESTEVEN JUAREZ

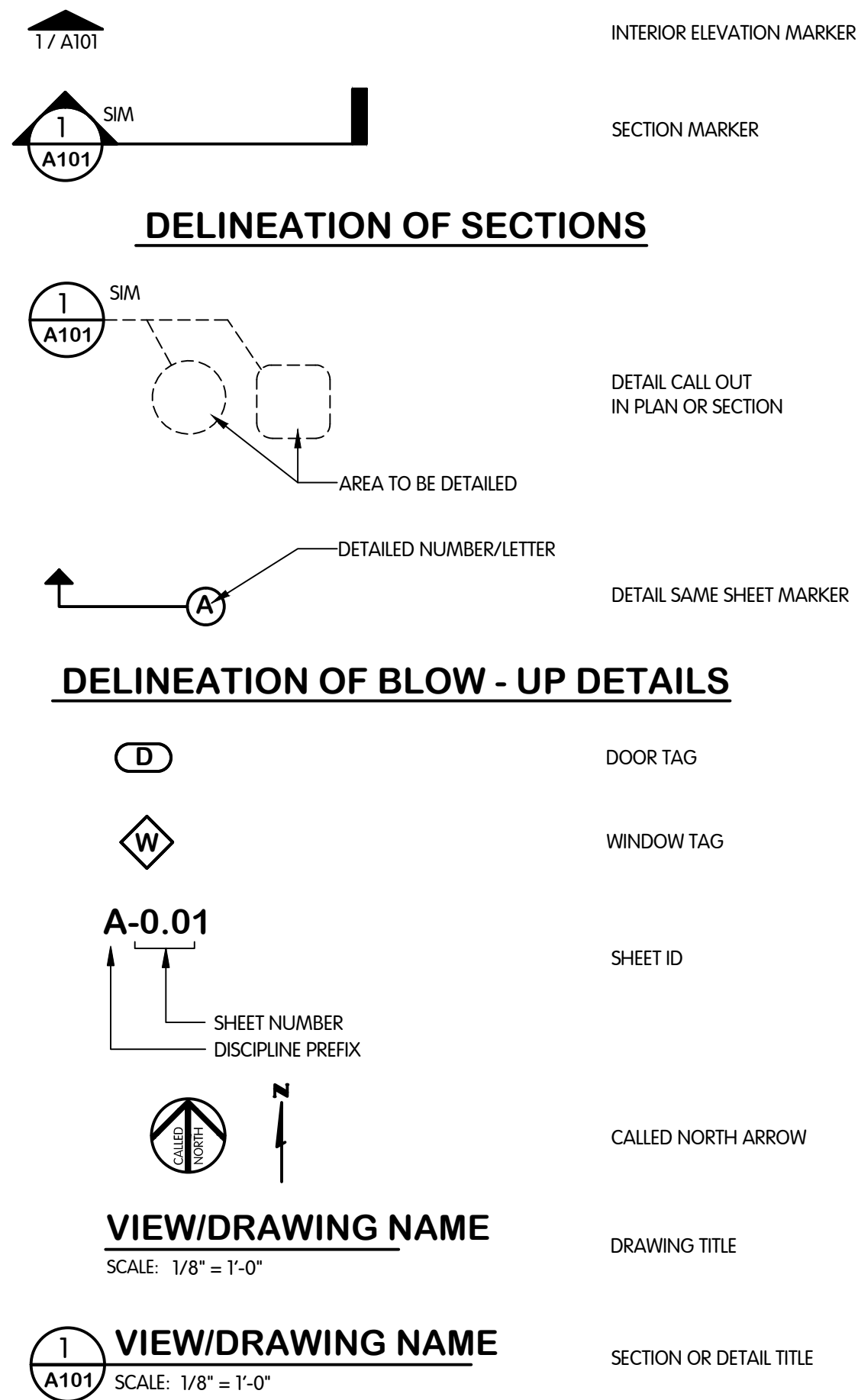


STANDARD ABBREVIATIONS

ALUM.	ALUMINIUM	MAX.	MAXIMUM
AVE.	AVENUE	MH	MANHOLE
BM	BENCH MARK	MJ	MECHANICAL JOINT
BF	BLIND FLANGE	MIN.	MINIMUM
BLDG.	BUILDING	N	NORTH
C/C	CENTER TO CENTER	NTS	NOT TO SCALE
CK'D PL.	CHECKERED PLATE	OC	ON CENTER
CONC.	CONCRETE	OD	OUTSIDE DIAMETER
DIA.	DIAMETER	PE	PLAIN END
DWG.	DRAWING	R	RADIUS
EMB.	EMBEDMENT	RR	RAILROAD
EW	EACH WAY	S	SOUTH
EF	EACH FACE	SCH.	SCHEDULE
ECC.	ECCENTRIC	SH.	SHEET
EL.	ELEVATION	SS	STAINLESS STEEL
E	EAST	ST.	STREET
EXIST.	EXISTING	STA.	STATION
F	FLANGE	T&B	TOP AND BOTTOM
* OR FT.	FEET OR FOOT	TYP.	TYPICAL
GAL.	GALLON	VERT.	VERTICAL
GR.	GRADE	W	WEST
HOR.	HORIZONTAL	W/	WITH
* OR IN.	INCH		
ID	INSIDE DIAMETER		
INV. EL.	INVERT ELEVATION		

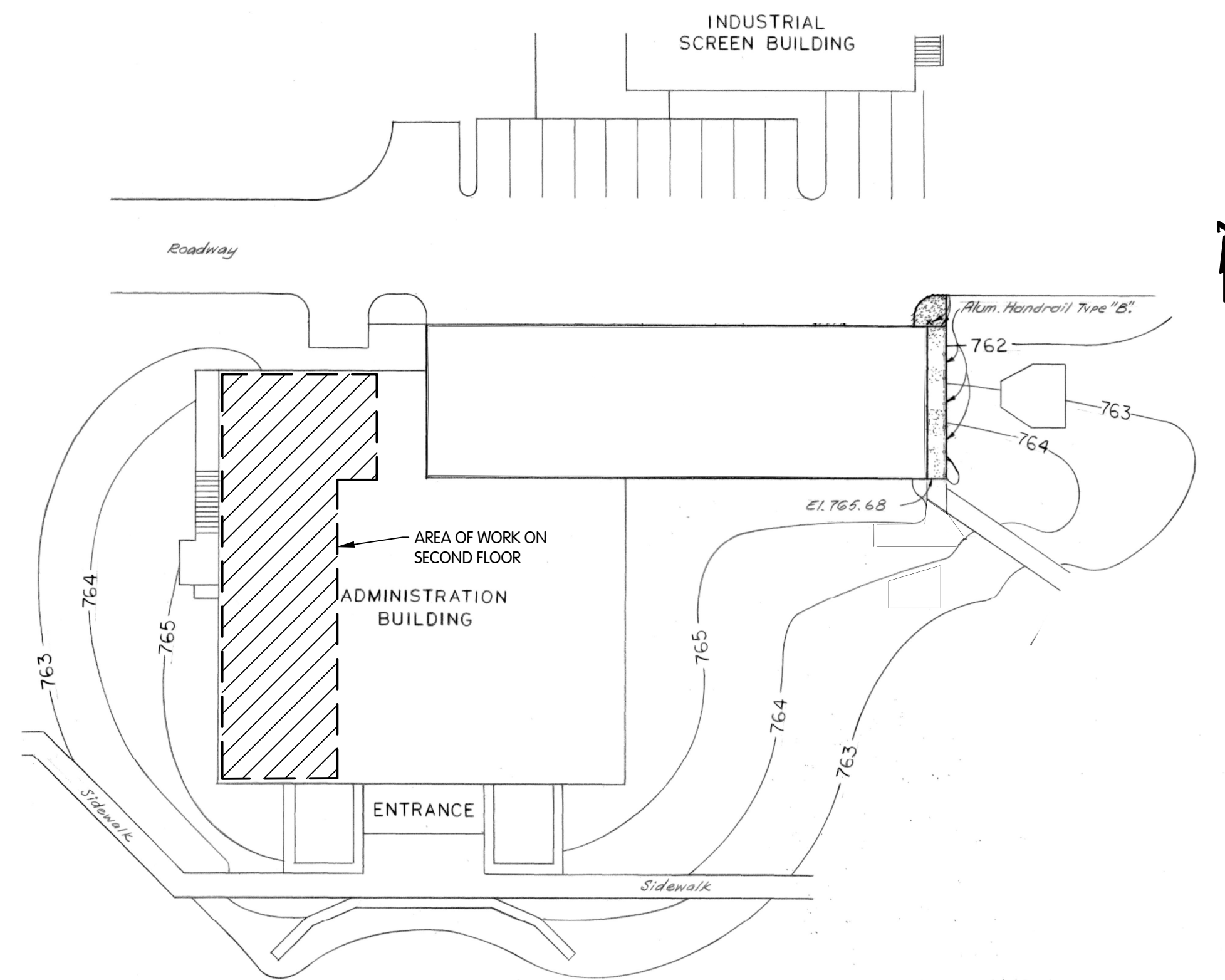
PIPING ABBREVIATIONS

MATERIAL		SERVICE	
ABS	ABS ACRYLONITRILE-BUTADIENE-STYRENE	AA	AERATION AIR
ABSC	ABS COMPOSITE SEWER PIPE (TRUSS PIPE)	AL	ALUM
BSP	BLACK STEEL PIPE	C	CABLE (UNDERGROUND)*
CIP	CAST IRON PIPE	CA	COMPRESSED AIR
CISP	CAST IRON SOIL PIPE	CL	CHLORINE SOLUTION
CMP	CORRUGATED METAL PIPE	CO	COMBINED SEWER
CPP	CONCRETE PRESSURE PIPE	CLG	CHLORINE GAS
CPT	CORRUGATED POLYETHYLENE TUBING	DG	DIGESTER GAS
CPVC	CHLORINATED POLYVINYL CHLORIDE PIPE	DS	DIGESTED SLUDGE
CU	COPPER TUBING OR PIPING	DW	DILUTION WATER
DIP	DUCTILE IRON PIPE	DCW	DOMESTIC COLD WATER
FRP	FIBERGLASS REINFORCED PIPE	DHW	DOMESTIC HOT WATER
GLDIP	GLASS-LINED DUCTILE IRON PIPE	EW	EFFLUENT WATER
GSP	GALVANIZED STEEL PIPE	E	ELECTRICAL (UNDERGROUND)*
HDPE	HIGH DENSITY POLYETHYLENE	FC	FERRIC/FERROUS CHLORIDE
PCP	PLAIN CONCRETE PIPE	FD	FOUNDATION DRAIN
PE	POLYETHYLENE	FE	FINAL EFFLUENT
PP	POLYPROPYLENE	FO	FIBER OPTIC
PPVC	PERFORATED POLYVINYL CHLORIDE PIPE	FU	FUEL OIL
PVC	POLYVINYL CHLORIDE PIPE	G	NATURAL GAS (OFF SITE)
PVCP	PERFORATED VITRIFIED CLAY PIPE	GR	GREASE
PVDF	POLYVINYLIDENE FLUORIDE (KYNAR)	HWR	HOT WATER RETURN
RCP	REINFORCED CONCRETE PIPE	HWS	HOT WATER SUPPLY
SP	STEEL PIPE	IC	IRON CHLORIDE
SSP	STAINLESS STEEL PIPE	ML	MIXED LIQUOR
SWIS	SPIRAL WELDED STEEL	NG	NATURAL GAS (ON SITE)
UPVC	UNPLASTICIZED POLYVINYL CHLORIDE PIPE	NPW	NON POTABLE WATER
VCP	VITRIFIED CLAY PIPE	P	POLYMER
		PE	PRIMARY EFFLUENT
		PS	PRIMARY SLUDGE
		RAS	RETURN ACTIVATED SLUDGE
		RD	ROOF DRAIN
		RS	RAW SEWAGE
		RW	RAW WATER
		SA	SANITARY SEWER
		SB	SECONDARY BYPASS
		SC	SCUM
		SE	SECONDARY EFFLUENT
		S	SIGNAL (UNDERGROUND)*
		SPA	SPARE
		ST	STORM SEWER
		SM	STEAM
		SP	DIGESTER SUPERNATANT
		TD	TANK DRAIN
		T	TELEPHONE (UNDERGROUND)*
		TE	THICKENER EFFLUENT
		TS	THICKENED SLUDGE
		TWAS	THICKENED WASTE ACTIVATED SLUDGE
		WAS	WASTE ACTIVATED SLUDGE



DRAWING INDEX

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ELECTRICAL		
10	E-1	ELECTRICAL LEGEND
11	E-2	ADMIN BUILDING - BAC-T LAB & OFFICE - ELECTRICAL PLAN



SITE PLAN
NTS

NOTES:

- ACCURACY OF EXISTING ELEVATIONS AND DIMENSIONS IS NOT GUARANTEED. FIELD VERIFY BEFORE CONSTRUCTION.
- ALL NOTES ON THE DRAWINGS BEAR THE SAME IMPORTANCE. SOME NOTES AND DIMENSIONS ARE BOLD TO AID IN READING THE DRAWINGS IN AREAS OF HIGH GRAPHIC DENSITY.



SITE PLAN, INDEX, LEGENDS, ABBREVIATIONS AND GENERAL NOTES

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

Jones & Henry Engineers, Ltd.



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JOB NO. 017-7969.001

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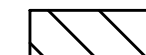
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DATE: OCTOBER 2022

SHEET NO.

G-1

1 OF 11

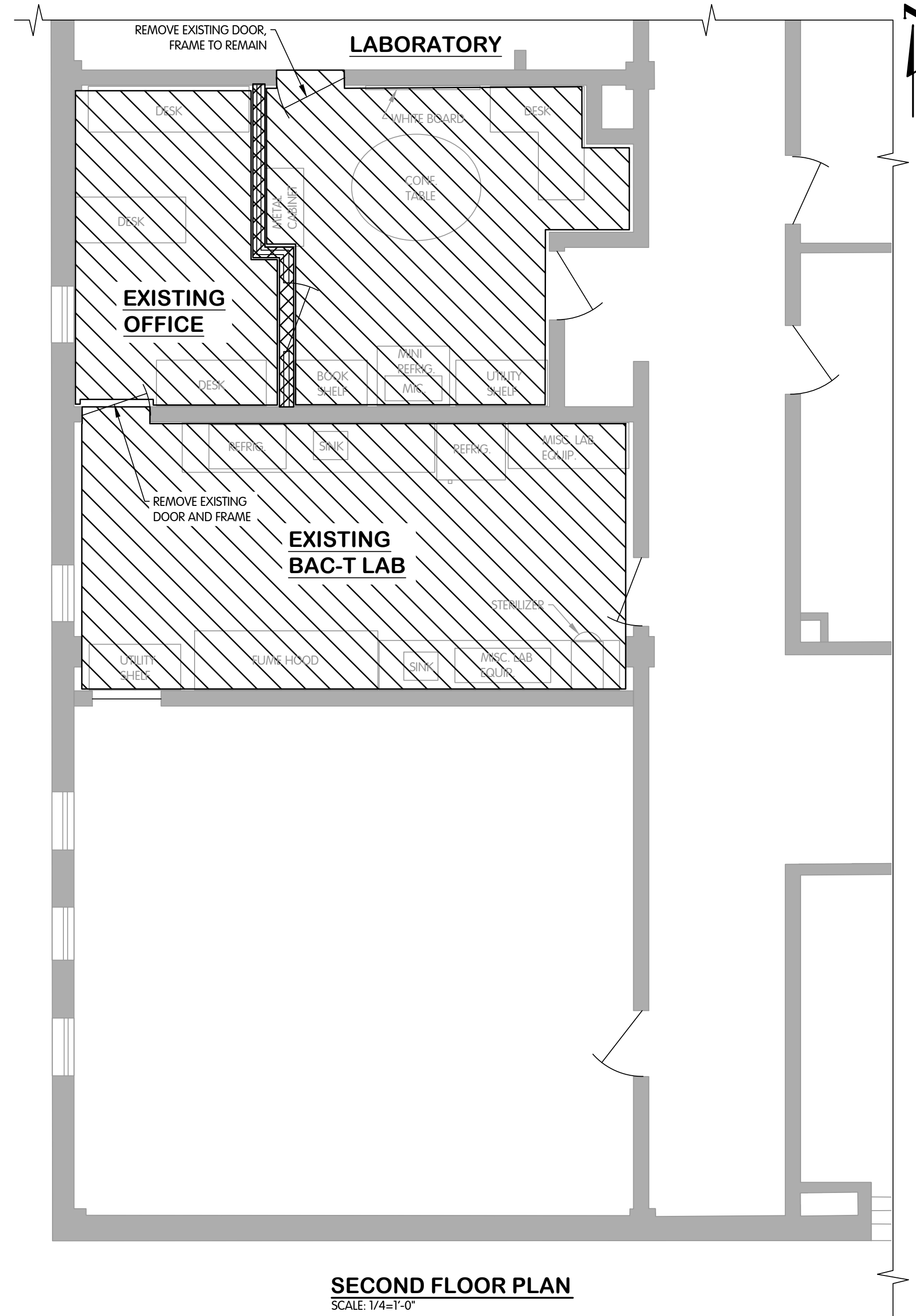
- LEGEND**
-  WALL, DOOR AND DOOR FRAME REMOVALS
 -  REMOVALS, SEE NOTES FOR DETAILS

GENERAL DEMOLITION NOTES:

1. PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT DAMAGED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, OR OTHER FIXED ACCESSORIES AND EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ENGINEER.
2. NOTATIONS ARE MADE IN VARIOUS PLACES ON THE DRAWINGS TO CALL ATTENTION TO DEMOLITION WHICH IS REQUIRED. HOWEVER, THESE DRAWINGS ARE NOT INTENDED TO SHOW EACH AND EVERY ITEM TO BE REMOVED. CONTRACTOR SHALL REMOVE ALL MATERIALS RELATED TO THEIR RESPECTIVE TRADES AS REQUIRED TO PERMIT THE CONSTRUCTION OF THE NEW WORK AS SHOWN.
3. THE GENERAL CONTRACTOR SHALL COORDINATE THE EXTENT OF THE REQUIRED DEMOLITION OF THE EXISTING BUILDING AS REQUIRED TO FACILITATE THE CONSTRUCTION OF THE PROJECT AS SHOWN AS PART OF THIS WORK.
4. THE GENERAL CONTRACTOR SHALL COORDINATE WITH MEP CONTRACTORS FOR REMOVAL AND DISPOSAL OF OTHER TRADES.
5. ALL DEMOLITION SHALL BE APPROVED BY THE OWNER PRIOR TO COMMENCEMENT AND SHALL BE PERFORMED UNDER REQUIREMENTS AND APPROVAL OF THE LOCAL CODE JURISDICTIONS.
6. DEMOLISH AND REMOVE ANY MATERIALS THAT WOULD HINDER THE INSTALLATION OF THE SCHEDULED WORK FOR THIS PROJECT.
7. ASBESTOS ABATEMENT: CONTRACTORS SHALL NOTIFY BUILDING REPRESENTATIVE IMMEDIATELY WHEN AND IF ANY ITEMS ARE ENCOUNTERED THAT IN ANY WAY, SHAPE, OR FORM APPEAR TO BE HAZARDOUS OF NATURE. ASBESTOS ABATEMENT IS NOT PART OF THE SCOPE OF THE DEMOLITION CONTRACT NOR PART OF THE SCOPE OF THE DESIGN PROFESSIONALS DOCUMENTATION OR RESPONSIBILITY TO SURVEY, IDENTIFY, OR FOR CONSULTATION OF PROPER DISPOSAL.
8. PROTECT ALL EXISTING WORK WHICH IS TO REMAIN AND RESTORE IN AN APPROVED MANNER ANY SUCH WORK WHICH BECOMES DAMAGED.
9. RUBBISH AND DEBRIS RESULTING FROM THE WORK SHALL BE REMOVED IMMEDIATELY FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF LEGALLY OFF OF SITE.

ARCHITECTURAL REMOVAL NOTES:

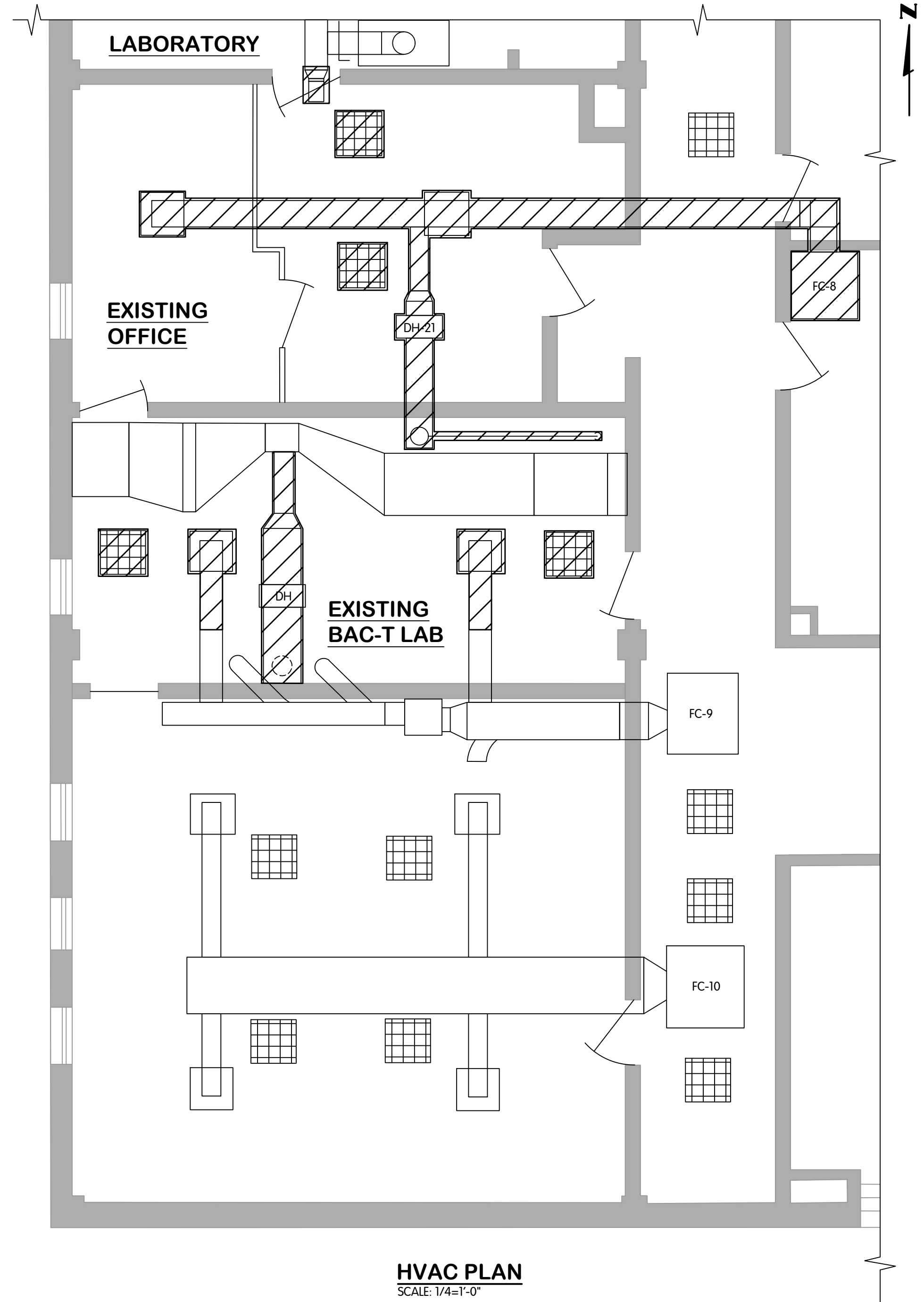
1. ALL FURNITURE AND EQUIPMENT TO BE SALVAGED. COORDINATE STORAGE AND RE-USE WITH OWNER.
2. REMOVE FLOORING IN OFFICE. PREPARE SUBSURFACE FOR EPOXY TYPE FLOOR. INVESTIGATE AND RE-INSTATE FLOOR DRAINS IF APPLICABLE, COORDINATE WITH PLUMBING CONTRACTOR.
3. REMOVE THE EXISTING FLOORING IN BAC-T LAB AND PREPARE SUBSURFACE FOR CARPET TILES.
4. REMOVE TILE CEILING, LIGHT FIXTURES, AND DIFFUSERS IN BOTH THE OFFICE AND BAC-T LAB SPACES.
5. PREPARE ALL WALLS FOR PAINTING. SOME WALLS ARE GLAZED BLOCK AND WILL REQUIRE SPECIAL PREPARATIONS FOR NEW PAINT.
6. REMOVE AND SALVAGE EXISTING LAB EQUIPMENT, COORDINATE WITH MECHANICAL AND ELECTRICAL CONTRACTORS. REFER TO A-1 FOR NEW LOCATIONS.
7. REMOVE AND DISPOSE OF BASE CABINETS, WALL CABINETS AND COUNTER TOPS.



- LEGEND**
-  HVAC DUCTING REMOVALS

MECHANICAL REMOVAL NOTES:

1. REMOVE AND DISPOSE OF FAN COIL FC-8 AND ASSOCIATED DUCTWORK. CUT AND DISPOSE OF HEATING HOT WATER AND CHILLED WATER PIPING BACK TO ISOLATION VALVES AND CAP.
2. REMOVE ALL REGISTERS, GRILLES, AND DIFFUSERS IN THE BAC-T LAB. PREPARE FOR NEW. REFER TO SHEET M-1 FOR NEW DUCT LAYOUT.
3. REMOVE DUCT HEATER DH-21. PREPARE FOR NEW. COORDINATE WITH ELECTRICAL CONTRACTOR.
4. REMOVE EXHAUST FAN AND DUCTWORK ASSOCIATED WITH THE EXISTING FUME HOOD. CAP EXHAUST FAN ROOF CURB.




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ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE REMOVALS
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

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 BY

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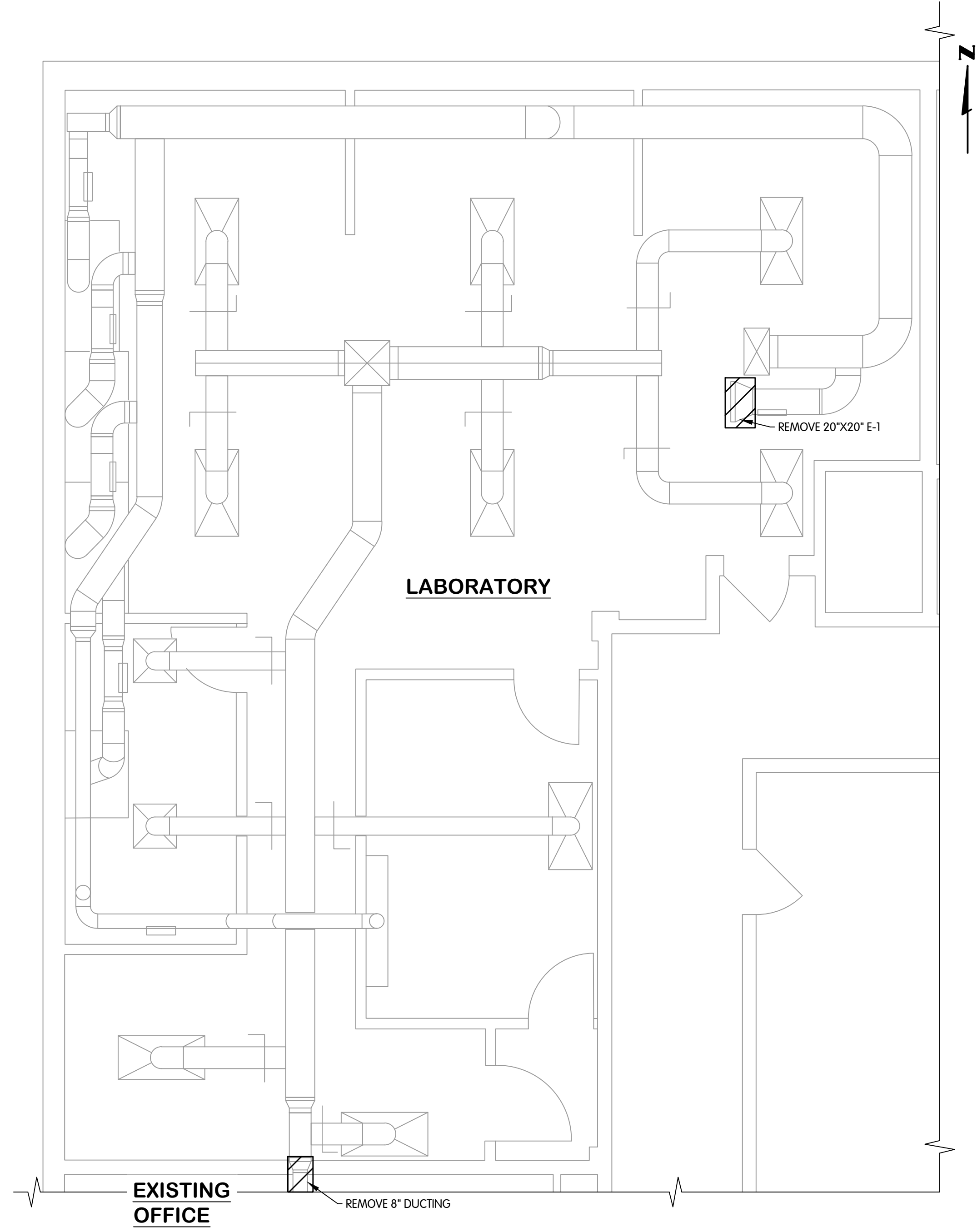


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LEGEND
 HVAC DUCTING
 REMOVALS



HVAC PLAN
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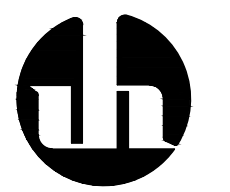


**ADMINISTRATION BUILDING
 LABORATORY REMOVALS**

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

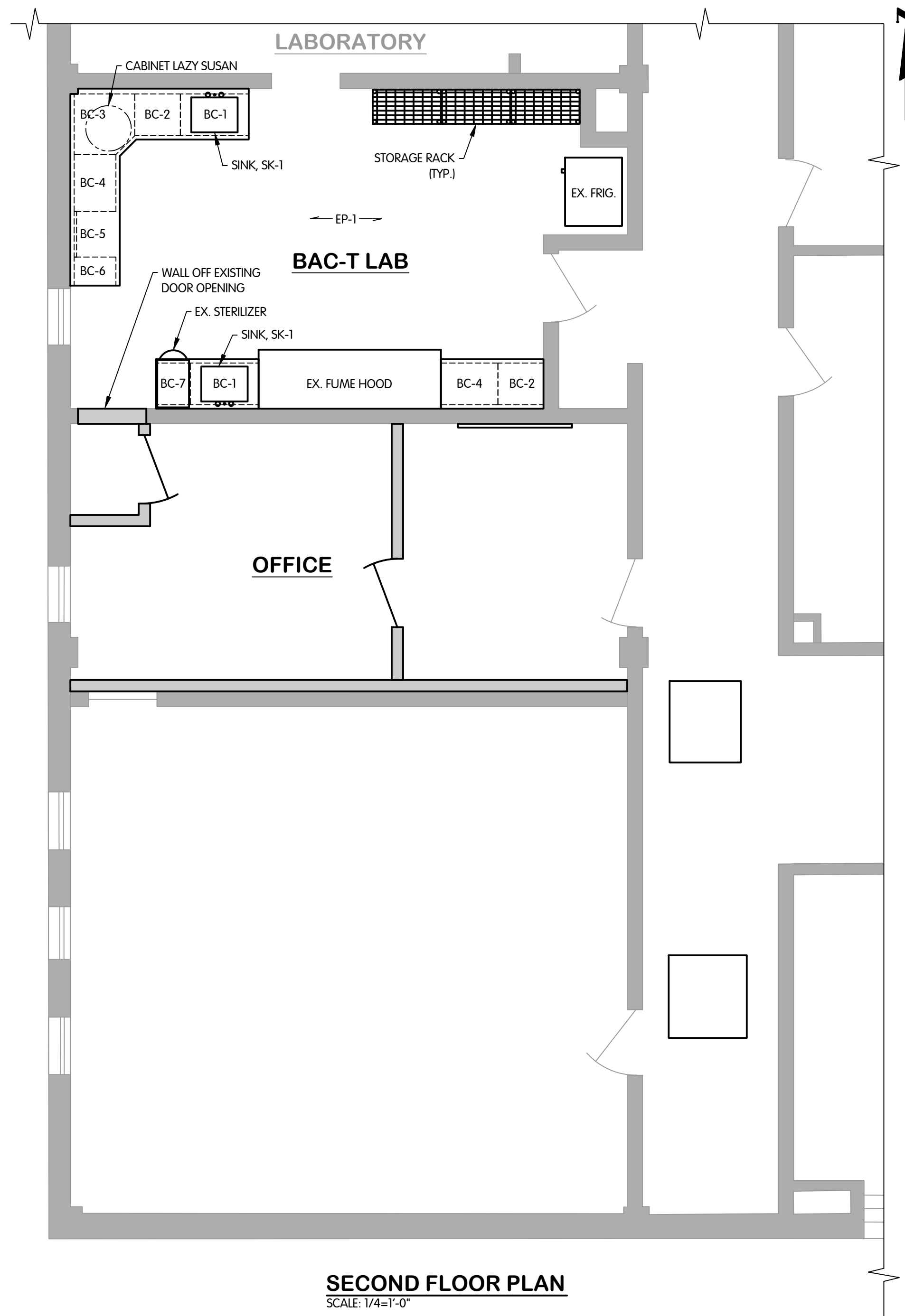
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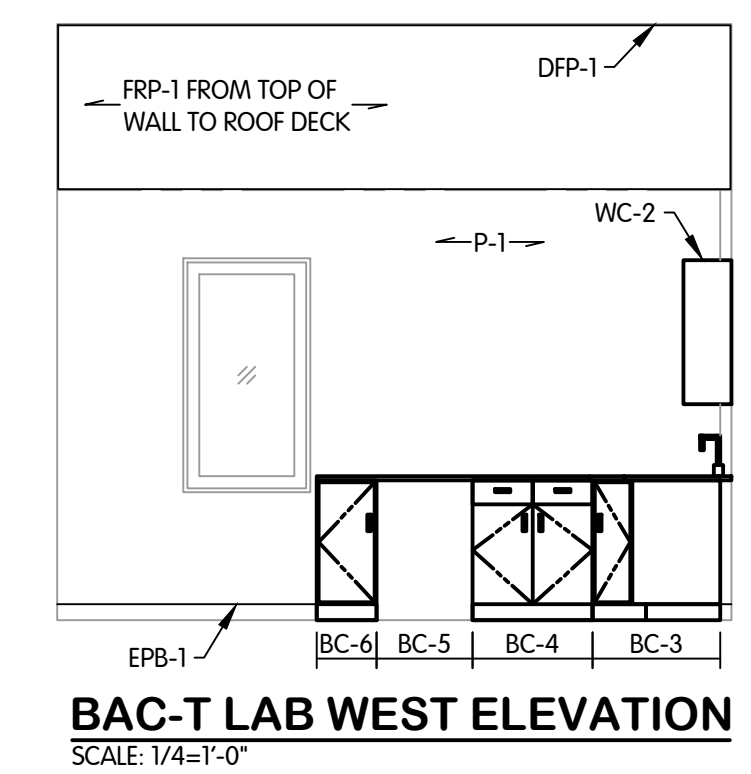
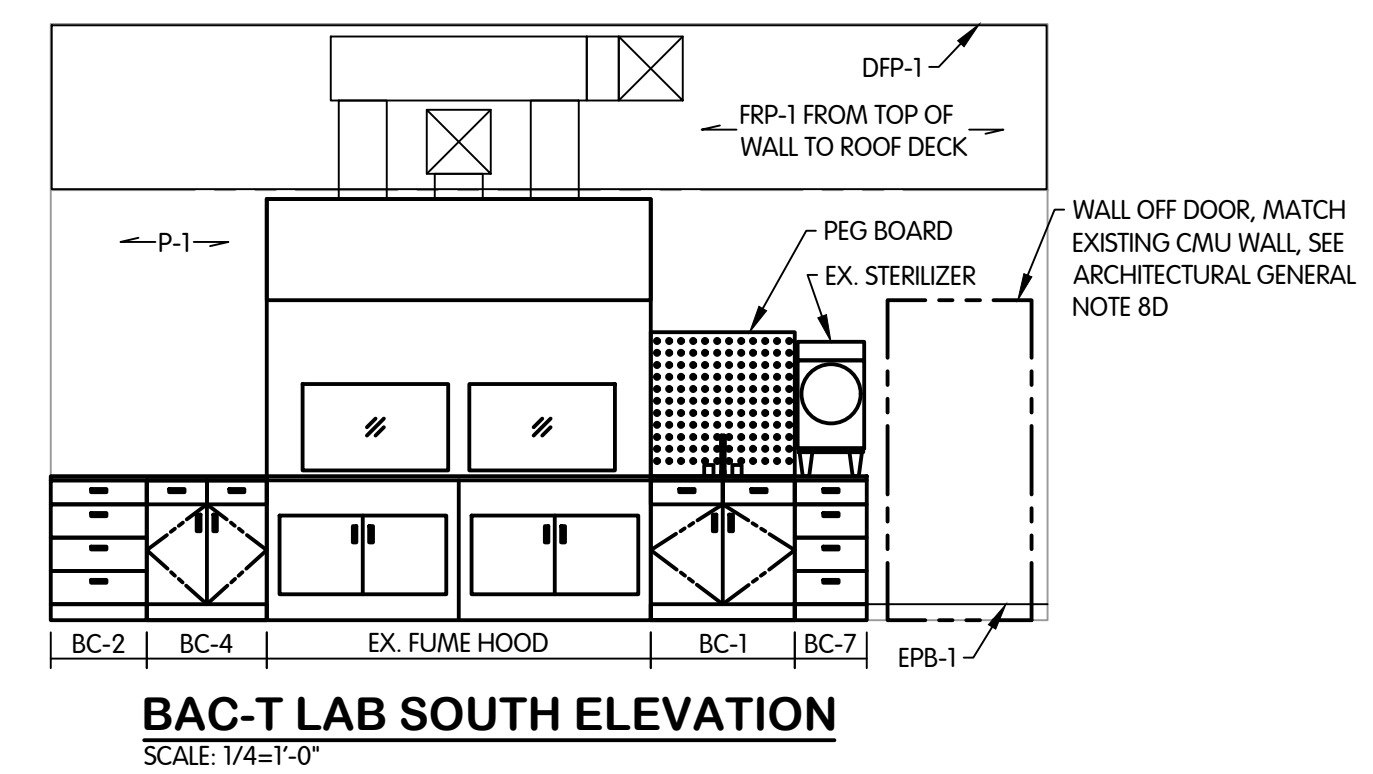
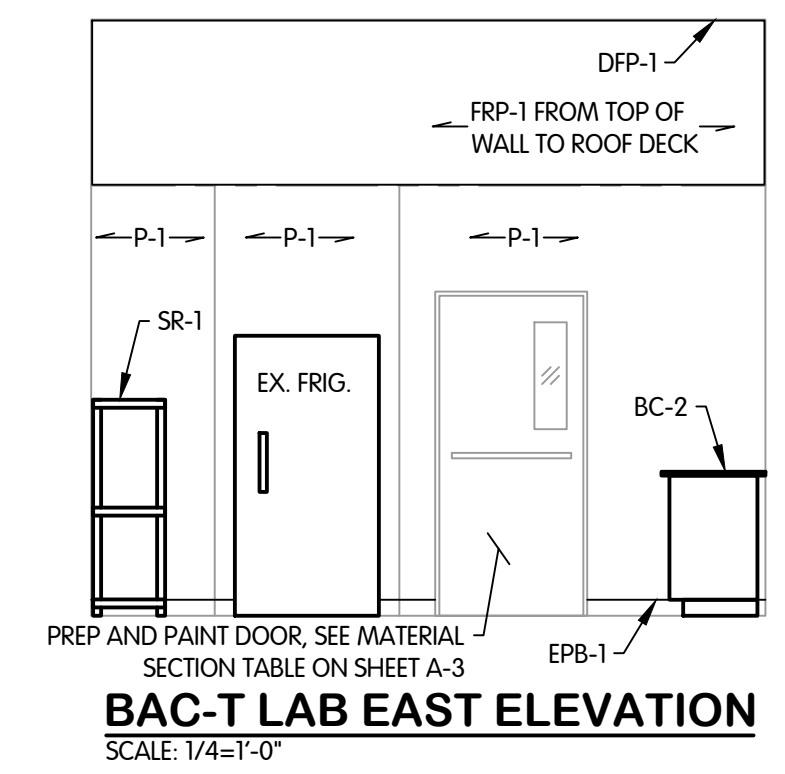
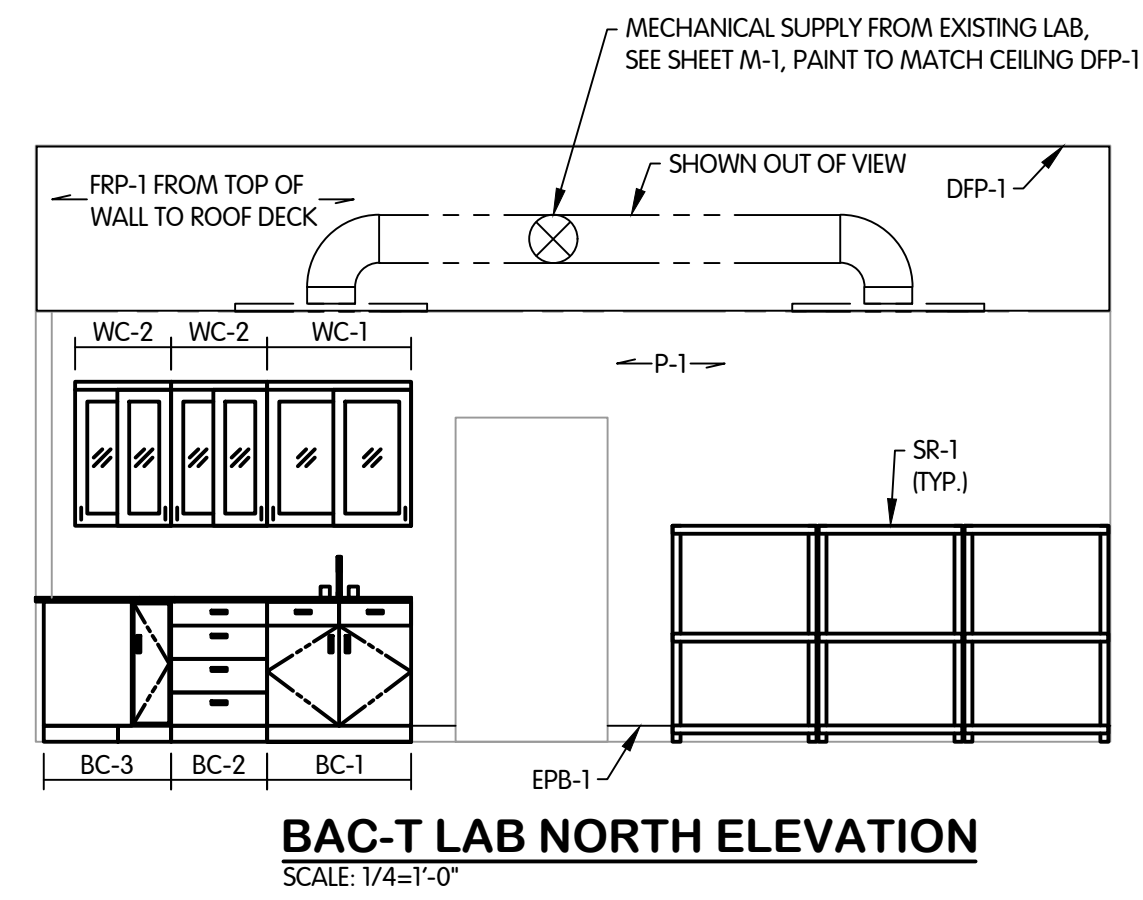
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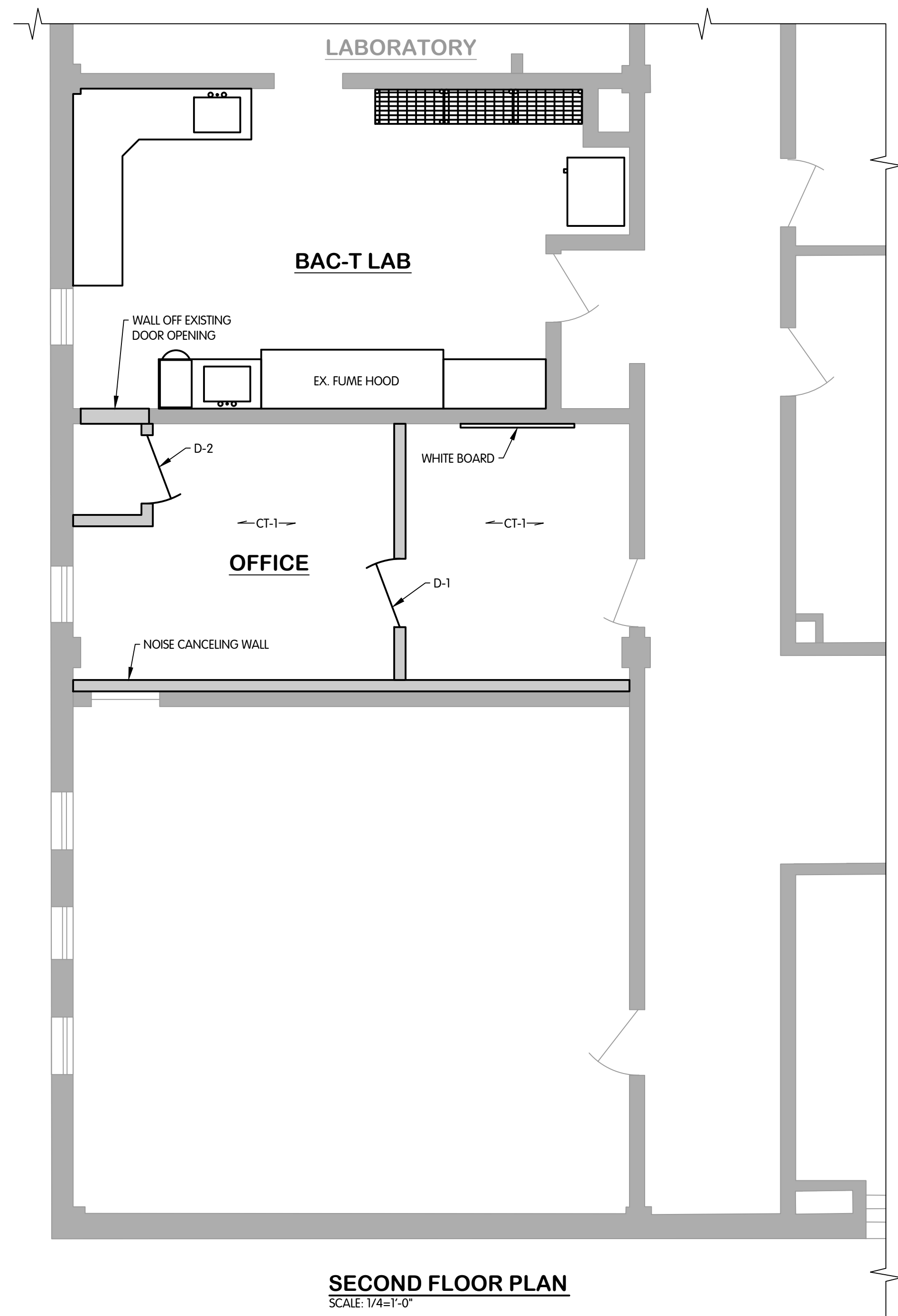


ARCHITECTURAL GENERAL NOTES:

1. DRAWINGS ESTABLISH THE DESIGN INTENT OF WORK TO BE PERFORMED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST INDUSTRY STANDARDS. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TRADES SHALL CAREFULLY COORDINATE WORK OF ALL OTHER TRADES. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER PRIOR TO FABRICATION OR INSTALLATION.
2. CONTRACTORS SHALL BE RESPONSIBLE FOR CHECKING DOCUMENTS FOR COORDINATION BETWEEN ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL. CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS AND FOR VERIFYING THEM WITH THE CONTRACT DOCUMENTS. ANY DISCREPANCY IN THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEERS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
3. COORDINATE SIZE AND LOCATION OF ALL EQUIPMENT SUPPORTS INCLUDING BUT NOT RESTRICTED TO CONCRETE HOUSEKEEPING PADS WITH APPROPRIATE EQUIPMENT MANUFACTURER.
4. COORDINATE SIZE AND LOCATION OF ALL ACCESS PANELS WITH TRADE REQUIRING THE SAME. ACCESS PANELS ARE SPECIFIED ARCHITECTURALLY BUT ARE REQUIRED TO BE PROVIDED BY EACH TRADE. ALL LOCATIONS MUST BE COORDINATED AND APPROVED BY THE ENGINEERS FIELD REPRESENTATIVE.
5. VERIFY QUANTITY, SIZE, AND LOCATION OF ALL FLOOR, ROOF, AND WALL OPENINGS FOR ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO MECHANICAL AND ELECTRICAL WORK WITH THE APPROPRIATE TRADE. PROVIDE ALL OPENINGS SHOWN OR REQUIRED FOR THE COMPLETION OF THE WORK. PROVIDE ALL UNTELS REQUIRED FOR THESE OPENINGS PER SPECIFICATIONS.
6. FLOOR PLANS ARE DIMENSIONED TO NOMINAL WALL THICKNESS - TYPICAL.
7. DIMENSIONS FOLLOWED BY ± SHOULD BE REVIEWED AND ALL NECESSARY ADJUSTMENTS MADE PRIOR TO FABRICATION AND/OR INSTALLATION OF AFFECTED WORK. NOTIFY ENGINEERS REPRESENTATIVE IF DISCREPANCIES ARISE BEFORE PROCEEDING WITH THE WORK.
8. PATCHING:
 - A. REFER TO DEMOLITION PLANS FOR ADDITIONAL PATCHING INFORMATION.
 - B. FOR ALL FLOOR SURFACES RECEIVING NEW FLOOR FINISHES, PREPARE SUBSTRATE BY PROVIDING LEVELING AND PATCHING COMPOUNDS RECOMMENDED BY FINISH FLOORING MANUFACTURERS. CONTRACTOR'S BASE BID PROPOSAL SHALL ASSUME THAT ALL AREAS, INDICATED TO RECEIVE NEW FINISHES, WILL REQUIRE FLOOR PREPARATION.
 - C. PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT UNFINISHED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, OR OTHER FIXED ACCESSORIES AND EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ENGINEER AND OWNER.
 - D. MATCH EXISTING MASONRY COURSING ADJACENT IN EACH AREA AND TOOTH NEW WORK INCLUDING JAMBS OF DOORS AND OTHER OPENINGS INTO EXISTING, UNLESS OTHERWISE NOTED.
9. ALL NEW MASONRY CORNERS TO BE BULLNOSED.



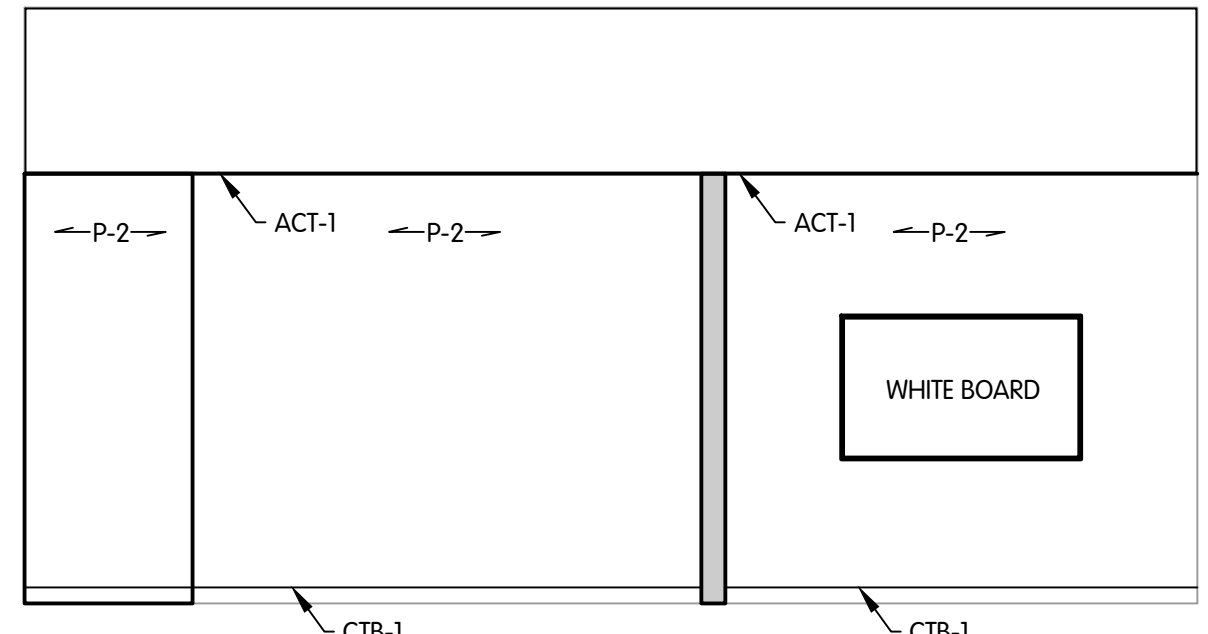
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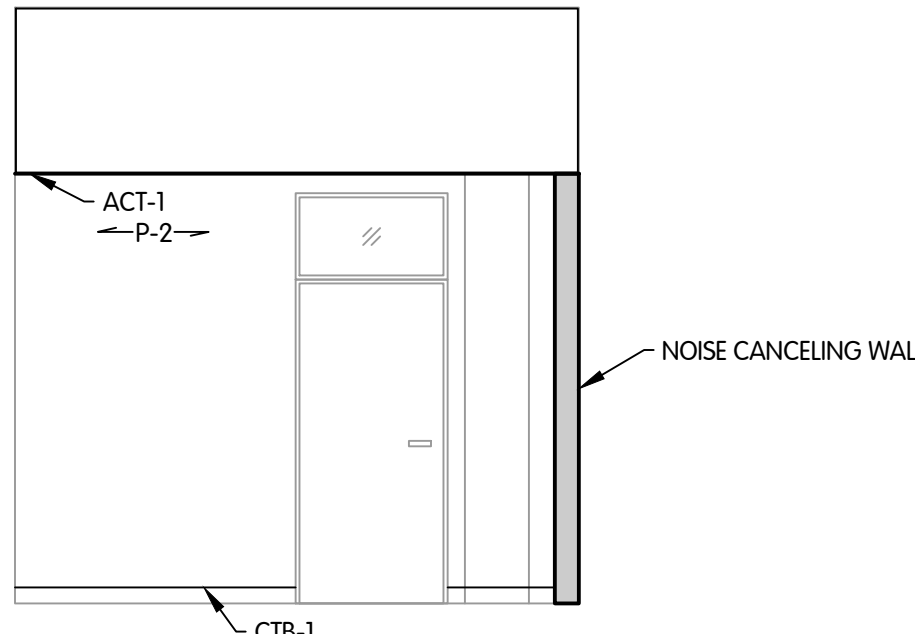
SECOND FLOOR PLAN
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ARCHITECTURAL GENERAL NOTES:

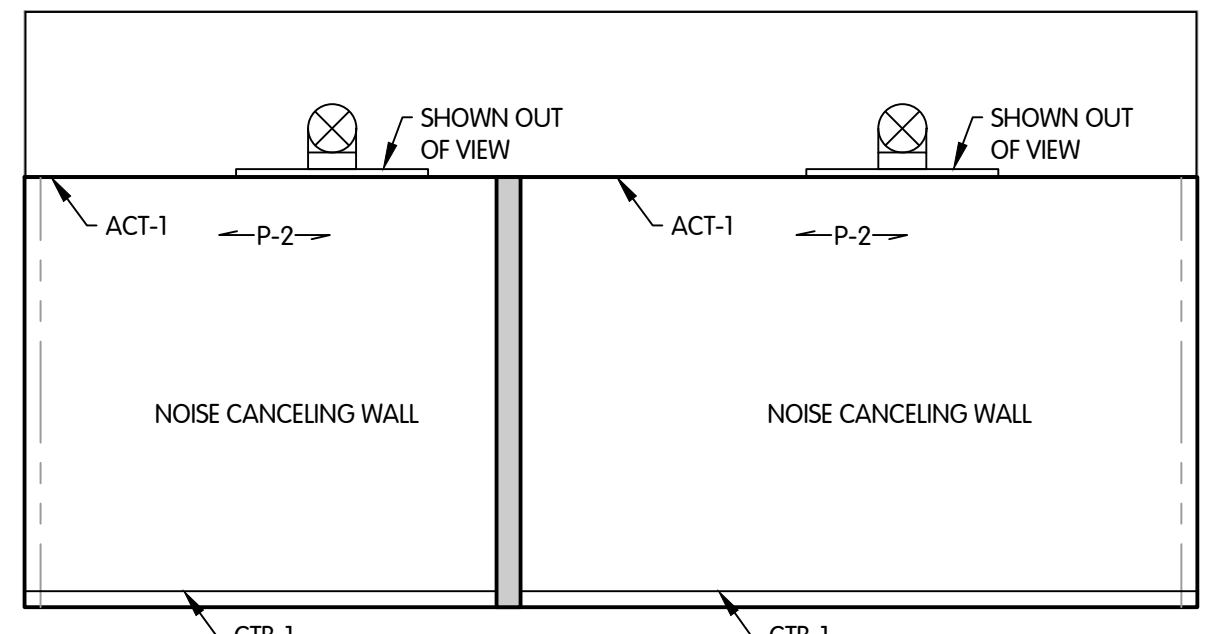
1. DRAWINGS ESTABLISH THE DESIGN INTENT OF WORK TO BE PERFORMED. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HIGHEST INDUSTRY STANDARDS. ALL PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL TRADES SHALL CAREFULLY COORDINATE WORK OF ALL OTHER TRADES. ANY DISCREPANCIES OR CONFLICTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE OWNER PRIOR TO FABRICATION OR INSTALLATION.
2. CONTRACTORS SHALL BE RESPONSIBLE FOR CHECKING DOCUMENTS FOR COORDINATION BETWEEN ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL. CONTRACTORS SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS AND FOR VERIFYING THEM WITH THE CONTRACT DOCUMENTS. ANY DISCREPANCY IN THE CONTRACT DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEERS PRIOR TO ANY FABRICATION OR CONSTRUCTION.
3. COORDINATE SIZE AND LOCATION OF ALL EQUIPMENT SUPPORTS INCLUDING BUT NOT RESTRICTED TO CONCRETE HOUSEKEEPING PADS WITH APPROPRIATE EQUIPMENT MANUFACTURER.
4. COORDINATE SIZE AND LOCATION OF ALL ACCESS PANELS WITH TRADES REQUIRING THE SAME. ACCESS PANELS ARE SPECIFIED ARCHITECTURALLY BUT ARE REQUIRED TO BE PROVIDED BY EACH TRADE. ALL LOCATIONS MUST BE COORDINATED AND APPROVED BY THE ENGINEERS FIELD REPRESENTATIVE.
5. VERIFY QUANTITY, SIZE, AND LOCATION OF ALL FLOOR, ROOF, AND WALL OPENINGS FOR ALL DISCIPLINES INCLUDING BUT NOT RESTRICTED TO MECHANICAL AND ELECTRICAL WORK WITH THE APPROPRIATE TRADE. PROVIDE ALL OPENINGS SHOWN OR REQUIRED FOR THE COMPLETION OF THE WORK. PROVIDE ALL UNTELS REQUIRED FOR THESE OPENINGS PER SPECIFICATIONS.
6. FLOOR PLANS ARE DIMENSIONED TO NOMINAL WALL THICKNESS - TYPICAL.
7. DIMENSIONS FOLLOWED BY ± SHOULD BE REVIEWED AND ALL NECESSARY ADJUSTMENTS MADE PRIOR TO FABRICATION AND/OR INSTALLATION OF AFFECTED WORK. NOTIFY ENGINEERS REPRESENTATIVE IF DISCREPANCIES ARISE BEFORE PROCEEDING WITH THE WORK.
8. PATCHING:
 - A. REFER TO DEMOLITION PLANS FOR ADDITIONAL PATCHING INFORMATION.
 - B. FOR ALL FLOOR SURFACES RECEIVING NEW FLOOR FINISHES, PREPARE SUBSTRATE BY PROVIDING LEVELING AND PATCHING COMPOUNDS RECOMMENDED BY FINISH FLOORING MANUFACTURERS. CONTRACTOR'S BASE BID PROPOSAL SHALL ASSUME THAT ALL AREAS, INDICATED TO RECEIVE NEW FINISHES, WILL REQUIRE FLOOR PREPARATION.
 - C. PATCH AND REPAIR ALL FLOOR AND WALL SURFACES LEFT UNFINISHED OR INCOMPLETE FROM REMOVAL OF EXISTING PARTITIONS, MILLWORK, CASEWORK, OR OTHER FIXED ACCESSORIES AND EQUIPMENT WITH MATERIALS TO MATCH EXISTING, AS ACCEPTABLE TO THE ENGINEER AND OWNER.
 - D. MATCH EXISTING MASONRY COURSING ADJACENT IN EACH AREA AND TOOTH NEW WORK (INCLUDING JAMBS OF DOORS AND OTHER OPENINGS) INTO EXISTING, UNLESS OTHERWISE NOTED.
9. ALL NEW MASONRY CORNERS TO BE BULLNOSED.



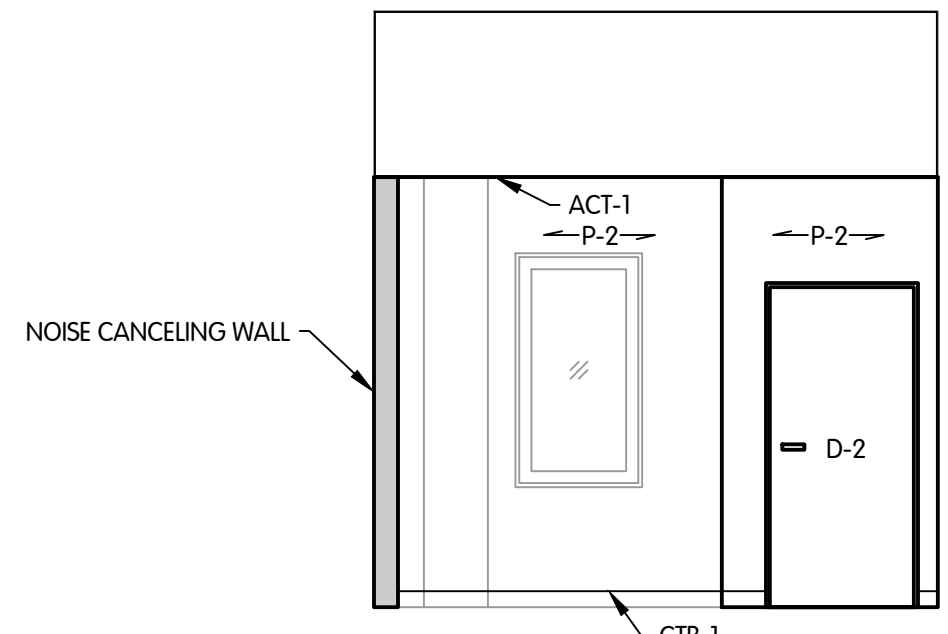
OFFICE NORTH ELEVATION
 SCALE: 1/4"=1'-0"



OFFICE EAST ELEVATION
 SCALE: 1/4"=1'-0"



OFFICE SOUTH ELEVATION
 SCALE: 1/4"=1'-0"



OFFICE WEST ELEVATION
 SCALE: 1/4"=1'-0"



**ADMINISTRATION BUILDING
 OFFICE
 ARCHITECTURAL PLAN & ELEVATIONS**
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

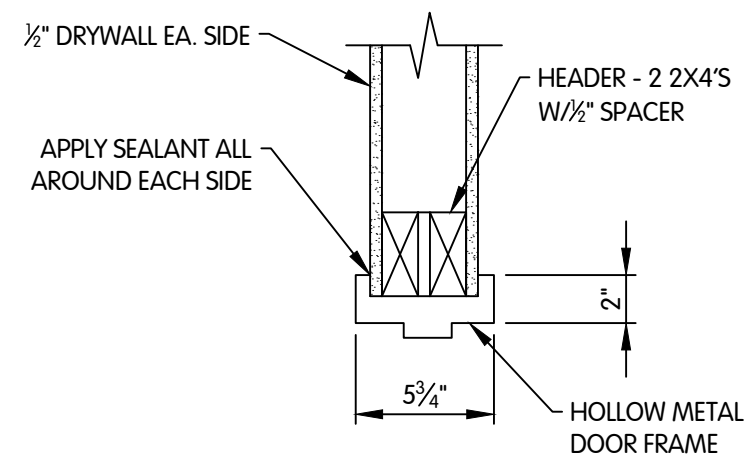
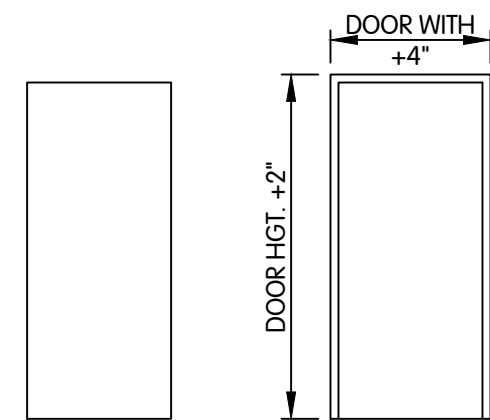
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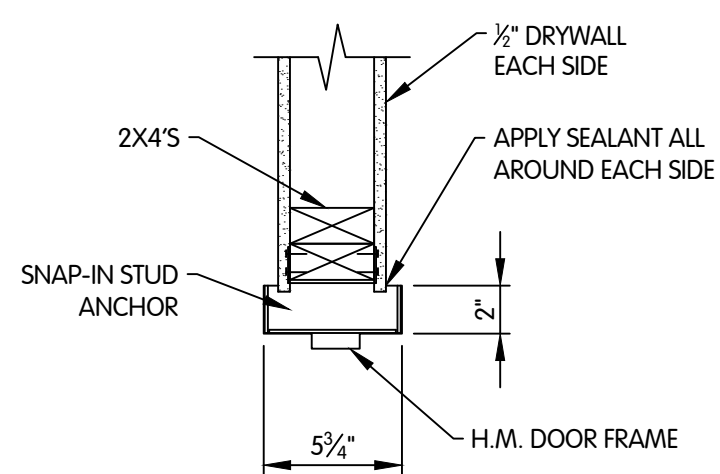
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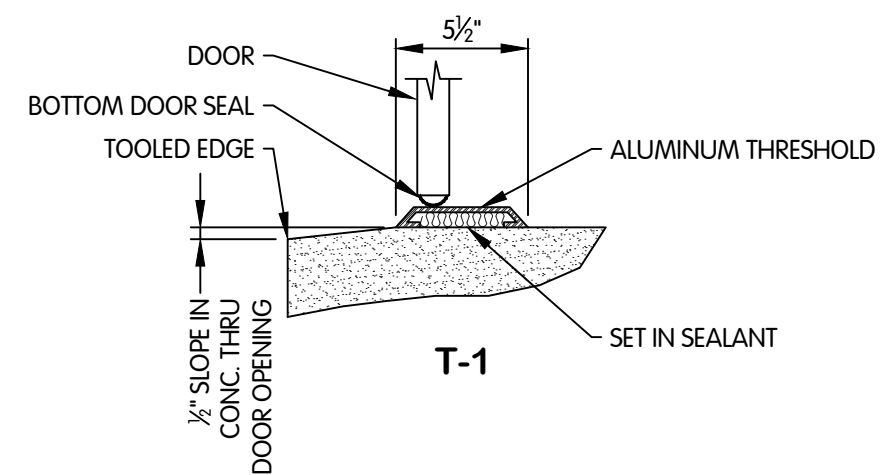
DOOR SCHEDULE										
TAG/ID	QNTY.	DOOR		THICKNESS	DOOR TYPE	DESCRIPTION	DOOR MATERIAL	DETAILS		
		WIDTH	HEIGHT					HEAD	JAMB	THRESH
D-1	1	36"	80"	1 3/4"	HM	SINGLE LEAF DOOR	ALUMINUM	H-1	J-1	NONE
D-2	1	36"	80"	1 3/4"	HM	SINGLE LEAF DOOR	ALUMINUM	H-1	J-1	NONE



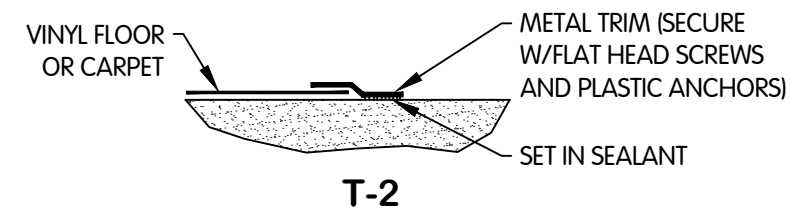
H-1
HEAD
1/2"=1'-0"



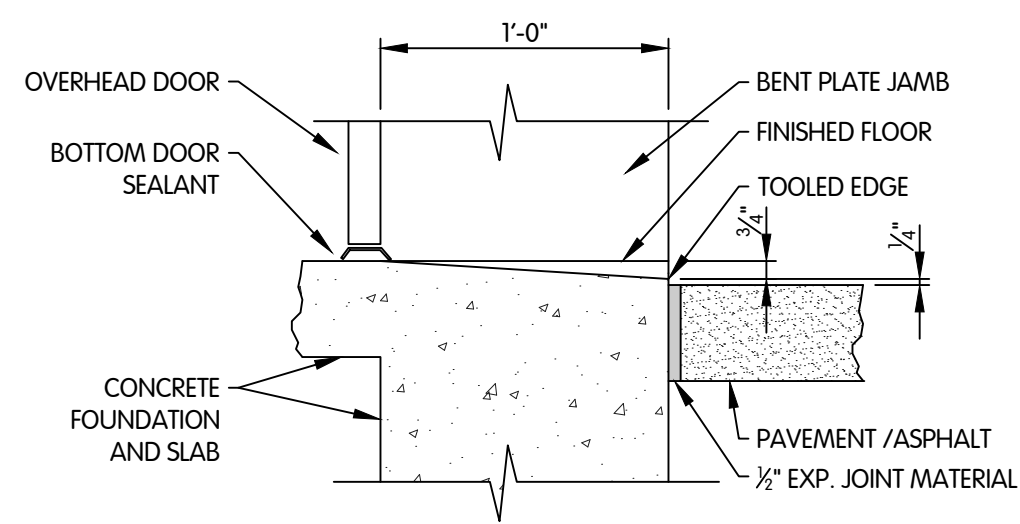
J-1
JAMB
1/2"=1'-0"



T-1



T-2



T-3

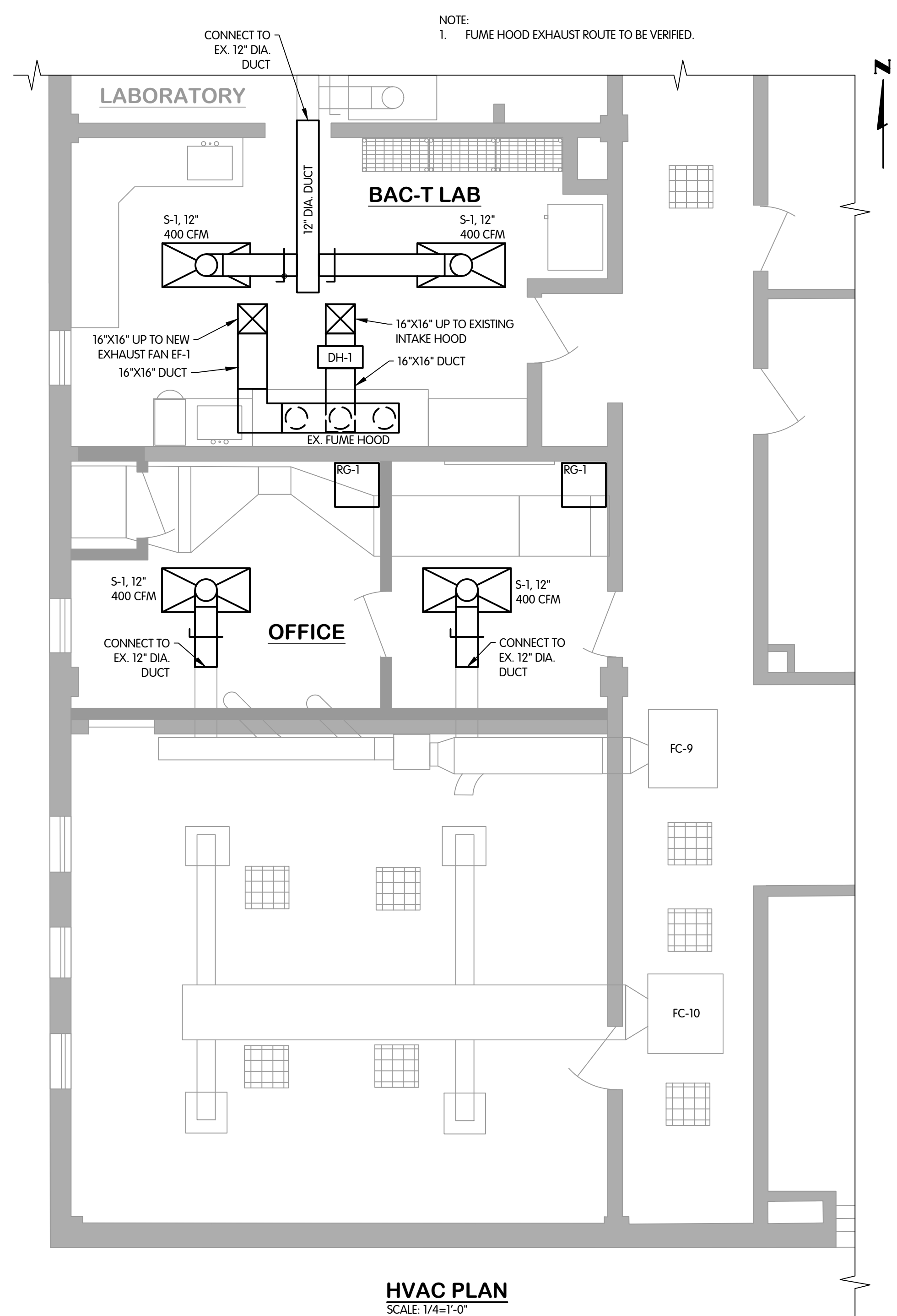
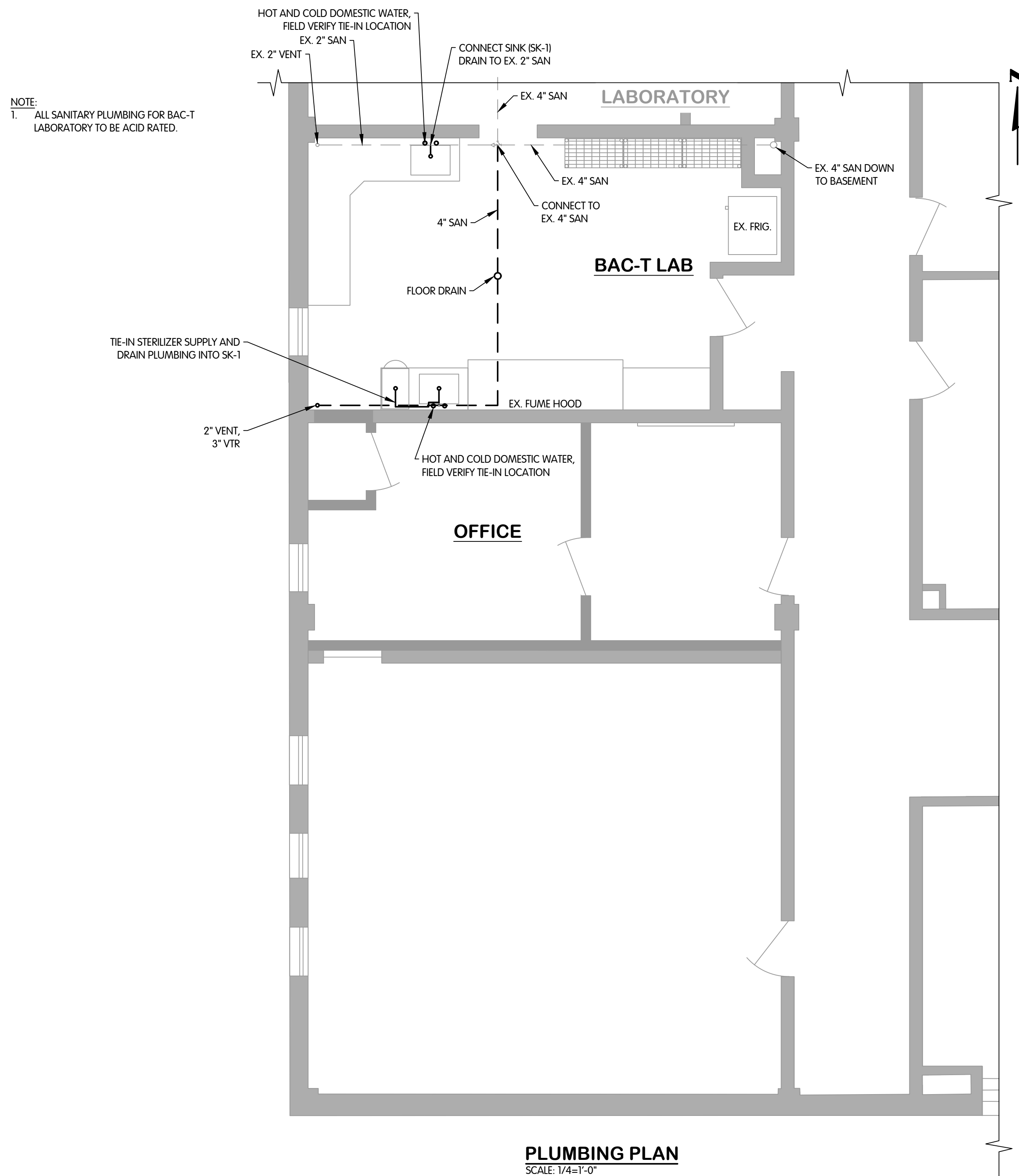
THRESHOLD TYPES
1/2"=1'-0"

MATERIAL SELECTION SCHEDULE					
CODE	ITEMS	MANUFACTURER	STYLE/FINISH	COLOR/PATTERN	NOTES
FLOORS					
EP-1	EPOXY POURED FLOORING	SHERWIN WILLIAMS	DECORATIVE MOSAIC EPOXY COATING W/ "D" SIZE FLAKES	"D" FLAKE/ #TL-85	TOPCOAT SHALL BE SW #4685 POLY-COTE URETHANE
CT-1	CARPET TILE	SHAW	AREA TILE/ORGANIC ROOTS	COLOR TBD BY OWNER/24" X 24"	PROVIDE OWNER COMPLETE COLOR SAMPLE SELECTION PRIOR TO PROCUREMENT
EPB-1	EPOXY POURED BASE INTEGRAL COVE	SHERWIN WILLIAMS	DEC. MOSAIC EPOXY COATING W/ "D" SIZE FLAKES/ 4" HIGH INTEGRAL COVE		
CTB-1	CARPET TILE BASEBOARD	TARKETT	TRADITIONAL WALL BASE/RUBBER	COLOR TBD BY OWNER/4.5" HIGH	
WALLS					
P-1	PAINT	SHERWIN WILLIAMS	#K46-150 SW PRO PRECATALYZED EPOXY PAINT SYSTEM SEMI-GLOSS	COLOR TBD BY OWNER	PROVIDE OWNER COMPLETE COLOR SAMPLE SELECTION PRIOR TO PROCUREMENT
P-2	PAINT	SHERWIN WILLIAMS	#B66-650 SERIES SEMI-GLOSS	COLOR TBD BY OWNER	PROVIDE OWNER COMPLETE COLOR SAMPLE SELECTION PRIOR TO PROCUREMENT
CEILING					
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	#1774 DUNE / 24" X 24"	WHITE W/ PRELUDE 15/16" SUSPENSION SYSTEM	
DFP-1	DRYFALL PAINT SYSTEM	SHERWIN WILLIAMS	#B42W81 SW PRO ACRYLIC/FLAT CEILING FINISH	MATCH EXISTING LABORATORY	
MILLWORK					
CAB-1	METAL LAB CABINETS	CIF LAB SOLUTIONS	S-LINE SERIES PREMIUM PAINTED METAL CASEWORK	COLOR TO MATCH LAB 215	PROVIDE WITH CIF LAB SOLUTIONS/ HAFELE STAINLESS STEEL BOW PULLS #156.60.602. SEE PLANS AND CABINET SCHEDULE FOR LOCATION AND MODEL INFORMATION
CAB-2	SOLID PLASTIC CABINETS	BMT/NELSON	SLIDING GLASS DOOR WALL CABINET	COLOR TO MATCH LAB 215 CASEWORK. COORDINATE WITH OWNER	
EPC-1	EPOXY RESIN COUNTERTOP	CIF LAB SOLUTIONS	DURCON - STANDARD STRAIGHT EDGE	BLACK	
MISC.					
SR-1	STORAGE RACK	MUSCLE RACK	5 TIER HEAVY DUTY STEEL STORAGE SHELVING UNIT/ 36" X 72" X 18"	BLACK/ COORDINATE SHELF HEIGHTS WITH OWNER	
FRP-1	SPECIAL-LITE	SPECLITE 30	SLATE GREY		

ROOM FINISH SCHEDULE											
MARK	ROOM/AREA NAME	FLOOR	BASE	WALLS				CEILING		MILLWORK	
				NORTH	EAST	SOUTH	WEST	MAT'L	FINISH	CAB.	TOP
-	BAC-T LAB	EP-1	EPB-1	P-1	P-1	P-1	P-1	DFP-1	MATCH EX.	CAB-1	EPC-1
205	OFFICE	CT-1	CTB-1	P-2	P-2	P-2	P-2	ACT-1	WHITE	-	-

CABINET SCHEDULE						
CABINET	MANUFACTURER	MODEL	WIDTH	HEIGHT	QTY.	
BC-1	CIF	B2200	36"	35"	2	
BC-2	CIF	B4550	24"	35"	2	
BC-3	CIF	X1260	14"	35"	1	
BC-4	CIF	B0100	30"	35"	2	
BC-5	CIF	R3300	24"	35"	1	
BC-6	CIF	B0110	15"	35"	1	
BC-7	CIF	B4550	18"	35"	1	
WC-1	BMT/NELSON	406-36	36"	36"	1	
WC-2	BMT/NELSON	406-24	24"	36"	2	

KAL-796900100-ADMIN BUILDING - BAC-T LAB & OFFICE - MECHANICAL PLAN
 10/12/2022 11:23 AM - CFERRELL
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ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE
 MECHANICAL PLANS
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

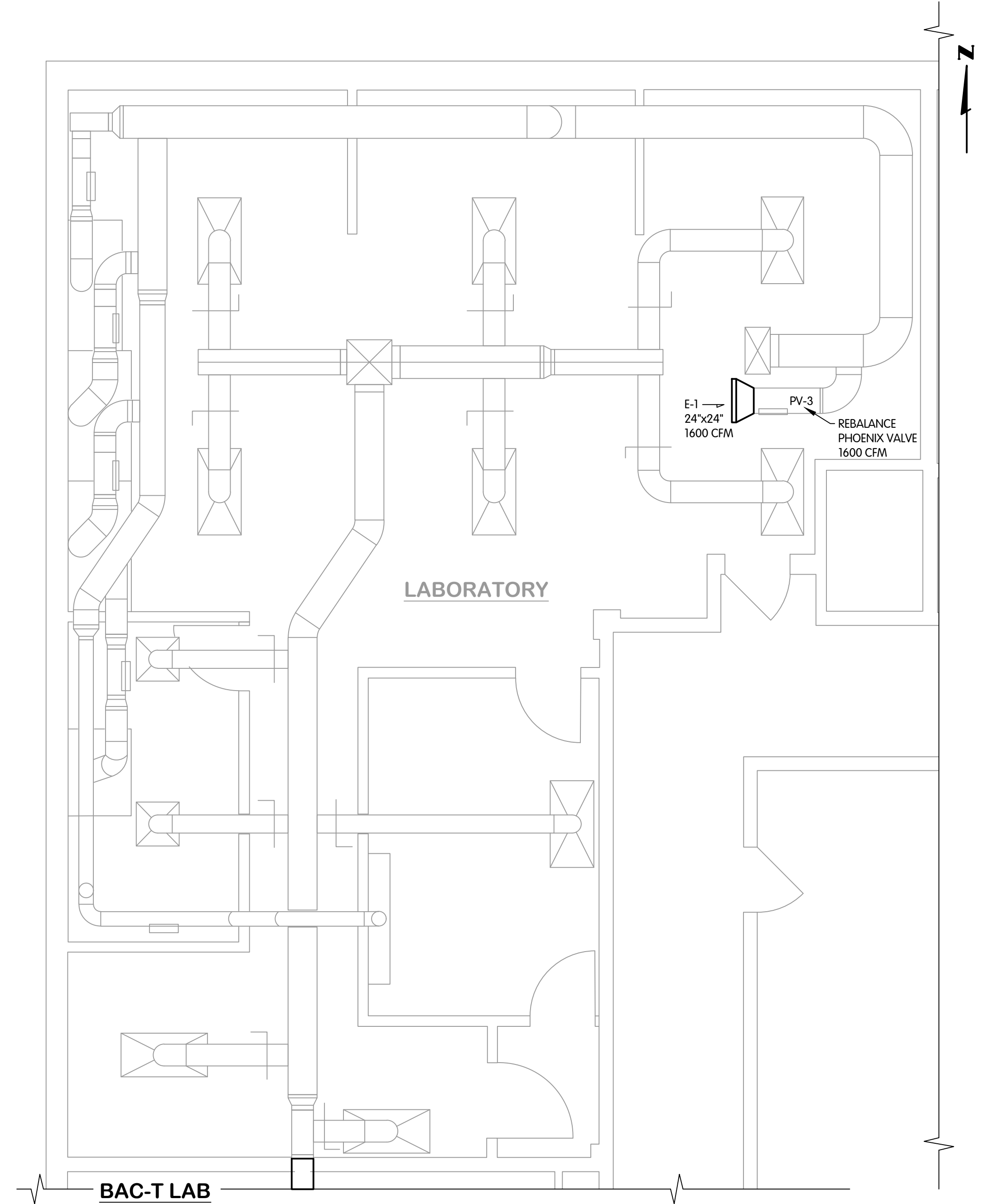
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KAL-796900M03-ADMIN BUILDING - LABORATORY - MECHANICAL PLAN
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HVAC PLAN
 SCALE: 1/4"=1'-0"



ADMINISTRATION BUILDING
 LABORATORY MECHANICAL PLAN

CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

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ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE
 MECHANICAL SCHEDULES
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

PLUMBING FIXTURE SCHEDULE										
MARK	FIXTURE	CW	HW	SAN	VNT	FIXTURE MODEL	FIXTURE MANUFACTURER	TRIM MODEL	TRIM MANUFACTURER	DESCRIPTION
FD-1	FLOOR DRAIN	-	-	2"	-	ZN415B-P	ZURN	OVAL FUNNEL, TRAP PRIMER CONNECTION, TRAP PRIMER MODEL: PR500SS	PRECISION PLUMBING PRODUCTS	DURA-COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTABLE MEMBRANE CLAMP, AND ADJUSTABLE COLLAR WITH SEEPAGE SLOTS AND TYPE "B" POLISHED NICKLE BRONZE, 8" LIGHT DUTY STRAINER, PROVIDE TRAP PRIMER CONNECTION AND 8-7/8"X1/4"X3-3/4" OVAL FUNNEL
SK-1	SINK-BARRIER FREE	1/2"	1/2"	2"	1-1/4"	U15C	CIFLAB SOLUTIONS	SF857	CIFLAB SOLUTIONS	24.4"X18.4"X16.8" EPOXY UNDERMOUNT SINK, DECK MOUNTED ONE HOLE MIXER WITH ADA-FRIENDLY BLADE HANDLES, VACCUM BREAKER GOOSENECK AND DETACHABLE NOZZLE

AIR INLETS AND OULETS				
MARK	MODEL	SIZE	COMMENTS	NOTES
E-1	350RL-SS	24X24	SINGLE DEFLECTION, SURFACE MOUNTED, STAINLESS STEEL, WHITE	1
RG-1	50F	24X24	EGGCRATE RETURN GRILLE, LAY-IN, ALUMINUM, WHITE	1
S-1	TRITEC-SS	24X48	2-WAY, LOW VELOCITY, HEMISPHERICAL FLOW PATTERN, STAINLESS STEEL, FACE AND BACKPAN	1
S-2	TRITEC-SS	24X48	1-WAY, LOW VELOCITY, HEMISPHERICAL FLOW PATTERN, STAINLESS STEEL, FACE AND BACKPAN	1

1. BASED ON TITUS

EXHAUST FAN SCHEDULE							
MARK	MODEL	CFM	ESP	RPM	HP	V/PH	NOTES
EF-1	CUE-120-VG	1200	0.5	1284	1/4	115/60	1,2,3,4

1. BASED ON GREENHECK
2. INSTALL ON EXISTING ROOF CURB. FIELD VERIFY DIMENSIONS
3. SOLID STATE SPEED CONTROL
4. PROVIDE WITH GREENHECKS LABCOAT

DUCT HEATER SCHEDULE							
MARK	MODEL	KW/FT ²	VOLTS	PH	DIM (W)	DIM (H)	NOTES
DH-1	IDHE	30	120	60	16	16	1

1. BASED ON GREENHECK

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SINGLE-LINE DIAGRAM LEGEND

	FUSED DISCONNECT SWITCH (SWITCH SIZE, FUSE TYPE AND FUSE SIZE AS SHOWN)		VACUUM CONTACTOR		POWER FACTOR CORRECTION CAPACITOR - (PFCC) (SIZE PER MOTOR MANUFACTURER RECOMMENDATIONS.)
	UNFUSED DISCONNECT SWITCH (SWITCH SIZE AS SHOWN)		THREE PHASE AC MOTOR (HORSEPOWER AS SHOWN)		HIGH OR MEDIUM VOLTAGE FUSED CUTOUT (SIZE AS SHOWN)
	THERMAL-MAGNETIC CIRCUIT BREAKER OR MOTOR CIRCUIT PROTECTOR-MCP (TRIP SIZE AS SHOWN)		CURRENT TRANSFORMER WITH AMMETER SWITCH, AND AMMETER (RATIO AS SHOWN)		CABLE LIMITER (SIZE AS SHOWN)
	HIGH OR MEDIUM VOLTAGE CIRCUIT BREAKER		CURRENT TRANSFORMER WITH SHORTING BLOCK (RATIO AS SHOWN)		STAND-BY GENERATOR (SIZE AS SHOWN) WITH FIELD PROTECTION CIRCUIT BREAKER (TRIP SIZE AS SHOWN)
	LIGHTING OR POWER TRANSFORMER, THREE PHASE UNLESS NOTED OTHERWISE (CONNECTION, SIZE & RATING AS SHOWN)		POTENTIAL TRANSFORMER WITH VOLTMETER SWITCH, AND VOLTMETER		VARIABLE FREQUENCY DRIVE WITH A BY-PASS OPTION (SHOWN WITH INTEGRAL EXTERNAL DISCONNECT HANDLE)
	FULL VOLTAGE NON-REVERSING MOTOR STARTER WITH OVERLOADS (FVNR)		LIGHTNING ARRESTER (VOLTAGE RATING AS SHOWN)		CP = CONTROL PANEL SSRVS = SOLID STATE REDUCED VOLTAGE STARTER (SHOWN WITH INTEGRAL EXTERNAL DISCONNECT HANDLE)
	FULL VOLTAGE REVERSING MOTOR STARTER WITH OVERLOADS (FVR)		TRANSIENT VOLTAGE SURGE SUPPRESSOR (TVSS)		DPM
	TWO SPEED MOTOR STARTER WITH OVERLOADS		GROUND CONNECTION		WHM
			LINE OR LOAD REACTOR		AUTOMATIC TRANSFER SWITCH (ATS)
			KIRK KEY (DASHED LINES TO INTERLOCKED DEVICES)		MANUAL TRANSFER SWITCH (MTS)
			DRAWOUT FOR SWITCHGEAR OR MOTOR CONTROL CENTER		

SCHEMATIC LEGEND

	OPEN CONTACTS WITH TIME-DELAY CLOSING		TEMPERATURE SWITCH CLOSING ON RISING TEMPERATURE		NORMALLY OPEN MOMENTARY ACTION PUSH-BUTTON SWITCH (SHOWN WITH ONLY 1 CIRCUIT)
	CLOSED CONTACTS WITH TIME-DELAY OPENING		TEMPERATURE SWITCH OPENING ON RISING TEMPERATURE		NORMALLY CLOSED MOMENTARY ACTION PUSH-BUTTON SWITCH (SHOWN WITH ONLY 1 CIRCUIT)
	OPEN CONTACTS WITH TIME-DELAY OPENING		LIMIT SWITCH NORMALLY OPEN		PUSH-TO-TEST PILOT LIGHT WITH COLORED LENS CAP R - RED G - GREEN A - AMBER W - WHITE B - BLUE CL - CLEAR
	CLOSED CONTACTS WITH TIME-DELAY CLOSING		LIMIT SWITCH NORMALLY CLOSED		ZERO SPEED SWITCH (NORMALLY OPEN)
	FLOW SWITCH CLOSING ON INCREASE IN FLOW		LIMIT SWITCH NORMALLY CLOSED - HELD OPEN		ZERO SPEED SWITCH (NORMALLY CLOSED)
	FLOW SWITCH OPENING ON INCREASE IN FLOW		FOOT SWITCH OPENS BY FOOT PRESSURE		
	LIQUID LEVEL SWITCH CLOSING ON RISING LEVEL		FOOT SWITCH CLOSING BY FOOT PRESSURE		
	LIQUID LEVEL SWITCH OPENING ON RISING LEVEL		MUSHROOM HEAD, MAINTAINED ACTION (PUSH-PULL) PUSH BUTTON SWITCH (SHOWN WITH ONLY 1 CIRCUIT)		
	PRESSURE OR VACUUM SWITCH CLOSING ON RISING PRESSURE		2 - POSITION, MAINTAINED ACTION SELECTOR SWITCH		
	PRESSURE OR VACUUM SWITCH OPENING ON RISING PRESSURE				

3 - POSITION, MAINTAINED ACTION SELECTOR SWITCH
 H - O - A: HAND-OFF-AUTOMATIC
 L - O - R: LOCAL-OFF-REMOTE
 PCS: PLANT CONTROL SYSTEM
 PLC: PROGRAMMABLE LOGIC CONTROLLER

INDICATES ITEMS IN A SEPARATE COMMON ENCLOSURE

CONTACTOR COIL
 M - MOTOR STARTER CONTACTOR
 MF - MOTOR STARTER FORWARD CONTACTOR
 MR - MOTOR STARTER REVERSE CONTACTOR
 ML - MOTOR STARTER LOW SPEED CONTACTOR
 MH - MOTOR STARTER HIGH SPEED CONTACTOR
 SC - MOTOR STARTER STARTING CONTACTOR
 RC - MOTOR STARTER RUN CONTACTOR
 BP - BYPASS CONTACTOR
 CC - CAPACITOR CONTACTOR
 LC - LIGHTING CONTACTOR
 IC - ISOLATION CONTACTOR
 C - GENERAL CONTACTOR

CONTROL RELAY COIL
 CR - INSTANTANEOUS CONTROL RELAY
 TR - TIME DELAY RELAY

MOTOR STARTER OVERLOAD RELAY N.C. CONTACT

SOLENOID COIL
 SV - SOLENOID VALVE

ELAPSED TIME METER

GENERAL ELECTRICAL ABBREVIATIONS

PVC - POLYVINYL CHLORIDE
 RGS - RIGID GALVANIZED STEEL
 PVC/RGS - PVC COATED RGS

MOTOR STARTER ABBREVIATIONS

FVNR - FULL VOLTAGE, NON-REVERSING
 FVR - FULL VOLTAGE REVERSING
 TS1W - TWO SPEED, ONE WINDING
 TS2W - TWO SPEED, TWO WINDING
 TS1WV - TWO SPEED REVERSING, ONE WINDING
 TS2WV - TWO SPEED REVERSING, TWO WINDING

ELECTRICAL PLAN LEGEND

	GROUND WIRE		THREE PHASE AC MOTOR (HORSEPOWER AS SHOWN)
	DIRECT BURIAL CABLE		MOTOR OPERATED VALVE, 3 PHASE, WITH MAGNETIC STARTER AND CONTROLS
	CONDUIT CONCEALED		MOTOR OPERATED VALVE, 1 PHASE, WITH MAGNETIC STARTER AND CONTROLS
	CONDUIT EXPOSED		GROUND ROD WITH CADWELD CONNECTION
	CONDUIT IN CONCRETE DUCT BANK		PP = POWER POLE, LP = LIGHT POLE
	HOMERUN		AIR TERMINAL (LIGHTNING PROTECTION)
	CONDUIT TURNS UP		STROBE LIGHT (F= FIRE ALARM, G=GAS ALARM)
	CONDUIT TURNS DOWN		HEAT DETECTOR - RATE OF RISE/FIXED TEMPERATURE
	CAPPED CONDUIT (FUTURE USE)		SMOKE DETECTOR - IP = PHOTOELECTRIC, I = IONIZATION
	CONDUIT TEE		PULL STATION - FIRE ALARM
	CADWELD CONNECTION		HORN, BELL, OR SIREN
	B = BUSWAY		HORN/STROBE COMBINATION
	C = CABLE TRAY		CAPACITOR
	S		CONTROL STATION
	S ₂		BOX - JUNCTION, TERMINAL, PULL OR HAND HOLE
	S ₃		ELECTRIC MANHOLE
	S ₄		TRANSFORMER (SEE SINGLE LINE FOR SIZE & TYPE)
	S _p		LIGHTING CONTACTOR
	S _k		FLOW TRANSMITTER
	5		LEVEL TRANSMITTER
	3		PRESSURE TRANSMITTER
	5		TEMPERATURE TRANSMITTER
	6, 8		ANALYSIS TRANSMITTER (I.E. OXYGEN, TURBIDITY)
	4, 6, 8		INDICATOR - PRESSURE, FLOW, LEVEL, DENSITY, ANALYSIS
			DENSITY TRANSMITTER
			LIMIT (POSITION) SWITCH
			PRESSURE SWITCH
			TEMPERATURE SWITCH (I.E. MOTOR THERMO PROTECTOR)
			CONVEYOR CABLE SWITCH
			SPEED SWITCH
			FLOW SWITCH
			LEVEL SWITCH
			MOISTURE SENSOR
			TORQUE SWITCH
	MCC		VIBRATION SWITCH
			LOAD CELL
			TRANSMITTER SENSING ELEMENT - LEVEL, FLOW, DENSITY, PRESSURE, ANALYSIS
	UPS		SOLENOID
	EPP		THERMOSTAT
	CP		HEATER IN MOTOR
			PHOTOELECTRIC CELL
			GAS DETECTOR WITH CONTROL PANEL (GAS TYPE AS SHOWN)
			THERMOCOUPLE
			PNEUMATIC VALVE OPERATOR
			CURRENT TO PRESSURE TRANSDUCER

ELECTRICAL NOTES

- STRUCTURAL MATERIALS ARE NOT SHOWN ON ELECTRICAL DRAWINGS. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS.
- ALL ELECTRICAL EQUIPMENT ELEVATIONS SHOWN ARE TO BOTTOM OF DEVICE OR PANEL, UNLESS OTHERWISE NOTED.
- NUMBER SHOWN (I.E. 11735), INDICATES A SPECIFICATION REFERENCE FOR ITEMS OTHER THAN DIVISION 16. THE ELECTRICAL ITEM UNDER THIS REFERENCE IS SUPPLIED BY ANOTHER PART OF THE CONTRACT. UNLESS OTHERWISE NOTED IN THAT SPECIFICATION, THE CONTRACTOR SHALL INSTALL AND WIRE THE ITEM PER THE DRAWINGS AND DIVISION 16 SPECIFICATIONS.
- CONTROL WIRING SHALL CONFORM TO ALL REQUIREMENTS AS SHOWN ON THE P & ID DRAWINGS WHETHER SHOWN ON THE ELECTRICAL DRAWINGS OR NOT.
- WHERE LINES ARE SHOWN CONNECTING ELECTRICAL EQUIPMENT, THEY ARE NOT INTENDED AS CONDUIT ROUTING. CONTRACTOR SHALL ROUTE ALL CONDUIT RUNS (SHOWN OR NOT) PER DIVISION 16 SPECIFICATIONS.
- WP INDICATES WATERPROOF. LETTER ON OR NEXT TO LIGHT FIXTURE INDICATES TYPE, PER SECTION 16510. NUMBER WITH LIGHT FIXTURE OR RECEPTACLE INDICATES CIRCUIT NUMBER.
- GFCI INDICATES A CIRCUIT BREAKER OR RECEPTACLE WITH A 6 MA GROUND FAULT CIRCUIT INTERRUPTER. GFEP INDICATES A CIRCUIT BREAKER OR RECEPTACLE WITH A 30 MA GROUND FAULT EQUIPMENT PROTECTION DEVICE.
- FOR BELOW GRADE CONDUIT PENETRATIONS THROUGH EXISTING EXTERIOR CONCRETE WALLS, PROVIDE TYPE A CONDUIT SLEEVE FOR PVC CONDUIT. FOR RGS OR PVC-COATED RGS CONDUIT, PROVIDE TYPE B CONDUIT SLEEVE THROUGH CONCRETE WALLS, AND TYPE C CONDUIT SLEEVE THROUGH EXISTING CONCRETE WALLS.
- FOR ABOVE GRADE CONDUIT PENETRATIONS THROUGH EXTERIOR CONCRETE WALLS, PROVIDE TYPE C CONDUIT SLEEVE. FOR MASONRY WALLS PROVIDE TYPE F CONDUIT SLEEVE.
- FOR CONDUIT PENETRATIONS THROUGH EXISTING CONCRETE FLOORS AND WALLS BETWEEN ADJACENT NON-HAZARDOUS AREAS, PROVIDE TYPE C CONDUIT SLEEVES FOR ALL CONDUIT TYPES. FOR SIMILAR PENETRATIONS THROUGH CONCRETE FLOORS AND WALLS, PROVIDE TYPE D CONDUIT SLEEVES FOR ALL CONDUIT TYPES.
- FOR CONDUIT PENETRATIONS THROUGH CONCRETE FLOORS AND WALLS SEPARATING CLASSIFIED (HAZARDOUS) AREAS FROM NON-CLASSIFIED NON-HAZARDOUS AREAS, PROVIDE TYPE G CONDUIT SLEEVES. FOR SIMILAR PENETRATIONS THROUGH MASONRY WALLS, PROVIDE TYPE H CONDUIT SLEEVE. FOLLOW MECHANICAL SEAL MANUFACTURER'S RECOMMENDATIONS TO MEET 3-HOUR FIRE RESISTANCE REQUIREMENTS.
- LEGENDS ARE FOR REFERENCE ONLY AND DOES NOT MEAN THAT ALL ITEMS ARE USED.



ELECTRICAL LEGEND
CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

Jones & Henry Engineers, Ltd.

Fluid thinking®
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JOB NO. 017-7969.001

SCALE NONE

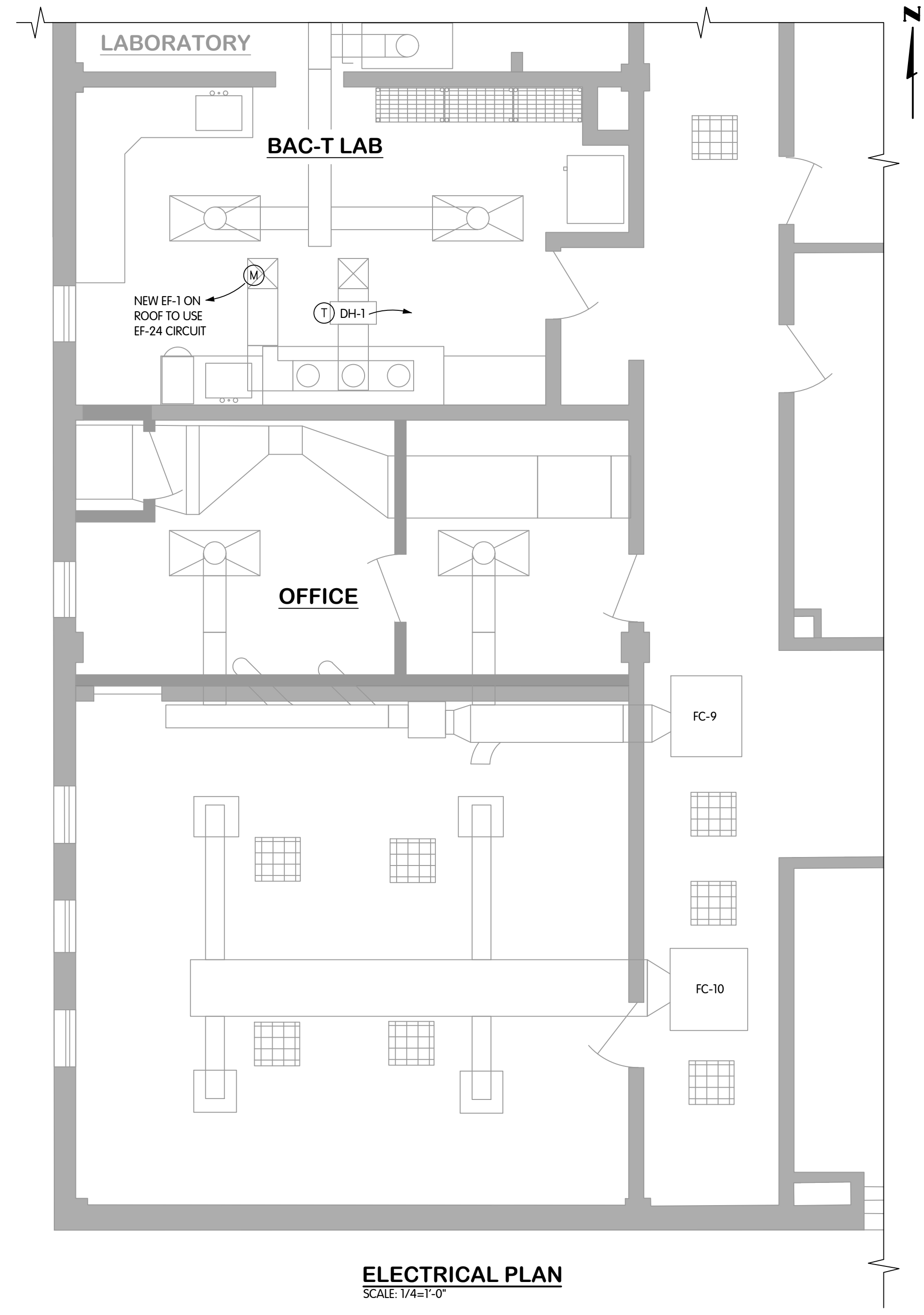
DESIGNED PEM DRAWN CJAF CHECKED

STATUS: PRELIMINARY

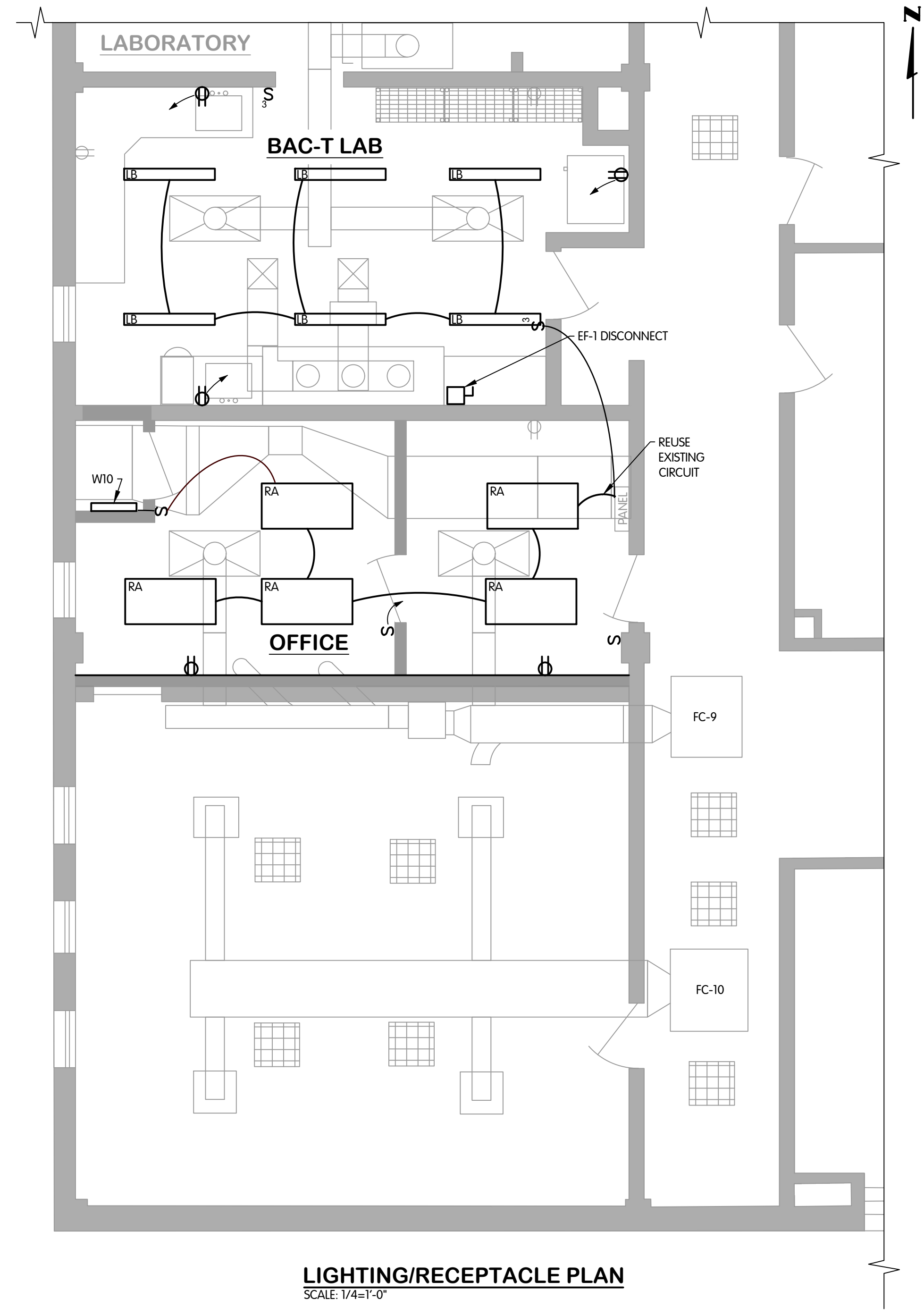
DATE: OCTOBER 2022

SHEET NO. E-1

10 OF 11



ELECTRICAL PLAN
SCALE: 1/4"=1'-0"



LIGHTING/RECEPTACLE PLAN
SCALE: 1/4"=1'-0"

LIGHT FIXTURE SCHEDULE					
SYMBOL	MARK	QTY	MANUFACTURER	CATALOG	DESCRIPTION
	LB	6	COOPER LIGHTING SOLUTIONS - METALUX (FORMER EATON)	4WSL-LD2-50-UPL15-UNV-L840-CD1-U	4FT LINEAR WAVESTREAM SYSTEM, 15% UPLIGHT, L840
	RA	5	COOPER LIGHTING SOLUTIONS - METALUX (FORMER EATON)	24EN-LD2-40-UNV-L840-CD1-U	METALUX ENCOUNTER 2X4 LED TROFFER STANDARD OPTION
	W10	1	COOPER LIGHTING SOLUTIONS - METALUX (FORMER EATON)	2BCLD-LD4-16SL-F-UNV-L840-CD1-U	

KAL-7969001002-ADMIN BUILDING - BAC-T LAB & OFFICE - ELECTRICAL PLAN
 10/12/2022 12:56 PM - CFERRELL
 10/12/2022 1:00 PM



**ADMINISTRATION BUILDING
 BAC-T LAB AND OFFICE
 ELECTRICAL PLAN**
 CITY OF KALAMAZOO, MI KWRP BAC-T LAB AND OFFICE IMPROVEMENTS

REVISIONS AFTER ISSUED FOR BID
 NO. 1 2 3 4 5 6 7 8 9 10
 DATE

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JOB NO. 017-7969.001
 SCALE AS NOTED
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 DESIGNED ANS DRAWN CJAF CHECKED
 STATUS: PRELIMINARY
 DATE: OCTOBER 2022
 SHEET NO.
E-2
 II OF II