

**CITY OF VINELAND
VINELAND, NEW JERSEY**

SPECIFICATIONS

FOR

**CITY OF VINELAND
4TH FLOOR RENOVATIONS**

COV BID # 2024-29

**BID OPENING: TUESDAY, JUNE 25,
2024 PREVAILING TIME: 2:00 P.M.**

**PURCHASING DIVISION
640 E WOOD STREET
P.O. BOX 1508
VINELAND, NJ 08362-1508**

**JEANINE N. MENEGHETTI, QPA
Purchasing Agent
(856) 794-4040 Phone
(856) 405-4605 Facsimile
jmeneghetti@vinelandcity.org**



CITY OF
VINELAND
WHERE IT'S ALWAYS GROWING SEASON

640 E. WOOD STREET
P.O. BOX 1508
VINELAND, NJ 08362-1508

DEPARTMENT OF FINANCE
DIVISION OF PURCHASING
JEANINE N. MENEGHETTI, QPA
PURCHASING AGENT

PHONE: (856) 794-4040
FAX: (856) 405-4605

NOTICE TO BIDDERS

Sealed bids will be received by the Purchasing Agent of the City of Vineland on Tuesday, June 25, 2024 at 2:00 p.m. prevailing time in the Purchasing Department, City Hall, 640 E. Wood Street, Vineland, New Jersey 08360, at which time and place bids will be opened and read in public for the following:

**COV BID # 2024-29
CITY OF VINELAND 4TH FLOOR RENOVATIONS**

A Non-Mandatory Pre-Bid meeting and walk through will be held on Tuesday, June 4, 2024 at 10:00am at 640 E. Wood Street, 2nd Fl. Caucus Room, City Hall. Attendance is not mandatory but is highly recommended.

Bid must be submitted in **duplicate** and shall be enclosed in an opaque sealed envelope, addressed to "Purchasing Agent, City of Vineland, 640 E. Wood Street, PO Box 1508, Vineland, NJ 08362-1508"

Bidders shall comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17-27 et seq.

You must submit paper documents as your bid package. We cannot accept electronic copies. The documents to be submitted start with the Check List. **(PLEASE DO NOT SUBMIT THE SPECIFICATIONS WITH YOUR BID PACKAGE.)** **Original signatures must be on one document.** (Please use **blue** ink for the signatures.) The duplicate can be a photocopy.

If you have any questions, please contact the Purchasing Department at the above number or email PurchasingOffice@vinelandcity.org

DO NOT STAPLE DOCUMENTS

**CITY OF VINELAND
GENERAL INSTRUCTIONS
(CONSTRUCTION)**

I. SUBMISSION OF BIDS

- A. Sealed bids shall be received in accordance with public advertisement as required by law, with a copy of said notice being attached hereto and made a part of these specifications.
- B. Each bid shall be submitted on the proposal form attached and shall be submitted in a clearly marked sealed envelope addressed to:

If delivered:

**DIVISION OF PURCHASING
640 E. WOOD STREET
5TH FLOOR
VINELAND NJ 08360**

If mailed:

**DIVISION OF PURCHASING
640 E. WOOD STREET 5TH FL
PO BOX 1508
VINELAND NJ 08362-1508**

* Do not use PO Box on Overnight Delivery Services, i.e. (Fed-Ex)

Bidder's name, address, bid category, and due date must appear on the outside of the BID ENVELOPE containing the bid.

- C. Sealed bids will be received by the Purchasing Agent or designated representative, at the time and location as stated in the Notice to Bidders, and at such time and place will be publicly opened and read aloud.
- D. It is the bidder's responsibility to see that bids are presented to the Purchasing Agent on the hour **and at the place designated**. Bids may be hand delivered or mailed; however, the City disclaims any responsibility for bids forwarded by regular or express mail. If the bid is sent by express mail service, the designation in sub-section B, above, must also appear on the outside of the express mail envelope. Bids received after the designated time and date will be returned unopened. The City of Vineland shall not be responsible for late postal or overnight delivery, nor shall postmark dates or overnight dates be considered in honoring of bids. The City of Vineland shall not be responsible for bidder's hand delivering bids who arrive late or to the wrong location.
- E. Sealed bids forwarded to the City before the time of opening of bids may be withdrawn upon written application of the bidder who shall be required to produce evidence showing that the individual is or represents the principal or principals involved in the bid. Once bids have been opened, they shall remain firm for a period of sixty (60) calendar days.
- F. All prices and amounts must be written in ink or preferably machine-printed. Bids containing any conditions, omissions, unexplained erasures or alterations, items not called for in the bid proposal form, attachment of additive information not required by the specifications, or irregularities of any kind, may be rejected by the City. Any changes, whiteouts, strikeouts, etc. in the bid must be initialed in ink by the person signing the bid.

- G. Bids will be received only on the bidding forms attached to this specification or a true copy thereof with all notations to be done in ink or typed and signatures must be done in ink. **ONLY ORIGINAL SIGNATURES ON ALL DOCUMENTS WILL BE ACCEPTED. RUBBER STAMPS, COMPUTER GENERATED SIGNATURES, COPIER GENERATED SIGNATURES, OR ANY OTHER ARTIFICIAL SIGNATURES SHALL NOT BE ACCEPTABLE AND SHALL BE REASON FOR REJECTION.** City of Vineland will not be held responsible for any erroneous pages or pages missing from this bid document if it is obtained from a source other than the Purchasing Department of the City of Vineland. City of Vineland will not be held responsible if bidders (vendors) fail to receive any updates or addenda to the specification, if they haven't contacted the Purchasing Department.
- H. Each bid proposal form must give the full business address, business phone, fax, the contact person of the bidder, and be signed by an authorized representative as follows:
- Bids by partnerships must furnish the full name of all partners and must be signed in the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing.
 - Bids by corporations must be signed in the legal name of the corporation, followed by the name of the State in which incorporated and must contain the signature and designation of the president, secretary or other person authorized to bind the corporation in the matter.
 - Bids by sole-proprietorship shall be signed by the proprietor.
 - When requested, satisfactory evidence of the authority of the officer signing shall be furnished.
- I. Bidder should be aware of the following statutes that represent "Truth in Contracting" laws:
- N.J.S.A. 2C:21-34, et seq. governs false claims and representations by bidders. It is a serious crime for the bidder to knowingly submit a false claim and/or knowingly make material misrepresentation.
 - N.J.S.A. 2C:27-10 provides that a person commits a crime if said person offers a benefit to a public servant for an official act performed or to be performed by a public servant, which is a violation of official duty.
 - N.J.S.A. 2C:27-11 provides that a bidder commits a crime if said person, directly or indirectly, confers or agrees to confer any benefit not allowed by law to a public servant.
 - Bidder should consult the statutes or legal counsel for further information.
- J. Potential bidders are hereby cautioned that they are bidding at their own risk and that the specifications/bid packages may or may not be complete if the specifications/bid packages were provided by a third party supplier.
- The City shall not be responsible for third party supplied specifications/bid packages.
- K. The City reserves the right to reject individual and/or all bids in accordance with law.
- L. Any prospective bidder who wishes to challenge a bid specification shall file such challenge in writing with the Purchasing Agent no less than three (3) business days prior to the opening of the bids. Challenges filed after that time shall be considered void and having no impact on the contracting unit or the award of a contract; N.J.S.A. 40A: 11-13 (e).
- M. Contracts shall be awarded to the lowest responsive and responsible bidder. City Council reserves the right to reject any and all bids and to waive minor discrepancies therein. City Council also reserves the right to split bids, award individual items, or to award groups of items and categories of items.
- N. Questions concerning this bid shall be directed in writing to the Division of Purchasing, Attention: Jeanine N. Meneghetti, Purchasing Agent, either by facsimile at (856) 405-4605 or by email at PurchasingOffice@vinelandcity.org Last day for questions is noon Wednesday, June 5, 2024.

II. BID SECURITY AND BONDING REQUIREMENTS

The following provisions if indicated by an (X), shall be applicable to this bid and be made a part of the bid documents:

A. BID GUARANTEE

Bidder shall submit with the bid a certified check, cashier's check or a bid bond in the amount of ten percent (10%) of the total price bid, but not in excess of \$20,000, payable unconditionally to the City.

When submitting a Bid Bond, it shall contain Power of Attorney for full amount of Bid Bond from a surety company authorized to do business in the State of New Jersey and acceptable to the City.

The check or bond of the unsuccessful bidder(s) shall be returned pursuant to N.J.S.A. 40A:11-24a. The check or bond of the bidder to whom the contract is awarded shall be retained until a contract is executed and the required performance bond or other security is submitted.

The check or bond of the successful bidder shall be forfeited if the bidder fails to enter into a contract pursuant to N.J.S.A. 40A:11-21.

Failure to submit a bid guarantee shall result in rejection of the bid.

B. CONSENT OF SURETY

Bidder shall submit with the bid a Certificate (Consent of Surety) with Power of Attorney for full amount of bid price from a Surety Company authorized to do business in the State of New Jersey and acceptable to the City stating that it will provide said bidder with a Performance Bond in the full amount of the bid. This certificate shall be obtained in order to confirm that the bidder to whom the contract is awarded will furnish Performance and Payment Bonds from an acceptable surety company on behalf of said bidder, any or all subcontractors or by each respective subcontractor or by any combination thereof which results in performance security equal to the total amount of the contract, pursuant to N.J.S.A. 40A:11-22.

Failure to submit a consent of surety shall result in rejection of the bid.

C. PERFORMANCE BOND

Successful bidder shall simultaneously with the delivery of the executed contract, submit an executed bond in the amount of one hundred percent (100%) of the acceptable bid as security for the faithful performance of this contract.

The performance bond provided shall not be released until final acceptance of the whole work and then only if any liens or claims have been satisfied. The surety on such bond or bonds shall be a duly authorized surety company authorized to do business in the State of New Jersey pursuant to N.J.S.A. 17:31-5.

Failure to submit this with the executed contract shall be cause for declaring the contract null and void pursuant to N.J.S.A. 40A:11-22.

D. LABOR AND MATERIAL (PAYMENT) BOND

Bidder shall with the delivery of the performance bond submit an executed payment bond to guarantee payment to laborers and suppliers for the labor and material used in the work performed under the contract.

Failure to submit a labor and material bond with the performance bond shall be cause for declaring the contract null and void.

E. MAINTENANCE BOND

Upon acceptance of the work by the City, the contractor shall submit a maintenance bond (N.J.S.A. 40A:11-16.3) in an amount not to exceed 100% of the project costs guaranteeing against defective quality of work or materials for the period of:

_____ 1 year
__X__ 2 years

III. INTERPRETATION AND ADDENDA

- A. The bidder understands and agrees that its bid is submitted on the basis of the specifications prepared by the City. The bidder accepts the obligation to become familiar with these specifications.
- B. Bidders are expected to examine the specifications and related bid documents with care and observe all their requirements. Ambiguities, errors or omissions noted by bidders should be promptly reported in writing to the Purchasing Agent. Any prospective bidder who wishes to challenge a bid specification shall file such challenges in writing with the contracting agent no less than three business days prior to the opening of the bids. Challenges filed after that time shall be considered void and having no impact on the contracting unit or the award of a contract pursuant to N.J.S.A. 40A:11-13. In the event the bidder fails to notify the City of such ambiguities, errors or omissions, the bidder shall be bound by the requirements of the specifications and the bidder's submitted bid.
- C. No oral interpretation and or clarification of the meaning of the specifications for any goods and services will be made to any bidder. Such request shall be in writing, addressed to the Purchasing Agent. In order to be given consideration, a written request must be received at least ten (10) business days prior to the date fixed for the opening of the bid for goods and services.

All interpretations, clarifications and any supplemental instructions will be in the form of written addenda to the specifications, and will be distributed to all prospective bidders. All addenda so issued shall become part of the specification and bid documents, and shall be acknowledged by the bidder in the bid. The City's interpretations or corrections thereof shall be final.

When issuing addenda, the City shall provide required notice prior to the official receipt of bids to any person who has submitted a bid or who has received a bid package pursuant to N.J.S.A. 40A:11-23c.1.

D. Discrepancies in Bids

- 1. Ditto marks are not considered writing or printing and shall not be used.
- 2. In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall prevail. In the event there is an error of the summation of the extended totals, the computation by the City of the extended totals shall govern.

E. Pre-Bid Conference

If stated in the Notice to Bidders:
A Pre-Bid Conference is not required for this bid.

A non-mandatory pre-bid conference for this proposal will be held on Tuesday, June 4, 2024, 10:00 am at 640 E. Wood St., 2nd floor Caucus Room in City Hall. Attendance is not mandatory, but is strongly recommended. Failure to attend does not relieve the bidder of any obligations or requirements. A site visit will immediately follow the pre-bid.

IV. BRAND NAMES, STANDARDS OF QUALITY AND PERFORMANCE

- A. Brand names and/or descriptions used in these specifications are to acquaint bidders with the types of goods and services desired and will be used as a standard by which goods and services offered as equivalent will be evaluated.
- B. Variations between the goods and services described and the goods and services offered are to be fully identified and described by the bidder on a separate sheet and submitted with the bid proposal form. Vendor literature WILL NOT suffice in explaining exceptions to these specifications. In the absence of any exceptions by the bidder, it will be presumed and required that the goods and services as described in the bid specification be provided or performed.
- C. It is the responsibility of the bidder to document and/or demonstrate the equivalency of the goods and services offered. The City reserves the right to evaluate the equivalency of the goods and services.
- D. In submitting its bid, the bidder certifies that the goods and services to be furnished will not infringe upon any valid patent or trademark and that the successful bidder shall, at its own expense, defend any and all actions or suits charging such infringement, and will save the City harmless from any damages resulting from such infringement.
- E. Only manufactured and farm products of the United States, wherever available, shall be used pursuant to N.J.S.A. 40A:11-18.
- F. The contractor shall guarantee any or all goods and services supplied under these specifications. Defective or inferior goods shall be replaced at the expense of the contractor. The contractor will be responsible for return freight or restocking charges.

V. INSURANCE AND INDEMNIFICATION

The insurance documents as listed below shall include but are not limited to the following coverage's. (where insurance requirements are listed under other sections of these specifications, the higher limits will prevail.)

A. INSURANCE REQUIREMENTS

1. Worker's Compensation Insurance

Workers Compensation insurance shall be maintained in full force during the life of the contract, covering all employees engaged in performance of the contract pursuant to N.J.S.A. 34:15-12(a) and N.J.A.C. 12:235-1.6. Statutory Limit for Workers' Compensation and \$500,000 for Employer's Liability.

2. General Liability Insurance

General liability insurance shall be provided with limits of not less than \$1,000,000 any one person/any one accident for bodily injury and property damage and \$3,000,000 aggregate, and shall be maintained in full force during the life of the contract.

3. Automobile Liability Insurance

Automobile liability insurance covering contractor for claims arising from owned, hired and non-owned vehicles with limits of not less than \$1,000,000 any one person / any one accident for bodily injury and property damage, and shall be maintained in full force during the life of the contract.

4. Other Forms of Insurance Required

B. CERTIFICATES OF THE REQUIRED INSURANCE

Certificates of Insurance for those policies required above shall be submitted with the contract. Such coverage shall be with an insurance company authorized to do business in the State of New Jersey and shall name the City of Vineland as an additional insured.

Self-insured contractors shall submit an affidavit attesting to their self-insured coverage and shall name the City of Vineland as an additional insured.

C. INDEMNIFICATION

Bidder shall indemnify and hold harmless the City of Vineland from all claims, suits or actions, and damages or costs of every name and description to which the City of Vineland may be subjected or put by reason of injury to the person or property of another, or the property of the City of Vineland resulting from negligent acts or omissions on the part of the contractor, the contractor's agents, servants or subcontractors in the delivery of goods and services, or in the performance of the work under the contract.

VI. PRICING INFORMATION FOR PREPARATION OF BIDS

- A. The City of Vineland is exempt from any local, state or federal sales, use or excise tax.
- B. Estimated Quantities (Open-End Contracts): The City has attempted to identify the item(s) and the estimated amounts of each item bid to cover its requirements; however, past experience shows that the amount ordered may be different than that submitted for bidding. The right is reserved to decrease or increase the quantities specified in the specifications pursuant to N.J.A.C. 5:30-11.2 and 11.10. NO MINIMUM PURCHASE IS IMPLIED OR GUARANTEED.
- C. Contractor shall be responsible for obtaining any applicable permits or licenses from any government entity that has jurisdiction to require the same. All bids submitted shall have included this cost.
- D. Bidders shall insert prices for furnishing goods and services required by these specifications. Prices shall be net, including any charges for packing, crating, containers, etc. All transportation charges shall be fully prepaid by the contractor, F.O.B. destination and placement at locations specified by the City. As specified, placement may require inside deliveries. No additional charges will be allowed for any transportation costs resulting from partial shipments made for the contractor's convenience.

VII. STATUTORY AND OTHER REQUIREMENTS

The following are mandatory requirements of this bid and contract.

A. MANDATORY AFFIRMATIVE ACTION CERTIFICATION

No firm may be issued a contract unless it complies with the affirmative action provisions of N.J.S.A. 10:5-31 et seq. and N.J.A.C. 17:27-1 et seq. The following information summarizes the full, required regulatory text, which is included as Exhibit A of this bid specification.

1. Goods and Services (including professional services) Contracts

Each contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

- i. A photocopy of a valid letter that the contractor is operating under an existing Federally approved or sanctioned affirmative action program (good for one year from the date of the letter); or

- ii. A photocopy of a Certificate of Employee Information Report approval, issued in accordance with N.J.A.C. 17:27-4; or
- iii. A photocopy of an Employee Information Report (Form AA 302) provided by the Division and distributed to the public agency to be completed by the contractor in accordance with N.J.A.C. 17:27-4.

2. Maintenance/Construction Contracts

After notification of award, but prior to signing the contract, the contractor shall submit to the public agency compliance officer and the Division of Contract Compliance and Equal Employment Opportunity in Public Contracts (Division) an initial project workforce report (Form AA201) provided to the public agency by the Division for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7.

The contractor shall also submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of the contract to the Division and to the public agency compliance officer. The contractor shall also cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the job and/or off-the-job programs for outreach and training of minorities and women.

B. AMERICANS WITH DISABILITIES ACT OF 1990

Discrimination on the basis of disability in contracting for the purchase of goods and services is prohibited. Bidders are required to read Americans with Disabilities language that is included as Appendix A of this specification and agree that the provisions of Title II of the Act are made a part of the contract. The contractor is obligated to comply with the Act and to hold the City harmless.

C. STOCKHOLDER DISCLOSURE

N.J.S.A. 52:25-24.2 provides that no corporation, partnership, limited partnership, limited liability corporation, limited liability partnership, Subchapter S corporation or sole proprietorship, shall be awarded any contract for the performance of any work or the furnishing of any goods and services, unless, prior to the receipt of the bid or accompanying the bid of said corporation, partnership, limited partnership, limited liability corporation, limited liability partnership, Subchapter S corporation or sole proprietorship, bidders shall submit a statement setting forth the names and addresses of all stockholders in the corporation or partnership who own (10%) ten percent or more of its stock of any class, or of all individual partners in the partnership who own a ten percent or greater interest therein. The included Statement of ownership shall be completed and attached to the bid proposal. This requirement applies to all forms of corporations and partnerships, including, but not limited to, limited partnerships, limited liability corporations, limited liability partnerships and Subchapter S corporations. Failure to submit a stockholder disclosure document shall result in rejection of the bid.

D. PROOF OF BUSINESS REGISTRATION

N.J.S.A. 52:32-44 requires that each bidder (contractor) submit proof of business registration. Certificate must be submitted prior to award of the contract and the bidder had to have obtained the BRC prior to receipt of bids. A BRC is obtained from the New Jersey Division of Revenue. Information on obtaining a BRC is available on the internet at www.nj.gov/njbgs or by phone at (609) 292-1730. N.J.S.A. 52:32-44 imposes the following requirements on contractors and all subcontractors that **knowingly** provide goods or perform services for a contractor fulfilling this contract:

- 1) The contractor shall provide written notice to its subcontractors and suppliers to submit proof of business registration to the contractor;
- 2) Prior to receipt of final payment from a contracting agency, a contractor must submit to the contracting agency an accurate list of all subcontractors or attest that none was used;
- 3) During the term of this contract, the contractor and its affiliates shall collect and remit, and shall notify all subcontractors and their affiliates that they must collect and remit to the Director, New

Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq.) on all sales of tangible personal property delivered into this State.

A contractor, subcontractor or supplier who fails to provide proof of business registration or provides false business registration information shall be liable to a penalty of \$25 for each day of violation, not to exceed \$50,000 for each business registration not properly provided or maintained under a contract with a contracting agency. Information on the law and its requirements is available by calling (609) 292-1730.

If boxes of the following items are checked, they are mandatory requirements of the bid proposal and contract.

E. NEW JERSEY WORKER AND COMMUNITY RIGHT TO KNOW ACT

The manufacturer or supplier of chemical substances or mixtures shall label them in accordance with the N.J. Worker and Community Right to Know Law (N.J.S.A. 34:5A-1 et seq., and N.J.A.C 8:59-2 et seq.,). Containers that the law and rules require to be labeled shall show the Chemical Abstracts Service number of all the components and the chemical name. Further, all applicable Material Safety Data Sheets (MSDS) - hazardous substance fact sheet - must be furnished.

F. PREVAILING WAGE ACT

Pursuant to N.J.S.A. 34:11-56.25 et seq., contractors on projects for public work shall adhere to all requirements of the New Jersey Prevailing Wage Act. The contractor shall be required to submit a certified payroll record to the City within ten (10) days of the payment of the wages. The contractor is also responsible for obtaining and submitting all subcontractors' certified payroll records within the aforementioned time period. The contractor shall submit said certified payrolls in the form set forth in N.J.A.C. 12:60-6.1(c). It is the contractor's responsibility to obtain any additional copies of the certified payroll form to be submitted by contacting the New Jersey Department of Labor and Workforce Development, Division of Workplace Standards. Bidders are cautioned to take into consideration statutory legal requirements, particularly, the payment of prevailing wages. It is Bidder's sole responsibility for determining the correct labor classification(s) and paying the correct and proper wage and benefits and it is imperative that the Contractor familiarize itself with the current wage and benefit rates before submitting bids based on these specifications. **NOTE: Additional information and current wage rates are available at: http://lwd.state.nj.us/labor/wagehour/wagehour_index.html.**

G. THE PUBLIC WORKS CONTRACTOR REGISTRATION ACT

N.J.S.A. 34:11-56.48 et seq. requires that a general or prime contractor and any listed subcontractors named in the contractor's bid proposal shall possess a certificate *at the time the bid proposal is submitted*. After bid proposals are received and prior to award of contract, the successful contractor shall submit a copy of the contractor's certification along with those of all listed subcontractors. All non-listed subcontractors and lower tier sub-subcontractors shall be registered prior to starting work on the project. It is the general contractor's responsibility that all non-listed sub-contractors at any tier have their certificate prior to starting work on the job.

Under the law a "contractor" is "a person, partnership, association, joint stock company, trust, corporation or other legal business entity or successor thereof who enters into a contract" which is subject to the provisions of the New Jersey Prevailing Wage Act [N.J.S.A. 34:11-56.25, et seq.] It applies to contractors based in New Jersey or in another state.

The law defines "public works projects" as contracts for "public work" as defined in the Prevailing Wage statute [N.J.S.A. 34:11-56.26(5)]. The term means:

- "Construction, reconstruction, demolition, alteration, or repair work, or maintenance work, including painting and decorating, done under contract and paid for in whole or in part out of the funds of a public body, except work performed under a rehabilitation program.

- "Public work" shall also mean construction, reconstruction, demolition, alteration, or repair work, done on any property or premises, whether or not the work is paid for from public funds..."
- "Maintenance work" means the repair of existing facilities when the size, type or extent of such facilities is not thereby changed or increased. While "maintenance" includes painting and decorating and is covered under the law, it does not include work such as routine landscape maintenance or janitorial services.

To register, a contractor must provide the State Department of Labor with a full and accurately completed application form. The form is available online at http://lwd.state.nj.us/labor/wagehour/regperm/pw_cont_reg.html

N.J.S.A. 34:11-56.55 specifically prohibits accepting applications for registration as a substitute for a certificate of registration.

H. NON-COLLUSION AFFIDAVIT (Not Applicable)

The Affidavit shall be properly executed and submitted with the bid proposal.

I. PAY TO PLAY

Starting in January, 2007, business entities are advised of their responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A. 19:44A-20.27 if they receive contracts in excess of \$50,000 from public entities in a calendar year.

Business entities are responsible for determining if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

J. NJ ONE CALL

By presenting a bid, contractor declares that he is aware of and, if required, will comply with the requirements of the "Underground Facility Protection Act (Public Law 1994, Chapter 118)" prior to commencing any intended excavation. The telephone number to call is 1-800-272-1000. The successful bidder will be required to show compliance with the requirement by submitting to the appropriate project coordinator the confirmation number obtained from ONE-CALL before any excavation is undertaken.

VIII. METHOD OF CONTRACT AWARD

- A. The length of the contract shall be stated in the technical specifications. Pursuant to requirements of N.J.A.C. 5:30-5.1 et seq., any contract resulting from this bid shall be subject to the availability and appropriation of sufficient funds annually. Please see Section X, Termination of Contract, Sub-section E, for additional information.
- B. If the award is to be made on the basis of a base bid only, it shall be made to that responsible bidder submitting the lowest base bid.
- C. If the award is to be made on the basis of a combination of a base bid with selected options, it shall be made to that responsible bidder submitting the lowest net bid.
- D. The City may also elect to award the contract on the basis of unit prices.

- E. The form of contract shall be submitted by the City to the successful bidder. Terms of the specifications/bid package prevail. Bidder exceptions must be formally accepted by the City.
- F. **Choice of Law:** The agreement with the successful bidder shall be construed in accordance with the laws of the State of New Jersey. In the event of litigation or other legal proceedings commenced to enforce the terms of the agreement, the venue of such litigation shall be the Superior Court of New Jersey, Cumberland County.

IX. CAUSES FOR REJECTING BIDS

Bids may be rejected for any of the following reasons:

- A. All bids pursuant to N.J.S.A. 40A:11-13.2;
- B. If more than one bid is received from an individual, firm or partnership, corporation or association under the same name;
- C. Multiple bids from an agent representing competing bidders;
- D. The bid is inappropriately unbalanced;
- E. The bidder is determined to possess, pursuant to N.J.S.A. 40A:11-4b, Prior Negative Experience; or,
- F. If the successful bidder fails to enter into a contract within 21 days, Sundays and holidays excepted, or as otherwise agreed upon by the parties to the contract. In this case at its option, the City may accept the bid of the next lowest responsible bidder. (N.J.S.A. 40A:11-24b)

X. TERMINATION OF CONTRACT

- A. If, through any cause, the contractor shall fail to fulfill in a timely and proper manner obligations under the contract or if the contractor shall violate any of the requirements of the contract, the City shall there upon have the right to terminate the contract by giving written notice to the contractor of such termination and specifying the effective date of termination. Such termination shall relieve the City of any obligation for balances to the contractor of any sum or sums set forth in the contract. City will pay only for goods and services accepted prior to termination.
- B. Notwithstanding the above, the contractor shall not be relieved of liability to the City for damages sustained by the City by virtue of any breach of the contract by the contractor and the City may withhold any payments to the contractor for the purpose of compensation until such time as the exact amount of the damage due the City from the contractor is determined.
- C. The contractor agrees to indemnify and hold the City harmless from any liability to subcontractors/suppliers concerning payment for work performed or goods supplied arising out of the lawful termination of the contract by the City under this provision.
- D. In case of default by the contractor, the City may procure the goods or services from other sources and hold the contractor responsible for any excess cost.
- E. Continuation of the terms of the contract beyond the fiscal year is contingent on availability of funds in the following year's budget. In the event of unavailability of such funds, the City reserves the right to cancel the contract.
- F. ACQUISITION, MERGER, SALE AND/OR TRANSFER OF BUSINESS, ETC.

It is understood by all parties that if, during the life of the contract, the contractor disposes of his/her business concern by acquisition, merger, sale and or/transfer or by any means convey his/her interest(s) to another party, all obligations are transferred to that new party. In this event, the new City(s) will be required to submit all documentation/legal instruments that were required in the original bid/contract. Any change shall be approved by the City.

- G. The contractor will not assign any interest in the contract and shall not transfer any interest in the same without the prior written consent of the City.
- H. The City may terminate the contract for convenience by providing 60 calendar days advanced notice to the contractor.

XI. PAYMENT

- A. No payment will be made unless duly authorized by the City's authorized representative and accompanied by proper documentation.
- B. Payment will be made in accordance with the City's policy and procedures.

XII. W-9

- A. Bidder shall complete W-9 form and submit to the City of Vineland Division of Purchasing prior to contract award. This form is available at the following link:
<http://www.irs.gov/pub/irs-pdf/fw9.pdf?portlet=3>

XIII. Contract Records

As per N.J.A.C. 17:44-2.2 Vendor shall maintain all documentation related to products, transactions or services under this contract for a period of five years from the date of final payment. Such records shall be made available to the New Jersey Office of the State Comptroller upon request.

**PERMISSION FOR BIDDER TO WITHDRAW A BID
DUE TO A MISTAKE IN CERTAIN CIRCUMSTANCES**

(N.J.S.A. 40A:11-23.3)

N.J.S.A. 40A:11-23.3 authorizes a bidder to request withdrawal of a public works bid due to a mistake on the part of the bidder. A mistake is defined by N.J.S.A. 40A:11-2(42) as a clerical error that is an unintentional and substantial computational error or an unintentional omission of a substantial quantity of labor, material, or both, from the final bid computation.

A bidder claiming a mistake under N.J.S.A. 40A:11-23.3 must submit a request for withdrawal, in writing, by certified or registered mail to Jeanine Meneghetti, Purchasing Agent, 640 E. Wood Street, P.O. Box 1508, Vineland, NJ 08361-1508, Vineland, NJ 08361-1508. The bidder must request withdrawal of a bid due to a mistake, as defined by the law, within five business days after the receipt and opening of the bids. Since the bid withdrawal request shall be effective as of the postmark of the certified or registered mailing, Miguel Mercado, Purchasing Agent, may contact all bidders, after bids are opened, to ascertain if any bidders wish to, or already have exercised a request to withdraw their bid pursuant to N.J.S.A. 40A:11-23.3.

A bidder's request to withdraw the bid shall contain evidence, including any pertinent documents, demonstrating that a mistake was made. Such documents and relevant written information shall be reviewed and evaluated by the City of Vineland's designated staff pursuant to the statutory criteria of N.J.S.A. 40A:11-23.3.

The City of Vineland will not consider any written request for a bid withdrawal for a mistake, as defined by N.J.S.A. 40A:11-2(42), by a bidder in the preparation of a bid proposal unless the postmark of the certified or registered mailing is within the five business days following the opening of bids.

LOWEST BIDDER PREVAILING WAGE CERTIFICATION

In the case of a Bidder making the lowest bid for this contract by at least ten percent (10%) under the amount of the next lowest bidder, they shall be required to certify to the City of Vineland prior to the award of a contract that the prevailing wage rates required pursuant to the Prevailing Wage Act shall be paid in performing the work under the contract. In the event that the Bidder does not provide the certification prior to the award of the contract, the City of Vineland shall award the contract to the next lowest responsible and responsive bidder.

**NEW JERSEY ANTI-DISCRIMINATION PROVISIONS
NJ.S.A.10:2-1 ET SEQ.**

Pursuant to NJ.S.A. 10:2-1, if awarded a contract, the contractor agrees that:

- a. In the hiring of persons for the performance of work under this contract or any subcontract hereunder, or for the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under this contract, no contractor, nor any person acting on behalf of such contractor or subcontractor, shall, by reason of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex, discriminate against any person who is qualified and available to perform the work to which the employment relates;
- b. No contractor, subcontractor, nor any person on his behalf shall, in any manner, discriminate against or intimidate any employee engaged in the performance of work under this contract or any subcontract hereunder, or engaged in the procurement, manufacture, assembling or furnishing of any such materials, equipment, supplies or services to be acquired under such contract, on account of race, creed, color, national origin, ancestry, marital status, gender identity or expression, affectional or sexual orientation or sex;
- c. There may be deducted from the amount payable to the contractor by the contracting public agency, under this contract, a penalty of \$50.00 for each person for each calendar day during which such person is discriminated against or intimidated in violation of the provisions of the contract; and
- d. This contract may be canceled or terminated by the contracting public agency, and all money due or to become due hereunder may be forfeited, for any violation of this section of the contract occurring after notice to the contractor from the contracting public agency of any prior violation of this section of the contract.

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**Provisions Concerning Changed Conditions in Construction Contracts
(N.J.S.A. 40A:11-16.7)**

(1) If the contractor encounters differing site conditions during the progress of the work of the contract, the contractor shall promptly notify the contracting unit in writing of the specific differing site conditions encountered before the site is further disturbed and before any additional work is performed in the impacted area.

(2) Upon receipt of a differing site conditions notice in accordance with paragraph (1) of this subsection, or upon the contracting unit's discovery of differing site conditions, the contracting unit shall promptly undertake an investigation to determine whether differing site conditions are present.

(3) If the contracting unit determines differing site conditions that may result in additional costs or delays exist, the contracting unit shall provide prompt written notice to the contractor containing directions on how to proceed.

(4) (a) The contracting unit shall make a fair and equitable adjustment to the contract price and contract completion date for increased costs and delays resulting from the agreed upon differing site conditions encountered by the contractor.

(b) If both parties agree that the contracting unit's investigation and direction decrease the contractor's costs or time of performance, the contracting unit shall be entitled to a fair and equitable downward adjustment of the contract price or time of performance.

(c) If the contracting unit determines that there are no differing site conditions present that would result in additional costs or delays, the contracting unit shall so advise the contractor, in writing, and the contractor shall resume performance of the contract, and shall be entitled to pursue a differing site conditions claim against the contracting unit for additional compensation or time attributable to the alleged differing site conditions.

(5) Execution of the contract by the contractor shall constitute a representation that the contractor has visited the site and has become generally familiar with the local conditions under which the work is to be performed.

(6) As used in this subsection, "differing site conditions" mean physical conditions at the contract work site that are unknown or otherwise concealed and which differ materially from those indicated in the contract documents or are of such an unusual nature that the conditions differ materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the contract.

b. A contract subject to this section shall include the following suspension of work provisions:

(1) The contracting unit shall provide written notice to the contractor in advance of any suspension of work lasting more than 10 calendar days of the performance of all or any portion of the work of the contract.

(2) If the performance of all or any portion of the work of the contract is suspended by the contracting unit for more than 10 calendar days due to no fault of the contractor or as a consequence of an occurrence beyond the contractor's control, the contractor shall be entitled to compensation for any resultant delay to the project completion or additional construction expenses, and to an extension of time, provided that, to the extent feasible, the contractor, within 10 calendar days following the conclusion of the suspension, notifies the contracting unit, in writing, of the nature and extent of the suspension of work. The notice shall include available supporting information, which information may thereafter be supplemented by the contractor as needed and as may be reasonably requested by the contracting unit. Wherever a work suspension exceeds 60 days, upon seven days' written notice, either party shall have the option to terminate the contract for cause and to be fairly and equitably compensated therefor.

(3) Upon receipt of the contractor's suspension of work notice in accordance with paragraph (2) of this subsection, the contracting unit shall promptly evaluate the contractor's notice and promptly advise the contractor of its determination on how to proceed in writing.

(4) (a) If the contracting unit determines that the contractor is entitled to additional compensation or time, the contracting unit shall make a fair and equitable upward adjustment to the contract price and contract completion date.

(b) If the contracting unit determines that the contractor is not entitled to additional compensation or time, the contractor shall proceed with the performance of the contract work, and shall be entitled to pursue a suspension of work claim against the contracting unit for additional compensation or time attributable to the suspension.

(5) Failure of the contractor to provide timely notice of a suspension of work shall result in a waiver of a claim if the contracting unit can prove by clear and convincing evidence that the lack of notice or delayed notice by the contractor actually prejudiced the contracting unit's ability to adequately investigate and defend against the claim.

c. A contract subject to this section shall include the following change in character of work provisions:

(1) If the contractor believes that a change directive by the contracting unit results in a material change to the contract work, the contractor shall so notify the contracting unit in writing. The contractor shall continue to perform all work on the project that is not the subject of the notice.

(2) Upon receipt of the contractor's change in character notice in accordance with paragraph (1) of this subsection, the contracting unit shall promptly evaluate the contractor's notice and promptly advise the contractor of its determination on how to proceed in writing.

(3) (a) If the contracting unit determines that a change to the contractor's work caused or directed by the contracting unit materially changes the character of any aspect of the contract work, the contracting unit shall make a fair and equitable upward adjustment to the contract price and contract completion date. The basis for any such price adjustment shall be the difference between the cost of performance of the work as planned at the time of contracting and the actual cost of such work as a result of its change in character, or as otherwise mutually agreed upon by the contractor and the contracting unit prior to the contractor performing the subject work.

(b) If the contracting unit determines that the contractor is not entitled to additional compensation or time, the contractor shall continue the performance of all contract work, and shall be entitled to pursue a claim against the contracting unit for additional compensation or time attributable to the alleged material change.

(4) As used in this subsection, "material change" means a character change which increases or decreases the contractor's cost of performing the work, increases or decreases the amount of time by which the contractor completes the work in relation to the contractually required completion date, or both.

d. A contract subject to this section shall include the following change in quantity provisions:

(1) The contracting unit may increase or decrease the quantity of work to be performed by the contractor.

(2) (a) If the quantity of a pay item is cumulatively increased or decreased by 20 percent or less from the bid proposal quantity, the quantity change shall be considered a minor change in quantity.

(b) If the quantity of a pay item is increased or decreased by more than 20 percent from the bid proposal quantity, the quantity change shall be considered a major change in quantity.

(3) For any minor change in quantity, the contracting unit shall make payment for the quantity of the pay item performed at the bid price for the pay item.

(4) (a) For a major increase in quantity, the contracting unit or contractor may request to renegotiate the price for the quantity in excess of 120 percent of the bid proposal quantity. If a mutual agreement cannot be reached on a negotiated price for a major quantity increase, the contracting unit shall pay the actual costs plus an additional 10 percent for overhead and an additional 10 percent for profit, unless otherwise specified in the original bid.

(b) For a major decrease in quantity, the contracting unit or contractor may request to renegotiate the price for the quantity of work performed. If a mutual agreement cannot be reached on a negotiated price for a major quantity decrease, the contracting unit shall pay the actual costs plus an additional 10 percent for overhead and an additional 10 percent for profit, unless otherwise specified in the original bid; provided, however, that the contracting unit shall not make a payment in an amount that exceeds 80 percent of the value of the bid price multiplied by the bid proposal quantity.

(5) As used in this subsection, the term "bid proposal quantity" means the quantity indicated in the bid proposal less the quantities designated in the project plans as "if and where directed."

City of Vineland

Revised Contract Language for BRC Compliance

Good and Services Contracts (including purchase orders)

***Construction Contracts (including public works related purchase orders)**

N.J.S.A 52:32-44 imposes the following requirements on contractors and all subcontractors that knowingly provide goods or perform services for a contractor fulfilling this contract:

1. the contractor shall provide written notice to its subcontractors and suppliers to submit proof of business registration to the contractor;
2. subcontractors through all tiers of a project must provide written notice to their subcontractors and suppliers to submit proof of business registration and subcontractors shall collect such proofs of business registration and maintain them on file;
3. prior to receipt of final payment from a contracting agency, a contractor must submit to the contracting agency an accurate list of all subcontractors and suppliers* or attest that none was used;
4. during the term of this contract, the contractor and its affiliates shall collect and remit, and shall notify all subcontractors and their affiliates that they must collect and remit to the Director, New Jersey Division of Taxation, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq.) on all sales of tangible personal property delivered into this State.

Pursuant to N.J.S.A. 54:49-4.1, a business organization that fails to provide a copy of a business registration as required, or that provides false business registration information, shall be liable for a penalty of \$25 for each day of violation, not to exceed \$50,000, for each proof of business registration not properly provided under a contract with a contracting agency. Information on the law and its requirements is available by calling (609) 292-9292.

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NEW JERSEY BUSINESS REGISTRATION

Pursuant to P.L. 2004, c.57, all consultants (both in-state and out-of-state) must obtain a Business Registration Certificate (BRC) from the New Jersey Department of the Treasury, Division of Revenue prior to conducting business with the NJTPA. A consultant or sub-consultant who fails to submit a copy of a valid BRC in accordance with the statute will be held liable for monetary penalties in accordance with N.J.S.A. 54-49-4.1. Questions regarding how to obtain a BRC can be directed to the New Jersey Division of Revenue at (609) 292-1730. The business registration form (Form NJ-REG) can be found online at:

<http://www.state.nj.us/treasury/revenue/busreqcert.shtml>, or

<http://www.state.nj.us/treasury/revenue/gettingregistered.shtml>.

Sample New Jersey Business Registration Certificates:

STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE
FOR STATE AGENCY AND CASINO SERVICE CONTRACTOR

DEPARTMENT OF TREASURY
DIVISION OF REVENUE
1000 STATE STREET
TRENTON, NJ 08646

TAXPAYER NAME	TRADE NAME
TAX REGISTRATION TEST ACCOUNT	CLERICAL REGISTRATION
TAXPAYER IDENTIFICATION	SEQUENCE NUMBER
970-497-342/500	01002
ADDRESS	ISSUANCE DATE
847 ROEBLING AVE. TRENTON, NJ 08611	07/14/04
ISSUANCE DATE	
01/01/04	

For Office Use Only
20041014112033533



**STATE OF NEW JERSEY
BUSINESS REGISTRATION CERTIFICATE**

Taxpayer Name: TAX REG TEST ACCOUNT
Trade Name:
Address: 847 ROEBLING AVE.
TRENTON, NJ 08611
Certificate Number: 1003907
Date of Issuance: October 14, 2004

For Office Use Only:

20041014112033533

**THIS PROJECT REQUIRES A
CERTIFICATE FOR PUBLIC WORKS
CONTRACTOR REGISTRATION
FOR GENERAL CONTRACTORS
AND SUBCONTRACTORS
IN ACCORDANCE WITH PL 1999,
C. 238**

For questions or information about PL 1999, C.238, please call Contractor Registration Unit, New Jersey Department of Labor, Division of Wage and Hour Compliance, (908) 797-9464 or e-mail: conreg@dol.state.nj.us.

The website is http://dol.state.nj.us/labour/wagehour/perm/hrg_and_permits.html

CERTIFICATE MUST BE SUBMITTED TO THE CITY OF VINELAND PURCHASING AGENT PRIOR TO CONTRACT AWARD. CERTIFICATES MUST ALSO BE SUBMITTED FOR ANY/ALL OF THE COMPANIES/INDIVIDUALS LISTED ON THE SUBCONTRACTORS LIST AS THE PRIME SUBCONTRACTORS (AS REQUIRED BY NESA40A:11-16).

The City of Vineland cannot accept applications. We cannot award a contract if the certificate was not issued to the contractor/subcontractor prior to submission of the bid.

Certificate Number

Expiration Date. **VOID**

State of New Jersey



Department of Labor

Division of Wage and Hour Compliance

Public Works Contractor Registration Act

Pursuant to Public Law 1993 Chapter 286, the Public Works Contractor Registration Act, this certificate of registration, for purposes of bidding on and engaging in public works is issued to

VOID

This certificate may not be transferred or assigned and may be revoked for cause by the Commissioner of Labor.

Albert O. Krull

ALBERT O. KRULL, Commissioner
Department of Labor

NON TRANSFERABLE

S A M P L E

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY LANGUAGE
N.J.S.A. 10:5-31 et seq. (P.L.1975, c.127)
N.J.A.C. 17:27-1.1 et seq.

CONSTRUCTION CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable 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 age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under this act and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer, pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

When hiring or scheduling workers in each construction trade, the contractor or subcontractor agrees to make good faith efforts to employ minority and women workers in each construction trade consistent with the targeted employment goal prescribed by N.J.A.C. 17:27-7.2; provided, however, that the Dept. of LWD, Construction EEO Monitoring Program, may, in its discretion, exempt a contractor or subcontractor from compliance with the good faith procedures prescribed by the following provisions, A, B, and C, as long as the Dept. of LWD, Construction EEO Monitoring Program is satisfied that the contractor or subcontractor is employing workers

provided by a union which provides evidence, in accordance with standards prescribed by the Dept. of LWD, Construction EEO Monitoring Program, that its percentage of active "card carrying" members who are minority and women workers is equal to or greater than the targeted employment goal established in accordance with N.J.A.C. 17:27-7.2. The contractor or subcontractor agrees that a good faith effort shall include compliance with the following procedures:

(A) If the contractor or subcontractor has a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor shall, within three business days of the contract award, seek assurances from the union that it will cooperate with the contractor or subcontractor as it fulfills its affirmative action obligations under this contract and in accordance with the rules promulgated by the ~~Treasurer~~ pursuant to N.J.S.A. 10:5-31 et. seq., as supplemented and amended from time to time and the Americans with Disabilities Act. If the contractor or subcontractor is unable to obtain said assurances from the construction trade union at least five business days prior to the commencement of construction work, the contractor or subcontractor agrees to afford equal employment opportunities minority and women workers directly, consistent with this chapter. If the contractor's or subcontractor's prior experience with a construction trade union, regardless of whether the union has provided said assurances, indicates a significant possibility that the trade union will not refer sufficient minority and women workers consistent with affording equal employment opportunities as specified in this chapter, the contractor or subcontractor agrees to be prepared to provide such opportunities to minority and women workers directly, consistent with this chapter, by complying with the hiring or scheduling procedures prescribed under (B) below; and the contractor or subcontractor further agrees to take said action immediately if it determines that the union is not referring minority and women workers consistent with the equal employment opportunity goals set forth in this chapter.

(B) If good faith efforts to meet targeted employment goals have not or cannot be met for each construction trade by adhering to the procedures of (A) above, or if the contractor does not have a referral agreement or arrangement with a union for a construction trade, the contractor or subcontractor agrees to take the following actions:

(1) To notify the public agency compliance officer, the Dept. of LWD, Construction EEO Monitoring Program, and minority and women referral organizations listed by the Division pursuant to N.J.A.C. 17:27-5.3, of its workforce needs, and request referral of minority and women workers;

(2) To notify any minority and women workers who have been listed with it as awaiting available vacancies;

(3) Prior to commencement of work, to request that the local construction trade union refer minority and women workers to fill job openings, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade;

(4) To leave standing requests for additional referral to minority and women workers with the local construction trade union, provided the contractor or subcontractor has a referral agreement or arrangement with a union for the construction trade, the State Training and Employment Service and other approved referral sources in the area;

(5) If it is necessary to lay off some of the workers in a given trade on the construction site, layoffs shall be conducted in compliance with the equal employment opportunity and non-discrimination standards set forth in this regulation, as well as with applicable Federal and State court decisions;

(6) To adhere to the following procedure when minority and women workers apply or are referred to the contractor or subcontractor:

(i) The contractor or subcontractor shall interview the referred minority or women worker.

(ii) If said individuals have never previously received any document or certification signifying a level of qualification lower than that required in order to perform the work of the construction trade, the contractor or subcontractor shall in good faith determine the qualifications of such individuals. The contractor or subcontractor shall hire or schedule those individuals who satisfy appropriate qualification standards in conformity with the equal employment opportunity and non-discrimination principles set forth in this chapter. However, a contractor or subcontractor shall determine that the individual at least possesses the requisite skills, and experience recognized by a union, apprentice program or a referral agency, provided the referral agency is acceptable to the Dept. of LWD, Construction EEO Monitoring Program. If necessary, the contractor or subcontractor shall hire or schedule minority and women workers who qualify as trainees pursuant to these rules. All of the requirements, however, are limited by the provisions of (C) below.

(iii) The name of any interested woman or minority individual shall be maintained on a waiting list, and shall be considered for employment as described in (i) above, whenever vacancies occur. At the request of the Dept. of LWD, Construction EEO Monitoring Program, the contractor or subcontractor shall provide evidence of its good faith efforts to employ women and minorities from the list to fill vacancies.

(iv) If, for any reason, said contractor or subcontractor determines that a minority individual or a woman is not qualified or if the individual qualifies as an advanced trainee or apprentice, the contractor or subcontractor shall inform the individual in writing of the reasons for the determination, maintain a copy of the determination in its files, and send a copy to the public agency compliance officer and to the Dept. of LWD, Construction EEO Monitoring Program.

(7) To keep a complete and accurate record of all requests made for the referral of workers in any trade covered by the contract or forms made available by the Dept. of LWD, Construction EEO Monitoring Program and submitted promptly to the Dept. of LWD, Construction EEO Monitoring Program upon request.

(C) The contractor or subcontractor agrees that nothing contained in (B) above shall preclude the contractor or subcontractor from complying with the union hiring hall or apprenticeship policies in any applicable collective bargaining agreement or union hiring hall arrangement, and, where required by custom or agreement, it shall send journeymen and trainees to the union for referral, or to the apprenticeship program for admission, pursuant to such agreement or arrangement. However, where the practices of a union or apprenticeship program will result in the exclusion of minorities and women or the failure to refer minorities and women consistent with the targeted county employment goal, the contractor or subcontractor shall consider for employment persons referred pursuant to (B) above without regard to such agreement or arrangement, provided further, however, that the contractor or subcontractor shall not be required to employ women and minority advanced trainees and trainees in numbers which result in the employment of advanced trainees and trainees as a percentage of the total workforce for the construction trade, which percentage significantly exceeds the apprentice to journey worker ratio specified in the applicable collective bargaining agreement, or in the absence of a collective bargaining agreement, exceeds the ratio established by practice in the area for said construction trade. Also, the contractor or subcontractor agrees that, in implementing the procedures of (B) above, it shall, where applicable, employ minority and woman workers residing within the geographical jurisdiction of the union.

After notification of award, but prior to signing a construction contract, the contractor shall submit to the public agency compliance officer and the Dept. of LWD, Construction EEO Monitoring Program an initial project workforce report (Form AA-201) electronically provided to the public agency by the Dept. of LWD, Construction EEO Monitoring Program, through its website, for distribution to and completion by the contractor, in accordance with N.J.A.C. 17:27-7. The contractor also agrees to submit a copy of the Monthly Project Workforce Report once a month thereafter for the duration of this contract to the Dept. of LWD, Construction EEO Monitoring Program, and to the public agency compliance officer.

The contractor agrees to cooperate with the public agency in the payment of budgeted funds, as is necessary, for on-the-job and/or off-the-job programs for outreach and training of minorities and women.

(D) The contractor and its subcontractors shall furnish such reports or other documents to the Dept. of LWD, Construction EEO Monitoring Program as may be requested by the Dept. of LWD, Construction EEO Monitoring Program from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Dept. of LWD, Construction EEO Monitoring Program for conducting a compliance investigation pursuant to N.J.A.C. 17:27-1.1 et seq.

**AMERICANS WITH DISABILITIES ACT OF 1990
Equal Opportunity for Individuals with Disability**

The contractor and the City of Vineland, (hereafter "City") do hereby agree that the provisions of title 11 of the Americans With Disabilities Act of 1990 (the "Act") (42 U.S.C. S121 01 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs, and activities provided or made available by public entities, and the rules and regulations promulgated pursuant there unto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the City of Vineland pursuant to this contract, the contractor agrees that the performance shall be in strict compliance with the Act. In the event that the contractor, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the contractor shall defend the City in any action or administrative proceeding commenced pursuant to this Act. The contractor shall indemnify, protect, and save harmless the City, its agents, servants, and employees from and against any and all suits, claims, losses, or damages, of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The contractor shall, at its own expense, appear, defend, and pay any and all charges for legal services and any all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the City's grievance procedure, the contractor agrees to abide by any decision of the City which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the City of Vineland or if the City of Vineland incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the contractor shall satisfy and discharge the same at its own expense.

The City shall, as soon as practicable after a claim has been made against it, give written notice thereof to the contractor along with full and complete particulars of the claim. If any action or administrative proceedings is brought against the City of Vineland, or any of its agents, servants, and employees, the City shall expeditiously forward or have forwarded to the contractor every demand, complaint, notice, summons, pleading, or other process received by the City or its representatives.

It is expressly agreed and understood that any approval by the City of the services provided by the contractor pursuant to this contract will not relieve the contractor of the obligation to comply with the Act and to defend, indemnify, protect, and save harmless the City pursuant to this paragraph.

It is further agreed and understood that the City of Vineland assumes no obligation to indemnify or save harmless the contractor, its agents, servants, employees and servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the contractor expressly understands and agrees that the provisions of this indemnification clause shall in no way limit the contractors obligations assumed in this Agreement, nor shall they be construed to relieve the contractor from any liability, nor preclude the City from taking any other actions available to it under any other provisions of the Agreement or otherwise at law.

**USE THESE
DOCUMENTS
WHEN
SUBMITTING
YOUR ORIGINAL
BID**

PLEASE PRINT (LEGIBLY) OR TYPE

Accompanying this proposal is a certified check in the amount of \$_____, a cashier's check in the amount of \$_____, or a bid bond in the amount of \$_____, payable to the City of Vineland which is to be forfeited as liquidated damages, if in the event that this proposal is accepted, the undersigned shall fail to execute the contract or to furnish satisfactory bond as require.

COMPANY _____

ADDRESS _____

TELEPHONE _____

BY _____
(Signature)

(Name-please print or type)

(Title)

DATE _____

Have you attached the required items listed on the Check List? Failure to do so may result in automatic rejection of this bid.

(Fax Number)

WITNESS _____

The bidder shall state on the line below, if a corporation, the name of the state in which incorporated.

(Contact Person Who Prepared Proposal)

(Telephone Number)

(Federal I.D. Number)

(Email address)

BID CHECKLIST

Failure by the bidder to submit with their bid all of the MANDATORY Items that are check below shall be cause for rejection of bid.

**CITY OF VINELAND 4TH FLOOR RENOVATIONS
COV BID # 2024-29**

JUNE 25, 2024

	<u>REQUIRED WITH BID</u>	<u>INITIAL & SUBMIT</u>
1. Bid Guarantee (IN DUPLICATE) (a bid bond is not a consent of surety)	<u> X </u>	_____
2. Certificate or Consent of Surety Form (IN DUPLICATE)	<u> X </u>	_____
3. Statement of Ownership Disclosure (IN DUPLICATE)	<u> X </u>	_____
4. EEO/Affirmative Action Compliance Notice (IN DUPLICATE)	<u> X </u>	_____
5. Check List (IN DUPLICATE)	<u> X </u>	_____
6. Proposal (IN DUPLICATE)	<u> X </u>	_____
7. Acknowledgement of Receipt of Addenda (IN DUPLICATE)	<u> X </u>	_____
8. List of Subcontractors, if any. If none, state so. (IN DUPLICATE)	<u> X </u>	_____

The items that are checked below shall be submitted no later than the time period indicated.

<u>Required as Conditioned</u>	<u>Item</u>	<u>Read, Initialed Shall Submit</u>
<u> X </u>	Performance Bond (Due with the executed contract)	_____
_____	Labor and Material Payment Bond (Due with the executed contract)	_____
_____	(continued on next page) Maintenance Bond	_____

(Due with the executed contract)

- | | | |
|--------------|--|-------|
| <u> X </u> | Public Works Contractor Registration Certificate(s) for the General or Prime Contractor and any Subcontractor submitted in the bid proposal with a date effective at the time the proposal is submitted
(Due prior to contract award) | _____ |
| <u> X </u> | New Jersey Business Registration Certificate
(Due prior to contract award) | _____ |
| <u> X </u> | Disclosure of Investment Activities in Iran
(Due prior to contract award) | _____ |
| <u> X </u> | Certificate(s) of Insurance as specified In the Bid Document
(Due with executed contract) | _____ |
| <u> X </u> | Certification of Non-Debarment for Federal Contracts.
(Due prior to contract award) | _____ |
| <u> X </u> | Certification of Regarding Debarment Suspension.
(Due prior to contract award) | _____ |

The items that are checked below are to be reviewed by the bidders.

<u>Review Required</u>	<u>Item</u>	<u>Read & Initialed</u>
<u> X </u>	Americans with Disabilities Act Language	_____
<u> X </u>	General Instructions	_____
<u> X </u>	Technical Specifications	_____

THE ITEMS AND/OR FORMS INDICATED ABOVE SHALL BE REVIEWED AND/OR SUBMITTED WITH YOUR BID. THIS CHECKLIST IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ALL REQUIRED DOCUMENTATION MAY NOT BE LISTED ABOVE AND IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO CAREFULLY REVIEW THE COMPLETE BID PACKAGE, FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OF THIS BID AND TO SUBMIT WITH THEIR BID ALL REQUIRED DOCUMENTATION.

SIGNATURE

The undersigned hereby acknowledges that they have submitted and/or reviewed the above listed requirements:

(COMPANY)

(NAME – PLEASE PRINT OR TYPE)

(SIGNATURE)

(DATE)

STATEMENT OF OWNERSHIP DISCLOSURE

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.

Name of Organization: _____

Organization Address: _____

Part I:

Check the box that represents the type of business organization:

- Sole Proprietorship (skip Parts II and III, execute certification in Part IV)
- Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)
- For-Profit Corporation (any type)
- Limited Liability Company (LLC)
- Limited Partnership
- Limited Liability Partnership (LLP)
- Other (be specific):

Part II:

The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. **(COMPLETE THE LIST BELOW IN THIS SECTION)**

OR

No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. **(SKIP TO PART IV)**

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Address

Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed.**

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II other than for any publicly traded parent entities referenced above. The disclosure shall be continued until names and addresses of every non-corporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Address

Part IV Certification

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the <name of contracting unit> is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with <type of contracting unit> to notify the <type of contracting unit> in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the <type of contracting unit> to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print) :		Title :	
Signature :		Date :	

AFFIRMATIVE ACTION COMPLIANCE NOTICE

N.J.S.A. 10:5-31 and N.J.A.C. 17:27

GOODS AND SERVICES CONTRACTS

(INCLUDING PROFESSIONAL SERVICES)

This form is a summary of the successful bidder's requirement to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27-1 et seq.

The successful bidder shall submit to the public agency, after notification of award but prior to execution of this contract, one of the following three documents as forms of evidence:

(a) A photocopy of a valid letter that the contractor is operating under an existing Federally approved or sanctioned affirmative action program (good for one year from the date of the letter);

OR

(b) A photocopy of a Certificate of Employee Information Report approval, issued in accordance with N.J.A.C. 17:27-4;

OR

(c) A photocopy of an Employee Information Report (Form AA302) provided by the Division and distributed to the public agency to be completed by the contractor in accordance with N.J.A.C. 17:27-4.

The successful vendor may obtain the Affirmative Action Employee Information Report (AA302) from the contracting unit during normal business hours.

The successful vendor(s) must submit the copies of the AA302 Report to the Division of Contract Compliance and Equal Employment Opportunity in Public Contracts (Division). The Public Agency copy is submitted to the public agency, and the vendor copy is retained by the vendor.

The undersigned vendor certifies that he/she is aware of the commitment to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27.1 et seq. and agrees to furnish the required forms of evidence.

The undersigned vendor further understands that his/her bid shall be rejected as non-responsive if said contractor fails to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27-1 et seq.

COMPANY: _____ SIGNATURE: _____

PRINT NAME: _____ TITLE: _____

DATE: _____

FAILURE BY THE BIDDER TO COMPLETE AND RETURN THIS NOTICE WITH THEIR BID SUBMISSION SHALL BE CAUSE FOR THEIR BID TO BE REJECTED AS NON-RESPONSIVE

CITY OF VINELAND
ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

Pursuant to N.J.S.A. 40A:11-23.1a, the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local unit's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Addendum Number	Dated	Acknowledge Receipt (Initial)
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ No addenda received.

Acknowledged for: _____
(Name of Bidder)

By: _____
(Signature of Authorized Representative)

Name: _____
(Please type or Print)

Title: _____

Date: _____



**City of Vineland - Division of Purchasing
DISCLOSURE OF INVESTMENT ACTIVITIES IN
IRAN FORM**

STATE OF NEW JERSEY
DEPARTMENT OF THE TREASURY - DIVISION OF PURCHASE AND
PROPERTY 33 WEST STATE STREET, P.O. BOX 230 TRENTON, NEW
JERSEY 08625-0230

BID SOLICITATION # AND TITLE: _____

VENDOR NAME: _____

Pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4) any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must certify that neither the person nor entity, nor any of its parents, subsidiaries, or affiliates, is identified on the New Jersey Department of the Treasury's Chapter 25 List as a person or entity engaged in investment activities in Iran. The Chapter 25 list is found on the Division's website at: <https://www.state.nj.us/treasury/disclosure/pdf/Chapter25List.pdf>.

Vendors/Bidders must review this list prior to completing the below certification. If the Director of the Division of Purchase and Property finds a person or entity to be in violation of the law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

CHECK THE APPROPRIATE BOX

I certify, pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4), that neither the Vendor/Bidder listed above nor any of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List of entities determined to be engaged in prohibited activities in Iran.

OR

I am unable to certify as above because the Vendor/Bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List. I will provide a detailed, accurate and precise description of the activities of the Vendor/Bidder, or one of its parents, subsidiaries or affiliates, has engaged in regarding investment activities in Iran by completing the information requested below.

Entity Engaged in Investment
Activities _____
Relationship to Vendor/ Bidder _____
Description of Activities _____

Duration of Engagement _____
Anticipated Cessation Date _____

**Attach Additional Sheets If
Necessary.*

CERTIFICATION

I, the undersigned, certify that I am authorized to execute this certification on behalf of the Vendor, that the foregoing information and any attachments hereto, to the best of my knowledge are true and complete. I acknowledge that the City of Vineland is relying on the information contained herein, and that the Vendor is under a continuing obligation from the date of this certification through the completion of any contract(s) with the City to notify the City in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I may be subject to criminal prosecution under the law, and it will constitute a material breach of my contract(s) with the City, permitting the City to declare any contract(s) resulting from this certification void and unenforceable.

Signature _____

Date _____

Full Name (Print) and Title _____

**CERTIFICATION REGARDING THE DEBARMENT
SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

I am _____ of the firm of _____,
(Your Title) (Name of your Organization)

(Address of your Organization)

CHOOSE ONE OF THE FOLLOWING

() A. I hereby certify on behalf of _____
(Name of your Organization)

that neither it nor its principals are included on the State Treasurer's and Economic Development Authority's or the Federal Government's List of Debarred, Suspended, or Disqualified Bidders as a result of action taken by any State or Federal Agency.

() B. I am unable to certify to any of the statements set forth in this certification. I have attached an explanation to this form.

Subscribed and sworn to
Before me this day of _____
20____

(Signature of Notary Public)

(Signature)

(Typed or Printed Name and Title)

My Commission expires _____
(Month, Day, Year)

**CERTIFICATION OF NON-DEBARMENT
FOR FEDERAL GOVERNMENT CONTRACTS**
N.J.S.A. 52:32-44.1 (P.L. 2019, c.406)

This certification shall be completed, certified to, and submitted to the contracting unit prior to contract award, except for emergency contracts where submission is required prior to payment.

PART I: VENDOR INFORMATION	
Individual or Organization Name	
Physical Address of Individual or Organization	
Unique Entity ID (If applicable)	
CAGE/NCAGE Code (if applicable)	
Check the box that represents the type of business organization:	

- Sole Proprietorship (skip Parts III and IV)
 Non-Profit Corporation (skip Parts III and IV)
 For-Profit Corporation (any type)
 Limited Liability Company (LLC)
 Partnership
 Limited Partnership
 Limited Liability Partnership (LLP)
 Other (be specific): _____

PART II - CERTIFICATION OF NON-DEBARMENT: Individual or Organization			
<p>I hereby certify that the individual or organization listed above in Part I is not debarred by the federal government from contracting with a federal agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the <i>City of Vineland</i> is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award by <i>City of Vineland of Vineland</i> to notify the <i>City of Vineland</i> in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the <i>City of Vineland</i>, permitting the <i>City of Vineland</i> to declare any contract(s) resulting from this certification void and unenforceable.</p>			
Full Name (Print):		Title:	
Signature:		Date:	

PART III – CERTIFICATION OF NON-DEBARMENT: Individual or Entity Owning Greater than 50 Percent of Organization

Section A (Check the Box that applies)

<input type="checkbox"/>	Below is the name and address of the stockholder in the corporation who owns more than 50 percent of its voting stock, or of the partner in the partnership who owns more than 50 percent interest therein, or of the member of the limited liability company owning more than 50 percent interest therein, as the case may be.
--------------------------	---

Name of Individual or Organization	
---	--

Physical Address	
-------------------------	--

OR

<input type="checkbox"/>	No one stockholder in the corporation owns more than 50 percent of its voting stock, or no partner in the partnership owns more than 50 percent interest therein, or no member in the limited liability company owns more than 50 percent interest therein, as the case may be.
--------------------------	---

Section B (Skip if no Business entity is listed in Section A above)

<input type="checkbox"/>	Below is the name and address of the stockholder in the corporation who owns more than 50 percent of the voting stock of the organization's parent entity, or of the partner in the partnership who owns more than 50 percent interest in the organization's parent entity, or of the member of the limited liability company owning more than 50 percent interest in organization's parent entity, as the case may be.
--------------------------	---

Stockholder/Partner/Member Owning Greater Than 50 Percent of Parent Entity	
---	--

Physical Address	
-------------------------	--

OR

<input type="checkbox"/>	No one stockholder in the parent entity corporation owns more than 50 percent of its voting stock, no partner in the parent entity partnership owns more than 50 percent interest therein, or no member in the parent entity limited liability company owns more than 50 percent interest therein, as the case may be.
--------------------------	--

Section C - Part III Certification

I hereby certify that no individual or organization that is debarred by the federal government from contracting with a federal agency owns greater than 50 percent of the Organization listed above in Part I or, if applicable, owns greater than 50 percent of a parent entity of < _____ >. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the *City of Vineland* is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award *City of Vineland* to notify the *City of Vineland* in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the *City of Vineland*, permitting the *City of Vineland* to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

Part IV - CERTIFICATION OF NON-DEBARMENT Contractor Controlled Entities

Section A



Below is the name and address of the corporation(s) in which the Organization listed in Part I owns more than 50 percent of voting stock, or of the partnership(s) in which the Organization listed in Part I owns more than 50 percent interest therein, or of the limited liability company or companies in which the Organization listed above in Part I owns more than 50 percent interest therein, as the case may be.

Name of Business Entity	Physical Address

****Add additional sheets if necessary****

OR



The Organization listed above in Part I does not own greater than 50 percent of the voting stock in any corporation and does not own greater than 50 percent interest in any partnership or any limited liability company.

Section B (skip if no business entities are listed in Section A of Part IV)			
<input type="checkbox"/>	Below are the names and addresses of any entities in which an entity listed in Part III A owns greater than 50 percent of the voting stock (corporation) or owns greater than 50 percent interest (partnership or limited liability company).		
Name of Business Entity Controlled by Entity Listed in Section A of Part IV		Physical Address	
Add additional Sheets if necessary			
OR			
<input type="checkbox"/>	No entity listed in Part III A owns greater than 50 percent of the voting stock in any corporation or owns greater than 50 percent interest in any partnership or limited liability company.		
Section C - Part IV Certification			
<p>I hereby certify that the Organization listed above in Part I does not own greater than 50 percent of any entity that is debarred by the federal government from contracting with a federal agency and, if applicable, does not own greater than 50 percent of any entity that in turns owns greater than 50 percent of any entity debarred by the federal government from contracting with a federal agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the <i>City of Vineland</i> is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award by <i>City of Vineland</i> to notify the <i>City of Vineland</i> in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the <i>City of Vineland</i>, permitting the <i>City of Vineland</i> to declare any contract(s) resulting from this certification void and unenforceable.</p>			
Full Name (Print):		Title:	
Signature:		Date:	

SAMPLE FORM OF BID BOND

A. We, the undersigned

_____ as Principal and
_____ as Surety, are hereby held and firmly bound unto
_____ in the penal sum of _____ Dollars

(\$ _____), lawful money of the United States for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. Signed this _____ day of _____, 20 _____.

B. THE CONDITION of the above obligation is such that whereas the Principal has submitted to the _____

a certain bid attached hereto and hereby made a part of hereto and hereby made a part of hereof, to enter into a contract in writing for the (insert type of work)

C. NOW THEREFORE:

If said bid shall be rejected, or in the alternate, if said bid shall be accepted and the Principal shall execute and deliver a contract in the form of Agreement required by the Bid Documents and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all respects perform the agreement created by the acceptance of said bid. Then this obligation shall be void, otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

D. THE SURETY for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by an extensions of the time within the "OBLIGEE" may accept such bid. And said Surety does hereby waive notice of any such extension.

E. IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as corporations have caused their corporate seals to be hereto fixed and these presents to be signed by their proper officers, the day and year set forth above.

(L.S.)
PRINCIPAL

SURETY

(SEAL)

BY

NOTE: Bid Bond must be signed by an authorized agent or representative of a surety company and not by the individual or company submitting the bid.

SURETY FORM

The City of Vineland has provided this certificate of surety for submission to a bidder's insurance/bonding company. Language such as this will be accepted; however, language that limits the timeframe in which the City can process claims against a performance bond or language that states the surety is conditional depending on contract terms, will not be accepted. (Contract terms will be as outlined in the bid specifications)

To:
Purchasing Board
City of Vineland
640 E. Wood Street
Vineland, NJ 08360

NAME OF INSURANCE/BONDING COMPANY

being duly qualified to transact business in the State of New Jersey, hereby certifies and agrees that if:

CONTRACTOR NAME

Is the successful bidder for _____
_____ it as surety, will provide
the bidder with the bond or bonds as are called for in the bid specifications.

Signed and Sealed _____, 20 ____.

NAME OF INSURANCE/BONDING COMPANY

Printed name of Attorney-in-Fact

Signature of Attorney-in-Fact

**POWER OF ATTORNEY FOR THE ATTORNEY-IN-FACT MUST BE ATTACHED TO
CONSENT OF SURETY AND CORPORATE SEAL OF THE SURETY COMPANY MUST BE
AFFIXED TO SURETY FORM**

**CERTIFICATE OF SURETY MUST BE SIGNED BY AN AUTHORIZED AGENT OR
REPRESENTATIVE OF A SURETY COMPANY AND NOT BY THE INDIVIDUAL OR
COMPANY SUBMITTING THE BID**

INSURANCE/BONDING COMPANY TO PROVIDE THE FOLLOWING:

NAME _____ TITLE _____

ADDRESS _____

TELEPHONE NO. _____

**USE THESE
DOCUMENTS
WHEN SUBMITTING
YOUR
DUPLICATE BID**

PLEASE PRINT (LEGIBLY) OR TYPE

Accompanying this proposal is a certified check in the amount of \$_____, a cashier's check in the amount of \$_____, or a bid bond in the amount of \$_____, payable to the City of Vineland which is to be forfeited as liquidated damages, if in the event that this proposal is accepted, the undersigned shall fail to execute the contract or to furnish satisfactory bond as require.

COMPANY_____

ADDRESS_____

TELEPHONE_____

WITNESS_____

BY_____
(Signature)

The bidder shall state on the line below, if a corporation, the name of the state in which incorporated.

(Name-please print or type)

(Title)

(Contact Person Who Prepared Proposal)

DATE_____

(Telephone Number)

Have you attached the required items listed on the Check List? Failure to do so may result in automatic rejection of this bid.

(Federal I.D. Number)

(Fax Number)

(Email address)

BID CHECKLIST

Failure by the bidder to submit with their bid all of the MANDATORY Items that are check below shall be cause for rejection of bid.

CITY OF VINELAND 4TH FLOOR RENOVATIONS
COV BID # 2024-29

JUNE 25, 2024

	<u>REQUIRED WITH BID</u>	<u>INITIAL & SUBMIT</u>
1. Bid Guarantee (IN DUPLICATE) (a bid bond is not a consent of surety)	<u> X </u>	<u> </u>
2. Certificate or Consent of Surety Form (IN DUPLICATE)	<u> X </u>	<u> </u>
3. Statement of Ownership Disclosure (IN DUPLICATE)	<u> X </u>	<u> </u>
4. EEO/Affirmative Action Compliance Notice (IN DUPLICATE)	<u> X </u>	<u> </u>
5. Check List (IN DUPLICATE)	<u> X </u>	<u> </u>
6. Proposal (IN DUPLICATE)	<u> X </u>	<u> </u>
7. Acknowledgement of Receipt of Addenda (IN DUPLICATE)	<u> X </u>	<u> </u>
8. List of Subcontractors, if any. If none, state so. (IN DUPLICATE)	<u> X </u>	<u> </u>

The items that are checked below shall be submitted no later than the time period indicated.

<u>Required as Conditioned</u>	<u>Item</u>	<u>Read, Initialed Shall Submit</u>
<u> X </u>	Performance Bond (Due with the executed contract)	<u> </u>
<u> </u>	Labor and Material Payment Bond (Due with the executed contract)	<u> </u>
<u> </u>	(continued on next page)	
<u> </u>	Maintenance Bond	<u> </u>

(Due with the executed contract)

- | | | |
|--------------|--|-------|
| <u> X </u> | Public Works Contractor Registration Certificate(s) for the General or Prime Contractor and any Subcontractor submitted in the bid proposal with a date effective at the time the proposal is submitted
(Due prior to contract award) | _____ |
| <u> X </u> | New Jersey Business Registration Certificate
(Due prior to contract award) | _____ |
| <u> X </u> | Disclosure of Investment Activities in Iran
(Due prior to contract award) | _____ |
| <u> X </u> | Certificate(s) of Insurance as specified In the Bid Document
(Due with executed contract) | _____ |
| <u> X </u> | Certification of Non-Debarment for Federal Contracts.
(Due prior to contract award) | _____ |
| <u> X </u> | Certification of Regarding Debarment Suspension.
(Due prior to contract award) | _____ |

The items that are checked below are to be reviewed by the bidders.

<u>Review Required</u>	<u>Item</u>	<u>Read & Initialed</u>
<u> X </u>	Americans with Disabilities Act Language	_____
<u> X </u>	General Instructions	_____
<u> X </u>	Technical Specifications	_____

THE ITEMS AND/OR FORMS INDICATED ABOVE SHALL BE REVIEWED AND/OR SUBMITTED WITH YOUR BID. THIS CHECKLIST IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY. ALL REQUIRED DOCUMENTATION MAY NOT BE LISTED ABOVE AND IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO CAREFULLY REVIEW THE COMPLETE BID PACKAGE, FAMILIARIZE THEMSELVES WITH THE REQUIREMENTS OF THIS BID AND TO SUBMIT WITH THEIR BID ALL REQUIRED DOCUMENTATION.

SIGNATURE

The undersigned hereby acknowledges that they have submitted and/or reviewed the above listed requirements:

(COMPANY)

(NAME – PLEASE PRINT OR TYPE)

(SIGNATURE)

(DATE)

STATEMENT OF OWNERSHIP DISCLOSURE

N.J.S.A. 52:25-24.2 (P.L. 1977, c.33, as amended by P.L. 2016, c.43)

This statement shall be completed, certified to, and included with all bid and proposal submissions. Failure to submit the required information is cause for automatic rejection of the bid or proposal.

Name of Organization: _____

Organization Address: _____

Part I:

Check the box that represents the type of business organization:

- Sole Proprietorship (skip Parts II and III, execute certification in Part IV)
- Non-Profit Corporation (skip Parts II and III, execute certification in Part IV)
- For-Profit Corporation (any type)
- Limited Liability Company (LLC)
- Limited Partnership
- Limited Liability Partnership (LLP)
- Other (be specific):

Part II:

The list below contains the names and addresses of all stockholders in the corporation who own 10 percent or more of its stock, of any class, or of all individual partners in the partnership who own a 10 percent or greater interest therein, or of all members in the limited liability company who own a 10 percent or greater interest therein, as the case may be. **(COMPLETE THE LIST BELOW IN THIS SECTION)**

OR

No one stockholder in the corporation owns 10 percent or more of its stock, of any class, or no individual partner in the partnership owns a 10 percent or greater interest therein, or no member in the limited liability company owns a 10 percent or greater interest therein, as the case may be. **(SKIP TO PART IV)**

(Please attach additional sheets if more space is needed):

Name of Individual or Business Entity	Address

Part III DISCLOSURE OF 10% OR GREATER OWNERSHIP IN THE STOCKHOLDERS, PARTNERS OR LLC MEMBERS LISTED IN PART II

If a bidder has a direct or indirect parent entity which is publicly traded, and any person holds a 10 percent or greater beneficial interest in the publicly traded parent entity as of the last annual federal Security and Exchange Commission (SEC) or foreign equivalent filing, ownership disclosure can be met by providing links to the website(s) containing the last annual filing(s) with the federal Securities and Exchange Commission (or foreign equivalent) that contain the name and address of each person holding a 10% or greater beneficial interest in the publicly traded parent entity, along with the relevant page numbers of the filing(s) that contain the information on each such person. **Attach additional sheets if more space is needed.**

Website (URL) containing the last annual SEC (or foreign equivalent) filing	Page #'s

Please list the names and addresses of each stockholder, partner or member owning a 10 percent or greater interest in any corresponding corporation, partnership and/or limited liability company (LLC) listed in Part II other than for any publicly traded parent entities referenced above. The disclosure shall be continued until names and addresses of every non-corporate stockholder, and individual partner, and member exceeding the 10 percent ownership criteria established pursuant to N.J.S.A. 52:25-24.2 has been listed. **Attach additional sheets if more space is needed.**

Stockholder/Partner/Member and Corresponding Entity Listed in Part II	Address

Part IV Certification

I, being duly sworn upon my oath, hereby represent that the foregoing information and any attachments thereto to the best of my knowledge are true and complete. I acknowledge: that I am authorized to execute this certification on behalf of the bidder/proposer; that the <name of contracting unit> is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the completion of any contracts with <type of contracting unit> to notify the <type of contracting unit> in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the, permitting the <type of contracting unit> to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print) :		Title :	
Signature :		Date :	

AFFIRMATIVE ACTION COMPLIANCE NOTICE

N.J.S.A. 10:5-31 and N.J.A.C. 17:27

GOODS AND SERVICES CONTRACTS

(INCLUDING PROFESSIONAL SERVICES)

This form is a summary of the successful bidder's requirement to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27-1 et seq.

The successful bidder shall submit to the public agency, after notification of award but prior to execution of this contract, one of the following three documents as forms of evidence:

(a) A photocopy of a valid letter that the contractor is operating under an existing Federally approved or sanctioned affirmative action program (good for one year from the date of the letter);

OR

(b) A photocopy of a Certificate of Employee Information Report approval, issued in accordance with N.J.A.C. 17:27-4;

OR

(c) A photocopy of an Employee Information Report (Form AA302) provided by the Division and distributed to the public agency to be completed by the contractor in accordance with N.J.A.C. 17:27-4.

The successful vendor may obtain the Affirmative Action Employee Information Report (AA302) from the contracting unit during normal business hours.

The successful vendor(s) must submit the copies of the AA302 Report to the Division of Contract Compliance and Equal Employment Opportunity in Public Contracts (Division). The Public Agency copy is submitted to the public agency, and the vendor copy is retained by the vendor.

The undersigned vendor certifies that he/she is aware of the commitment to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27.1 et seq. and agrees to furnish the required forms of evidence.

The undersigned vendor further understands that his/her bid shall be rejected as non-responsive if said contractor fails to comply with the requirements of N.J.S.A. 10:5-31 and N.J.A.C. 17:27-1 et seq.

COMPANY: _____ SIGNATURE: _____

PRINT NAME: _____ TITLE: _____

DATE: _____

**FAILURE BY THE BIDDER TO COMPLETE AND RETURN THIS NOTICE WITH THEIR BID SUBMISSION
SHALL BE CAUSE FOR THEIR BID TO BE REJECTED AS NON-RESPONSIVE**

CITY OF VINELAND
ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

Pursuant to N.J.S.A. 40A:11-23.1a, the undersigned bidder hereby acknowledges receipt of the following notices, revisions, or addenda to the bid advertisement, specifications or bid documents. By indicating date of receipt, bidder acknowledges the submitted bid takes into account the provisions of the notice, revision or addendum. Note that the local unit's record of notice to bidders shall take precedence and that failure to include provisions of changes in a bid proposal may be subject for rejection of the bid.

Addendum Number	Dated	Acknowledge Receipt (Initial)
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ No addenda received.

Acknowledged for: _____
(Name of Bidder)

By: _____
(Signature of Authorized Representative)

Name: _____
(Please type or Print)

Title: _____

Date: _____



**City of Vineland - Division of Purchasing
DISCLOSURE OF INVESTMENT ACTIVITIES IN
IRAN FORM**

STATE OF NEW JERSEY
DEPARTMENT OF THE TREASURY - DIVISION OF PURCHASE AND
PROPERTY 33 WEST STATE STREET, P.O. BOX 230 TRENTON, NEW
JERSEY 08625-0230

BID SOLICITATION # AND TITLE: _____

VENDOR NAME: _____

Pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4) any person or entity that submits a bid or proposal or otherwise proposes to enter into or renew a contract must certify that neither the person nor entity, nor any of its parents, subsidiaries, or affiliates, is identified on the New Jersey Department of the Treasury's Chapter 25 List as a person or entity engaged in investment activities in Iran. The Chapter 25 list is found on the Division's website at: <https://www.state.nj.us/treasury/purchase/ir/Chapter25List.pdf>.

Vendors/Bidders must review this list prior to completing the below certification. If the Director of the Division of Purchase and Property finds a person or entity to be in violation of the law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

CHECK THE APPROPRIATE BOX

I certify, pursuant to N.J.S.A. 52:32-57, et seq. (P.L. 2012, c.25 and P.L. 2021, c.4), that neither the Vendor/Bidder listed above nor any of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List of entities determined to be engaged in prohibited activities in Iran.

OR

I am unable to certify as above because the Vendor/Bidder and/or one or more of its parents, subsidiaries, or affiliates is listed on the New Jersey Department of the Treasury's Chapter 25 List. I will provide a detailed, accurate and precise description of the activities of the Vendor/Bidder, or one of its parents, subsidiaries or affiliates, has engaged in regarding investment activities in Iran by completing the information requested below.

Entity Engaged in Investment
Activities
Relationship to Vendor/ Bidder
Description of Activities

Duration of Engagement
Anticipated Cessation Date
**Attach Additional Sheets If
Necessary.*

CERTIFICATION

I, the undersigned, certify that I am authorized to execute this certification on behalf of the Vendor, that the foregoing information and any attachments hereto, to the best of my knowledge are true and complete. I acknowledge that the City of Vineland is relying on the information contained herein, and that the Vendor is under a continuing obligation from the date of this certification through the completion of any contract(s) with the City to notify the City in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification. If I do so, I may be subject to criminal prosecution under the law, and it will constitute a material breach of my contract(s) with the City, permitting the City to declare any contract(s) resulting from this certification void and unenforceable.

Signature

Date

Full Name (Print) and Title

**CERTIFICATION REGARDING THE DEBARMENT
SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

I am _____ of the firm of _____,
(Your Title) (Name of your Organization)

(Address of your Organization)

CHOOSE ONE OF THE FOLLOWING

() A. I hereby certify on behalf of _____
(Name of your Organization)

that neither it nor its principals are included on the State Treasurer's and Economic Development Authority's or the Federal Government's List of Debarred, Suspended, or Disqualified Bidders as a result of action taken by any State or Federal Agency.

() B. I am unable to certify to any of the statements set forth in this certification. I have attached an explanation to this form.

Subscribed and sworn to
Before me this day of _____ 20____.

(Signature of Notary Public)

(Signature)

(Typed or Printed Name and Title)

My Commission expires _____
(Month, Day, Year)

**CERTIFICATION OF NON-DEBARMENT
FOR FEDERAL GOVERNMENT CONTRACTS**
N.J.S.A. 52:32-44.1 (P.L. 2019, c.406)

This certification shall be completed, certified to, and submitted to the contracting unit prior to contract award, except for emergency contracts where submission is required prior to payment.

PART I: VENDOR INFORMATION	
Individual or Organization Name	
Physical Address of Individual or Organization	
Unique Entity ID (if applicable)	
CAGE/NCAGE Code (if applicable)	
Check the box that represents the type of business organization:	

- Sole Proprietorship (skip Parts III and IV)
 Non-Profit Corporation (skip Parts III and IV)
 For-Profit Corporation (any type)
 Limited Liability Company (LLC)
 Partnership
 Limited Partnership
 Limited Liability Partnership (LLP)
 Other (be specific): _____

PART II: CERTIFICATION OF NON-DEBARMENT: Individual or Organization			
<p>I hereby certify that the individual or organization listed above in Part I is not debarred by the federal government from contracting with a federal agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the <i>City of Vineland</i> is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award by <i>City of Vineland of Vineland</i> to notify the <i>City of Vineland</i> in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the <i>City of Vineland</i>, permitting the <i>City of Vineland</i> to declare any contract(s) resulting from this certification void and unenforceable.</p>			
Full Name (Print):		Title:	
Signature:		Date:	

PART III – CERTIFICATION OF NON-DEBARMENT: Individual or Entity Owning Greater than 50 Percent of Organization

Section A (Check the Box that applies)

<input type="checkbox"/>	Below is the name and address of the stockholder in the corporation who owns more than 50 percent of its voting stock, or of the partner in the partnership who owns more than 50 percent interest therein, or of the member of the limited liability company owning more than 50 percent interest therein, as the case may be.
Name of Individual or Organization	
Physical Address	

OR

<input type="checkbox"/>	No one stockholder in the corporation owns more than 50 percent of its voting stock, or no partner in the partnership owns more than 50 percent interest therein, or no member in the limited liability company owns more than 50 percent interest therein, as the case may be.
--------------------------	---

Section B (Skip if no Business entity is listed in Section A above)

<input type="checkbox"/>	Below is the name and address of the stockholder in the corporation who owns more than 50 percent of the voting stock of the organization's parent entity, or of the partner in the partnership who owns more than 50 percent interest in the organization's parent entity, or of the member of the limited liability company owning more than 50 percent interest in organization's parent entity, as the case may be.
Stockholder/Partner/Member Owning Greater Than 50 Percent of Parent Entity	
Physical Address	

OR

<input type="checkbox"/>	No one stockholder in the parent entity corporation owns more than 50 percent of its voting stock, no partner in the parent entity partnership owns more than 50 percent interest therein, or no member in the parent entity limited liability company owns more than 50 percent interest therein, as the case may be.
--------------------------	--

Section C - Part III Certification

I hereby certify that no individual or organization that is debarred by the federal government from contracting with a federal agency owns greater than 50 percent of the Organization listed above in Part I or, if applicable, owns greater than 50 percent of a parent entity of < >. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the *City of Vineland* is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award *City of Vineland* to notify the *City of Vineland* in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the *City of Vineland*, permitting the *City of Vineland* to declare any contract(s) resulting from this certification void and unenforceable.

Full Name (Print):		Title:	
Signature:		Date:	

Part IV - CERTIFICATION OF NON-DEBARMENT - Contractor - Controlled Entities

Section A



Below is the name and address of the corporation(s) in which the Organization listed in Part I owns more than 50 percent of voting stock, or of the partnership(s) in which the Organization listed in Part I owns more than 50 percent interest therein, or of the limited liability company or companies in which the Organization listed above in Part I owns more than 50 percent interest therein, as the case may be.

Name of Business Entity

Physical Address

****Add additional sheets if necessary****

OR



The Organization listed above in Part I does not own greater than 50 percent of the voting stock in any corporation and does not own greater than 50 percent interest in any partnership or any limited liability company.

Section B (skip if no business entities are listed in Section A of Part IV)			
<input type="checkbox"/>	Below are the names and addresses of any entities in which an entity listed in Part III A owns greater than 50 percent of the voting stock (corporation) or owns greater than 50 percent interest (partnership or limited liability company).		
Name of Business Entity Controlled by Entity Listed in Section A of Part IV		Physical Address	
Add additional Sheets if necessary			
OR			
<input type="checkbox"/>	No entity listed in Part III A owns greater than 50 percent of the voting stock in any corporation or owns greater than 50 percent interest in any partnership or limited liability company.		
Section C – Part IV Certification			
<p>I hereby certify that the Organization listed above in Part I does not own greater than 50 percent of any entity that that is debarred by the federal government from contracting with a federal agency and, if applicable, does not own greater than 50 percent of any entity that in turns owns greater than 50 percent of any entity debarred by the federal government from contracting with a federal agency. I further acknowledge: that I am authorized to execute this certification on behalf of the above-named organization; that the <i>City of Vineland</i> is relying on the information contained herein and that I am under a continuing obligation from the date of this certification through the date of contract award by <i>City of Vineland</i> to notify the <i>City of Vineland</i> in writing of any changes to the information contained herein; that I am aware that it is a criminal offense to make a false statement or misrepresentation in this certification, and if I do so, I am subject to criminal prosecution under the law and that it will constitute a material breach of my agreement(s) with the <i>City of Vineland</i>, permitting the <i>City of Vineland</i> to declare any contract(s) resulting from this certification void and unenforceable.</p>			
Full Name (Print):		Title:	
Signature:		Date:	

SAMPLE FORM OF BID BOND

A. We, the undersigned

_____ as Principal and
_____ as Surety, are hereby held and firmly bound unto
_____ in the penal sum of _____ Dollars

(\$ _____), lawful money of the United States for the payment of which well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. Signed this _____ day of _____, 20 _____.

B. THE CONDITION of the above obligation is such that whereas the Principal has submitted to the _____

a certain bid attached hereto and hereby made a part of hereto and hereby made a part of hereof, to enter into a contract in writing for the (insert type of work)

C. NOW THEREFORE:

If said bid shall be rejected, or in the alternate, if said bid shall be accepted and the Principal shall execute and deliver a contract in the form of Agreement required by the Bid Documents and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all respects perform the agreement created by the acceptance of said bid. Then this obligation shall be void, otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

D. THE SURETY for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall in no way be impaired or affected by an extensions of the time within the "OBLIGEE" may accept such bid. And said Surety does hereby waive notice of any such extension.

E. IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as corporations have caused their corporate seals to be hereto fixed and these presents to be signed by their proper officers, the day and year set forth above.

_____(L.S.)
PRINCIPAL

SURETY

(SEAL)

BY

NOTE: Bid Bond must be signed by an authorized agent or representative of a surety company and not by the individual or company submitting the bid.

SURETY FORM

The City of Vineland has provided this certificate of surety for submission to a bidder's insurance/bonding company. Language such as this will be accepted; however, language that limits the timeframe in which the City can process claims against a performance bond or language that states the surety is conditional depending on contract terms, will not be accepted. (Contract terms will be as outlined in the bid specifications)

To:
Purchasing Board
City of Vineland
640 E. Wood Street
Vineland, NJ 08360

NAME OF INSURANCE/BONDING COMPANY

being duly qualified to transact business in the State of New Jersey, hereby certifies and agrees that if:

CONTRACTOR NAME

Is the successful bidder for _____

_____ it as surety, will provide
the bidder with the bond or bonds as are called for in the bid specifications.

Signed and Sealed _____, 20 ____.

NAME OF INSURANCE/BONDING COMPANY

Printed name of Attorney-in-Fact

Signature of Attorney-in-Fact

**POWER OF ATTORNEY FOR THE ATTORNEY-IN-FACT MUST BE ATTACHED TO
CONSENT OF SURETY AND CORPORATE SEAL OF THE SURETY COMPANY MUST BE
AFFIXED TO SURETY FORM**

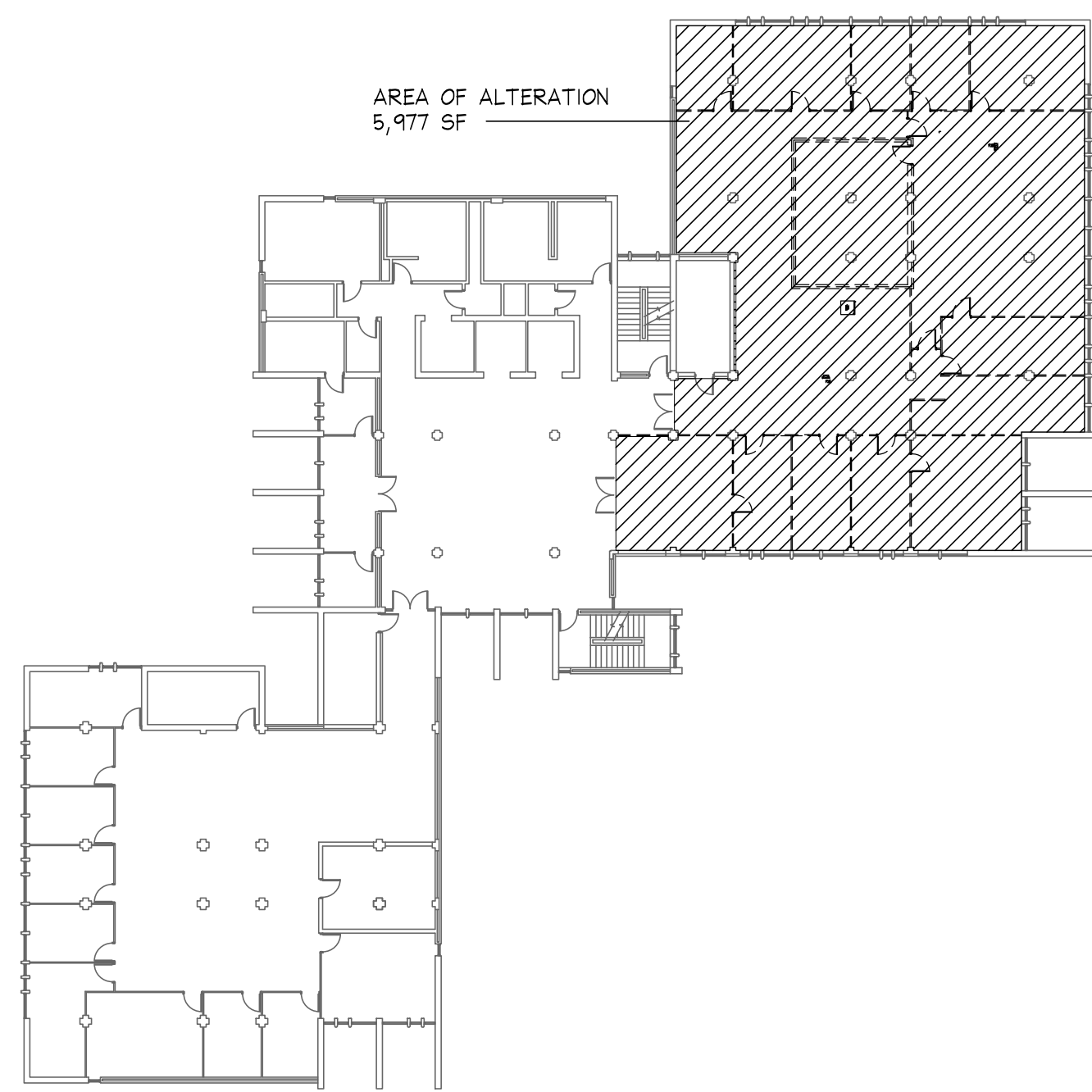
**CERTIFICATE OF SURETY MUST BE SIGNED BY AN AUTHORIZED AGENT OR
REPRESENTATIVE OF A SURETY COMPANY AND NOT BY THE INDIVIDUAL OR
COMPANY SUBMITTING THE BID**

INSURANCE/BONDING COMPANY TO PROVIDE THE FOLLOWING:

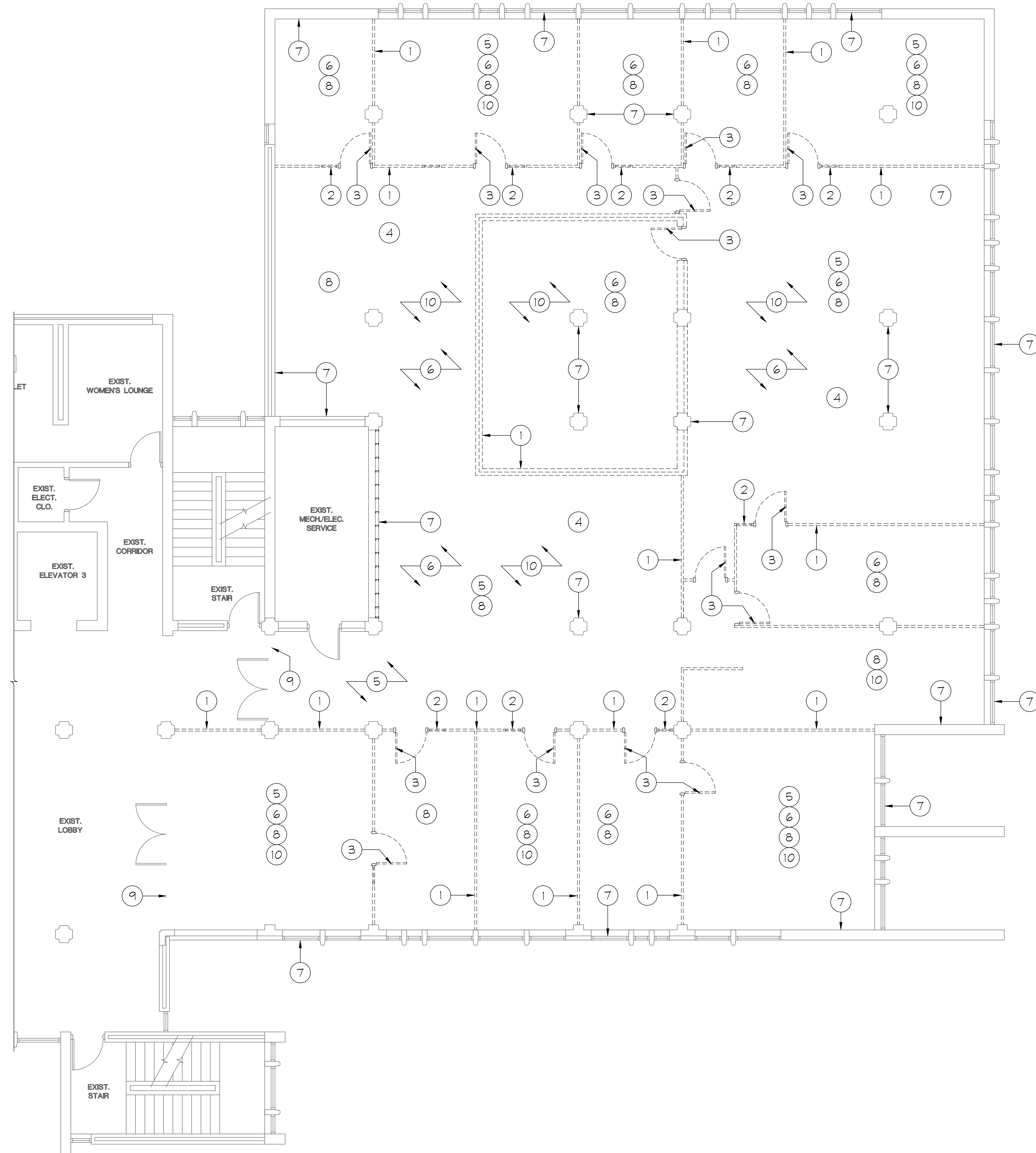
NAME _____ TITLE _____

ADDRESS _____

TELEPHONE NO. _____



KEY PLAN (4TH FLOOR) ②
N.T.S.



4TH FLOOR DEMOLITION PLAN

SCALE: 3/16" = 1'-0"

DEMOLITION NOTES:

A) DEMOLITION WORK IN DESIGNATED AREAS SHALL INCLUDE REMOVAL OF ALL DESIGNATED INTERIOR FINISHES, INCLUDING BUT NOT LIMITED TO ALL DESIGNATED PANELING, FURRING, HANGERS, UNUSED ATTACHMENTS, CEILING TILE & GRID, FLOOR FINISHES, ETC. WHERE DEMOLITION ACTIVITIES INVOLVE STRUCTURAL ELEMENTS, BEAMS, JOISTS, CHU BEARING WALLS ETC., DEMOLITION WORK SHALL BE CLOSELY COORDINATED WITH NEW CONSTRUCTION WORK. NO WORK SHALL COMMENCE WITHOUT ADEQUATE BRACING OR SHORING AS REQUIRED TO PREVENT MOVEMENT OR SETTLING IN THE EXISTING STRUCTURE. REMOVALS OF A STRUCTURAL NATURE, BEARING WALLS, ROOFS, FOOTINGS ETC., SHALL BE MADE ONLY UNDER THE DIRECT SUPERVISION OF QUALIFIED PERSONNEL, AND SHALL BE SECURED OR OTHERWISE BRACED WHERE EVER FEASIBLE, BY INCORPORATION INTO PROPOSED NEW WORK INCLUDING BUT NOT LIMITED TO INSTALLATION OF NEW LINTELS, NEW INFILL OF CONCRETE BLOCK TO FORM NEW OPENINGS, AND NEW STEEL AT ROOF STRUCTURE AND OPENINGS, AS MUCH AS POSSIBLE NEW CONSTRUCTION IN KEEPING WITH THE PROPOSED CONDITIONS SHALL BE INSTALLED IN LIEU OF TEMPORARY BRACING.

B) PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK, THE CONTRACTOR SHALL MEET WITH THE OWNER TO DETERMINE WHICH ITEMS, IF ANY, ARE OF SALVAGEABLE VALUE TO THE OWNER. THE CONTRACTOR IS ENCOURAGED TO ALSO DOCUMENT ANY EXISTING DAMAGE OR DEFICIENCIES, IN BOTH WRITTEN AND PHOTOGRAPHIC FORMS AS REQUIRED, WHICH ARE EVIDENT IN THE EXISTING BUILDING.

C) ALL ITEMS DESIGNATED TO BE OF SALVAGEABLE VALUE TO THE OWNER SHALL BE REMOVED AS DIRECTED BY THE OWNER. ALL ITEMS DESIGNATED FOR DEMOLITION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE AND DISPOSED OF AS NECESSARY, IN ACCORDANCE WITH ALL REGULATIONS IN EFFECT.

D) CONFORM TO APPLICABLE CODES FOR DEMOLITION WORK, SAFETY OF STRUCTURE AND DUST CONTROL, NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR REQUIREMENTS. DO NOT CLOSE OR OBSTRUCT EGRESS TO EXITS. DO NOT DISRUPT BUILDING, FIRE, OR LIFE SAFETY SYSTEMS WITHOUT (3) DAYS PRIOR WRITTEN NOTICE TO THE OWNER.

E) MAINTAIN TEMPORARY PARTITIONS TO PREVENT THE SPREAD OF DUST, ODORS, AND NOISE, AND TO PERMIT CONTINUED OWNER OCCUPANCY. PROTECT EXISTING MATERIALS WHICH ARE NOT TO BE DEMOLISHED.

F) IN AREAS OF DEMOLITION, PATCH, LEVEL, AND INFILL ALL WALL AND FLOOR SURFACES AS REQUIRED FOR INSTALLATION OF NEW FINISHES. THIS INCLUDES LEVELING OF ALL FLOORS AND INFILLING OF ANY TRENCHED AREAS.

KEYNOTES:

- ① DEMOLISH EXISTING WALL PARTITION COMPLETELY, INCLUDING BUT NOT LIMITED TO ALL HARDWARE, ANCHORING, ETC. COORDINATE REMOVAL / DEMOLITION OF ALL ELECTRICAL ITEMS / WIRING WITH ELECTRICAL DRAWINGS.
- ② REMOVE AND DISPOSE OF ALL BORROWED LITES PRIOR TO DEMOLITION OF PARTITION WALLS.
- ③ REMOVE ALL DOORS, WHITE BOARDS, ROOM SIGNS, AND OTHER DECOR MOUNTED TO INTERIOR PARTITIONS PRIOR TO DEMOLITION AND COORDINATE WITH OWNER FOR ANY ITEMS DEEMED SALVAGEABLE FOR THEIR REUSE. ALL ITEMS NOT IDENTIFIED BY THE OWNER TO BE SAVED SHALL BECOME THE PROPERTY OF THE G.C. AND MAY BE DISPOSED OF AT THE G.C.'S DISCRETION.
- ④ TEMPORARILY DISCONNECT AS REQUIRED ALL EXISTING LOCAL LIGHTING CONTROLS AND COORDINATE WITH THE PROPOSED ELECTRICAL DRAWINGS AS REQUIRED FOR RECONNECTION IN NEW LOCATION.
- ⑤ REMOVE ALL EXISTING ELECTRICAL DEVICES, LIGHT FIXTURES, WIRING, PANELS, TRANSFORMERS, ETC. REFER TO ELECTRICAL DRAWINGS FOR ADDL. INFO.
- ⑥ REMOVE ALL EXISTING FURNITURE, APPLIANCES, CASEWORK AND SHELVING AND COORDINATE WITH OWNER FOR ANY ITEMS DEEMED SALVAGEABLE FOR THEIR REUSE. ALL ITEMS NOT IDENTIFIED BY THE OWNER TO BE SAVED SHALL BECOME THE PROPERTY OF THE G.C. AND MAY BE DISPOSED OF AT THE G.C.'S DISCRETION.
- ⑦ PROTECT ALL EXTERIOR WALLS, EXTERIOR GLASS, STRUCTURAL COLUMNS, CONC. WALLS, BRICK WALLS, ETC. FROM STRUCTURAL OR AESTHETIC DAMAGE.
- ⑧ REMOVE EXISTING CEILING AND GRID SYSTEM COMPLETELY.
- ⑨ EXISTING ALUMINUM AND GLASS ENTRY SYSTEM TO REMAIN.
- ⑩ REMOVE ALL BASE AND FLOOR FINISHES COMPLETELY; PATCH ALL EXISTING CONSTRUCTION DESIGNATED TO REMAIN AS REQUIRED TO RECEIVE NEW FINISHES. COORDINATE WITH ASBESTOS ABATEMENT ACTIVITIES.

Revisions		
No.	Date	Description

ALL REPORTS, PLANS, SPECIFICATIONS AND COMPUTER FILES RELATING TO THIS PROJECT ARE THE PROPERTY OF MANDERS MERIGH PORTADIN FARRELL. MMFP RETAINS ALL COMMON LAW, STATUTE AND OTHER RESERVED RIGHTS INCLUDING THE COPYRIGHT THEREOF. REPRODUCTION OF THE MATERIAL HEREIN OR SUBSTANTIAL USE WITHOUT WRITTEN PERMISSION OF MMFP VIOLATES THE COPYRIGHT LAWS OF THE UNITED STATES AND WILL BE SUBJECT TO LEGAL PROSECUTION.

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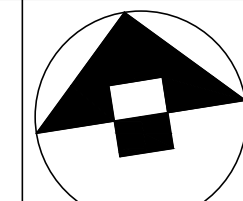


Manders Merigh Portadin Farrell Architects, LLC
1138 East Chestnut Avenue | Vineland, New Jersey 08360
p. 856 696 9155 | f. 856 696 9080 | www.mmpfa.com

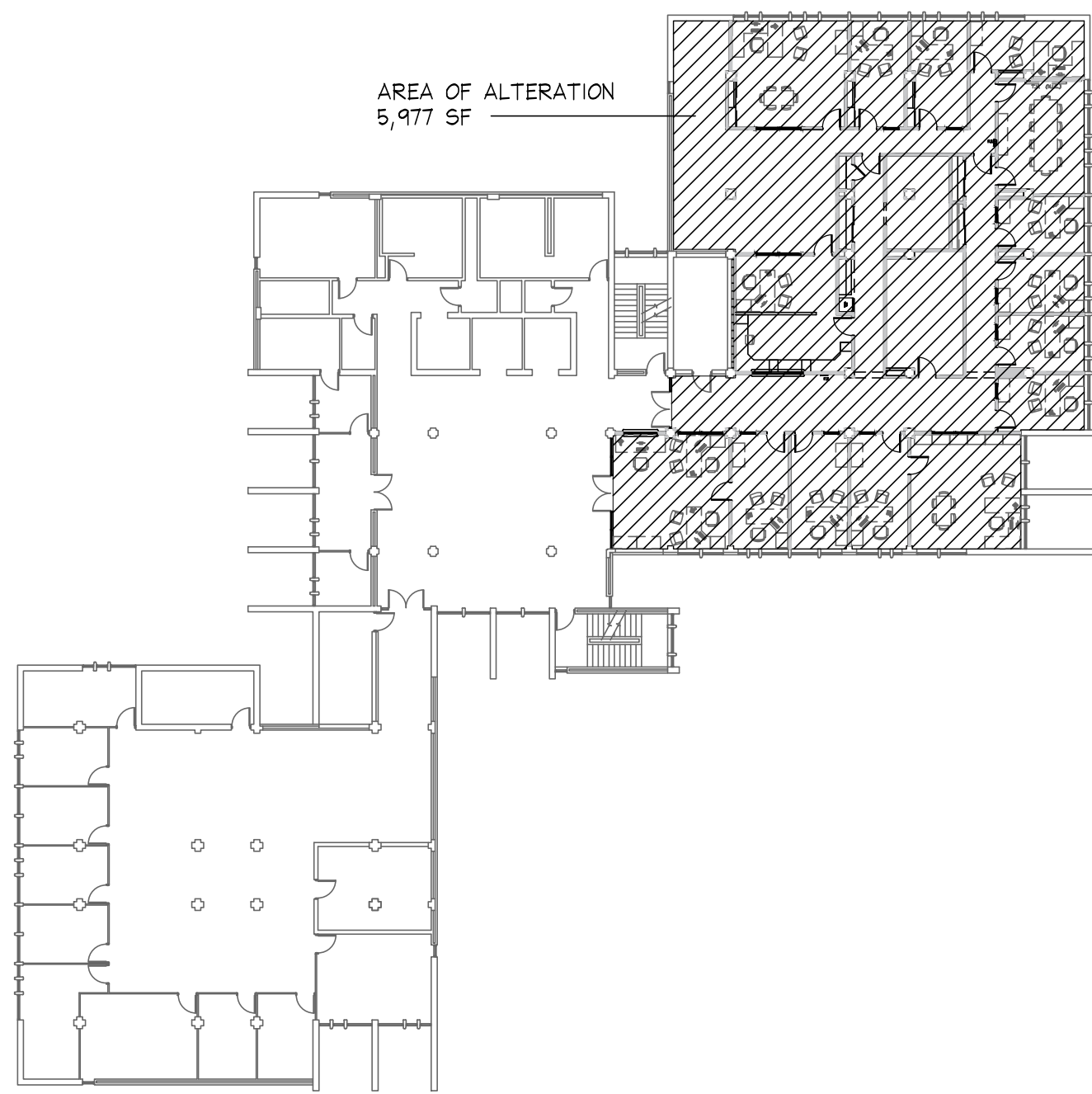
David G. Manders AIA AI-07220
Lawrence J. Merighi AIA AI-07473
Ronald P. Portadin AIA AI-13058
Peter W. Farrell AIA AI-13618

Project
VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATIONS
640 E. WOOD ST.
VINELAND, NJ 08360

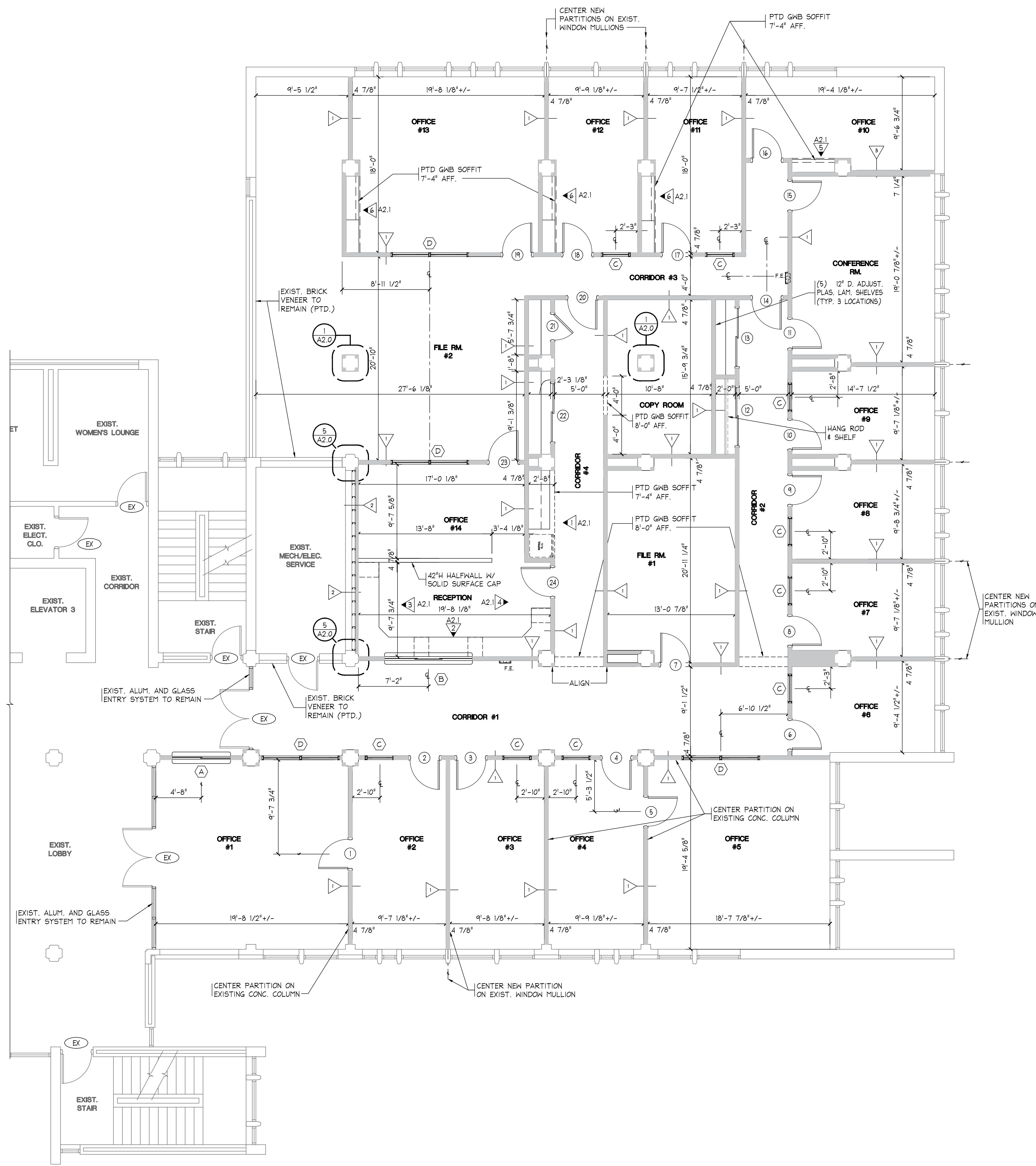
Drawing
KEY PLAN
DEMOLITION PLAN



Scale AS NOTED	Job 22,099	Sheet D1.0
Drawn NDZ ANA	Date 01/24/24	1 of 5



KEY PLAN (4TH FLOOR)
N.T.S.



4TH FLOOR PLAN
SCALE: 3/16" = 1'-0"

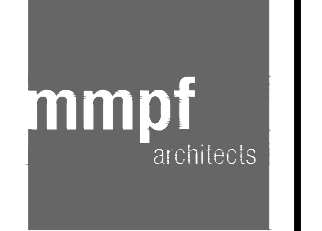
GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS, APPROVALS, TESTING AND INSPECTIONS AS MAY BE REQUIRED BY THE DEPARTMENT OF BUILDINGS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED DEPARTMENT OF BUILDINGS PERMITS PRIOR TO THE START OF WORK.
2. ALL PERMITS ISSUED BY THE DEPARTMENT OF BUILDINGS SHALL BE POSTED IN A CONSPICUOUS PLACE OPEN TO PUBLIC INSPECTION FOR THE ENTIRE TIME OF THE EXECUTION OF THE WORK OF THE USE AND OPERATION OF THE EQUIPMENT OR UNTIL THE EXPIRATION OF THE PERMIT.
3. MEANS OF EGRESS SHALL BE KEPT UNOBSTRUCTED AT ALL TIMES.
4. WRITTEN DIMENSIONS ON THESE DRAWINGS SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.
5. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND NOTIFY ARCHITECTS OFFICE OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DOCUMENTS.
6. ALL CONSTRUCTION, DIMENSIONS AND DETAILS SHALL CONCUR WITH AND BE DETERMINED FROM THESE DOCUMENTS ONLY.
7. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTIONS AND OFF ALIGNMENT.
8. EXISTING CONDITIONS/CONSTRUCTION DAMAGED OR REMOVED AS A RESULT OF WORK REQUIRED TO BE DONE UNDER THIS CONTRACT SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION AND FINISHED TO MATCH ADJACENT FINISHES BY THE CONTRACTOR.
9. FILL ALL HOLES AND VOIDS IN FLOORS, WALLS, CEILINGS WHICH RESULT FROM INSTALLATION OF NEW WORK AND REMOVAL OF EXISTING MATERIALS AND EQUIPMENT REQUIRED BY CONTRACT. PATCHED AREAS SHALL MATCH MATERIALS, FINISHES AND LEVELS ADJACENT.
10. CONTRACTOR SHALL VERIFY SIZE AND QUANTITY TAKEOFFS OF OWNER FURNISHED EQUIPMENT AND BE RESPONSIBLE FOR COORDINATING ROUGH-INS AND CONNECTIONS FOR SAME.
11. THE WORK SHALL INCLUDE ALL THE MATERIAL AND LABOR NECESSARY TO COMPLETE DEMOLITION AND CONSTRUCTION AS SHOWN ON THESE DRAWINGS.
12. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR THE PROPER PERFORMANCE OF THEIR WORK, COORDINATION WITH OTHER TRADES, METHODS, SAFETY AND SECURITY ON THE JOB SITE. THE ARCHITECT AND HIS AGENT ARE NOT RESPONSIBLE OR LIABLE FOR THE ABOVE AND SHALL BE HELD HARMLESS AND INDEMNIFIED BY ALL CONTRACTORS FROM ANY CLAIMS, LOSSES, SUITS, OR LEGAL ACTIONS ARISING FROM THE PERFORMANCE OF WORK ON THIS PROJECT.
13. BEFORE START OF CONSTRUCTION, CONTRACTOR TO OBTAIN APPROVAL FROM BUILDING REPRESENTATIVES. ANY CONSTRUCTION INVOLVING INTERRUPTION OF BUILDING SERVICES MUST BE APPROVED AND COORDINATED WITH THE BUILDING REPRESENTATIVES BEFORE COMMENCEMENT OF WORK.
14. ALL MATERIALS TO BE USED IN CONSTRUCTION SHALL BE NEW AND SHALL BE SUPPLIED AND INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO THE FABRICATION OF ANY AND ALL ITEMS.
15. CONTRACTOR SHALL THOROUGHLY INSPECT PREMISES NOTING ALL AREAS OF WORK AND SHALL PRODUCE A NEAT ACCEPTABLE JOB. WHERE PARTIAL REMOVAL OR PATCH OCCURS, ENTIRE SURFACE SHALL BE REFINISHED WITH QUALITY WORKMANSHIP.
16. REMOVE AND LEGALLY DISPOSE OF ALL TRASH AND DEBRIS FROM THE SITE. NO ACCUMULATION OF TRASH OR DEBRIS SHALL BE PERMITTED.
17. INSTALL ALL OWNER FURNISHED EQUIPMENT. THE GENERAL CONTRACTOR SHALL COORDINATE THE TRADE(S) CLAIMING THE WORK, UNLESS NOTED OTHERWISE THE INSTALLATION SHALL BE INCLUDED AS PART OF THE WORK OF THIS CONTRACT.
18. CLOSE AND SEAL ALL OPENINGS IN WALLS, FLOORS, CEILINGS, ETC. REQUIRED BY CUTTING FOR NEW WORK TO MATCH EXISTING FINISHES AND FIRE RATINGS. FIRE SEAL AROUND ALL PIPES, DUCTS, CONDUITS, ETC. WHERE REQUIRED BY CODE.
19. PROVIDE SOLID HOOD BLOCKING FOR THE SUPPORT OF ALL SHELVING, CASEWORK, TELEVISIONS, MONITORS, ETC. COORDINATE FINAL LOCATION WITH OWNER.

Revisions		
No.	Date	Description

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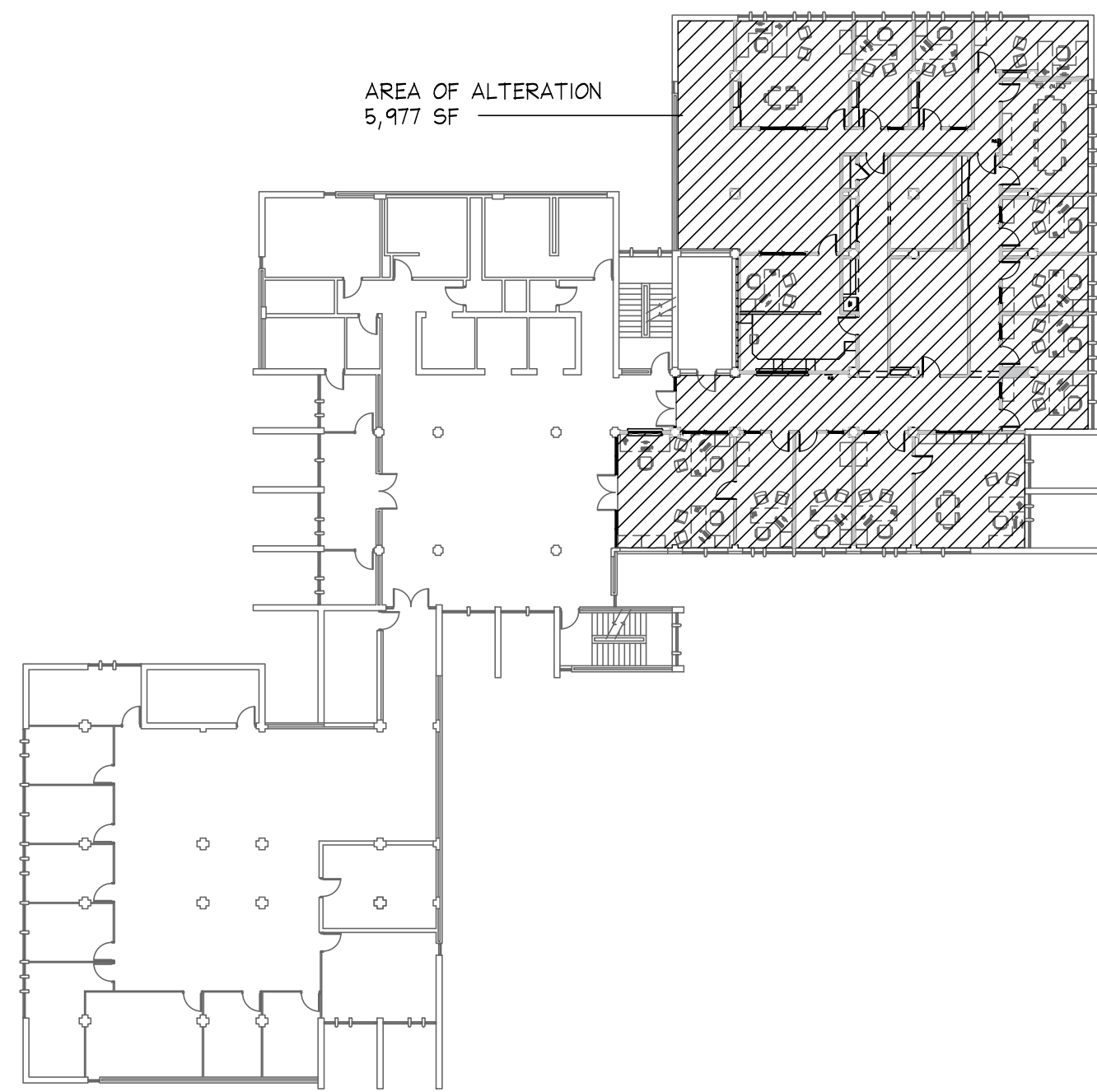
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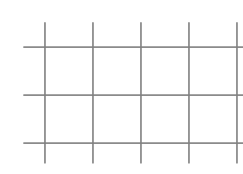

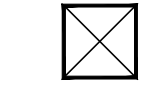
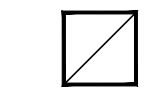
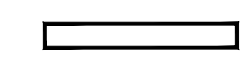
Project
VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATIONS
640 E. WOOD ST.
VINELAND, NJ 08360

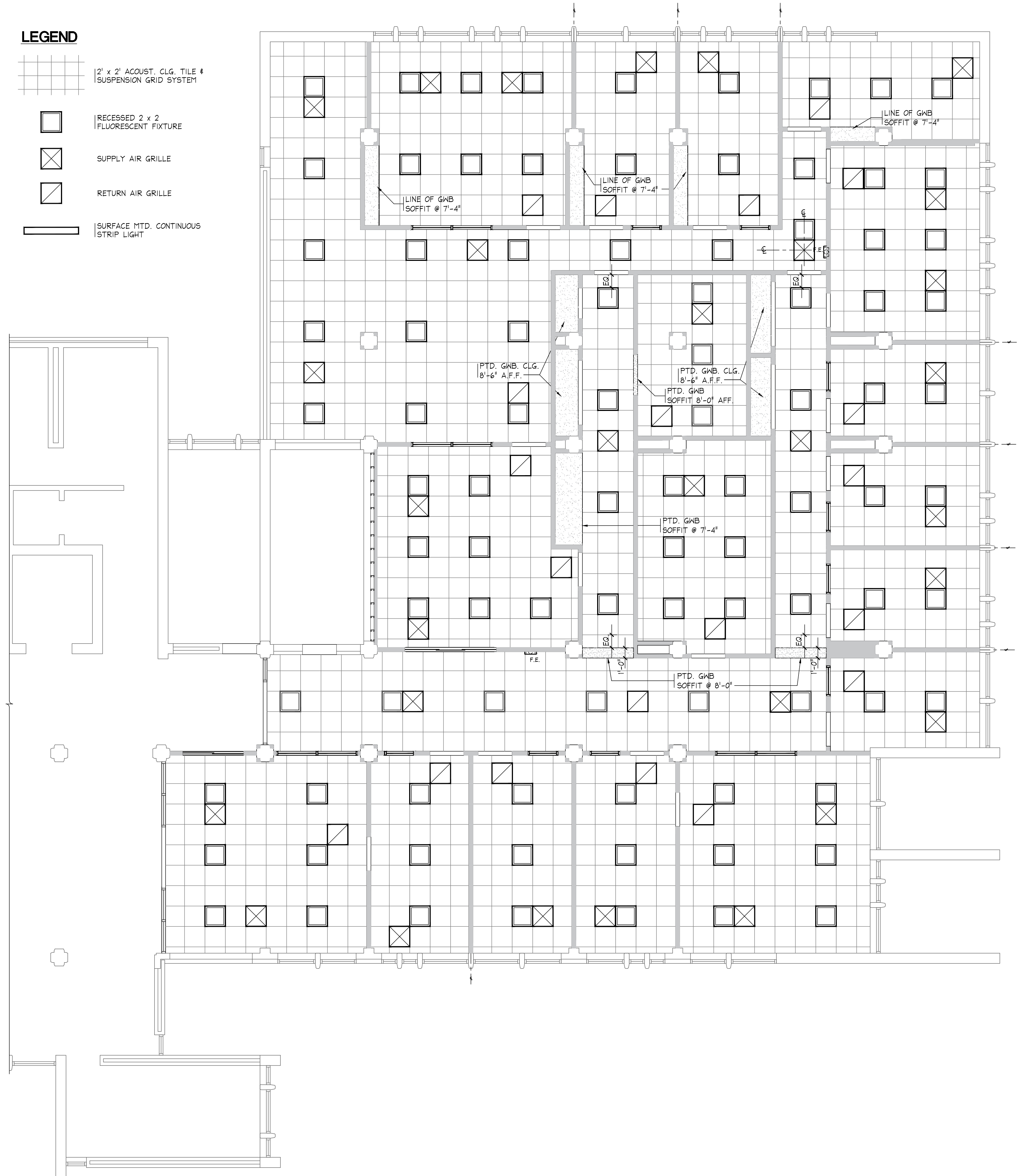
Drawing		
KEY PLAN, FLOOR PLAN NOTES		
Scale	Job	Sheet
AS NOTED	22,099	A1.0
Drawn	Date	
NDZ ANA	01/24/24	2 of 5

Revisions		
No.	Date	Description



KEY PLAN (4TH FLOOR) ②
N.T.S.

- LEGEND**
-  2' x 2' ACCUST. CLG. TILE & SUSPENSION GRID SYSTEM
 -  RECESSED 2 x 2 FLUORESCENT FIXTURE
 -  SUPPLY AIR GRILLE
 -  RETURN AIR GRILLE
 -  SURFACE MTD. CONTINUOUS STRIP LIGHT



4TH FLOOR REFLECTED CEILING PLAN
SCALE: 3/16" = 1'-0"

①

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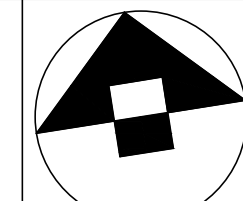


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VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATIONS
640 E. WOOD ST.
VINELAND, NJ 08360

Drawing
REFLECTED CEILING
PLAN



Scale AS NOTED	Job 22,099	Sheet A.11
Drawn NDZ ANA	Date 01/24/24	3 of 5

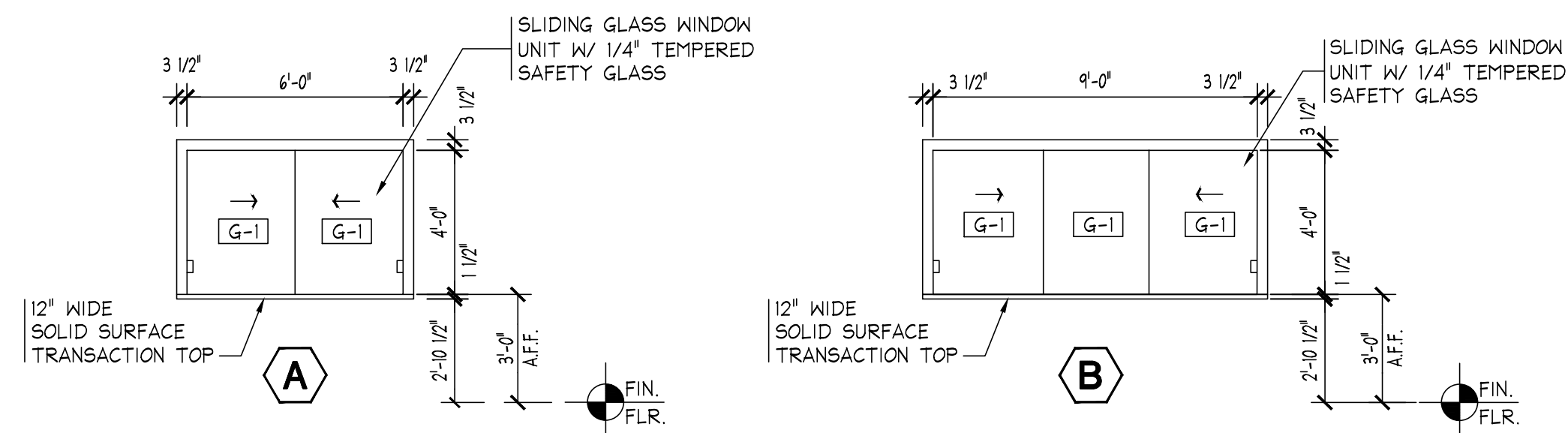
ROOM FINISH SCHEDULE						
ROOM NAME	FLOOR	BASE	WALL	CLG.	HEIGHT	REMARKS
CORRIDOR #1	CARPET TILE	4" VINYL	PTD. GNB/BRICK	ACOUSTIC TILE	8'-10"	
OFFICE #1	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #2	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #3	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #4	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #5	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
FILE RM. #1	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
CORRIDOR #2	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #6	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #7	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #8	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #9	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
CONFERENCE RM.	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
CORRIDOR #3	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #10	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #11	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #12	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #13	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
FILE RM. #2	CARPET TILE	4" VINYL	PTD. GNB/BRICK	ACOUSTIC TILE	8'-10"	
CORRIDOR #4	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
COPY ROOM	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
OFFICE #14	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	
RECEPTION	CARPET TILE	4" VINYL	PTD. GNB	ACOUSTIC TILE	8'-10"	

DOOR SCHEDULE											
NO.	WIDTH	HEIGHT	DOOR			FRAME		HDW. NO.	REMARKS	NO.	
			THK.	TYPE	MATERIAL	FINISH	TYPE				FINISH
1	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	03	1
2	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	2
3	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	3
4	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	03	4
5	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	03	5
6	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	6
7	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	05	7
8	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	8
9	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	9
10	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	10
11	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	0A.1	11
12	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	2	HOL. MTL.	PTD.	06	12
13	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	2	HOL. MTL.	PTD.	06	13
14	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	0A	14
15	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	0A.1	15
16	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	16
17	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	02	17
18	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	02	18
19	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	19
20	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	0A	20
21	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	0A	21
22	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	2	HOL. MTL.	PTD.	06	22
23	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	23
24	3'-0"	8'-0"	1-3/4"	F	S.C. WOOD	PTD.	1	HOL. MTL.	PTD.	01	24

GLAZING SCHEDULE	
TYPE	DESCRIPTION
G-1	1/4" TEMPERED GLASS

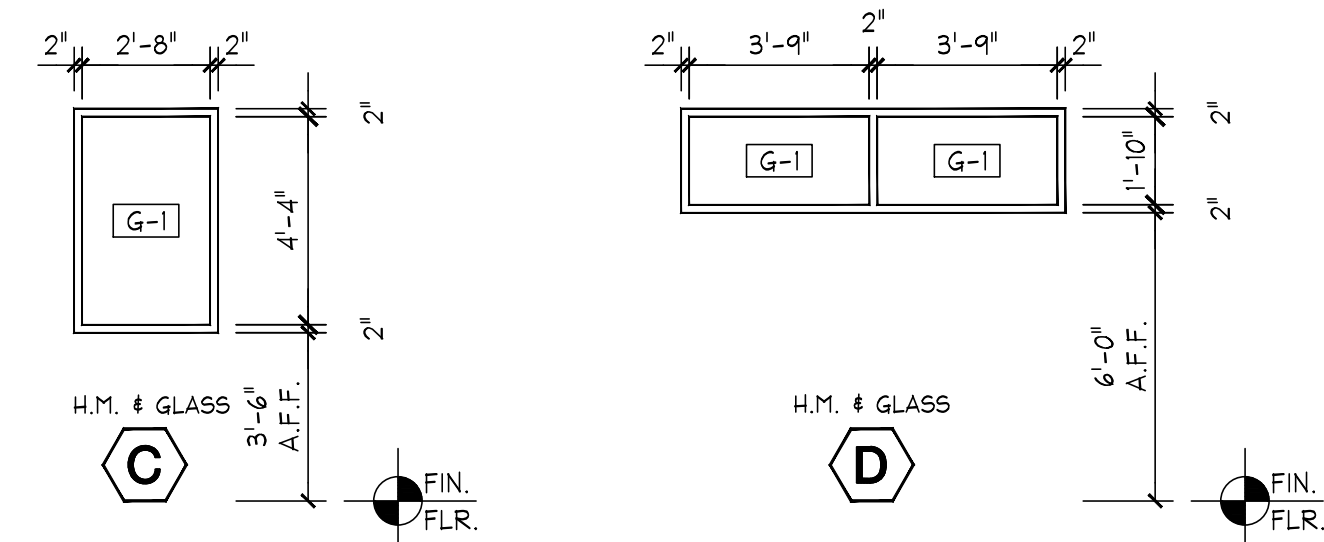
- NOTES:
- COORDINATE ALL FINISH SELECTIONS/LOCATIONS WITH OWNER.
 - PROVIDE 6" UNFACED INSULATION BATTS ABOVE ALL ACOUSTICAL TILE CEILINGS.
 - DO NOT INSTALL VINYL BASE OVER EXISTING EXPOSED BRICK WALLS AND CONC. COLUMNS.
 - EXISTING CONCRETE COLUMNS, BRICK VENEER AND CONCRETE WALL PANELS AT EXT. WALLS ARE TO BE CLEANED, PREPPED AND PAINTED WHERE EXPOSED TO VIEW.
 - EXTEND CARPET TILE AND BASE INTO ALL CLOSETS AND ALCOVES. ALL GNB TO BE PAINTED.

- NOTES:
- ALL DOOR HARDWARE TO CONFORM TO NJ UCC BARRIER-FREE SUBCODE.
 - SEE SPECIFICATIONS FOR ALL H.M. FRAMES IN CONTACT W/ MASONRY.
 - COORDINATE ALL HARDWARE AND KEYING W/ OWNER.
 - GENERAL CONTRACTOR TO CONFIRM EXISTING KEY SYSTEM WITH OWNER AND TIE NEW CYLINDERS INTO EXISTING SYSTEM.



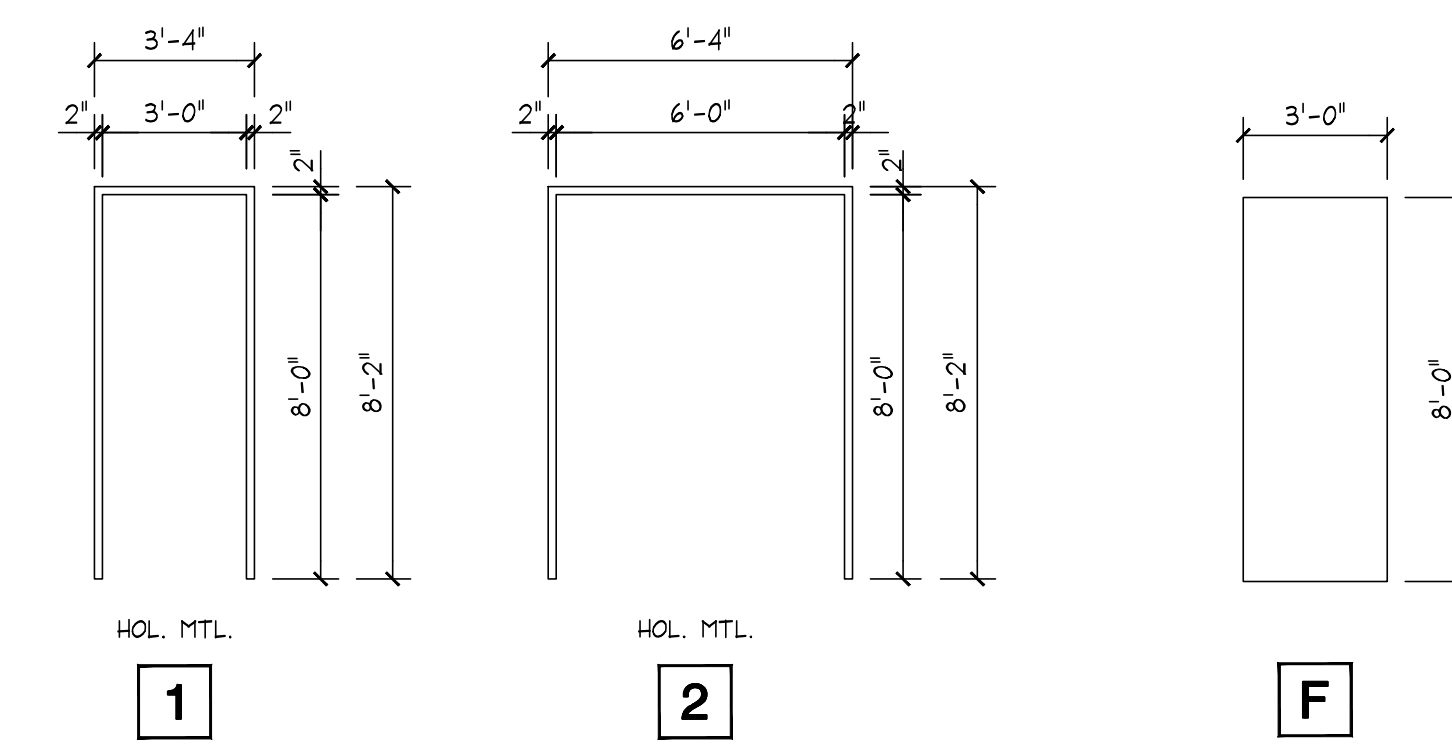
WINDOW TYPES

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



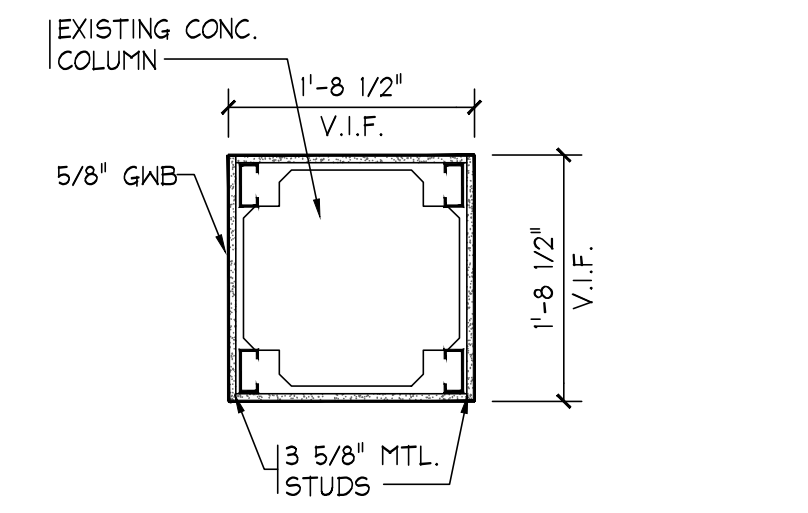
FRAME TYPES

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



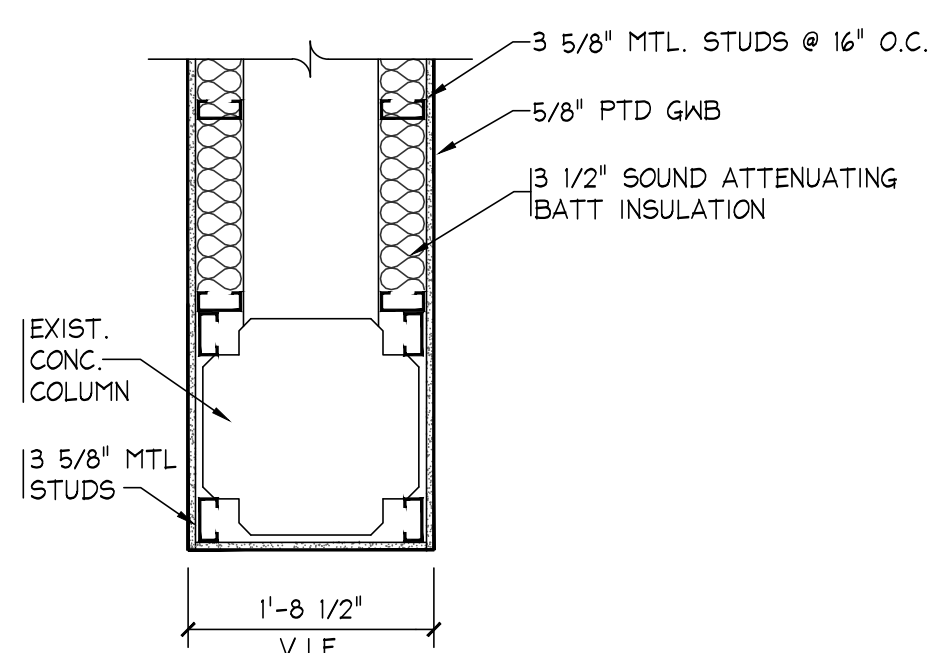
DOOR TYPES

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



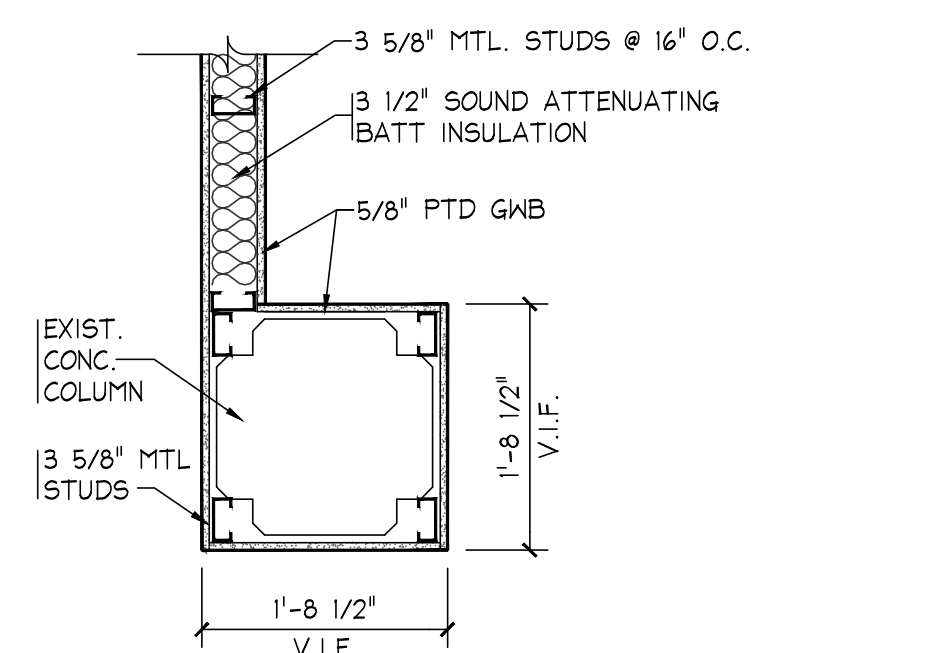
COLUMN DETAIL 1

SCALE: 3/4" = 1'-0"



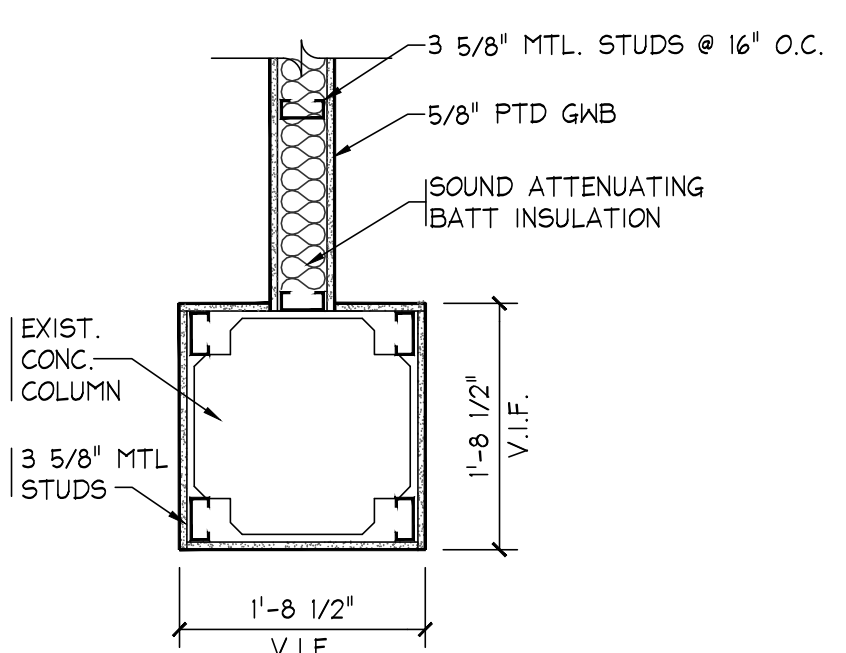
COLUMN DETAIL 2

SCALE: 3/4" = 1'-0"



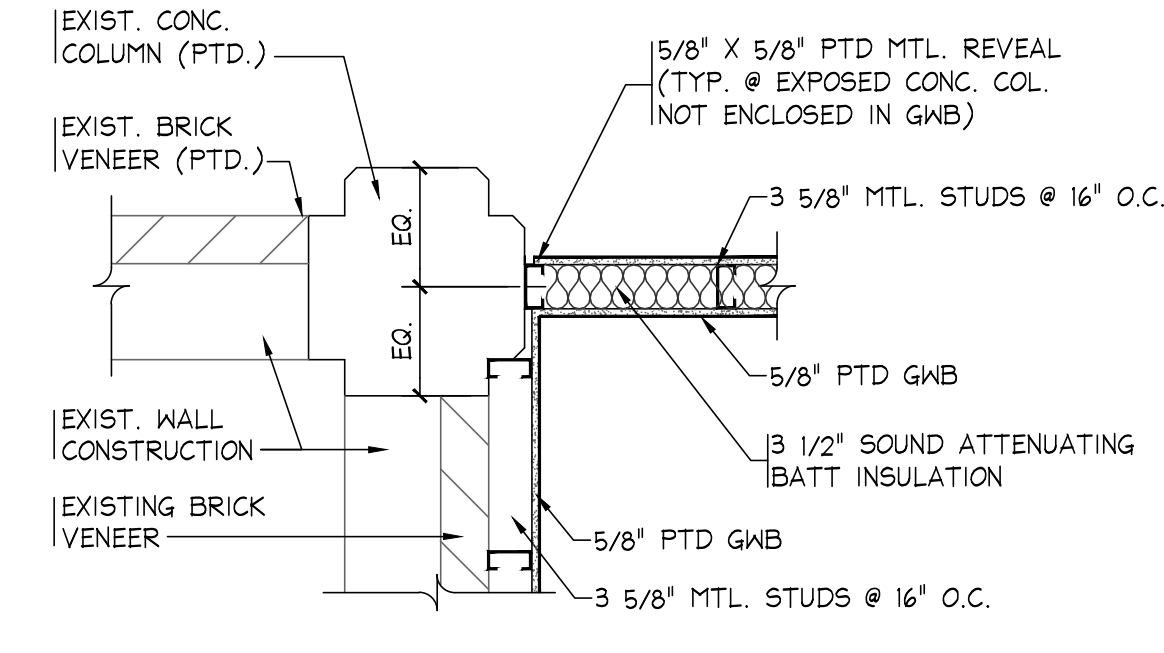
COLUMN DETAIL 3

SCALE: 3/4" = 1'-0"



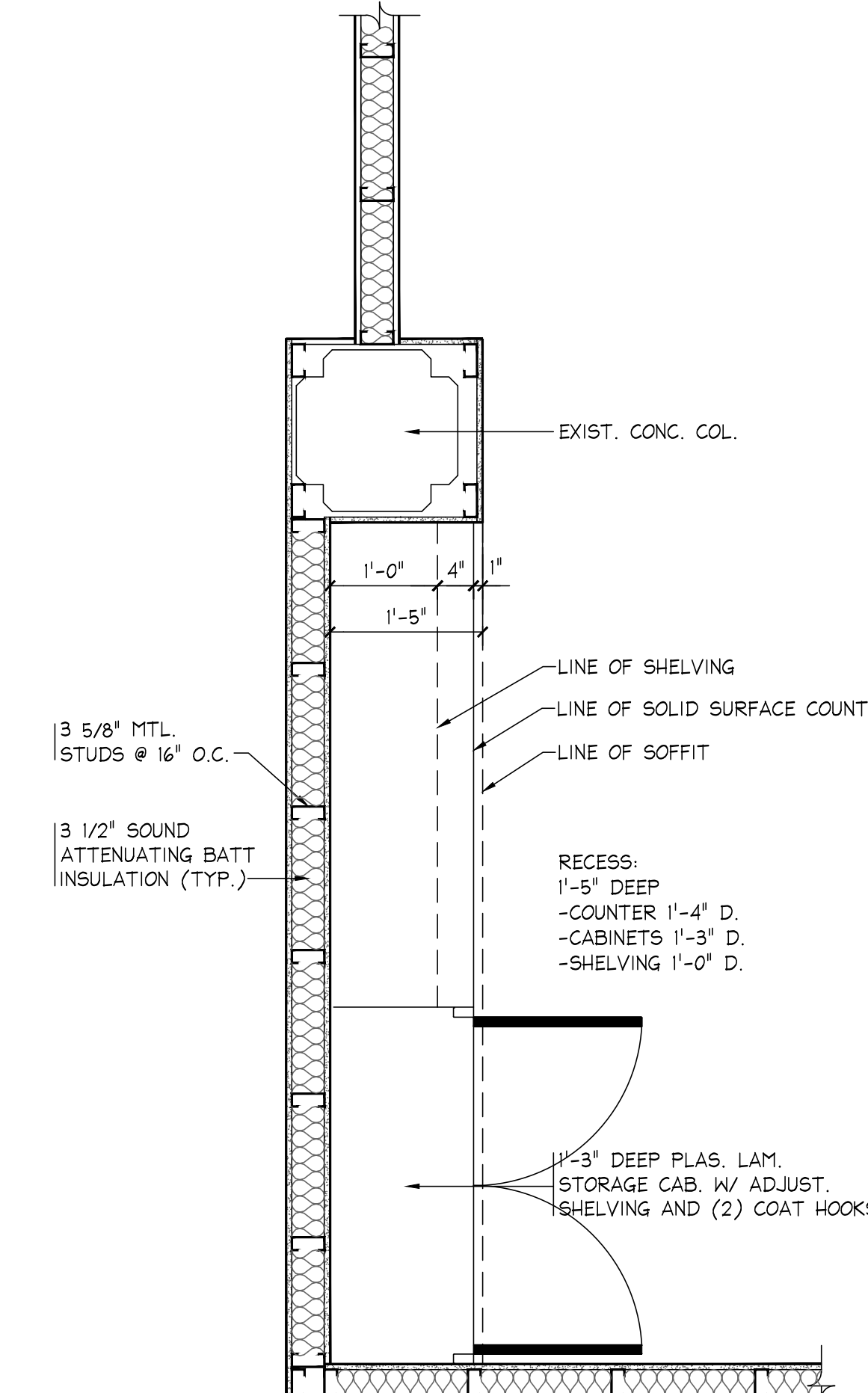
COLUMN DETAIL 4

SCALE: 3/4" = 1'-0"



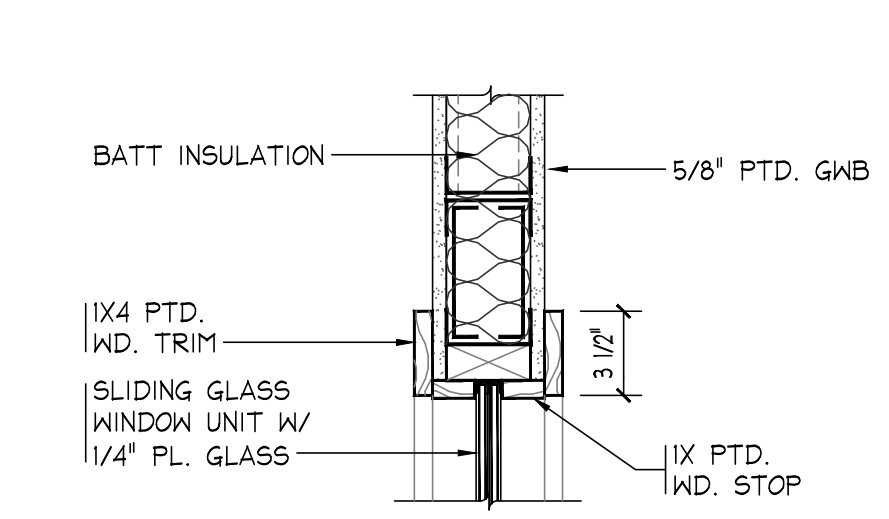
DETAIL @ EXPOSED CONC. COL.

SCALE: 3/4" = 1'-0"

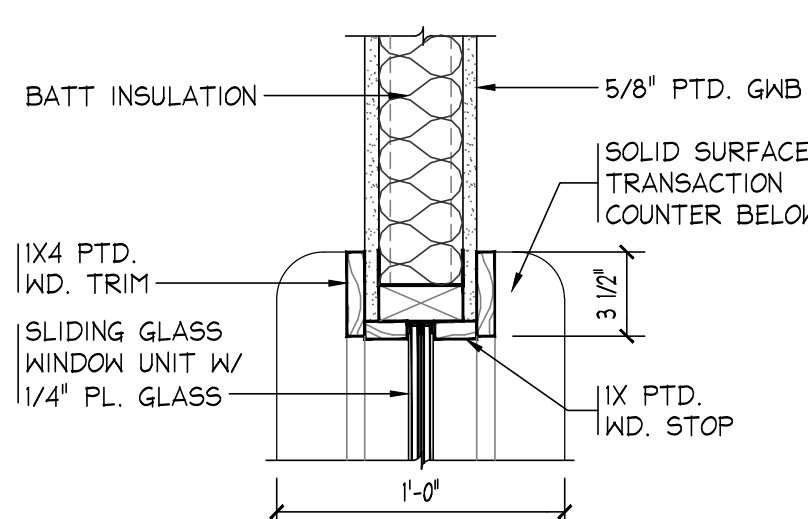


DETAIL @ OFFICE CASEWORK

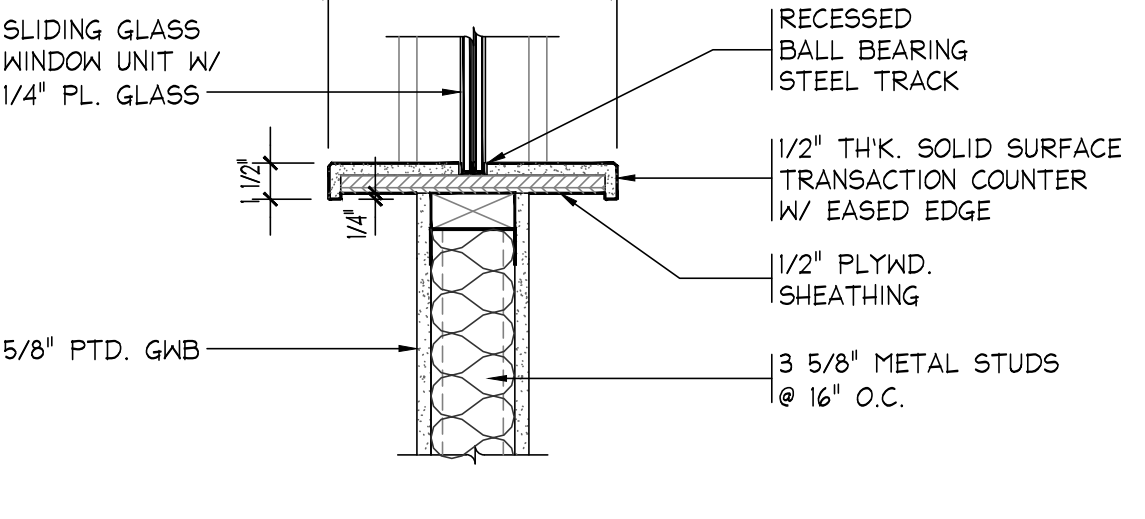
SCALE: 3/4" = 1'-0"



WH-1



WJ-1



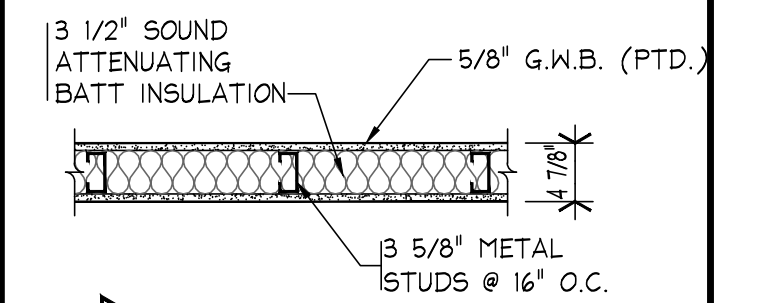
WS-1

WINDOW DETAILS

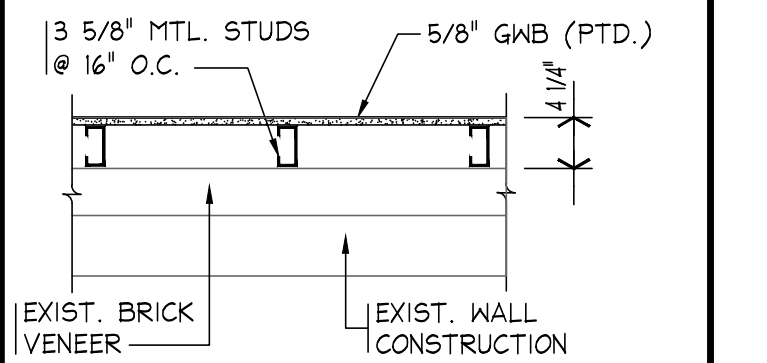
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Revisions		
No.	Date	Description

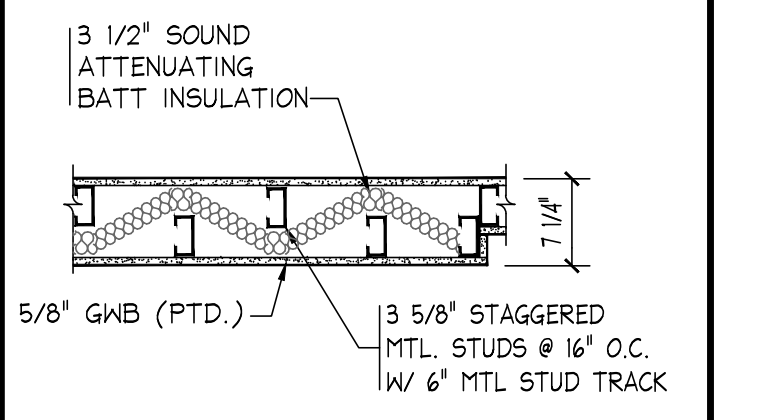
PARTITION TYPES



1 PARTITION TYPE



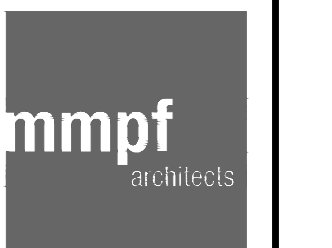
2 PARTITION TYPE



3 PARTITION TYPE

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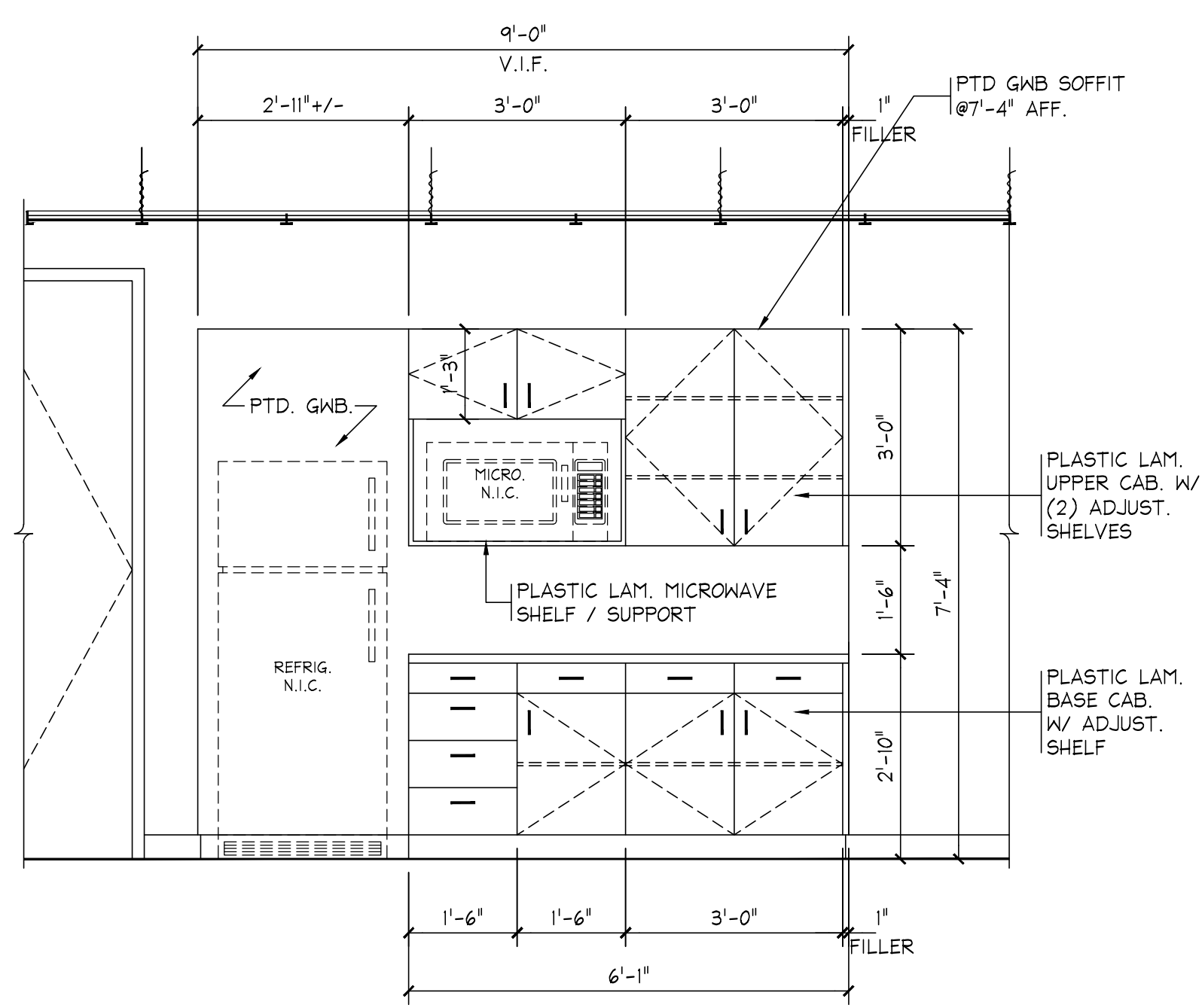
AJ-07220
AJ-07473
AJ-13038
AJ-13618

Project
**VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATIONS**
640 E. WOOD ST.
VINELAND, NJ 08360

Drawing
SCHEDULES, DOOR
AND WINDOW TYPES,
COLUMN DETAILS

Scale	Job	Sheet
AS NOTED	22,099	A2.0
Drawn	Date	
NDZ ANA	01/24/24	4 of 5

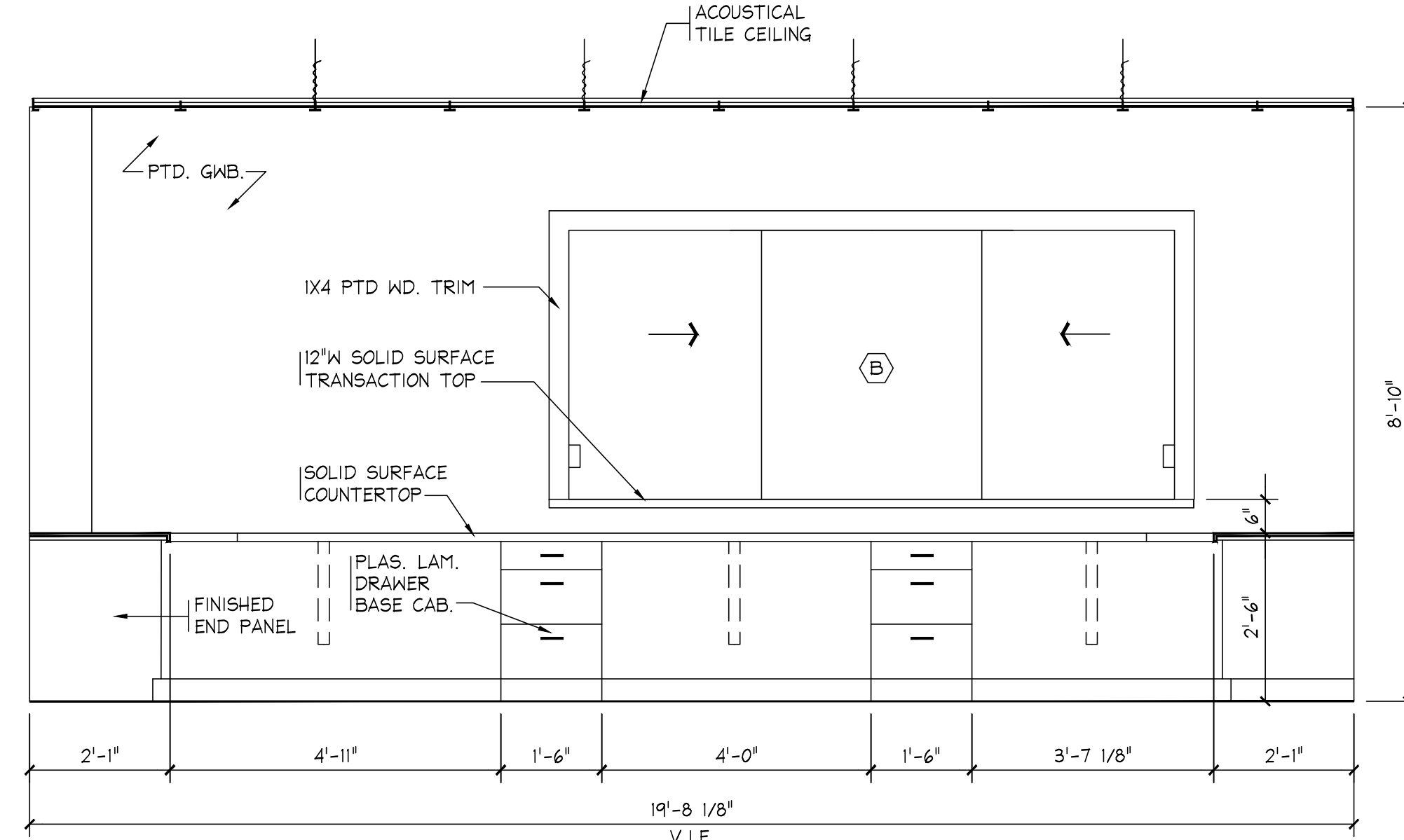
Revisions		
No.	Date	Description



KITCHENETTE ELEVATION

SCALE: 1/2" = 1'-0"

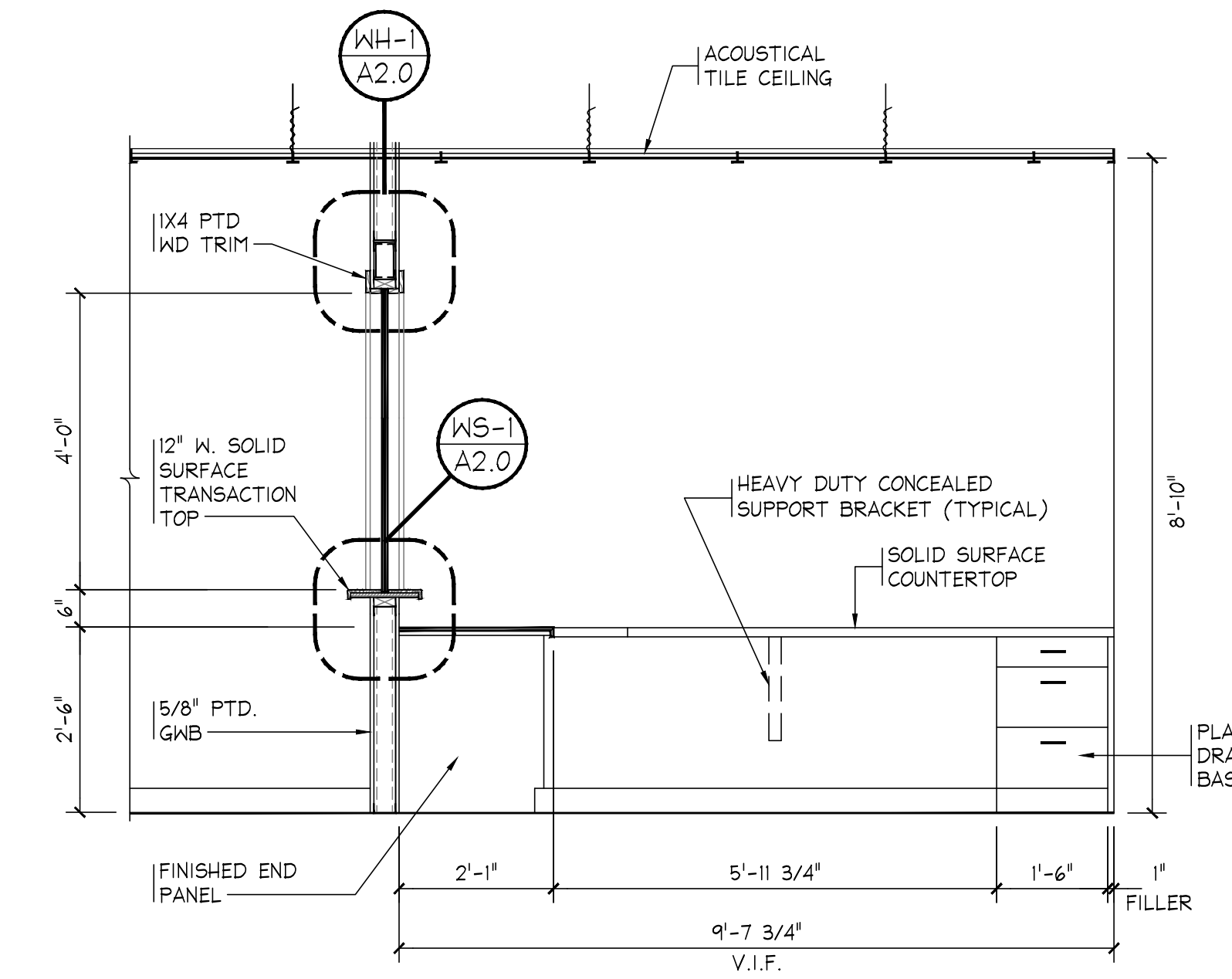
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RECEPTION ELEVATION

SCALE: 1/2" = 1'-0"

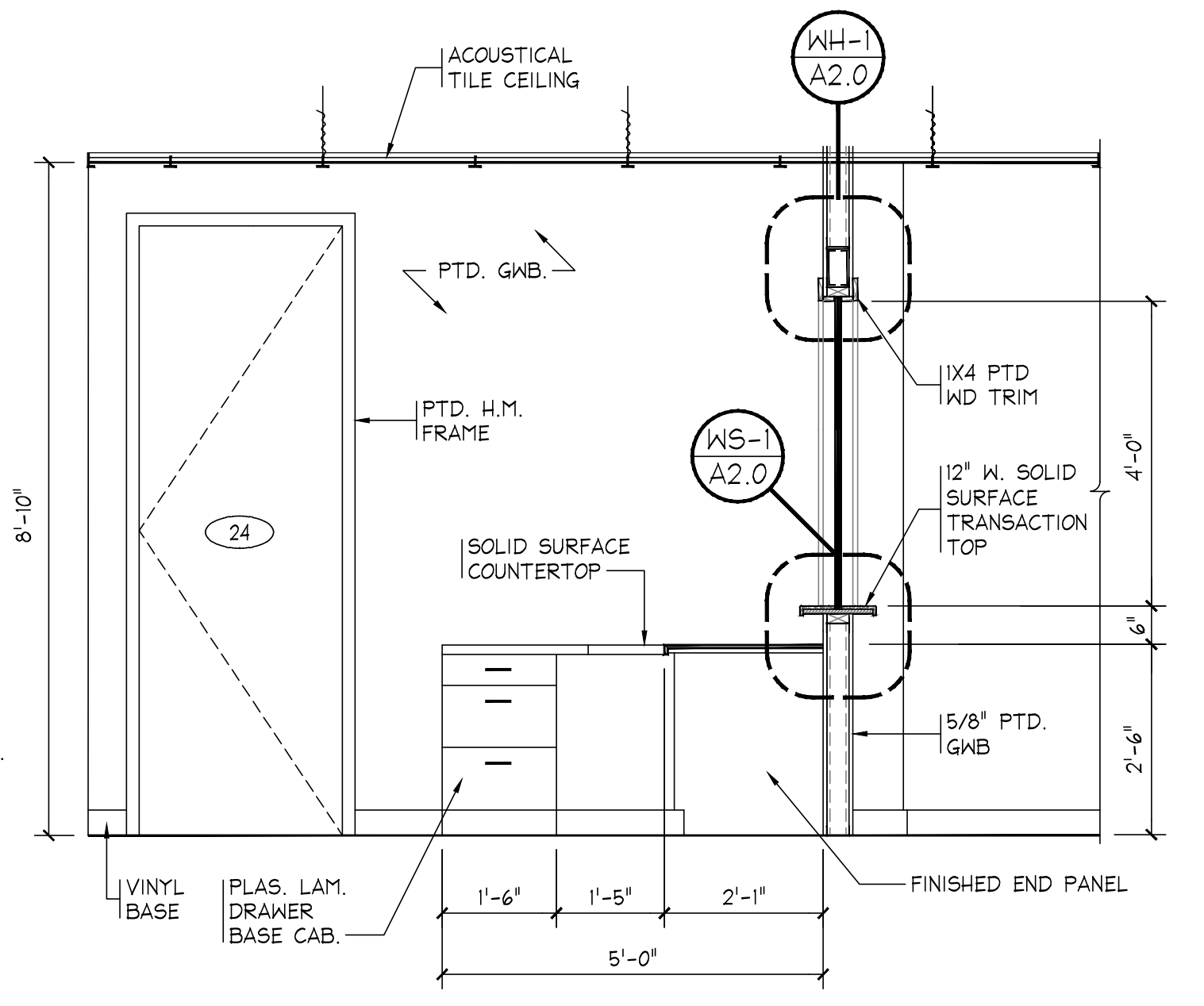
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RECEPTION ELEVATION

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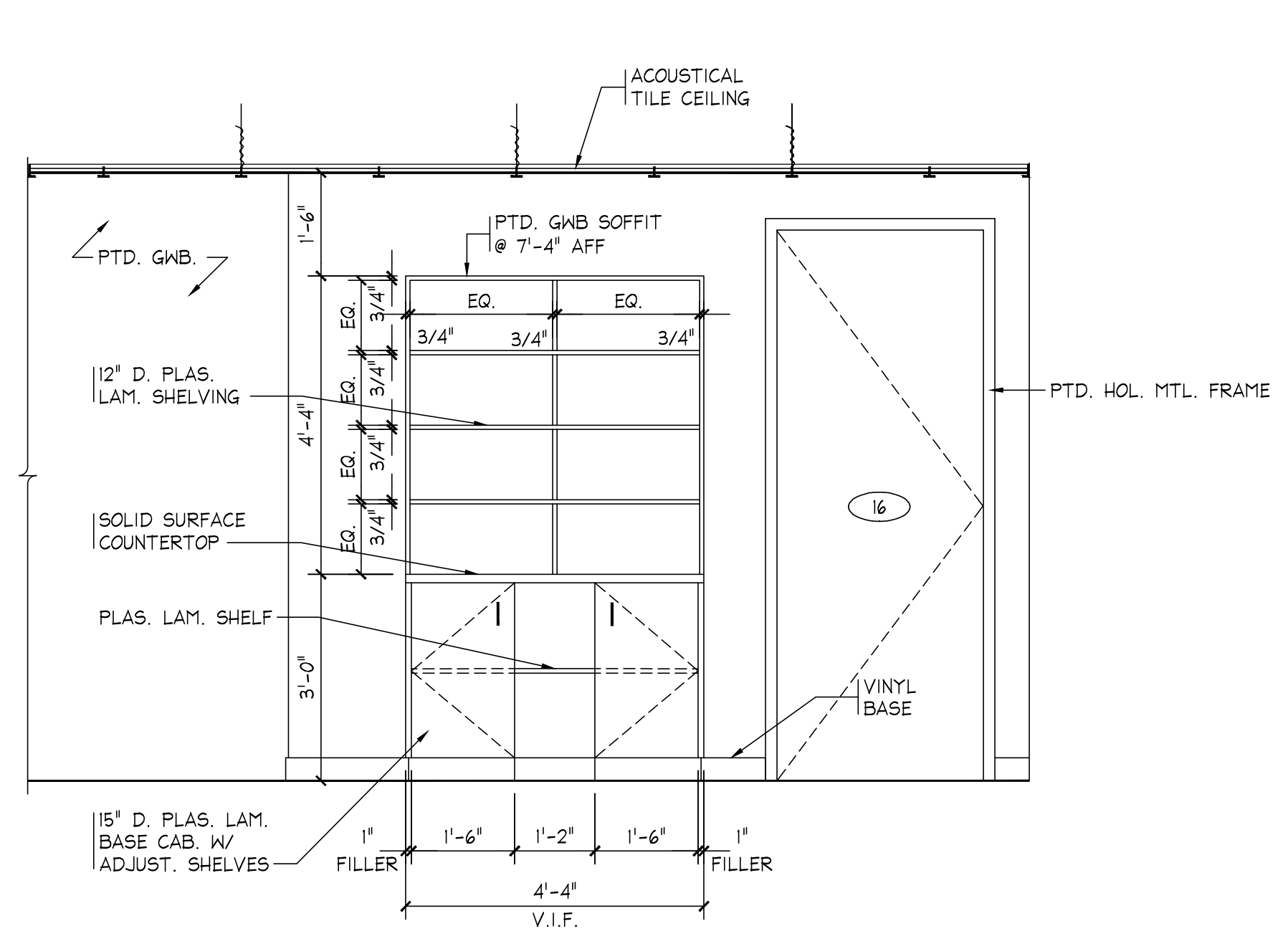
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RECEPTION ELEVATION

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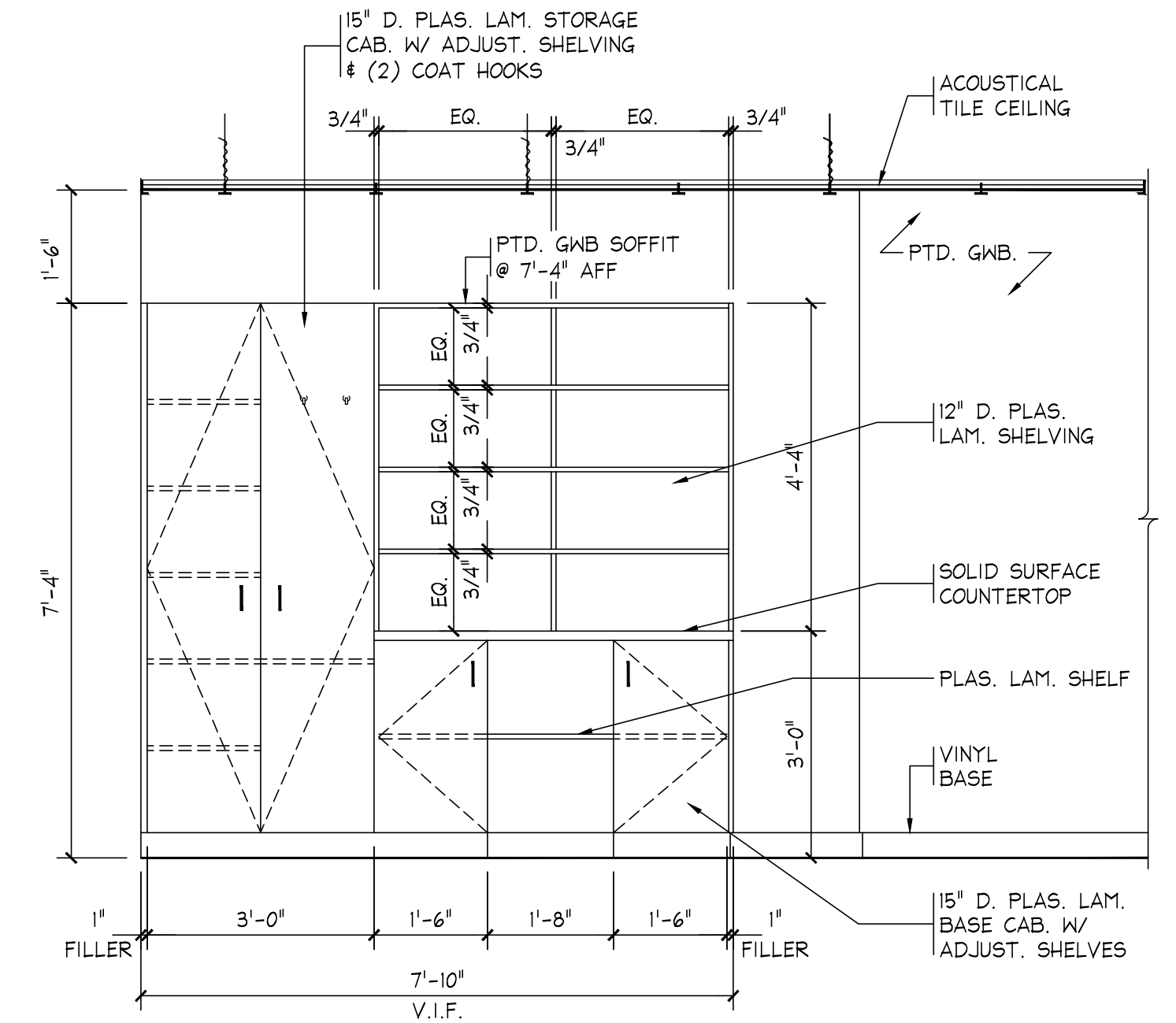
④



OFFICE #10 ELEVATION

SCALE: 1/2" = 1'-0"

⑤



OFFICE #11, #12, #13 ELEVATION

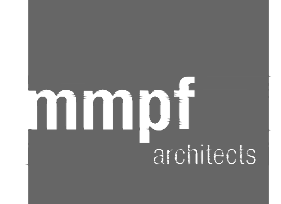
SCALE: 1/2" = 1'-0"

SEE PLAN DETAIL 6/A2.0 FOR ADDITIONAL INFORMATION

⑥

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Project
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4TH FLOOR OFFICE RENOVATIONS
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Drawing		
INTERIOR ELEVATIONS		
Scale	Job	Sheet
AS NOTED	22,099	A2.1
Drawn	Date	5 of 5
NDZ ANA	01/24/24	

ELECTRICAL SYMBOLS LIST

(NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT)

LIGHTING SYMBOLS

	2'x4'/2'x2'/1'x4' RECESSED CEILING MOUNTED LIGHT FIXTURE A = FIXTURE TYPE o = CONTROLLED BY SWITCH NL = NIGHT LIGHT
	WALL MOUNTED LIGHT FIXTURE A = FIXTURE TYPE o = CONTROLLED BY SWITCH NL = NIGHT LIGHT
	STRIP LIGHT FIXTURE - TYPE AS NOTED A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	SIMILAR TO ABOVE WITH EMERGENCY BACKUP A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	CEILING MOUNTED/RECESSED FIXTURE A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	WALL MOUNTED LIGHT FIXTURE A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	SIMILAR TO ABOVE WITH EMERGENCY BACKUP A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	WALL MOUNTED LIGHT FIXTURE A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	SIMILAR TO ABOVE WITH EMERGENCY BACKUP A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	ACCENT LIGHT OR WALL WASHER A = FIXTURE TYPE o = CONTROLLED BY SWITCH
	LIGHT TRACK-TYPE 'A' WITH TRACK MOUNTED FIXTURE TYPE 'B'
	CEILING MOUNTED EXIT LIGHT - DIRECTIONAL ARROWS WHERE INDICATED - SHADED AREAS INDICATE ILLUMINATED FACE/FACES W = WALL MOUNTED E = END MOUNTED C = CEILING MOUNTED
	EMERGENCY BATTERY LIGHT UNIT A = FIXTURE TYPE
	REMOTE LIGHT HEADS FOR EMERGENCY BATTERY LIGHT UNIT - TYPE AS NOTED

POWER SYMBOLS

	SINGLE POLE SWITCH
	DOUBLE POLE SWITCH
	THREE-WAY SWITCH
	FOUR-WAY SWITCH
	CONTROLLED SWITCH LEG
	DIMMER
	DOOR
	KEY OPERATED MOMENTARY CONTACT
	TIMER SWITCH
	PILOT LIGHT
	LOW VOLTAGE
	DISCONNECT SWITCH - TOGGLE TYPE WITH THERMAL OVERLOAD - HP RATED
	DISCONNECT SWITCH - TOGGLE TYPE MOTOR RATED, AMPS AND # OF POLES AS REQUIRED
	VACANCY SENSOR, WALL MOUNTED
	VACANCY SENSOR, CEILING MOUNTED
	OCCUPANCY SENSOR, CEILING MOUNTED
	OCCUPANCY SENSOR, WALL MOUNTED
	PHOTOCELL SENSOR, WALL MOUNTED
	20A, 125V DUPLEX RECEPTACLE - FLUSH WALL MOUNTED CONTROLLED FROM WALL SWITCH "o"
	20A, 125V DUPLEX RECEPTACLE - FLUSH WALL MOUNTED, TAMPER RESISTANT
	20A, 125V DUPLEX RECEPTACLE WITH DUAL USB CHARGING OUTLETS FLUSH WALL MOUNTED
	20A, 125V DUPLEX RECEPTACLE - FLUSH WALL MOUNTED, CONTROLLED
	20A, 125V QUADRUPLEX RECEPTACLE - FLUSH WALL MOUNTED
	20A, 125V ISOLATED GROUND, DUPLEX RECEPTACLE, FLUSH WALL MOUNTED
	20A, 125V DUPLEX RECEPTACLE, FLUSH WALL MOUNTED, GFI TYPE
	20A, 125V EMERGENCY DUPLEX RECEPTACLE, FLUSH WALL MOUNTED
	SINGLE RECEPTACLE, FLUSH WALL MOUNTED
	20A, 125V DUPLEX RECEPTACLE, FLUSH FLOOR MOUNTED
	20A, 125V QUADRUPLEX RECEPTACLE, FLUSH FLOOR MOUNTED
	PEDESTAL MOUNTED 20A, 125V DUPLEX RECEPTACLE
	PEDESTAL MOUNTED 20A, 125V QUADRUPLEX RECEPTACLE
	PENDANT MOUNTED 20A, 125V DUPLEX RECEPTACLE
	PENDANT MOUNTED 20A, 125V QUADRUPLEX RECEPTACLE
	UTILITY METER, ION

	SPECIAL PURPOSE RECEPTACLE, FLUSH FLOOR MOUNTED, A = TYPE
	SPECIAL PURPOSE RECEPTACLE, FLUSH WALL MOUNTED, A = TYPE
	WALL MOUNTED CLOCK D = DOUBLE FACE
	MOTOR CONTROLLER
	COMBINATION MOTOR CONTROLLER AND DISCONNECT SWITCH AMPS/# OF POLES, VOLTAGE RATING AS REQUIRED
	UNFUSED DISCONNECT SWITCH SWITCH AMPS/# OF POLES, VOLTAGE RATING AS REQUIRED
	FUSED DISCONNECT SWITCH SWITCH AMPS/FUSE AMPS/# OF POLES, VOLTAGE RATING AS REQUIRED
	ENCLOSED CIRCUIT BREAKER TRIP AMPS/# OF POLES, VOLTAGE RATING AS REQUIRED
	POWER POLE
	SURFACE MOUNTED PANELBOARD
	FLUSH MOUNTED PANELBOARD
	CEILING MOUNTED JUNCTION BOX
	FLUSH WALL MOUNTED JUNCTION BOX
	FLUSH FLOOR MOUNTED JUNCTION BOX
	CENTER LINE
	CEILING CONTROL
	CONDUIT ONLY
	COMMUNICATION
	K = KEY OPERATED
	H = HOLD UP
	EPO = EM. POWER OFF
	DE = DUAL ELEMENT FUSE(S)
	DEG = DEGREE
	C = DEGREE CELSIUS
	F = DEGREE FAHRENHEIT
	Ø = DIAMETER
	DISC = DISCONNECT
	DIV = DIVISION
	DN = DOWN
	DP = DISTRIBUTION PANEL BOARD
	DS = DISCONNECT SWITCH
	DWG = DRAWING
	(E) = EXISTING TO REMAIN
	EACH
	EC = ELECTRICAL CONTRACTOR
	ELEV = ELEVATION
	ELEC = ELECTRICAL
	ELEV = ELEVATOR
	EM = EMERGENCY
	EMT = ELECTRICAL METALLIC TUBING
	ENCL = ENCLOSURE
	EQ = EQUIPMENT
	(ERR) = EXISTING SHALL BE REMOVED
	ERC = ELECTRIC REHEAT COIL
	EW = ELECTRIC WATER COOLER
	EXIST = EXISTING
	EXT = EXTERIOR
	FA = FIRE ALARM
	FAA = FIRE ALARM ANNUNCIATOR PANEL
	FACP = FIRE ALARM CONTROL PANEL
	FBO = FURNISHED BY OTHERS
	FCU = FAN COIL UNIT
	FDR = FEEDER
	FDS = FUSED DISCONNECT SWITCH
	FXT = FIXTURE
	FL = FLOOR
	FLA = FULL LOAD AMPERES
	FLX = FLEXIBLE FLUORORUBBER
	FP = FIRE PROTECTION
	FRZ = FREEZER
	FT = FEET OR FOOT
	G = GROUND
	GC = GENERAL CONTRACTOR
	GEN = GENERATOR
	GFI = GROUND FAULT INTERRUPTER
	HID = HIGH INTENSITY DISCHARGE
	HP = HORSE POWER
	HPCS = HIGH PRESSURE CONTACT SWITCH
	HT = HEIGHT
	HV = HIGH VOLTAGE
	HZ = HERTZ
	ID = INSIDE DIAMETER
	IG = ISOLATED GROUND
	INC = INCANDESCENT
	INCL = INCLUDED
	INST = INSTRUMENT
	IPC = ISOLATED POWER CENTER
	IPX = ISOLATED POWER CENTER-X-RAY

FIRE ALARM SYMBOLS

	CS = CEILING MOUNTED SPACE SMOKE DETECTOR
	D = DUCT SMOKE DETECTOR
	CM = CEILING MOUNTED CARBON MONOXIDE DETECTOR
	SA = SINGLE/MULTI STATION SMOKE ALARM
	CA = SINGLE/MULTI STATION CARBON MONOXIDE ALARM
	CSA = SINGLE/MULTI STATION CARBON MONOXIDE/SMOKE ALARM
	TR = THERMAL DETECTOR RATE-OF-RISE
	F = FIXED TEMPERATURE
	WS = SPRINKLER WATERFLOW SWITCH
	PS = SPRINKLER PRESSURE SWITCH
	TS = SPRINKLER TAMPER SWITCH
	P = FIRE ALARM PULL STATION
	J = FIRE ALARM TELEPHONE JACK
	CSL = COMBINATION FIRE ALARM SPEAKER AND STROBE LIGHT UNIT - FLUSH WALL MOUNTED
	S = FIRE ALARM SPEAKER - FLUSH WALL MOUNTED
	C = CEILING MOUNTED
	CSLH = COMBINATION FIRE ALARM HORN AND STROBE LIGHT UNIT, FLUSH WALL MOUNTED
	H = FIRE ALARM HORN - FLUSH WALL MOUNTED
	C = CEILING MOUNTED
	LFS = LOW FREQUENCY SOUNDER (520 HZ) - FLUSH WALL MOUNTED
	C = CEILING MOUNTED
	CSLB = COMBINATION FIRE ALARM BELL AND STROBE LIGHT UNIT, FLUSH WALL MOUNTED
	B = FIRE ALARM BELL, FLUSH WALL MOUNTED
	M = FIRE ALARM MONITOR MODULE
	CM = FIRE ALARM CONTROL MODULE
	DH = DOOR HOLDERS
	DR = ELECTROMAGNETIC DOOR RELEASE
	ER = ELEVATOR RECALL TIE-IN POINT
	CSL = FLUSH WALL MOUNTED STROBE LIGHT UNIT
	CS = CEILING MOUNTED STROBE LIGHT UNIT
	RI = REMOTE INDICATOR LIGHT

VOICE/DATA/P.A. SYMBOLS

	WS = WALL MOUNTED PUBLIC ADDRESS SPEAKER D = DUAL HORN
	CS = CEILING MOUNTED PUBLIC ADDRESS SPEAKER D = DUAL HORN
	VOICE & DATA OUTLET LOCATION WITH 1" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING #/# = # OF VOICE JACKS/# OF DATA JACKS
	VOICE OUTLET LOCATION WITH 1" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING P = PUBLIC F = FAX W = WALL MOUNTED # = # OF JACKS
	DATA OUTLET LOCATION WITH 1" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING # = # OF JACKS
	TELEVISION OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CEILING
	CLOSED CIRCUIT TV CAMERA OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CLG
	CARD ACCESS STATION OUTLET LOCATION WITH 3/4" CONDUIT TERMINATED IN A 90 DEG. BEND 6" INTO NEAREST ACCESSIBLE CLG

ABBREVIATIONS

(NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

1P	SINGLE POLE	JB	JUNCTION BOX
2P	TWO POLE	KCAL	THOUSAND CIRCULAR MILS
3P	THREE POLE	KILOVOLT	
A	AMPERE	KVA	KILOVOLT AMPERE
AC	ACROSS COUNTER	KWH	KILOWATT HOUR
ACB	AIR CIRCUIT BREAKER	LMC	LIQUIDTIGHT FLEXIBLE
AF	ABOVE FINISHED FLOOR	LFNC	LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT
AFG	ABOVE FINISHED GRADE	LM	LINE ISOLATION MONITOR
AHJ	AUTHORITY HAVING JURISDICTION	LM	LINE ISOLATION MONITOR
AIC	AMPERE INTERRUPTING CAPACITY	LM	LINE ISOLATION MONITOR
AL	ALUMINUM	LM	LINE ISOLATION MONITOR
ALM	ALARM	LM	LINE ISOLATION MONITOR
AMM	AMMETER	MAP	MAXIMUM
ARF	ABOVE RAISED FLOOR	MC	METAL CLAD, MECH. CONTRACTOR
ATS	AUTOMATIC TRANSFER SWITCH	MCA	MIN. CIRCUIT AMPERES
AUTO	AUTOMATIC	MCC	MOTOR CONTROL CENTER
AV	AUDIO VISUAL	MCP	MAIN DISTRIBUTION PANEL
AWG	AMERICAN WIRE GAUGE	MECH	MECHANICAL ROOM
BFC	BELOW FINISHED CEILING	MFR	MANUFACTURER
BC	BREAK GLASS SWITCH	MFS	MAIN FUSED SWITCH
BL	BASIC IMPULSE LEVEL	MH	MANHOLE, METAL HALIDE
BLDG	BUILDING	MI	MICROPHONE
CAB	CABINET	MIN	MINIMUM
CAT	CATALOG	MLO	MAX. OVERCURRENT PROTECTION
C	CONDUIT	MOPD	MAX. OVERCURRENT PROTECTION
CB	CIRCUIT BREAKER	MTD	MOUNTED
CCTV	CLOSED CIRCUIT TELEVISION	MTS	MANUAL TRANSFER SWITCH
CL	CENTER LINE	N	NEUTRAL
CLG	CEILING	NC	NORMALLY CLOSED
CLT	CONTROL	NC	NOT IN CONTRACT
CO	CONDUIT ONLY	NO	NORMALLY OPEN
COM	COMMUNICATION	OC	ON CENTER
CONN	CONNECTED	OCB	OIL CIRCUIT BREAKER
CONT	CONTINUATION	OD	OUTSIDE DIAMETER
CT	CURRENT TRANSFORMER	OH	OVERHEAD
CU	COPPER	P	POLE
CUH	CABINET UNIT HEATER	PA	PUBLIC ADDRESS
DB	DECIBEL	PB	PULL BOX
DE	DUAL ELEMENT FUSE(S)	PBS	PUSH BUTTON SWITCH
DEG	DEGREE	PLB	PLUMBING CONTRACTOR
°C	DEGREE CELSIUS	PHC	PIPE HEATING CABLE
°F	DEGREE FAHRENHEIT	PH	PHASE
Ø	DIAMETER	PHL	PANEL
DISC	DISCONNECT	PR	PRIMARY
DIV	DIVISION	PT	PRIMARY TRANSFORMER
DN	DOWN	PWR	POWER
DP	DISTRIBUTION PANEL BOARD	RCS	REMOTE CONTROL SWITCH
DS	DISCONNECT SWITCH	(RE)	RELOCATED EXISTING
DWG	DRAWING	REC	RECEPTACLE
(E)	EXISTING TO REMAIN	REF	REQUIRED
EA	EACH	REQ	REQUIRED
EC	ELECTRICAL CONTRACTOR	RM	ROOM
ELEV	ELEVATION	RSD	ROD GALVANIZED STEEL CONDUIT
EM	EMERGENCY	(RR)	EXISTING SHALL BE REMOVED
EMT	ELECTRICAL METALLIC TUBING	SAP	SPRINKLER ALARM PANEL
ENCL	ENCLOSURE	SE	SCHEDULE
EQ	EQUIPMENT	SE	SECONDARY
(ERR)	EXISTING SHALL BE REMOVED & RELOCATED	SECT	SECTION
ERC	ELECTRIC REHEAT COIL	SN	SOLID NEUTRAL
EW	ELECTRIC WATER COOLER	SPEC	SPECIFICATION
EXIST	EXISTING	SPKR	SPEAKER
EXT	EXTERIOR	SPR	SPRINKLER
FA	FIRE ALARM	SW	SWITCH
FAA	FIRE ALARM ANNUNCIATOR PANEL	SWBD	SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	SYS	SYSTEMS
FBO	FURNISHED BY OTHERS	SUBST	SUBSTATION
FCU	FAN COIL UNIT	SWGR	SWITCHGEAR
FDR	FEEDER	TBD	TO BE DETERMINED
FDS	FUSED DISCONNECT SWITCH	TEL	TELEPHONE
FXT	FIXTURE	TEMP	TEMPERATURE
FL	FLOOR	THERM	THERMOSTAT
FLA	FULL LOAD AMPERES	TP	TAMPER PROOF
FLX	FLEXIBLE FLUORORUBBER	TS	TELEVISION
FP	FIRE PROTECTION	TV	TYPICAL
FRZ	FREEZER	UH	UNIT HEATER
FT	FEET OR FOOT	UG	UNDERGROUND
G	GROUND	UN	UNLESS OTHERWISE NOTED
GC	GENERAL CONTRACTOR	V	VOLT OR VOLTAGE
GEN	GENERATOR	VA	VOLT AMPERE
GFI	GROUND FAULT INTERRUPTER	VFD	VARIABLE FREQUENCY DRIVE
HID	HIGH INTENSITY DISCHARGE	VD	VOLTIMETER
HP	HORSE POWER	VP	VAPORPROOF
HPCS	HIGH PRESSURE CONTACT SWITCH	W	WATT
HT	HEIGHT	WP	WEATHERPROOF
HV	HIGH VOLTAGE	WT	WATER TIGHT
HZ	HERTZ	XTR	TRANSFORMER
ID	INSIDE DIAMETER	XP	EXPLOSION PROOF
IG	ISOLATED GROUND		
INC	INCANDESCENT		
INCL	INCLUDED		
INST	INSTRUMENT		
IPC	ISOLATED POWER CENTER		
IPX	ISOLATED POWER CENTER-X-RAY		

GENERAL FIRESTOPPING NOTE

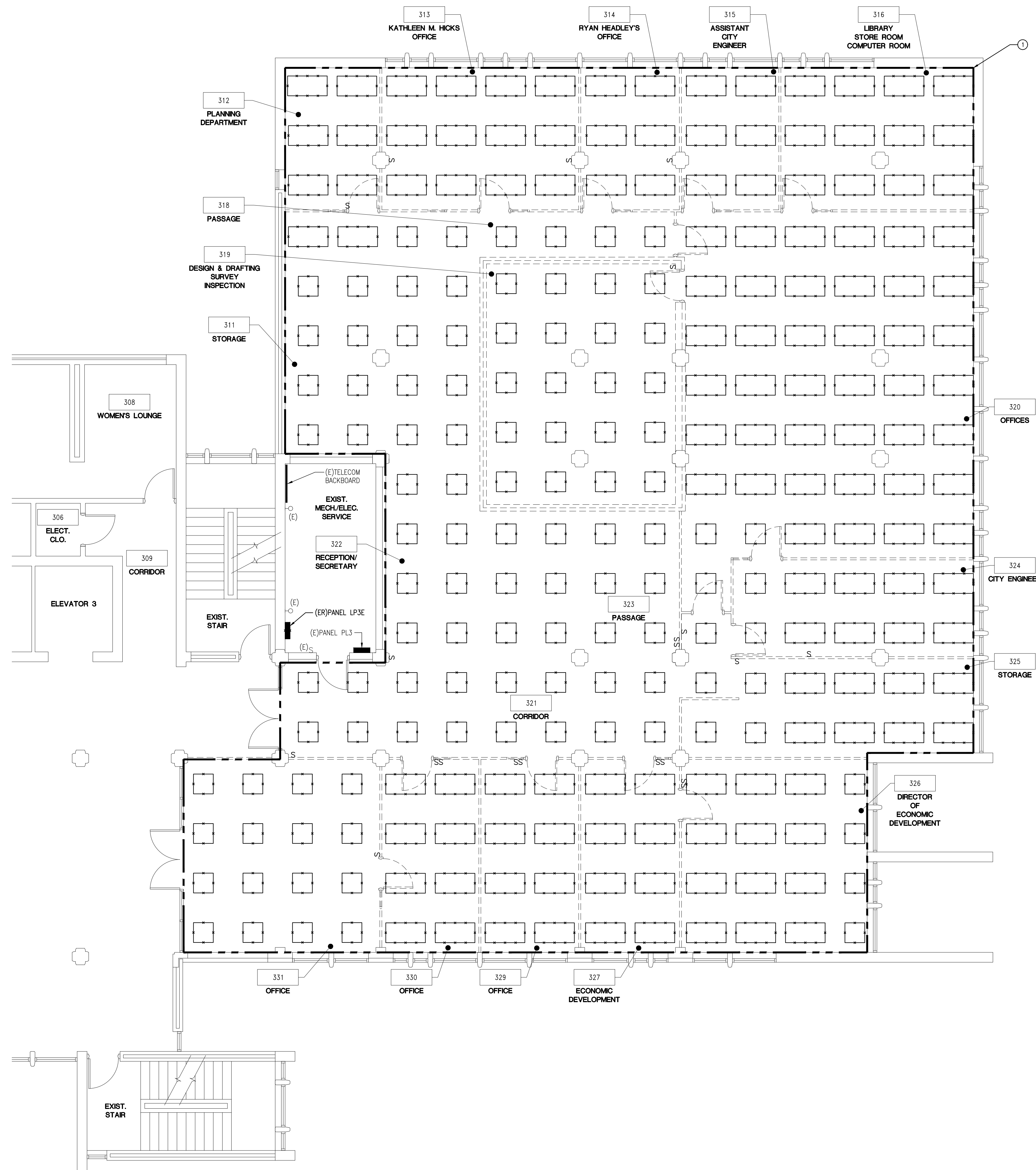
CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING OR EXCEEDING WALL/CEILING/FLOOR FIRE ASSEMBLY RATINGS FOR ALL PENETRATIONS. CONTRACTOR SHALL VERIFY LOCATION AND RATING OF ALL FIRE ASSEMBLIES AND PROVIDE INTUMESCENT COLLARS AT ALL PENETRATIONS AND/OR FIRE RATED CAULKING AS REQUIRED.

COMMISSIONING REQUIREMENTS

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMMISSIONING SERVICE, FROM A CERTIFIED COMMISSIONING AUTHORITY (CxA), FOR ALL LIGHTING CONTROLS.
- CxA AND CONTRACTOR SHALL PERFORM AND REVIEW ALL TESTING AND PROVIDE REPORTS AS REQUIRED.
- ALL COMMISSIONING AND REPORTING SHALL BE PERFORMED IN ACCORDANCE WITH ASHRAE GUIDELINE 90.1-2019 AND IECC-2021.

GENERAL ELECTRICAL NOTES:

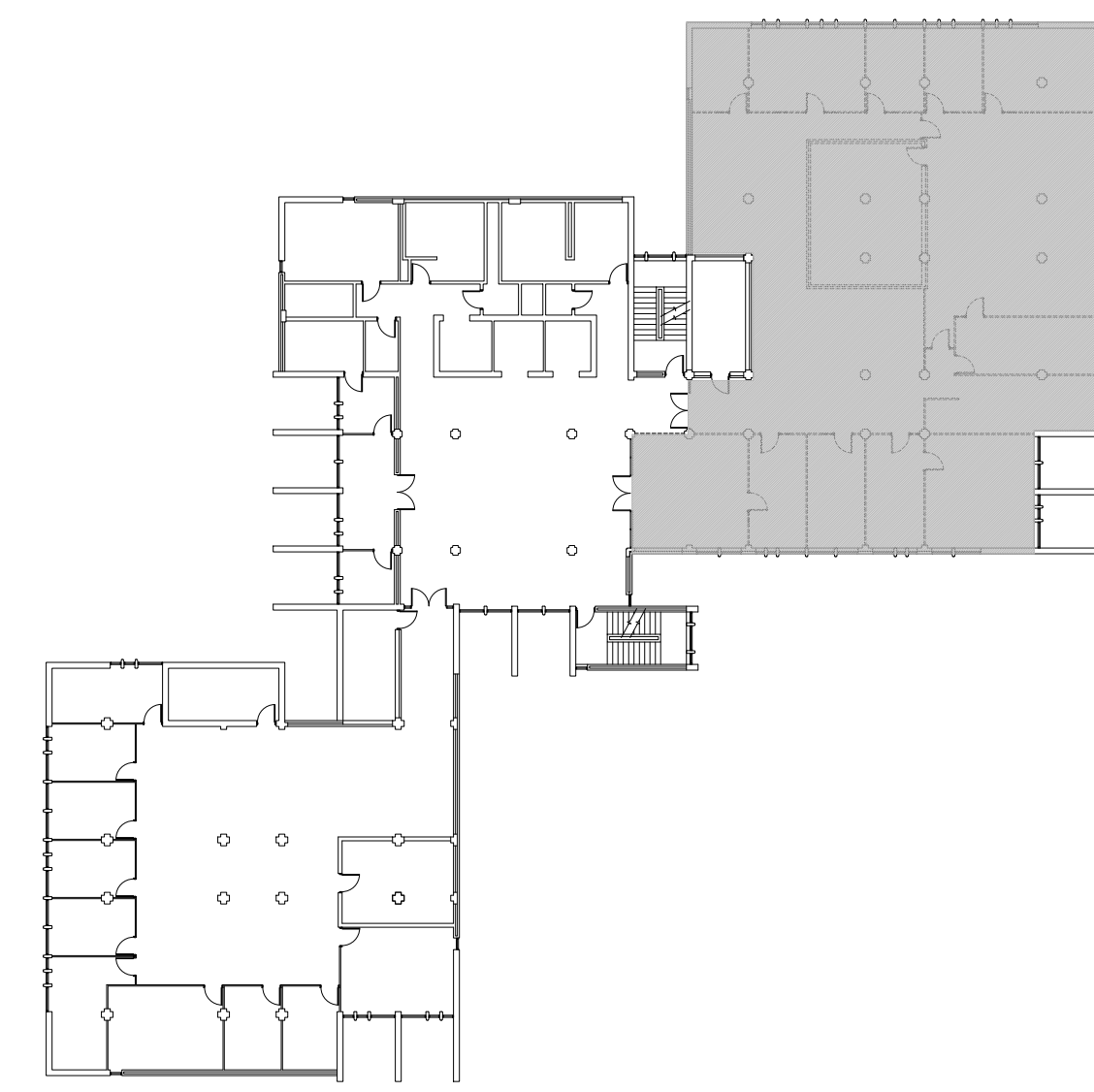
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS AND FIELD DIMENSIONS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE REQUIREMENTS.
- PERFORM ALL WORK IN STRICT ACCORDANCE WITH NATIONAL ELECTRICAL CODE (N.E.C.-2020) AS ADOPTED BY THE STATE OF NEW JERSEY OSHA REQUIREMENTS, ALL FEDERAL, STATE, AND LOCAL CODES AND ALL OWNER REQUIREMENTS.
- WHERE THERE IS A DISCREPANCY BETWEEN MATERIAL OR EQUIPMENT IN THE DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL ASSUME THE MORE STRINGENT, HIGHER QUALITY AND MORE EXPENSIVE OPTION FOR BIDDING.
- INCLUDE ALL TEMPORARY POWER AND LIGHTING, PERMIT, LICENSE, AND INSPECTION COSTS IN BID.
- CONTRACTOR SHALL ISSUE IN WRITING TO ARCHITECT/ENGINEER ANY SCOPE OF WORK DISCREPANCIES AND/OR QUESTIONS PRIOR TO SUBMISSION OF BID.
- CONTRACTOR SHALL EXAMINE ALL DRAWINGS AND SPECIFICATIONS AND VISIT THE SITE TO BECOME ACQUAINTED WITH THE CONSTRUCTION, SITE AND THE EXTENT OF THE WORK PRIOR TO SUBMISSION OF BID.
- COORDINATE ALL REQUIRED SHUTDOWNS WITH THE OWNER (AND UTILITY COMPANY WHERE APPLICABLE) A MINIMUM OF FOURTEEN (14) DAYS IN ADVANCE. INCLUDE OVERTIME COSTS IN BID TO PERFORM ALL SHUTDOWNS (INCLUDING SHUTDOWNS FOR AREAS WHICH MAY BE UNOCCUPIED DURING CONSTRUCTION) AFTER NORMAL WORKING HOURS AS COORDINATED WITH THE OWNER. NO EXTRA CLAIMS OR COMPENSATION SHALL BE GRANTED FOR OVERTIME COSTS ASSOCIATED WITH PERFORMING SHUTDOWNS.
- SECURE ALL SUPPORTS TO BUILDING STRUCTURE BY STEEL FOR VERTICAL SUPPORT AND BY MEANS OF TOGGLE BOLTS ON HOLLOW MASONRY UNITS, EXPANSION SHIELDS IN CONCRETE OR BRICK. MACHINE SCREWS ON METAL SURFACE, AND WOOD SCREWS ON WOOD CONSTRUCTION. WALLS, RAUL OR WOOD PLUSS NOT PERMITTED. SUPPORT HORIZONTAL RUNS OR METALLIC CONDUITS NOT MORE THAN 10 FT. APART. SUPPORT RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
- PASS RACEWAYS OVER WATER, STEAM, OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3 IN. OF STEAM OR HOT WATER PIPES, OR APPLIANCES, EXCEPT CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 IN. FROM PIPE COVER.
- FURNISH FISH WIRE IN EACH RACEWAY RUN OVER 10 FT IN WHICH WIRING IS NOT INSTALLED.
- CUT STEEL CONDUIT ENDS SQUARE, REAM SMOOTH, PAINT MALE THREADS OF FIELD THREADED CONDUIT WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH CONDUIT COUPLINGS.
- HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS NOT PERMITTED.
- ROUTE ALL CONDUITS AND CABLES PARALLEL OR PERPENDICULAR TO BUILDING LINES WHERE POSSIBLE.
- CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
- PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. COMMON BOXES: PROVIDE BARRIERS BETWEEN EMERGENCY AND NORMAL WIRING.
- LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS.
- WIRE COLOR CODING: PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE



01 ELECTRICAL FOURTH FLOOR PLANS DEMOLITION - LIGHTING
SCALE: 3/16" = 1'-0"

- DEMOLITION NOTES:
1. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH REMOVAL OF ELECTRICAL WORK AS DESCRIBED IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN ISSUES WHEN CONCEALED WORK HAS BEEN EXPOSED. NO ADDITIONAL CLAIMS FOR WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, UNLESS, IN CERTAIN CASES, CONSIDERED JUSTIFIABLE BY THE ARCHITECT.
 2. THE CONTRACTOR SHALL PERFORM REMOVAL AND DEMOLITION WORK WITH MINIMAL INTERFERENCE WITH EXISTING ELECTRICAL SYSTEMS. ALL AFFECTED ELECTRICAL SYSTEMS SHALL BE RESTORED AND RECONNECTED.
 3. DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR, PAINT OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
 4. THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL OUTLETS, SWITCHES, ETC., INCLUDING ASSOCIATED WIRING, CONDUITS, ETC., FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING WIRING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL JUNCTION BOXES AND OTHER DEVICES AND PROVIDE BYPASS CONNECTIONS NECESSARY TO MAKE CIRCUITS AFFECTED CONTINUOUS AND READY FOR OPERATION. OTHERWISE, WIRING SHALL BE REMOVED BACK TO THE NEAREST ELECTRICAL JUNCTION BOX THAT IS TO REMAIN OR TO PANELBOARD.
 5. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING ELECTRICAL WORK WHICH INTERFERES WITH THE NEW ELECTRICAL AND ARCHITECTURAL LAYOUTS IN FULL COORDINATION WITH THE ARCHITECT'S DEMOLITION PLANS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE POWER SUPPLY SOURCE.
 6. EXISTING PANELBOARD DIRECTORIES AFFECTED BY THE ALTERATION WORK SHALL BE CHANGED TO REFLECT THE BRANCH CIRCUIT WIRING MODIFICATIONS.
 7. ALL UNUSED OUTLET BOXES OR CAPPED FLOOR OUTLETS SHALL BE PROVIDED WITH MATCHING BLANK COVERS.
 8. ALL RACEWAYS WHICH ARE EXPOSED AS A RESULT OF NEW WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
 9. PORTIONS OF FEEDER RUNS THAT SHALL BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED. NEW FEEDER EXTENSIONS SHALL MATCH EXISTING FEEDER EXTENSIONS IN ALL ASPECTS INCLUDING BUT NOT LIMITED TO CABLE TYPE, CONDUIT SIZES, CONDUCTOR AMPACITY, ETC.
 10. FOR ALL EXISTING LIGHT FIXTURES TO REMAIN ("E") OR TO BE RELOCATED ("RE"), THE CONTRACTOR SHALL CLEAN ALL LENSES, REFLECTORS, TRIMS, ETC. AND REPLACE ALL LAMPS, DRIVERS AND BALLASTS AS REQUIRED. COORDINATE LAMP COLOR TEMPERATURES WITH OWNER AND ALL NEW LAMPING AND FIXTURES.
 11. AS DIRECTED BY THE OWNER, ALL EXISTING EQUIPMENT AND MATERIAL IN USABLE CONDITION THAT IS REMOVED UNDER THIS CONTRACT SHALL REMAIN THE PROPERTY OF THE OWNER OR BE DISPOSED BY THE ELECTRICAL CONTRACTOR.
 12. THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL FOLLOW CLOSELY THE ARCHITECT'S DEMOLITION AND PHASING SCHEDULE AND PROCEED IN THE SPECIFIED SEQUENCE.
 13. THE SHUTDOWN OF EXISTING BUILDING ELECTRICAL SERVICES SHALL BE COORDINATED WITH THE OWNER. MAKE APPROPRIATE ARRANGEMENTS AT LEAST 14 DAYS PRIOR TO A SHUTDOWN.

- KEY NOTES:
1. DISCONNECT AND REMOVE ALL EXISTING LIGHT FIXTURES, LIGHTING CONTROL DEVICES, AND ASSOCIATED WIRING BACK TO SOURCE UNLESS OTHERWISE NOTED.



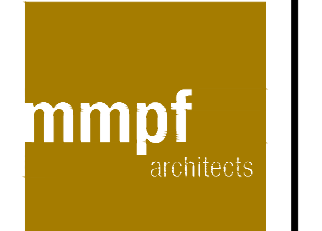
KEY PLAN
SCALE: 1/32" = 1'-0"

Revisions		
No.	Date	Description

ISSUED FOR BID, NOT FOR CONSTRUCTION 01/23/2024

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MCE PROJECT #23146

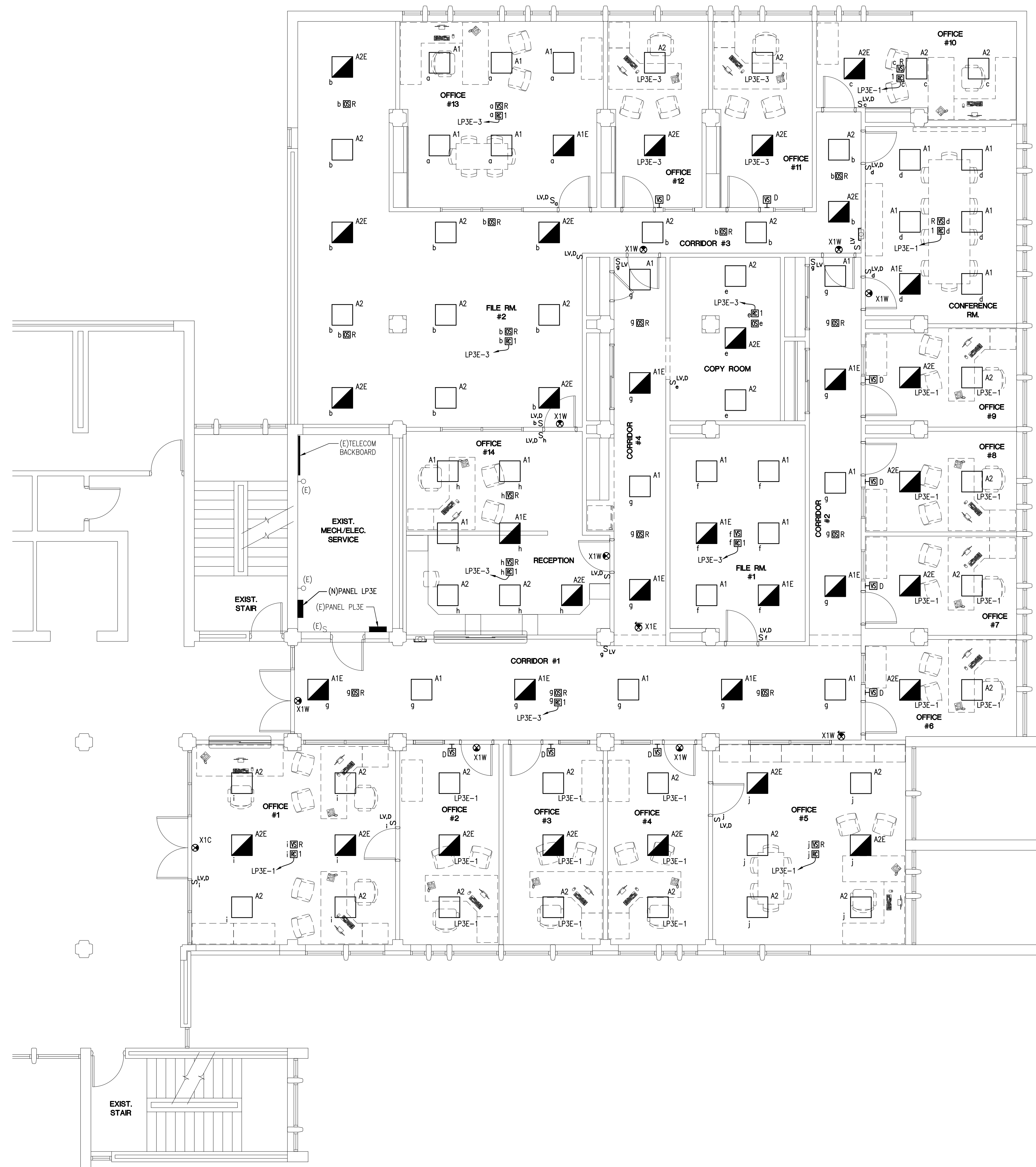
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4TH FLOOR OFFICE
RENOVATION**
640 E. WOOD ST.
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Drawing ELECTRICAL FOURTH FLOOR PLANS DEMOLITION - LIGHTING			
Scale AS NOTED	Job 22.099	Sheet E1.0	
Drawn MM	Date 01/23/24	2 of 8	



01 ELECTRICAL FOURTH FLOOR PLANS - LIGHTING
SCALE: 3/16" = 1'-0"

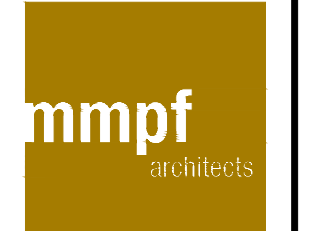
- DRAWING NOTES:**
- CONNECT ALL EXIT SIGNS, INVERTERS, EMERGENCY WALL PACKS, AND EMERGENCY BATTERY BACK-UPS TO LOCAL CONSTANT HOT FEED AHEAD OF ANY SWITCHING UON.
 - ALL LIGHT FIXTURES INDICATED AS EMERGENCY ARE NORMAL/EMERGENCY OPERATION VIA NORMAL POWER W/BATTERY OR INVERTER BACK UP.
 - REFER TO DWG E4.0 FOR THE LIGHT FIXTURE AND LIGHTING CONTROL DEVICE SCHEDULES.
 - CONFIRM ALL DEVICE AND EQUIPMENT LOCATIONS WITH THE ARCHITECT AND OWNER PRIOR TO ANY PURCHASE OR ROUGH-IN.
 - CONTRACTOR SHALL CLOSELY COORDINATE AND ADJUST ALL HVAC EQUIPMENT LOCATIONS WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN SUCH THAT LIGHTING LAYOUT REMAINS AS INDICATED.
 - CONFIRM ALL POWER OVERCURRENT PROTECTION, WIRING AND DEVICE/DISCONNECT REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ROUGH-IN AND REPORT ANY DISCREPANCY WITH THE DESIGN TO THE ARCHITECT AND OWNER FOR RESOLUTION.
 - PRE-MANUFACTURED METAL-CLAD CABLE (MC) SHALL BE UTILIZED FOR ALL NORMAL BRANCH CIRCUITS IN DRY HOLLOW STUD WALL LOCATIONS, ABOVE ACCESSIBLE CEILING AND WHERE PERMITTED BY ARTICLE #330 OF THE NATIONAL ELECTRICAL CODE ONLY. MINIMUM CONDUCTOR SIZE SHALL BE NO. 12 AWG COPPER WITH INTEGRAL GREEN INSULATED CONTINUOUS GROUND CONDUCTOR AND BARE BONDING CONDUCTOR IN DIRECT CONTACT WITH OUTER METAL JACKET.
 - COORDINATE ROUTING OF ALL CONDUIT, CABLING, ETC. THROUGH CASWORK W/CASEWORK INSTALLER PRIOR TO ANY PURCHASE OR ROUGH-IN.
 - EC SHALL FIRE CAULK ALL EXISTING AND NEW CONDUIT PENETRATIONS IN FIRE WALLS WITHIN CONTRACT AREA TO MAINTAIN FIRE WALL RATING.
 - LIGHTING CONTROLS SHALL BE TESTED BY THE EC IN ACCORDANCE WITH ASHRAE 90.1 SECTION 9.4.3
 - LIGHT FIXTURES SHALL BE FED THROUGH THEIR RESPECTIVE ROOM CONTROLLER INDICATED BY THEIR SWITCH-LEG. SEE ROOM CONTROLLER FOR BRANCH CIRCUIT DESIGNATOR.

Revisions		
No.	Date	Description

ISSUED FOR BID, NOT FOR CONSTRUCTION 01/23/2024

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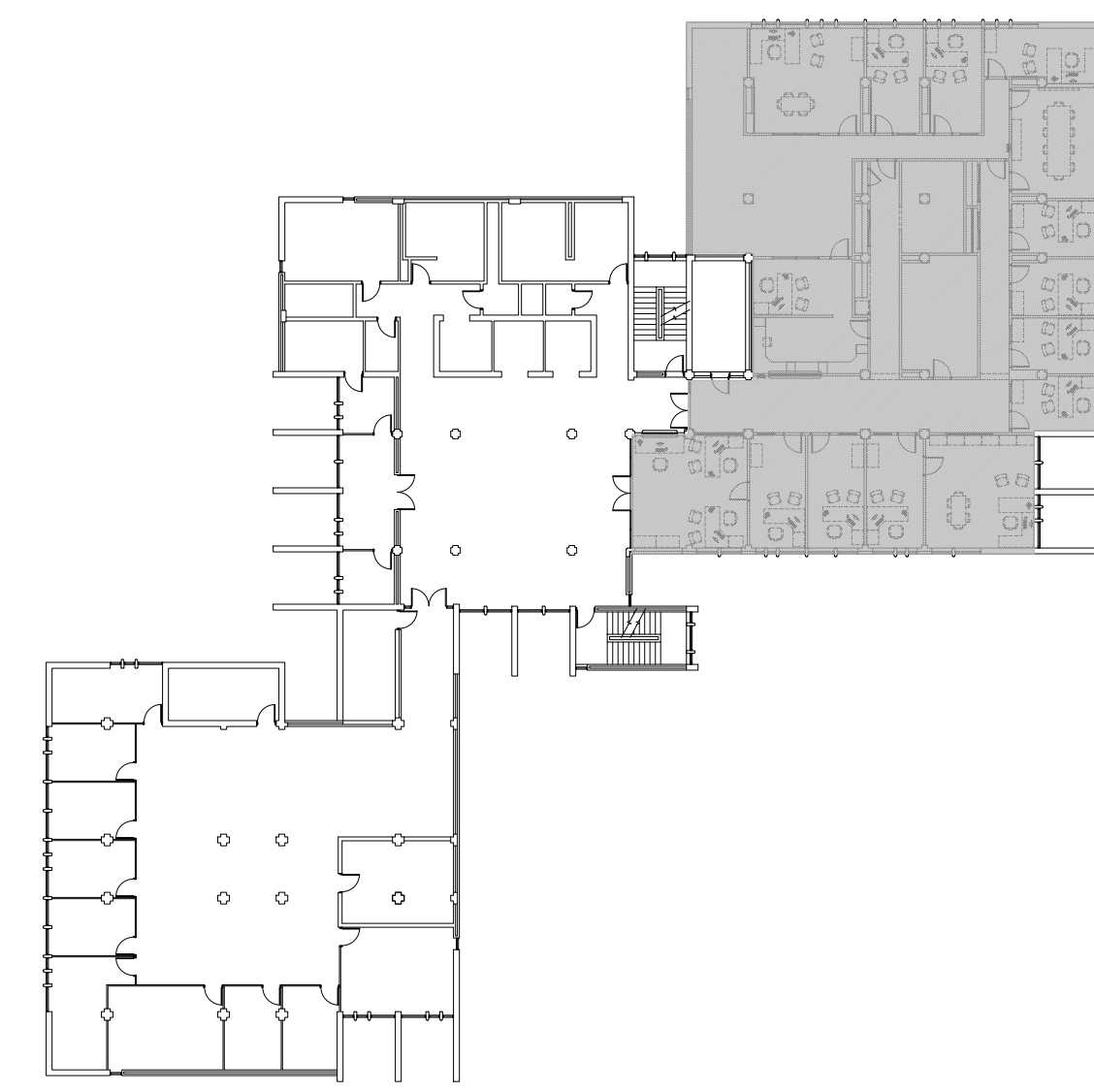
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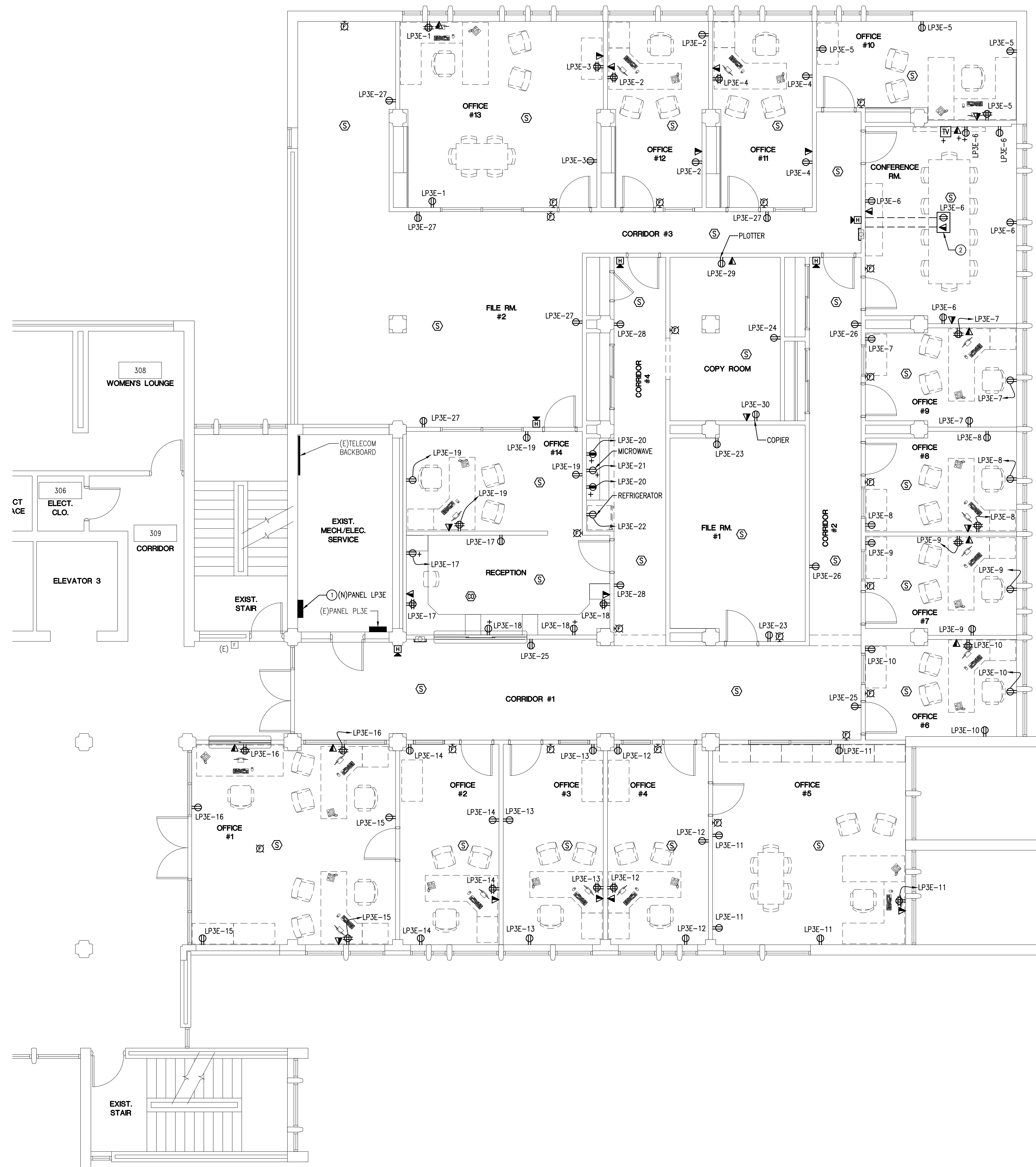
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Project
**VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATION**
640 E. WOOD ST.
VINELAND, NJ 08360

Drawing		
ELECTRICAL FOURTH FLOOR PLANS - LIGHTING		
Scale	Job	Sheet
AS NOTED	22.099	E2.0
Drawn	Date	4 of 8
MM	01/23/24	



KEY PLAN
SCALE: 1/32" = 1'-0"

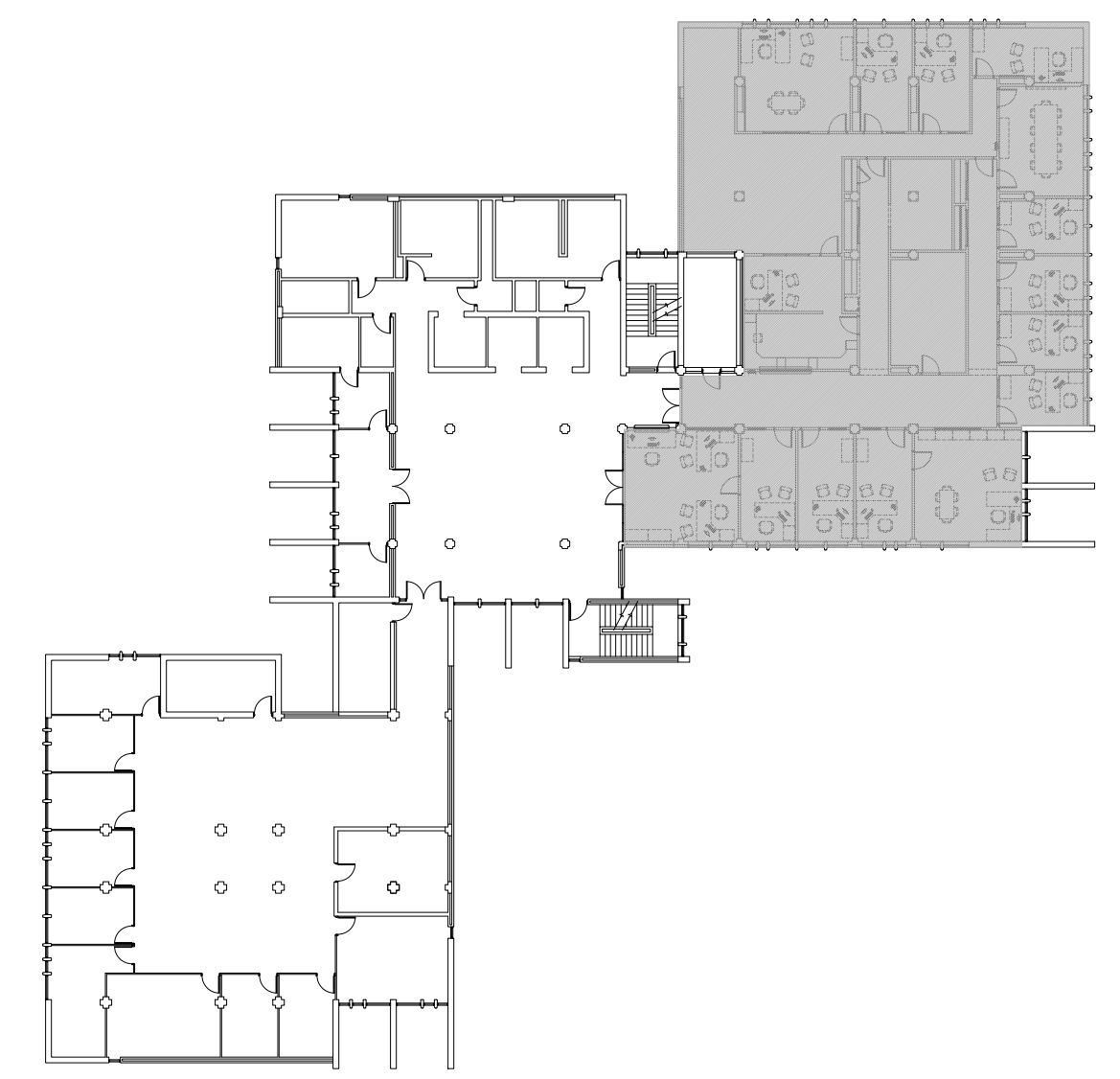


DRAWING NOTES:

- A 24" MINIMUM SEPARATION SHALL BE MAINTAINED BETWEEN SINGLE AND TWO-GANG OUTLET AND SWITCH BOXES INSTALLED ON OPPOSITE SIDES OF ANY 2-HOUR (MAXIMUM) FIRE-RATED WALL/PARTITION. PROVIDE FIREPROOF PUTTY BACKS OR OTHER FIREPROOFING LISTED FOR THIS PURPOSE WHERE REQUIRED BY SECTION 714.4.2 OF THE INTERNATIONAL BUILDING CODE. DO NOT INSTALL PANELBOARD BACK BOXES IN FIRE RATED WALLS. ALL EQUIPMENT AND DEVICES ARE NEW UNLESS OTHERWISE NOTED.
- CONFIRM ALL DEVICE AND EQUIPMENT LOCATIONS WITH THE ARCHITECT AND OWNER PRIOR TO ANY PURCHASE OR ROUGH-IN.
- CONFIRM ALL POWER OVERCURRENT PROTECTION, WIRING AND DEVICE/DISCONNECT REQUIREMENTS FOR ALL EQUIPMENT PRIOR TO ROUGH-IN AND REPORT ANY DISCREPANCY WITH THE DESIGN TO THE ARCHITECT AND OWNER FOR RESOLUTION.
- PROVIDE ALL DISCONNECT SWITCHES AS HEAVY-DUTY TYPE RATED WITH VOLTAGE AS REQUIRED AND AMPS, FUSING AND POLES AS INDICATED. DISCONNECT SWITCHES FOR INTERIOR EQUIPMENT SHALL BE NEMA 1 RATED UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FOR EXTERIOR EQUIPMENT SHALL BE WEATHERPROOF LOCKABLE HEAVY DUTY TYPE, NEMA 3R UNLESS OTHERWISE NOTED.
- COORDINATE ALL MECHANICAL AND PLUMBING EQUIPMENT LOCATIONS AND CONNECTIONS PRIOR TO ANY PURCHASE OR ROUGH-IN.
- CONTRACTOR SHALL CLOSELY COORDINATE AND ADJUST ALL HVAC EQUIPMENT LOCATIONS WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN SUCH THAT LIGHTING LAYOUT REMAINS AS INDICATED.
- PRE-MANUFACTURED METAL-CLAD CABLE (MC) SHALL BE UTILIZED FOR ALL NORMAL BRANCH CIRCUITS IN DRY HOLLOW STUD WALL LOCATIONS ABOVE ACCESSIBLE CEILING AND WHERE PERMITTED BY ARTICLE #330 OF THE NATIONAL ELECTRICAL CODE ONLY. MINIMUM CONDUCTOR SIZE SHALL BE NO. 12 AWG COPPER WITH INTEGRAL GREEN INSULATED CONTINUOUS GROUND CONDUCTOR AND BARE BONDING CONDUCTOR IN DIRECT CONTACT WITH OUTER METAL JACKET.
- COORDINATE ROUTING OF ALL CONDUIT, CABLING, ETC. THROUGH CASEWORK W/CASEWORK INSTALLER PRIOR TO ANY PURCHASE OR ROUGH-IN.
- THESE DRAWINGS HAVE BEEN MADE BASED ON A VISUAL INSPECTION OF THE EXISTING SURFACES. SOME ASSUMPTIONS HAVE BEEN MADE AS TO ACTUAL CONSTRUCTION, MATERIALS, AND METHODS. THE INSTALLER SHALL BE RESPONSIBLE FOR VERIFYING ALL ACTUAL FIELD CONDITIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES, CONFLICTS, AND UNFORESEEN CONDITIONS.
- EC SHALL FIRE CAULK ALL EXISTING AND NEW CONDUIT PENETRATIONS IN FIRE WALLS WITHIN CONTRACT AREA TO MAINTAIN FIRE WALL RATING.
- COORDINATE FINAL LOCATIONS OF ALL TELECOM OUTLETS AND RECEPTACLES FOR DESKS WITH ARCH, OWNER AND OWNERS FURNITURE PACKAGE PROVIDER PRIOR TO PURCHASE OR ROUGH-IN.
- PROVIDE LOCKABLE IN-USE WEATHERPROOF (WIP) EXTRA DUTY COVER FOR ALL EXTERIOR RECEPTACLES.
- ALL CONDUITS TRAVELING FROM OUTDOORS TO INDOORS AND FROM A WARM ENVIRONMENT TO COLD SHALL BE VAPOR SEALED TO PREVENT CONDENSATION BUILDUP. THE SEAL SHALL BE A CONDUIT BODY OR JUNCTION BOX LOCATED ON THE HIGH TEMPERATURE SIDE OF THE TRANSITION SEALED WITH ELECTRICAL DUCT SEAL OR A NON-LATEX, CLOSED CELL EXPANDING FOAM SEALANT LISTED FOR THE PURPOSE, INSTALLED IN THE CONDUIT ENTERING THE COLDER SPACE.
- ALL WORK PROVIDED ON EXISTING FIRE ALARM SYSTEM SHALL BE PROVIDED BY OWNERS SERVICE COMPANY TO ENSURE PROPER OPERATION OF SYSTEM WHILE NOT VOIDING ANY EXISTING WARRANTY OR MAINTENANCE CONTRACTS. PROVIDE NEW FIRE ALARM DEVICES, WIRING AND APPURTENANCES AS INDICATED AND REQUIRED FOR A FULLY FUNCTIONAL SYSTEM. NEW FIRE ALARM DEVICES SHALL BE FULLY COMPATIBLE WITH ALL LISTED FOR OPERATION WITH THE EXISTING FIRE ALARM SYSTEM. ALL CABLING AND SPLICES SHALL BE IN ACCORDANCE WITH NEC 760 - COORDINATE ALL PLENUM SPACES WITH ARCHITECT & GC. TIE FIRE ALARM DEVICES INTO EXIST BUILDING FIRE ALARM SYSTEM AND PROVIDE ALL DOCUMENTATION/SHOP DRAWINGS, PROGRAMMING/TESTING AND ANY OTHER WORK/EQUIPMENT/INFORMATION IN ACCORDANCE WITH ALL APPLICABLE CODES AND TO THE SATISFACTION OF THE AUTHORITY HAVING JURISDICTION.

KEY NOTES:

- CONNECT NEW PANEL TO (E)FEEDER REMAINING FROM DEMOLITION.
- PROVIDE FLUSH FLOOR BOX W/DEVICE SHOWN (LEGEND OWN SERIES CAT#NATC). COORDINATE FINAL LOCATION AND COVER W/CC, ARCH, AND OWNER PRIOR TO ANY PURCHASE OR ROUGH-IN. PROVIDE 1-1/4" CONDUIT FOR DATA AND 3/4" CONDUIT FOR POWER WIRING. ROUTE CONDUITS BELOW SLAB AND UP WALL AS SHOWN TO ABOVE ACCESSIBLE CEILING. PROVIDE ALL FLOOR CUTTING AND PATCHING AS REQUIRED.



KEY PLAN
SCALE: 1/32" = 1'-0"

01 ELECTRICAL FOURTH FLOOR PLANS - POWER
SCALE: 3/16" = 1'-0"

Revisions		
No.	Date	Description

ISSUED FOR BID, NOT FOR CONSTRUCTION 01/23/2024

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Project		
VINELAND CITY HALL 4TH FLOOR OFFICE RENOVATION 640 E. WOOD ST. VINELAND, NJ 08360		
Drawing		
ELECTRICAL FOURTH FLOOR PLANS - POWER		
Scale	Job	Sheet
AS NOTED	22.099	E3.0
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PLQ	01/23/24	

LIGHT FIXTURE SCHEDULE										
TYPE	DESCRIPTION	MANUFACTURER/ CATALOG #	LAMP DATA			FIXT VOLTS	MOUNTING	REMARKS		
			QTY	TYPE	WATTS				FIXT WATTS	
A1	2'X2' LED TROFFER W/3200 LUMEN OUTPUT	H.E. WILLIAMS #DYG-S22-L32/835-AD-DM-UNV	INCL	LED	26	26	120-277	LAY-IN	PROVIDE WITH 3200 LUMEN OUTPUT, RIBBED ACRYLIC SHIELDING, 80CRI, 3500K COLOR TEMPERATURE, AND 0-10V 10% DIMMING.	
A1E	2'X2' LED TROFFER W/3200 LUMEN OUTPUT AND INTEGRATED EMERGENCY BATTERY BACKUP	H.E. WILLIAMS #DYG-S22-L32/835-AD-EM/10W-DM-UNV	INCL	LED	26	26	120-277	LAY-IN	PROVIDE WITH 3200 LUMEN OUTPUT, RIBBED ACRYLIC SHIELDING, 80CRI, 3500K COLOR TEMPERATURE, 0-10V 10% DIMMING, AND INTEGRAL 10W EMERGENCY BATTERY BACKUP.	
A2	2'X2' LED TROFFER W/4800 LUMEN OUTPUT	H.E. WILLIAMS #DYG-S22-L48/835-AD-DM-UNV	INCL	LED	38	38	120-277	LAY-IN	PROVIDE WITH 4800 LUMEN OUTPUT, RIBBED ACRYLIC SHIELDING, 80CRI, 3500K COLOR TEMPERATURE, AND 0-10V 10% DIMMING.	
A2E	2'X2' LED TROFFER W/4800 LUMEN OUTPUT AND INTEGRATED EMERGENCY BATTERY BACKUP	H.E. WILLIAMS #DYG-S22-L48/835-AD-EM/10W-DM-UNV	INCL	LED	38	38	120-277	LAY-IN	PROVIDE WITH 4800 LUMEN OUTPUT, RIBBED ACRYLIC SHIELDING, 80CRI, 3500K COLOR TEMPERATURE, 0-10V 10% DIMMING, AND INTEGRAL 10W EMERGENCY BATTERY BACKUP.	
-	-	-	-	-	-	-	-	-	-	-
X1	LED EXIT SIGN	LITHONIA LIGHTING FLOW S W 3 R W/OLT EL N	INCL	LED	1	1	120-277	SEE PLANS	E-END, C=CLO, W=WALL, P=PENDANT PROVIDE W/RED LED LAMP, WHITE THERMOPLASTIC HOUSING, Ni-CAD BATTERY, CIRCUITS INDICATED ON PLANS, NUMBER OF FACES INDICATED ON PLANS, AND ALL APPURTENANCES AS REQUIRED FOR PLAN-SPECIFIED MOUNTING.	

LIGHTING CONTROL DEVICE SCHEDULE		
SYMBOL	ACUITY CAT #	NOTES
WSXA PDT		LINE-VOLTAGE WALL-MTD DUAL TECHNOLOGY W/MANUAL CONTROL BUTTON. COLOR BY ARCHITECT
WSXA PDT D		LINE-VOLTAGE WALL-MTD DUAL TECHNOLOGY W/MANUAL CONTROL BUTTON AND 0-10V DIMMING CAPABILITIES. COLOR BY ARCHITECT
WSXA PDT 2P		DUAL-RELAY LINE-VOLTAGE WALL-MTD DUAL TECHNOLOGY W/MANUAL CONTROL BUTTON. COLOR BY ARCHITECT
NWSX PDT		LOW-VOLTAGE WALL-MTD DUAL TECHNOLOGY W/MANUAL CONTROL BUTTON. COLOR BY ARCHITECT
CMR PDT [9] OR [10]		LINE VOLTAGE CLG MTD, DUAL-TECH. SENSOR. COLOR BY ARCHITECT
CM PDT [9] OR [10]		LOW VOLTAGE CLG MTD, DUAL-TECH. SENSOR. COLOR BY ARCHITECT
WSXA PDT SA		LINE-VOLTAGE WALL-MTD DUAL TECHNOLOGY W/MANUAL CONTROL BUTTON. COLOR BY ARCHITECT. ADJUST DIP SWITCH FOR MANUAL ON
WSXA PDT D SA		LINE-VOLTAGE WALL-MTD DUAL TECHNOLOGY W/MANUAL CONTROL BUTTON AND 0-10V DIMMING CAPABILITIES. COLOR BY ARCHITECT. ADJUST DIP SWITCH FOR MANUAL ON VACANCY OPERATION
CM PDT [9] OR [10]		LOW VOLTAGE CLG MTD, DUAL-TECH. SENSOR. COLOR BY ARCHITECT
PP20		UNIVERSAL POWER PACK TO FEED LOW-VOLTAGE VACANCY SENSORS. SET POWER PACK TO MANUAL ON OPERATION
NPP16D		SINGLE RELAY 0-10V CEILING MOUNTED DIMMING ROOM CONTROLLER
NPP16D (x2)		DUAL-RELAY 0-10V CEILING MOUNTED DIMMING ROOM CONTROLLER
NPP16D (x3)		3-RELAY 0-10V CEILING MOUNTED DIMMING ROOM CONTROLLER
NCM PDT [9] OR [10]		LOW VOLTAGE CLG MTD, DUAL-TECH. ROOM CONTROLLER SENSOR. SET FOR MANUAL-ON OPERATION. COLOR BY ARCHITECT.
NCM PDT		LOW VOLTAGE CLG MTD, DUAL-TECH. ROOM CONTROLLER SENSOR. SET FOR AUTO-ON OPERATION FOR 50%. COLOR BY ARCHITECT.
SPD0MA		LOW VOLTAGE SWITCH FOR CONTROL OF POWER PACK PP20
NP0DMA		LOW VOLTAGE SWITCH FOR CONTROL OF ROOM CONTROLLER. PROVIDE # OF BUTTONS AS REQUIRED
NP0DMA DX		DIMMING LOW VOLTAGE SWITCH FOR CONTROL OF ROOM CONTROLLER
ESRN / ESRB		EMERGENCY LIGHTING CONTROL UNIT
NCM ADCX		SINGLE ZONE DIMMING CLOSED LOOP ROOM CONTROLLER. PHOTODIODE FOR CONTROL OF ROOM CONTROLLER.

NOTES: WIRE ALL LIGHTING CONTROL DEVICES & POWER PACKS PER MANUFACTURER'S INSTRUCTIONS. MAKE ALL SETTING ADJUSTMENTS TO OCCUPANCY/VACANCY SENSORS NECESSARY FOR PROPER OPERATION PER MANUFACTURER'S INSTRUCTIONS AND OWNER'S PREFERENCES.

WIRE AND CONDUIT SIZING SCHEDULE (COPPER)									
AMPS	TAGS	CONDUCTOR		NO. OF WIRES & CONDUIT SIZE IN INCHES					
		PHASE & NEUTRAL	GROUND	A 1PH, 2W+G	B 1PH/2PH, 3W+G	C 3PH, 4W+G			
15	1	14	14	3/4	3/4	3/4			
20	2	12	12	3/4	3/4	3/4			
30	3	10	10	3/4	3/4	3/4			
40	4	8	10	3/4	3/4	3/4			
50	5	6	10	3/4	3/4	1			
60	6	4	10	3/4	1	1 1/4			
70	7	4	8	3/4	1	1 1/4			
80	8	3	8	1	1	1 1/4			
90	9	2	8	1	1 1/4	1 1/4			
100	10	1	8	1 1/4	1 1/4	1 1/2			
125	11	1	6	1 1/4	1 1/4	1 1/2			
150	12	1/0	6	1 1/4	1 1/2	1 1/2			
175	13	2/0	6	1 1/4	1 1/2	2			
200	14	3/0	6	1 1/4	2	2			
225	15	4/0	4	1 1/4	2	2 1/2			
250	16	250	4	2	2	2 1/2			
275	17	300	4	2	2 1/2	2 1/2			
300	18	350	4	2	2 1/2	3			
350	19	400	3	2	2 1/2	3			
400	20	500	3	2 1/2	3	3			
450	21	(2) 4/0	(2) 2	(2) 2	(2) 2 1/2	(2) 2 1/2			
500	22	(2) 250	(2) 2	(2) 2	(2) 2 1/2	(2) 2 1/2			
600	23	(2) 350	(2) 1	(2) 2 1/2	(2) 3	(2) 3			
700	24	(2) 500	(2) 1/0	(2) 4	(2) 4	(2) 4			
800	25	(2) 500	(2) 1/0	(2) 4	(2) 4	(2) 4			
1000	26	(3) 400	(3) 2/0	(3) 3	(3) 4	(3) 4			
1100	27	(3) 500	(3) 3/0	(3) 3	(3) 4	(3) 4			
1200	28	(4) 350	(4) 3/0	(4) 3	(4) 4	(4) 4			
1500	29	(4) 500	(4) 4/0	(4) 3	(4) 4	(4) 4			
1600	30	(5) 400	(5) 4/0	(5) 3	(5) 4	(5) 4			
1900	31	(5) 500	(5) 250	(5) 3	(5) 4	(5) 4			
2000	32	(6) 400	(6) 250	(6) 3	(6) 4	(6) 4			
2500	33	(7) 500	(7) 350	(7) 3	(7) 4	(7) 4			
3000	34	(8) 500	(8) 400	(8) 3	(8) 4	(8) 4			

NOTE:
THE ABOVE SCHEDULE IS BASED ON 800 VOLT CU WIRE, TYPE THHN/THWN AND EMT/RGS CONDUIT.
EX: (2A) = 2#12+1#12G, 3/4" C.

PANEL: (E) FLSE												
LOCATION:		4TH FLR MECH/ELEC EAST		480/277 VOLTS, 3 PHASE, 4 WIRE			MAIN BUS: AMP					
BUILDING:		VINELAND CITY HALL 4TH FLOOR		MOUNTING: SURFACE			MAIN BRK: 100 AMPS, 3 P					
FED FROM:		(E) FEEDER		BUS: COPPER			NEUTRAL: 100% A/C (E)					
FEEDER SIZE:		(E)		GROUND BUS: COPPER			LUGS ONLY					
				ISOL. GND. BUS: COPPER								
CKT NO	TRIP	DESCRIPTION OF LOAD	MIN WIRE & CONDUIT SIZE	LOAD (VA)	PER PHASE (VA)			LOAD (VA)	MIN WIRE & CONDUIT SIZE	DESCRIPTION OF LOAD	TRIP	CKT NO
1	201	(E) OFFICES 1-10 & CONF	2A	1372	1372	1730	0	0	(E)LOADSPARE	201	2	
3	201	(E) OFFICES 11-14 & COMMON	2A	1730	1730	0	0	(E)LOADSPARE	201	4		
5	201	(E)LOADSPARE		0	0	0	0	(E)LOADSPARE	201	6		
7	201	(E)LOADSPARE		0	0	0	0	(E)LOADSPARE	201	8		
9	201	(E)LOADSPARE		0	0	0	0	(E)LOADSPARE	201	10		
11	201	(E)LOADSPARE		0	0	0	0	(E)LOADSPARE	201	12		
13	100A	MAIN CIRCUIT BREAKER		0	0	0	0				14	
15				0	0	0	0				16	
17				0	0	0	0				18	
TOTAL LTG:				3102.0	CONNECTED x FACTOR = DEMAND			TOTAL BY PHASE		SPARE = 20%		
TOTAL CONT:				0.0	1.25			3877.5		TOTAL DEMAND LOAD = 4653 VA		
TOTAL NON-C:				0.0	1.00			0.0		TOTAL AMPS = 5.6 AMPS		
TOTAL REC:				0.0	Per NEC			0.0				
TOTAL A/C:				0.0	0.00			0.0				
TOTAL HTG:				0.0	1.00			0.0				
TOTAL:				3102.0	3877.5			1372.0 1730.0 0.0				

NOTES:
1. ALL NEW CIRCUIT BREAKERS SHALL MATCH THE AIC RATING OF THE EXISTING PANEL.
2. ALL EXISTING CIRCUIT BREAKERS NOT MADE SPARE VIA DEMOLITION SHALL BE NOTED AS SUCH IN THE PANEL DIRECTORY.

PANEL: (N) LPSE												
LOCATION:		4TH FLR MECH/ELEC EAST		208/120 VOLTS, 3 PHASE, 4 WIRE			MAIN BUS: AMP					
BUILDING:		VINELAND CITY HALL 4TH FLOOR		MOUNTING: SURFACE			MAIN BRK: 70 AMPS, 3 P					
FED FROM:		(E) FEEDER		BUS: COPPER			NEUTRAL: 100% A/C NOTE 2					
FEEDER SIZE:		(E)		GROUND BUS: COPPER			LUGS ONLY					
				ISOL. GND. BUS: COPPER								
CKT NO	TRIP	DESCRIPTION OF LOAD	MIN WIRE & CONDUIT SIZE	LOAD (VA)	PER PHASE (VA)			LOAD (VA)	MIN WIRE & CONDUIT SIZE	DESCRIPTION OF LOAD	TRIP	CKT NO
1	201	REC - OFFICE 13	2A	542	1260	720	2A	720	2A	REC - OFFICE 12	201	2
3	201	REC - OFFICE 13	2A	542	1260	720	2A	720	2A	REC - OFFICE 11	201	4
5	201	REC - OFFICE 10	2A	800	1980	1080	2A	1080	2A	REC - CONFERENCE ROOM	201	6
7	201	REC - OFFICE 9	2A	800	1800	900	2A	900	2A	REC - OFFICE 8	201	8
9	201	REC - OFFICE 7	2A	800	1800	900	2A	900	2A	REC - OFFICE 6	201	10
11	201	REC - OFFICE 5	2A	1080	1980	900	2A	900	2A	REC - OFFICE 4	201	12
13	201	REC - OFFICE 3	2A	800	1800	900	2A	900	2A	REC - OFFICE 2	201	14
15	201	REC - OFFICE 1	2A	720	1620	900	2A	900	2A	REC - OFFICE 1	201	16
17	201	REC - RECEPTION	2A	720	1440	720	2A	720	2A	REC - RECEPTION	201	18
19	201	REC - OFFICE 14	2A	800	1260	360	2A	360	2A	REC - KITCHENETTE	201	20
21	201	REC - MICROWAVE	2A	1100	1850	750	2A	750	2A	REC - REFRIGERATOR	201	22
23	201	REC - FILE ROOM 1	2A	360	540	180	2A	180	2A	REC - COPY ROOM	201	24
25	201	REC - CORRIDOR 1	2A	360	720	360	2A	360	2A	REC - CORRIDOR 2	201	26
27	201	REC - CORRIDOR 3/FILES ROOM 2	2A	800	1260	360	2A	360	2A	REC - CORRIDOR 4	201	28
29	201	REC - PLOTTER	2A	1500	3000	1500	2A	1500	2A	REC - COVER	201	30
31	201	SPARE		0	0	0		0		SPARE	201	32
33	201	SPARE		0	0	0		0		SPARE	201	34
35	201	SPARE		0	0	0		0		SPARE	201	36
37	201	SPARE		0	0	0		0		SPARE	201	38
39	201	SPARE		0	0	0		0		SPARE	201	40
41	201	SPARE		0	0	0		0		SPARE	201	42
43	201	SPARE		0	0	0		0		SPARE	201	44
45	201	SPARE		0	0	0		0		SPARE	201	46
47	201	SPARE		0	0	0		0		SPARE	201	48
49	201	SPARE		0	0	0		0		SPARE	201	50
51	201	SPARE		0	0	0		0		SPARE	201	52
53	201	SPARE		0	0	0		0		SPARE	201	54
TOTAL LTG:				0.0	CONNECTED x FACTOR = DEMAND			TOTAL BY PHASE		SPARE = 25%		
TOTAL CONT:				0.0	1.25			0.0		TOTAL DEMAND LOAD = 24013 VA		
TOTAL NON-C:				4650.0	1.00			4650.0		TOTAL AMPS = 66.7 AMPS		
TOTAL REC:				18720.0	Per NEC			14360.0				
TOTAL A/C:				0.0	0.00			0.0				
TOTAL HTG:				0.0	1.00			0.0				
TOTAL:				23570.0	19210.0			6840.0 7790.0 8940.0				

NOTES:
1. PROVIDE WITH GFI TYPE CIRCUIT BREAKER.
2. PROVIDE WITH AN AIC RATING MATCHING OR EXCEEDING THAT OF THE PANEL REMOVED FROM DEMOLITION.

ISSUED FOR BID, NOT FOR CONSTRUCTION 01/23/2024

Revisions		
No.	Date	Description

NO.	DATE	DESCRIPTION

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mmpf
architects

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CONTROLLERS TO MOTORS AND MOTOR CONNECTIONS. MOUNT AND WIRE ALL CONTACTORS AND POWER DEVICES FURNISHED UNDER ALL CONTRACTS.

15. CONTROL WIRING

- A. PROVIDE ALL CONTROL WIRING FOR MOTORS AND EQUIPMENT FURNISHED UNDER ALL CONTRACTS AND AS SPECIFICALLY SHOWN ON THE DRAWINGS, EXCEPT AS NOTED FOR MECHANICAL/PLUMBING EQUIPMENT. INCLUDE MOUNTING AND WIRING OF ALL CONTROL DEVICES FURNISHED WITH EQUIPMENT.
B. CONTROL WIRING LESS THAN 120 VOLTS FOR MOTORS, ALARMS FOR EQUIPMENT FURNISHED UNDER MECHANICAL/PLUMBING WILL BE PROVIDED UNDER DIVISION 15 CONTRACT.

16. DEVICES

- A. LOCAL SWITCHES
1) CONVENTIONAL QUITE TOGGLE TYPE, RATED AT 20 AMP, 120/277 VOLT AC SIMILAR TO LEVITON #1221-2, 1223-2, 1224-2 OR EQUAL BY HUBBELL OR PASS & SEYMOUR. THE OWNER OR ARCHITECT SHALL SELECT TOGGLE COLOR.
2) PILOT LIGHT TOGGLE TYPE WITH NEON LAMP, RATED AT 20 AMP, 120/277 VOLT AC SIMILAR TO LEVITON #1221-PLC OR EQUAL BY HUBBELL OR PASS & SEYMOUR.

B. MANUAL MOTOR STARTERS

- 1) FLUSH OR SURFACE MOUNTED TYPE WITH INTEGRAL THERMAL OVERLOAD PROTECTION AND PILOT LIGHT. SIMILAR TO SQUARE D CLASS 2510 AND 2512 TYPE F.

C. MOTOR-RATED SWITCHES

- 1) FLUSH OR SURFACE MOUNTED TYPE WITH PILOT LIGHT. SIMILAR TO SQUARE D CLASS 2510, 2511 AND 2512 TYPE F.

D. INSERTION RECEPTACLES

- 1) CONVENTIONAL SPECIFICATION GRADE DUPLEX CONVENIENCE 125 VOLT, 2 POLE, 3 WIRE, 20 AMP WITH U GROUND SLOT GROUNDED, EXCEPT AS NOTED. DEVICE SHALL MEET OR EXCEED:
a. UL 498
b. UL HOSPITAL GRADE
c. UL FEDERAL SPECIFICATION WC-596 LISTING.
d. NEMA WD-1 AND WD-6
e. DEVICE SHALL BE SIMILAR TO HUBBELL HBL5362 OR EQUAL BY LEVITON, PASS & SEYMOUR OR GE. OWNER OR ARCHITECT SHALL SELECT FACE COLOR. DEVICES USED ON EMERGENCY BRANCH CIRCUITS SHALL BE RED FACE ONLY.
2) GROUND FAULT CIRCUIT INTERRUPTER WITH SELF-PROTECTION AND LED INDICATOR LIGHT. SIMILAR TO HUBBELL GFR5362 OR EQUAL BY LEVITON, PASS & SEYMOUR OR GE.
a. WHERE GFCI RECEPTACLE DEVICES ARE SHOWN ON DRAWINGS A GFCI RECEPTACLE SHALL BE PROVIDED - NO DOWNSTREAM WIRING OF STANDARD RECEPTACLES FROM THE LOAD SIDE OF A GFCI RECEPTACLE SHALL BE ACCEPTABLE AS A SUBSTITUTE FOR PROVIDING A GFCI RECEPTACLE DEVICE.
3) SPECIAL RECEPTACLES
a. THE TRADE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE SPECIAL RECEPTACLES REQUIRED TO MATCH PROVIDED, EXISTING AND NEW EQUIPMENT PLUGS.
4) LIGHTING CONTROLS (SEE SCHEDULES/NOTES ON DRAWINGS)
5) RECEPTACLE ORIENTATION
a. CONTRACTOR SHALL COORDINATE ORIENTATION OF DEVICE WITH ARCHITECT.

E. DEVICE PLATES

- 1) BRUSHED 302 STAINLESS STEEL

F. DEVICE WIRING

- 1) ALL DEVICES SHALL BE SIDE-WIRED VIA SCREW TERMINALS - PUSH-IN WIRING (AKA 'QUICKWIRE') THROUGH THE BACK OF THE DEVICE IS NOT AN ACCEPTABLE WIRING METHOD.

17. LIGHTING FIXTURES

- A. MANUFACTURE AND INSTALL LIGHTING FIXTURES IN ACCORDANCE WITH NEC ARTICLE 410.
B. PROVIDE ALL LIGHTING FIXTURES INDICATED, COMPLETE WITH LAMPS. INCLUDE ALL INTERIOR LIGHTING FIXTURES, AND ALL EXTERIOR FIXTURES MOUNTED ON THE BUILDING.
C. FURNISH ALL PLASTER OR DRY WALL FRAMES AND DELIVER TO PROJECT SITE FOR INSTALLATION UNDER FINISHES, DIVISION 9.
D. USE FIXTURES CONFORMING TO UL STANDARDS, AND BEARING UL LABEL AND UNION LABEL.
E. GENERAL CONSTRUCTION
1) PLASTICS: 100 PERCENT VIRGIN ACRYLIC, REFER TO FIXTURE LIST FOR FURTHER DESCRIPTION.
a. METAL
(1) MATERIAL: STEEL, ALUMINUM OR OTHER TYPES MENTIONED.
(2) B & S GAUGE: NO. 22 MINIMUM FOR HOUSINGS, WITH APPROPRIATE CROSS-SECTIONAL CONFIGURATION FOR FIXTURE HOUSING; THINNER SHEET METAL ACCEPTABLE FOR BALLAST ENCLOSURES AND INCIDENTAL PURPOSES.
b. FINISHES
(1) CORROSION PROTECTION: PLATING, BONDERIZING, PRIMING, ELECTROSTATIC PAINTING, OR OTHER APPROVED MEANS.
(2) COLORS: FACTORY STANDARD UNLESS OTHERWISE NOTED.
(3) FINAL COATING: BAKED PAINT OR ENAMEL ON STEEL AND ALUMINUM; BAKED CLEAR LACQUER OR OTHER DURABLE TRANSPARENT FILM ON POLISHED METAL SURFACES.
c. EXTERIOR FIXTURES: ENCLOSED AND GASKETED, UNLESS OTHERWISE NOTED.
d. LED FIXTURES:
(1) MODULAR TO ALLOW FOR SEPARATE REPLACEMENT OF LED LAMPS AND DRIVERS.
(2) USER SERVICEABLE LED LAMPS AND DRIVERS REPLACEABLE FROM THE ROOM SIDE.
(3) DIMMABLE LED FIXTURES WITH EITHER A 01-10 VOLT, 3-WIRE DIMMING DRIVER OR A TWO-STEP (50%-100%) LINE VOLTAGE, TWO SWITCH CONTROLLED DIMMING DRIVER.
e. LATCHES: QUICK-OPERATING TYPE WITHOUT NEED FOR TOOLS, UNLESS OTHERWISE NOTED; STAINLESS STEEL OR CADMIUM PLATED STEEL.
f. EXPOSED HARDWARE: NOT ACCEPTABLE ON VISIBLE SURFACES OF FIXTURES IN FINISHED AREAS UNLESS OTHERWISE NOTED.
F. PROVIDE APPROPRIATE MOUNTING ACCESSORIES FOR EACH FIXTURE, COMPATIBLE WITH THE VARIOUS STRUCTURAL CONDITIONS THAT WILL BE ENCOUNTERED. PROVIDE FASTENING CLIPS (EARTHQUAKE CLIPS) FOR LIGHTING FIXTURES THAT ARE SUPPORTED FROM FRAMING MEMBERS OF SUSPENDED CEILINGS.
G. ASSEMBLE, WIRE AND INSTALL ALL LIGHTING FIXTURES AT THEIR RESPECTIVE OUTLETS AS INDICATED AND ASSUME RESPONSIBILITY FOR THEIR CONDITION UNTIL ACCEPTANCE BY OWNER. INSTALL PROPER LAMPS IN EACH FIXTURE.

- H. FIXTURE CONNECTIONS TO BRANCH CIRCUITS SHALL BE MADE USING STRANDED WIRE WITH INSULATION TEMPERATURE RATING EQUAL TO OR HIGHER THAN THAT OF WIRE SUPPLIED WITH THE FIXTURE, OR SPECIFIED BY FIXTURE MANUFACTURER. FIXTURES ARE TO BE CONNECTED TO BRANCH CIRCUITS VIA JUNCTION BOX USING FLEXIBLE CONDUIT OF LENGTHS BETWEEN 4 FT. MINIMUM AND 6 FT. MAXIMUM.
I. THE USE OF FLEXIBLE CONDUIT, TO FIXTURES IN ANY LENGTH OVER 6 FT. IS PERMITTED ONLY WHEN A SEPARATE GROUND WIRE IS INSTALLED ALONG WITH THE CONDUCTORS INSIDE THE FLEXIBLE CONDUIT. IN THIS APPLICATION THE GROUND WIRE MUST BOND THE LIGHTING FIXTURE HOUSINGS TO EACH OTHER AND/OR TO THE JUNCTION BOX. ALL FLEXIBLE CONDUIT SHALL BE SUPPORTED AS REQUIRED BY NEC AND SHALL BE INSTALLED IN A WORKMANLIKE MANNER.
J. NOTE THAT SPECIFICATIONS FOR RECESSED FIXTURES GENERALLY DO NOT INCLUDE MOUNTING ACCESSORIES, AND THAT EACH FIXTURE TYPE MAY BE USED IN SEVERAL DIFFERENT CEILINGS, SUCH AS LAY-IN EXPOSED GRID, CONCEALED SPLINE TILE, OR DRYWALL. VERIFY MOUNTING DETAILS FOR EACH SPACE BEFORE ORDERING FIXTURES SO THAT PROPER QUANTITIES FOR EACH CONDITION WILL BE DELIVERED IN TIME TO AVOID CONSTRUCTION DELAYS.
K. SECURELY FASTEN LIGHTING FIXTURES TO FRAMING MEMBERS OF SUSPENDED CEILINGS WITH FASTENING CLIPS, AS SPECIFIED. CLIP EACH FIXTURE TO ALL ADJOINING FRAMING MEMBERS TO PREVENT MOVEMENT OF THE MEMBERS AWAY FROM THE FIXTURES.
L. SUPPORT EXIT SIGNS IN TILE CEILINGS WITH RAILS THAT SPAN BETWEEN RUNNERS OF CEILING SUSPENSION SYSTEM. USE FLANGED FIXTURES FOR FINISHED APPEARANCE.
M. SUPPORT LED FIXTURES IN DRYWALL CEILINGS FROM PLASTER FRAMES, WITH ADJUSTABLE LUGS ON SIDE OF FIXTURE OR YOKE MOUNTING AS RECOMMENDED BY FIXTURE MANUFACTURER. USE FLANGED FIXTURES FOR FINISHED APPEARANCE, UNLESS OTHERWISE NOTED.
N. LOCATE FIXTURE IN CENTER OF PANEL WHERE USED IN MODULAR TILE CEILINGS, UNLESS OTHERWISE NOTED. REFER TO REFLECTED CEILING PLAN.

18. EMPTY RACEWAY SYSTEMS

- A. A COMPLETE EMPTY RACEWAY SYSTEM CONSISTING OF BLANK 4-11/16 IN. SQ. X 2-1/8 INCHES DEEP OUTLET BOXES WITH SINGLE OR DOUBLE GANG DRYWALL FINISH COLLAR AS NOTED. METALLIC RACEWAY WITH PULL STRING SHALL BE PROVIDED AND INSTALLED WHERE SHOWN FOR THE FOLLOWING SYSTEMS.
1) TELEPHONE/DATA (SINGLE GANG)
2) CABLE TELEVISION (SINGLE GANG)
B. RACEWAY SIZE SHALL BE A MINIMUM OF 3/4 IN. OR AS DOCUMENTED IN PLANS AND DETAILS.
C. ALL METALLIC RACEWAY SYSTEMS SHALL BE STUBBED UP AND TERMINATE IN ACCESSIBLE CEILING. END BUSHINGS AND PULL WIRES SHALL BE PROVIDED. BONDING OF ALL RACEWAY SYSTEMS TO PROVIDE A COMMON GROUND PATH SHALL BE PROVIDED.
D. ACTUAL DEVICES, CONNECTORS, WIRING COMPLETE WITH TERMINATIONS AND BOX COVERS SHALL BE PROVIDED BY THE OWNER.

19. FIRE STOPPING

- A. DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION.
B. PROVIDE ALL REQUIRED FIRE STOPPING. WORK INCLUDES FIRE-STOPPING PENETRATIONS OF FIRE-RESISTANCE RATED FLOORS, WALLS AND PARTITIONS IN NEW CONSTRUCTION, AS WELL AS PRE-EXISTING PENETRATIONS IN RENOVATION AREAS OF EXISTING CONSTRUCTION.
C. PRODUCT DATA: SUBMIT MANUFACTURER'S PRODUCT DATA FOR EACH FIRE-STOPPING PRODUCT REQUIRED, INCLUDING INSTRUCTIONS FOR SUBSTRATE PREPARATION AND FIRE-STOPPING INSTALLATION.
D. FIRE RESISTANT JOINT SEALERS: PROVIDE MANUFACTURER'S STANDARD FIRE-STOPPING SEALANT WITH ACCESSORY MATERIALS, HAVING FIRE RESISTANCE RATINGS INDICATED AS ESTABLISHED BY TESTING IDENTICAL ASSEMBLIES PER ASTM E814 BY UNDERWRITERS LABORATORY, INC. OR OTHER TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
E. MATERIALS - PROVIDE THE FOLLOWING:
1) ONE-PART FIRE-STOPPING SEALANT: ONE PART LATEX BASED INTUMESCENT SEALANT FORMULATED FOR USE IN A THROUGH-PENETRATION FIRE-STOP SYSTEM FOR SEALING OPENINGS AROUND CABLES, CONDUIT, PIPES AND SIMILAR PENETRATIONS THROUGH WALLS AND FLOORS. ACCEPTABLE PRODUCTS/MANUFACTURERS INCLUDE THE FOLLOWING:
a. SPEC SEAL LC150 SERIES
b. HILTI FS ONE
c. 3M

20. TESTS

- A. BEFORE MAKING TESTS, COMPLETE ALL CONNECTIONS AT PANELS, FIXTURES AND OTHER EQUIPMENT. INSTALL FUSES AND HAVE ALL WIRING CONTINUOUS FROM SERVICE EQUIPMENT TO UTILIZATION OUTLETS. CORRECT ALL UNDESIRABLE GROUND, OPEN AND SHORT CIRCUIT CONDITIONS.
B. PROVIDE SOURCE OF TEMPORARY POWER FOR MAKING TESTS IF NORMAL BUILDING POWER IS NOT AVAILABLE AT THE TIME.
C. TAKE AND RECORD THE FOLLOWING READINGS ON SYSTEMS 600 VOLTS AND BELOW:
1) MEGGER TESTS OF ALL FEEDER CIRCUIT CONDUCTORS, GROUND CONDUCTORS, AND CONDUIT GROUND.
2) AMMETER READINGS ON ALL PHASES AND NEUTRAL OF EACH FEEDER TO INDICATE BALANCE.
3) AMMETER READINGS ON ALL PHASES OF EACH POLYPHASE MOTOR. INCLUDE NAMEPLATE FULL LOAD CURRENT OF EACH MOTOR ON DATA SHEET.
4) CERTIFY THAT ALL OVERLOAD DEVICES HAVE BEEN SET IN ACCORDANCE WITH DATA SHOWN ON THE DRAWINGS AND/OR MANUFACTURER'S RECOMMENDED SETTINGS.
D. SEND FINAL CERTIFIED TEST REPORTS AND CERTIFICATIONS TO THE ARCHITECT FOR APPROVAL AND TRANSMITTAL TO THE OWNER.
E. PROVIDE FUNCTIONAL TESTING FOR OCCUPANT SENSORS AND AUTOMATIC TIME SWITCH IN ACCORDANCE WITH ARTICLE 9.4.3 OF THE 2019 EDITION OF ASHRAE STANDARD 90.1.
22. DEMONSTRATION OF COMPLETE ELECTRICAL SYSTEMS
A. SUBMIT WRITTEN CERTIFICATION THAT ELECTRICAL SYSTEMS ARE COMPLETE AND OPERATIONAL. SUBMIT CERTIFICATION WITH CONTRACTOR'S REQUEST FOR FINAL REVIEW.
1) AT THE TIME OF FINAL REVIEW OF ELECTRICAL WORK, DEMONSTRATE THE OPERATION OF ELECTRICAL SYSTEMS. FURNISH LABOR, APPARATUS AND EQUIPMENT FOR SYSTEMS' DEMONSTRATION. THE VARIOUS TEST SHALL BE WITNESSED BY AND THE OWNER OR HIS REPRESENTATIVE.
B. THE CONTRACTOR SHALL FURNISH ALL TEST EQUIPMENT, MATERIALS, LABOR, AND TEMPORARY POWER HOOK-UPS TO PERFORM START-UP AND ALL TESTS AS REQUIRED TO OBTAIN FINAL FIELD ACCEPTANCE FROM OWNER. ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE OWNER OR HIS REPRESENTATIVE. ALL TEST PROCEDURES SHALL CONFORM TO THIS SPECIFICATION AND APPLICABLE STANDARDS THE ANSI, IEEE, NEMA, OSHA, NEPA, ETC.
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTS AND TEST RECORD. TESTING SHALL BE PERFORMED BY AND UNDER THE IMMEDIATE SUPERVISION OF THE CONTRACTOR. TEST RECORD SHALL BE KEPT FOR EACH PIECE OF EQUIPMENT. COPIES SHALL BE FURNISHED TO THE ENGINEER FOR REVIEW AND/OR APPROVAL.
D. A VISUAL INSPECTION OF ALL ELECTRICAL EQUIPMENT, TO CHECK FOR THE FOREIGN MATERIAL, TIGHTNESS OR WIRING AND CONNECTION, PROPER GROUNDING, MATCHING NAMEPLATE CHARTS WITH SPECIFICATION, ETC., SHALL BE MADE PRIOR TO ACTUAL TESTING.
E. A COMPLETE OPERATIONAL TEST SHALL BE MADE ON THE REVISED LIFE SAFETY FIRE ALARM SYSTEM. THE CONTRACTOR SHALL CONSULT WITH THE EQUIPMENT VENDORS AND THEN SUBMIT FOR APPROVAL A STEP-BY-STEP PROCEDURE.

DESCRIBING THE METHOD OF MAKING THE TESTS, THE EQUIPMENT TO BE UTILIZED AND THE FEATURE TO BE CHECKED BY THE TEST. ALL INTERLOCKS AND PROTECTIVE FEATURES SHALL BE CHECKED OUT.

23. SPECIAL ENGINEERING SERVICES

- A. IN THE INSTANCE OF COMPLEX OR SPECIALIZED ELECTRICAL SYSTEMS SUCH AS EMERGENCY SYSTEM FIRE ALARM OR SIMILAR MISCELLANEOUS SYSTEMS, THE INSTALLATION, FINAL CONNECTIONS AND TESTING OF SUCH SYSTEMS SHALL BE MADE UNDER THE DIRECT SUPERVISION OF COMPETENT AUTHORIZED SERVICE ENGINEERS WHO SHALL BE IN THE EMPLOY OF THE RESPECTIVE EQUIPMENT MANUFACTURER.
B. ANY AND ALL EXPENSES INCURRED BY THESE EQUIPMENT MANUFACTURERS' REPRESENTATIVES RELATED TO THIS PROJECT, SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.

24. DESIGN MODIFICATIONS

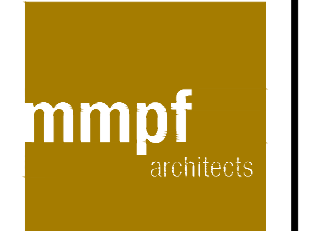
- A. THE DRAWINGS SHOW ELECTRICAL SYSTEMS, WHICH SUPPLY, CONTROL AND/OR MONITOR SYSTEMS SPECIFIED ELSEWHERE. THE ELECTRICAL SYSTEM SHOWN HAS BEEN BASED ON SPECIFIC MANUFACTURERS DATA OR INFORMATION CONVEYED TO THE ELECTRICAL DESIGNER. WHERE ANY AGREEMENT OR CHANGE IS MADE TO SUPPLY EQUIPMENT OF LARGER CAPACITY OR DIFFERENT ELECTRICAL CHARACTERISTICS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE ELECTRICAL SYSTEM TO EFFECT SUCH CHANGES WITHIN THE INTENT OF THESE SPECIFICATIONS AND TO INFORM THE ENGINEER, IN WRITING, OF SUCH CHANGE. FOR EXAMPLE, IF HVAC COMPRESSORS AND/OR MOTORS ARE ALLOWED TO BE CHANGED TO 230 VOLTS RATHER THAN THE ORIGINALLY SPECIFIED 208 VOLTS, BOOSTING OR BUCKING TRANSFORMERS SHALL BE SUPPLIED, INSTALLED, AND WIRED TO ACCOMMODATE THE CHANGE AT NO ADDITIONAL COST.

Revisions table with columns: No., Date, Description

ISSUED FOR BID, NOT FOR CONSTRUCTION 01/23/2024

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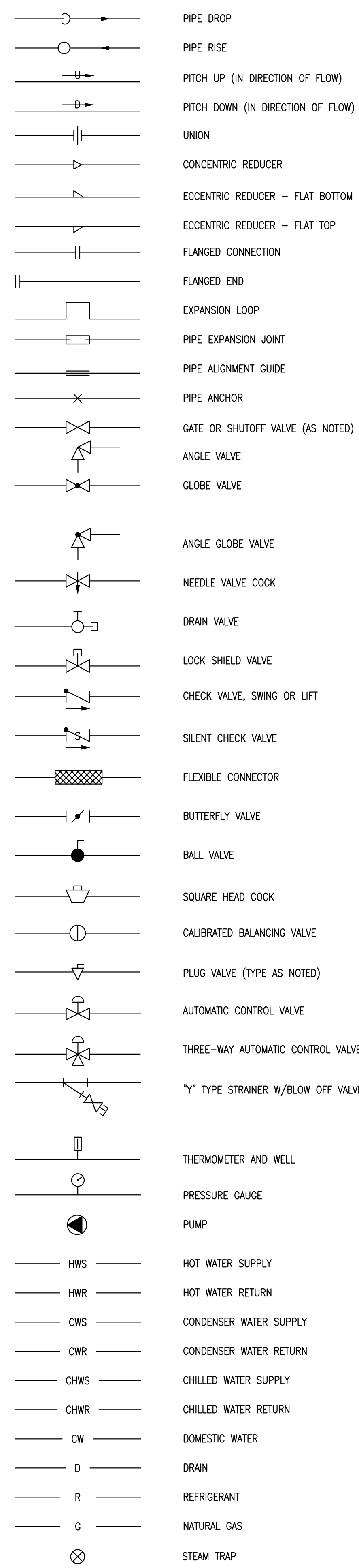
Project
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Table with columns: Drawing (ELECTRICAL SPECIFICATIONS), Scale (AS NOTED), Job (22.099), Sheet (E5.2), Drawn (PLQ), Date (01/23/24), 8 of 8

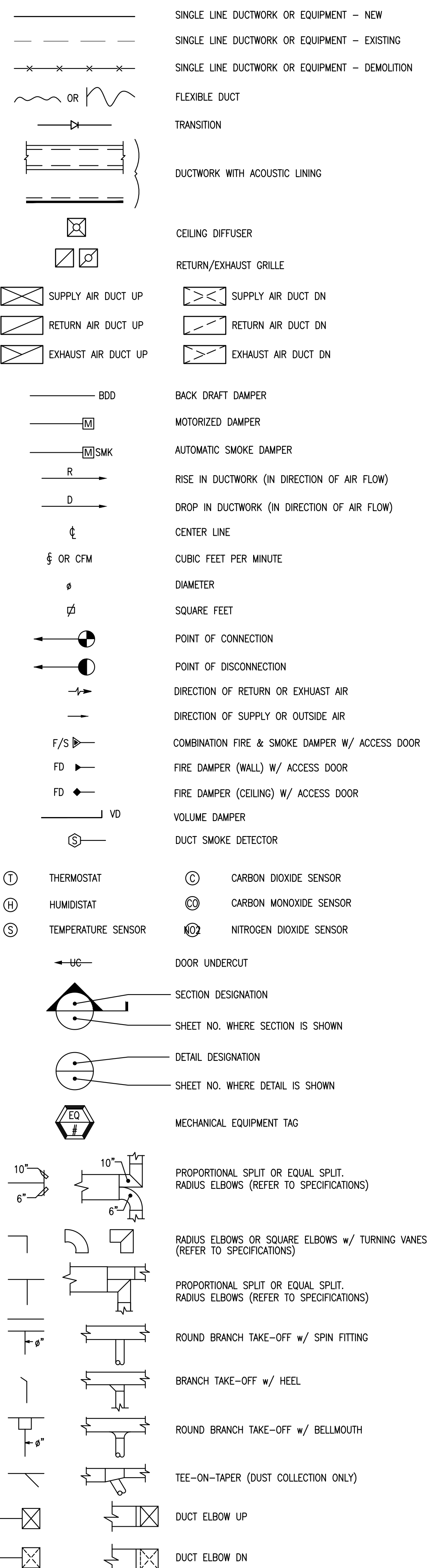
HVAC SYMBOLS LIST

(NOT ALL SYMBOLS ARE NECESSARILY USED ON THIS PROJECT)

HVAC BASIC PIPING SYMBOLS



HVAC BASIC DUCTWORK & ACCESSORY SYMBOLS



HVAC ABBREVIATIONS

(NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT)

AAV	AUTOMATIC AIR VENT	HW	HOT WATER
AC	AIR CONDITIONING	HX	HEAT EXCHANGER
ACU	AIR CONDITIONING UNIT	HZ	HERTZ (FREQUENCY)
AD	ACCESS DOOR	IN.	INCH OR INCHES
AFF	ABOVE FINISHED FLOOR	LAT	LEAVING AIR TEMPERATURE
AHU	AIR HANDLING UNIT	LD	LINEAR DIFFUSER
BCU	BLOWER COIL UNIT	LF	LINEAR FEET
BDD	BACKDRAFT DAMPER	LWB	LEAVING WET BULB TEMPERATURE
BHP	BRAKE HORSEPOWER	LWT	LEAVING WATER TEMPERATURE
BMS	BUILDING MANAGEMENT SYSTEM	MTH	THOUSAND BTU PER HOUR
BR	BOTTOM REGISTER	MER	MECHANICAL EQUIPMENT ROOM
BT	BOTTOM THROAT	MIN	MINIMUM
BTU	BRITISH THERMAL UNIT	MOD	MOTOR OPERATED DAMPER
BTUH	BTU PER HOUR	(N)	NEW
CD	CEILING DIFFUSER	NC	NORMALLY CLOSED
CFM	CUBIC FEET PER MINUTE	NIC	NOT IN CONTRACT
CG	CEILING GRILLE	NO	NORMALLY OPEN
CHWR	CHILLED WATER RETURN	NO.	NUMBER
CHWS	CHILLED WATER SUPPLY	NTS	NOT TO SCALE
CLG	CEILING	OA	OUTSIDE AIR
CO	CLEANOUT	OAI	OUTSIDE AIR INTAKE
COND	CONDENSATE	OED	OPEN END DUCT
CR	CEILING REGISTER	P.C.	PLUMBING CONTRACTOR
CUH	CABINET UNIT HEATER	PSI	POUNDS PER SQUARE INCH
CV	CONSTANT VOLUME	PSIA	PSI ABSOLUTE
CB	COLD WATER/CONDENSATE WATER	PSIG	PSI GAUGE
DB	DRY BULB	RA	RETURN AIR
DDC	DIRECT DIGITAL CONTROL	(RE)	RELOCATED EXISTING
DM	DIAMETER	RF	RETURN FAN
DMPR	DAMPER	RG	RETURN GRILLE
DN	DOWN	RH	RELATIVE HUMIDITY
DX	DIRECT EXPANSION	RHC	REHEAT COIL
EX	EXISTING TO REMAIN	ELA	EXISTING LOAD AMPS
(ER)	EXISTING TO BE REMOVED	RFM	REVOLUTIONS PER MINUTE
(ERR)	EXISTING TO BE REMOVED & RELOCATED	RR	RETURN REGISTER
EA	EXHAUST AIR/EACH	(RRR)	EXISTING TO BE REMOVED & RETURN TO OWNER
EAT	ENTERING AIR TEMPERATURE	RTU	ROOFTOP HANDLING UNIT
E.C.	ELECTRICAL CONTRACTOR	SA	SUPPLY AIR
EDB	ENTERING DRY BULB TEMPERATURE	SD	SMOKE DAMPER
EF	EXHAUST FAN	SF	SUPPLY FAN
EG	EXHAUST GRILLE	SP	STATIC PRESSURE
EL	ELEVATION	SPEC	SPECIFICATION
EMS	ENERGY MANAGEMENT SYSTEM	SQFT	SQUARE FEET
ER	EXHAUST REGISTER	SR	SUPPLY REGISTER
ESP	EXTERNAL STATIC PRESSURE	TCH	TOTAL DYNAMIC HEAD
EWB	ENTERING WET BULB	TEMP	TEMPERATURE
EWT	ENTERING WATER TEMPERATURE	TG	TRANSFER GRILLE
EXH	EXHAUST	TR	TOP REGISTER
F	DEGREES FAHRENHEIT	TRANS	TRANSITION
FA	FRESH AIR/FREE AREA (SQ. FT.)	TSP	TOTAL STATIC PRESSURE
FCU	FLEXIBLE CONNECTION	T-STAT	THERMOSTAT
FC	FAN COIL UNIT	TYP	TYPICAL
FD	FIRE DAMPER	UH	UNIT HEATER
FIN FL/FF	FINISHED FLOOR	UNON	UNLESS OTHERWISE NOTED
FLA	FULL LOAD AMPERES	VD	VOLUME DAMPER
FPB	FAN-POWERED BOX	VFD	VARIABLE FREQUENCY DRIVE
FPM	FEET PER MINUTE	VAV	VARIABLE AIR VOLUME
GAL	GALLON	VV	VARIABLE INLET VANES
G.C.	GENERAL CONTRACTOR	W	WIDTH
GPH	GALLONS PER HOUR	W/	WITH
GPM	GALLONS PER MINUTE	WB	WET BULB
GRD	GRILLES, REGISTERS & DIFFUSERS	W.C.	WATER COLUMN
HT	HEIGHT	W.G.	WATER GAUGE
HP	HORSEPOWER	WH	WATER HEATER
HR	HOUR	WMS	WIRE MESH SCREEN
HV	HEATING AND VENTILATING		

MECHANICAL NOTES

- PRIOR TO SUBMITTING A BID, THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS AND SPECIFICATIONS AND VISIT THE SITE TO BECOME ACCQUAINTED WITH THE CONSTRUCTION AND THE EXTENT OF THE WORK. NO EQUIPMENT OR MATERIAL IS TO BE ORDERED OR FABRICATED PRIOR TO FIELD VERIFICATION OF ALL MEASUREMENTS, CLEARANCES, POTENTIAL CONFLICTS WITH EXISTING CONDITIONS OR THAT OF OTHER TRADES ON THE JOB.
- CONTRACTOR SHALL PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE, WHETHER SPECIFIED OR IMPLIED.
- WHERE THERE IS A DISCREPANCY BETWEEN MATERIAL OR EQUIPMENT IN THE DRAWINGS AND/OR SPECIFICATIONS, THE MECHANICAL CONTRACTOR SHALL ASSUME THE MORE STRINGENT, HIGHER QUALITY AND MORE EXPENSIVE OPTION FOR BIDDING.
- CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE INTERNATIONAL BUILDING CODE, MECHANICAL CODE, FUEL GAS CODE, PLUMBING CODE, NEC CODE AND ALL OTHER STATE AND LOCAL AUTHORITIES HAVING JURISDICTION.
- CONTRACTOR SHALL GIVE ALL NOTICES, OBTAIN AND PAY FOR ALL PERMITS, DEPOSITS AND FEES NECESSARY.
- DO NOT SCALE THE DRAWINGS FOR EXACT DIMENSIONS. THE DESIGN DRAWINGS ARE DIAGRAMATIC AND INDICATE THE GENERAL LAYOUT AND CONNECTIONS. CONTRACTOR SHALL VERIFY ALL CONDITIONS, DIMENSIONS, ETC. AT THE JOB SITE.
- CONTRACTOR SHALL REVIEW THE WORK OF OTHER TRADES TO PREVENT INTERFERENCE BETWEEN BEAMS, STRUCTURES, PIPING, LIGHTING FIXTURES, ETC. BEFORE PROCEEDING WITH NEW WORK.
- CONTRACTOR SHALL GUARANTEE THE ENTIRE JOB AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE BINDING REGARDLESS OF MANUFACTURER'S GUARANTEE AND CONTRACTOR SHALL REMOVE AND REPLACE ALL DEFECTIVE MATERIAL REGARDLESS OF CAUSE (EXCEPT FOR DEFECTS TRACEABLE TO IMPROPER MAINTENANCE OR MALICIOUS DESTRUCTION OCCURRING AFTER THE SYSTEM HAS BEEN TURNED OVER).
- ALL MATERIALS USED ANYWHERE IN THE WORK SHALL HAVE NFPA RATING AS FOLLOWS:
A. FLAME SPREAD - NOT OVER 25
B. SMOKE DEVELOPED - NOT OVER 50
C. FUEL CONTRIBUTED - NOT OVER 25
ALL MATERIALS SHALL BE "SELF-EXTINGUISHING"
- CONTRACTOR SHALL SUBMIT 1/4" SCALE SHEET METAL SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- SUBMIT SPECIFICATION SHEETS OF ALL EQUIPMENT SUPPLIED OR INSTALLED TO THE ARCHITECT/ENGINEER FOR APPROVAL, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
A. AIR CONDITIONING UNITS
B. GRILLES, REGISTERS, AND DIFFUSERS
C. CONTROLS
D. PIPING
E. INSULATION
F. FANS
- ALL MECHANICAL EQUIPMENT AND APPLIANCES INSTALLED SHALL BEAR THE LABEL OF AN APPROVED AGENCY.
- EQUIPMENT AND MATERIALS ARE SPECIFIED TO ESTABLISH A STANDARD OF QUALITY. ALL MATERIALS AND EQUIPMENT USED FOR THIS CONTRACT SHALL BE NEW, UNUSED AND OF THE LATEST MODEL OR DESIGN AVAILABLE.
- ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT INSULATION IS APPLIED.
- UPON COMPLETION OF THE WORK, REMOVE ALL EXCESS MATERIAL, DEBRIS, TOOLS AND EQUIPMENT FROM THE SITE, AND LEAVE THE PREMISES IN A BROOM CLEAN CONDITION.
- CONTRACTOR SHALL PROVIDE THREE (3) COMPLETE SETS OF SOUND OPERATING AND MAINTENANCE INSTRUCTIONS. CONTRACTOR SHALL INSTRUCT THE OWNER OR HIS AGENT WITH REGARD TO THE PROPER USE OF THE SYSTEM UNTIL SUCH INSTRUCTION IS COMPLETE TO THE OWNER'S SATISFACTION.
- ALL DUCT SIZES SHOWN ARE INSIDE CLEAR.
- MAXIMUM ALLOWABLE LENGTH FOR FLEXIBLE DUCT IS SIX (6') FEET.
- MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING, EITHER ENGAGING HIS OWN GENERAL SUBCONTRACTOR OR ONE QUALIFIED BY THE OWNER.
- CONTRACTOR SHALL INFORM THE ENGINEER OF ANY QUESTIONS OR DISCREPANCIES PRIOR TO PRECISOR AND/OR FABRICATION OF ANY MATERIALS AND INSTALLATION.
- INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN GUIDELINES, INSTALLATION MANUAL, SPECIFICATIONS, AND O&M MANUAL.
- CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURAL STEEL, SUPPORTS, BRACES, HANGERS, ETC., REQUIRED FOR HIS CONTRACT UNLESS OTHERWISE NOTED. CONTRACTOR SHALL COORDINATE ALL EQUIPMENT SUPPORT LOCATION AND INSTALLATION WITH ROOFING AND STRUCTURAL CONTRACTORS.
- MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONNECTIONS, SUPPORTS, TERMINATIONS & ACCESSORIES ASSOCIATED WITH AIR HANDLING UNITS, FANS, ETC.
- SUPPORT ALL EQUIPMENT, PIPING AND DUCTWORK WITH VIBRATION ISOLATION HANGERS AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR WHO WILL PROVIDE POWER WIRING TO ALL MECHANICAL EQUIPMENT. MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL AND INTERLOCK WIRING AND ALL THERMOSTATS AND ACCESSORIES.
- ALL EXTERIOR WALL OPENINGS SHALL BE SLEEVED, PROPERLY CAULKED AND SEALED WITH A HIGH QUALITY SEALANT TO PREVENT INFILTRATION OF MOISTURE AND OUTSIDE AIR.
- PROVIDE VOLUME DAMPERS AT ALL DUCT BRANCHES AND RUNOUTS. PROVIDE OPPOSED BLADE VOLUME DAMPERS AT ALL REGISTERS, GRILLES AND DIFFUSER NECKS IN SUPPLY, RETURN AND EXHAUST DUCTWORK WHETHER SHOWN ON DRAWINGS OR NOT.
- PROVIDE AT MINIMUM 10 GAUGE STEEL SLEEVES FOR ALL DUCT PENETRATIONS THROUGH FIRE WALLS, FLOORS AND PARTITIONS. PROVIDE PIPE SLEEVES FOR ALL MECHANICAL PIPING PENETRATING THROUGH FIRE WALLS, FLOORS AND PARTITIONS. SEAL ALL ANNUAL SPACE BETWEEN SLEEVES AND DUCTWORK OR PIPING WITH A FIRE BARRIER MATERIAL.
- PROVIDE FLEXIBLE CONNECTIONS ON ALL DUCTS AND PIPING CONNECTIONS TO ANY MOTOR DRIVEN MECHANICAL EQUIPMENT (I.E. FANS, AIR HANDLERS, PUMPS, ETC.) INSTALL FLEXIBLE COPPER GROUNDING STRAPS ACROSS ALL FLEXIBLE CONNECTIONS.
- THE INSIDE OF ALL DUCTWORK VISIBLE THROUGH A GRILLE OR DIFFUSER SHALL BE PAINTED FLAT BLACK.
- ACCESS PANELS SHALL BE PROVIDED TO SERVICE ALL VALVES, DAMPERS, HEATERS, CONCEALED MECHANICAL EQUIPMENT, TRAPS, CLEANOUTS AND DISCHARGE SIDE OF ELECTRIC HEATERS. COORDINATE ACCESS DOORS ON FINISHED SURFACES W/ ARCHITECT AND OWNER.
- DIGITAL LOCATIONS FOR MOUNTING ALL THERMOSTATS SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO INSTALLING ANY CONTROL WORK. ALL COMMON AREA THERMOSTATS SHALL BE EQUIPPED WITH LOCKING COVERS. MOUNT ALL THERMOSTATS TO COMPLY WITH ADA REQUIREMENTS. THERMOSTAT WIRING SHALL BE INSTALLED IN CONCEALED SPACE. WALL OR CHASE - CONTRACTOR SHALL PROVIDE 1-INCH THICK (R-5) FOAM BOARD INSULATION PAINTED TO MATCH THE ROOM'S FINISH FOR ALL THERMOSTATS MOUNTED ON MASONRY WALLS.
- THE TESTING, ADJUSTING, AND BALANCING AGENCY SHALL BE A MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING SURVEAU (NEBS). TESTING, ADJUSTING, AND BALANCING SHALL BE PERFORMED IN ACCORDANCE WITH THE AABC OR NEBS STANDARDS.
- CONTRACTOR SHALL ENSURE THAT ALL MECHANICAL DEVICES WILL BE INSTALLED IN LOCATIONS WHICH AFFORD ACCESSIBILITY FOR MAINTENANCE AND REPAIR. COORDINATE INSTALLATION AMONG ALL TRADES TO AVOID INTERFERENCES AND LOCATE EQUIPMENT TO PROVIDE CLEARANCES WHICH EXCEED THOSE RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE SAFETY OF STRUCTURE, BOTH EXISTING AND NEW.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SCHEDULING AND ASSOCIATED HOISTING, STACKING, AND ERECTING OF MATERIALS. ALL ELEMENTS OF THE EXISTING PROPERTY SHALL BE PROTECTED AGAINST DAMAGE RESULTING FROM THESE ACTIVITIES.
- THE LOCATION OF EXISTING SYSTEMS AND SYSTEM COMPONENTS WAS OBTAINED THROUGH EXISTING DRAWINGS AND FIELD SURVEYS. ONLY SYSTEM ELEMENTS THAT WERE CLEARLY VISIBLE HAVE BEEN IDENTIFIED. LOCATIONS AND SIZES OF EXISTING SYSTEMS MUST BE FIELD VERIFIED BY THE CONTRACTOR, PRIOR TO THE REMOVAL OF ANY EXISTING SYSTEM COMPONENTS AND CONNECTING NEW SYSTEMS TO EXISTING.
- THESE DRAWINGS HAVE BEEN MADE BASED ON A VISUAL INSPECTION OF THE EXISTING SURFACES. SOME ASSUMPTIONS HAVE BEEN MADE AS TO ACTUAL CONSTRUCTION, MATERIALS, AND METHODS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL ACTUAL FIELD CONDITIONS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES, CONFLICTS, AND UNFORESEEN CONDITIONS. IN ADDITION, THESE DRAWINGS ASSUME THAT ALL EXISTING MATERIALS ARE IN GOOD STRUCTURAL SHAPE, GOOD WORKING ORDER, AND MEET ALL APPLICABLE CODES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSPECTION OF ALL EXISTING STRUCTURAL ELEMENTS AND SHALL REPORT TO THE CLIENT AND ARCHITECT ANY SIGNS OF POTENTIAL PROBLEMS WITH THE STRUCTURE INCLUDING, BUT NOT LIMITED TO, WOOD DECAYING ORGANISMS, WATER PENETRATION, STRUCTURAL FRACTURES, STRESSED SURFACES, BRICK AND MASONRY WEAKENING AND WEAK STRUCTURAL CONNECTIONS.
- ENGAGE A FACTORY - AUTHORIZED SERVICE REPRESENTATIVE TO PERFORM STARTUP SERVICES. COMPLETE INSTALLATION AND STARTUP CHECKS SHALL BE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND STARTUP FOLLOWING SHALL BE PROVIDED TO CORRECT/ENGINEER FOLLOWING COMPLETION. STARTUP SHALL BE PROVIDED FOR ALL EQUIPMENT SUPPLIED OR INSTALLED, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
A. AIR CONDITIONING UNITS
B. HEATERS
C. PUMPS
D. FANS
E. BOILERS
F. CHILLERS
G. CONDENSERS & HEAT PUMPS
H. CONTROLS
- CONTRACTOR SHALL PREPARE FULLY DIMENSIONED FIELD INSTALLATION DRAWINGS AS OUTLINED BELOW. THESE DRAWINGS SHALL BE FORWARDED TO ALL CONTRACTORS. EACH CONTRACTOR SHALL SUBSEQUENTLY IN SUCCESSION DELINEATE THEIR RESPECTIVE WORK ON THESE COORDINATION DRAWINGS. WHEN ALL WORK HAS BEEN PROPERLY SHOWN ON THE COORDINATION DRAWINGS, AND ALL CONTRACTORS AGREE THAT THEIR RESPECTIVE WORK CAN BE INSTALLED AND SHALL PROPERLY FIT TOGETHER, THEY SHALL SO ACKNOWLEDGE BY ENDORSING THE DRAWING(S). ANY WORK DONE PRIOR TO COMPLETION OF ABOVE COORDINATION PROCESS FOUND IN CONFLICT SHALL BE REMOVED AND REPLACED AT CONTRACTOR'S EXPENSE.

MECHANICAL EQUIPMENT SERVICING & AIR AND HYDRONIC PRE-BALANCING REQUIREMENTS

- PRE-BALANCING REPORTS ARE REQUESTED DUE TO THE VISUAL NATURE OF THE ENGINEERS' FIELD SURVEYS. SOME ASSUMPTIONS HAVE BEEN MADE DURING THE DESIGN WHICH SHALL BE CONFIRMED, ADJUSTED OR CORRECTED FOLLOWING REVIEW OF THESE PRE-BALANCING REPORTS. THE FOLLOWING REQUIREMENTS WILL ALLOW THE ENGINEER TO PROPERLY REVIEW THEIR ASSUMPTIONS:
- PRIOR TO ANY DEMOLITION OR PRE-BALANCING, THE CONTRACTOR SHALL CLEAN, ADJUST, REGULATE, AND SERVICE ALL EXISTING MECHANICAL EQUIPMENT ON THE FIRST AND SECOND FLOOR FOR PROPER OPERATION. REPLACE ALL FILTERS IN UNITS AND ANY DAMAGED PARTS. RECHARGE REFRIGERANT AS NEEDED. CORRECT ANY OBJECTIONABLE NOISE AND VIBRATION. REPORT ANY UN-REPAIRABLE DEFICIENCIES TO ARCHITECT AND ENGINEER.
 - PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL PROVIDE AIR BALANCING REPORTS, TO ARCHITECT AND ENGINEER, INCLUDING AIRFLOWS AT SUPPLY, RETURN, AND OUTSIDE AIR MAINS FOR ALL EXISTING HEAT PUMPS SERVING THE FIRST AND SECOND FLOOR, AS WELL AS THE ENERGY RECOVERY VENTILATOR ON THE FIRST FLOOR. ADDITIONALLY, PROVIDE AIRFLOW MEASUREMENTS AT ALL EXISTING GRILLES, DIFFUSERS AND REGISTERS ASSOCIATED WITH EXISTING SYSTEMS ON EACH FLOOR.
 - PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL PROVIDE AIR BALANCING REPORTS, TO ARCHITECT AND ENGINEER, INCLUDING AIRFLOWS AT EXHAUST FAN, RISER, AND BRANCH DUCTWORK SERVING THE FIRST AND SECOND FLOOR. ADDITIONALLY, PROVIDE AIRFLOW MEASUREMENTS AT ALL EXISTING EXHAUST GRILLES ASSOCIATED WITH EXISTING SYSTEMS ON EACH FLOOR.
 - PRIOR TO ANY DEMOLITION, THE CONTRACTOR SHALL PROVIDE HYDRONIC BALANCING REPORTS, TO ARCHITECT AND ENGINEER, INCLUDING FLOW RATE AND PRESSURE DROP AT HEAT PUMP LOOP, SUPPLY AND RETURN PUMPS, AND SUPPLY AND RETURN MAINS ON FIRST AND SECOND FLOOR. ADDITIONALLY, PROVIDE FLOW RATE AND PRESSURE DROP AT EACH EXISTING HEAT PUMP.

GENERAL FIRESTOPPING NOTE

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING OR EXCEEDING WALL/CEILING/FLOOR ASSEMBLY RATINGS FOR ALL PENETRATIONS. CONTRACTOR SHALL VERIFY LOCATION AND RATING OF ALL FIRE ASSEMBLIES AND PROVIDE INTIMESCENT COLLARS AT ALL PENETRATIONS AND FIRE RATED CAULKING AS REQUIRED.

- #### DUAL DUCT VAV UNIT NOTES:
- REFER TO SCHEDULE SHEET FOR ADDITIONAL INFORMATION.
 - EXISTING TERMINAL UNITS ARE PRESSURE DEPENDANT WITH PNEUMATIC CONTROLS.
 - CLEAN AND REFURBISH ALL UNITS PRIOR TO STARTING ANY NEW WORK ON THE SYSTEM. CHECK ALL CONTROLS. REPORT ANY DAMAGE OR OPERATION ISSUES TO ARCHITECT AND ENGINEER.
 - PROVIDE NEW ELECTRONIC TO PNEUMATIC WIRELESS THERMOSTATS FOR ALL UNITS.
 - PROVIDE A UNIT PRICE (PER TERMINAL UNIT) FOR RETROFIT/REPLACEMENT OF EXISTING CONSTANT VOLUME REGULATORS.
 - PROVIDE A UNIT PRICE (PER TERMINAL UNIT) TO REPLACE EXISTING DUAL DUCT TERMINAL UNITS WITH NEW SIMILAR TO TITUS PECO.

Revisions		
No.	Date	Description

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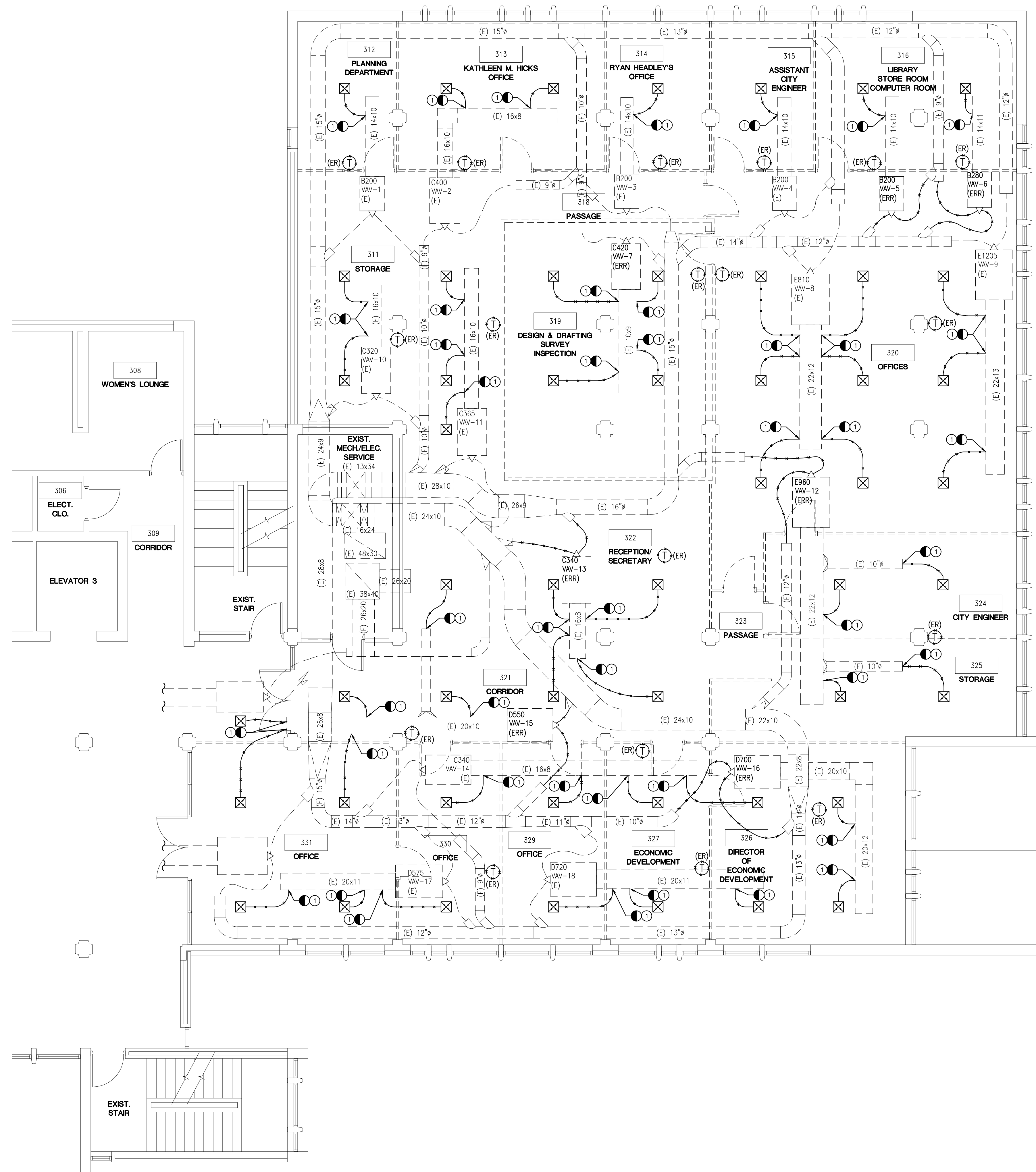
Project

VINELAND CITY HALL 4TH FLOOR OFFICE RENOVATION

640 E. WOOD ST.
VINELAND, NJ 08360

Scale	AS NOTED	Job	22.099	Sheet	MO.0
Drawn	HF	Date	01/23/24		1 of 6

MECHANICAL COVERSHEET



01 MECHANICAL FOURTH FLOOR PLANS - DEMOLITION
SCALE: 3/16" = 1'-0"

- DEMOLITION NOTES:
- THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH RELOCATION AND REMOVAL OF ELECTRICAL WORK AS DESCRIBED IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN ISSUES WHEN CONCEALED WORK HAS BEEN EXPOSED. NO ADDITIONAL CLAIMS FOR WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, UNLESS, IN CERTAIN CASES, CONSIDERED JUSTIFIABLE BY THE ARCHITECT.
 - THE CONTRACTOR SHALL PERFORM REMOVAL AND DEMOLITION WORK WITH MINIMAL INTERFERENCE WITH EXISTING ELECTRICAL SYSTEMS. ALL AFFECTED ELECTRICAL SYSTEMS SHALL BE RESTORED AND RECONNECTED.
 - DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR, PAINT OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
 - THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL OUTLETS, SWITCHES, ETC., INCLUDING ASSOCIATED WIRING, CONDUITS, ETC., FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING WIRING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL JUNCTION BOXES AND OTHER DEVICES AND PROVIDE BRASS CONNECTIONS NECESSARY TO MAKE CIRCUITS AFFECTED CONTINUOUS AND READY FOR OPERATION. OTHERWISE, WIRING SHALL BE REMOVED BACK TO THE NEAREST ELECTRICAL JUNCTION BOX THAT IS TO REMAIN OR TO PANELBOARD.
 - THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING ELECTRICAL WORK WHICH INTERFERES WITH THE NEW ELECTRICAL AND ARCHITECTURAL LAYOUTS IN FULL COORDINATION WITH THE ARCHITECT'S DEMOLITION PLANS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE POWER SUPPLY SOURCE.
 - EXISTING PANELBOARD DIRECTORIES AFFECTED BY THE ALTERATION WORK SHALL BE CHANGED TO REFLECT THE BRANCH CIRCUIT WIRING MODIFICATIONS.
 - ALL UNUSED OUTLET BOXES OR CAPPED FLOOR OUTLETS SHALL BE PROVIDED WITH MATCHING BLANK COVERS.
 - ALL RACEWAYS WHICH ARE EXPOSED AS A RESULT OF NEW WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
 - PORTIONS OF FEEDER RUNS THAT SHALL BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED. NEW FEEDER EXTENSIONS SHALL MATCH EXISTING FEEDER EXTENSIONS IN ALL ASPECTS INCLUDING BUT NOT LIMITED TO CABLE TYPE, CONDUIT SIZES, CONDUCTOR AMPACITY, ETC.
 - FOR ALL EXISTING LIGHT FIXTURES TO REMAIN ("E") OR TO BE RELOCATED ("RE"), THE CONTRACTOR SHALL CLEAN ALL LENSES, REFLECTORS, TRIMS, ETC. AND REPLACE ALL LAMPS, DRIVERS AND BALLASTS AS REQUIRED. COORDINATE LAMP COLOR TEMPERATURES WITH OWNER AND ALL NEW LAMPING AND FIXTURES.
 - AS DIRECTED BY THE OWNER, ALL EXISTING EQUIPMENT AND MATERIAL, IN USABLE CONDITION THAT IS REMOVED UNDER THIS CONTRACT SHALL REMAIN THE PROPERTY OF THE OWNER OR BE DISPOSED BY THE ELECTRICAL CONTRACTOR.
 - THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL FOLLOW CLOSELY THE ARCHITECT'S DEMOLITION AND PHASING SCHEDULE AND PROCEED IN THE SPECIFIED SEQUENCE.
 - THE SHUTDOWN OF EXISTING BUILDING ELECTRICAL SERVICES SHALL BE COORDINATED WITH THE OWNER. MAKE APPROPRIATE ARRANGEMENTS AT LEAST 14 DAYS PRIOR TO A SHUTDOWN.

- KEY NOTES:
- DISCONNECT AND REMOVE EXISTING SUPPLY DIFFUSER AND DUCT BACK TO POINT SHOWN. PATCH AT MAIN DUCT WITH AIR TIGHT SEAL.



KEY PLAN
SCALE: 1/32" = 1'-0"

Revisions		
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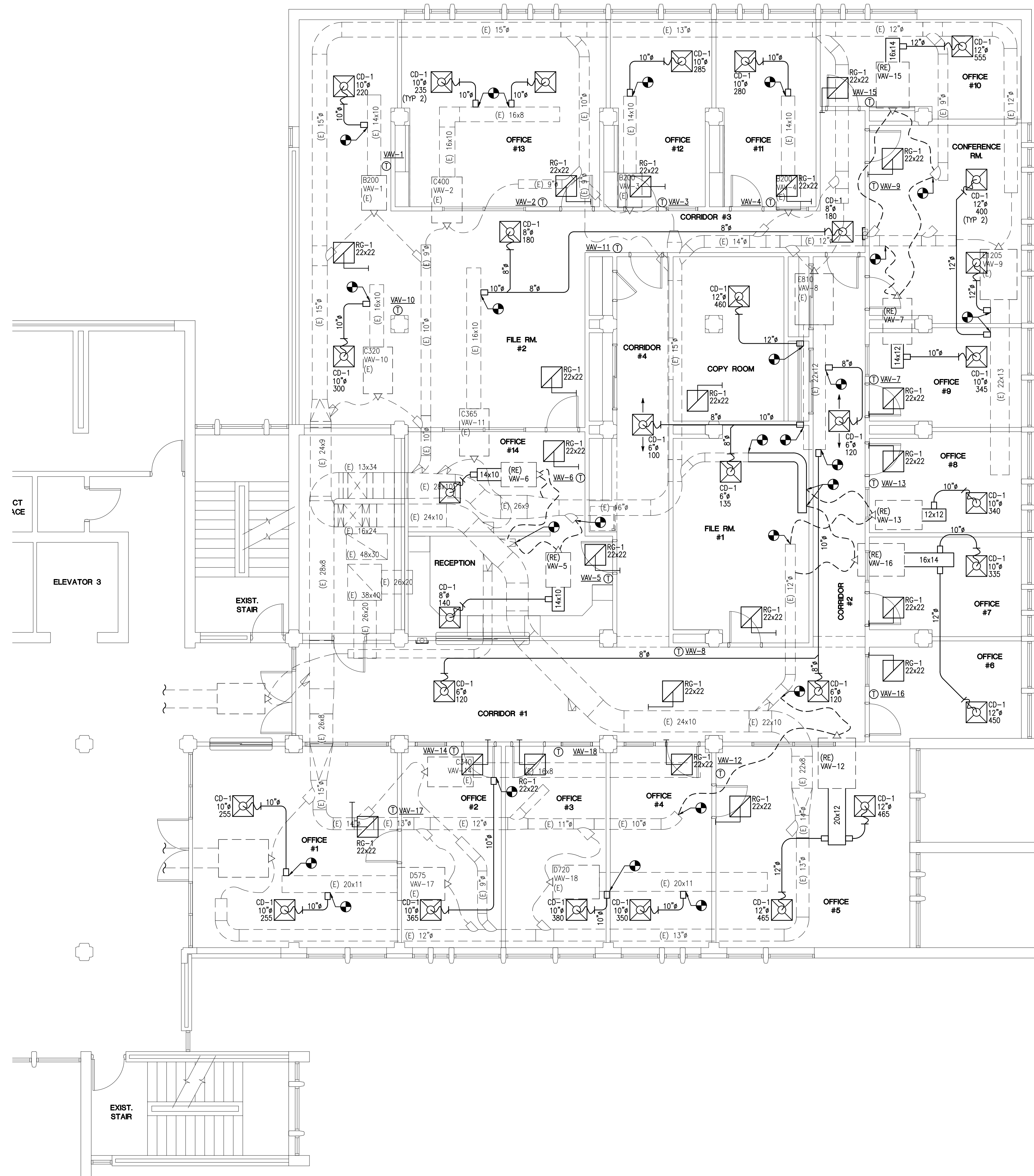
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Project
**VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATION**
640 E. WOOD ST.
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Drawing MECHANICAL FOURTH FLOOR PLANS - DEMOLITION			
Scale AS NOTED	Job 22.099	Sheet M1.0	
Drawn HF	Date 01/23/24	2 of 6	



01 MECHANICAL FOURTH FLOOR PLANS - HVAC & PIPING
SCALE: 3/16" = 1'-0"

DRAWING NOTES:

- DRAWINGS ARE DIAGRAMMATIC. PROVIDE ADDITIONAL OFFSETS, TRANSITIONS, ETC. AS REQUIRED TO AVOID INTERFERENCES ENCOUNTERED.
- CONTRACTOR SHALL PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES AND ACCESS TO ALL EQUIPMENT. COORDINATE LOCATIONS WITH OTHER TRADES TO AVOID CONFLICTS.
- SPACE ABOVE CEILING IS VERY LIMITED. COORDINATE WITH ALL TRADES FOR DUCTWORK ROUTING PRIOR TO FABRICATION AND INSTALLATION.

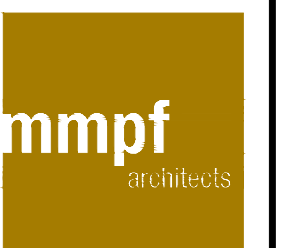
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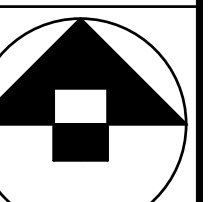
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Project

**VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATION**
640 E. WOOD ST.
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Drawing

MECHANICAL FOURTH FLOOR PLANS - HVAC & PIPING



Scale

AS NOTED

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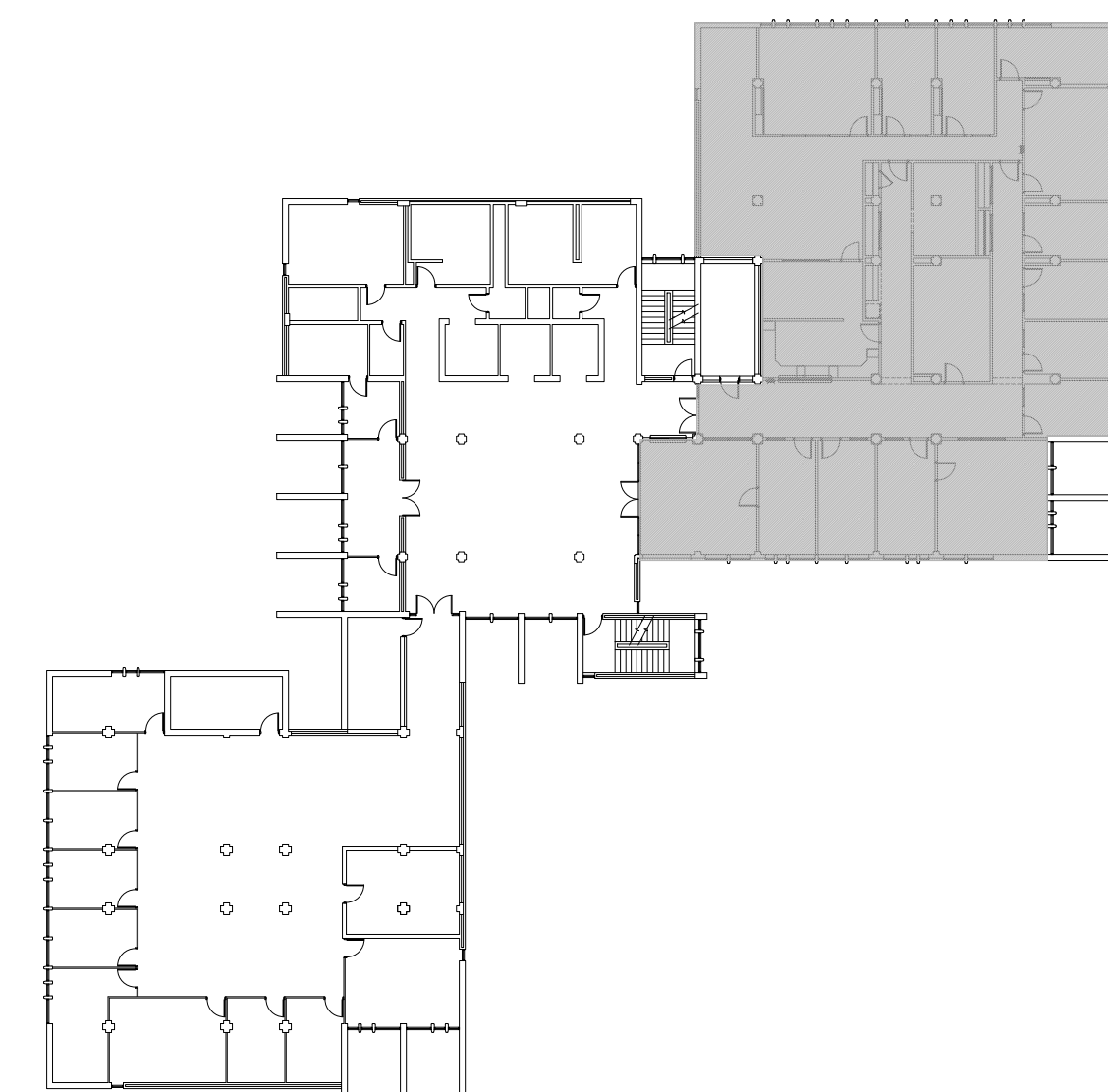
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Date

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3 of 6



KEY PLAN
SCALE: 1/32" = 1'-0"

AIR DEVICE SCHEDULE NOTE: NOT ALL DEVICES MAY BE USED ON PROJECT.

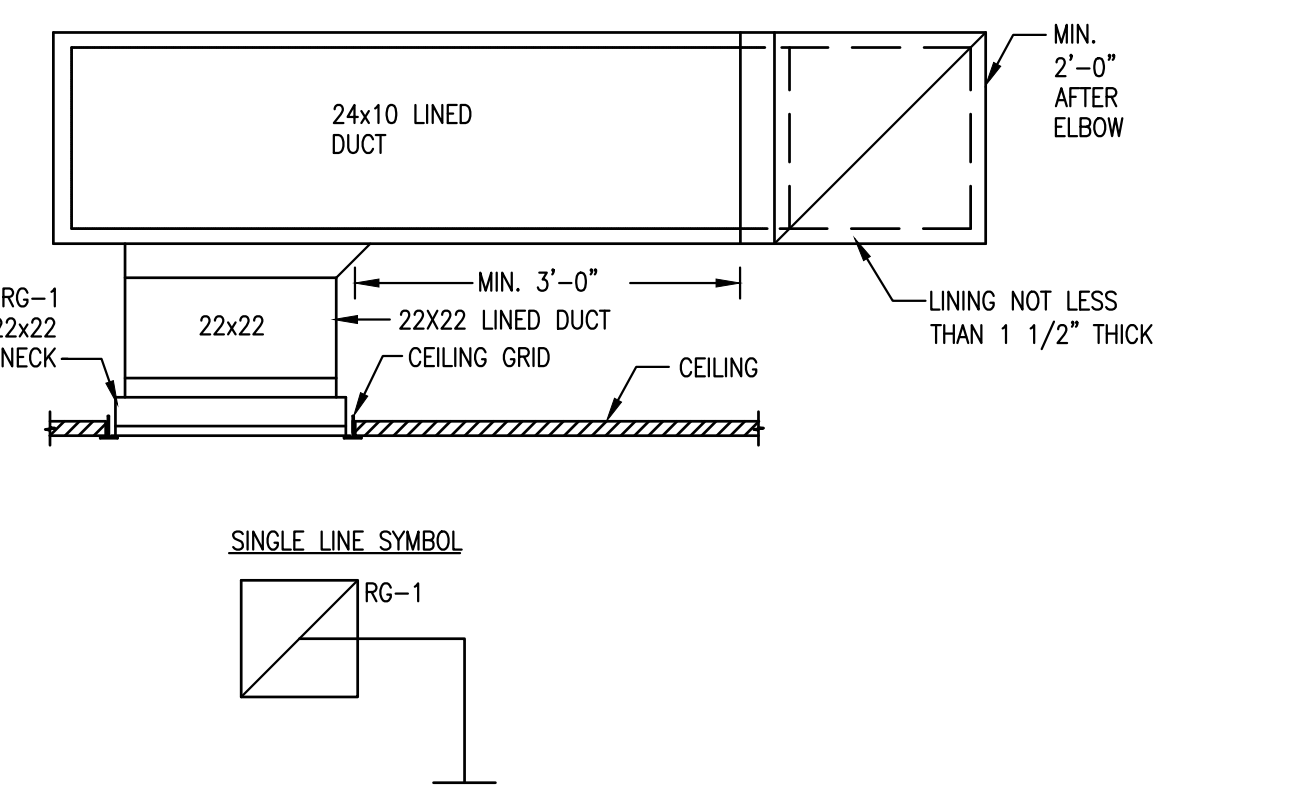
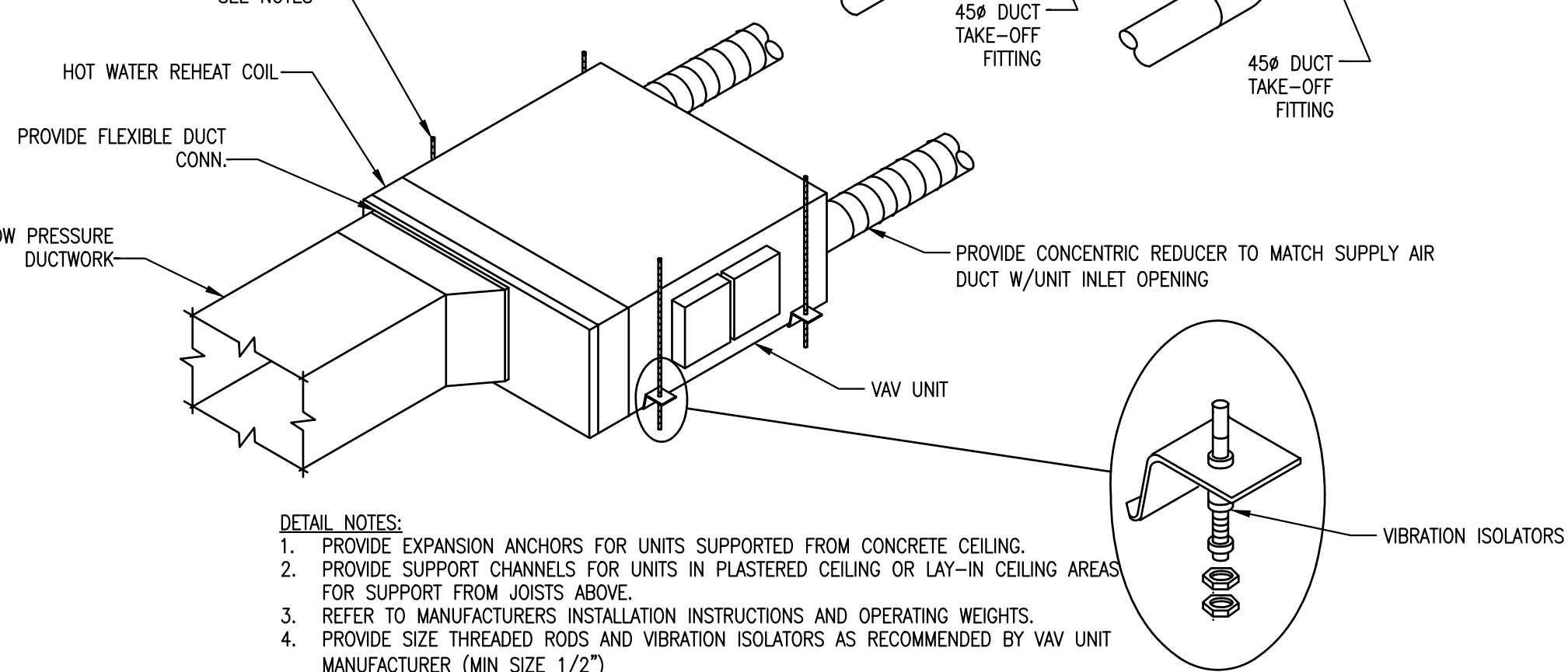
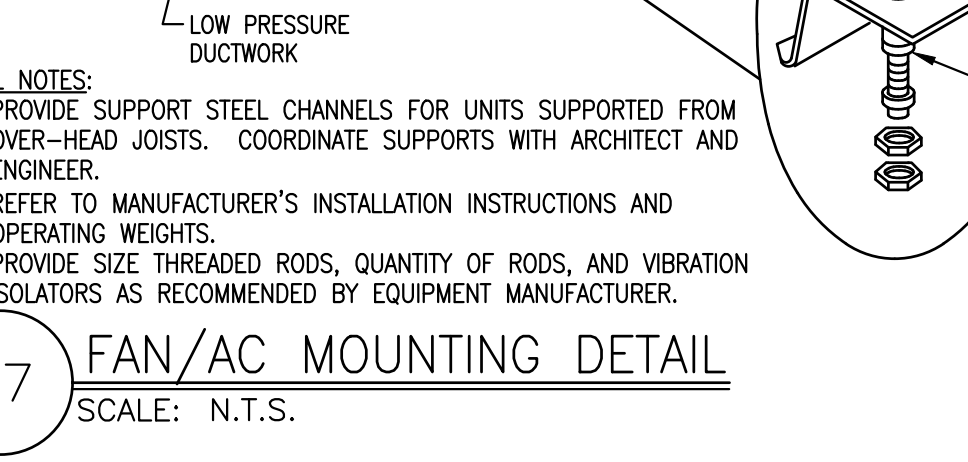
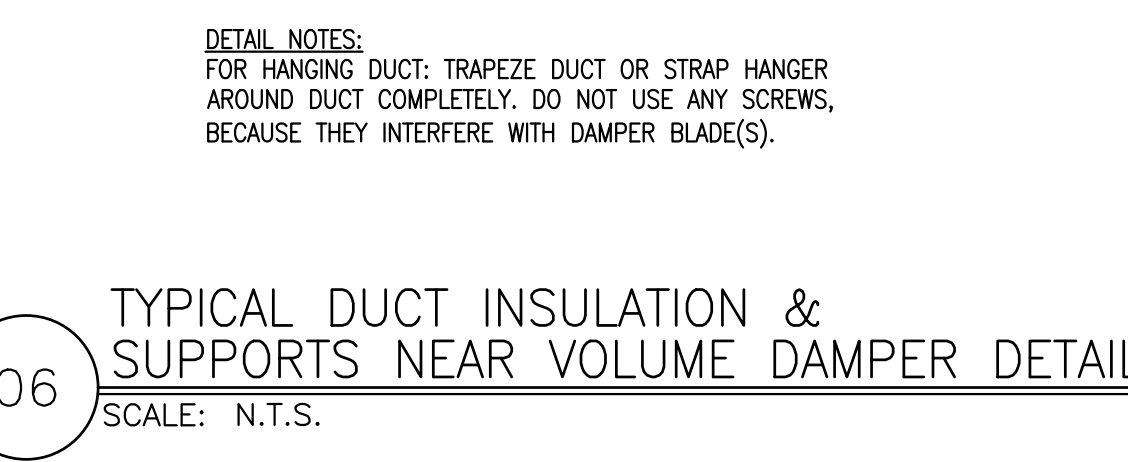
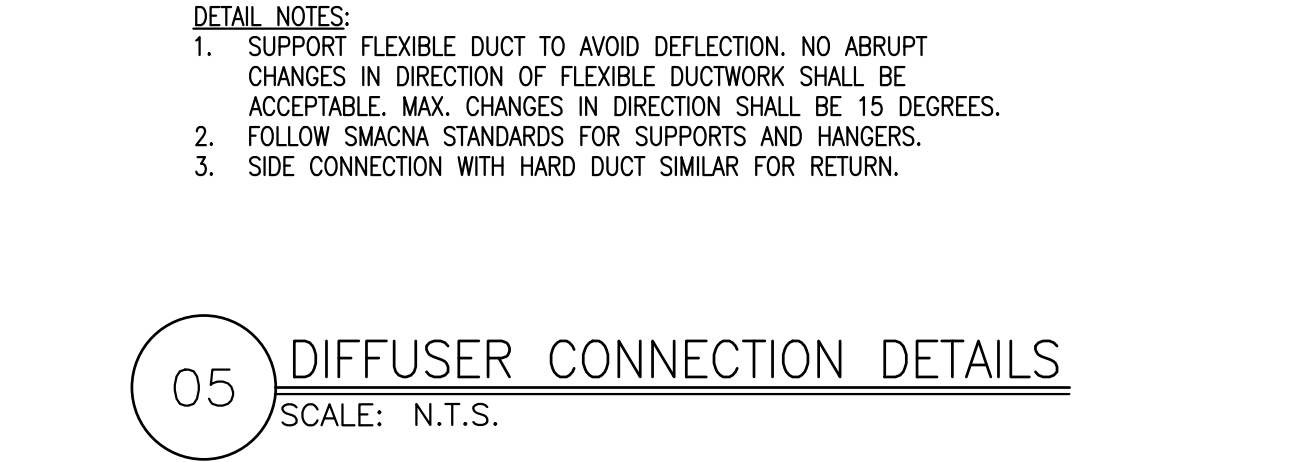
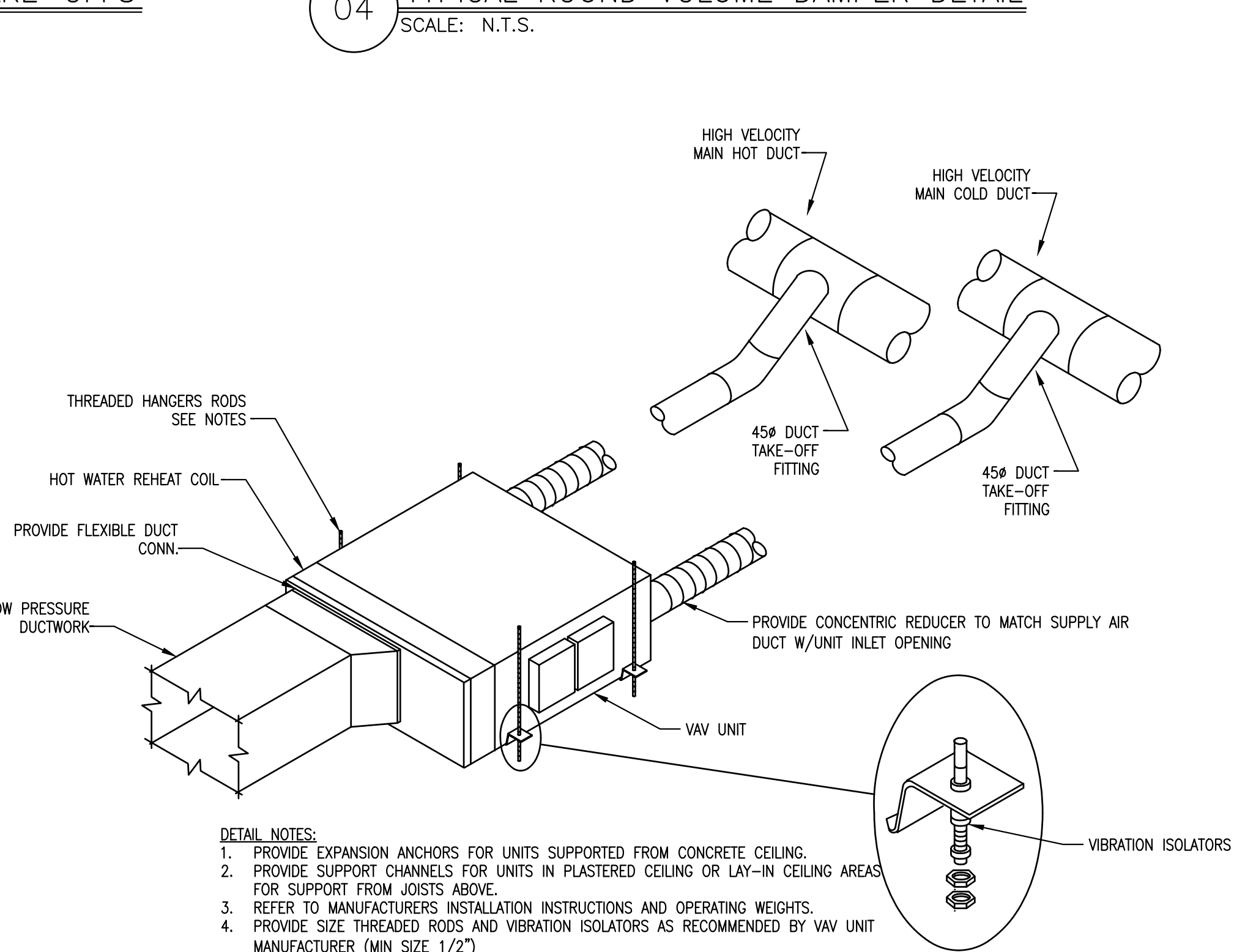
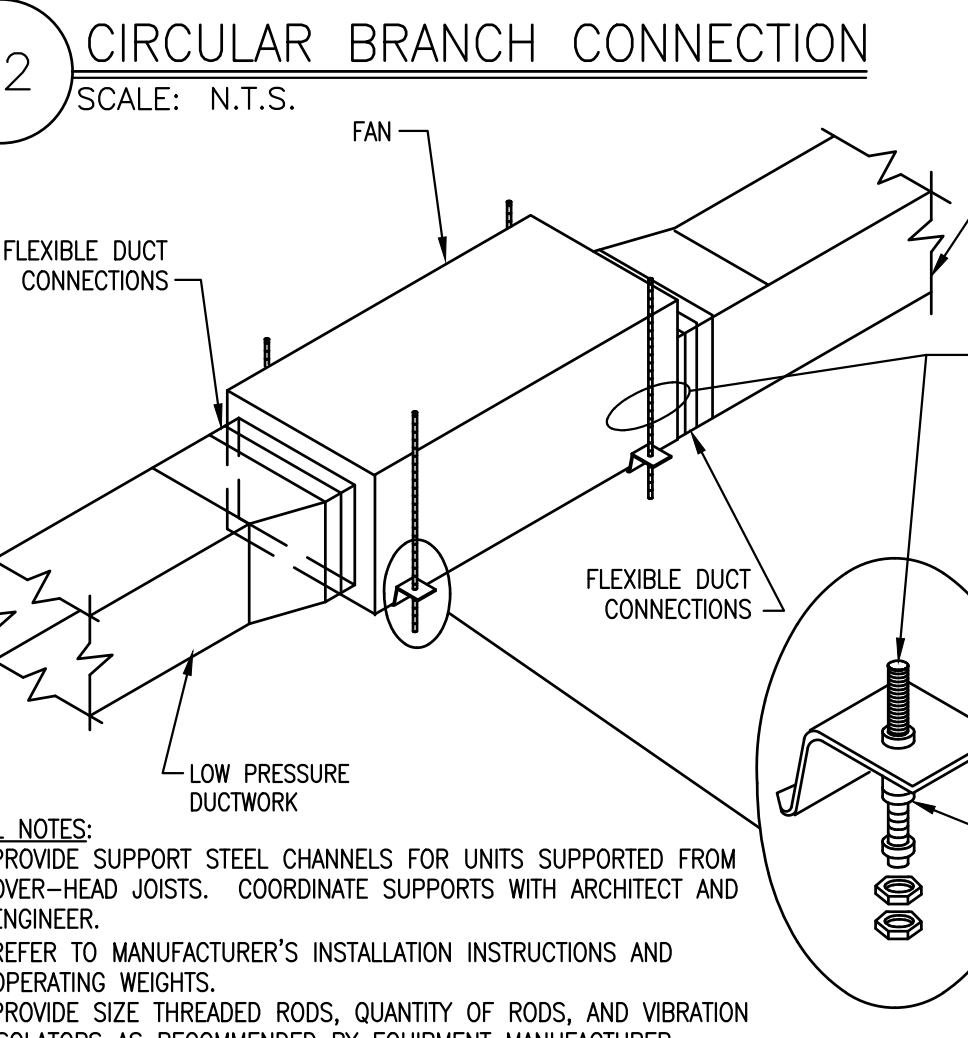
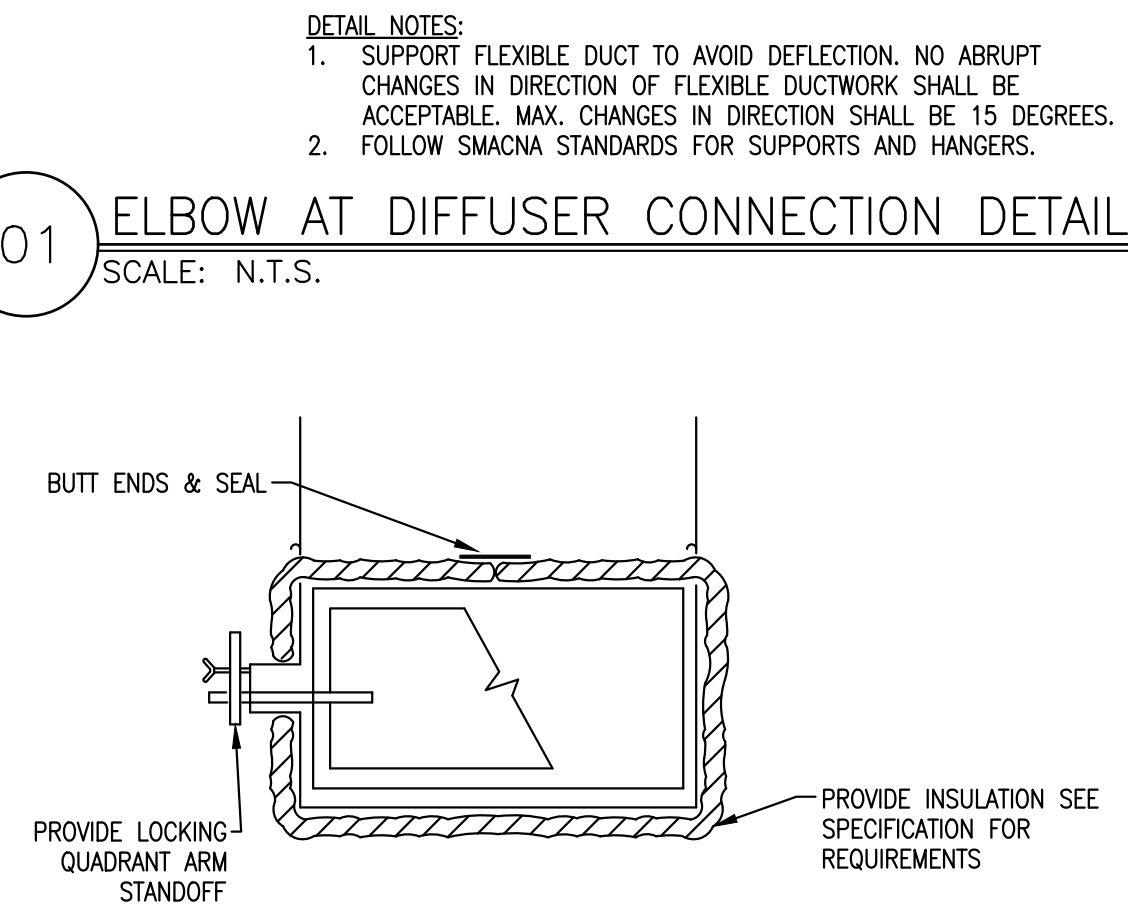
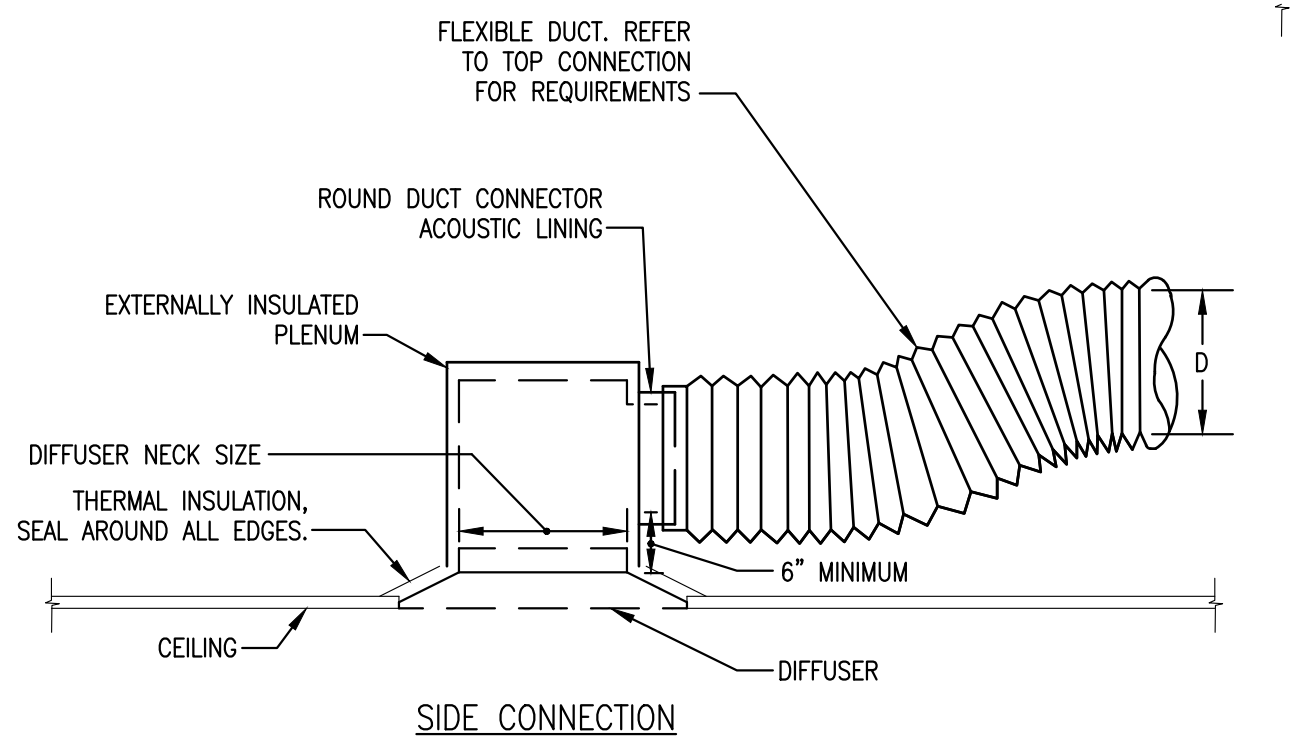
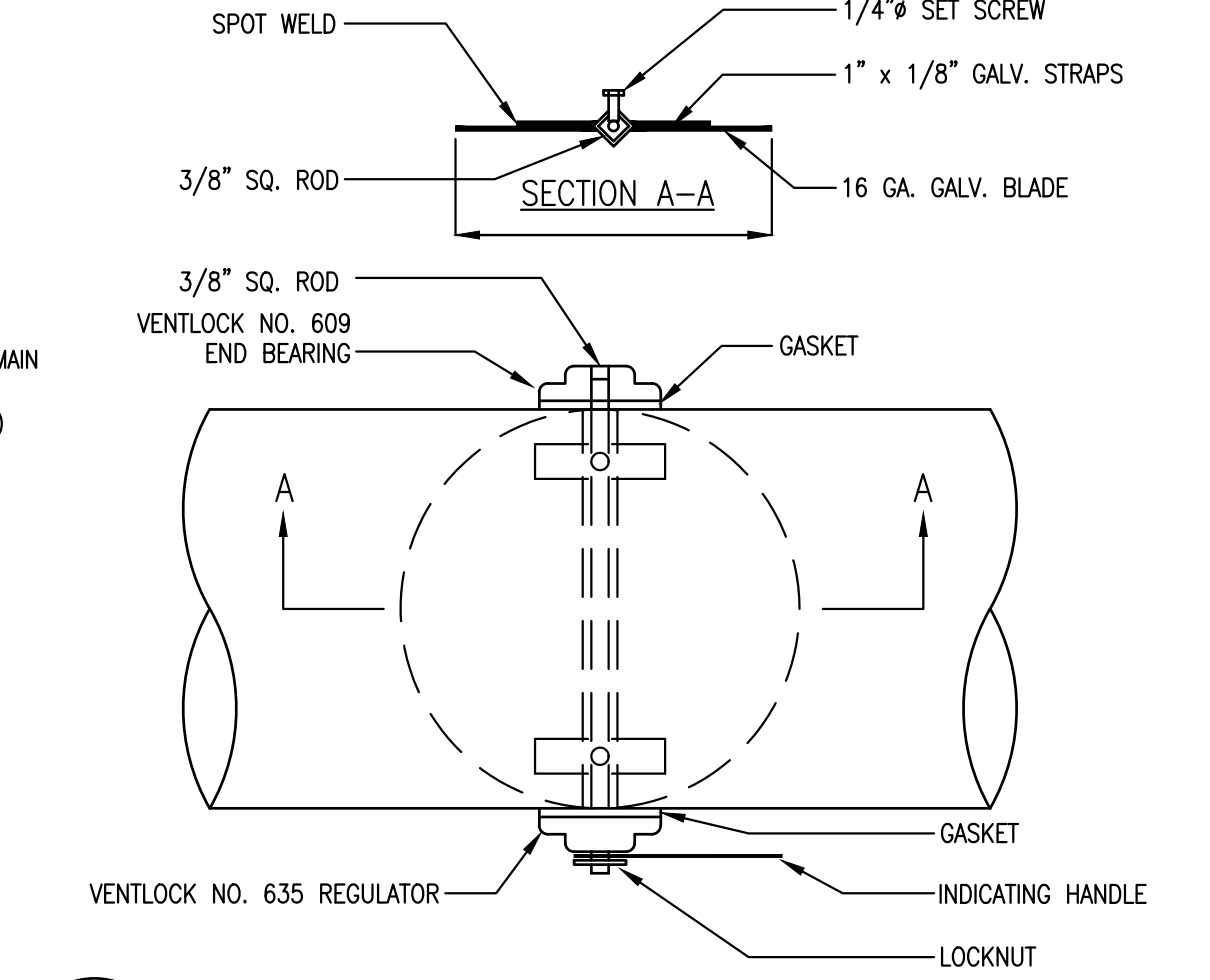
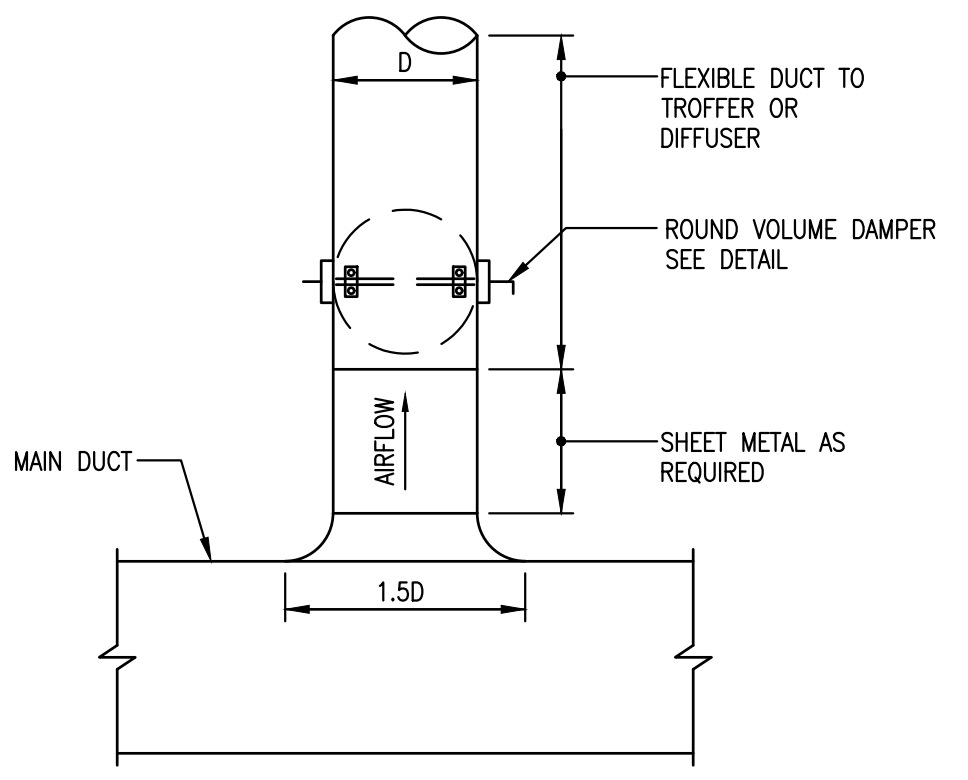
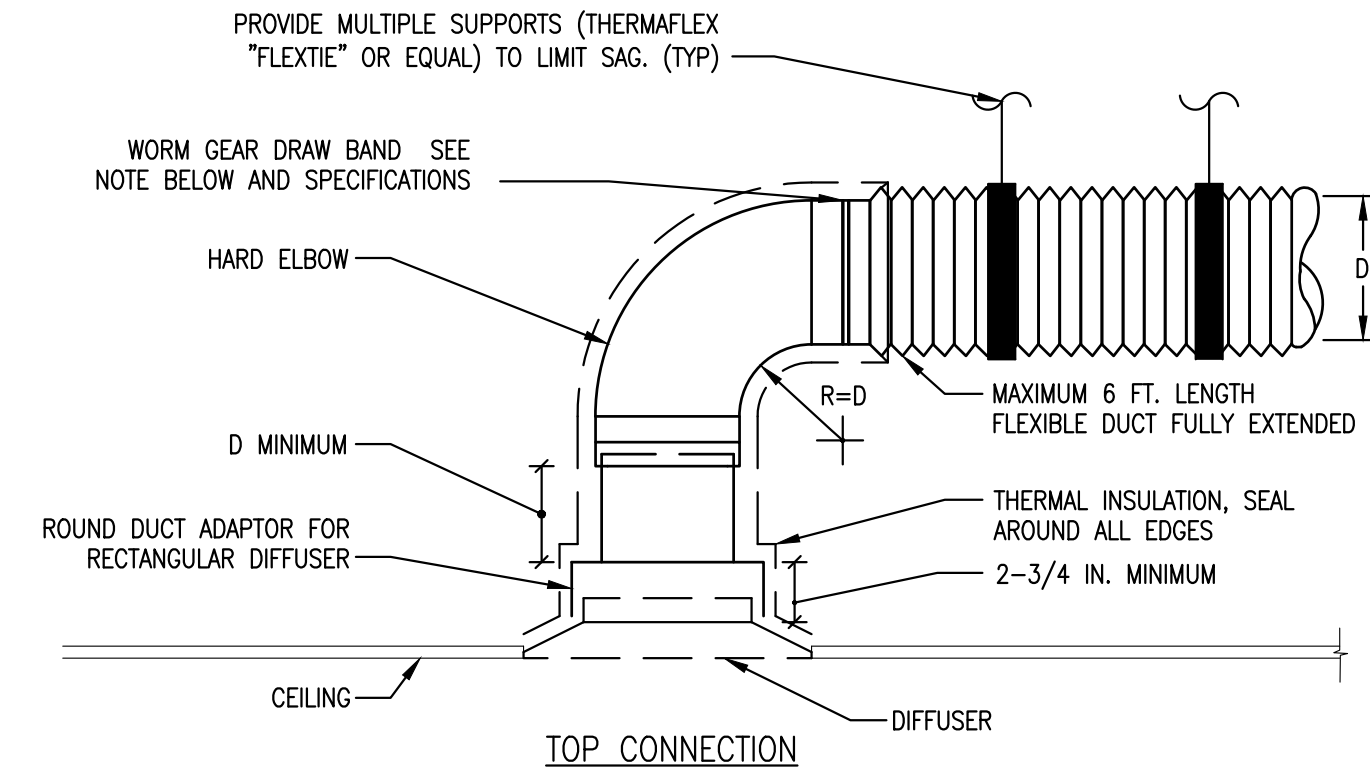
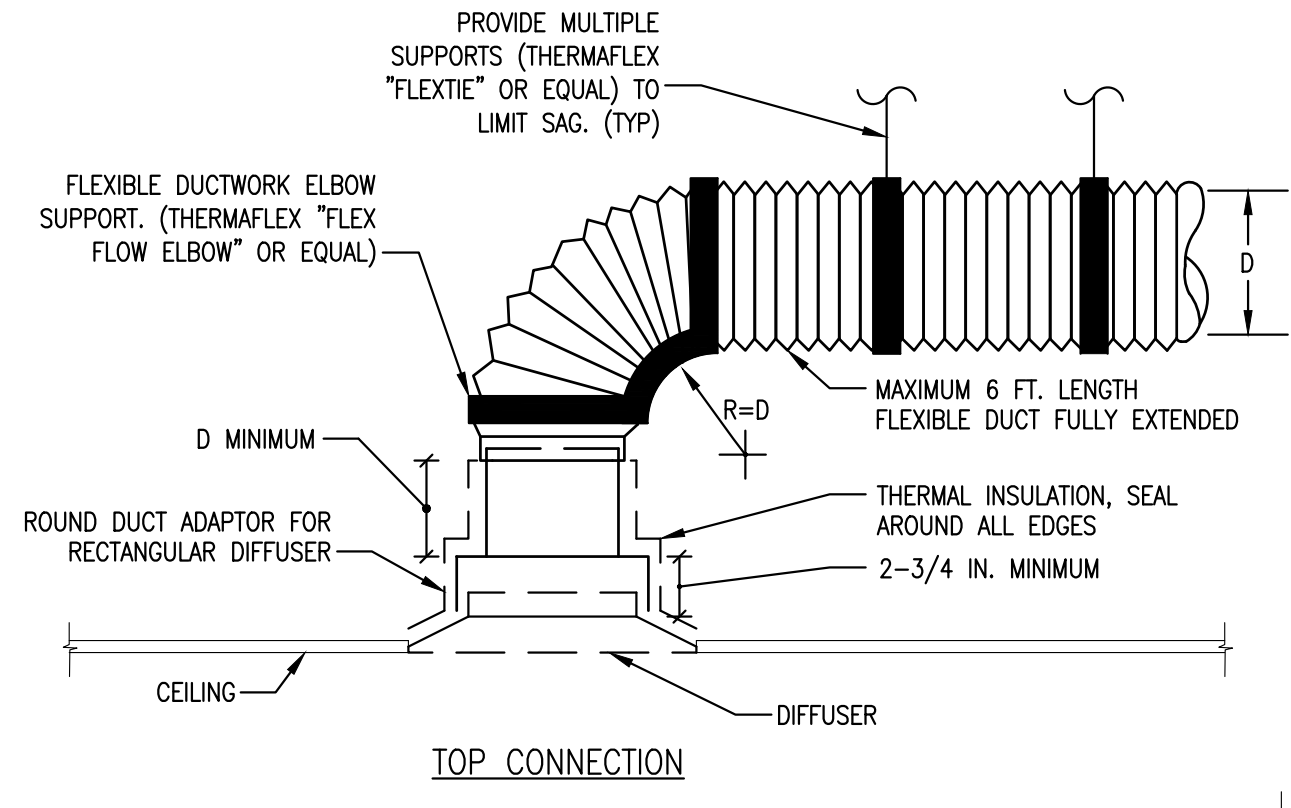
TAG	FLOW PATTERN	SUPPLY
CD-1	4-WAY (UNLESS NOTED OTHERWISE)	24x24 FACE CEILING DIFFUSER EQUAL TO TITUS MODEL OMNI, STEEL CONSTRUCTION, FIXED DISCHARGE, PATTERN OPTION A4, 4-WAY (UNLESS NOTED ON PLANS), BORDER TYPE 1 (SURFACE MOUNT) OR BORDER TYPE 3 (LAY-IN) AS REQUIRED, OPPOSED BLADE DAMPER, NECK SIZE AS INDICATED ON DRAWINGS. PROVIDE WITH INSULATED BLANKET (R-6 MIN.). COLOR BY ARCHITECT.
CD-2	4-WAY (UNLESS NOTED OTHERWISE)	12x12 FACE CEILING DIFFUSER EQUAL TO TITUS MODEL OMNI, STEEL CONSTRUCTION, FIXED DISCHARGE, PATTERN OPTION A4, 4-WAY (UNLESS NOTED ON PLANS), BORDER TYPE 1 (SURFACE MOUNT) OR BORDER TYPE 3 (LAY-IN) AS REQUIRED, OPPOSED BLADE DAMPER, NECK SIZE AS INDICATED ON DRAWINGS. PROVIDE WITH INSULATED BLANKET (R-6 MIN.). COLOR BY ARCHITECT.
RETURN		
RG-1	SEE PLANS	24x24 RETURN GRILLE EQUAL TO TITUS MODEL PAR, STEEL CONSTRUCTION, PERFORATED FACE WITH 3/16" DIAMETER HOLES ON 1/4" STAGGERED CENTERS, HEAVY GAUGE STEEL BACKPAN, NECK SIZE AS INDICATED ON DRAWINGS. COLOR BY ARCHITECT.
TRANSFER GRILLE		
TC-1	N/A	TRANSFER GRILLE EQUAL TO HART & COOLEY MODEL 672, STEEL CONSTRUCTION, ROLL-FRAMED STEEL BORDER AND BLADES, OPPOSED BLADE DAMPER. COLOR BY ARCHITECT.

- NOTES/ACCESSORIES:**
- FINISH/COLOR OF ALL DIFFUSERS SHALL BE DETERMINED BY OWNER/ARCHITECT.
 - PROVIDE 4-WAY THROW UNLESS NOTED (ARROWS) ON PLANS.
 - MAXIMUM PRESSURE DROP FOR SUPPLY AIR DIFFUSERS SHALL BE 0.10" W.G.
 - MECHANICAL CONTRACTOR SHALL COORDINATE BORDER TYPES WITH CEILING AND WALL CONSTRUCTION. REFER TO ARCH. REFLECTED CEILING PLAN. COORDINATE WITH GENERAL CONTRACTOR.
 - OPPOSED BLADE DAMPERS MAY BE OMITTED WHERE VOLUME DAMPERS ARE PROVIDED AT BRANCH RUNOUTS.
 - DRAWING SYMBOL INFORMATION:
- TAG
 NECK SIZE
 CFM

EXISTING DUAL DUCT VAV BOX SCHEDULE

TAG	BASIS OF DESIGN MANUF.	MODEL NO.	INLET SIZE COLD/HOT	OUTLET SIZE	CFM EXISTING/NEW	REMARKS
(E) VAV-1	BUENSOD	B200	6/6	12X5	200/220	ALL
(E) VAV-2	BUENSOD	C400	7/7	15X6	400/470	ALL
(E) VAV-3	BUENSOD	B200	6/6	12X5	200/285	ALL
(E) VAV-4	BUENSOD	B200	6/6	12X5	200/280	ALL
(ERR) VAV-5	BUENSOD	B200	6/6	12X5	200/140	ALL
(ERR) VAV-6	BUENSOD	B280	6/6	12X5	280/130	ALL
(ERR) VAV-7	BUENSOD	C420	7/7	15X6	420/345	ALL
(E) VAV-8	BUENSOD	EB10	10/10	20X10	810/1055	ALL
(E) VAV-9	BUENSOD	E1205	10/10	20X10	1205/900	ALL
(E) VAV-10	BUENSOD	C320	7/7	15X6	320/300	ALL
(E) VAV-11	BUENSOD	C365	7/7	15X6	365/360	ALL
(ERR) VAV-12	BUENSOD	E960	10/10	20X10	960/930	ALL
(ERR) VAV-13	BUENSOD	C340	7/7	15X6	340/340	ALL
(E) VAV-14	BUENSOD	C340	7/7	15X6	340/365	ALL
(ERR) VAV-15	BUENSOD	D550	8/8	18X8	550/555	ALL
(ERR) VAV-16	BUENSOD	D700	8/8	18X8	700/785	ALL
(E) VAV-17	BUENSOD	D575	8/8	18X8	575/510	ALL
(E) VAV-18	BUENSOD	D720	8/8	18X8	720/730	ALL

- NOTES/ACCESSORIES:**
- EXISTING TERMINAL UNITS ARE PRESSURE DEPENDENT WITH PNEUMATIC CONTROLS.
 - CLEAN AND REFURISH ALL UNITS PRIOR TO STARTING ANY NEW WORK ON THE SYSTEM. CHECK ALL CONTROLS. REPORT ANY DAMAGE OR OPERATION ISSUES TO ARCHITECT AND ENGINEER.
 - COORDINATE LEFT HAND OR RIGHT HAND CONTROLS LOCATION WITH FINAL LAYOUT COORDINATED WITH ALL TRADES.
 - PROVIDE A UNIT PRICE (PER TERMINAL UNIT) FOR RETROFIT/REPLACEMENT OF EXISTING CONSTANT VOLUME REGULATORS.
 - PROVIDE A UNIT PRICE (PER TERMINAL UNIT) TO REPLACE EXISTING DUAL DUCT TERMINAL UNITS WITH NEW SIMILAR TO TITUS PEDV.



ISSUED FOR BID, NOT FOR CONSTRUCTION 01/23/2024

Revisions

No.	Date	Description

TAG	FLOW PATTERN	SUPPLY
CD-1	4-WAY (UNLESS NOTED OTHERWISE)	24x24 FACE CEILING DIFFUSER EQUAL TO TITUS MODEL OMNI, STEEL CONSTRUCTION, FIXED DISCHARGE, PATTERN OPTION A4, 4-WAY (UNLESS NOTED ON PLANS), BORDER TYPE 1 (SURFACE MOUNT) OR BORDER TYPE 3 (LAY-IN) AS REQUIRED, OPPOSED BLADE DAMPER, NECK SIZE AS INDICATED ON DRAWINGS. PROVIDE WITH INSULATED BLANKET (R-6 MIN.). COLOR BY ARCHITECT.
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Drawing
MECHANICAL SCHEDULES & DETAILS

Scale	Job	Sheet
AS NOTED	22.099	M3.0
Drawn	Date	
HF	01/23/24	4 of 6

Revisions

Table with 3 columns: No., Date, Description

HVAC SPECIFICATIONS

- 1. GENERAL
A. THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AIA DOCUMENT A201, LATEST EDITION, AND THESE SPECIFICATIONS AS APPLICABLE ARE PART OF THIS CONTRACT.
B. ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS...

- OF EQUIPMENT OR OCCUPANCY OF SPACES, BY OWNER, INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR.
D. PRIOR TO THE INSTALLATION OF NEW AND PROCUREMENT OF EQUIPMENT PROVIDE COMPLETE SET OF COORDINATED SHOP DRAWINGS OF ALL NEW AND EXISTING EQUIPMENT, DUCTWORK, PIPING AND CONTROL SYSTEMS INDICATING CAPACITY DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ARCHITECT AND ENGINEER.
3. SHOP DRAWINGS
A. INDICATE ON EACH SUBMISSION: PROJECT NAME AND LOCATION, ARCHITECT AND ENGINEER, ITEM IDENTIFICATION AND APPROVAL STAMP OF PRIME CONTRACTOR.
B. SUBMISSIONS
1) SUBMISSIONS 11 IN. X 17 IN. OR SMALLER: IF THE SUBMISSION IS A CATALOG CUT, THEN THE CONTRACTOR SHALL SUBMIT ONE ORIGINAL AND TWO COPIES. OTHERWISE, HE SHALL SUBMIT THREE COPIES. THE ARCHITECT WILL FORWARD THE ORIGINAL AND ONE COPY (TWO COPIES WHEN NO ORIGINAL IS RECEIVED) TO THE ENGINEER. ALL CATALOG CUTS SHALL BE COMPLETE.
2) SUBMISSIONS LARGER THAN 11 IN. X 17 IN.: SUBMIT THREE PRINTS TO THE ARCHITECT. THE ARCHITECT WILL FORWARD TWO PRINTS TO THE ENGINEER.
C. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:
1) DUCTWORK LAYOUT DRAWINGS AND SHEET METAL DESIGNS.
2) SHEETMETAL CONSTRUCTION STANDARDS.
3) AIR OUTLETS.
4) AIR BALANCE REPORT.
5) AC UNITS AND FANS.
6) PIPING LAYOUT.
7) OPERATING SEQUENCES.
8) VIBRATION ISOLATION AND SEISMIC RESTRAINTS.
D. COORDINATION
1) THE CONTRACTOR SHALL ASSURE FULL COOPERATION OF ALL TRADES AND SHALL FURNISH IN WRITING ALL INFORMATION NECESSARY TO PERMIT THE WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY AND WITH LEAST POSSIBLE INTERFERENCE OR DELAY.
2) PREPARE COORDINATED COMPOSITE DRAWINGS AT A SUITABLE SCALE NOT LESS THAN 1/4-INCH EQUALS ONE FOOT, ZERO INCHES, CLEARLY SHOWING HOW THE WORK OF THIS DIVISION IS TO BE INSTALLED IN RELATION TO THE WORK OF ALL TRADES. ANY WORK INSTALLED IN CONFLICT WITH THE WORK OF OTHER TRADES SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.
3) THE CONTRACTOR MAY, SUBJECT TO THE ACCEPTANCE OF THE ARCHITECT AND WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS TO THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF ALL TRADES OR FOR THE PROPER EXECUTION OF THE WORK.
4) MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK INCLUDED IN THE CONTRACT. COORDINATE WITH THE ARCHITECTURAL DRAWINGS AND DETAILS FOR EXACT LOCATION OF DUCTWORK, PIPING AND EQUIPMENT.
5) THE CONTRACTOR SHALL FOLLOW DRAWINGS IN LAYOUT WORK AND SHALL COORDINATE ALL TRADES TO VERIFY SPACES IN WHICH WORK SHALL BE INSTALLED. MAINTAIN MAXIMUM HEADROOM OR SPACE CONDITIONS, WHERE SPACE CONDITIONS APPEAR INADEQUATE, THE ARCHITECT SHALL BE NOTIFIED BEFORE INSTALLATION. DO NOT PROCEED WITH THE INSTALLATION UNTIL RECEIVING CLARIFYING INSTRUCTIONS.
4. AS-BUILT DRAWINGS AND EQUIPMENT OPERATIONAL INSTRUCTIONS
A. UPON COMPLETION AND ACCEPTANCE OF WORK, CONTRACTOR SHALL FURNISH IN ELECTRONIC FORMAT ALL SUBMITTED SHOP DRAWINGS AND THE INSTRUCTIONS AND EQUIPMENT MANUALS AND LITERATURE TO THE OWNER. THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT.
B. THESE INSTRUCTIONS SHALL BE TYPED ON 8-1/2 IN. X 11 IN. PAPER AND BOUND IN THREE RING BINDERS WITH CLEAR PLASTIC COVERS. CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE COPY TO THE ENGINEER.
C. THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PROJECT, ARCHITECT AND ENGINEER.
D. REPRODUCIBLE "AS-BUILT" DRAWINGS SHALL BE PROVIDED INDICATING THE AS INSTALLED CONDITIONS OF THE WORK. "AS-BUILT" DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT AFTER COMPLETION OF THE INSTALLATION.
5. SHEET METAL WORK
A. EXCEPT AS OTHERWISE SHOWN OR NOTED, ALL DUCTWORK AND OTHER SHEET METAL WORK SHALL BE GALVANIZED SHEET STEEL AND SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. DUCT CONSTRUCTION STANDARDS, PRESSURE CLASSIFICATION 2 IN. W.C.
1) FOR RECTANGULAR DUCTS, THE MINIMUM GAUGES SHALL BE:
a. 24 GAUGE FOR DUCTS 30" (MAXIMUM DIMENSION) AND SMALLER.
b. 22 GAUGE FOR DUCTS WITH A MAXIMUM DIMENSION BETWEEN 31" AND 54".
c. 20 GAUGE FOR DUCTS WITH A MAXIMUM DIMENSION BETWEEN 55" AND 84".
d. 18 GAUGE FOR DUCTS WITH A MAXIMUM DIMENSION LARGER THAN 84".
2) MAXIMUM REINFORCING DISTANCES SHALL BE:
a. 7"-10" FOR DUCTS WITH A MAXIMUM DIMENSION OF 30" OR SMALLER.
b. 3"-9" FOR DUCTS WITH A MAXIMUM DIMENSION LARGER THAN 30".
3) PROVIDE MILL PHOSPHATIZED FINISH WHERE DUCTS ARE EXPOSED.
B. ALL DUCT DIMENSIONS INDICATED ON PLANS ARE INSIDE CLEAR DIMENSIONS.
C. ALL DUCTWORK SHALL BE FREE FROM PULSATION, CHATTER AND VIBRATION. IF ANY OF THESE DEFECTS APPEAR AFTER A SYSTEM IS IN OPERATION, CORRECT BY REMOVING AND REPLACING, OR REINFORCING THE DUCTWORK AT NO ADDITIONAL COST TO THE OWNER.
D. ROUND SINGLE AND DOUBLE-WALL DUCTWORK: APPROVED MANUFACTURERS: MCGILL AIRFLOW, SEMCO, LINDAB, AND EASTERN SHEET METAL.
1) PROVIDE FACTORY-FABRICATED ROUND DUCTS, GAUGES AND CONSTRUCTION DETAILS SHALL COMPLY WITH THE REFERENCED SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND SMACNA ROUND INDUSTRIAL DUCT CONSTRUCTION STANDARDS.
2) FOR DUCTWORK DIAMETERS UP TO AND INCLUDING 60 INCHES, PROVIDE SPIRAL LOCK-SEAM CONSTRUCTION. FOR DUCTWORK DIAMETERS OVER 60 INCHES, PROVIDE WELDED LONGITUDINAL SEAMS.
3) PROVIDE DUCTS OF SPIRAL LOCK-SEAM CONSTRUCTION.
4) USE SLIP JOINTS, JOINTS WITH A DOUBLE-LIPPED EPDM JACKET, OR THE FOLLOWING JOINTING SYSTEM FOR TRANSVERSE DUCT JOINTS AND FITTINGS.
a. UP TO 20" DIAMETER: INTERIOR SLIP COUPLING BEADED AT CENTER AND FASTENED TO DUCT WITH SCREWS SHALL BE USED TO JOIN DUCTS. SEAL JOINT WITH A SEALING COMPOUND, CONTINUOUSLY APPLIED AROUND JOINT PRIOR TO ASSEMBLING AND AFTER FASTENING, MAKING CERTAIN THAT MAJORITY OF SEALANT RESIDES ON INTERIOR OF THE JOINT.
b. 21" DIAMETER & ABOVE: INSTALL USING A THREE-PIECE, GASKETED FLANGE JOINT CONSISTING OF TWO INTERNAL FLANGES, WITH INTEGRAL MASTIC SEALANT, AND ONE EXTERNAL CLOSURE BAND TO COMPRESS THE GASKET BETWEEN THE INTERNAL FLANGES. APPROVED SYSTEMS: DUCTMATE SPIRALMATE.
5) ELBOWS FOR 3 THROUGH 12 INCH DIAMETER AND 90° BENDS SHALL BE TWO-SECTION STAMPED WITH WELDED SEAMS. ALL OTHER ELBOWS SHALL BE CONSTRUCTED OF MITERED SECTIONS WITH ALL SEAMS AND JOINTS WELDED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:
a. THRU 35 DEGREES/2 GORES
b. 36 THRU 71 DEGREES/3 GORES

- c. OVER 71 DEGREES/5 GORES
6) ELBOWS SHALL BE TWO-SECTION STAMPED WITH WELDED SEAMS.
7) CONSTRUCT ALL ELBOWS WITH A CENTERLINE RADIUS EQUAL TO 1.5 TIMES THE DIAMETER.
8) MAKE ALL TAKE-OFF CONNECTIONS TO DUCT HEADERS USING TEE (90°), LATERAL (45°), TEE CROSS, LATERAL CROSS AND "Y" BRANCH FITTINGS OF THE CONICAL TYPE. ALL FITTINGS FABRICATED AS SEPARATE FITTINGS SHALL HAVE CONTINUOUS WELDS ALONG ALL SEAMS AND JOINTS.
9) THE USE OF TWO-PIECE, MITERED, WAVED ELBOWS SHALL NOT BE PERMITTED.
10) THE USE OF BULLHEAD TEE FITTINGS IS NOT PERMITTED.
11) THE USE OF SQUARE THROAT RADIUS HEEL ELBOWS IS NOT PERMITTED.
12) SHOP-FABRICATED AND CONTRACTOR-DESIGNED FITTINGS ARE NOT PERMITTED.
E. DUCTWORK SCHEDULE:
1) SUPPLY AIR: +2°, 3% LEAKAGE
2) RETURN AIR: -2°, 3% LEAKAGE
3) EXHAUST AIR: -2°, 3% LEAKAGE
F. DUCT LEAKAGE TESTING
1) DISASSEMBLE, REASSEMBLE, AND SEAL SEGMENTS OF SYSTEMS TO ACCOMMODATE LEAKAGE TESTING AND FOR COMPLIANCE WITH TEST REQUIREMENTS. SEAL ALL DUCTWORK WITH UL181 MASTIC OR APPROVED EQUAL.
2) CONDUCT LEAKAGE TESTS, ON ALL DUCTWORK, AT STATIC PRESSURES EQUAL TO MAXIMUM DESIGN PRESSURE OF SYSTEM BEING TESTED. IF PRESSURE CLASSES ARE NOT INDICATED, TEST ENTIRE SYSTEM AT MAXIMUM SYSTEM DESIGN PRESSURE. DO NOT PRESSURIZE SYSTEMS ABOVE MAXIMUM DESIGN OPERATING PRESSURE. GIVE SEVEN DAYS' ADVANCE NOTICE FOR TESTING.
3) MAXIMUM ALLOWABLE LEAKAGE: DUCTWORK LEAKAGE SHALL NOT EXCEED 4 PERCENT OF TOTAL SUPPLY AIRFLOW.
4) REMAKE LEAKING JOINTS; APPLY ADDITIONAL SEALANT AND RETEST UNTIL LEAKAGE IS EQUAL TO OR LESS THAN MAXIMUM ALLOWABLE. ALL TESTS MUST BE WITNESSED AND RESULTS VERIFIED BY THE OWNER'S REPRESENTATIVE. SUBMIT FIELD TEST REPORT CERTIFYING THAT THE DUCTWORK DOES NOT EXCEED THE MAXIMUM ALLOWABLE LEAKAGE.
G. VOLUME DAMPERS: GALVANIZED STEEL, PER SMACNA "LOW VELOCITY MANUAL," EXCEPT PROVIDE BEARING AT ONE END OF DAMPER ROD AND QUADRANT, WITH LEVER AND LOCKSCREW AT THE OTHER END. FOR INSULATED DUCTS, QUADRANTS MOUNTED ON COLLAR TO CLEAR INSULATION. INSTALL WITH LEVERS ACCESSIBLE.
H. ACCESS DOORS: INSULATED OR UNINSULATED, SAME AS DUCT
1) PROVIDE MINIMUM 20 IN. X 14 IN. ON MAIN DUCTS, AND 12 IN. X 6 IN. ON BRANCH DUCTS, UNLESS OTHERWISE APPROVED, AT FIRE DAMPERS, AND AT ALL DUCT ACCESSORIES SUCH AS HUMIDIFIERS, FINE PARTICULATE FILTERS, AUTO DAMPERS, AND LOUVERS.
2) ALL ACCESS DOORS TO BE HINGED, WITH LATCH SIMILAR TO VENTLOCK NO. 100.
I. FLEXIBLE CONNECTIONS: NEOPRENE-COATED GLASS FABRIC, 30 OUNCES PER SQ. YD. WITH SEWED AND CEMENTED SEAMS, SIMILAR TO VENT FABRICS. PROVIDE WITH METAL COLLARS. ALLOW MINIMUM MOVEMENT OF 1 IN.
J. TURNING VANES: GALVANIZED STEEL SHALL DOUBLE-THICKNESS VANES WITH 2 IN. INSIDE RADIUS.
K. ALL DUCT DIMENSIONS INDICATED ON PLANS ARE INSIDE CLEAR DIMENSIONS.
L. WIRE MESH SCREEN (WMS): NO. 16 USSG, 3/4 SQUARE MESH, IN 1 IN. WIDE GALVANIZED STEEL ENCLOSING FRAME. FLANGED DUCT OPENING TO RECEIVE FRAME.
M. LOW-PRESSURE FLEXIBLE DUCT: SHALL BE CONSTRUCTED WITH A CPE INNER FIRM LINER LOCKED TO GALVANIZED STEEL HELIX WITH 1" THICK FIBERGLASS ENCLOSED WITH A REINFORCED FOIL/WYLAR SLEEVE. UL 181 LISTED AS CLASS 1 AIR DUCT COMPLYING WITH NFPA STANDARD 90A. SIMILAR TO FLECMASTER TYPE 1M.
N. FIRE DAMPERS: UL LISTED, GALVANIZED STEEL CONSTRUCTION, DYNAMIC CURTAIN TYPE, SPRING LOADED, EQUIPPED WITH FUSIBLE LINK, RATED, CONFORMING TO NFPA STANDARD 90A. SIMILAR TO RUSKIN DBD2 OR DBD23, SAME AS REQUIRED. SEE INSTALLATION ON DRAWING.
O. COMBINATION FIRE AND SMOKE DAMPERS: UL LISTED, GALVANIZED STEEL CONSTRUCTION MULTI-BLAZED TYPE WITH SLEEVE EQUIPPED WITH FUSIBLE LINK CONFORMING TO NFPA STANDARD 90A. SIMILAR TO RUSKIN MODEL FSD 60.
P. SMOKE DAMPERS: UNLISTED GALVANIZED STEEL CONSTRUCTION MULTI-BLAZED TYPE WITH SLEEVE EQUIPPED WITH PNEUMATIC OPERATOR AND E/P SWITCH. SIMILAR TO RUSKIN MODEL SDSO.
Q. CLEANING NEW AND EXISTING SYSTEMS
1) MARK POSITION OF DAMPERS AND AIR-DIRECTIONAL MECHANICAL DEVICES BEFORE CLEANING, AND PERFORM CLEANING BEFORE AIR BALANCING.
a. USE SERVICE OPENINGS, AS REQUIRED, FOR PHYSICAL AND MECHANICAL ENTRY AND EXIT FROM SYSTEMS.
b. CREATE OTHER OPENINGS TO COMPLY WITH DUCT STANDARDS.
c. DISCONNECT FLEXIBLE DUCTS AS NEEDED FOR DUCT CLEANING AND INSPECTION.
d. REMOVE AND REINSTALL CEILING SECTIONS TO GAIN ACCESS DURING THE CLEANING PROCESS.
2) VENT VACUUMING SYSTEM TO THE OUTSIDE. INCLUDE FILTRATION TO CONTAIN DEBRIS REMOVED FROM HVAC SYSTEMS, AND EXHAUST DOWN WIND AND AWAY FROM AIR INTAKES AND OTHER POINTS OF ENTRY INTO BUILDING.
3) CLEAN THE FOLLOWING METAL DUCT SYSTEMS BY REMOVING SURFACE CONTAMINANTS AND DEPOSITS:
a. AIR OUTLETS AND INLETS (REGISTERS, GRILLES, AND DIFFUSERS).
b. SUPPLY, RETURN, AND EXHAUST FANS INCLUDING FAN HOUSINGS, PLENUMS (EXCEPT CEILING SUPPLY) AND RETURN PLENUMS), SCROLLS, BLADES OR VANES, SHAFTS, BAFFLES, DAMPERS, AND DRIVE ASSEMBLIES.
c. AIR-HANDLING UNIT INTERNAL SURFACES AND COMPONENTS INCLUDING MIXING BOX, COIL SECTION, AIR WASH SYSTEMS, SPRAY ELIMINATORS, CONDENSATE DRAIN PANS, HUMIDIFIERS AND DEHUMIDIFIERS, FILTERS AND FILTER SECTIONS, AND CONDENSATE COLLECTORS AND DRAINS.
d. COILS AND RELATED COMPONENTS.
e. RETURN-AIR DUCTS, DAMPERS, AND ACTUATORS EXCEPT IN CEILING PLENUMS AND MECHANICAL EQUIPMENT ROOMS.
f. SUPPLY-AIR DUCTS, DAMPERS, ACTUATORS, AND TURNING VANES.
4) MECHANICAL CLEANING METHODOLOGY:
a. CLEAN METAL DUCT SYSTEMS USING MECHANICAL CLEANING METHODS THAT EXTRACT CONTAMINANTS FROM WITHIN DUCT SYSTEMS AND REMOVE CONTAMINANTS FROM BUILDINGS.
b. USE VACUUM-COLLECTION DEVICES THAT ARE OPERATED CONTINUOUSLY DURING CLEANING. CONNECT VACUUM DEVICE TO DOWNSTREAM END OF DUCT SECTIONS SO AREAS BEING CLEANED ARE UNDER NEGATIVE PRESSURE.
c. USE MECHANICAL AGITATION TO DISLODGE DEBRIS ADHERED TO INTERIOR DUCT SURFACES WITHOUT DAMAGING INTEGRITY OF METAL DUCTS, DUCT LINER, OR DUCT ACCESSORIES.
d. CLEAN FIBROUS-GLASS DUCT LINER WITH HVAC VACUUMING EQUIPMENT; DO NOT PERMIT DUCT LINER TO GET WET.
e. CLEAN COILS AND COIL DRAIN PANS ACCORDING TO NADCA 213. KEEP DRAIN PAN OPERATIONAL. RINSE COILS WITH CLEAN WATER TO REMOVE LATENT RESIDUES AND CLEANING MATERIALS; COMB AND STRAIGHTEN FINS.
f. CLEANLINESS VERIFICATION:
(1) VISUALLY INSPECT METAL DUCTS FOR CONTAMINANTS.
(2) WHERE CONTAMINANTS ARE DISCOVERED, RE-CLEAN AND REINSPECT DUCTS.
6. AIR OUTLETS
A. GENERAL
1) MARGIN TYPES, COLORS, FINISH AND METHODS OF ATTACHMENT FOR ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE COORDINATED WITH ARCHITECTURAL CEILING AND WALL DETAILS AND SPECIFICATIONS.

- 2) FRAME TYPE SUITABLE FOR MOUNTING IN CEILING OR WALL CONSTRUCTION AS INDICATED ON ARCHITECTURAL PLANS.
3) EXACT LOCATION OF ALL AIR OUTLETS AS PER ARCHITECTURAL PLANS.
4) SUITABLE FOR OPERATION AT 20 PERCENT EXCESS AND 20 PERCENT LESS THAN NOTED CAPACITY FOR CONSTANT VOLUME SYSTEMS AND AT 20 PERCENT EXCESS AND 60 PERCENT LESS THAN NOTED CAPACITY FOR VARIABLE VOLUME SYSTEMS. MANUFACTURER RESPONSIBLE FOR EXAMINING APPLICATION OF EACH OUTLET AND GUARANTEE THAT EACH WILL PROVIDE REQUIRED NC LEVELS AND COMFORT SPACE CONDITIONS WITHOUT DRAFTS THROUGHOUT OPERATING RANGE.
5) DIFFUSERS, GRILLES AND REGISTERS SHALL BE SELECTED TO ACHIEVE NC 30 OR LESS WHEN INSTALLED.
6) ALL REGISTERS AND DIFFUSERS SHALL BE PROVIDED WITH OPPOSED BLADE VOLUME DAMPERS. DAMPER OPERATING LEVERS SHALL BE ACCESSIBLE AT THE FACE OF AIR OUTLETS.
7) REFER TO DRAWING SCHEDULES FOR SPECIFIC MODELS AND REQUIREMENTS. PROVIDE SCHEDULED MANUFACTURER AND MODELS OR COMPARABLE MODELS BY MANUFACTURER APPROVED BY ENGINEER.
7. NOISE CONTROL
A. ALL ROOM NC LEVELS SHALL BE 35 OR LESS.
B. PROVIDE SOUNDLINING FOR THE FOLLOWING DUCTWORK:
1) ALL DUCTWORK WITH MECHANICAL ROOMS AND NOT LESS THAN 10 FT. ON EACH SIDE OF ALL FANS AND AC UNITS.
2) AIR TRANSFER DUCTS.
3) ALSO, WHERE NOTED ON A DRAWING.
C. SOUNDLINING IN DUCTWORK: FIBROUS GLASS, MINIMUM 3 LB DENSITY, 1 1/2 IN. THICKNESS, MAXIMUM 0.25 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE WITH ACRYLIC COATED FINISH FACTORY APPLIED EDGE COATING AND STENCILED IN ACCORDANCE WITH NFPA 90. FLAMESPREAD SHALL BE A MAXIMUM OF 25. LINING SHALL NOT SUPPORT MICROBIAL GROWTH AND SHALL BE TESTED IN ACCORDANCE WITH ASTM C 1071, ASTM C 423 AND ASTM G21/G22. SIMILAR TO JOHNS MANVILLE UNACOUSTIC RC HP.
D. ALL SOUNDLINING, ADHESIVES, FACES AND ACCESSORIES TO BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, EXCEPT AS OTHERWISE NOTED.
8. TESTING AND BALANCING
A. ALL AIR AND WATER BALANCING SHALL BE IN ACCORDANCE WITH ABC AND NEBB STANDARDS.
B. AIR BALANCING SHALL BE ACCOMPLISHED BY ADJUSTMENT OF FANS AND BRANCH DAMPERS FOR MAJOR ADJUSTMENTS. ADJUSTMENT OF TERMINAL DAMPERS AND DEVICES SHALL BE FOR TRIM OR MINOR ADJUSTMENT ONLY. THIS SHALL BE DONE TO PERMIT THE LEAST NOISE GENERATION IN THE TERMINAL AREAS AND UTILIZE MINIMUM FAN ENERGY.
C. UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL REBALANCE ANY EXISTING PORTIONS OF AIR DISTRIBUTION SYSTEM AND WATER DISTRIBUTION SYSTEM AFFECTED BY THE RENOVATION AND ALSO BALANCE ALL NEW WORK.
D. THE CONTRACTOR SHALL PROVIDE ALL LABOR, PRESSURE GAUGES, FLOW METERS, SHEAVES, AND BELTS REQUIRED TO BALANCE SYSTEMS.
E. BALANCING REPORT SHALL BE PROVIDED ON A8C-TYPE FORMS.
F. FANS, AIR HANDLING UNITS AND COILS SHALL BE BALANCED TO WITHIN +5 PERCENT OF THEIR DESIGN CAPACITIES. ALL OTHER AIR AND WATER QUANTITIES SHALL BE BALANCED TO WITHIN +10 PERCENT OF THE DESIGN QUANTITIES.
G. BALANCING AND TESTING SHALL BE PERFORMED AND SUPERVISED BY A CERTIFIED NEBB OR A8C TECHNICIAN.
H. THE PERFORMANCE AND CAPACITY OF ALL SYSTEMS AND EQUIPMENT TO BE DEMONSTRATED BY THE CONTRACTOR.
9. INSULATION - GENERAL REQUIREMENTS
A. ALL INSULATION MATERIALS, INCLUDING JACKETS, FACING, ADHESIVE, COATINGS, AND ACCESSORIES ARE TO BE FIRE HAZARD RATED AND LISTED BY UNDERWRITERS LABORATORIES, INC. USING STEINER TUNNEL TEST METHOD FOR FIRE HAZARD CLASSIFICATION OF BUILDING MATERIALS, STANDARD UL 723 (ASTM E-84), (ASA 42.5-1963). FLAMESPREAD MAXIMUM IS 25 AND FUEL CONTRIBUTED AND SMOKE DEVELOPED MAXIMUM IS 50. FLAMEPROOFING TREATMENTS SUBJECT TO DETERIORATION FROM MOISTURE OR HUMIDITY ARE NOT ACCEPTABLE.
B. DEFINITIONS
1) EXPOSED: INDOOR DUCTS, PIPING OR EQUIPMENT LOCATED IN MECHANICAL EQUIPMENT ROOMS AND IN AREAS, WHICH WILL BE VISIBLE WITHOUT REMOVING CEILINGS OR OPENING ACCESS PANELS.
2) CONCEALED: INDOOR DUCTS, PIPING OR EQUIPMENT, WHICH IS NOT EXPOSED.
10. DUCTWORK INSULATION
A. INSULATE ALL NEW DUCTWORK IN ACCORDANCE WITH INSULATION SCHEDULE EXCEPT AS OTHERWISE NOTED.
1) DUCTWORK INSULATION SCHEDULE
a. CONCEALED SUPPLY /OUTSIDE AIR SHALL BE 1.5 IN., TYPE D-1 WITH VAPORSEAL.
b. EXPOSED AND UNCONDITIONED AREAS (INCLUDING MECHANICAL EQUIPMENT ROOMS) AND OUTSIDE THE BUILDING EXPOSED SUPPLY/RETURN/OUTSIDE AIR SHALL BE 2 IN., TYPE D-1 WITH VAPORSEAL. MINIMUM R-VALUE OF 6.3.
B. NON-INSULATED DUCTWORK
1) WHERE SOUNDLINING IS OF MINIMUM THICKNESS AND R-VALUE SPECIFIED FOR INSULATION.
2) AIR CONDITIONING RETURN AIR DUCTWORK EXPOSED IN AIR-CONDITIONED SPACES AND INSTALLED IN HUNG CEILINGS WHERE SPACE IMMEDIATELY ABOVE AND BELOW ARE BOTH AIR CONDITIONED.
C. MATERIAL
1) TYPE D-1: MINIMUM 1.5-LB DENSITY FIBERGLASS BLANKET WITH FACTORY-APPLIED FOIL SKIRM-KRAFT FACING SIMILAR TO JOHNS MANVILLE MICROLOTE FSK.
2) TYPE D-2: 3 LB. FIBERGLASS BOARD WITH A MINIMUM DENSITY OF 3 LB. THE INSULATION SHALL BE PROVIDED WITH A FACTORY-APPLIED ALL-PURPOSE OR ALL-SERVICE FACING. THE INSULATION SHALL BE EQUAL TO JOHNS MANVILLE TYPE 814 SPIN-GLAS AP.
3) TYPE D-3: MINIMUM 6 LB. FIBERGLASS BOARD WITH FACTORY MANVILLE ALL-PURPOSE OR ALL-SERVICE FACING. SIMILAR TO JOHNS MANVILLE 817 SPIN-GLAS AP.
D. INSTALLATION
1) FIBERGLASS BLANKET: 2 IN. LAP STRIPS AT ALL SEAMS. SECURE BOTTOM OF ALL DUCTS OVER 24 IN. WIDE WITH MIN. 2 ROWS OF WELD PINS 12 IN. ON CENTER. SECURE ALL SEAMS WITH FOIL VAPOR BARRIER TAPE AND VAPORSEAL ADHESIVE.
2) FIBERGLASS BOARD: SEAL JOINTS AND BREAKS IN FACING WITH 3 IN. WIDE TAPE TO MATCH FACING AND ADHERE WITH VAPOR SEAL ADHESIVE. APPLY 5 IN. WIDE TAPE AT CORNERS, WELD PINS ON TOP, SIDES AND BOTTOM.
11. PIPING INSULATION
A. INSULATE ALL NEW PIPING IN ACCORDANCE WITH INSULATION SCHEDULE EXCEPT AS OTHERWISE NOTED.

- 1) PIPING INSULATION SCHEDULE
a. LOW TEMP 40 TO 100 DEGREES F, UP TO 4 IN., SHALL BE 1-IN. THICK, TYPE P-1 WITH VAPORSEAL.
b. LOW TEMP FITTINGS & VALVES 40 TO 100 DEGREES F, UP TO 4-IN., SHALL BE 1-IN. THICK, TYPE P-4 WITH VAPORSEAL, AND F-1 FINISH.
c. ALL REFRIGERANT LIQUID & SUCTION LINES SHALL BE 1/2-IN. THICK, TYPE P-6 WITH VAPORSEAL.
12. PIPING, VALVES AND FITTINGS TO BE INSULATED
A. LOW TEMPERATURE PIPING SYSTEMS - 40 TO 100 F INCLUDING:
1) CONDENSATE DRAIN PIPING.
B. MATERIAL
1) TYPE P-1: MINIMUM 4 LB DENSITY MOLDED FIBERGLASS, MAXIMUM 0.23 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE WITH FACTORY-APPLIED FIBRE-RETARDANT FOIL-SKIRM-KRAFT FACING. ALL SERVICE JACKET. SIMILAR TO JOHNS MANVILLE MICRO-LOK HP.
2) TYPE P-4: MINIMUM 1 LB DENSITY FIBERGLASS FITTING INSERTS, MAXIMUM 0.28 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE SIMILAR TO MANVILLE HL-LO TEMP INSULATION INSERTS
3) TYPE P-6: MINIMUM 6 LB MOLDED FOAMED PLASTIC, MAXIMUM 0.27 K-FACTOR AT 75 DEGREES F MEAN TEMPERATURE. MAXIMUM 0.17 PERMEANCE. SIMILAR TO ARMSTRONG ARMAFLEX II.
C. FINISH
1) TYPE F-1: FITTING COVER, MOLDED WHITE PVC JACKET, UL CLASS 1, MAXIMUM PERMEANCE 0.05 SIMILAR TO MANVILLE ZESTRON.
2) TYPE F-4: ALUMINUM JACKETING WITH MINIMUM 0.016 IN. WALL THICKNESS AND LONGITUDINAL JOINTS WITH LOCK SEAMS.
D. OUTDOOR PIPING
1) FOR ALL PIPING, FITTINGS AND VALVES LOCATED OUTDOORS INCREASE SCHEDULED INSULATION THICKNESS BY A MINIMUM OF 1 IN. AND PROVIDE F-4 FINISH. PROVIDE VAPORSEAL ON ALL OUTDOOR PIPES, VALVES AND FITTINGS SUBJECT TO CONDENSATION.
E. INSTALLATION
1) BEFORE APPLYING INSULATION, ALL PRESSURE AND LEAK TESTS SHALL BE COMPLETED AND APPROVED.
2) ALL INSULATION SHALL BE BUTTED FIRMLY TOGETHER. PROVIDE 2 IN. LAP STRIPS AT ALL SEAMS SECURED WITH ADHESIVE. USE VAPOR BARRIER TAPE AND VAPORSEAL ADHESIVE WHERE REQUIRED. STAPLES NOT PERMITTED. REFRIGERANT PIPING INSULATION SHALL HAVE MITERED FITTINGS.
3) ALL INSULATION AND VAPOR BARRIERS SHALL BE CONTINUOUS PASSING THROUGH SLEEVES, HANGERS, ETC., OR OTHER OPENINGS. PROVIDE SADDLES OR SHIELDS FOR PROTECTION.
4) INSULATION FOR STRAINERS OR OTHER FITTINGS OR ACCESSORIES REQUIRING SERVICING OR INSPECTION SHALL HAVE INSULATION REMOVABLE AND REPLACEABLE WITHOUT DAMAGE.
13. VIBRATION ISOLATION, WIND AND SEISMIC RESTRAINTS
A. GENERAL
1) PROVIDE ISOLATION FOR EQUIPMENT, PIPING AND DUCTWORK.
2) INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
3) PROVIDE LEVELING DEVICES AND APPROVED RESILIENT RESTRAINING DEVICES AS REQUIRED TO LIMIT EQUIPMENT AND PIPING MOTION IN EXCESS OF 1/4 IN.
4) ACCEPTABLE MANUFACTURERS
a. MASON INDUSTRIES, INC.
b. VIBRATION ELIMINATOR CO.
c. KORFUND DYNAMICS CORP.
B. CEILING-HUNG FANS AND EQUIPMENT
1) PROVIDE SPRING HANGER ROD ISOLATORS. STEEL COMPRESSION SPRING AND NEOPRENE SOUND PAD WITH A STEEL RETAINER BOX. SIMILAR TO MASON TYPE POIS.
C. SEISMIC RESTRAINTS
1) PROVIDE SEISMIC RESTRAINTS FOR ALL MECHANICAL EQUIPMENT AS REQUIRED BY CODE. SEISMIC RESTRAINTS SHALL BE CAPABLE OF SAFELY ACCEPTING EXTERNAL FORCES AS REQUIRED BY CODE WITHOUT FAILURE, AND SHALL MAINTAIN EQUIPMENT, PIPING, CONDUIT, DUCT AND PRESSURE REDUCING BOXES IN A CAPTIVE POSITION. SEISMIC RESTRAINTS SHALL NOT SHORT CIRCUIT ISOLATION SYSTEMS OR TRANSMIT OBJECTIVEABLE VIBRATION OR NOISE, AND SHALL BE PROVIDED ON ALL EQUIPMENT SCHEDULES ON DRAWINGS.
D. WIND RESTRAINTS
1) ALL ROOF AND GROUND MOUNTED EQUIPMENT SHALL BE FASTENED TO STRUCTURE OR BASE PER MANUFACTURERS MOUNTING RECOMMENDATIONS. PROVIDE INSTALLATION DETAILS SIGNED BY LICENSED PROFESSIONAL STRUCTURAL ENGINEER TO MEET 100 MPH WIND LOADING.
14. PIPING - GENERAL REQUIREMENTS
A. COMPLETE WITH PIPE, FITTINGS, VALVES, STRAINERS, MOTORIZED VALVE OPERATORS, STRAINERS, HANGERS, SUPPORTS, GUIDE, SLEEVES, AND ACCESSORIES.
B. ALL ITEMS SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE FOLLOWING CODES AND STANDARDS.
1) AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME).
2) AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).
3) AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
4) MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY (MSS).
C. ALL PERFORMING PIPING TO BE TESTED HYDROSTATICALLY TO 150 PSI OR 150 PERCENT OF OPERATING PRESSURE, WHICHEVER IS GREATER, BUT NEVER EXCEED TEST PRESSURE ANSI B16.1 BASIS. TEST DURATION TO BE 2 HOURS WITH NO PRESSURE CHANGE CORRECTED FOR TEMPERATURE CHANGE. REPAIR OR REPLACE LEAKS OR DEFECTS WITHOUT ADDITIONAL COST.
D. PROVIDE DIELECTRIC FITTINGS WHERE DISSIMILAR METALS ARE TO BE JOINED.
15. CONDENSATE DRAIN PIPING
A. PIPE: ASTM B88, HARD DRAWN COPPER TUBING TYPE "L".
B. FITTINGS: SOLDERED JOINT FITTINGS, 95/5 SOLDER.
C. PITCH, EXCEPT AS NOTED.
1) 1 IN. IN 4 FT. PREFERRERD.

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AW-0720
A-07473
A-15008
A-15018

Project
VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATION
640 E. WOOD ST.
VINELAND, NJ 08360

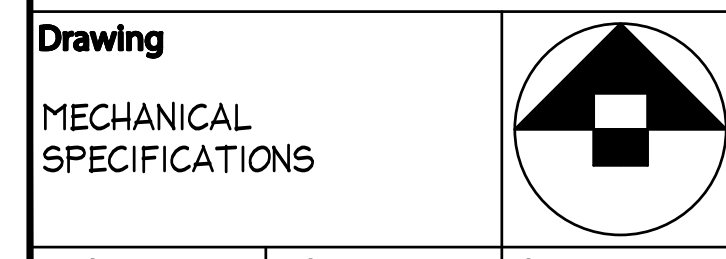


Table with 3 columns: Scale, Job, Sheet. AS NOTED, 22.099, M4.0. Drawn HF, Date 01/23/24, 5 of 6.

Revisions		
No.	Date	Description

- 2) 1 IN. IN 8 FT. MINIMUM.
- D. SWING CHECK VALVES: AT CONDENSATE PUMP DISCHARGE. 300 LB WOG, BRONZE BODY SOLDER ENDS, REGRIND BRONZE DISC TO BE USED WITH COPPER TUBING. JENKINS FIG. 1222.
- 16. MOTORS
 - A. MOTORS (UNDER HVAC WORK): IN ACCORDANCE WITH NEMA, IEEE AND ANSI C 50 STANDARDS.
 - 1) STANDARD EFFICIENCY UNLESS OTHERWISE NOTED.
 - 2) 1.15 SERVICE FACTOR.
 - 3) SQUIRREL CAGE INDUCTION; OPEN DRIP-PROOF TYPE, 1750 RPM, NEMA TYPE B INSULATION CLASS AND CONTINUOUS DUTY, EXCEPT AS NOTED.
 - E. SEQUENCE
 - 1) CONSTANT VOLUME SYSTEM
 - a. A 7/24 PROGRAMMABLE THERMOSTAT SHALL BE CAPABLE OF RUNNING THE UNIT AT BOTH OCCUPIED AND UNOCCUPIED MODES. WHILE IN OCCUPIED MODE, THE FAN SHALL RUN CONTINUOUSLY. IN UNOCCUPIED MODE, THE FAN SHALL CYCLE AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

POSITIONS IN SERIES WITH MOTOR CONTROLLER HOLDING COIL CIRCUIT. REMOTE STARTING SHALL BE THROUGH AUTOMATIC POSITION ONLY. "HAND" POSITION SHALL BE FOR MAINTENANCE OPERATION ONLY.

SAFETY DEVICES FOR ALL SYSTEMS, EXCEPT AS OTHERWISE NOTED BELOW.

ONE FREEZE PROTECTION THERMOSTAT PER COIL SECTION, WIRED TO SUPPLY FAN. THERMOSTAT SHALL BE AUTOMATIC RESET TYPE.

FOR SYSTEMS OVER 2,000 CFM, A DUCT MOUNTED SMOKE DETECTOR OF THE IONIZATION TYPE LOCATED IN THE RETURN DUCT SHALL STOP THE SUPPLY FAN AND ASSOCIATED INTERLOCKED EQUIPMENT SHOULD PRODUCTS OF COMBUSTION BE SENSED.

PROVIDED BY HVAC CONTRACTOR AND INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.

NEMA ENCLOSURE, WEATHERPROOF WHERE MOUNTED OUTDOORS.

WITH OVERLOAD PROTECTION. COORDINATE ALL MOTOR CONTROLLER TYPES AND SIZES WITH MOTOR TYPES AND SIZES.

1/3 HP AND SMALLER: PROVIDE MANUAL STARTER EXCEPT USE MAGNETIC TYPE WHERE AUTOMATICALLY CONTROLLED.

MANUAL TYPE: 2-POLE TOGGLE SWITCH WITH OVERLOAD PROTECTION AND PILOT LIGHT.

1/2 HP AND LARGER: PROVIDE MAGNETIC STARTER.

COMBINATION UNFUSED DISCONNECT SWITCH AND MAGNETIC STARTER EXCEPT AS NOTED.

OVERLOAD PROTECTION IN EACH PHASE LEG WITH RESET IN ENCLOSURE.

HOA SELECTOR SWITCH FOR AUTOMATICALLY OPERATED MOTORS. SAFETY CONTROLS COMMON TO BOTH CONTROLS.

RED, GREEN AND AMBER PILOT LIGHTS.

SWITCHES: HORSE-POWER-RATED, EXTERNAL PADLOCKING TYPE.

HOLDING COILS: 10 WATT, 120 VOLT.

CONTACTS: MAIN LINE AND MINIMUM (2) - NORMALLY OPEN, (2) - NORMALLY CLOSED 10 AMP AUXILIARIES, IN ADDITION TO CONTACTS REQUIRED FOR CONTROLS SPECIFIED.

CONTROL TRANSFORMER: FOR MOTORS OVER 120 VOLTS, TO STEP DOWN CONTROL VOLTAGE TO 120 VOLTS; OF THE REQUIRED CAPACITY, WITH FUSE AND GROUND CONNECTION ON VOLTAGE SIDE.

FUSES: SIMILAR TO BUSSMAN.

RELAYS TO SUPPLEMENT AUXILIARY CONTACTS IN CONTROLLER. MINIMUM 10-WATT COIL AND TWO 10 AMP CONTACTS.

TERMINALS: SUITABLE FOR CONDUCTORS NOTED AND AS APPROVED.

ACCEPTABLE MANUFACTURERS

CUTLER-HAMMER.

SQUARE D.

ALLEN BRADLEY.

FANS

CABINET FANS SHALL HAVE ACOUSTICALLY INSULATED GALVANIZED STEEL FAN HOUSING, DIRECT DRIVEN CENTRIFUGAL FAN (S), INTERNAL VIBRATION ISOLATION, INTEGRAL LOUVERED FACE GRILLE WITH LIGHT, AND OUTLET DUCT CONNECTION WITH SELF-ACTING BACKDRAFT DAMPER. PROVIDE WALL VENTS OR ROOF CAPS AS REQUIRED ON PLANS. FANS SHALL BE SIMILAR TO GREENCHECK SF.

SINGLE/DUAL DUCT TERMINAL UNITS

FURNISH AND INSTALL DUAL DUCT, VARIABLE AIR VOLUME TERMINALS OF THE SIZES AND CAPACITIES SHOWN IN THE PLANS.

TERMINALS SHOULD BE CERTIFIED UNDER THE ARI STANDARD 880 CERTIFICATION PROGRAM AND CARRY THE ARI SEAL. NONCERTIFIED TERMINALS MAY BE SUBMITTED AFTER TESTING AT AN INDEPENDENT TESTING LABORATORY UNDER CONDITIONS SELECTED BY THE ENGINEERING CONSULTANT IN FULL COMPLIANCE WITH ARI STANDARD 880. THESE TESTS MUST BE WITNESSED BY THE ENGINEERING CONSULTANT WITH ALL COSTS TO BE BORNE BY THE TERMINAL MANUFACTURER. TESTING DOES NOT ENSURE ACCEPTANCE.

THE TERMINAL CASING SHALL BE MINIMUM 22-GAUGE GALVANIZED STEEL, INTERNALLY LINED WITH ENGINEERED POLYMER FOAM INSULATION WHICH COMPLIES TO UL181 AND NFPA 90A. INSULATION SHALL BE 1# POUND DENSITY, CLOSED CELL FOAM. EXPOSED FIBERGLASS IS NOT ACCEPTABLE. THE INSULATION SHALL BE MECHANICALLY FASTENED TO THE UNIT CASING. THE CASING SHALL BE CONSTRUCTED TO HOLD LEAKAGE TO THE MAXIMUM VALUES SHOWN IN THE CASING LEAKAGE TABLE.

COOLING AND HEATING INLETS SHALL HAVE SEPARATE DAMPER ASSEMBLIES FOR COMPLETE PRESSURE INDEPENDENT CONTROL OF EACH AIRSTREAM FOR VARIABLE OR CONSTANT VOLUME TOTAL DISCHARGE APPLICATIONS. TERMINALS WITH INLET DAMPERS MECHANICALLY INTERCONNECTED ARE NOT ACCEPTABLE. THE DAMPERS SHALL BE HEAVY GAUGE STEEL WITH SOLID SHAFT ROTATING IN DELRIN SELF-LUBRICATING BEARINGS. NYLON BEARINGS ARE NOT ACCEPTABLE. SHAFT SHALL BE CLEARLY MARKED ON THE END TO INDICATE DAMPER POSITION. STICKERS OR OTHER REMOVABLE MARKINGS ARE NOT ACCEPTABLE. THE DAMPER SHALL INCORPORATE A MECHANICAL STOP TO PREVENT OVERSTROKING AND A SYNTHETIC SEAL TO LIMIT CLOSE-OFF LEAKAGE TO THE MAXIMUM VALUES SHOWN IN THE DAMPER LEAKAGE TABLE.

ACTUATORS SHALL BE CAPABLE OF SUPPLYING AT LEAST 35 INCHES PER POUND OF TORQUE TO THE DAMPER SHAFT AND SHALL BE MOUNTED EXTERNALLY FOR SERVICE ACCESS. TERMINALS WITH INTERNAL ACTUATOR MOUNTING OR LINKAGE CONNECTION MUST INCLUDE CASKED ACCESS PANEL, REMOVABLE WITHOUT DISTURBING DUCTWORK. CASING WITH ACCESS PANEL SHALL BE CONSTRUCTED TO HOLD LEAKAGE TO THE MAXIMUM VALUES SHOWN IN THE CASING LEAKAGE TABLE.

SOUND RATINGS FOR THE TERMINAL SHALL NOT EXCEED 16 NC AT 1 INCH STATIC PRESSURE. SOUND PERFORMANCE SHALL BE ARI CERTIFIED.

AUTOMATIC CONTROLS - GENERAL REQUIREMENTS

FURNISH AND INSTALL A COMPLETE ELECTRIC OR ELECTRONIC CONTROL SYSTEM TO PROVIDE TEMPERATURE CONTROL AS SPECIFIED UNDER DESCRIPTION OF OPERATION.

WORK SHALL INCLUDE ALL WIRING, CONTROL EQUIPMENT, AND ACCESSORIES NECESSARY TO MAKE THIS SYSTEM COMPLETE. ALL WIRING SHALL BE 24 VOLT. COORDINATE WITH MANUFACTURER FOR INTERCONNECTION WITH CONTROLS INCLUDED IN EQUIPMENT. ALL CONTROL WORK SHALL BE INSTALLED BY THE HVAC CONTRACTOR.

ACCEPTABLE MANUFACTURERS

JOHNSON CONTROLS.

HONEYWELL, INC.

OR APPROVED EQUAL.

OPERATION OF TYPICAL CONTROL SAFETY DEVICES.

EXHAUST FANS, SUCH AS GENERAL OR TOILET (OPERATING INDEPENDENTLY): ALL SAFETY DEVICES SHALL BE INTERLOCKED WITH "HAND" AND "AUTOMATIC"

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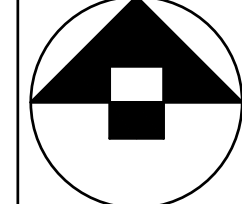
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Project
**VINELAND CITY HALL
4TH FLOOR OFFICE
RENOVATION**
640 E. WOOD ST.
VINELAND, NJ 08360

Drawing MECHANICAL SPECIFICATIONS			
Scale AS NOTED	Job 22.099	Sheet M4.1	
Drawn HF	Date 01/23/24	6 of 6	

PROJECT MANUAL FOR:

Vineland City Hall 4th Floor Renovations

640 East Wood Street
Vineland, NJ 08360

FOR:

City of Vineland
640 East Wood Street
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Project Number 22.099

**VINELAND CITY HALL 4TH FLOOR – INTERIOR ALTERATIONS
TABLE OF CONTENTS**

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079000 Joint Sealers

DIVISION 8 DOORS AND WINDOWS

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096880 Carpet

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DIVISION 10 – SPECIALTIES

105220 Fire Extinguishers and Accessories

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Removal of designated construction and finishes.
- B. Disposal of materials.
- C. Identification of utilities.
- D. Coordination with Owner's continued occupancy requirements.
- E. Removal and protection of items designated to be returned to the Owner.
- F. Protection of all construction designated to remain.

1.2 RELATED SECTIONS

- A. Summary of Work: Owner's continued occupancy.
- B. Division 1 - Construction Facilities and Temporary Controls: Barricades, security at Owner occupied areas, and cleanup during construction.
- C. Division 1 - Contract Closeout: Project record documents.

1.3 REGULATORY REQUIREMENTS

- A. Conform to applicable code for demolition work, dust control, products requiring electrical disconnection and re-connection.
- B. Obtain required permits from authorities.
- C. Do not close or obstruct egress width to any building or site exit.
- D. Do not disable or disrupt building fire or life safety systems without 3 days prior written notice to Owner.
- E. Coordinate interruption of any building systems or services as required for Owner's continued occupancy.
- F. Conform to procedures applicable when hazardous or contaminated materials are discovered.

1.4 SCHEDULING

- A. Verify work schedule to coordinate with Owner's continued occupancy requirements.
- B. Schedule Work to precede new construction.
- C. Describe demolition removal procedures and schedule.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PREPARATION

- A. Provide, erect, and maintain temporary barriers and security devices.
- B. Protect existing materials which are not to be demolished.
- C. Prevent movement of structure; provide bracing and shoring.
- D. Notify affected utility companies before starting work and comply with their requirements.
- E. Mark location and termination of utilities.
- F. Provide appropriate temporary signage including signage for exit or building egress.

3.2 DEMOLITION

- A. Disconnect, remove, cap, and identify designated utilities within demolition areas.
- B. Demolish in an orderly and careful manner. Protect existing structures.
- C. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- D. Remove materials as Work progresses. Upon completion of Work, leave areas in clean condition.

END OF SECTION

SECTION 060010 - CARPENTRY WORK

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Rough carpentry and finish carpentry. Refer to Schedule located at the end of this Section.
- B. Concealed wood blocking for support for accessories, etc.
- C. Custom plastic laminate cabinetry and solid surface countertops.
- D. Plastic laminate shelving.
- E. Miscellaneous items.

1.2 RELATED WORK

- A. Section 092600 - Gypsum Board Systems.
- B. Section 099000 - Painting: Site finishing of finish carpentry and cabinetwork.
- C. Division 22 - Plumbing Fixtures.
- D. Division 26 - Electrical.

1.3 REFERENCES

- A. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.
- B. APA: American Plywood Association.
- C. AWWA (American Wood Preservers Association) C1 - All Timber Products Preservative Treatment by Pressure Process.
- D. NFPA: National Forest Products Association.
- E. SPIB: Southern Pine Inspection Bureau.
- F. WWPA: Western Wood Products Association.
- G. NEMAL D3-1985: High pressure decorative laminates.
- H. FSMMM-A-130- Adhesive, contact.

1.4 QUALITY ASSURANCE

- A. Rough Carpentry Lumber: Visible grade stamp, of agency certified by National Forest Products Association (NFPA).
- B. When applicable, fabricate cabinetry and site made finish carpentry items in accordance with recommendations of Quality Standards of Architectural Woodwork Institute (AWI).

SECTION 060010 - CARPENTRY WORK

- C. Perform work in accordance with the following agencies:
 - 1. Lumber Grading Agency: Certified by ALSC.
 - 2. Plywood Grading Agency: Certified by APA.

1.5 SUBMITTALS

- A. Submit standard colors and patterns of plastic laminate and solid surface material for Architect/Owner selection.
- B. Submit shop drawings for pre-fabricated cabinetry and custom countertops. Indicate materials, component profiles and elevations, assembly methods, joint details, fastening methods, accessory listings, hardware location and schedule of finishes.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Do not deliver shop fabricated carpentry items until site conditions are adequate to receive the work. Protect items from weather while in transit.
- B. Store indoors, in ventilated areas with a constant, minimum temperature of 60 degrees F, maximum relative humidity of 25 to 55 percent.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and will maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.
- B. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. Coordinate construction to ensure that the actual dimensions correspond to established dimensions. Provide fillers and scribes to allow for trimming and fitting.
- C. Field Measurements:
 - 1. For Cabinets: Where cabinets are indicated to fit existing construction, verify dimensions of existing construction by field measurements before fabrication and indicate measurements on Shop Drawings. Provide filler and scribe if necessary.
 - 2. For Countertops: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1.8 COORDINATION

- A. Coordinate layout installation of blocking and reinforcement in partitions for support of cabinets.
- B. Coordinate the work with plumbing and electrical rough-in.

PART 2 PRODUCTS

2.1 ROUGH CARPENTRY MATERIALS

- A. Lumber: PS 20; graded in accordance with established Grading rules; maximum moisture content of 15% - 19%; of the following species and grades.
 - 1. Non-Structural Light Framing and Blocking: Stress Group C; standard grade.
- B. Nails, Spikes and Staples: Galvanized for exterior locations. high humidity locations and treated wood; plain finish for other interior locations; size and type to suit application.
- C. Anchor Bolts, Nuts, Washers, Lags, Pins and Screws: Medium carbon steel; sized to suit application; galvanized for exterior locations, high humidity locations and treated wood; plain finish for other interior locations.
- D. Firestopping: Thermafiber mineral firesafing insulation as manufactured by US Gypsum Co. or approved equal.
- E. Plywood: 3/4" thick; APA Rated sheathing, Structural 1, Grade C-D; Exposure Durability - 1; sanded.

2.2 WOOD TREATMENT

- A. Wood Preservative Pressure Treatment: AWWPA Treatment C1 using water borne preservative with 0.25 percent retainage.
- B. Shop pressure treat and deliver to site ready for installation wood materials requiring pressure impregnated preservatives.

2.3 COUNTERTOPS, CASEWORK MATERIAL AND MISCELLANEOUS ACCESSORIES

- A. Wood Particleboard: 45# per AWI standard, composed of wood chips, made with high waterproof resin binders of grade to suit application, standard faces, located as follows:
 - ITEM**
 - Drawer Construction
 - Cabinet Doors, Sides and Bottoms
 - Shelving
 - Countertops
 - Cabinet Backs
- B. Plastic Laminate: NEMA LD 3-1985, GP 50 grade, .050 inch thick, general purpose (as manufactured by Formica or approved equal). (All doors, drawers, counters, backsplashes, etc.) Four possible colors as selected by Architect.
- C. Plastic Laminate Backing Sheet: LD 3 BK-20 backing grade, 0.020 inch thick, smooth surface finish, undecorated (all concealed locations).
- D. Cabinet Liner: CL 20 grade, 0.020 inch thick, all interior casework surfaces.
- E. Adhesive: FS MMM-A-130. Type recommended by laminate manufacturer to suit application.

SECTION 060010 - CARPENTRY WORK

- F. Fasteners: Size and type to suit application.
- G. Bolts, Nuts, Washers, Lags, Pins and Screws: Of size and type to suit application.
- H. Shelf Standards: Stanley 1805 aluminum mortise mounted, size as appropriate per application.
- I. Shelf Clips: Stanley CD 1806 steel, bright zinc plated.
- J. Drawer Slides: Blum BS 426A (full extension), size as required.
- K. Hinges: Stanley #1501-2 (self-closing) quantity per door as recommended by manufacturer.

2.4 FABRICATION (CABINET WORK)

- A. Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.
- B. Cap exposed plastic laminate finish edges with material of same finish and pattern.
- C. Door and Drawer Fronts: 3/4 inch thick; overlay style.
- D. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- E. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.
- F. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
- G. Provide cutouts for plumbing fixtures, inserts, appliances, fixtures and fittings. Verify locations of cutouts from on-site dimensions. Seal contact surfaces of cut edges.
- H. All countertops to be 1-1/2" edge unless noted otherwise.
- I. Form joints between components using manufacturer's standard joint adhesive. Joints shall be inconspicuous in appearance and without voids.
- J. Rout and finish component edges to a smooth, uniform finish. Rout all cutouts, then sand all edges smooth. Repair or reject defective or inaccurate work.

2.5 ACCESSORIES

- A. Cabinet Pulls: Stanley 4484, US26D, 4" wire pull.

2.6 SOLID SURFACE

- A. DuPont Corian Surfacing.
- B. Substitutions: Under provisions of Division 1 – General Requirements.

SECTION 060010 - CARPENTRY WORK

2.7 MATERIALS

- A. 33% Binding resins, 66% minerals.
- B. ½" Thick material as shown on Drawings and as required.
- C. Colors: to be selected from manufacturer's full color range; Assume two (2) colors.
- D. Edge Detail: Basic eased edge.

PART 3 EXECUTION

3.1 FINISH CARPENTRY

- A. Verify adequacy of backing and support framing.
- B. Install work in accordance with AWI Custom Quality Standards.
- C. Set and secure materials and components in place, plumb and level.
- D. Carefully scribe work abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.
- E. Install trim with nails and glue. Picture frame window openings.
- F. Ensure that mechanical, electrical and building items affecting this section of work are properly placed, complete and have been inspected by the Architect prior to commencement of installation.
- G. All fasteners exposed to view are to be concealed.
- H. Permanently fix counter bases to floor using appropriate angles and anchorages.
- I. Install and adjust cabinet hardware to correct operation.
- J. Install hardware, fixtures and accessories supplied under other sections. Install items in accordance with manufacturer's instructions.
- K. Protect surfaces from damage until project completion. Repair/replace damaged work.
- L. Keep components clean during installation. Remove adhesives, sealants and other stains.
- M. Solid surface fabrications to be performed by a certified Corian fabricator/installer.

3.2 PREPARATION OF SITE FINISHING

- A. Set exposed fasteners. Apply wood filler in exposed fastener indentation, sand work smooth.

3.3 TOLERANCES

SECTION 060010 - CARPENTRY WORK

- A. Framing Members: 1/4 inch from true position, maximum.

3.4 SCHEDULES

- A. Rough Carpentry:
 - 1. Miscellaneous Furring and Stripping for Walls.
 - 2. Behind Wall Wood Blocking for Support of Accessories, Shelving, Counters and Cabinets.
- B. Interior Finish Carpentry:
 - 1. Custom cabinetry, countertops, and backsplashes.
 - 3. Plastic laminate adjustable shelving with heavy duty support brackets.

END OF SECTION

SECTION 072130 - BATT INSULATION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Sound attenuating batt insulation in interior walls and above ceilings

PART 2 PRODUCTS

2.1 MANUFACTURERS - INSULATION MATERIALS

- A. Certainteed Product – Noise Reducer Sound Attenuation and Acoustical Ceiling Batts.
- B. Substitutions: Under provisions of Division 1 - General Requirements.

2.2 MATERIALS

- A. Sound Attenuating Batt Insulation: ASTM C665; preformed glass fiber batt roll type; unfaced.
- B. Nails or Staples: Steel wire; electroplated; type and size to suit application.
- C. Support Wire Fasteners: Galvanized rigid wire with pointed ends.
- D. Tape: Mesh reinforced, 2 inch wide.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install insulation in accordance with insulation manufacturer's instructions.
- B. Trim insulation neatly to fit spaces. Insulate miscellaneous gaps and voids.
- C. Tape, seal butt ends lapped flanges and tears or cuts in membrane.

3.2 SCHEDULES

- A. Interior Walls (Acoustical): 3-1/2" thick; unfaced; 16" wide.
- B. Ceilings (Acoustical): 6" thick; unfaced; 24" wide.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Preparing substrate surfaces.
- B. Sealant and joint backing.

1.2 RELATED SECTIONS

- A. Section 033000 - Cast-In-Place Concrete: Sealants required in conjunction with cast-in-place concrete.
- B. Section 060010 - Carpentry Work: Sealants required in conjunction with cabinetry /countertops.
- C. Section 086100 - Wood Windows.

1.3 REFERENCES

- A. ASTM C790 - Use of Latex Sealing Compounds.
- B. ASTM C804 - Use of Solvent-Release Type Sealants.
- C. ASTM C834 - Latex Sealing Compounds.
- D. ASTM C919 - Use of Sealants in Acoustical Applications.
- E. ASTM C920 - Elastomeric Joint Sealants.
- F. ASTM D1056 - Flexible Cellular Materials - Sponge or Expanded Rubber.
- G. ASTM D1565 - Flexible Cellular Materials - Vinyl Chloride Polymers and Copolymers (Open-Cell Foam).
- H. SWRI (Sealant, Waterproofing and Restoration Institute) - Sealant and Caulking Guide Specification.

1.4 SUBMITTALS

- A. Product Data: Provide data indicating sealant chemical characteristics, performance criteria, substrate preparation, limitations, and color availability.
- B. Samples: Submit two samples, illustrating sealant colors for selection.
- C. Manufacturer's Installation Instructions: Indicate special procedures, surface preparation, and perimeter conditions requiring special attention.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with sealant manufacturer's requirements for preparation of surfaces and material installation instructions.

SECTION 079000 - JOINT SEALERS

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Applicator: Company specializing in performing the work of this section with minimum three years documented experience and approved by manufacturer.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Maintain temperature and humidity recommended by the sealant manufacturer during and after installation.

1.8 COORDINATION

- A. Coordinate the work with all sections referencing this section.

1.9 WARRANTY

- A. Provide a five year warranty.
- B. Warranty: Include coverage for installed sealants and accessories which fail to achieve air tight seal, water tight seal, and exhibit loss of adhesion or cohesion, or do not cure.

PART 2 PRODUCTS

2.1 SEALANTS

	<u>Location</u>	<u>Type</u>	<u>Color</u>
A.	Laminate Counters	Silicone Single Component	Clear
B.	Door Frame/Walls	Acrylic, Latex	Paint to match
C.	Fire Stop Sealant	One part silicone Elastomer (Dow Corning Fire Stop Sealant)	Grey

2.2 ACCESSORIES

- A. Primer: Non-staining type, recommended by sealant manufacturer to suit application.
- B. Joint Cleaner: Non-corrosive and non-staining type, recommended by sealant manufacturer; compatible with joint forming materials.
- C. Joint Backing: ASTM D1056; round, closed foam rod; oversized 30 to 50 percent larger than joint width.
- D. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer to suit application.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrate surfaces and joint openings are ready to receive work.
- B. Verify that joint backing and release tapes are compatible with sealant.

3.2 PREPARATION

- A. Remove loose materials and foreign matter which might impair adhesion of sealant.
- B. Clean and prime joints in accordance with manufacturer's instructions.
- C. Perform preparation in accordance with manufacturer's instructions.
- D. Protect elements surrounding the work of this section from damage or disfiguration.

3.3 INSTALLATION

- A. Install sealant in accordance with manufacturer's instructions.
- B. Measure joint dimensions and size materials to achieve required 2:1 width/depth ratios.
- C. Install joint backing to achieve a neck dimension no greater than 1/3 of the joint width.
- D. Install bond breaker where joint backing is not used.
- E. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.
- F. Apply sealant within recommended application temperature ranges. Consult manufacturer when sealant cannot be applied within these temperature ranges.
- G. Tool joints concave.

3.4 CLEANING

- A. Clean adjacent soiled surfaces.

3.5 PROTECTION OF FINISHED WORK

- A. Protect finished installation.
- B. Protect sealants until cured.

END OF SECTION

SECTION 081120 - STANDARD STEEL FRAMES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Non-rated steel door frames.
- B. Steel Frames for borrowed lites.

1.2 RELATED SECTIONS

- A. Section 060010 - Carpentry Work.
- B. Section 082110 - Wood Doors.
- C. Section 092600 - Gypsum Wall Board.
- D. Section 099000 - Painting: Field painting of frames.

1.3 REFERENCES

- A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People.
- B. ANSI/SDI-100 - Standard Steel Doors and Frames.
- C. ASTM A525 - Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
- D. DHI - Door Hardware Institute: The Installation of Commercial Steel Doors and Steel Frames, Insulated Steel Doors in Wood Frames and Builder's Hardware.

1.4 SUBMITTALS

- A. Shop Drawings: Indicate frame elevations, reinforcement, and finish.
- B. Product Data: Indicate frame configuration, anchor types and spacings, location of cut-outs for hardware, reinforcement.
- C. Manufacturer's Installation Instructions: Indicate special installation instructions.
- D. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Conform to requirements of ANSI/SDI-100 and ANSI A117.1.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

SECTION 081120 - STANDARD STEEL FRAMES

- A. Deliver, store, protect, and handle products to site.
- B. Accept frames on site in manufacturer's packaging. Inspect for damage.

1.8 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.

1.9 COORDINATION

- A. Coordinate the work with frame opening construction, door and hardware installation.

PART 2 PRODUCTS

2.1 FRAME MANUFACTURERS

- A. Pioneer Product: Series F.

2.2 FRAMES

- A. Interior Frames: 16 gage thick material, base metal thickness.

2.3 ACCESSORIES

- A. Silencers: Resilient rubber, fitted into drilled hole.
- B. Removable Stops: Rolled steel channel shape, mitered corners; prepared for countersink style tamper proof screws.
- C. Primer: Baked enamel/zinc chromate type.
- D. Frame Anchors: Metal stud frame anchors as required to suit application.

2.4 FABRICATION

- A. Fabricate interior frames for knock-down field assembly.
- B. Fabricate frames with hardware reinforcement plates welded in place.
- C. Reinforce frames wider than 48 inches with roll formed steel channels fitted tightly into frame head, flush with top.
- D. Prepare frame for silencers. Provide three single silencers for single doors on strike side. Provide two single silencers on frame head at double doors without mullions.
- E. Jamb depth as indicated on Drawings and to suit application.

2.5 FINISH

- A. Steel Sheet: Cold rolled conforming to ASTM A366.
- B. Primer: Baked / air dried.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify substrate conditions.
- B. Verify that opening sizes and tolerances are acceptable.

3.2 INSTALLATION

- A. Install frames in accordance with ANSI/SDI-100 and DHI.
- B. Coordinate with metal stud framing and wallboard wall construction for anchor placement.
- C. Coordinate installation of frames with installation of hardware specified in Section 08710 and doors in Section 08111.
- D. Install roll formed steel reinforcement channels between two abutting frames. Anchor to structure and floor.

3.3 ERECTION TOLERANCES

- A. Maximum Diagonal Distortion: 1/16 inch measured with straight edges, crossed corner to corner.

END OF SECTION

PART1 GENERAL

1.1 SECTION INCLUDES

- A. Flush wood doors; non-rated.

1.2 RELATED SECTIONS

- A. Section 081120 - Standard Steel Frames.
- B. Section 087120 - Door Hardware.

1.3 REFERENCES

- A. ANSI/HPMA HP - Hardwood and Decorative Plywood.
- B. ASTM E413 - Classification for Determination of Sound Transmission Class.
- C. AWI - Quality Standards of the Architectural Woodwork Institute.

1.4 SUBMITTALS

- A. Shop Drawings: Illustrate door opening criteria, elevations, sizes, types, swings, undercuts required, identify cutouts for hardware, glazing, etc.
- B. Product Data: Indicate door core materials and construction; veneer species, type and characteristics; and factory machining criteria.
- C. Samples: Submit two samples of door veneer, 4 x 4 inch in size illustrating wood grain, stain color, and sheen.
- D. Manufacturer's Installation Instructions: Indicate special installation instructions.

1.5 QUALITY ASSURANCE

- A. Perform work in accordance with AWI Quality Standard Section 1300, Premium Grade.
- B. Finish doors in accordance with AWI Quality Standard Section 1500.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing the Products specified in this section with minimum three years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect, and handle products to site.
- B. Package, deliver and store doors in accordance with AWI Section 1300.
- C. Protect doors with resilient packaging sealed with heat shrunk plastic. Do not store in damp or wet areas; or in areas where sunlight might bleach veneer. Seal top and bottom edges if stored more than one week. Break seal on-site to permit ventilation.

SECTION 082110 - WOOD DOORS

1.8 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.

1.9 COORDINATION

- A. Coordinate the work with door opening construction, door frame and door hardware installation.

1.10 WARRANTY

- A. Provide warranty.
- B. Include coverage for delamination of veneer, warping beyond specified installation tolerances, defective materials, and telegraphing core construction.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Doors:
 - 1. VT Industries Architectural Wood Doors.
 - 2. Substitutions: Under provisions of Division 1- General Requirements.

2.2 DOOR TYPES

- A. Flush Interior Doors: 1-3/4" thick; solid core and hollow core construction; non-rated.

2.3 DOOR CONSTRUCTION

- A. Core: Solid, non-rated core, AWI, Section 1300.
- B. SRC-Stile and rail, particle core, bonded to stiles and rails.
- C. 5-Ply construction.

2.4 DOOR FACING

- A. Veneer Facing: AWI Custom quality, Premium Natural Birch; rotary sliced; pre-finished. Color to be selected from manufacturer's full standard color range.

2.5 ADHESIVE

- A. Facing Adhesive: Type II - water resistant.

2.6 FABRICATION

- A. Fabricate non-rated doors in accordance with AWI Quality Standards requirements.
- B. Vertical Exposed Edge of Stiles: Of same species as veneer facing. Hardwood for transparent finish facing.
- C. Fit door edge trim to edge of stiles after applying veneer facing.

SECTION 082110 - WOOD DOORS

- D. Bond edge banding to cores.
- E. Factory machine doors for finish hardware in accordance with hardware requirements and dimensions. Do not machine for surface hardware.

2.7 FINISH

- A. Factory finish; color to be selected by Architect.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that opening sizes and tolerances are acceptable.
- B. Do not install doors in frame openings that are not plumb or are out-of-tolerance for size or alignment.

3.2 INSTALLATION

- A. Install doors in accordance with AWI Quality Standards.
- B. Trim door width by cutting equally on both jamb edges.
- C. Trim door height by cutting bottom edges to a maximum of 3/4 inch.
- D. Pilot drill screw and bolt holes.
- E. Machine cut for hardware. Core for handsets and cylinders.
- F. Coordinate installation of doors with installation of frames.

3.3 INSTALLATION TOLERANCES

- A. Conform to AWI requirements for fit and clearance tolerances.
- B. Conform to AWI Section 1300 requirements for maximum diagonal distortion.

3.4 ADJUSTING

- A. Adjust door for smooth and balanced door movement.

3.5 SCHEDULE

- A. See Drawings.

END OF SECTION

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes:

1. Mechanical and electrified door hardware
2. Electronic access control system components

B. Section excludes:

1. Windows
2. Cabinets (casework), including locks in cabinets
3. Signage
4. Toilet accessories
5. Overhead doors

C. Related Sections:

1. Division 01 "General Requirements" sections for Allowances, Alternates, Owner Furnished Contractor Installed, Project Management and Coordination.
2. Division 06 Section "Rough Carpentry"
3. Division 06 Section "Finish Carpentry"
4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Stile and Rail Wood Doors"
 - d. "Interior Aluminum Doors and Frames"
 - e. "Aluminum-Framed Entrances and Storefronts"
 - f. "Stainless Steel Doors and Frames"
 - g. "Special Function Doors"
 - h. "Entrances"
6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

A. UL LLC

1. UL 10B - Fire Test of Door Assemblies
2. UL 10C - Positive Pressure Test of Fire Door Assemblies
3. UL 1784 - Air Leakage Tests of Door Assemblies
4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute

SECTION 087100 – DOOR HARDWARE

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
 - a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

SECTION 087100 – DOOR HARDWARE

4. Door Hardware Schedule:
 - a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
 - b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
 - c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
 5. Key Schedule:
 - a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
 - b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
 - c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
 - d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
 - e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
 - f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.
- C. Informational Submittals:
1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
 2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.
- D. Closeout Submittals:
1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Final approved hardware schedule edited to reflect conditions as installed.

SECTION 087100 – DOOR HARDWARE

- d. Final keying schedule
- e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
- f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

- 1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

- 1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
- 2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
- 3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
- 4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

- 1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- 2. Smoke and Draft Control Door Assemblies:

SECTION 087100 – DOOR HARDWARE

- a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105
 - b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
 4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.
- C. Pre-Installation Meetings
1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
 2. Pre-installation Conference
 - a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
 3. Electrified Hardware Coordination Conference:
 - a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

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- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.
- E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.
- F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage ND Series: 10 years
 - 2) Closers
 - a) LCN 1450 Series: 25 years

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

SECTION 087100 – DOOR HARDWARE

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.
- B. Approval of alternate manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category are only to be considered by official substitution request in accordance with section 01 25 00.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

- A. Fabrication
 - 1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
 - 2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 - 3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.
- B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
 - 1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.
- C. Cable and Connectors:
 - 1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
 - 2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
 - 3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

SECTION 087100 – DOOR HARDWARE

2.03 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Ives 5BB series
2. Acceptable Manufacturers and Products:
 - a. Hager BB1191/1279 series

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. 1-3/4 inch (44 mm) thick doors, up to and including 36 inches (914 mm) wide:
 - a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
 - b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
 - a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
5. 2 inches or thicker doors:
 - a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
 - b. Interior: Heavy weight, steel, 5 inches (127 mm) high
6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
8. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
 - a. Steel Hinges: Steel pins
 - b. Non-Ferrous Hinges: Stainless steel pins
 - c. Out-Swinging Exterior Doors: Non-removable pins
 - d. Out-Swinging Interior Lockable Doors: Non-removable pins
 - e. Interior Non-lockable Doors: Non-rising pins
9. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.04 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage ND series

B. Requirements:

1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide locks with standard 2-3/4 inches (70 mm) backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.

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4. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
5. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
6. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
7. Provide electrified options as scheduled in the hardware sets.
8. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
 - a. Lever Design: ATH (ATHENS)

2.05 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. GC to verify existing key system
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide cylinders/cores to match Owner's existing key system, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.

2.06 KEYING

A. Scheduled System:

1. Existing non-factory registered system:
 - a. Provide cylinders/cores keyed into Owner's existing keying system managed by Owner's locksmith, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference. Contact:
 - 1) Firm Name:
 - 2) Contact Person:
 - 3) Telephone:

B. Requirements:

1. Construction Keying:
 - a. Replaceable Construction Cores.
 - 1) Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
 - a) 3 construction control keys
 - b) 12 construction change (day) keys.
 - 2) Owner or Owner's Representative will replace temporary construction cores with permanent cores.
2. Permanent Keying:
 - a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - 1) Master Keying system as directed by the Owner.

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- b. Forward biting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
- c. Provide keys with the following features:
 - 1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
 - 2) Patent Protection: Keys and blanks protected by one or more utility patent(s).
 - 3) Geographically Exclusive: Where High Security or Security cylinders/cores are indicated, provide nationwide, geographically exclusive key system complying with the following restrictions.
- d. Identification:
 - 1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
 - 2) Identification stamping provisions must be approved by the Architect and Owner.
 - 3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
 - 4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
 - 5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
- e. Quantity: Furnish in the following quantities.
 - 1) Permanent Control Keys: 3.
 - 2) Master Keys: 6.
 - 3) Change (Day) Keys: 3 per cylinder/core that is keyed differently
 - 4) Key Blanks: Quantity as determined in the keying meeting.

2.07 KEY CONTROL SYSTEM

A. Manufacturers:

- 1. Scheduled Manufacturer:
 - a. Telkee
- 2. Acceptable Manufacturers:
 - a. HPC
 - b. Lund

B. Requirements:

- 1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.
 - a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.
 - b. Provide hinged-panel type cabinet for wall mounting.

2.08 DOOR CLOSERS

A. Manufacturers and Products:

- 1. Scheduled Manufacturer and Product:

SECTION 087100 – DOOR HARDWARE

- a. LCN 1450 series

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory.
2. Provide door closers with fully hydraulic, full rack and pinion action with cast aluminum cylinder.
3. Closer Body: 1-3/8-inch (35 mm) diameter with 5/8-inch (16 mm) diameter pinion journal diameter heat-treated pinion journal and full complement bearings.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
6. Pressure Relief Valve (PRV) Technology: Not permitted.
7. Provide stick on and special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.09 DOOR TRIM

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide push plates, push bars, pull plates, pulls, and hands-free reversible door pulls with diameter and length as scheduled.

2.10 PROTECTION PLATES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.

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3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.11 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson
2. Acceptable Manufacturers:
 - a. ABH

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.

2.12 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button or thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.13 SILENCERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Burns
 - b. Trimco

B. Requirements:

1. Provide "push-in" type silencers for hollow metal or wood frames.
2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.

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3. Omit where gasketing is specified.

2.14 FINISHES

- A. FINISH: BHMA 626/652 (US26D); EXCEPT:
 1. Hinges at Exterior Doors: BHMA 630 (US32D)
 2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
 3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
 4. Protection Plates: BHMA 630 (US32D)
 5. Overhead Stops and Holders: BHMA 630 (US32D)
 6. Door Closers: Powder Coat to Match
 7. Wall Stops: BHMA 630 (US32D)
 8. Latch Protectors: BHMA 630 (US32D)
 9. Weatherstripping: Clear Anodized Aluminum
 10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 2. Custom Steel Doors and Frames: HMMA 831.
 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.

SECTION 087100 – DOOR HARDWARE

- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
 - 1. Install construction cores to secure building and areas during construction period.
 - 2. Replace construction cores with permanent cores as indicated in keying section.
 - 3. Furnish permanent cores to Owner for installation.
- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- L. Continuous Hinges: Re-locate the door and frame fire rating labels where they will remain visible so that the hinge does not cover the label once installed.
- M. Door Closers & Auto Operators: Mount closers/operators on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers/operators so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- N. Overhead Stops/Holders: Mount overhead stops/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- O. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- P. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- Q. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

SECTION 087100 – DOOR HARDWARE

- R. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- S. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- T. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
 - 3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.
- D. Hardware Sets:

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Abbreviation	Name
GLY	Glynn-Johnson Corp
IVE	H.B. Ives
KNC	K.N. Crowder Mfg. Inc.
LCN	LCN Commercial Division
SCH	Schlage Lock Company
TBD	Manufacturer To Be Determined

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Legend:

 [Link to catalog cut sheet.](#)






 Electrified Opening

Hardware Group No. 01

For use on Door #(s):

02	03	06	08	09	10
16	19	23	24		

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		626	IVE
1	EA	ENTRANCE/OFFICE LOCK	ND50BD ATH		626	SCH
1	EA	PERMANENT CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONSTRUCTION CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	KICK PLATE	8400 6" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE






SECTION 087100 – DOOR HARDWARE

Hardware Group No. 02

For use on Door #(s):

17 18

Provide each SGL door(s) with the following:







QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		626	IVE
1	EA	ENTRANCE/OFFICE LOCK	ND50BD ATH		626	SCH
1	EA	PERMANENT CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONSTRUCTION CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONCEALED OVERHEAD STOP	100S		630	GLY
1	EA	KICK PLATE	8400 6" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 03

For use on Door #(s):

01 04 05

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		626	IVE
1	EA	ENTRANCE/OFFICE LOCK	ND50BD ATH		626	SCH
1	EA	PERMANENT CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONSTRUCTION CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONCEALED OVERHEAD STOP	100S		630	GLY
1	EA	SURFACE CLOSER	1450 RW/PA FC		689	LCN
1	EA	KICK PLATE	8400 6" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE







SECTION 087100 – DOOR HARDWARE

Hardware Group No. 04

For use on Door #(s):

14 20 21

Provide each SGL door(s) with the following:







QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		626	IVE
1	EA	PASSAGE SET	ND10S ATH		626	SCH
1	EA	CONCEALED OVERHEAD STOP	100S		630	GLY
1	EA	SURFACE CLOSER	1450 RW/PA FC		689	LCN
1	EA	KICK PLATE	8400 6" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 04.1

For use on Door #(s):

11 15

Provide each SGL door(s) with the following:







QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		626	IVE
1	EA	PASSAGE SET	ND10S ATH		626	SCH
1	EA	SURFACE CLOSER	1450 RW/PA FC		689	LCN
1	EA	KICK PLATE	8400 6" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CCV		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 05

For use on Door #(s):

07

Provide each SGL door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
4	EA	HINGE	5BB1 4.5 X 4.5		626	IVE
1	EA	CLASSROOM LOCK	ND70BD RHO		626	SCH
1	EA	PERMANENT CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONSTRUCTION CORE	SFIC CORE - GC TO VERIFY EXISTING KEY SYSTEM TO MATCH		626	TBD
1	EA	CONCEALED OVERHEAD STOP	100S		630	GLY
1	EA	SURFACE CLOSER	1450 RW/PA FC		689	LCN
1	EA	KICK PLATE	8400 6" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE


SECTION 087100 – DOOR HARDWARE

Hardware Group No. 06

For use on Door #(s):

12 13 22

Provide each BP door(s) with the following:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	2 DOOR BYPASS DOOR TRACK ASSEMBLY	CCD-410-B		BLK	KNC
2	EA	FLUSH PULL	950		626	IVE

END OF SECTION

SECTION 088000 - GLAZING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Glass and glazing for transaction windows and borrowed lites.

1.2 RELATED SECTIONS

- A. Section 079000 - Joint Sealers: Sealant and back-up material.
- B. Section 082110 - Wood Doors.

1.3 REFERENCES

- A. ANSI/ASTM E330 - Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- B. ANSI Z97.1 - Safety Performance Specifications and Methods of Test for Safety Glazing Used in Buildings.
- C. ASTM C1036 - Flat Glass.
- D. ASTM C1048 - Heat-Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass.
- E. FGMA - Glazing Manual.
- F. FGMA - Sealant Manual.
- G. FS TT-S-001657 - Sealing Compound, Single Component, Butyl Rubber Based, Solvent Release Type.
- H. FS TT-S-00230 - Sealing Compounds, Synthetic-Rubber Base, Single Component, Chemically Curing.
- I. FS TT-S-01543 - Sealing Compound, Silicone Rubber Base.
- J. Laminators Safety Glass Association - Standards Manual.

1.4 PERFORMANCE REQUIREMENTS

- A. Glass and glazing materials of this Section shall provide continuity of building enclosure vapor and air barrier:
 - 1. In conjunction with materials described in Section 07900.
 - 2. Maintain continuous air and vapor barrier throughout glazed assembly from glass pane to heel bead of glazing sealant.
- B. Size glass to withstand dead loads and positive and negative live loads acting normal to plane of glass as calculated in accordance with applicable code in accordance with ANSI/ASTM E330.
- C. Limit glass deflection to 1/200 or flexure limit of glass with full recovery of glazing materials, whichever is less.

SECTION 088000 - GLAZING

1.5 SUBMITTALS

- A. Submit under provisions of Division 1 - General Requirements.
- B. Product Data on Glass Types Specified: Provide structural, physical and environmental characteristics, size limitations, special handling or installation requirements.
- C. Product Data on Glazing Compounds: Provide chemical, functional, and environmental characteristics, limitations, special application requirements. Identify available colors.
- D. Manufacturer's Installation Instructions: Indicate special precautions required.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with FGMA Glazing Manual FGMA Sealant Manual for glazing installation methods.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install glazing when ambient temperature is less than 50 degrees F.
- B. Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

1.8 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop Drawings.

1.9 COORDINATION

- A. Coordinate Work under provisions of Division 1 - General Requirements.
- B. Coordinate the Work with glazing frames, wall openings, and perimeter air and vapor seal to adjacent Work.

1.10 WARRANTY

- A. Provide five year manufacturer's warranty under provisions of Division 1 - General Requirements.
- B. Warranty: Include coverage for reflective coating on mirrors and replacement of same.

PART 2 PRODUCTS

2.1 MANUFACTURERS - FLAT GLASS MATERIALS

- A. Pittsburgh Plate Glass.
- B. Substitutions: Under provisions of Division 1 - General Requirements.

SECTION 088000 - GLAZING

2.2 FLAT GLASS MATERIALS

- A. Safety Glass: Clear, fully tempered with horizontal tempering conforming to ANSI Z97.1; 1/4 inch thick; **Type G-1**.

2.3 GLAZING COMPOUNDS

- A. Acrylic Sealant: FS TT-S-00230, Type II, Class A; single component; cured Shore A hardness of 15- 25 non-bleeding color as selected.

2.4 GLAZING ACCESSORIES

- A. Setting Blocks: Neoprene 80 - 90 Shore A durometer hardness, length of 0.1 inch for each square foot of glazing or minimum 4 inch x width of glazing rabbet space minus 1/16 inch x height to suit glazing method and pane weight and area.
- B. Spacer Shims: Neoprene 50 - 60 Shore A durometer hardness, minimum 3 inch long x one half the height of the glazing stop x thickness to suit application, self adhesive on one face.
- C. Glazing Clips: Manufacturer's standard type.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify prepared openings under provisions of Division 1 - General Requirements.
- B. Verify that openings for glazing are correctly sized and within tolerance.
- C. Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.

3.2 PREPARATION

- A. Clean contact surfaces with solvent and wipe dry.
- B. Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- C. Prime surfaces scheduled to receive sealant.

3.3 INTERIOR - DRY METHOD (TAPE AND TAPE)

- A. Cut glazing tape to length and set against permanent stops, projecting 1/16 inch above sight line.
- B. Place setting blocks at 1/4 points with edge block no more than 6 inches from corners.
- C. Rest glazing on setting blocks and push against tape for full contact at perimeter of pane or unit.
- D. Place glazing tape on free perimeter of glazing in same manner described above.
- E. Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- F. Knife trim protruding tape.

SECTION 088000 - GLAZING

3.4 EXTERIOR - WET/DRY METHOD

- A. Cut glazing tape to length and set against permanent stops, 3/16 inch below sight line. Seal corners by butting tape and dabbing with sealant.
- B. Apply heel bead of sealant along intersection of permanent stop with frame ensuring full perimeter seal between glass and frame to complete the continuity of the air and vapor seal.
- C. Place setting blocks at 1/4 points with edge block no more than 6 inches from corner.
- D. Rest glazing on setting blocks and push against tape and heel bead of sealant with sufficient pressure to attain full contact at perimeter of pane or glass unit.
- E. Install removable stops, with spacer strips inserted between glazing and applied stops, 1/4 inch below sight line.
- F. Fill gap between glazing stop with sealant to depth equal to bite of frame on glazing, but not more than 3/8 inch below sight line.
- G. Apply cap bead of sealant along void between the stop and the glazing, to uniform line, flush with sight line. Tool or wipe sealant surface smooth.

3.5 CLEANING

- A. Clean work under provisions of Division 1 - General Requirements.
- B. Remove glazing materials from finish surfaces.
- C. Remove labels after work is complete.

3.6 PROTECTION OF FINISHED WORK

- A. Protect finished Work under provisions of Division 1 - General Requirements.
- B. After installation, mark pane with an 'X' by using removable plastic tape or paste.

END OF SECTION

SECTION 092600 - GYPSUM BOARD SYSTEMS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Metal stud wall framing and furring.
- B. Gypsum Board.
- C. Taped and sanded joint treatment.
- D. Accessories.

1.2 RELATED SECTIONS

- A. Section 060010 - Carpentry.
- B. Section 081120 - Standard Steel Frames.
- C. Section 099000 - Painting: Surface finish.
- D. Division 23 - Mechanical.
- C. Division 26 - Electrical.

1.3 REFERENCES

- A. ASTM C36 - Gypsum Wallboard.
- B. ASTM C475 - Joint Treatment Materials for Gypsum Wallboard Construction.
- C. ASTM C630 - Water Resistant Gypsum Backing Board.

1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C840 and GA-600.

1.5 QUALIFICATIONS

- A. Applicator: Company specializing in performing the work of this section with minimum 3 years documented experience.

PART 2 PRODUCTS

2.1 MANUFACTURERS - GYPSUM BOARD SYSTEM

- A. Georgia-Pacific Gypsum Products.
- B. Substitutions: Under provisions of Division 1 – General Requirements.

SECTION 092600 - GYPSUM BOARD SYSTEMS

2.2 GYPSUM BOARD MATERIALS

- A. Standard Gypsum Board: ASTM C36; 5/8" thick, maximum permissible length; ends square cut, tapered edges.

2.3 FRAMING MATERIALS

- A. Studs and Tracks - Interior Partitions: ASTM C645; galvanized sheet steel, 3-5/8" and 6", 20 gage thick, C shape with knurled faces.
- B. Joists-Interior Ceilings/Soffits: ASTM C645; galvanized sheet steel, 3 5/8 or 6", 20 gage thick, C shape with knurled faces.
- C. Stud Furring-Interior Walls: ASTM C645; galvanized sheet steel; 1-1/2", 25 gage thick hat channels or 2 1/2", 22 gage thick studs.
- D. Vertical Slide Clip: Galvanized sheet steel, 12 gage thick.
- E. Fasteners: ASTM C514.
- F. Anchorage to Substrate: Tie wire, nails, screws and other metal supports, of type and size to suit application; to rigidly secure materials in place.
- G. Adhesive: ASTM C557.

2.4 ACCESSORIES

- A. Corner Beads: Metal.
- B. Joint Materials: ASTM C475; reinforcing tape, joint compound, adhesive, and water.
- C. Fasteners: ASTM C1002.
- D. Reveals: Pittcon STR Series trim reveal; STR-063-063; 5/8" wide x 5/8" deep; aluminum extrusion; painted

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions.
- B. Verify that site conditions are ready to receive work and opening dimensions are as indicated on shop drawings.

3.2 GYPSUM BOARD INSTALLATION

- A. Install gypsum board in accordance with GA-201, GA-216 and GA-600.

SECTION 092600 - GYPSUM BOARD SYSTEMS

- B. Erect single layer standard gypsum board in most economical direction, with ends and edges occurring over firm bearing. Provide double layer at rated partitions; install in accordance with approved assembly.
- C. Use screws when fastening gypsum board to wood stud or framing.
- D. Place corner beads at external corners. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
- E. Remove and redo defective work.

3.3 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch.
- C. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile.

3.4 METAL STUD INSTALLATION

- A. Install studs in accordance with ASTM C754, and manufacturer's instructions.
- B. Metal Stud Spacing: 16 inches and 24 inches on center, as indicated on drawings.
- C. Door Opening Framing: Install double studs at door frame jambs. Install stud tracks on each side of opening, at frame head height, and between studs and adjacent studs.
- D. Blocking: Screw fire retardant treated wood blocking and steel channels to studs. Install blocking for support of wall cabinets, hardware, and other items.

3.5 CEILING/SOFFIT FRAMING

- A. Install C Sections in accordance with ASTM C754 and manufacturer's instructions.

3.6 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness: 1/8 inch in 10 feet in any direction.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Suspended metal grid ceiling system and perimeter trim.
- B. Acoustical tile.

1.2 REFERENCES

- A. ASTM C635 - Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
- B. ASTM C636 - Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
- C. ASTM E1264 - Classification of Acoustical Ceiling Products.
- D. Ceilings and Interior Systems Contractors Association (CISCA) - Acoustical Ceilings: Use and Practice.

1.3 SYSTEM DESCRIPTION

- A. Suspension system to rigidly secure acoustical ceiling system including integral mechanical and electrical components with maximum deflection of 1/360.

1.4 SUBMITTALS

- A. Submit under provisions of Division 1 - General Requirements.
- B. Product Data: Provide data on metal grid system components and acoustical units.
- C. Samples: Submit two samples full size illustrating material and finish of acoustical units.
- D. Samples: Submit two samples each, of suspension system main runner, cross runner, and edge trim.
- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.5 QUALIFICATIONS

- A. Grid Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- B. Acoustical Unit Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for combustibility requirements for materials.

SECTION 095110 - SUSPENDED ACOUSTICAL CEILINGS

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Maintain uniform temperature of minimum 60 degrees F and maximum humidity of 40 percent prior to, during, and after acoustical unit installation.

1.8 SEQUENCING

- A. Sequence work under the provisions of Division 1 - General Requirements.
- B. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- C. Install acoustical units after interior wet work is dry.

1.9 EXTRA MATERIALS

- A. Furnish under provisions of Division 1 - General Requirements.
- B. Provide two unopened boxes of each tile to Owner.

PART 2 PRODUCTS

2.1 MANUFACTURERS - SUSPENSION SYSTEM

- A. Armstrong Contract Interiors.
- B. Substitutions: Under provisions of Division 1 - General Requirements.

2.2 SUSPENSION SYSTEM MATERIALS

- A. Non-fire Rated Grid: ASTM C635, intermediate duty; exposed T; components die cut and interlocking; hot dipped galvanized. Product: Prelude 15/16" T-bar grid suspension system.
- B. Grid Finish: Prelude 15/16" Grid - White.
- C. Accessories: Stabilizer bars, hold-down clips, splices, edge and moldings required for suspended grid system.
- D. Support Channels and Hangers: Hot dipped galvanized; size and type to suit application and ceiling system flatness requirement specified.

2.3 MANUFACTURERS - ACOUSTICAL UNITS

- A. Armstrong Contract Interiors.
- B. Substitutions: Under provisions of Division 1 - General Requirements.

2.4 ACOUSTICAL UNIT MATERIALS

- A. Acoustical Tile – Armstrong Angled Tegular Dune No. 1774; conforming to the following:
 - 1. Size: 24 x 24 inches.
 - 2. Thickness: 5/8 inch.

SECTION 095110 - SUSPENDED ACOUSTICAL CEILINGS

3. Composition: Wet-formed mineral fiber.
4. NRC Range: .50-.60
5. CAC Range: 35
6. Edge Detail: Angled tegular lay-in.
7. Surface Burning Characteristics: Flame spread 25 or under.
8. Grid: 15/16 inch.
9. Color: White.
10. Factory applied vinyl latex paint.
11. Humidity Resistance: Humiguard Plus.

2.5 ACCESSORIES

- A. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Division 1 - General Requirements.
- B. Verify that layout of hangers will not interfere with other work.

3.2 INSTALLATION - LAY-IN GRID SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM C636 and manufacturer's instructions and as supplemented in this section.
- B. Install system capable of supporting imposed loads to a deflection of 1/360 maximum.
- C. Locate system on room axis according to reflected ceiling plan.
- D. Install after major above ceiling work is complete. Coordinate the location of hangers with other work.
- E. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- G. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- H. Do not eccentrically load system, or produce rotation of runners.
- I. Install edge molding at intersection of ceiling and vertical surfaces, using longest practical lengths. Miter corners. Provide edge moldings at junctions with other interruptions.

3.3 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.

SECTION 095110 - SUSPENDED ACOUSTICAL CEILINGS

- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Lay directional patterned units one way with pattern parallel to room axis. Fit border trim neatly against abutting surfaces.
- D. Install units after above ceiling work is complete.
- E. Install acoustical units level, in uniform plane, and free from twist, warp and dents.
- F. Cut tile to fit irregular grid and perimeter edge trim. Field rabbet tile edge. Double cut and field paint exposed edges of tegular units.

3.4 ERECTION TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: 2 degrees

END OF SECTION

SECTION 096500 - RESILIENT FLOORING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Resilient base.
- C. Accessories.

1.2 RELATED SECTIONS

- A. Section 096880 – Carpet.

1.2 REFERENCES

- A. American Society for Testing and Materials:
 - 1. ASTM E648 - Critical Radiant Flux - Class 1.
 - 2. ASTM E 662 - Smoke - 450 or less.
 - 3. ASTM F1066 - Vinyl Composition Floor Tile.
- B. FS-SS-W-40 - Wall Base: Rubber and vinyl plastic.

1.3 SUBMITTALS

- A. Submit under provisions of Division 1 - General Requirements: Submittals.
- B. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns and colors available.
- C. Samples: Submit two samples, 2 x 2 inch in size illustrating color and pattern for each floor material for each color specified.
- D. Submit two inch long samples of base material for each color specified.
- E. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Division 1 - General Requirements: Storage and Protection.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Store materials for three days prior to installation in area of installation to achieve temperature stability.
- B. Maintain ambient temperature required by adhesive manufacturer three days prior to, during, and 24 hours after installation of materials.

1.6 MAINTENANCE DATA

- A. Submit under provisions of Division 1 - General Requirements: Operation and Maintenance Data.
- B. Maintenance Data: Include maintenance procedures, recommended maintenance

SECTION 096500 - RESILIENT FLOORING

materials, and suggested schedule for cleaning, stripping, and re-waxing.

1.7 EXTRA MATERIALS

- A. Provide a total of 100 sq ft of VCT flooring of percentages specified and 50 lf feet of base.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Vinyl Wall Base:
 - 1. Johnsonite
 - 2. Or approved equal

2.2 MATERIALS - VINYL BASE

- A. Base: Standard vinyl wall base, coved; pre-molded external corners:
 - 1. Johnsonite
 - 2. Height: 4 inch
 - 3. Thickness: 1/8 inch thick
 - 4. Length: Roll (120 feet)
 - 5. Color: To be selected.

2.6 ACCESSORIES

- A. Subfloor Filler: White premix latex; type recommended by adhesive material manufacturer.
- B. Primers and Adhesives: Waterproof; types recommended by flooring manufacturer.
- C. Transition Strips: Color as selected by Architect.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify concrete floors are dry to a maximum moisture content of 7 percent, and exhibit negative alkalinity, carbonization, or dusting.
- B. Verify floor and lower wall surfaces are free of substances that may impair adhesion of new adhesive and finish materials.

3.2 PREPARATION

- A. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with sub-floor filler to achieve smooth, flat, hard surface.
- B. Prohibit traffic until filler is cured.
- C. Vacuum clean substrate.
- D. Apply primer to required surfaces.

SECTION 096500 - RESILIENT FLOORING

3.3 INSTALLATION - BASE

- A. Fit joints tight and vertical. Maintain maximum measurement between joints.
- B. Miter internal corners. At external corners, 'V' cut back of base strip to 2/3 of its thickness and fold. At exposed ends, use premolded units.
- C. Install base on solid backing. Bond tight to wall and floor surfaces.
- D. Scribe and fit to door frames and other interruptions.

3.4 CLEANING

- A. Clean work under provisions of Division 1 - General Requirements: Final Cleaning.
- B. Remove excess adhesive from floor, base, and wall surfaces without damage.
- C. Clean, seal, and wax end base surfaces in accordance with manufacturer's instructions.

3.5 PROTECTION OF FINISHED WORK

- A. Prohibit traffic on floor finish for 48 hours after installation.

3.6 SCHEDULE

- A. See Finish Schedule for Materials and Locations.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Carpet tile placed with glue-down method.
- B. Accessories.

1.2 RELATED SECTIONS

- A. Section 033000 - Cast-in-Place Concrete.
- B. Section 096500 - Resilient Flooring: resilient tile flooring; base and accessories.

1.3 REFERENCES

- A. ASTM D2859 - Test Method for Flammability of Finished Textile Floor Covering Materials.
- B. ASTM E84 - Surface Burning Characteristics of Building Materials.
- C. ASTM E648 - Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.
- D. NFPA 253 - Test for Critical Radiant Flux of Floor Covering Systems.

1.4 SUBMITTALS

- A. Product Data: Provide data on specified products, describing physical and performance characteristics; sizes, patterns, colors available, and method of installation.
- B. Samples: Submit two samples 6 x 6 inch in size illustrating color and pattern for each carpet material specified.
- C. Manufacturer's Installation Instructions: Indicate special procedures, and perimeter conditions requiring special attention.

1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing specified carpet with minimum three years documented experience.
- B. Installer: Company specializing in installing carpet with minimum three years documented experience and approved by manufacturer.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for flame/smoke rating requirements in accordance with ASTM E84.
- B. Conform to ASTM D2859 for surface flammability ignition test.

SECTION 096880 - CARPET

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Store materials for 3 days prior to installation in area of installation to achieve temperature stability.
- B. Maintain minimum 70 degrees F ambient temperature 3 days prior to, during and 24 hours after installation.

1.8 MAINTENANCE DATA

- A. Maintenance Data: Include maintenance procedures, recommended maintenance materials, and suggested schedule for cleaning.

1.9 EXTRA MATERIAL

- A. Provide a total of 90 sq ft of carpeting of main type, color, and pattern specified.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS – CARPETING

- A. Mannington Commercial Flooring.
- B. Substitutions: Under provision of Division 1 - General Requirements.

2.2 MATERIALS - CARPET TILE

- A. Carpet Tile #1: Mannington – Quadrant Collection – Precision; solution dyed; 24" x 24"; color to be Interval – 14587; installation method – Quarter Turn.

2.3 ACCESSORIES

- A. Sub-Floor Filler: White premix latex; type recommended by adhesive material manufacturer.
- B. Adhesive: Recommended and supplied by carpet manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are smooth and flat with maximum variation of 1/4 inch in 10 ft, and are ready to receive work.

3.2 PREPARATION

- A. Remove sub-floor ridges and bumps. Fill minor or local low spots, cracks, joints, holes, and other defects with sub-floor filler.
- B. Apply, trowel, and float filler to achieve smooth, flat, hard surface. Prohibit traffic until filler is cured.

SECTION 096880 - CARPET

C. Vacuum clean substrate.

3.3 INSTALLATION

A. Install carpet tile and adhesive in accordance with manufacturers' instructions.

B. Lay carpet tile tight and flat, well fastened at edges, with a uniform appearance. Provide monolithic color, pattern, and texture match within any one area.

C. Install in pattern specified.

D. Cut and fit carpet tile around interruptions.

E. Fit carpet tile tight to intersection with vertical surfaces without gaps.

F. Provide carpet tile in areas indicated on Finish Schedule.

3.4 CLEANING

A. Clean work.

B. Remove excess adhesive without damage, from floor, base, and wall surfaces.

C. Clean and vacuum carpet surfaces.

END OF SECTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Surface preparation and field application of paints and coatings.

B. Related Sections:

1. Division 06 Section – Finish Carpentry
2. Division 08 Section – Standard Steel Frames
3. Division 09 Section – Gypsum Board Systems

1.2 REFERENCES

- A. ASTM D16 - Definitions of Terms Relating to Paint, Varnish, Lacquer, and Related Products.
- B. Conform to ASTM D16 for interpretation of terms used in this Section.

1.3 SUBMITTALS

- A. Product Data: Provide data on all finishing products and special coatings.
- B. Samples: Submit samples illustrating range of colors and textures available for each surface finishing product scheduled.
- C. Manufacturer's Instructions: Indicate special surface preparation procedures and substrate conditions requiring special attention.
- D. Manufacturer's Safety Data Sheet (MSDS) for each product used.

1.4 QUALITY ASSURANCE

A. Single Source

1. Provide primers and other undercoat paints produced by same manufacturer as finish coats for each application.
2. Use only thinners approved by paint manufacturer and use only with recommended limits.

B. Coordination of Work

1. Review other sections of these Specifications in which prime paints are to be provided, to ensure compatibility of total coatings system.
2. Upon request from other trades, furnish information or characteristics of proposed finish materials, to ensure that compatible prime coats are used.

SECTION 099000 – PAINTS AND COATINGS

- C. Manufacturer: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- D. Applicator: Company specializing in performing the work of this section with minimum years documented experience and where applicable, approved by manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site.
- B. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.
- C. Container label to include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.
- D. Store paint materials at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Ambient temperature range for installation varies among manufacturers. Consult manufacturers for recommendations and revise first paragraph below to suit Project.
- B. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- C. Do not apply exterior coatings during rain or snow, or when relative humidity is outside the humidity ranges required by the paint product manufacturer.
- D. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior, unless required otherwise by manufacturer's instructions.
- E. Minimum Application Temperature for Varnish Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.
- F. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.7 EXTRA MATERIALS

- A. Provide 1 unopened gallon of each color, type, and surface texture to Owner.
- B. Label each container with color, type, texture, and room locations, in addition to the manufacturer's label.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Sherwin Williams
- B. Benjamin Moore
- C. PPG
- D. Or approved equal

SECTION 099000 – PAINTS AND COATINGS

2.2 MATERIALS

- A. Coatings: Ready mixed, except field catalyzed coatings. Process pigments to a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating; good flow and brushing properties; capable of drying or curing free of streaks or sags.
- B. Accessory Materials: Linseed oil, shellac, turpentine, paint thinners and other materials not specifically indicated but required to achieve the finishes specified, of commercial quality.

2.3 FINISHES

- A. Refer to schedule at end of section for surface finish schedule.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify site conditions.
- B. Verify that surfaces and substrate conditions are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. Test shop applied primer for compatibility with subsequent cover materials.
- E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces is below the following maximums:
 - 1. Gypsum Wallboard: 12 percent.
 - 2. Interior Wood: 15 percent, measured in accordance with ASTM D2016.

3.2 PREPARATION

- A. Remove electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces or finishing.
- B. Correct defects and clean surfaces which affect work of this section.
- C. Seal with shellac and seal marks which may bleed through surface finishes.
- D. Impervious Surfaces: Remove mildew by scrubbing with solution of tri-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- E. Gypsum Board Surfaces: Fill minor defects with filler compound. Spot prime defects after repair.
- F. Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

SECTION 099000 – PAINTS AND COATINGS

- G. Uncoated Steel and Iron Surfaces: Remove grease, mill scale, weld splatter, dirt, and rust. Where heavy coatings of scale are evident, remove by power tool wire brushing or sandblasting; clean by washing with solvent. Apply a treatment of phosphoric acid solution, ensuring weld joints, bolts, and nuts are similarly cleaned. Spot prime paint after repairs.
- H. Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust. Feather edges to make touch-up patches inconspicuous. Clean surfaces with solvent. Prime bare steel surfaces.
- I. Clean and prepare all surfaces in accordance with manufacturer's written specifications.

3.3 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Do not apply finishes to surfaces that are not dry.
- C. Apply each coat to uniform finish.
- D. Apply each coat of paint slightly darker than preceding coat unless otherwise approved.
- E. Sand wood and metal lightly between coats to achieve required finish.
- F. Vacuum clean surfaces free of loose particles. Use tack cloth just prior to applying next coat.
- G. Allow applied coat to dry before next coat is applied.
- H. Where clear finishes are required, tint fillers to match wood. Work fillers into the grain before set. Wipe excess from surface.
- I. Prime concealed surfaces of interior woodwork scheduled to receive stain or varnish finish with gloss varnish reduced 25 percent with mineral spirits.
- J. Prime concealed surfaces of interior and exterior woodwork with primer paint.
- K. Existing/new metal siding must be free of all surface contamination such as oil, grease, loose paint, mill scale dirt, foreign matter, rust, mold, mildew, mortar and sealers to assure sound bonding. Glossy surfaces of old paint films must be clean and dull before repainting.
- L. Check for compatibility by applying a test patch of the recommended coating system, approximately 2-3 square feet. Allow to dry one week before testing adhesion per ASTM D3359. If coating system is incompatible, complete removal is required per ASTM D4259.

3.4 CLEANING AND PROTECTION

- A. Clean work.
- B. Collect waste material which may constitute a fire hazard, place in closed metal containers and remove daily from site.

SECTION 099000 – PAINTS AND COATINGS

3.5 SCHEDULE - INTERIOR SURFACES

A. Miscellaneous Wood – Painted:

1. One coat of latex primer sealer: Sherwin Williams: Premium Wall & Wood Primer, B28W111.
2. Two coats of semi-gloss finish: Sherwin Williams: Promar 200 Zero VOC Interior Latex Semi-Gloss B31.2600. Assume two (2) colors.

B. Steel - Unprimed:

1. One coat of primer: Sherwin Williams: Pro Industrial Procryl Primer, B66-310.
2. Two coats of semi-gloss finish: Sherwin Williams: Pro Industrial HP Acrylic, B66-600. Assume two (2) colors.

C. Steel - Primed:

1. One coat of primer: Sherwin Williams: Pro Industrial Procryl Primer, B66-310.
2. Two coats of semi-gloss finish: Sherwin Williams: Pro Industrial HP Acrylic, B66-600. Assume two (2) colors.

D. Gypsum Board:

1. One coat of latex primer sealer, Sherwin Williams: Promar 200 Zero VOC Interior Latex Primer B28-2600.
2. Two coats of eggshell finish, Sherwin Williams: Promar 200 Zero VOC Interior Latex Eg-Shel, B20-2600. Assume three (3) colors.

E. Concrete Columns/Brick/Concrete Panels

1. One coat of Sherwin Williams Loxon Concrete and Masonry Primer.
2. Two coats of eggshell finish, Sherwin Williams: ProMar 200 Zero VOC Interior Latex.

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Fire extinguishers.
- B. Cabinets.

1.2 RELATED SECTIONS

- A. Section 060010 - Carpentry Work: Wood blocking and shims.

1.3 REFERENCES

- A. ANSI/NFPA 10 - Portable Fire Extinguishers.
- B. ANSI/UL 711 - Rating and Fire Testing of Fire Extinguishers.
- C. UL 626 - 2 1/2 Gallon Stored Pressure, Water Type Fire Extinguishers.

1.4 SUBMITTALS

- A. Product Data: Provide extinguisher operational features, color and finish.
- B. Manufacturer's Installation Instructions: Indicate special criteria and wall opening coordination requirements.
- C. Manufacturer's Certificate: Certify that Products meet or exceed specified requirements.

1.5 OPERATION AND MAINTENANCE DATA

- A. Maintenance Data: Include test, refill or recharge schedules and re-certification requirements.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code ANSI/NFPA 10 for requirements for extinguishers.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not install extinguishers when ambient temperature may cause freezing of extinguisher ingredients.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. J.L. Industries Product - Dry chemical extinguisher; Cosmic 10E with Cosmopolitan 1037 F10 semi-recessed cabinet.

2.2 EXTINGUISHERS

- A. Dry Chemical Type: UL 299, Cast steel tank, with pressure gage; Class A, B, C, Size 10 lbs.

2.3 CABINETS

- A. Configuration: Semi-recessed type, exterior nominal frame dimensions of 13 inch wide x 26 inches high x 3-5/8 inch deep.
- B. Type: Returned to wall surface, with 2-1/2 inch projection.
- C. Door Glazing: Plastic, clear, 1/4" thick acrylic.
- D. Cabinet Mounting Hardware: Appropriate to cabinet.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify rough openings for cabinets are correctly sized and located.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install cabinets plumb and level in wall openings, 30 inches from finished floor to inside bottom of cabinet.
- C. Secure rigidly in place.
- D. Place extinguishers in cabinets.

END OF SECTION