



## STANDARD BID CONDITIONS

## M-16-009P

1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
3. **BID BONDS AND PERFORMANCE BONDS:** If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds.** Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. When a bidder claims and can show clear and convincing evidence that a material mistake was made in the bid and was not the bid intended, the bidder may be permitted to withdraw their bid prior to award without forfeiture of bid bond. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds.** In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). These bonds shall not only serve to guarantee the completion of the work, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled. In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.
5. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.
10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
14. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

# **ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT**

## **NOTICE OF NONDISCRIMINATION**

The Arkansas State Highway and Transportation (Department) complies with the Americans with Disabilities Act of 1990, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and other federal equal opportunity laws and therefore does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in admission or access to and treatment in Department programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden, Section Head - EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501) 569-2298, (Voice/TTY 711), or the following email address: [Joanna.Mcfadden@arkansashighways.com](mailto:Joanna.Mcfadden@arkansashighways.com).

Free language assistance for Limited English Proficient individuals is available upon request.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

LIQUIDATED DAMAGES

As specified in the Contract, liquidated damages for this project will be as shown in the following table:

WORKING DAY PROJECTS

ORIGINAL CONTRACT AMOUNT		RATE
FROM MORE THAN	TO AND INCLUDING	-----
\$ 0	\$ 50,000	\$ 400
50,000	100,000	700
100,000	500,000	800
500,000	1,000,000	1,100
1,000,000	2,000,000	1,300
2,000,000	5,000,000	1,500
5,000,000	10,000,000	1,900
10,000,000	15,000,000	2,000
15,000,000	20,000,000	2,100
20,000,000	-----	2,500

FIXED DATE PROJECTS

ORIGINAL CONTRACT AMOUNT		RATE
FROM MORE THAN	TO AND INCLUDING	-----
\$ 0	\$ 50,000	\$ 90
50,000	100,000	100
100,000	500,000	200
500,000	1,000,000	250
1,000,000	2,000,000	320
2,000,000	5,000,000	400
5,000,000	10,000,000	600
10,000,000	-----	750

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE DIVISION ADMINISTRATION OFFICE RENOVATION  
PROJECT MANUAL**

**DESCRIPTION**

The interior demolition, renovation and construction of a new front entry at the existing Maintenance Building, located at 11300 West Baseline Rd, Little Rock as indicated on the Plans, as called for in these Specifications, or as directed by the Engineer. These Specifications and the Plans cover the furnishing of all materials, labor, tools, equipment, machinery drayage, rigging, fees, permits and any and all incidental items required to provide a complete, in place and operating Maintenance Facility.

**GENERAL CONDITIONS**

The applicable portions of the General Provisions of the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2014, as amended by Supplemental Specifications, together with applicable Special Provisions, shall govern where appropriate.

**DEFINITIONS**

- A. Wherever the term "Department" is used in these Specifications, it shall refer to the Arkansas State Highway and Transportation Department. All papers required for delivery to the Department shall be delivered to the attention of the State Maintenance Engineer, Arkansas State Highway and Transportation Department Building, 10324 Interstate 30, Little Rock, Arkansas 72209. Other than bid, submittal data and other documents and correspondence should be submitted to the State Maintenance Engineer. The Arkansas State Highway and Transportation Department and the Contractor are treated throughout the Contract Documents as if each were of the singular number and masculine gender.
- B. The term "Project" includes the building structure, adjacent structures, together with all related appurtenances such as excavations, utilities, etc.
- C. The term "Subcontractor", as employed herein, includes only those having a direct contract with the Contractor and it includes one who furnished material worked to a special design according to the Plans or Specifications of this work.
- D. Written notice shall be deemed to have been duly served if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him who gives the notice

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

E. The laws of the place of building shall govern the construction of this Contract.

**LOCAL CONDITIONS**

Bidders are required to visit the site prior to submission of proposal to familiarize themselves with local conditions, including general characteristics of the site and accessibility of the work.

**PRE-BID MEETING**

A mandatory pre-bid meeting will be scheduled one week prior to the scheduled bid date. Bidders shall be notified by the Department of time, date and location.

**PROGRESS SCHEDULE**

Immediately after being awarded the Contract, the Contractor shall prepare an estimated Progress Schedule and submit same to the Department. It shall indicate the dates for the starting and completion of the various stages of construction.

**SHOP DRAWINGS AND SAMPLES**

The Contractor shall submit to the Department such shop and setting drawings and schedules as are required by the Specifications or that are requested by the Department. Shop Drawings submitted by the Contractor shall be prepared by a person thoroughly competent and qualified to prepare such Shop Drawings. Incomplete or poorly prepared Shop Drawings will be returned to the Contractor to be redrawn.

By submitting a Shop Drawing or Drawings, the Contractor represents and certifies that the above requirements have been complied with and that, in the review of the drawing or drawings by the Department, the Contractor will hold the Department harmless against claims for losses or injury caused by errors or omissions on the Shop Drawings made by the person, persons or company preparing these particular Shop Drawings.

The Contractor shall furnish for review, within two weeks, all submittals/samples required. The Department shall review such submittals/samples, with reasonable promptness, only for conformance with the design concept of the Project. The work shall be in accordance with selected submittals/samples.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

The following schedule is to be used as a guide only and in no way limits the data that may be requested where there is question concerning the quality or proper function of a particular product or piece of equipment:

**SHOP AND/OR LAYOUT DRAWINGS:**

- (1) Reinforcing Steel, Fabricating and Placing
- (2) Miscellaneous Metals
- (3) Wood and Metal Doors and Frames
- (4) Hardware Schedule
- (5) Plumbing Fixtures
- (6) Floor Drains, Clean Outs and Specialties

**SAMPLES:**

- (1) Brick
- (2) Paint and/or Other Finish
- (3) Storefront
- (4) Glass and Glazing
- (5) Finishes where selection is necessary

**MATERIALS, APPLIANCES, EMPLOYEES**

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, tools, equipment, transportation, sanitary and other facilities necessary for the execution and completion of the work.

Unless otherwise specified, all materials shall be new and both the result of the Contractor's workmanship and materials used shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

**ROYALTIES AND PATENTS**

The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Department harmless from loss of account thereof, including costs and attorney's fees.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**PERMITS, INSPECTIONS, AND TAXES**

The Contractor shall give all necessary notices; obtain and pay for all permits, licenses, certificates, inspection and other legal fees required and other costs in connection with his work, both permanent and temporary, including utility taps and/or connections; file all necessary plans; prepare all documents and obtain all necessary approvals of all governmental departments having jurisdiction; and obtain required certificates of inspection for his work and deliver same to the Department.

The Contractor shall include in the work, without extra cost to the Department, all labor, materials, services, apparatus, drawings, and related items in order to comply with all laws, ordinances, rules and regulations, whether or not shown on the Plans and/or in these Specifications.

The Contractor shall include in his bid all State Sales Tax, Social Security Taxes, State Unemployment Compensation Insurance, and all other such items of like nature. It is the intent that the bid shall represent the total cost to the Department of all work included in this Contract.

**INDEMNIFICATION**

The Contractor shall indemnify and hold harmless the Department and his agents and employees from and against all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from the performance of the work, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use resulting therefrom, and (b) is caused in whole or in part by a negligent act or omission of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified thereunder.

The obligations of the Contractor shall not extend to the liability of the Department, his agents or employees arising out of (a) the preparation or approval of maps, drawings, opinions, reports, surveys, Change Orders, designs or Specifications, or (b) the giving of or the failure to give directions or instructions by the Department, his agents or employees provided such giving or failure to give is the primary cause of the injury or damage.



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**ACCIDENT PREVENTION**

Precaution shall be exercised at all times for the protection of persons and property. The safety provisions of applicable laws and building and construction codes shall be observed. Machinery, equipment and other hazards shall be guarded in accordance with safety provisions of the Manual of Accident Prevention in Construction, published by the Associated General Contractors of America, to the extent that such provisions are not in contravention of applicable laws. The Contractor shall be responsible for any damage which may be caused by workers during the performance of the work.

**SUPERINTENDENT: SUPERVISION**

The Contractor shall furnish during progress of the work, a competent Superintendent acceptable to the Department and any necessary assistants. The Superintendent shall not be changed except with the consent of the Department, unless the Superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ. The Superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor. The Department shall not be responsible for the acts or omissions of the Superintendent or his assistants.

**ACCESS TO THE WORK**

The Engineer or his representatives shall have access to the work at all times, shall be permitted to approach, enter or examine all stages or phases of the work as it progresses and shall have the authority to reject work which is defective in workmanship or material.

**CHANGES IN THE WORK**

The Department, without invalidating the Contract, may order extra work or make changes by altering, adding to or deducting from the work, the Contract Sum being adjusted accordingly. All such work shall be executed under the Conditions of the original Contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.

Except in an emergency endangering life or property, no extra work or change shall be made by the Contractor unless in pursuance of a written order from the Department and no claim for an addition to the Contract Sum shall be valid unless so ordered.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

The value of any such extra work or change shall be determined in one (1) or more of the following ways:

- A. By estimate and acceptance in a lump sum. The Contractor shall be required, if called upon, to furnish the original bills and payrolls and support the statement with proper affidavits. The burden of proof of the costs rests upon the Contractor.
- B. By unit prices named in the Contract or subsequently agreed upon.
- C. By cost and percentage or by cost and a fixed fee, to be computed according to above formula.

**DEDUCTIONS FOR UNCORRECTED WORK**

If the Department deems it inexpedient to correct work injured or done not in accordance with the Contract, an equitable deduction from the Contract price shall be made therefore.

**CORRECTION OF WORK BEFORE FINAL PAYMENT**

The Contractor shall remove from the premises all work condemned by the Department as failing to conform to the Contract, whether incorporated or not, and the Contractor shall replace and re-execute his own work in accordance with the Contract and without expense to the Department and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

**WARRANTY**

All materials and workmanship shall be guaranteed for a period of one (1) year from the date of the semi-final inspection by the Department. Final acceptance and processing of the final estimate will be made after the one (1) year Warranty period is complete. The Contractor's Performance Bond will be held until the Warranty period is complete.

The Contractor may provide a Maintenance Bond for 50% of the full amount of the Contract in order to release the Performance Bond during the Warranty period. The Maintenance Bond must be furnished prior to the semi-final inspection and extend to the termination of the Warranty period.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**THE DEPARTMENT'S RIGHT TO DO WORK**

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the Department, after seven (7) days written notice to the Contractor, may without prejudice to any other remedy he may have, make good such deficiencies and may deduct the cost thereof from the payment then or thereafter due the Contractor.

**PAYMENTS WITHHELD**

In addition to other appropriate justification therefore as authorized by law, the Department may withhold, or on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary in his reasonable opinion to protect himself from loss on account of:

- A. Defective work not remedied.
- B. Claims filed or reasonable evidence indicating probable filing of claims.
- C. Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- D. A reasonable doubt that the Contract can be completed for the balance then unpaid.
- E. Damage to another contractor.

**DAMAGES**

Should either party to this Contract suffer Damages because of any wrongful act or neglect of the other party or of anyone employed by him, claim shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the final payment, except as expressly stipulated otherwise in the case of faulty work or materials, and shall be adjusted by agreement or arbitration.

**LIENS**

The satisfaction of all Liens (including but not limited to labor, material, worker's compensation and otherwise) arising out of this Contract and incurred by the Contractor or his Subcontractor shall be exclusive responsibility of the Contractor and/or the

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

Contractor's bonding company and the Department shall have the right to withhold payment to the Contractor or recover from the Contractor and/or the Contractor's bonding company all damages, including costs and attorney's fees, as a result of liens being filed or asserted as a result of the performance of this Contract.

**ASSIGNMENT**

Neither party to the Contract shall assign the Contract or sublet it as a whole without the written consent of the other, nor shall the Contractor assign any moneys due or to become due to him thereunder, without the previous written consent of the Department.

**SEPARATE CONTRACTS**

The Department reserves the right to let other contracts in connection with this work under similar General Conditions. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs.

If any part of the Contractor's work depends for proper execution or results upon the work of any other contractor, the Contractor shall inspect and determine any defects in such work that render it unsuitable for such proper execution and results. His failure to so inspect and determine shall constitute an acceptance of the other contractor's work as fit and proper for the reception of this work, except as to defects which may develop in the other contractor's work after the execution of this work.

**SUBCONTRACTS**

The Contractor agrees that he is as fully responsible to the Department for the acts and omissions of his Subcontractors and suppliers and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by himself.

Nothing contained in the Contract Documents shall create any contractual relation between any Subcontractor and the Department.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**USE OF PREMISES**

The Contractor shall confine his apparatus, the storage of materials and the operations of his workers to limits indicated by the Engineer, and shall not unreasonably encumber the premises with his materials.

**CUTTING, PATCHING**

The Contractor shall do all cutting, fitting or patching of his work that may be required to make its several parts come together properly and fit it to receive or be received by work of other contractors shown upon, or reasonably implied by, the Plans and Specifications for the completed structure.

**QUALITY OF MATERIAL**

All material, appliances or appurtenances furnished under these Specifications shall be new and unused and shall be free from defects and imperfections. Any material, appliance or appurtenance thereto found to be defective shall be replaced by the Contractor at no cost to the Arkansas Highway and Transportation Department. All material shall comply with the requirements and applicable provisions of the Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2014, as amended by Supplemental Specifications, and these Specifications. Any material not covered in the Specifications above shall be approved by the Engineer.

**SUBSTITUTION OF MATERIAL**

Where a definite material is specified, it is not the intent to discriminate against any equal product of another manufacturer. It is the intent to set a definite standard. Open competition is expected, but in all cases, complete data must be submitted on all proposed substitutions and samples shall be submitted for comparison and testing when requested.

No substitution shall be made unless authorized in writing by the Department. If the Contractor intends to substitute an equal product, he shall make this fact known, in writing, to the Department within thirty (30) days after the award of the Contract. Otherwise, the Contractor will be required to furnish materials and specialties of the brands named in the Specifications. Should a substitution be accepted and should the substituted material prove defective or otherwise unsatisfactory for the service intended

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

and within the guaranty period, the Contractor shall replace this material or equipment with the material or equipment specified by name at no cost to the Department.

## **PLANS AND SPECIFICATIONS**

Titles to Sections and Paragraphs in these Contract Documents are introduced merely for convenience and shall not be taken as a correct or complete segregation of the several units of materials and labor. No responsibility, either direct or implied, is assumed by the Department for omissions or duplications by the Contractor, or his Subcontractor, due to real or alleged error in arrangement or matter in these Contract Documents.

The Contractor is cautioned to examine the Plans before submitting his bid, and in all cases large scale details shall take precedence over small scale general drawings. In cases where floor elevations are shown, they are to be checked back carefully against detailed sections, and the Contractor will be responsible for all heights shown or marked on small scale drawings.

## **PROPOSALS**

All Bids shall be based upon the conditions at the site, the Specifications and the Plans for the Department's Job No. 42-92, and entitled "Maintenance Building Interior Renovations", Arkansas State Highway and Transportation Department. All bids shall include all general construction, plumbing and site improvement work required to remodel the existing Building. The unit bids shall include all work shown on the Plans and called for in the Specifications.

## **MEASUREMENTS**

Before ordering any material or doing any work, the Contractor shall verify all Measurements at the building and shall be responsible for the correctness of same. No extra charge or compensation will be allowed on account of differences between architectural dimensions and the Measurements indicated on the drawings; any difference which may be found shall be submitted to the Department for consideration before proceeding with the work.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**COLD WEATHER**

All concrete masonry, painting, or other work subject to damage by cold weather shall not be executed when the temperature falls below forty (40) degrees F., except upon permission of the Department and their approval of measures taken to protect the work from freezing; said permission of the Department is not to relieve the Contractor his responsibility for damage which may occur to the work from cold weather.

**CLEANING UP**

The Contractor shall at the completion of the work, remove all his rubbish from and about the building and all his tools, scaffolding and surplus materials and shall leave his work "broom-clean" or its equivalent.

All glass shall be cleaned free of paint or stains, then washed and left clean.

**CONDITION OF BIDDING**

The Contractor represents, as a Condition of Bidding and Contracting for the Project, that he is thoroughly familiar with all of the processes and methods necessary to safely construct and complete the Project according to the Plans and Specifications, including all necessary safety measures to protect property and persons from injury and loss. Such representation includes, but is not limited to, the use of and methods required for all materials specified, soil test information, scaffolding, bracing, shoring, etc.

**SANITARY ARRANGEMENTS**

The Contractor, at the beginning of the work, shall provide on the premises a suitable temporary convenience and enclosure for the use of all workmen on the job, shall maintain same in sanitary condition and remove same and all its contents at the completion of the Project and when directed by the Department.

**CONSTRUCTION PLANS**

The Department will furnish five (5) sets of Contract Plans and Specifications, without cost, to the General Contractor for his use in constructing the work.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

The General Contractor is to supply all Contract Plans and Specifications to his Subcontractors or material suppliers.

Additional sets or portions of Contract Plans and Specifications, beyond the five (5) sets furnished by the Department, that are requested by the General Contractor, will be furnished for the actual cost of printing at the General Contractor's expense.

### **FILE DRAWINGS**

At the completion of this project, the General Contractor shall furnish to the Department a complete file of the final copies of all shop drawings used in the construction of this project.

### **COORDINATION OF WORK**

As the work under this Contract includes the usual mechanical piping, ducts and grilles and electrical fixtures, the General Contractor shall give special attention to Coordination of Work by the various trades to provide uniform and symmetrical layout and spacing of the exposed components which will affect the finished architectural design and appearance. Where spacing and related locations are not specifically shown on the Plans, or where in doubt, the Contractor's Superintendent shall consult the Department's representative prior to installation of that part of the work. The location of electrical, telephone and radio control wiring outlets shall be verified with the Department prior to installation.

### **AS-BUILT DRAWINGS**

The Contractor shall, during the progress of the work, keep an accurate record of all changes and corrections from the layouts shown on the Plans. Record of changes may be kept by accurately making all changes on a set of prints during the progress of the job. Exact location of all underground utility service entrances and their connections to utility mains as well as valves, etc., which will be concealed in the finished work, shall be accurately indicated on the Plans by measured distances. Upon completion of the work and prior to final payment, the Contractor shall furnish to the Department two (2) set of "As-Built" prints legibly and accurately marked to indicate all changes, additions, deletions, etc., from the Contract Plans.



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**SECTION A - PREPARATION AND EARTHWORK**

LAYOUT

The General Contractor shall be responsible for correct layout of the building foundations and site improvements in accordance with the Plans and specifications.

UTILITIES

The Contractor shall protect and preserve in operating condition, all active utility services that traverse or border the site, and repair any damages that may occur to these services due to work performed during the construction period. Utility lines that are to be abandoned shall be removed from the building areas. The Contractor must have **Arkansas OneCall** locate all utilities surrounding the construction site.

TREE PROTECTION

Existing trees, not shown to be removed, are to be protected from damage due to site clearing, excavating, grading, hauling, storage of materials or erection work, as follows:

- A. Vehicular traffic is to be avoided, where possible, under trees scheduled to remain. Where necessary to use the ground area under the spread of any tree for vehicular traffic, the Contractor shall cover the ground under the tree spread with a 2" layer of straw and a 3" layer of crushed stone, 1/2" to 1-1/2" in size.
- B. The ground under the tree spread is to be kept free of mortar, plaster waste, masonry cleaning compound or other damaging agents.
- C. Tree trunks are to be boxed with boards or planks wired to trees to a height of six feet (6') above the ground in areas where automotive equipment is used for grading or transporting of materials.
- D. Tree protection must be completed before damage can occur from other site activities.

CLASSIFICATION OF EXCAVATION

All excavation under this Section shall be unclassified and no allowances will be made for the nature of material encountered. The Contractor shall make such soil investigations as he considers necessary for his own determination of the types of materials existing at the site.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**EXCAVATING**

Excavate to the depths indicated on the Plans for the structures and other below grade appurtenances as shown or required to perform the work. Extreme care shall be exercised in the final 6" of excavations for footings and grade beams and these excavations shall be uniform. Do all shoring and bracing necessary to maintain banks of excavation. The Contractor shall be responsible for the adequacy and safety of all shoring and bracing.

Excavate to subgrade required for site improvements and finish grading outside building lines where required to be below present grade.

Leave no excavated material where it will interfere with Department's or other Contractor's operations. Excavate outside of walls to allow for inspection, placing and removal of forms.

**DEWATERING**

Keep excavations free from standing water at all times. The Contractor shall make ample provisions for dewatering all excavated areas, and shall maintain sufficient pumping equipment to remove water from excavations at all hours of day or night. Do not dewater onto sidewalks, parking areas or drives.

**FILLING AND BACKFILLING**

- A. Earth materials obtained from the excavation work or approved Class-7 material shall be used for fill and backfill. Earth materials shall be compacted in not more than 6" lifts to a density of not less than 95% of maximum dry density as determined by Standard Proctor Compaction Test (ASTM D698-64T). Where compaction tests are considered necessary by the Department, the tests will be made by or paid for by the Department.
- B. Do not backfill until foundations have been inspected by the Department. Do not fill against walls until they have attained full strength. Fill and backfill material shall be free from trash, lumber and other debris and shall have a proper moisture content for the required degree of compaction.
- C. Use crushed rock or washed gravel, graded from 1-1/2" to 3/4" in size, for under slab drainage fill if shown and called for on the Plans. Level and compact under slab fill as required for placement of moisture barrier as shown on the Plans.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

- D. The Contractor is responsible for all fill material under floor slabs and aprons to the dimensions or elevations indicated on the Plans.

**FINISH GRADING**

Grade around the building all areas disturbed through excavation or other work performed by this Contractor. Grades left by this Contractor shall conform to grades existing prior to the time work was begun on this building or as directed by the Engineer.

**FLOOR ELEVATION**

The floor elevation of the building shall be as indicated on the Plans or as directed by the Engineer.

**SECTION B - MASONRY**

**WORKMANSHIP**

- A. GENERAL - Before any Masonry is laid, inspect the project and check for plumbness of conditions affecting this work, notifying Engineer of any misalignments or errors.

Lay work to true lines, plumb and level, unless otherwise indicated. Fill joints full of mortar, except expansion joints, construction joints, earthquake joints and space between wythes of cavity walls. Exercise special care to keep above spaces clean and free from mortar droppings. Do not allow mortar to plug weep holes.

- B. CAVITY WALLS - Install anchors specified herein as work proceeds.
- C. PRECAUTIONS - In freezing weather, do not perform Masonry work unless approved means are provided for heating materials, and masonry is protected from frost until mortar has hardened. Anti-freeze mortar additives are not permitted. In rainy weather, do work only under cover. Before stopping work, bring face and backing to same level. Cover tops of walls with non-staining waterproof covering. When work is resumed, clean top surfaces of loose mortar and wet if directed.
- D. WETTING MASONRY UNITS - Dampen brick. Do not wet concrete block.
- E. CUTTING - Perform cutting in neat manner with Masonry saw. Use power driven saw for cutting exposed units.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

- F. COOPERATION - Build in work of other trades and subcontractors as required, without weakening or defacing Masonry work.
- G. WEEP HOLES - Provide weep holes, not more than four feet (4') apart, in first mortar joint above grade of all cavity walls.

**ANCHORS**

Build in anchors furnished by Metal Buck and Frame Manufacturer, or approved equivalent. Fill space between masonry and buck or frame full of mortar (if metal doors and jambs are required).

**POINTING AND CLEANING**

- A. POINTING - Upon completion, point other exposed Masonry; fill holes and cracks. Remove loose mortar; cut out defective work and re-point where directed.
- B. CLEANING - Thoroughly clean exposed surfaces, whether or not they are to be painted. Clean brick with 10% muriatic acid solution and rinse with clean water. Do not treat green stain or efflorescence resulting from vanadium salts with an acid solution. Clean only by methods recommended by the masonry unit manufacturer.

**MASONRY MATERIALS**

- A. MORTAR - An approved Masonry cement, Ideal, or approved equivalent.
- B. FACE BRICK - To be selected; Modular in size; Allow four hundred fifty dollars (\$450) per thousand for brick (brick only, not "laid up"); shall be Acme, or approved equivalent.
- C. THRU-WALL FLASHING - Three (3) ounce copper, reinforced asphalt saturated kraft paper, bonded both sides.
- D. MORTAR COLOR -None
- E. REINFORCING - "Block Mesh", "Dur-O-Wal", "K-Web", or approved equivalent; 3/16" longitudinal wires with #9 cross wires welded at intersections, drip type for cavity walls; use width of reinforcement and installation methods as recommended by manufacturer. Install in alternate joints.
- F. CONCRETE MASONRY UNITS (CMUs) - Load bearing type, 16" L x 8" H x width indicated on the Plans; Grade A, conforming to ASTM C90. Aggregate to be

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

lightweight type unless indicated otherwise on the Plans. Provide matching lintel units, bond breaks and special shapes as conditions require.

**BONDING AND JOINTS**

- A. BONDING (unless otherwise noted on the Plans) - Brickwork to be "running"; Concealed blockwork to be "running"; Exposed blockwork to be "stacked".
- B. JOINTS (unless otherwise noted on the Plans) - Brick to be "tooled Raked-joint"; Exposed block to be "Flush-joint". Block walls which receive ceramic tile shall be flat to ensure that the furnished tile is free of undulations.

**SECTION C - INSULATION**

**FLEXIBLE BLANKET INSULATION**

- A. MATERIAL - Rock or glass wool, one (1) face vapor barrier, thickness as shown on Plans:
  - 1. 4" "Full Thick" Batt Insulation, Minimum "R" Value of 15 - All outside walls of heated and cooled areas.
  - 2. 3 ½" Sound Batt Insulation – All interior walls.
- B. INSTALLATION - Install with vapor barrier facing space to be insulated; Fit ends of blanket tight.

**SECTION D – COLD FORMED METAL FRAMING**

**SCOPE**

- A. Work includes the furnishing, framing, raising and erection of all cold formed metal framing, cutting and fitting for other trades as necessary to complete the project as shown.

**MANUFACTURERS**

- A. Basis-of-Design Product: Subject to compliance with requirements, provide cold-formed metal framing products manufactured by Clark Dietrich Building Systems, or comparable products from members of the SFIA.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**MATERIALS**

- A. STEEL STUDS - Manufacturer's standard C-shaped steel studs, of web depths indicated, punched, with stiffened flanges.
- B. STEEL TRACK - Manufacturer's standard U-shaped steel track, of web depths indicated, unpunched, with unstiffened flanges.
- C. HEADERS AND JAMBS - Heavy-Duty Stud: Manufacturer's proprietary shape used to form header beams and jambs, columns or posts, of web depths indicated, unpunched, with stiffened flanges.
- D. STEEL SHAPES AND CLIPS - ASTM A 36/A 36M, zinc coated by hot-dip process according to ASTM A 123/A 123M.
- E. EXPANSION ANCHORS - Fabricated from corrosion-resistant materials, with capability to sustain, without failure, a load equal to 5 times design load, as determined by testing per ASTM E 488 conducted by a qualified testing agency.
- F. POWER-ACTUATED ANCHORS - Fastener system of type suitable for application indicated, fabricated from corrosion-resistant materials, with capability to sustain, without failure, a load equal to 10 times design load, as determined by testing per ASTM E 1190 conducted by a qualified testing agency.
- G. MECHANICAL FASTENERS - ASTM C 1513, corrosion-resistant-coated, self-drilling, self-tapping, steel drill screws.
  - 1. Head Type: Low-profile head beneath sheathing, manufacturer's standard elsewhere.

**FABRICATION**

- A. Fabricate cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened, according to referenced AISI's specifications and standards, manufacturer's written instructions, and requirements in this Section.
  - 1. Fabricate framing assemblies using jigs or templates.
  - 2. Cut framing members by sawing or shearing; do not torch cut.
  - 3. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, pneumatic pin fastening, or riveting as standard with fabricator. Wire tying of framing members is not permitted.
    - a. Comply with AWS D1.3/D1.3M requirements and procedures for welding,

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

appearance and quality of welds, and methods used in correcting welding work.

- b. Locate mechanical fasteners and install according to Shop Drawings, with screw penetrating joined members by no fewer than three exposed screw threads.
- B. Reinforce, stiffen, and brace framing assemblies to withstand handling, delivery, and erection stresses. Lift fabricated assemblies to prevent damage or permanent distortion.
- C. Fabrication Tolerances: Fabricate assemblies level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet (1:960) and as follows:
1. Spacing: Space individual framing members no more than plus or minus 1/8 inch (3 mm) from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.
  2. Squareness: Fabricate each cold-formed steel framing assembly to a maximum out-of-square tolerance of 1/8 inch (3 mm).

### INSTALLATION

- A. Install cold-formed framing in accordance with ASTM C1007 and AISI S200 "North American Standard for Cold-Formed Steel Framing - General Provisions".
- B. Cold-formed steel framing may be shop or field fabricated for installation, or it may be field assembled.
- C. Install cold-formed steel framing according to AISI's "Standard for Cold-Formed Steel Framing - General Provisions" and to manufacturer's written instructions unless more stringent requirements are indicated.
- D. Install shop- or field-fabricated, cold-formed framing and securely anchor to supporting structure.
1. Screw, bolt, or weld wall panels at horizontal and vertical junctures to produce flush, even, true-to-line joints with maximum variation in plane and true position between fabricated panels not exceeding 1/16 inch (1.6 mm).
- E. Install cold-formed steel framing and accessories plumb, square, and true to line, and with connections securely fastened.
1. Cut framing members by sawing or shearing; do not torch cut.
  2. Fasten cold-formed steel framing members by welding, screw fastening, clinch fastening, or riveting. Wire tying of framing members is not permitted.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

- a. Comply with AWS D1.3/D1.3M requirements and procedures for welding, appearance and quality of welds, and methods used in correcting welding work.
  - b. Locate mechanical fasteners and install according to Shop Drawings, and complying with requirements for spacing, edge distances, and screw penetration.
- F. Install framing members in one-piece lengths unless splice connections are indicated for track or tension members.
- G. Install temporary bracing and supports to secure framing and support loads comparable in intensity to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to framing are secured.
- H. Do not bridge building expansion and control joints with cold-formed steel framing. Independently frame both sides of joints.
- I. Install insulation, in built-up exterior framing members, such as headers, sills, boxed joists, and multiple studs at openings, that are inaccessible on completion of framing work.
- J. Fasten hole reinforcing plate over web penetrations that exceed size of manufacturer's standard punched openings.
- K. Erection Tolerances: Install cold-formed steel framing level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet (1:960) and as follows:
- 1. Space individual framing members no more than plus or minus 1/8 inch (3 mm) from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.

## **SECTION E - CARPENTRY AND MILLWORK**

### **SCOPE**

- A. CARPENTRY - Carpentry work includes the furnishing, framing, raising and erection of all structural woodwork, cutting and fitting for other trades and other carpentry work and materials necessary to complete the project as shown. Carpentry work



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

shall include work forms for concrete work, all wood flooring, framing, bucks, plates, blocking, furring, stairs and gypsum board.

- F. MILLWORK - The Millwork, generally, consists of all wood finishing materials required to complete the building and includes cabinets, counters, shelving, trim and other Millwork.

**LUMBER**

- A. Lumber for structural carpentry items shall be Southern Pine, Spruce or Fir, graded and grade marked in compliance with standard grading rules, kiln dried to a moisture content of 15% or less.
- B. Framing material and boards not otherwise specified shall be No. 2, straight, full and square to the dimensions indicated and shall be free of shakes or waness.
- C. Wolmanized or Osmosalts pressure treated lumber shall be:
1. Wolmanized treated lumber shall be impregnated with Tanalith, to a minimum retention of 0.35 lb. of chemical per cubic foot.
  2. Osmosalts pressure treatment of lumber shall comply with Federal Specifications TT-W-00571-D according to Table No. 111 for lumber not in contact with the ground. Framing for exterior soffits shall be treated.
- D. Framing for concrete forms may be No. 2 Common or better, except exposed concrete surfaces shall be formed as specified in "Concrete" Section.

**GENERAL CARPENTRY**

Wood framing, furring, stripping and blocking shall be laid out, installed and fitted as required by conditions encountered. All work shall be plumbed, leveled and braced with sufficient nails, spikes, bolts, etc., to ensure secure attachment and rigidity. Any piece of work or Carpentry material with a defect or defects that prevent it from serving its intended purpose satisfactorily, including crooked, warped, bowed or otherwise defective material, even if within the limits of grade specified, will be rejected and shall be replaced with an acceptable piece.

**FINISH CARPENTRY**

All interior finish to be smooth, properly membered or mitered. All lengths of lumber to be without joints on a straight run where possible, and where joints are necessary, they

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

are to be made on an angle of 45 degrees against the light, accurately and neatly. Moldings shall be true to details, cleanly cut and sharp. Exposed surfaces shall be sanded to an even, smooth surface, ready for finish. Mill assemblies shall be joined with concealed nails or screws, mortise and tenons, dowels or glued blocks, in accordance with best mill practice and workmanship. Intersection molds shall be neatly coped. Flat members of wood trim shall be backed out or saw kerfed to prevent warping. Finish to be properly protected from dampness at all times until painted or varnished. Finish to be applied in accordance with the very best practice so that completed results will show as little of the joints as possible and no tool or machine marks or nail holes or nails.

**PLYWOOD**

- A. Plywood shall be of thickness noted on the Plans. Panels 1/4" thick shall be three (3) ply; panels 1/2" or thicker shall be five (5) or more plies.
- B. Plywood not otherwise noted on the Plans shall be Fir panels, with A grade faces for all visible sides.
- C. Plywood core to receive Formica surfacing shall have close grain veneer face, such as Birch or Gum.

**WOODWORK**

- A. All lumber used for Millwork items shall be kiln dried to a range of 8% to 12% moisture content.
- B. Interior woodwork, not otherwise noted or specified, shall be B or better grade Pine.
- C. Use clear Philippine Mahogany for all trim in connection with Mahogany doors, wall paneling and cabinet work as shown.

**CABINET WORK**

All cabinet doors shall have solid edge trim. Furnish and install counters, cabinets and shelving in accordance with the details, using materials indicated. Formica or approved equal rigid resin surfacing for tops, edging and splashes shall be standard solid colors, 1/16" thick, suede finish. Colors are to be selected by the Department. Cement laminate to wood core with rigid type urea resin glue.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**HARDWARE**

Rough hardware including nails, screws, anchor bolts, wall plugs, etc., shall be installed in such types, sizes and quantities as indicated on Plans or as required for the secure anchorage of carpentry work. The millwork subcontractor shall install the cabinet hardware, the K&V standards, brackets and K&V clips.

Finish hardware scheduled in "Door Hardware Items" Section, shall be installed on wood and metal doors as listed under each Heading.

**BASE**

Furnish and install at all locations (except "ceramic tile" where floors and walls intersect) prefinished 3½" vinyl base, color to be selected by Department from Mfg. standard colors.

**SHEET METAL**

- A. Sheet metal items shall be formed of 24 gauge, minimum, Armco "Sincgrip-Paintgrip" Sheet Metal.
- B. Solder shall be 50% tin and 50% lead.
- C. All sheet metal work installed under this Section shall be guaranteed against leakage or defect for a period of two (2) years after acceptance, and this Contractor shall make good at his expense any such leakage or defects occurring within this period.
- D. All sheet metal work shall be water and weather tight, with lines, arises and angles sharp and true and plain surfaces free from waves and buckles.

**SECTION F – GYPSUM BOARD & CEILINGS**

**GYPSUM BOARD**

Material shall be 5/8" thickness, Gypsum Board, with beveled edges as manufactured by the U. S. Gypsum Co., or approved equivalent.

- A. ATTACHMENT – Gypsum board shall be attached with Ring Shank "Sheetrock Nails" or "Drywall Screws" at not less than 8" centers. Joints shall occur at structural members, i.e. studs or trusses providing nailers if necessary. Nails/screws shall be

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

"set" to receive finish. In areas receiving walls and ceilings, the ceilings shall be installed first.

- B. FINISHING - All joints shall be taped and floated (one (1) bedding application and two (2) finish applications) to give a smooth unbroken finish, free of defects, blemishes and undulations, and shall be sanded to provide a surface to accept the finish coat.
- C. Walls shall receive, after finishing, a light "stipple".

**CEILINGS**

**A. ACOUSTICAL CEILINGS:**

1. Furnish and install an acoustical tile ceiling, as indicated on the Plans, complete with mechanical suspension system.

**B. MATERIALS:**

1. In all areas, ceiling tile shall be 2' x 2' x 5/8" thickness, Armstrong CORTEGA Lay-In, White # 704 or approved equivalent.
2. The suspension system shall be Heavy Duty Single Web Prelude Exposed Tee System, White, conforming to ASTM C635, as manufactured by Armstrong Corporation, or approved equivalent.
3. Main beams shall be single thickness web with 15/16" bottom flange. Main beam shall be rooted six inches (6"), center continuously along the length of its web to locate intersecting cross tees.
4. Cross tees shall be of single thickness web section design with 15/16" bottom flange. Cross tees shall have web ends die formed for tab lock or snap lock attachment to adjoining tee through the main beam. Web height shall be not less than 1-1/4".
5. Moldings shall have 15/16" exposed flanges, 0.020" thickness steel. Accessories shall be designed as an integral part of the grid system.
6. Suspend main beams from the building structure by not less than twelve (12) gauge galvanized hangers on 4'-0" centers.
7. Finish shall be factory applied, baked white, enamel finish.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

8. The entire ceiling system shall be installed in accordance with manufacturer's recommendations.
9. The entire ceiling system shall be installed continuous, uninterrupted, and in a perfectly flat plane, free of imperfections and/or undulations.

## **SECTION G - CAULKING AND WATERPROOFING**

### WORK REQUIRED

The work required under this Section includes all labor, materials, equipment and services necessary for and reasonably incidental to the providing of all caulking and waterproofing as herein specified. All work shall be done by parties expert in this line of work.

### PREPARATION OF SURFACES

Before applying Caulking and Waterproofing materials, the installer shall clean off all surfaces, removing all foreign matter such as dust, oil, grease, water or frost and leave the surfaces clean before the installation of his work. Where concrete surfaces occur, he shall make sure that the concrete is dry before the installation of his work.

### CAULKING

Door, louver, fixed glass and window frames and other openings and joints in exterior walls shall be caulked with a polysulfide base sealant, Class B, non-sag Type I, based on liquid polysulfide polymer and licensed and approved by the Thiokol Chemical Corporation, or with one (1) part polyurethane sealant similar and equal to No. 230 gun grade "Vulkem" as manufactured by the Master Mechanics Company. Polyurethane sealant shall be of the non-sag type designed for use in both vertical and horizontal joints and meeting requirements of Federal Specification TT-S-230. Sealant shall be delivered to the job site in sealed containers, each of which shall bear manufacturer's name and product designation. Caulking shall be furnished in colors as selected to match adjacent materials. Primer, where required, shall be used as recommended by the manufacturer of the sealant used. Backing materials and preformed joint fillers shall be non-staining, compatible with sealant and primer and of a resilient nature, such as closed cell resilient foam, sponge rubber; or of a supporting type, such as closed cell rigid foam, cork or non-impregnated fiberboard. Materials impregnated with oil, bitumen materials shall not be used with polysulfide base sealant. Size and shape shall be as indicated by joint details on Plans. Install backing material or joint filler, at proper depth

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

in joint to provide sealant dimensions as detailed. Backing material shall be of suitable size and shape so that, when compressed (25 to 50 percent), it will fit in joints as required. Sealant shall not be applied without backing material and, if necessary, bond-breaker strip. When using backing of hose or rod stock, roll the material into the joint to avoid length wide stretching. Hose or rod stock shall not be twisted or braided. Use bond-breaker strip between sealant and supporting type backing material. Bond-breaker strip shall be used in all joints where sufficient room for backing does not exist. Follow sealant manufacturer's instructions regarding mixing, surface preparation, priming and sealant application procedures. Clean adjacent surfaces free of sealant or soiling resulting from this work as work progresses. Use solvent or cleaning agent as recommended by sealant manufacturer. All finished work shall be left in a neat, clean condition. Interior Caulking shall be done at all places where unlike materials meet and joints do not close tight, using an oil base caulking compound meeting or exceeding all requirements of Federal Specification TT-C-598b, gun consistency, neutral color. Finish interior joints smooth with adjacent surfaces.

#### FLEXIBLE FLASHING

Where flexible in-wall flashing is indicated on the Plans, it shall be similar and equal to Nervastral Seal-Pruf Type H-D flashing material as manufactured by the Rubber & Plastics Compound Co., Inc., New York City. Mastic for bonding flashing to structure shall be similar to Nerva-Plas Cold Setting Cement or #412 Adhesive. Wherever joints in flashing occur, the material shall be lapped at least 4", and tightly sealed with mastic. It is not necessary to embed the flashing in a full coat of mastic, but a spot bonding of mastic equal to 25% of the area of the flashing shall be applied at intervals of 12". Mastic shall be applied by trowel at the rate of 50 square feet per gallon.

#### WATERSTOPS

Waterstops for joints in concrete shall be extruded from plasticized polyvinyl chloride resin of a proved weather resistant type, similar to "Labryinth". Waterstops shall be installed in accordance with the manufacturer's instructions.

#### WATERPROOFING FILM

Moisture barrier under interior concrete floor slabs on grade, shall be clear polyethylene film of 6 mil thickness. Lap film 6" in the direction of pouring and turn up 4" at edges. The film shall be placed and protected so as to avoid perforations.

#### EXTERIOR WALL WATERPROOFING

All exposed concrete in the exterior walls of the new building shall be given one (1) coat of clear silicone type Waterproofing. The silicone Waterproofing shall be "Dehydratine

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

22" as manufactured by the Dewey and Almy Chemical Division of W. R. Grace and Co., 62 Whittmore Avenue, Cambridge, Mass. 02140; "Waterban 21" as manufactured by the Lambert Corp., P. O. Box 151, Houston, Texas; "Hydrocide S-X Hycon" as manufactured by Sonneborn Building Products Division of DeSoto Chemical Coatings, Inc., P. O. Box 1700, Des Plaines, Ill. 60018; or approved equivalent; applied uniformly in accordance with the manufacturer's instructions.

**GUARANTEE**

The Contractor shall guarantee Caulking and Waterproofing materials and workmanship, in writing, against leakage for a period of two (2) years after acceptance and shall make good at his own expense any such leakage which may develop within the period stated above.

**SECTION H - DOORS AND FRAMES**

**HOLLOW METAL DOORS**

- A. GENERAL - Hollow metal Doors and Frames shall be rigid, neat in appearance and free from defects, warp or buckle. Molded or pressed steel members shall be sharp in detail, straight and true. Corner joints shall be coped or mitered, well formed and in true alignment. Exposed welded joints shall be dressed smooth. Door clearances shall not exceed 1/8" at jambs and heads, 1/4" at meeting edges of pairs of Doors and 3/4" at bottom from finished floorline. Exterior Doors shall have top and bottom edges closed flush and sealed against water penetration. Doors and frames shall be stored under cover at the building site on wood sills or on floors in a manner that will prevent rust and damage. Care shall be taken to avoid creating a humidity chamber in using a plastic or canvas shelter and not venting the area covered.
- B. FULL FLUSH DOORS - Flush type hollow metal Doors shall be 1-3/4" thick formed with outer sheets of 18 gauge cold-rolled steel conforming to ASTM A366 with no exposed face seams. Doors shall be internally reinforced to resist impact and to insure flatness of finished surfaces by steel members welded in place, water-resistant honeycomb core glued in place, or rigid insulation core glued or foamed-in-place. Doors with metal reinforcing shall have sound deadening material applied to the interior of the Door to eliminate metallic sound incident to normal Door operation. Honeycomb core material shall have a crushing strength of not less than 4,000 psf, and the lamination shall withstand not less than 1,500 psf surface shear. Foamed-in-place insulation core material shall be a nonburning type, shall have a compressive strength and a shear strength of not less than 20 psi, shall have an insulation to steel strength at least equal to the strength of the insulation, shall be dimensionally

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

stable within plus or minus five percent (5%) volume after 24- hour exposure to temperatures ranging from minimum 15 degrees F. to 200 degrees F., shall not have voids exceeding 1/2" in any direction, and shall have a density of not less than 1.8 pounds per cubic foot. Solid mineral insulation core material shall have a density of not less than 20 pounds per cubic foot. All assembly joints shall be welded and ground smooth.

**SOLID CORE WOOD DOORS**

Doors shall be 1-3/4" thickness size indicated on Plans, covered with White Maple Veneer, hardwood stiles and rails, water resistance bond.

**HOLLOW METAL FRAMES**

Pressed steel Frames for Doors and transom framing shall be formed of not lighter than 16 gauge cold-rolled steel conforming to ASTM A366, with assembly joints neatly fitted at junctions; mitered at corners of head and jamb. All joints shall be shop or field welded, in their entire length with welds ground smooth and made invisible. Frames shall be erected plumb and square, using anchors as shown on the Plans. Pressed steel frames for Class "B" rating. Floor anchors and buck anchors shall be provided and installed in accordance with the details for wall and partition construction. Metal glazing stops for fixed glass framing shall be shop fitted and furnished with the Frames for screw attachment and removal.

**FACTORY PREPARATION**

All Doors and Frames shall be prepared to receive the hardware scheduled for locations in the "Door Hardware Items" Section of these Specifications and in accordance with Table IV and Table V of Technical Data Series S.D.I. 100 of the Steel Door Institute. Cutting, mortising, reinforcing, drilling and tapping of Doors and Frames shall be done at the factory except that drilling and tapping for surfaces applied hardware shall be done at the job when the hardware is applied. Door Frames shall be prepared for silencers and rubber silencers shall be provided with the Frames.

**OVERHEAD DOORS**

Doors shall be overhead coiling service door with interlocking 22 gauge galvanized steel roll-formed slats. Endlocks shall be attached to each end of alternate slats to prevent lateral movement.

Galvanized Steel: Slats and hood galvanized in accordance with ASTM A 653 and receive rust-inhibitive, roll coating process, including 0.2 mils thick baked-on prime



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

paint, and 0.6 mils thick baked-on polyester top coat. Color to be selected by Department.

Doors shall be automatic with electrically operated push-button controls on the interior and a keyed push-button control on the exterior.

Tracks shall be standard 3" track. Shop Overhead Doors to be low headroom design, and tracks shall follow contour of roof pitch, unless detailed otherwise on the Plans.

All above references are to the Overhead Door Company numbers. Doors shall be Model 610 Service Door, or approved equivalent, complete with locksets.

INSTALLATION - All Overhead Doors shall be erected in strict accordance with the manufacturer's specifications by an authorized representative of the manufacturer and shall be adjusted after installation and left in perfect working order.

#### DOOR PAINTING

Finish painting of all Doors after installation is covered under the "Painting and Finishing" Section.

#### DOOR HARDWARE ITEMS

The various openings throughout shall be fitted with hardware as noted in the following schedule of hardware items. The hardware schedule is intended as a guide only for the type, quality and location of the hardware. The Hardware Subcontractor will prepare complete schedules and be responsible for all necessary quantities to complete the work. Hardware items shall be as follows:

##### HW-1 Each door to have

Push – Pulls  
Door Closers  
Pivots  
Locks  
Thresholds  
Exit Device

CO-9 Pull and CP-II Push Bar  
Norton 1601  
Top and Bottom Offset Pivots  
By Hardware Supplier  
½"x4" Aluminum Mill Finish  
1686 Concealed Rod Exit Device

##### HW-2 Each door to have

1 Lever  
3 Hinges  
1 Door Stop

Schlage AL10 SAT 619  
Stanley FBB 168 4½"x4½" US15  
Schlage 407-619

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**HW-3** Each door to have

1 Lever	Schlage AL10 SAT 619
3 Hinges	Stanley FBB 168 4½"x4½" US15
1 Closer	American Eagle PDQ-5101-BCPA
1 Door Stop	Schlage 407-619
1 Kick Plate	Schlage 8400-8x34-619

**HW-4** Each door to have

1 Lever	Schlage AL40 SAT 619
3 Hinges	Stanley FBB 168 4½"x4½" US15
1 Door Stop	Schlage 407-619

**HW-5** Each door to have

1 Push Plate	Schlage 8200-3.5x15-626
1 Pull Plate	Schlage 8311-3.5x15-626
3 Hinges	Stanley FBB 168 4½"x4½" US15
1 Door Stop	Schlage 407-619
1 Closer	American Eagle PDQ-5101-BCPA

**HW-6** Each door to have

1 Lever	Schlage AL53 PD SAT 619
3 Hinges	Stanley FBB 168 4½"x4½" US15
1 Kick Plate	Schlage 8400-8x34-619
1 Closer	American Eagle PDQ-5101-BCPA
1 Threshold	To match Door - Thermal Barrier
1 Set Weatherstripping	Magnetic

**HW-7** Each door to have

1 Lever	Schlage AL53 PD SAT 619
3 Hinges	Stanley FBB 168 4½"x4½" US15
1 Door Stop	Schlage 407-619
1 Kick Plate	Schlage 8400-8x34-619

KEYING - All locks to be master keyed. Furnish a total of six (6) master keys.

## **SECTION I - GLASS AND GLAZING**

### **SCOPE**

Furnish and install Glass in doors, windows, all fixed interior and exterior Glass and framed Glass mirrors.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**GLASS SIZES**

All sizes for Glass shall be taken from the actual frames, doors and sash. This Contract contemplates all Glass to be set in place, and this Contractor shall assume all responsibility in regard to correct sizes.

**GRADING**

Comply with recommendations of Flat Glass Marketing Association Glazing Manual and Sealant Manual except where more stringent requirements are indicated.

Provide safety glass where indicated or required by authorities having jurisdiction.

Provide type of products indicated which comply with ANSI Z97.1 and testing requirements of 16 CFR Part 1201 for category II materials.

1. Subject to compliance with requirements, provide safety glass permanently marked with certification label of Safety Glazing Council (SGCC) or other certification agency acceptable to authorities having jurisdiction.

**GLASS SETTING**

All Glass settings, cover members, and door frames for Type "B" doors shall consist of members, extrusions, accessories, etc., as required to result in a complete installation as required by the manufacturer.

Glazing compound shall be Bronze colored.

**GLASS BREAKAGE**

All Glass breakage caused by this Contractor in executing his work or caused by installation of faulty work shall be replaced without extra charge to the Department.

**WINDOW GLASS**

Glass in all openings except interior doors shall consist of double insulated glass (with at least a ¼" air space) as manufactured by Pittsburgh Plate Glass Company, Owens-Corning Glass Company, or approved equivalent, unless indicated otherwise on the Plans.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**SECTION J – CARPET**

SCOPE

The work required under this Section includes all labor, materials, and equipment and services necessary for the furnishing and installation of the carpet flooring.

CARPET TILE

Carpet tiles shall be 24" x 24" as manufactured by Shaw Philadelphia or approved equal, color and pattern shall be selected by the Department from the manufacturer's standard and regular line.

- A. CONSTRUCTION – Multi-level pattern loop
- B. FIBER CONTENT – Nylon
- C. DYE METHOD – Solution dyed
- D. DENSITY – Greater than 4000
- E. TUFTED WEIGHT – 15.0
- F. WARRANTY – Lifetime Commercial Limited

INSTALLATION ACCESSORIES

- A. TROWELABLE LEVELING AND PATCHING COMPOUNDS - Portland cement based formulation provided by or recommended by carpet tile manufacturer. Do not use gypsum based compounds.
- B. CARPET ADHESIVES - Water-resistant, mildew resistant, and nonstaining, high solids, low VOC emitting formulations that are specifically recommended by the carpet manufacturer, as verified through compatibility and adhesion testing for the intended substrate and application, and that comply with flammability requirements for installed carpet.
- C. CARPET EDGING - Provide rubber composition carpet edging in single lengths wherever possible, keeping the number of joints or splices to a minimum. Provide in quantities and locations as job required based upon the recommended good practice of the industry; include in every location where carpet terminates and other flooring continues. Color to match adjacent carpet types.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

D. FLOOR SEALER - Type as recommended and manufactured by the carpet tile manufacturer for the applications indicated.

ATTIC STOCK

Provide 5 unopened boxes from the same dye lot to the Department.

INSTALLATION OF CARPET

A. PREPERATION OF SUBFLOORS

1. Remove coatings, including curing compounds, existing floor covering adhesive residues, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by the carpet manufacturer.
2. Slab substrates are dry and free of curing compounds, sealers, hardeners, and other materials that may interfere with adhesive bond. Determine adhesion and dryness characteristics by performing bond and moisture tests recommended by the carpet manufacturer.
3. Use leveling and patching compounds recommended by flooring manufacturer for filling cracks, holes and depressions in the substrate. Surface shall be smooth, level and at proper elevation. Remove ridges, roughness and protrusions from concrete surfaces by grinding.
4. Broom and vacuum clean substrates to be covered immediately before installing carpet.
5. Carpet installation shall not commence until painting and finishing work are complete and ceiling and overhead work is tested, approved, and completed.
6. Proceed with installation only after unsatisfactory conditions have been corrected.

B. LAYING CARPET - Installation of carpet flooring shall be done by a manufacturer approved Subcontractor specializing in this type of work. The flooring shall be laid in a strict accordance with the recommended specifications of the manufacturer with joints tight and in true alignment. All tiles shall be laid with ¼ turn pattern. The tile and the areas that are to receive flooring shall have a 70 degree F. minimum temperature maintained for 24 hours before and during the time of laying tile. Concrete floors shall be thoroughly dry before any flooring is laid. The floor tile shall be installed continuous and uninterrupted with a uniform pattern.

CLEANING AND PROTECTION

CLEANING - As the carpeting is installed, remove and dispose of all trimmings, excess

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

pieces of carpeting and laying materials from each area as it is completed. Vacuum carpeting with a commercial vacuum, having a cylindrical brush or beater bar and high suction. Remove adhesives, stains, and soil spots in accordance with the carpet manufacturer's recommendations.

PROTECTION - Protect carpeting against damage of every kind as damaged carpeting shall be rejected. Use non-staining cover material for protection. Tape joints of protective covering. Plastic and polyethylene sheet protective coverings shall not be permitted. Remove and replace rejected carpeting with new carpeting. At the completion of the work, remove covering, vacuum clean carpeting and remove soiling and stains (if any) to the satisfaction of the Department.

## **SECTION K - RESILIENT TILE**

### **SCOPE**

The work required under this Section includes all labor, materials, and equipment and services necessary for the furnishing and installation of the vinyl composition tile flooring.

### **VINYL COMPOSITION TILE**

Vinyl composition tile shall be 12" x 12" x 1/8" thick, in color and pattern selected by the Department from the manufacturer's standard and regular line and shall meet all requirements of Federal Specification SS-T-312, Type IV.

### **EDGE STRIP**

Install beveled edge strips 1-1/8" wide where Resilient Tile adjoins other floor finish of lower level.

### **ADHESIVE**

The adhesive used for installation of resilient flooring shall be of the type recommended by the manufacturer of the flooring for the specific type of flooring and the location and conditions of the flooring installation.

### **UNDERLAYMENT**

Materials for filling cracks and leveling floor depressions shall be similar and equal to Flintcote Underlayment, Floorstone or Stonehard Resurfacer.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**STRUCTURAL SURFACES**

This subcontractor shall make a careful examination of all surfaces upon which his work is to be applied, and he shall notify the General Contractor and Department of any surface defects of any kind which he may find and which he would regard as unsuitable to receive his work.

**INSTALLATION OF TILE**

- A. PREPARING SUBFLOORS - Sweep with a wire brush to remove all loose particles. Remove curing compounds by grinding or sanding. Remove paint or varnish with sander. Remove grease, oil or wax with a strong solution of trisodium phosphate and water. Cracks and depressions in concrete floors are to be filled in and feather edged to a level even surface, then smooth sanded before tile is laid.
- B. LAYING FLOORING - Installation of composition flooring shall be done by a manufacturer approved Subcontractor specializing in this type of work. The flooring shall be laid in a strict accordance with the recommended specifications of the manufacturer with joints tight and in true alignment. All tiles shall be laid with pattern parallel. The tile and the areas that are to receive flooring shall have a 70 degree F. minimum temperature maintained for 24 hours before and during the time of laying tile. Concrete floors shall be thoroughly dry before any flooring is laid. The floor tile shall be installed, except where masonry walls occur, continuous and uninterrupted with a uniform pattern.

**CLEANING AND WAXING**

When the flooring has sufficiently seated itself to permit cleaning, the floor shall be thoroughly cleaned with Johnson's "Step-Off". After cleaning, the flooring shall be given three (3) coats of Johnson's "Fortify" sealer and three (3) coats of Johnson's "Complete Wax", or approved equivalents. Materials shall be applied in accordance with manufacturer's recommendations.

**GUARANTEE**

All work performed under this Section shall be unconditionally guaranteed for a period of one (1) year from date of acceptance against defects in material or workmanship.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**SECTION L – EPOXY FLOOR COATING SYSTEM**

QUALIFICATIONS:

- A. Applicator: Use applicator experienced in application of specified materials for a minimum of [5] [Five] years on projects of similar size and complexity. Provide list of completed projects including project name and location, name of architect, name of material manufacturer, and approximate quantity of materials applied. This is a hospital grade decorative floor and wall system that requires expert installation techniques. Contact Quality One Painting, Troy Hudson at 501-960-4440.
- B. Applicator's Personnel: Employ only persons trained for application of specified materials.

SITE CONDITIONS

- A. Do not apply materials if floor or air temperature is below 60 degrees or above 90 degrees.
- B. Do not apply materials if relative humidity is above 85 percent or within 5° of dew point at time of application [Omit if not applicable]
- C. Maintain room temperature between 60-85 degrees for 48 hours before, during and 48 hours after installation, or until cured.
- D. At the time of application ensure the minimum substrate temperature is above 60° F (15° C) and the substrate temperature is 5° F (3° C) above the measured dew point at the time of application.
- E. Erect suitable barriers and post legible signs at points of entry to prevent traffic and trades from entering the work area during application and cure period of the floor.
- F. Protection of finished floor from damage by subsequent trades shall be the responsibility of the General Contractor.

WARRANTY

- A. Provide a warranty covering materials and workmanship for a period of one year after date of installation.



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**MANUFACTURER**

- A. Manufacturer shall be certified under ISO 9001: All liquid materials, including primers, resins, curing agents, finish coats, and sealants are manufactured and tested under an ISO 9001 registered quality system.
  
- B. Manufacturer shall be Sika Corp., Industrial Flooring,  
201 Polito Avenue,  
Lyndhurst, NJ 07071.  
Phone 201.933.8800  
Fax 201.933.6225  
Peter Brunson 256-483-0968, Brunson.peter@sika-corp.com for local support  
[www.sikafloorusa.com](http://www.sikafloorusa.com)
  
- C. Or approved equal

**MATERIALS** – Sikafloor® DecoFlake Floor and Wall Coating System.  
Colors to be selected by Department from Manufacturer's standards.

- A. SF 107 Penetrating Epoxy Flex Primer at 200-250 s/f per gallon for 6 mils dft
- B. SF 510 Polyaspartic Binder at 200 s/f per gallon for 8 mils dft
- C. Decorative Vinyl Flakes broadcast at .2 lbs per s/f
- D. SF 510 Binder Coat at 200 s/f per gallon for 16 mils dft
- E. Decorative Vinyl Flakes broadcast at .2 lbs per s/f
- F. SF 203 Water Clear Epoxy grout coat at 80 s/f per gallon for 20 mils dft
- G. SF225 Water Clear Non Yellowing Topcoat at 12 mils dft

**EXAMINATION**

- A. Examine surfaces to receive Sikafloor DecoFlake. Notify Architect\Engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected. Do not apply to substrate treatments for moisture, repair, or leveling not of the same Manufacturer.
  
- B. Do not apply Sikafloor DecoFlake to concrete less than 60 days old. Consult Technical Service prior to application when concrete has not cured for 60 days.
  
- C. Do not apply Sikafloor DecoFlake to sand-cement setting beds, regardless of condition. Sand-cement beds shall be removed to structural concrete substrate and re-leveled/sloped as necessary to achieve grade and/or adequate drainage.
  
- E. Do not apply to asphaltic or bitumen membranes, soft wood, aluminum, copper or

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

fiberglass reinforced polyester/vinyl ester composites.

- F. Application to glazed or vitrified brick and tile, structural wood, steel shall be approved only with the Manufacturer's written recommendation

**SURFACE PREPARATION**

- A. Prepare concrete surfaces in accordance with manufacturer's instructions and ASTM D 4258.
- B. Remove dirt, oil, grease, wax, laitance, curing compounds, water-soluble concrete hardeners, and other surface contaminants.
- C. Remove sealers, finishes, and paints.
- D. Remove unsound concrete by scarifying, sand blasting, shot blasting.
- E. Chemical Surface Preparation:
1. Chemical surface preparation (acid etching) is unacceptable and will void Manufacturer's warranty.
- F. Mechanical Surface Preparation:
1. Mechanically abrade concrete surface in accordance with manufacturer's instructions.
  2. Leave concrete surface with an aggressive texture.
  3. Remove concrete dust.
  4. Conform to ASTM D-4259.
  5. Surface profile shall conform to IRCI Guideline 03732 CSP 3.

**CONTROL JOINTS, CRACKS**

- A. Provide repair and treatment of control joints and surface cracks utilizing manufacturer's standard materials and installation details.

**APPLICATION**

- A. Repair concrete substrate as required using SikaQuick® 1000 cementitious repair/resurfacer in accordance with Manufacturer's instructions. Shallow repairs may require Sikafloor EpoRok epoxy mortar or SF 203 with an appropriate filler. Sand the surface smooth after the repairs are cured to accept the final coating,

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

taking care that the repairs are not noticeable. Moving cracks may require special techniques to repair so that they do not telegraph thru the final coating.

- B. Do not add thinners to materials. No thinners shall be approved or allowed.
- C. For coverage rates, consult data sheet and this specification.
- D. Finish surface to be uniform texture, free of surface defects, and without porous areas.
- E. Follow Manufacturer's recommendations on terminations and connections to walls, drains, doorways, columns and floor-to-floor transitions.

**CLEANUP**

- A. Remove masking, draping, and other protection from adjacent surfaces.
- B. Remove remaining materials and debris from job site and dispose of them in according with local rules and regulations. Leave area in clean condition free of debris.

**PROTECTION**

- A. Protect Sikafloor DecoFlake floor coating during curing from traffic and chemical spillage. Based on air temperature of 73°F/23°C
  - 1. Foot Traffic: 10 to 12 hours.
  - 2. Medium Wheeled Loads: 12 to 24 hours.
  - 3. Full Cure: 7 [days]

**SECTION M - PAINTING AND FINISHING**

**SCOPE**

The work under this Section shall cover the Painting and Finishing throughout the building on concrete block, wood, metal or other surfaces as required, to make a thoroughly complete job in every respect. Where items are not mentioned, they shall be finished the same as specified for similar work. The Painting Subcontractor, to avoid all possible confusion, shall examine the Specifications for the various other trades and shall thoroughly familiarize himself with all of their provisions regarding Painting, and he shall understand that all materials installed throughout the building, which necessitate

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

Painting and which are left unfinished by the requirements of said other headings of these Specifications, shall be painted to completion under this Contract except as excluded in "Items Not To Be Painted" of this Section.

**SCAFFOLDING**

The Painting Subcontractor shall provide all scaffolding, staging, etc., required for the proper execution of his work.

**PROTECTION OF WORK**

The Contractor shall furnish and lay drop cloths in areas where Painting is being done, to protect floors and other work from damage during the prosecution of his work.

**DAMAGE TO OTHER WORK**

At the completion of the work, this Contractor shall clean off all paint spots, oil and stains from floors, woodwork, glass, hardware, etc., and leave the entire building in perfect condition as far as his work is concerned.

**CONTAINERS**

All materials required for Painting shall be delivered in unbroken packages, bearing the brand and name of manufacturer and shall be subject to inspection and approval. All materials required shall be made by a reputable paint manufacturer.

**WORKMANSHIP**

- A. All workmanship shall be of the very best with all materials evenly spread and smoothly flowed on without runs or sagging of materials. All sap wood and knots shall receive a thin coat of shellac before priming. All inside and outside woodwork shall have all nail holes and imperfections puttied up after the first coat of paint or stain and the putty for work where a finish is called for shall match the color of the finished woodwork. All surfaces to which paint is to be applied shall be dry and clean.
- B. No Painting shall be done outside in extremely cold, frost, or damp weather. No Painting shall be done in dusty rooms. If required by the Department, the painter shall sprinkle floors, etc., to lay the dust. No coats of paint shall be applied on either wet or damp surfaces and in no case, unless the preceding coat is dry and hard.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

- C. All surfaces before priming shall be thoroughly cleaned of all dirt, oil, grease, rust, scale and other foreign matter. This cleaning shall be done with sandpaper, steel scraper or wire brushes where necessary.

**TIME OF DRYING**

Time of drying shall be in all cases ample to secure the best possible results.

**SHOP AND MILL PRIMING**

All coats herein specified shall be in addition to shop or mill priming elsewhere specified.

**LINSEED OIL**

All linseed oil shall comply in all respects with ASTM D234-58T for raw linseed oil and ASTM D260-61 for boiled linseed oil

**SHELLAC**

All shellac shall be pure white gum cut in pure denatured alcohol.

**BRANDS**

The materials specified in "Painting" of this Section are Sherwin Williams brand, except where other special products are named. All named brands are to establish the type and quality of materials required.

**COLORS AND SAMPLES**

Paint colors and wood finishes shall be as selected by the Department. Before any work is performed, color schedule and wood finish samples shall be prepared for approval.

**PAINTING**

- A. EXTERIOR FERROUS METALS, including metal doors and frames, pipe guards, galvanized sheet metal, etc., shall be cleaned free of dust, grease and grime. Rust spots, mars or abrasions in the surfaces shall be sanded smooth and painted as follows:

1<sup>st</sup> Coat - Zinc Chromate Primer

2<sup>nd</sup> and 3<sup>rd</sup> Coat – A-100 Exterior Acrylic Latex Semi Gloss

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

B. INTERIOR FERROUS METALS, including metal doors and frames, visible iron or steel work, shall have all rust spots or mars in shop coat sanded smooth and painted as follows:

1<sup>st</sup> Coat - Zinc Chromate Primer  
2<sup>nd</sup> and 3<sup>rd</sup> Coat – Pro Classic Alkyd Interior Enamel Semi Gloss

C. INTERIOR GYP. BOARD

1<sup>ST</sup> Coat – Premium Wall and Wood Primer  
2<sup>nd</sup> and 3<sup>rd</sup> Coats – Pro Classic Interior Acrylic Latex Enamel Eggshell

D. INTERIOR MASONRY

1<sup>ST</sup> Coat – Loxon Concrete and Masonry Primer / Sealer  
2<sup>nd</sup> and 3<sup>rd</sup> Coats - Pro Classic Interior Acrylic Latex Enamel Eggshell

E. CABINETS (STAINED) AND WOOD DOORS

Cabinets and wood doors shall be stained using Wood Classics Interior Oil Stain, color to be selected, then one (1) coat of Wood Classics FastDry Sanding Sealer and two (2) coats of Satin Finish Wood Classics Polyurethane Varnish, sanding between coats to give a smooth finish.

### SURFACING

Millwork items are to be hand-smoothed at the building. Before Painting or Finishing, all woodwork shall have raised grain fine sanded.

Each undercoat of paint, sealer or varnish shall be fine sanded or steel woolled to remove blemishes and to provide a smooth surface for the succeeding coat.

### THINNERS

Thinners shall not be used, except those recommended by the paint manufacturer, and in such limited quantities as shown in manufacturer's directions for mixing paint.

### ITEMS NOT TO BE PAINTED

Items and finish surfaces not to be painted under this Contract shall include aluminum, glass, composition floors, acoustical tile, and factory finished items.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**SECTION N – EPOXY WALL COATING SYSTEM**

**QUALIFICATIONS:**

- A. Applicator: Use applicator experienced in application of specified materials for a minimum of [5] [Five] years on projects of similar size and complexity. Provide list of completed projects including project name and location, name of architect, name of material manufacturer, and approximate quantity of materials applied. This is a hospital grade decorative floor and wall system that requires expert installation techniques. Contact Quality One Painting, Troy Hudson at 501-960-4440.
- B Applicator's Personnel: Employ only persons trained for application of specified materials.

**SITE CONDITIONS**

- A. Do not apply materials if floor or air temperature is below 60 degrees or above 90 degrees.
- B. Do not apply materials if relative humidity is above 85 percent or within 5° of dew point at time of application [Omit if not applicable]
- C. Utilities, including electric, water, heat and finished lighting to be supplied by General Contractor
- D. Maintain room temperature between 60-85 degrees for 48 hours before, during and 48 hours after installation, or until cured.
- E. At the time of application ensure the minimum substrate temperature is above 60° F (15° C) and the substrate temperature is 5° F (3° C) above the measured dew point at the time of application.[Omit if not applicable]
- F. Erect suitable barriers and post legible signs at points of entry to prevent traffic and trades from entering the work area during application and cure period of the floor.
- G. Protection of finished floor from damage by subsequent trades shall be the responsibility of the General Contractor.

**WARRANTY**

- A. Provide a warranty covering materials and workmanship for a period of one year after date of installation.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**MANUFACTURER**

- A. Manufacturer shall be certified under ISO 9001: All liquid materials, including primers, resins, curing agents, finish coats, and sealants are manufactured and tested under an ISO 9001 registered quality system.
  
- B. Manufacturer shall be Sika Corp., Industrial Flooring,  
201 Polito Avenue,  
Lyndhurst, NJ 07071.  
Phone 201.933.8800  
Fax 201.933.6225  
Peter Brunson 256-483-0968, Brunson.peter@sika-corp.com for local support  
[www.sikafloorusa.com](http://www.sikafloorusa.com)
  
- C. Or approved equal

**MATERIALS** – Sikafloor® DecoFlake Floor and Wall Coating System.  
Colors to be selected by Department from Manufacturer's standards.

- A. SF 107 Penetrating Epoxy Flex Primer at 200-250 s/f per gallon for 6 mils dft
- B. SF 510 Polyaspartic Binder at 200 s/f per gallon for 8 mils dft
- C. Decorative Vinyl Flakes broadcast at .2 lbs per s/f
- D. SF 510 Binder Coat at 200 s/f per gallon for 16 mils dft
- E. Decorative Vinyl Flakes broadcast at .2 lbs per s/f
- F. SF 203 Water Clear Epoxy grout coat at 80 s/f per gallon for 20 mils dft
- G. SF225 Water Clear Non Yellowing Topcoat at 12 mils dft

**EXAMINATION**

- A. Examine surfaces to receive Sikafloor DecoFlake. Notify Architect/engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected. Do not apply to substrate treatments for moisture, repair, or leveling not of the same Manufacturer.
  
- B. Do not apply Sikafloor DecoFlake to concrete less than 60 days old. Consult Technical Service prior to application when concrete has not cured for 60 days.
  
- C. Do not apply Sikafloor DecoFlake to sand-cement setting beds, regardless of condition. Sand-cement beds shall be removed to structural concrete substrate and re-leveled/sloped as necessary to achieve grade and/or adequate drainage.
  
- E. Do not apply to asphaltic or bitumen membranes, soft wood, aluminum, copper or



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

fiberglass reinforced polyester/vinyl ester composites.

- F. Application to glazed or vitrified brick and tile, structural wood, steel shall be approved only with the Manufacturer's written recommendation

#### SURFACE PREPARATION

- A. Prepare concrete surfaces in accordance with manufacturer's instructions and ASTM D 4258.
- B. Remove dirt, oil, grease, wax, laitance, curing compounds, water-soluble concrete hardeners, and other surface contaminants.
- C. Remove sealers, finishes, and paints.
- D. Remove unsound concrete by scarifying, sand blasting, shot blasting.
- E. Chemical Surface Preparation:
  - 1. Chemical surface preparation (acid etching) is unacceptable and will void Manufacturer's warranty.
- F. Mechanical Surface Preparation:
  - 1. Mechanically abrade concrete surface in accordance with manufacturer's instructions.
  - 2. Leave concrete surface with an aggressive texture.
  - 3. Remove concrete dust.
  - 4. Conform to ASTM D-4259.
  - 5. Surface profile shall conform to IRCI Guideline 03732 CSP 3.

#### CONTROL JOINTS, CRACKS

- A. Provide repair and treatment of control joints and surface cracks utilizing manufacturer's standard materials and installation details.

#### APPLICATION

- A. Repair concrete substrate as required using SikaQuick® 1000 cementitious repair/resurfacer in accordance with Manufacturer's instructions. Shallow repairs may require Sikafloor EpoRok epoxy mortar or SF 203 with an appropriate filler. Sand the surface smooth after the repairs are cured to accept the final coating,

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

taking care that the repairs are not noticeable. Moving cracks may require special techniques to repair so that they do not telegraph thru the final coating.

- B. Do not add thinners to materials. No thinners shall be approved or allowed.
- C. For coverage rates, consult data sheet and this specification.
- D. Finish surface to be uniform texture, free of surface defects, and without porous areas.
- E. Follow Manufacturer's recommendations on terminations and connections to walls, drains, doorways, columns and floor-to-floor transitions.

#### **CLEANUP**

- A. Remove masking, draping, and other protection from adjacent surfaces.
- B. Remove remaining materials and debris from job site and dispose of them in according with local rules and regulations. Leave area in clean condition free of debris.

#### **PROTECTION**

- A. Protect Sikafloor DecoFlake floor coating during curing from traffic and chemical spillage. Based on air temperature of 73°F/23°C
  - 1. Foot Traffic: 10 to 12 hours.
  - 2. Medium Wheeled Loads: 12 to 24 hours.
  - 3. Full Cure: 7 [days]

### **SECTION O - BUILDING SPECIALTIES**

#### **WEATHER-STRIPPING**

- A. Exterior swing type doors and frames shall be weather-stripped at head and jamb with National Guard Products, Inc. No. 159A, or approved equivalent, natural satin anodized magnetic seal, attached to door with stainless steel sheet metal screws.
- B. Bottom of door on exterior side, shall have National Guard Products, Inc. No. 200N, or approved equivalent, door sweep with neoprene strip, attached to door with oval head stainless steel screws.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**METAL THRESHOLDS**

Thresholds for exterior door openings shall be of extruded aluminum, 1/2" high by 4" wide, cut to fit between jambs, National Guard Products, Inc. No. 8424, or approved equivalent. Fasten in place with countersunk stainless steel machine screws and expansion shields, using at least four (4) screws for any threshold and not more than 12" apart. Bed thresholds in caulking compound.

**TOILET ACCESSORIES**

Furnish and install the following accessories in each restroom:

- A. Bobrick No. B-6806 Series Handicapped Bars: 1 - 48" long, 1-36" long, 1-18" long
- B. Bobrick No. B-290 Series Mirror: 18" W x 24" H

**TOILET PARTITIONS**

**A. MANUFACTURERS**

- 1. Hadrian Manufacturing Inc.
- 2. Accurate Partitions

**B. DELIVERY, STORAGE AND HANDLING**

- 1. Toilet Partitions must be delivered to the job site in the manufacturers' original packages and marked to correspond with the approved shop drawings.
- 2. Toilet Partitions must be delivered in an amount of time deemed appropriate by the Owner.

**C. WRITTEN GUARANTEE**

- 1. The Toilet Partition manufacturer shall guarantee all Toilet Partitions by written certification, for a period of (3) years from date of certified substantial performance of the project, against any defects in design, materials and workmanship. Any defects as described will be made good by the manufacturer at no additional cost to the owner.

**D. MAINTENANCE**

- 1. Upon request, at completion of the project, the Toilet Partition supplier may be required to brief Owner's maintenance staff regarding proper care of Toilet

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

Partitions, such as: required lubrications, adjustments, cleaning, etc.

**E. MATERIALS**

1. Construction: Doors, Panels and Pilasters shall be constructed of two sheets of panel flatness zinc-coated steel, Galvanneal ASTM A653 GR33, laminated under pressure to a honeycomb core for sound deadening and rigidity. Formed edges to be welded together and inter-locked under tension with a roll-formed oval crown locking bar, mitred, welded and ground smooth at the corners. Honeycomb to have a maximum 25mm (1") cell size.
2. Doors: Shall be 25mm (1") thick with cover sheets not less than 22-gauge (0.8mm). All doors are 1816mm (71.5") high.
3. Panels: Shall be 25mm (1") thick with cover sheets not less than 22-gauge (0.8mm). All panels are 1918mm (75.5") high. Maximum panel depth is 1473mm (58").
4. Pilasters: Shall be 32mm (1.25") thick with cover sheets not less than 20-gauge (0.9mm). Pilaster tops shall be reinforced with a 20-gauge channel to create extra strength and twist-free rigidity along with minimizing damage by handling and/or shipping.
5. Headrail: Shall be 25mm (1") by 41mm (1.625") extruded anodized aluminum with double-ridge anti-grip design. Wall thickness to be 1.5mm (0.060") and shall be securely attached to wall and pilasters with manufacturer's fittings in such a way as to make a strong and rigid installation. All joints in headrails shall be made at pilaster.
6. Hardware and Fittings: All panel-to-pilaster, panel-to-wall and pilaster-to-wall connections shall be made with full height continuous channels. All door hardware shall be chrome plated zinc die castings. Fasteners are zinc plated 12 x 1-3/4" and 12 x 5/8" TR-27 6-lobe security screws. Doors shall be equipped with a gravity type hinge mounted on the lower pilaster hinge bracket. Door hinges shall be wrap-around style and adjustable to permit the door to rest at any position when not latched. Each door to be fitted with a combined coat hook and bumper and a concealed latch, with face mortised flush with edge strip of door. Barrier free doors shall include thumbturn lever to activate latch without fingertip grip application. Both standard and barrier-free latches shall have a turn slot designed to allow emergency access from exterior. The combined full length extruded aluminum door stop and keeper shall have a 1/4" wide continuous rubber bumper locked in place the length of the stop. To cover the sightline gap at door hinge

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

side, full length extruded aluminum filler channel shall be provided. The "no sightline" continuous stop and hinge filler shall be powder coated to match door and pilaster finish. Threaded upper hinge pin shall have a metal core and self lubricating nylon sleeve to ensure smooth, quiet operation. Pilaster shoes shall be a welded one-piece design made from polished stainless steel. Two-piece shoes that can disassemble when kicked are unacceptable.

**F. FINISH**

1. All sheet metal to be thoroughly cleaned, phosphated and finished with a high performance powder coating, electrostatically applied and oven cured to provide a uniform, smooth protective finish. Color shall be selected from Hadrian's color card.

**G. EXAMINATION**

1. The contractor must examine all site conditions that would prevent the proper application and installation of Toilet Partitions. Any defect must be immediately identified and corrected, prior to the installation of the Toilet Partitions.

**H. INSTALLATION**

1. All Toilet Partitions must be mounted according Manufacturers standard locations and those specified on the drawings.

**I. FIELD QUALITY CONTROL**

1. After installation has been completed, provide for a site inspection of all Toilet Partitions to determine that all items have been supplied and installed as per the enclosed details. Also, check the operation and adjustment of all Toilet Partitions. Any discrepancies, or malfunctioning product, must be reported to the Owner immediately.

**J. ADJUSTMENT AND CLEANING**

1. At final completion, Toilet Partitions shall be left clean and free from disfigurement. Make all final adjustments. Where Toilet Partitions are found defective, repair or replace or otherwise correct as directed.

**K. PROTECTION**

1. The Contractor must provide for the proper protection of all Toilet Partitions until

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

the owner accepts the project as complete.

## **SECTION P – PLUMBING WORK**

### GENERAL CONDITIONS

The provisions of the "General Conditions" Section or any other pertinent documents issued by the Department, whether attached hereto or not, shall be made a part of this Section.

### DRAWINGS

The Plumbing Drawings show the general arrangement of all piping, and fixture layout and shall be followed as closely as actual building construction and work of other trades will permit. The Plumbing Work shall conform to the requirements shown on all the Drawings. General and Structural Drawings shall take precedence over Plumbing Drawings, as it is not possible to indicate all offsets, fittings, valves and accessories which may be required. The Contractor shall investigate the structural and finish conditions affecting the work and shall arrange his work accordingly, providing such offsets, fittings, valves and accessories as may be required to meet such conditions.

### CODES AND STANDARDS

All material and workmanship shall comply with these Specifications and all applicable codes, local ordinances, industry standards and utility company regulations. In case of differences between Specifications, building codes, state laws, local ordinances, industry standards and utility company regulations and Contract Documents, the most stringent shall govern.

**NON COMPLIANCE:** Should the Contractor perform any work that does not comply with the requirements of the applicable building codes, state laws, local ordinances, industry standards and utility company regulations, he shall bear all costs arising in correcting the deficiencies.

Applicable codes and standards shall include all state laws, local ordinances, utility company regulations, and the applicable requirements of the following nationally accepted codes and standards:

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**BUILDING CODES:**

- (1) 2012 Arkansas Fire Prevention Code
- (2) 2006 Arkansas Plumbing Code

**INDUSTRY STANDARDS, CODES AND SPECIFICATIONS:**

- (1) AASHTO - American Association of State Highway and Transportation Officials
- (2) ASTM - American Society of Testing Materials
- (3) AWWA - American Water Works Association
- (4) NFPA - National Fire Protection Association

**COORDINATION OF WORK**

The Contractor shall compare the Plumbing Drawings and Specifications with the Drawings and Specifications for other trades and shall report any discrepancies between them to the Department and shall obtain written instructions for changes necessary in the Plumbing Work. The Plumbing Work shall be installed in cooperation with other trades installing inter-related work. Before installation, the Contractor shall make proper provision to avoid interferences. All changes required in the work of the Contractor caused by his neglect to do so shall be made by him at his own expense.

Anchor bolts, sleeves, inserts and supports that may be required for the Plumbing Work shall be furnished under the same Section of the Specifications as the respective items to be supported, and they shall be installed, except as otherwise specified, by the trade furnishing and installing the material in which they are to be located. Location of anchor bolts, sleeves, inserts and supports shall be directed by the trade requiring them, which trade shall also insure that they are properly installed. Any expense resulting from the improper location or installation of anchor bolts, sleeves, inserts and supports shall be paid for by the Contractor under the Section of the Specifications for the trade with the responsibility for directing their proper location.

Slots, chases, openings and recesses through floors, walls, ceilings and roofs as specified will be provided by the various trades and the trade requiring them shall see that they are properly located and shall do any cutting and patching caused by the neglect to do so. Slots, chases, openings and recesses in existing structure shall be cut by the trade requiring them and patched and repaired by that trade.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

Locations of pipes, ducts, electrical raceways, switches, panels, equipment, fixtures, etc., shall be adjusted to accommodate the work to interferences anticipated and encountered.

The Contractor shall determine the exact route and location of each pipe, duct and electrical raceway prior to fabrication.

- A. RIGHT-OF-WAY - Lines which pitch shall have the right-of-way over those which do not pitch. For example: steam, condensate and plumbing drains shall normally have right-of-way. Lines whose elevations cannot be changed shall have the right-of-way over lines whose elevations can be changed.
- B. OFFSETS - Transitions and changes in direction in pipes shall be made as required to maintain proper head room and pitch of sloping lines whether or not indicated on the Drawings. The Contractor shall furnish and install all traps, air vents, sanitary vents, etc. as required to affect these offsets, transitions and changes in direction.
- C. INSTALLATION AND ARRANGEMENT - The Contractor shall arrange pipes, ducts, raceways and equipment to permit ready access to valves, cocks, traps, and to clear the openings of swinging and overhead doors and of access panels.
- D. DRAWINGS BY CONTRACTOR - When directed by the Department, the Contractor shall submit for approval by the Department, drawings clearly showing the Plumbing Work and its relation to the work of other trades before commencing shop fabrication or erection in the field.

**FEES, PERMITS, AND INSPECTIONS**

All required fees, permits and inspections shall be obtained and paid for by the Contractor under the Section of the Specifications for which they are required.

**CERTIFICATE OF FINAL INSPECTION** - Under each applicable Section of the Specifications, the Contractor shall, upon completion of the work under that Section, furnish a Certificate of Final Inspection to the Department from the inspection department having jurisdiction.

**MATERIALS**

All materials shall be new and shall bear the manufacturer's name, trade name and the UL label in every case where a standard has been established for the particular material. The equipment to be furnished under each Section of the Specifications shall be essentially the standard product of a manufacturer regularly engaged in the



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

production of the required type of equipment, and shall be the manufacturer's latest approved design.

**DELIVERY AND STORAGE** - Fixtures and materials shall be delivered to the site and stored in the original containers, suitably sheltered from the elements. A-1 items subject to moisture damage (such as controls) shall be stored in dry, heated spaces. Equipment and materials of the same general type shall be of the same make throughout the work to provide uniform appearance, operation and maintenance.

**PROTECTION** – Fixtures and materials shall be tightly covered and protected against dirt, water and chemical or mechanical injury and theft. At the completion of the work, fixtures, equipment and materials shall be cleaned and polished thoroughly. Damage or defects developing before acceptance of the work shall be made good at the Contractor's expense.

**DIMENSIONS** - It shall be the responsibility of the Contractor to insure that items to be furnished fit the space available. The Contractor shall make the necessary field measurements to ascertain space requirements, including those for connections, and shall furnish and install such sizes and shapes of equipment that the final installation shall suit the true intent and meaning of the Plans and Specifications.

Manufacturer's directions shall be followed completely in the delivery, storage, protection and installation of all equipment and materials. Should the Contractor perform any work that does not comply with the manufacturer's directions, he shall bear all costs arising in correcting the deficiencies.

#### ACCESSORIES

The Contractor shall furnish and install all fixtures, accessories, connections and incidental items necessary to fully complete the work, ready for use, occupancy and operation by the Department.

#### CUTTING AND PATCHING

Under each Section of the Specifications, the Contractor shall be responsible for all required digging, cutting, etc., incident to his work under that Section, and shall make all satisfactory repairs, but in no case shall the Contractor cut into any major structural element, beam or column.

Each trade shall bear the expense of all cutting, patching, repairing or replacing of the work of other trades required because of his fault, error or tardiness or because of any damage done by him.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**EXCAVATION AND TRENCHING FOR PIPING**

The Contractor shall perform all excavation of every description and of whatever substances encountered, to the depths indicated on the Plans or as otherwise specified.

- A. TRENCH EXCAVATION - Trenches shall be of necessary width for the proper laying of the pipe, and the banks shall be as nearly vertical as practicable. The bottom of the trenches shall be accurately graded to provide uniform bearing and support for each section of the pipe on undisturbed soil at every point along its entire length. Except where rock is encountered, care shall be taken not to excavate below the depths indicated. Where rock excavations are required, the rock shall be excavated to a minimum overdepth of 4" below the trench depths indicated on the Plans or specified. Overdepths in the rock excavation and unauthorized overdepths shall be backfilled with loose, granular, moist earth, thoroughly tamped. Whenever wet or otherwise unstable soil that is incapable of properly supporting the pipe is encountered in the bottom of the trench, such soil shall be removed to the depth required and the trench backfilled to the proper grade with coarse sand, fine gravel or other suitable material, as hereinafter specified.
- B. DEPTH OF COVER - Trenches for utilities shall be of a depth required for the governing code from existing grade or from indicated finish grade, whichever is lower, unless otherwise specifically shown.
- C. PROTECTION OF EXISTING UTILITIES - Existing utility lines to be retained that are shown on the Plans or the locations of which are made known to the Contractor prior to excavation, as well as all utility lines uncovered during excavation operations, shall be protected from damage during excavation and backfilling, and if damaged, shall be repaired by the Contractor, at his expense.
- D. FIELD LINES - Installation for field lines, and sanitary sewer, shall be as shown on the Plans.

**BACKFILLING OF TRENCHES**

Trenches shall not be backfilled until all required pressure and other tests have been performed and until the utilities systems as installed conform to the requirements of the Plans and Specifications.

NORMAL BACKFILL – Shall be in accordance with Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, Edition of 2014, Section 801 – "Excavation and Backfilling".

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

Minimum slope of piping shall be in accordance with the following unless otherwise specifically shown on the Plans as specified.

Unions shall be installed on all by-passes, ahead of all traps, at all connections to equipment, where shown on the drawings or where required to facilitate removal of equipment whether shown or not.

Sleeves shall be provided around all pipes passing through walls, floors, ceiling partitions, structural members or other building parts. Sleeves shall be standard weight galvanized iron pipe two (2) sizes larger than the pipe or insulation so that pipe or insulation shall pass through freely with space for movement. Sleeves through floors shall be extended 1/4" above floor finish in toilets or in rooms where domestic water is used. In other rooms, sleeves shall be flush with the floor.

PLATES - Spring clamp plates (escutcheons) shall be provided where pipes are exposed in finish locations of the building and run through walls, floors or ceiling. Plates shall be chrome plated, spun brass or plain pattern and shall be set tight on the pipe and to the building surface.

PROTECTION - All open ends of pipes and equipment shall be properly capped or plugged to keep dirt and other foreign materials out of the system. Plugs of rags, wool, cotton, waste or similar materials may not be used in plugging. All pipes not otherwise specified shall be uncoated.

HANGERS AND SUPPORTS - The use of pipe hooks, chains or perforated iron for pipe support will not be permitted.

All the different service pipes, valves, fittings, etc., running parallel with each other and near together shall be in line with each other and shall be kept a sufficient distance from each other and the other work to permit finished covering not less than 1/2" between finished coverings on the different services.

Individual hangers for overhead piping shall generally have adjustable swivel pipe rings with suspended rods of ample strength, equal to Grinnell #107 or #104. Such service pipes as are practicable shall be placed at the same elevation and the various trades shall cooperate with each other and install multiple trapeze hangers wherever possible.

Piping near floor shall be supported from side wall or floor by approved wrought iron or pipe brackets, stanchions or hangers, in such manner as to maintain its alignment, while making suitable provisions for necessary expansion.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

VERTICAL PIPING - Riser clamps shall be placed at each floor or ceiling level and at each coupling or fitting. Clamps shall be securely supported by structural members which in turn are supported directly from the building structure. Clamps for copper tubing shall be copper plated.

PIPE IDENTIFICATION - Stenciled legend identifying the fluid conveyed shall be painted on pipe in all exposed locations by the trade furnishing and installing the pipe, at intervals not to exceed 20 feet and in addition, at each valve, branch, takeoff, point where a pipe leaves or enters a wall, major change in direction, expansion joint and anchor. Letters shall be sized in accordance with the following:

<u>Outside Diameter of Pipe or Covering</u>	<u>Height of Legend Letters</u>
Up to 1-1/4"	1/2"
1-1/2" to 2"	3/4"
2-1/2" to 6"	1-1/2"
Over 6"	2"

**EQUIPMENT START-UP AND TESTING**

The Contractor shall instruct the Department's operating personnel during start-up and separate operating tests of each major item of equipment.

**DEPARTMENT SUPPLIED ITEMS**

The Contractor is to completely install, hook up, check out and guarantee the installation of the following Department supplied items:

- (1) STOVE
- (2) REFRIGERATOR

**SITE VISIT**

This Contractor shall visit the site of the building before submitting a proposal on this work, and shall thoroughly familiarize himself with the existing conditions and operations. Failure on his part to do this will not be cause for extras after the Contract is signed by reason of unforeseen conditions. Any existing electric wiring and conduit encountered within the building area shall be relocated or removed where required by this Contractor at no extra cost to the Department.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**SHOP DRAWINGS**

The Contractor shall submit four (4) copies of "Shop Drawings" to the Department for approval, including a list of the equipment he proposes to furnish, together with descriptive literature, capacities, manufacturer's names, approximate delivery date and any other pertinent facts concerning the various items. The submittal shall consist of a tabulation of all items included, followed by catalog and data sheets, wiring diagrams, etc., all bound in one (1) folder.

Wherever the substituted equipment, actually furnished under these Specifications, require the use of larger or more connections, or if they are different arrangement than those shown on Plans or specified under these Specifications, such additional or larger connections shall be installed to the complete satisfaction of the Department without added cost to the Department.

**SECTION Q - PLUMBING**

**GENERAL CONDITIONS**

The General Conditions for Mechanical and Electrical Work and any other pertinent documents issued by the Department shall apply to all work in this Section whether attached hereto or not.

**EXTENT OF WORK**

The work under this Section includes all labor and materials required for the installation of complete hot and cold water piping systems, gas piping system, compressed air system, plumbing fixtures, sanitary drainage and vent system and sewage system.

**LAYING OUT WORK**

Contractor shall carefully lay out his own work on the premises and make proper provisions for the work of other contractors. Offsets shall be made wherever it is necessary to clear finished rooms, structural members or other obstructions, with no additional costs.

**LOCATION OF OUTLETS**

The location of all pipe, outlets, appliances, etc., shown on the Plans is approximate only and understood to be subject to such revisions as may be found necessary or desirable at the time the work is installed.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

LABOR

All labor shall be performed in the best and most workmanlike manner by mechanics skilled in their respective trades. The standards of work required throughout shall be of such grade as will bring results of the first class only. Mechanics whose work is unsatisfactory to the Department are considered by the Department to be unskilled or otherwise objectionable shall be instantly dismissed from the work upon notice from the Department.

MANUFACTURER'S DIRECTIONS

All manufactured articles, material and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturers, unless herein specified to the contrary.

PRECEDENCE

The mechanical piping and equipment, consisting of all heating, plumbing and ventilation shall have precedence over the various wiring systems.

TRANSPORTATION, SCAFFOLDING, ETC.

Contractor shall furnish all necessary scaffolding, tackle, tools and appurtenances of all kinds, and all labor required for the safe and expeditious execution of the Contract.

STERILIZATION

Each unit of completed water line installed under this Contract shall be thoroughly sterilized with liquid chlorine or hypochlorite before it is placed in operation. The amount of chlorine applied shall be such as to provide a dosage of not less than 10 mg/L. The chlorination materials shall be introduced into the water line in such a manner as to distribute the chlorine throughout the system as approved by the Arkansas Department of Health and according to American Water Works Association (AWWA) C651. Following a contact period of not less than Twenty-Four (24) hours, the heavily chlorinated water shall be flushed from the lines with clean water until the residual chlorine content is not greater than 1.0 mg/L. All valves in water lines being sterilized shall be opened and closed several times during the Twenty-Four (24) hour period.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

CROSS CONNECTIONS

Potable and nonpotable water supplies shall be distributed through systems entirely independent of each other, and any cross-connection between such supplies is prohibited.

UNIONS

- A. All union connections on piping 2" and smaller in diameter shall be ground joint brass union, having brass taper seat and both screw ends hexagonal and shall be designed for a steam working pressure up to 125 pounds.
- B. All union connections on similar piping 2-1/2" and larger in diameter shall be made with cast iron gasket type flange unions.

VALVES

- A. All valves shall have the name or trademark of the manufacturer and the guaranteed working pressure cast or stamped on the body. Adapters shall be provided for all valves on copper lines.
- B. All stop valves used on this work, unless otherwise specified or required, shall be of the gate pattern, suitable for steam working pressure up to 125 pounds.
- C. Gate valves 2" and smaller shall be made of the best brass of screwed pattern of the solid wedge type, double seat, non-rising stem, with gland stuffing box and iron wheel, Crane No. 438, or approved equivalent. Gate valves 2-1/2" and larger shall be iron body, brass trimmed, flanged ends and otherwise of same type as smaller valves, Crane No. 461, or approved equivalent.
- D. Globe valves 2" and smaller shall be made of the best grade brass, screwed pattern, removal disc suitable for the fluid to be controlled, with gland stuffing box and iron wheel, Crane No. 7, or approved equivalents. Globe valves 2-1/2" and larger shall be iron body, brass trimmed, flanged ends and otherwise same type as smaller valves, Crane No. 359, or approved equivalents.
- E. Check valves 2" and smaller shall be made of the best grade brass, screwed pattern, swing check, Crane No. 34 for hot water and Crane No. 34-1/2 for cold water, or approved equivalents. Check valves 2-1/2" and larger shall be iron body and brass trimmed, flanged ends, swing check, Crane No. 373 for hot water and Crane No. 373 with leather faced disc for cold water, or approved equivalents.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

SOIL, WASTE, VENT, SANITARY AND DRAINAGE PIPING

- A. Waste arms for lavatories and urinals shall be DWV copper with cast brass adapters and wrought copper fittings. All soil, roof drainage, waste and vent piping inside of building shall be standard weight cast iron soil pipe and fittings. All cast iron soil pipe and fittings shall be coated inside and outside with coal tar varnish and shall conform to the ASTM "Standard Specifications for Cast Iron Soil Pipe and Fittings".
- B. Soil, waste, drain and vent piping must be of sizes noted and run as indicated on the Plans and shall be given a uniform grade of 1/4" per foot wherever possible, but in no case less than 1/8" per foot unless otherwise noted. Each riser extending through the roof shall project 10" above roof line and shall be thoroughly flashed. Where so shown, connect vents below roof.

CLEANOUTS

- A. Cleanouts shall be provided at the ends and at points in change of direction of all drain, soil and waste pipes and branches thereof, at the foot of each riser, at all offsets, in all horizontal runs at approximately 50 foot intervals, and at other points where indicated on the Plans, or where required.
- B. All cleanouts in connection with cast iron pipe, except the traps and fittings on horizontal branches, shall have tapped "Y" fittings of same size as pipe up to 4", and 4" for all larger pipe, closed with screw plugs. All other cleanouts in connection with cast iron pipe, except those that occur in finished floors and walls, shall have heavy cast iron ferrules same size as pipe up to 4", and 4" for all larger pipe, caulked into hub, and closed with a screw plug.
- C. All cleanouts in finished floors shall be as scheduled on the Plans, or approved equivalent, with membrane anchorage pan and clamping collar, scoriated nickel-bronze access cover and adjustable frame. Cleanout plug shall be straight threaded with tapered shoulder that seals against caulked seat in body.
- D. All cleanouts on exterior piping of building shall be brought within 6" of grades in unpaved areas and flush with paving in other areas, with countersunk nut.

TRAPS AND DRAINS

- A. P-traps shall be placed under all floor drains, and where indicated in wastes, and at other points indicated on the Plans. P-traps shall be extra heavy cast iron, bell and spigot pattern.



**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

- B. Drains shall be Zurn, Josam, Wade or approved equivalent, in accordance with "Plumbing Fixtures" in this Section.

**WATER SERVICE**

- A. Water service pipe 3" and smaller shall be Type "K" hard drawn copper.
- B. A Reduced Pressure Zone Assembly (RPZA) is required after the water meter and before the first tap in the City water supply line. Size to be noted on plans. A freeze proof cover is required (Not freeze resistant) as manufactured by Sizemore Metals of Sheridan, AR (870) 942-5713 or equal.

**HOT AND COLD WATER PIPING**

- A. Hot and cold water piping, 3" and smaller, which is run in the ground, under the building, shall be Type "K" hard drawn copper with solder joint, wrought copper tube fittings. Joints shall be made with Easy-Flo 45, lead-free solder.
- B. All other hot and cold water piping within the building, 4" and smaller, shall be Type "L" hard drawn copper tubing, with solder joint, wrought copper tube fittings. Joints shall be made with "silfos".
- C. Adapters shall be used for screwed valves in copper piping. Connections between copper and steel shall be insulated to prevent electrolysis. All water piping shall pitch to low point drain.

**NON-CONDUCTING COVERING**

- A. Cover all hot and cold water piping with ½" wall thickness, closed cell, Armaflex insulation, or approved equivalent. Covering shall be continuous through floors and walls, etc., except branches to fixtures shall be covered up to point where branch passes through wall to adjoining fixture. No unions of any kind shall be covered.
- B. All sectional coverings shall finish round and smooth without bumps or depressions, and all ends and joints shall butt evenly and tightly together.
- C. Hangers for piping which is insulated with Fiberglas insulation shall be provided with 16 gauge saddle between bottom of insulation and hanger. Saddle shall be at least three (3) times the nominal pipe diameter, with a minimum length of 12".

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**PLUMBING FIXTURES**

- A. This Contractor shall furnish and completely install all fixtures shown and scheduled on the Plans.
- B. All fixtures shall be new and best of their respective kinds. They shall be non-absorbent throughout and free from waves, kiln marks or discoloration.
- C. All surfaces coming in contact with walls, floors or surfaces of other fixtures shall be ground truly and shall be bedded with fine dental plaster.
- D. All fixtures shall have concealed vent and shall have air chambers.
- E. All supplies shall be I.P.S. brass, except where otherwise specified. All exposed finished metal parts shall be chromium plated; rough bodied parts shall be heavily nickel plated. All enameled iron ware shall be acid resisting.
- F. Traps for lavatories shall be two (2) piece chrome plated cast brass P-traps with cleanout. All escutcheons on supplies and wastes shall be heavy cast brass set screw type.
- G. All faucets throughout shall have removable units comprising all the wearing parts.
- G. This Contractor shall furnish and install all backing (carriers) for lavatories, or any equipment requiring same.
- I. All fixtures which may be subject to damage prior to completion of the building shall be protected. Job must be turned over to the Department with all fixtures clean and free from damage.
- J. Plumbing fixtures shall be as specified on the Plans.

**TESTS AND INSPECTIONS**

- A. The Plumbing Subcontractor shall, at his own expense, during the progress of the work, or upon its completion, make such tests of his work as are herein specified, or as are required by the Department or by the state or municipal bureaus having jurisdiction and under their supervision.
- B. The Plumbing Subcontractor shall provide all apparatus, temporary piping connections, or any other requirements necessary for such tests. He shall take all due precautions to prevent damage to the building or its contents incurred by such

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

tests, and he will be required to repair and make good at his own expense and damage so caused.

- C. Any leaks, defects or deficiencies discovered as a result of tests shall be immediately repaired or made good, and tests shall be repeated until achieving full compliance with test requirements. No caulking of pipe joints to remedy leaks will be permitted except where lead and oakum joints are used.
- D. The following tests are required unless otherwise directed:
1. The drainage and vent piping systems throughout shall be tested upon completion of the rough work without fixtures or traps connected. All openings, except at top of stacks, to be tightly closed by screw plugs or equivalent device, and the system to be entirely filled with water, which shall stand without leak or loss of level for a period of four (4) hours.
  2. All hot and cold water piping shall be tested to a hydraulic pressure of 100 psi which pressure shall be maintained without pumping for a period of one (1) hour.
  3. The Plumbing Subcontractor shall conduct tests of apparatus installed by him to demonstrate the satisfactory operation of same and the fulfillment of the specified requirements. He shall make any additional tests that may be required by other authorities.

**FINALLY**

It is the intention that this Section shall provide a complete installation except as hereinbefore specifically excepted. All accessory construction and apparatus necessary or advantageous in the operation and testing of the work shall be included. The omission of specific reference to any part of the work necessary for such complete installation shall not be interpreted as relieving this Contractor from furnishing and installing such parts.

**GENERAL**

All materials and workmanship, which are a part of this Contract, shall be warranted against defects and imperfections for a period of one (1) year from date of acceptance by the Arkansas State Highway and Transportation Department.

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT  
SPECIAL PROVISION  
JOB 42-92  
MAINTENANCE BUILDING INTERIOR RENOVATIONS  
PROJECT MANUAL**

**METHOD OF MEASUREMENT**

Maintenance Building Interior Renovations (Little Rock) complete and in place, as indicated on the Plans, as called for in these Specifications, or as directed by the Engineer and accepted, will be measured for payment by the "Lump Sum".

**BASIS OF PAYMENT**

Work completed and accepted and measured as provided above, will be paid for at the lump sum price bid for " Maintenance Building Interior Renovations (Little Rock)", which shall be full compensation for all materials, labor, tools, equipment, machinery, drayage, rigging, fees, permits, clean-up, guarantees and any and all incidental items required to complete the work.

**PAY ITEM**

**PAY UNIT**

Maintenance Building Interior Renovations (Little Rock)

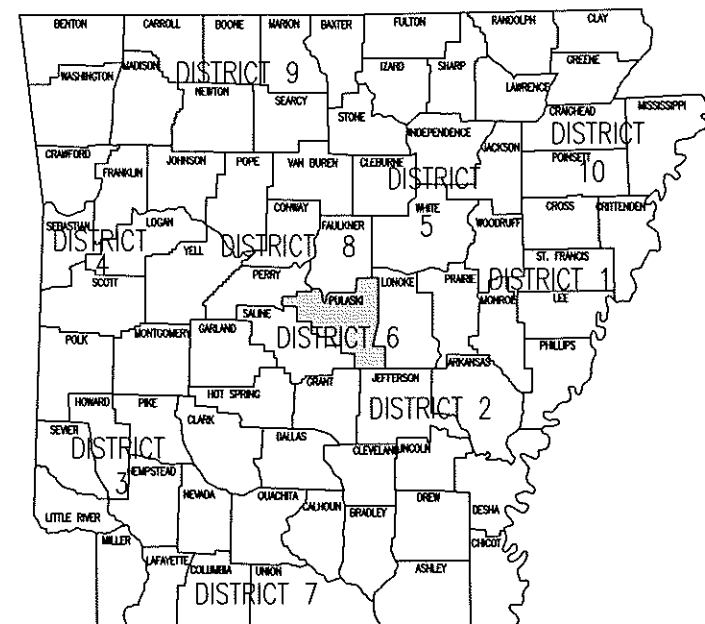
Lump Sum

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				5	ARK.			
						JOB NO.	RD0000	---
						PROJECT TITLE		

# ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

## CONSTRUCTION PLANS FOR: MAINTENANCE DIVISION ADMIN. OFFICE RENOVATION LITTLE ROCK, ARKANSAS PULASKI COUNTY

### JOB 42-92

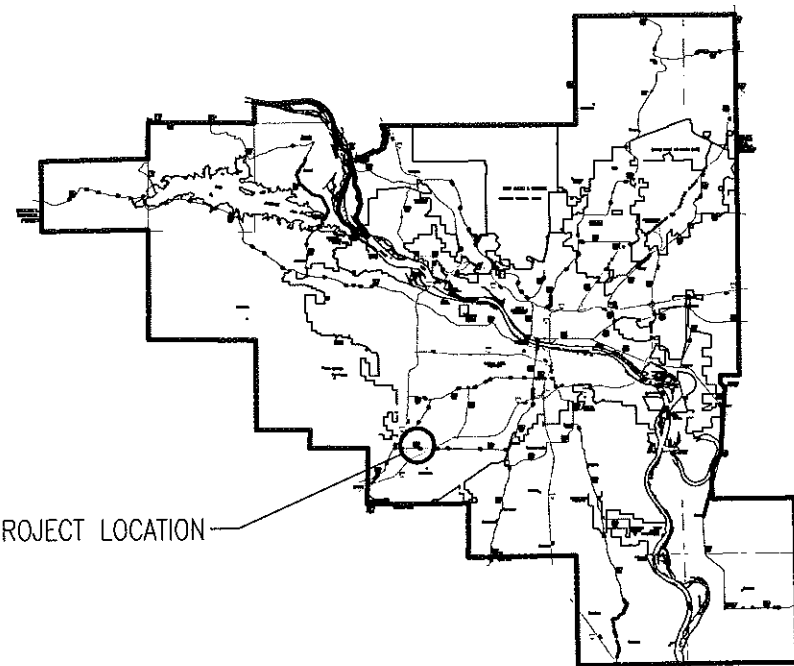


ARK. HWY. DIST. NO. 6

GOVERNING SPECIFICATIONS:

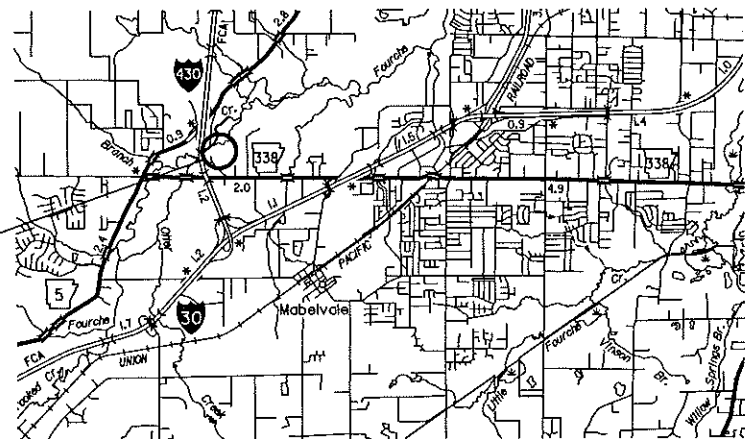
ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 2014, AND THE FOLLOWING SPECIAL PROVISIONS AND SUPPLEMENTAL SPECIFICATIONS:

- ERRATA ERRATA FOR THE BOOK OF STANDARD SPECIFICATIONS
- SP 108-1 LIQUIDATED DAMAGES
- SS 100-1 REQUIRED CONTRACT PROVISIONS FOR STATE CONSTRUCTION JOBS
- SS 102-1 BIDDING REQUIREMENTS AND CONDITIONS
- SS 105-1 CONSTRUCTION CONTROL MARKINGS
- SS 105-2 EQUIPMENT AND MATERIAL STORAGE ON BRIDGE STRUCTURES
- SS 105-3 CONTROL OF WORK
- SS 107-1 WORKER VISIBILITY
- JOB 42-92 MAINTENANCE BUILDING INTERIOR RENOVATIONS PROJECT MANUAL
- JOB 42-92 BUILDERS RISK INSURANCE
- JOB 42-92 COMPETENCY OF BIDDERS
- JOB 42-92 COORDINATION OF WORK
- JOB 42-92 INTERNET BIDDING



PROJECT LOCATION

COUNTY MAP

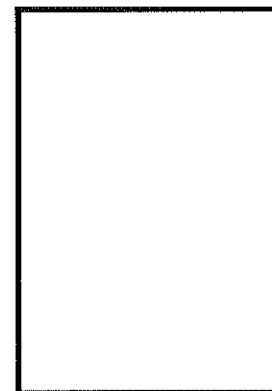


PROJECT LOCATION  
911 ADDRESS:  
11300 WEST BASELINE RD  
LITTLE ROCK, AR 72203

VICINITY MAP



**MAINTENANCE DIVISION  
ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



DATE: JULY 17, 2015  
JOB NO: 42-92  
DRAWN BY: KB  
REVISIONS:













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1 OF 42

## INDEX OF DRAWINGS


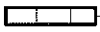

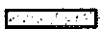
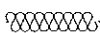



### ABBREVIATIONS

AD	AREA DRAIN	GALV	GALVANIZED
ADA	AMERICANS WITH DISABILITIES	INSUL	INSULATION
AFF	ABOVE FINISHED FLOOR	INT	INTERIOR
AFG	ABOVE FINISHED GRADE	MAX	MAXIMUM
ALUM	ALUMINUM	MBM	METAL BUILDING MANUFACTURER
ANOD	ANODIZED	MECH	MECHANICAL
BOT	BOTTOM	MIN	MINIMUM
CJ	CONTROL JOINT	MTL	METAL
CLG	CEILING	NIC	NOT IN CONTRACT
CLR	CLEAR	NO	NUMBER
CMU	CONCRETE MASONRY UNIT	NOM	NOMINAL
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OPG	OPENING
CONT	CONTINUOUS	PLUMB	PLUMBING
DEMO	DEMOLITION	PLAS. LAM.	PLASTIC LAMINATE
DTL	DETAIL	PLYWD	PLYWOOD
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
DIM	DIMENSION	RBR	RUBBER
EA	EACH	RD	ROOF DRAIN
EJ	EXPANSION JOINT	REQ	REQUIRED
ELEC	ELECTRICAL	SIM	SIMILAR
ELEV	ELEVATION	SPEC	SPECIFICATION
EQ	EQUAL	SPK	SPRINKLER
EWC	ELECTRIC WATER COOLER	STRUCT	STRUCTURAL
EXIST	EXISTING	T&G	TONGUE AND GROOVE
FD	FLOOR DRAIN	TELE	TELEPHONE
FEC	FIRE EXTINGUISHER CABINET	TLT	TOILET
FFE	FINISHED FLOOR ELEVATION	TYP	TYPICAL
FIXT	FIXTURE	UNO	UNLESS NOTED OTHERWISE
FLR	FLOOR	VCT	VINYL COMPOSITION TILE
GA	GAUGE		

### SYMBOL LEGEND

	DOOR AND FRAME
	HARDWARE SET
	WINDOW TAG
	ROOM NAME
	FINISH
	CEILING HEIGHT
	ROOM NUMBER
	MILLWORK ELEVATION TAG
	DRAWING NUMBER
	SHEET NUMBER
	KEYED PLAN NOTE
	KEYED DEMOLITION PLAN NOTE

### MATERIAL LEGEND

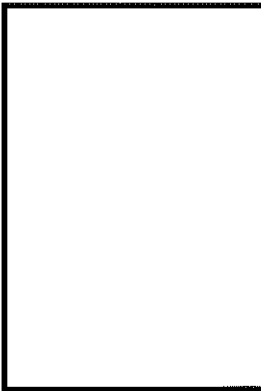
	FACE BRICK
	CONCRETE BLOCK RE: PLANS FOR SIZE
	STUDS
	CONCRETE (SECTION)
	BATT. INSULATION
	FOAM OR RIGID INSULATION
	ROUGH FRAMING
	FINISHED WOOD

- G1.1 - COVER SHEET
- G1.2 - SHEET INDEX AND LEGENDS
- G2.1 - EXISTING FLOOR PLAN
- G2.2 - PHASING PLAN
  
- D1.1 - PHASE ONE AREA ONE DEMOLITION PLAN
- D1.2 - PHASE ONE AREAS TWO AND THREE DEMOLITION PLAN
- D1.3 - PHASE TWO DEMOLITION PLAN
- D1.4 - PHASE THREE DEMOLITION PLAN
  
- A1.1 - DOOR AND WINDOW SCHEDULES
- A1.2 - FINISH SCHEDULE AND DOOR/WINDOW DETAILS
- A1.3 - CABINET ELEVATIONS
- A1.4 - CABINET DETAILS
- A2.1 - PHASE ONE AREA ONE FLOOR PLAN
- A2.2 - PHASE ONE AREAS TWO AND THREE FLOOR PLANS
- A2.3 - PHASE TWO FLOOR PLAN
- A2.4 - PHASE THREE FLOOR PLAN
- A2.5 - ENLARGED TOILET PLANS AND DETAILS
- A2.6 - TOILET ELEVATIONS
- A3.1 - EXTERIOR ELEVATIONS
- A4.1 - WALL SECTIONS
- A4.2 - WALL SECTIONS
- A4.3 - WALL SECTIONS
- A5.1 - PHASE ONE AREA ONE REFLECTED CEILING PLAN
- A5.2 - PHASE ONE AREAS TWO AND THREE REFLECTED CEILING PLANS
- A5.3 - PHASE TWO REFLECTED CEILING PLAN
- A5.4 - PHASE THREE REFLECTED CEILING

- S1.1 - PHASE ONE AREA ONE AND PHASE TWO FRAMING PLAN
  
- M1.1 - PHASE ONE HVAC PLAN
- M1.2 - PHASE ONE AREAS TWO AND THREE HVAC PLAN
- M1.3 - PHASE TWO HVAC PLAN
- M1.4 - PHASE THREE HVAC PLAN
- M2.1 - SCHEDULES AND DETAILS
  
- P1.1 - PHASE ONE AREA ONE AND PHASE TWO PLUMBING PLAN
- P1.2 - PHASE THREE PLUMBING PLAN AND DETAILS
- P2.1 - SCHEDULES AND LEGENDS
  
- E1.1 - PHASE ONE AREA ONE POWER PLAN
- E1.2 - PHASE ONE AREAS TWO AND THREE POWER PLAN
- E1.3 - PHASE TWO POWER PLAN
- E1.4 - PHASE THREE POWER PLAN
- E2.1 - PHASE ONE AREA ONE LIGHTING PLAN
- E2.2 - PHASE ONE AREAS TWO AND THREE LIGHTING PLAN
- E2.3 - PHASE TWO LIGHTING PLAN
- E2.4 - PHASE THREE LIGHTING PLAN



**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County



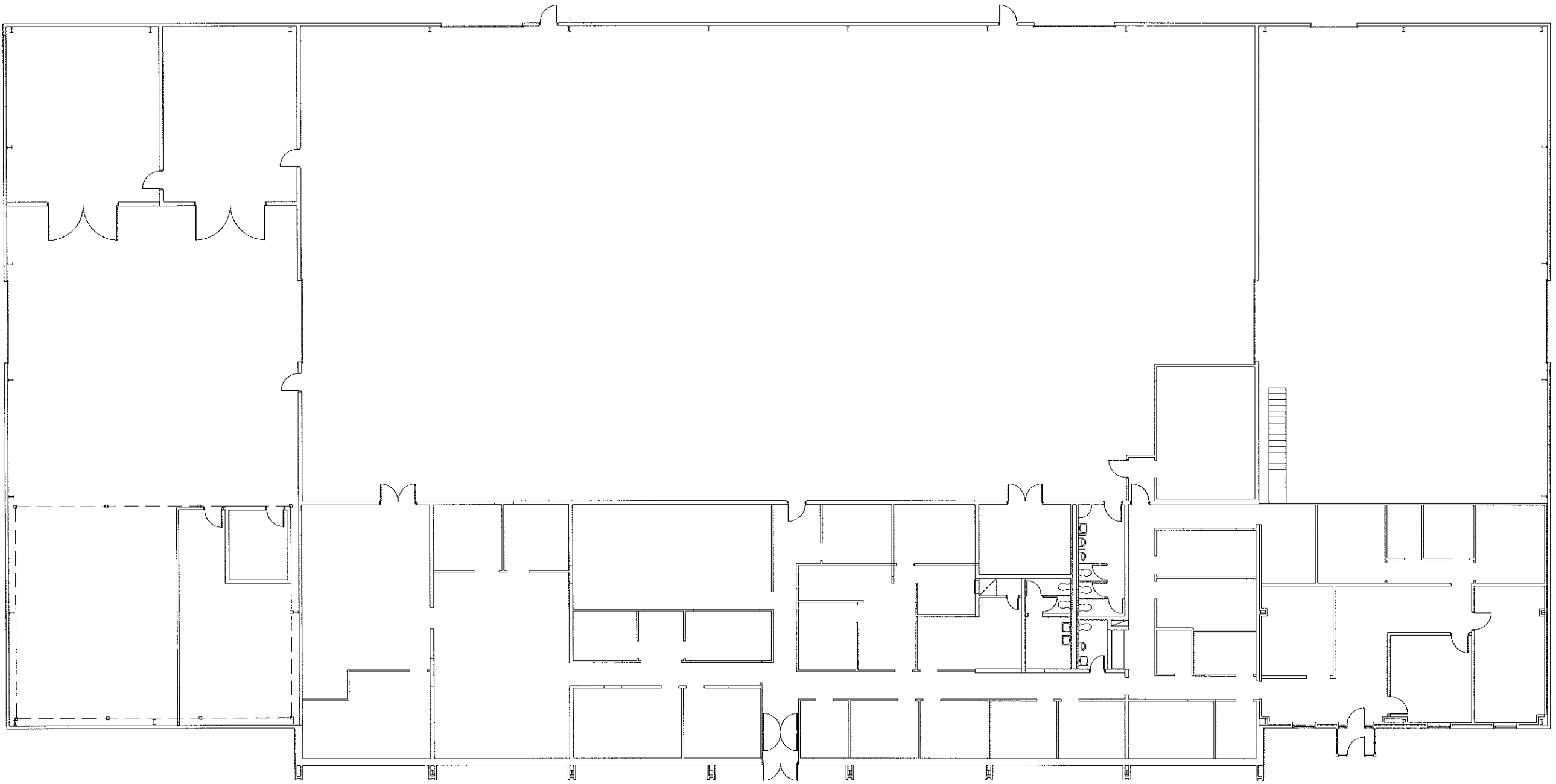
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 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

G1.2

2 OF 42



**MAINTENANCE DIVISION  
ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



1  
G2.1

**EXISTING FLOOR PLAN**

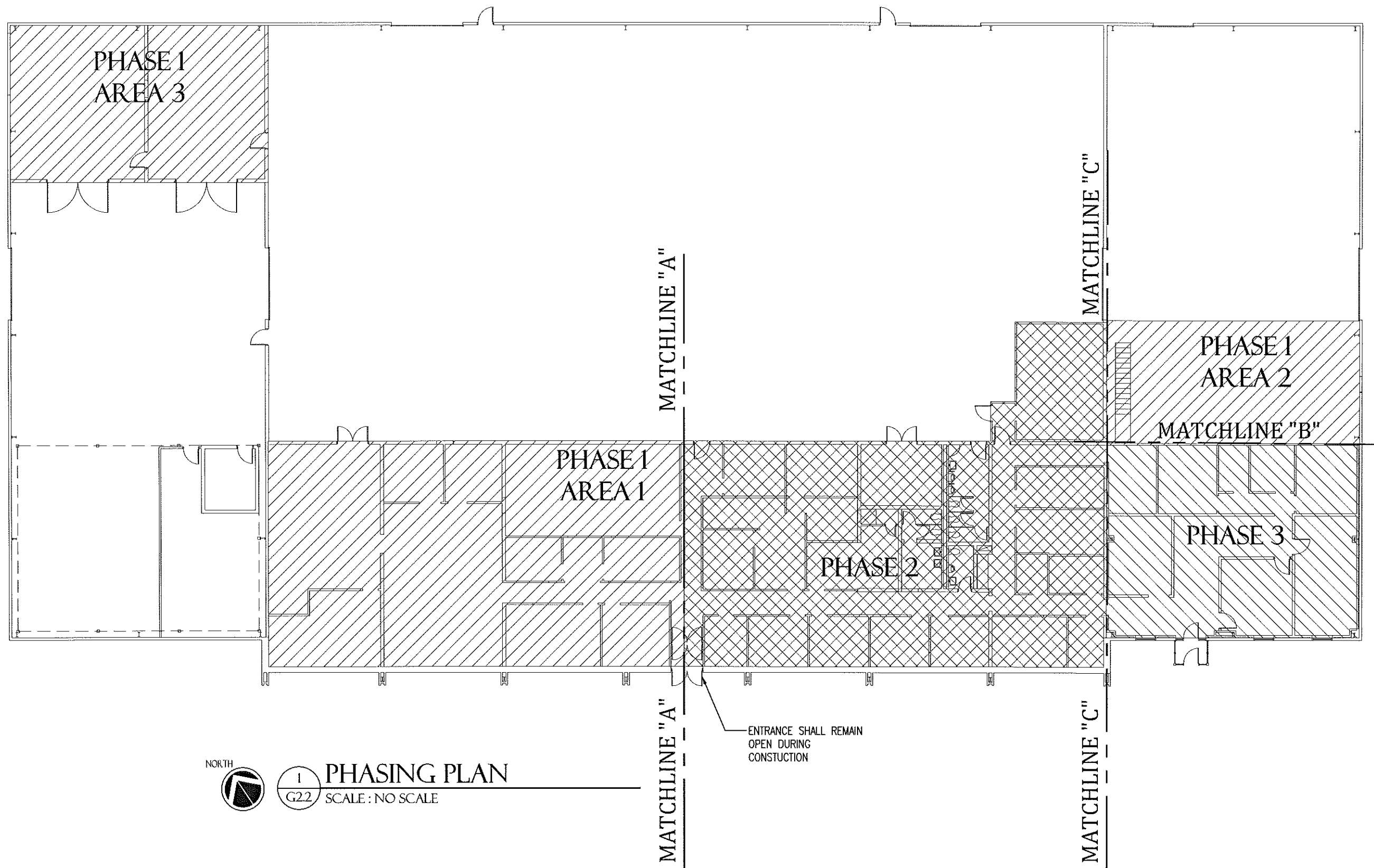
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JOB NO: 42-92  
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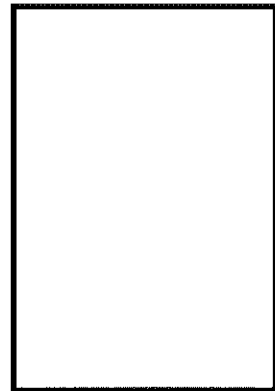
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3 OF 42



**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



**1 PHASING PLAN**  
G2.2 SCALE : NO SCALE

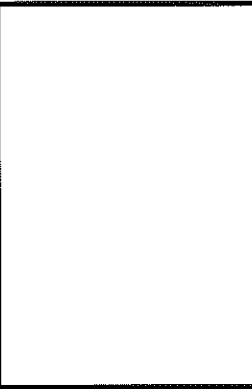


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JOB NO: 42-92  
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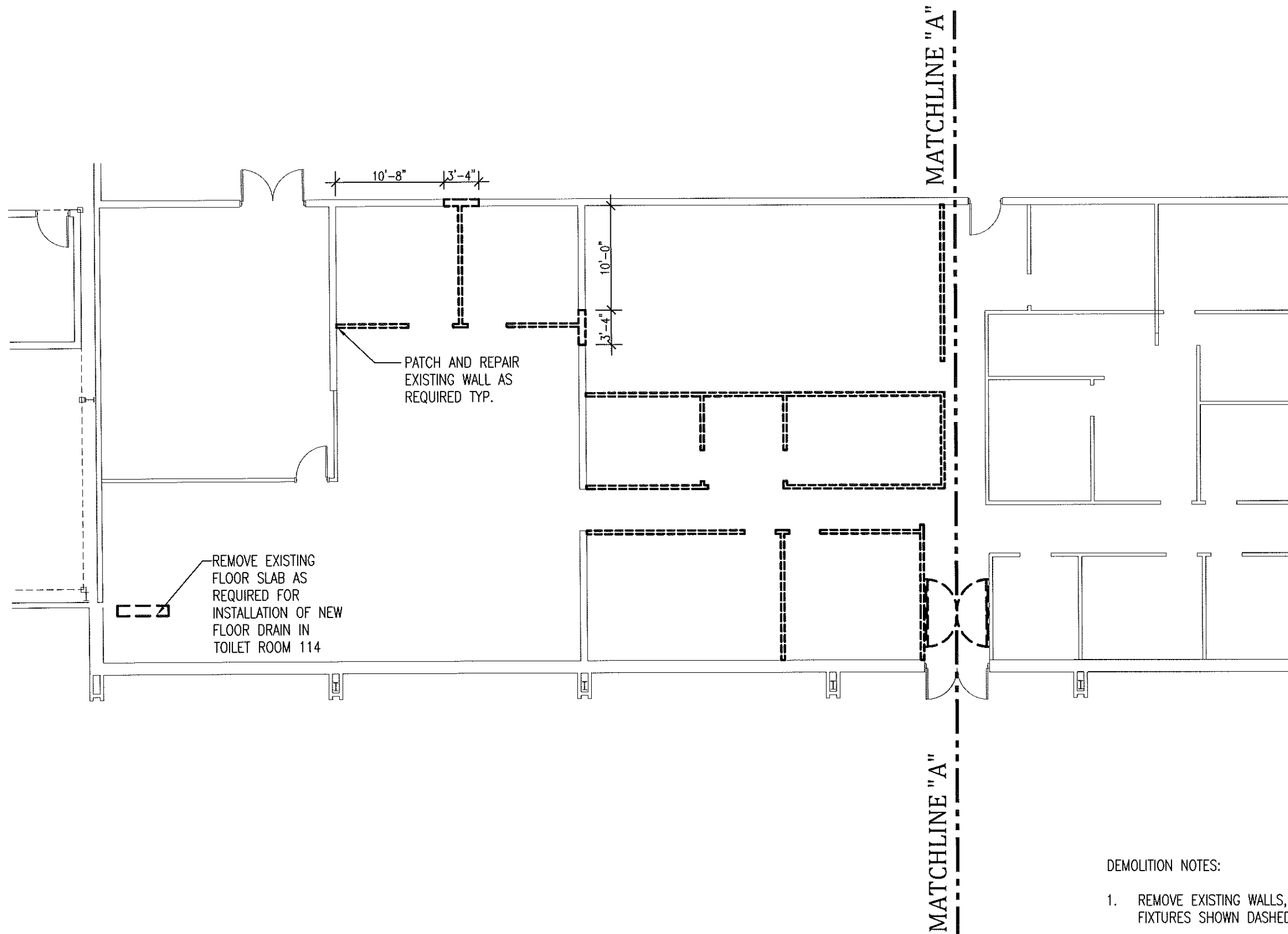


**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County



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 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

**D1.1**  
 5 OF 42



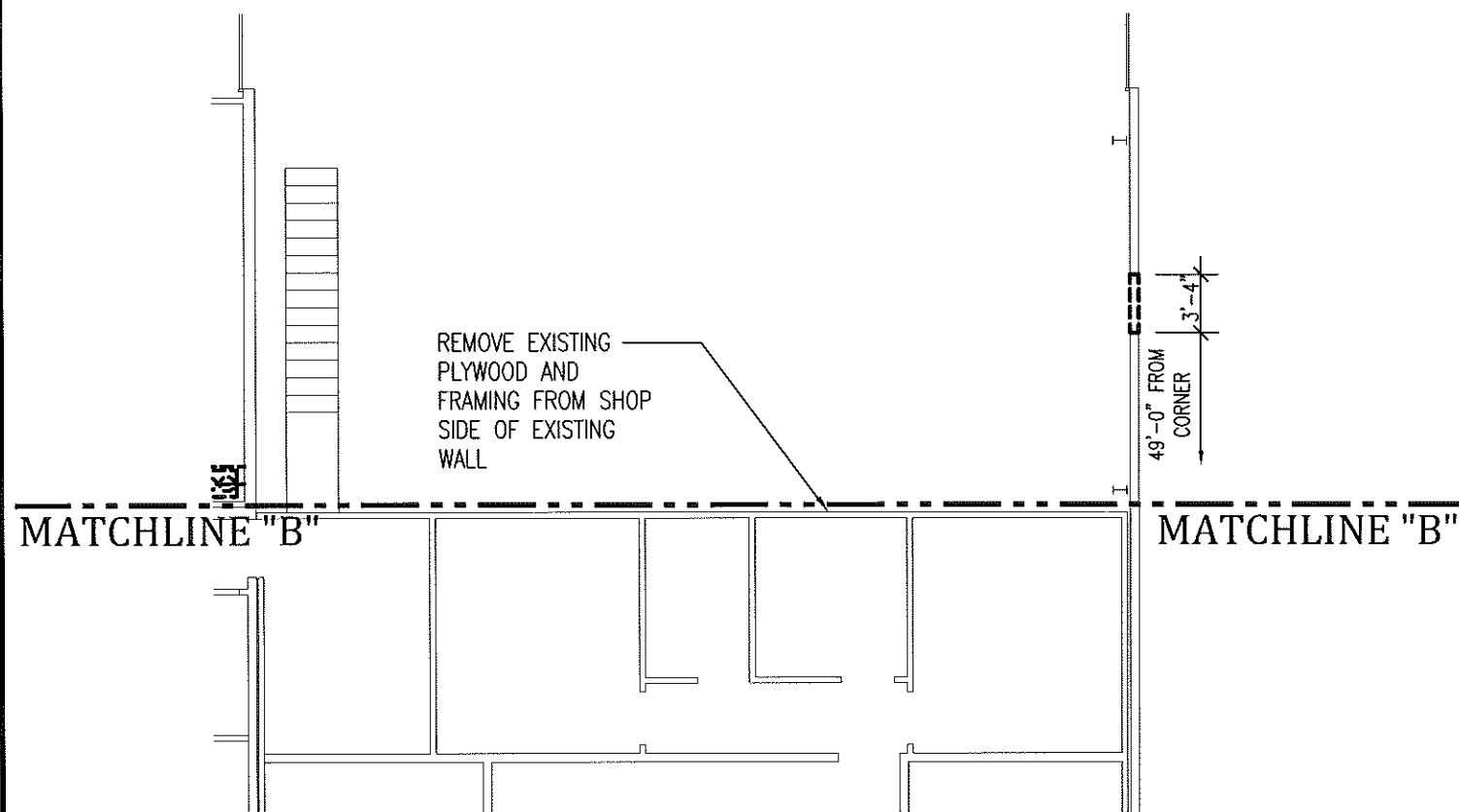
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1. REMOVE EXISTING WALLS, DOORS, PLUMBING FIXTURES SHOWN DASHED ON PLAN.
  2. REMOVE EXISTING FLOOR COVERING, CEILING GRID AND TILES.
  3. REMOVE EXISTING WOOD PANELING AND GYP. BOARD ON REMAINING STUD WALLS.



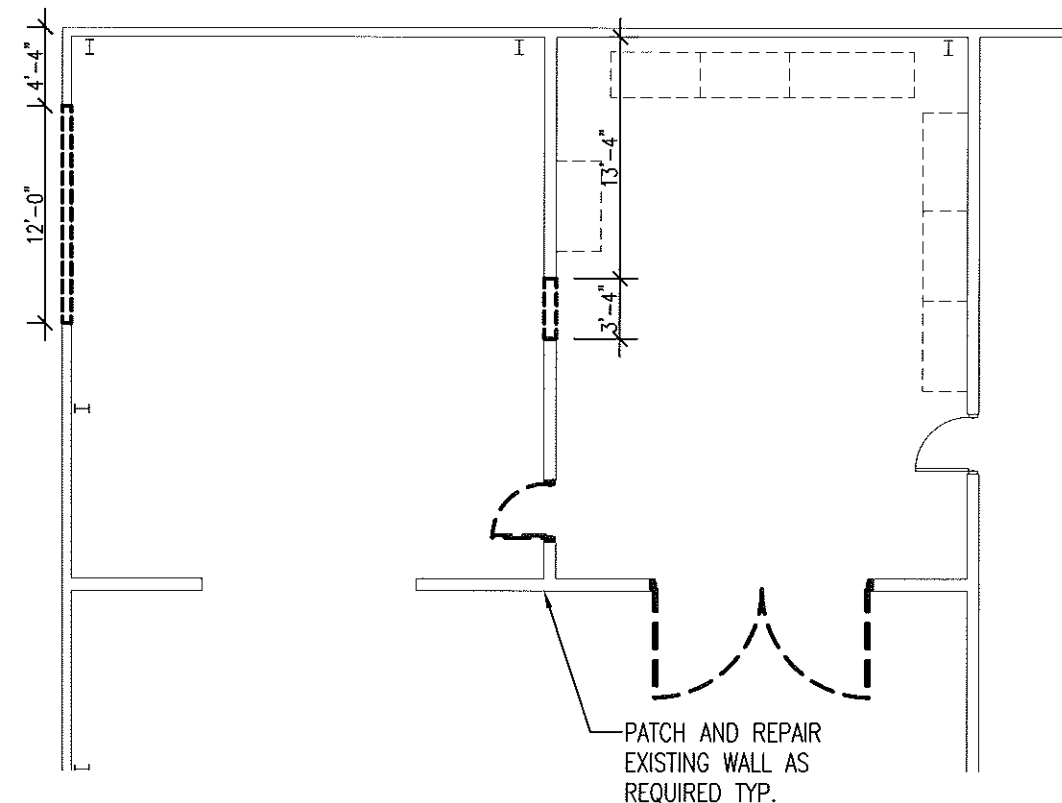
**1**  
 D1.1 PHASE 1 AREA 1 DEMOLITION PLAN  
 SCALE: 3/32" = 1'-0"



**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County

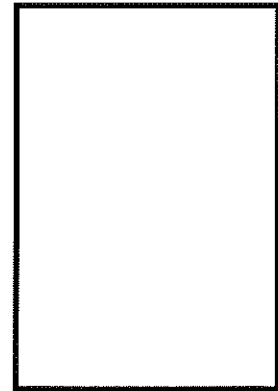


NORTH  
 1 PHASE 1 AREA 2 DEMOLITION PLAN  
 D1.2 SCALE:  $\frac{3}{32}'' = 1'-0''$



NORTH  
 2 PHASE 1 AREA 3 DEMOLITION PLAN  
 D1.2 SCALE:  $\frac{3}{32}'' = 1'-0''$

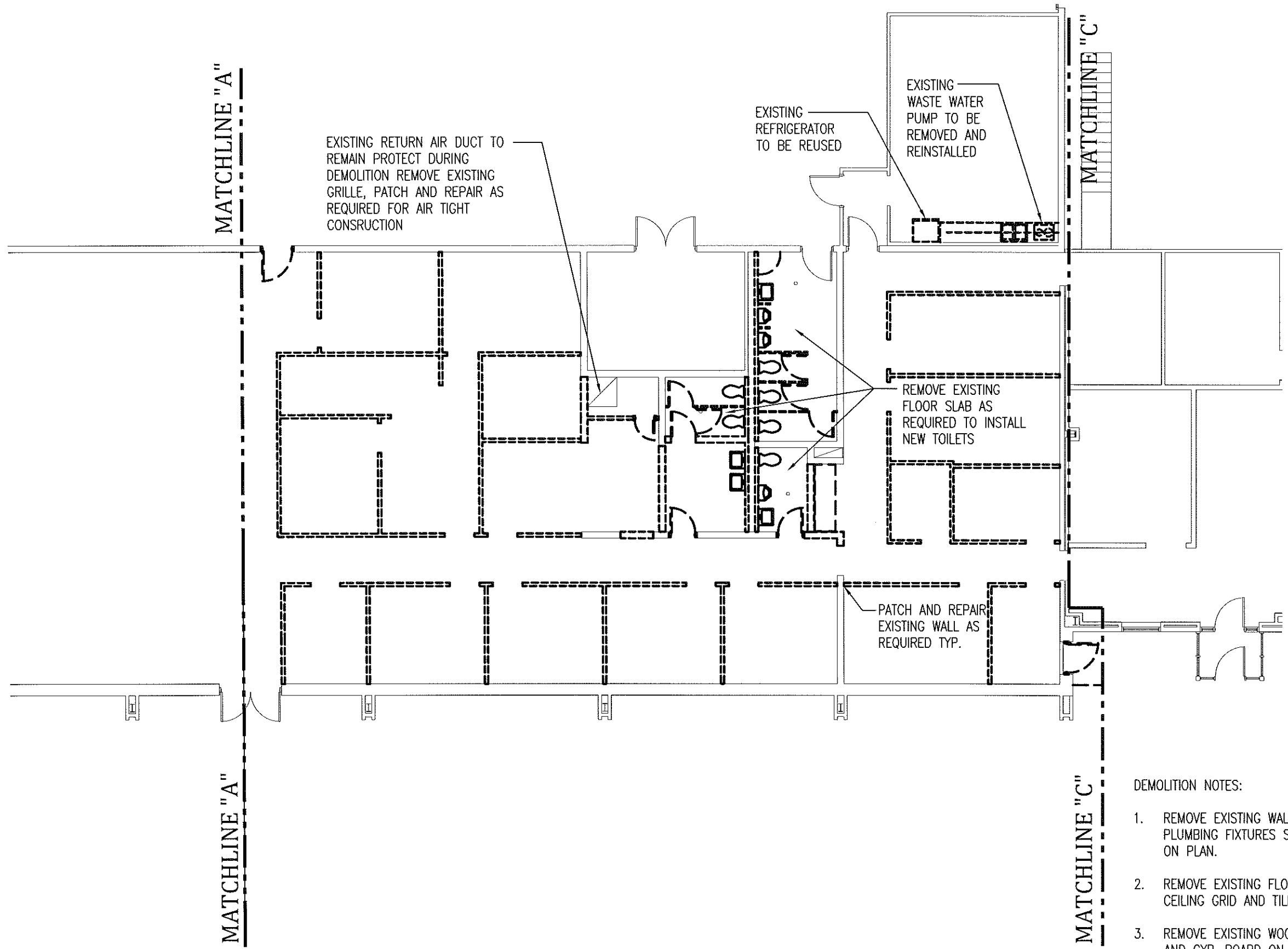
- DEMOLITION NOTES:
1. REMOVE EXISTING WALLS, DOORS, PLUMBING FIXTURES SHOWN DASHED ON PLAN.
  2. REMOVE EXISTING FLOOR COVERING, CEILING GRID AND TILES.
  3. REMOVE EXISTING WOOD PANELING AND GYP. BOARD ON REMAINING STUD WALLS.



DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:



**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County

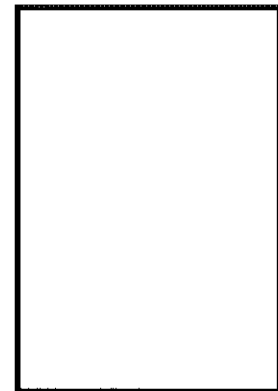


DEMOLITION NOTES:

1. REMOVE EXISTING WALLS, DOORS, PLUMBING FIXTURES SHOWN DASHED ON PLAN.
2. REMOVE EXISTING FLOOR COVERING, CEILING GRID AND TILES.
3. REMOVE EXISTING WOOD PANELING AND GYP. BOARD ON REMAINING STUD WALLS.



**PHASE 2 DEMOLITION PLAN**  
SCALE : 3/32" = 1'-0"

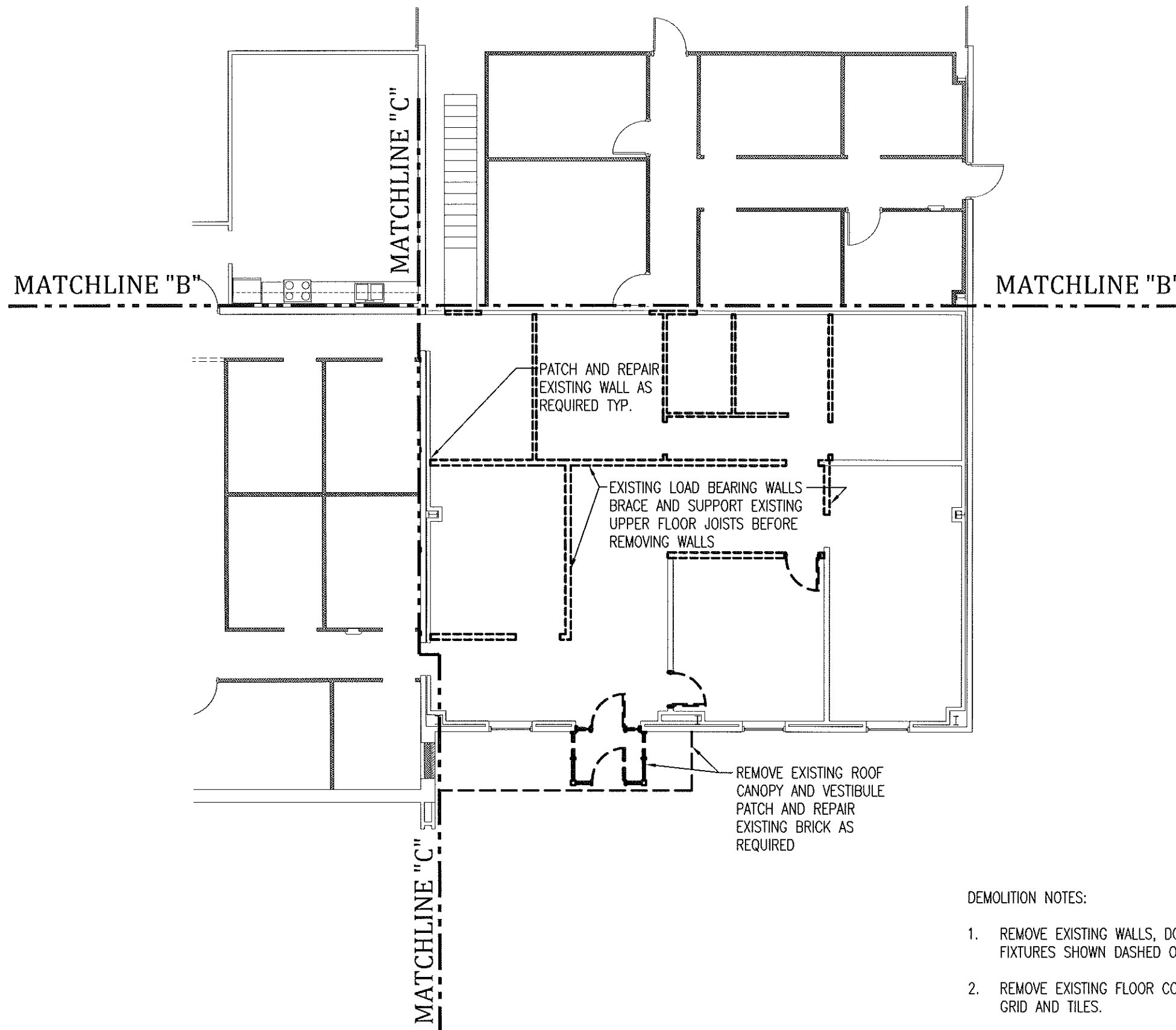


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REVISIONS:

**D1.3**  
7 OF 42




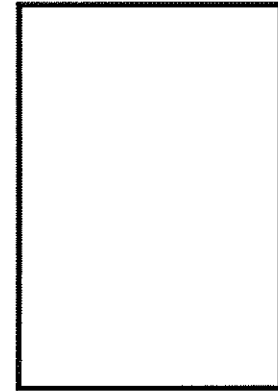
**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County



DEMOLITION NOTES:

1. REMOVE EXISTING WALLS, DOORS, PLUMBING FIXTURES SHOWN DASHED ON PLAN.
2. REMOVE EXISTING FLOOR COVERING, CEILING GRID AND TILES.
3. REMOVE EXISTING WOOD PANELING AND GYP. BOARD ON REMAINING STUD WALLS.

NORTH  1 PHASE 3 DEMOLITION PLAN  
 D1.4 SCALE : 3/32" = 1'-0"

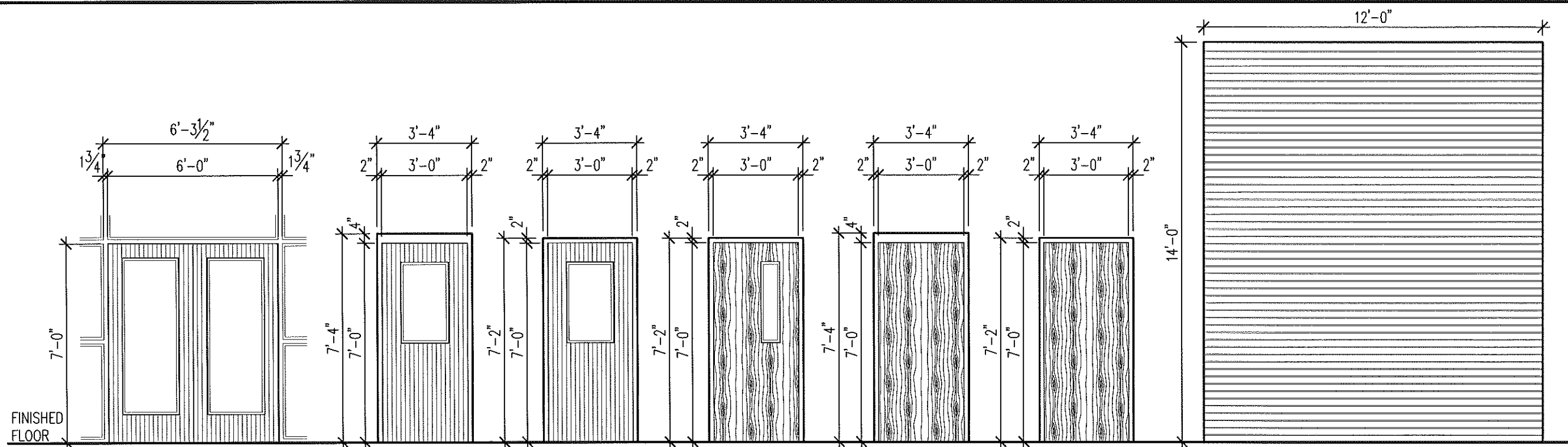


DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

**D1.4**  
 8 OF 42



**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County



①

KAWNEER 500 WIDE STYLE ALUMINUM DOOR WITH OFFSET/BUTT HINGE AND TEMPERED INSULATING GLASS IN TRIFAB 400 FRAME.

②

1 1/4" THICK INSULATED STEEL DOOR WITH 1/4" TEMPERED GLASS IN 2"x5 3/4" HOLLOW METAL FRAME.

③

1 1/4" THICK INSULATED STEEL DOOR WITH 1/4" TEMPERED GLASS IN 2"x5 3/4" HOLLOW METAL FRAME.

④

④A SAME AS 4 WITH 2"x7 3/4" FRAME.

1 1/4" THICK SOLID CORE WOOD DOOR WITH 1/4" TEMPERED GLASS IN 2"x5 3/4" HOLLOW METAL FRAME.

⑤

1 1/4" THICK SOLID CORE WOOD DOOR 2"x5 3/4" HOLLOW METAL FRAME.

⑥

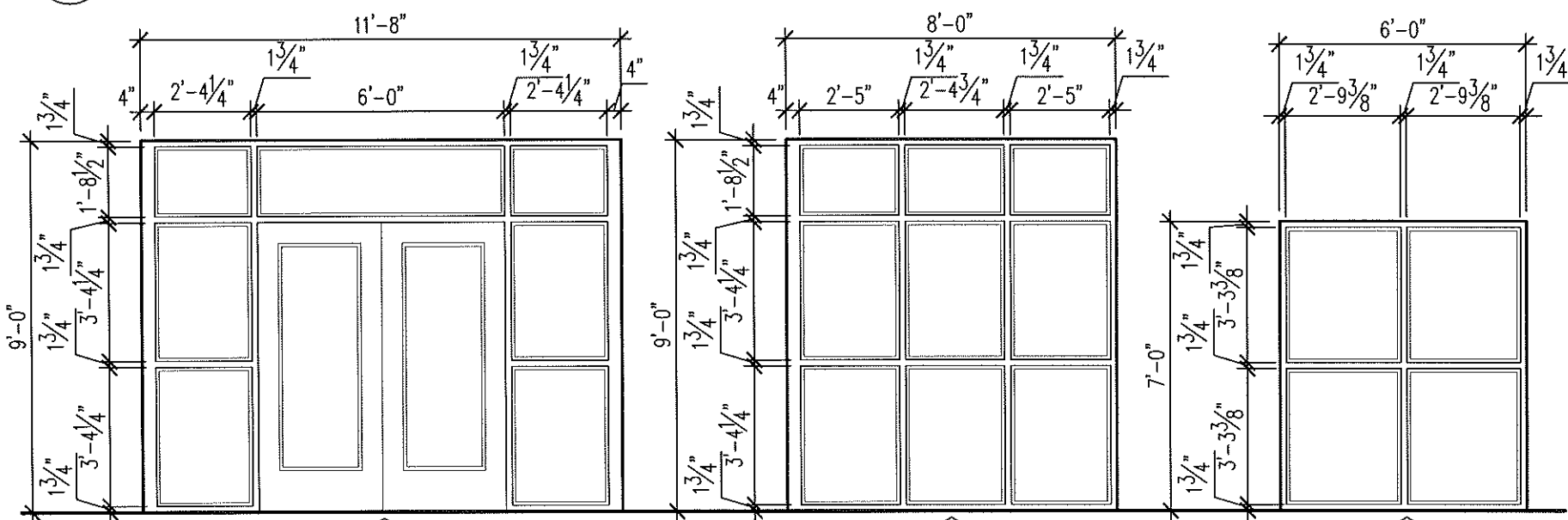
1 1/4" THICK SOLID CORE WOOD DOOR 2"x5 3/4" HOLLOW METAL FRAME.

⑦

FACE OF WALL MOUNTED COILING STEEL DOOR

1 **DOOR SCHEDULE**

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



A

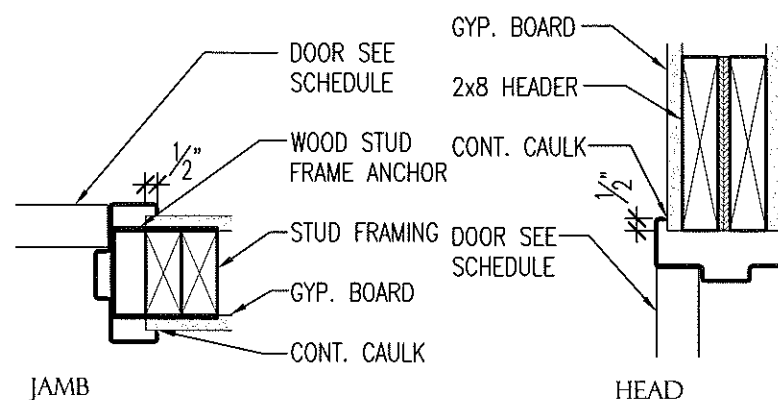
KAWNEER TRIFAB 400 ALUMINUM STOREFRONT WITH TEMPERED INSULATING GLASS.

B

KAWNEER TRIFAB 400 ALUMINUM STOREFRONT WITH INSULATING GLASS.

C

KAWNEER TRIFAB 400 ALUMINUM STOREFRONT WITH INSULATING GLASS.



③

**WOOD STUD DOOR DETAILS**

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

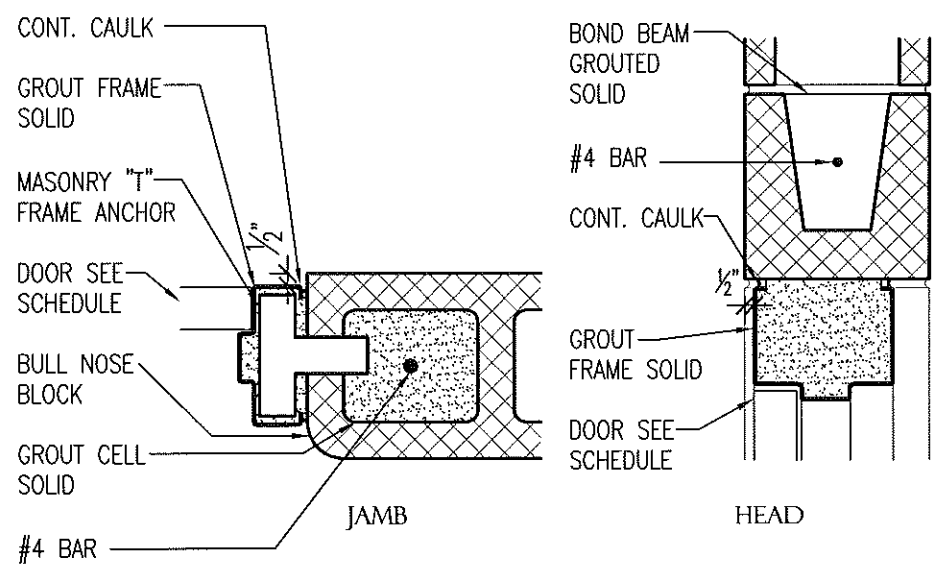
2 **WINDOW SCHEDULE**

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

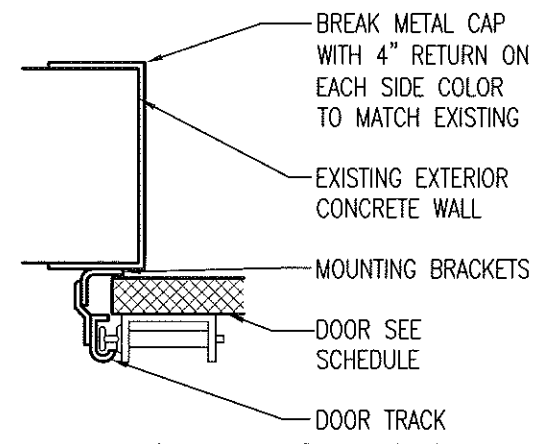
DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:



**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County

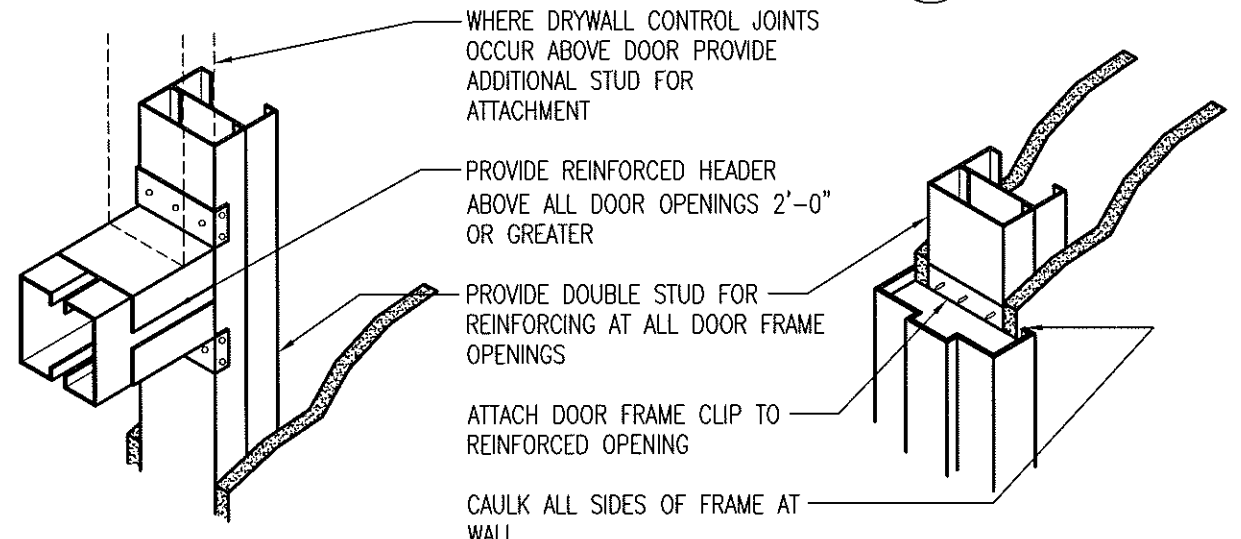


**1 MASONRY DOOR DETAILS**  
 A1.2 SCALE: 1/2" = 1'-0"

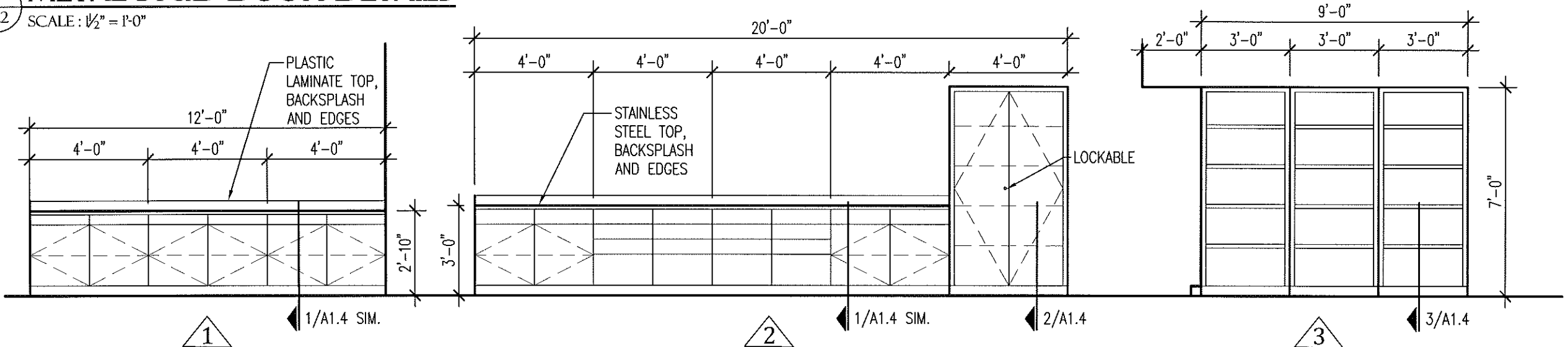


**2 ROLLING DOOR JAMB DETAIL**  
 A1.2 SCALE: 1/2" = 1'-0"

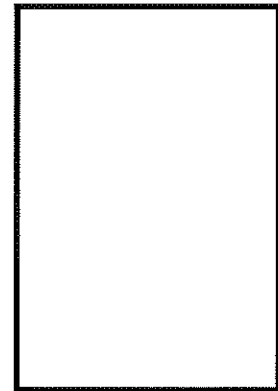
MATERIAL		ROOM FINISH MARK											COMMENTS
		A	B	C	D	E	F	G	H	I	J	K	
FLOOR	VINYL COMPOSITION TILE	●	●					●		●			
	CARPET			●	●								
	EPOXY COATING SYSTEM					●					●		
	SEALED CONCRETE						●		●				
BASE	4" RUBBER BASE	●	●	●	●		●						
	4" EPOXY BASE					●				●			
	NONE						●		●	●			
WALLS	CMU, PAINT SEMI-GLOSS		●	●				●	●		●		
	GYP, PAINT SEMI-GLOSS	●	●	●	●			●			●		
	GYP, TAPE AND FLOAT						●						
	EPOXY COATING SYSTEM					●							
	EXISTING BRICK									●			
W/SCOT	NONE	●	●	●	●	●	●	●	●	●	●	●	●
CEILING	2'x2' ACOUSTICAL TILE	●	●	●	●	●	●			●	●		
	EXPOSED STRUCTURE									●			



**3 METAL STUD DOOR DETAILS**  
 A1.2 SCALE: 1/2" = 1'-0"



**5 CABINET ELEVATIONS**  
 A1.2 SCALE: 1/4" = 1'-0"

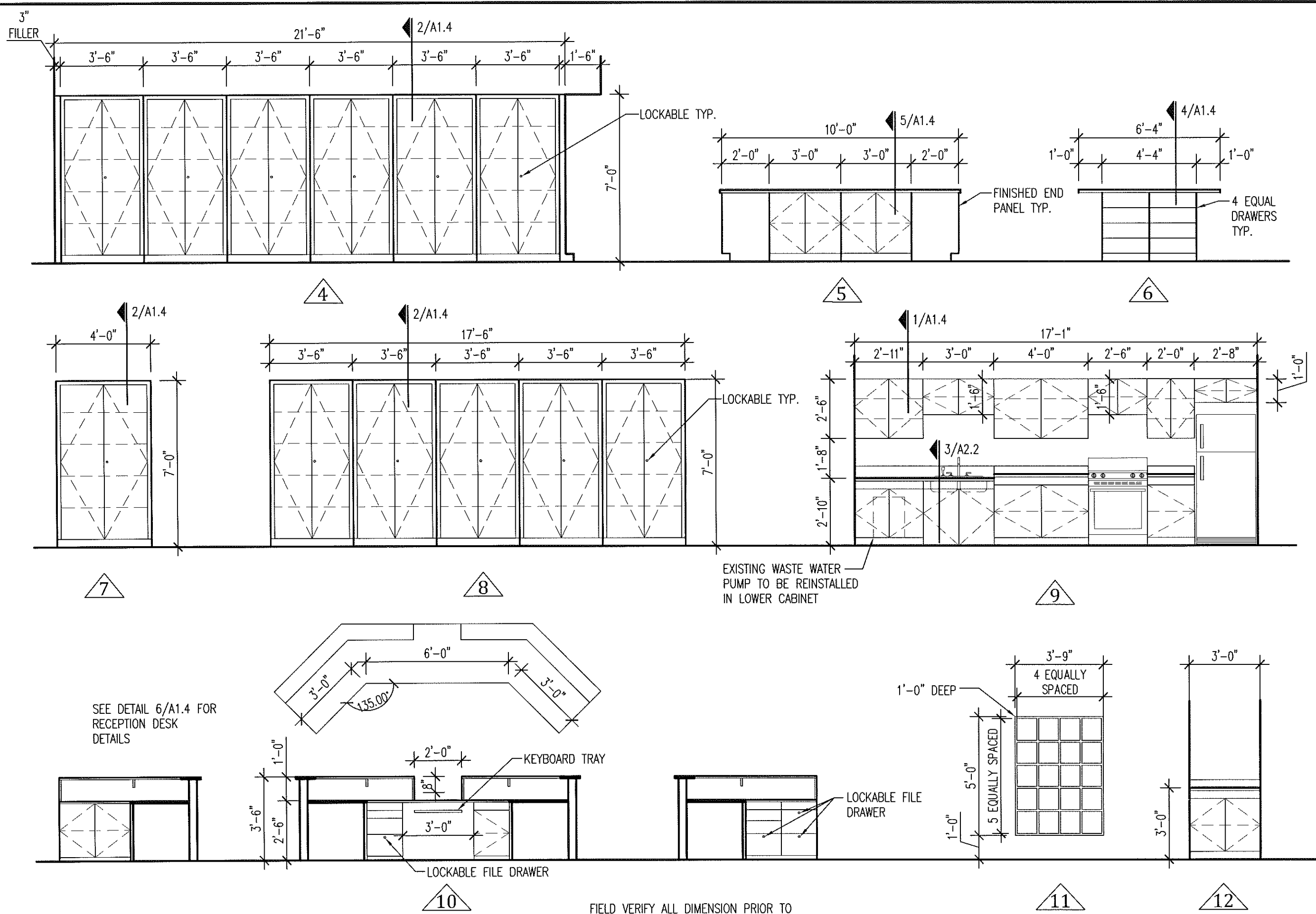


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 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

**A1.2**  
 10 OF 42

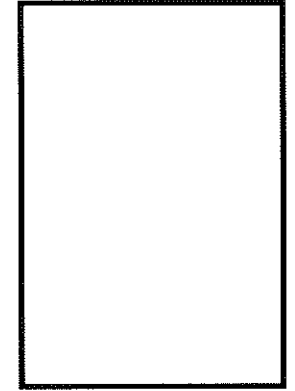


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**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County



**1 CABINET ELEVATIONS**  
 A1.3 SCALE: 1/4" = 1'-0"

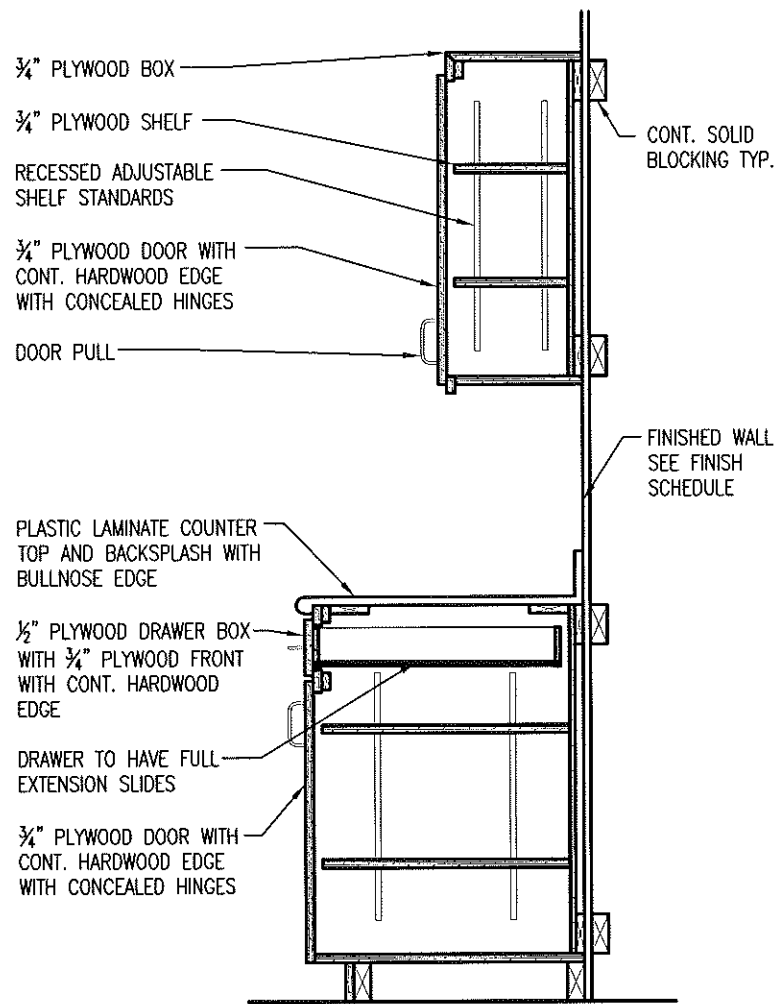
FIELD VERIFY ALL DIMENSION PRIOR TO CABINET FABRICATION



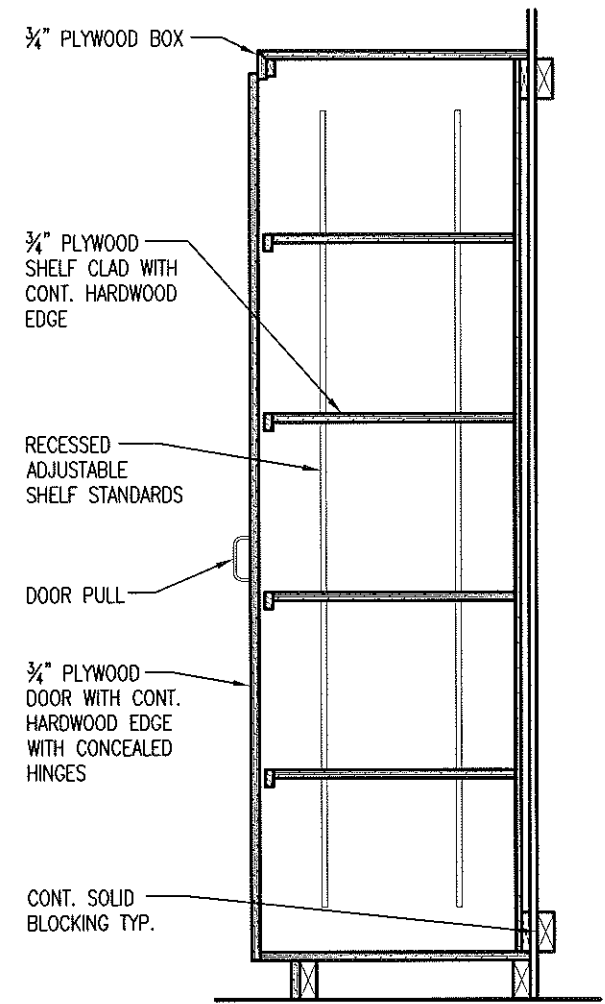
DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
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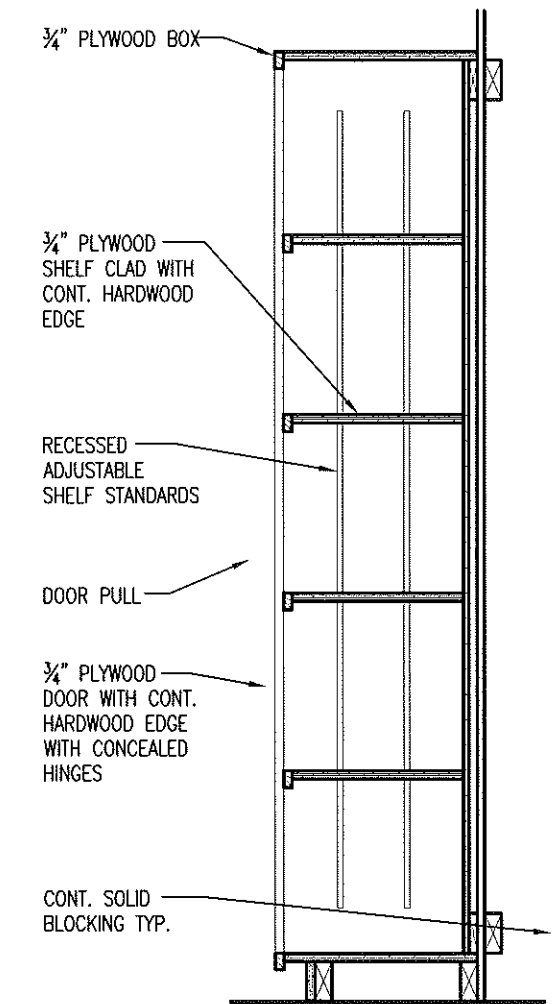
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Pulaski County



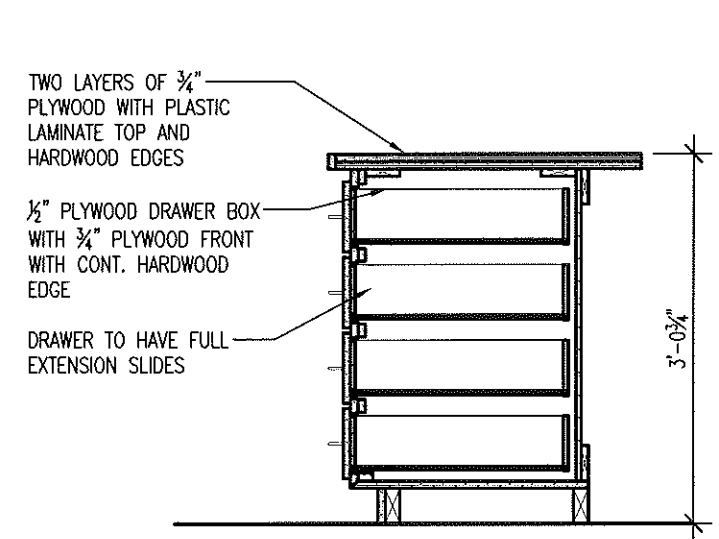
**1 TYPICAL CABINET SECTION**  
A1.4 SCALE: NO SCALE



**2 TALL STORAGE DETAIL**  
A1.4 SCALE: NO SCALE

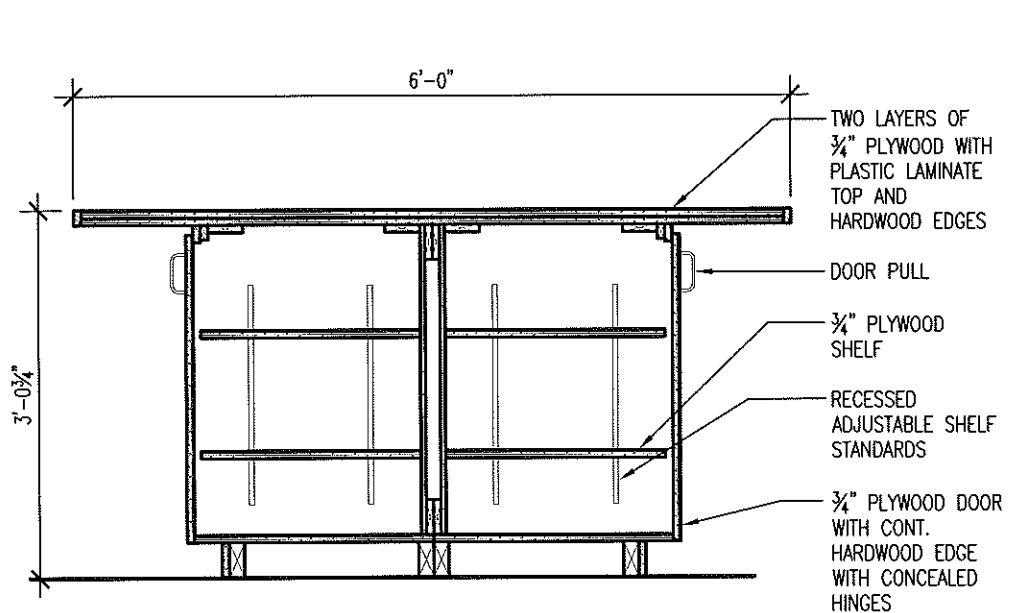


**3 OPEN SHELVING DETAIL**  
A1.4 SCALE: NO SCALE

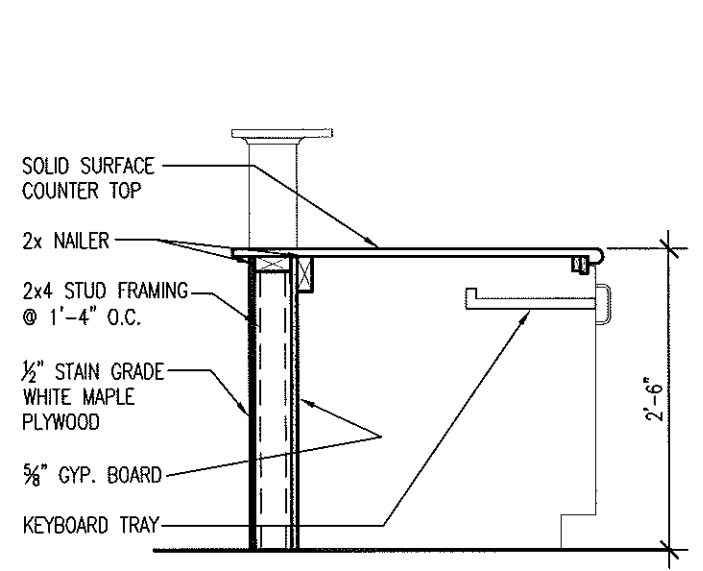


**4 BASE CABINET DETAIL**  
A1.4 SCALE: NO SCALE

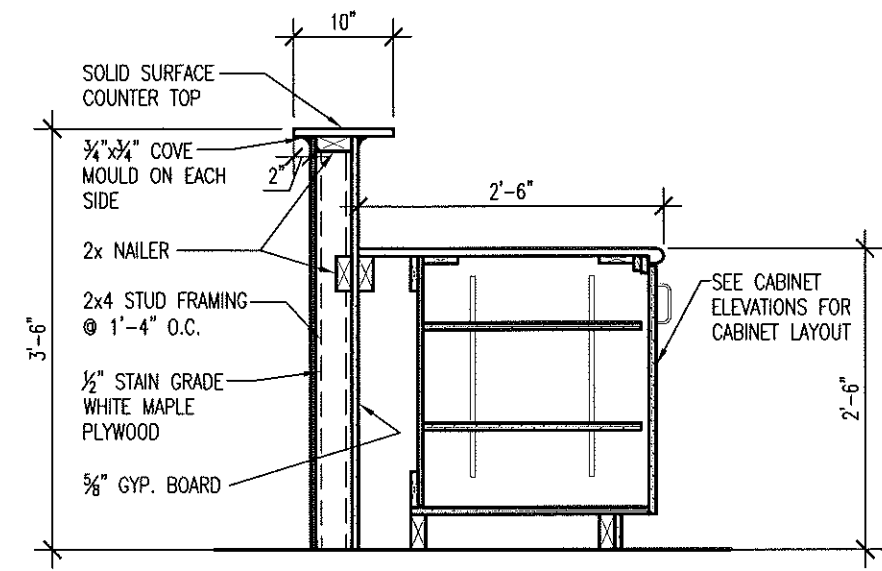
GENERAL NOTE:  
ALL CABINETS SHALL BE CLAD IN  
PLASTIC LAMINATE U.N.O.



**5 BASE CABINET DETAIL**  
A1.4 SCALE: NO SCALE



**6 RECEPTION DESK DETAILS**  
A1.4 SCALE: NO SCALE



CABINETS FOR RECEPTION DESK SHALL  
BE CONSTRUCTED FROM 3/4\"/>

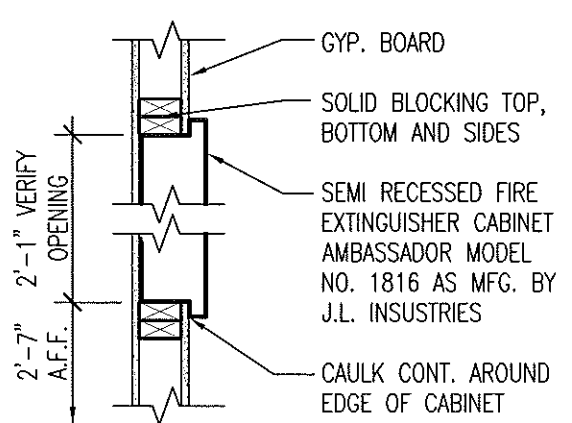
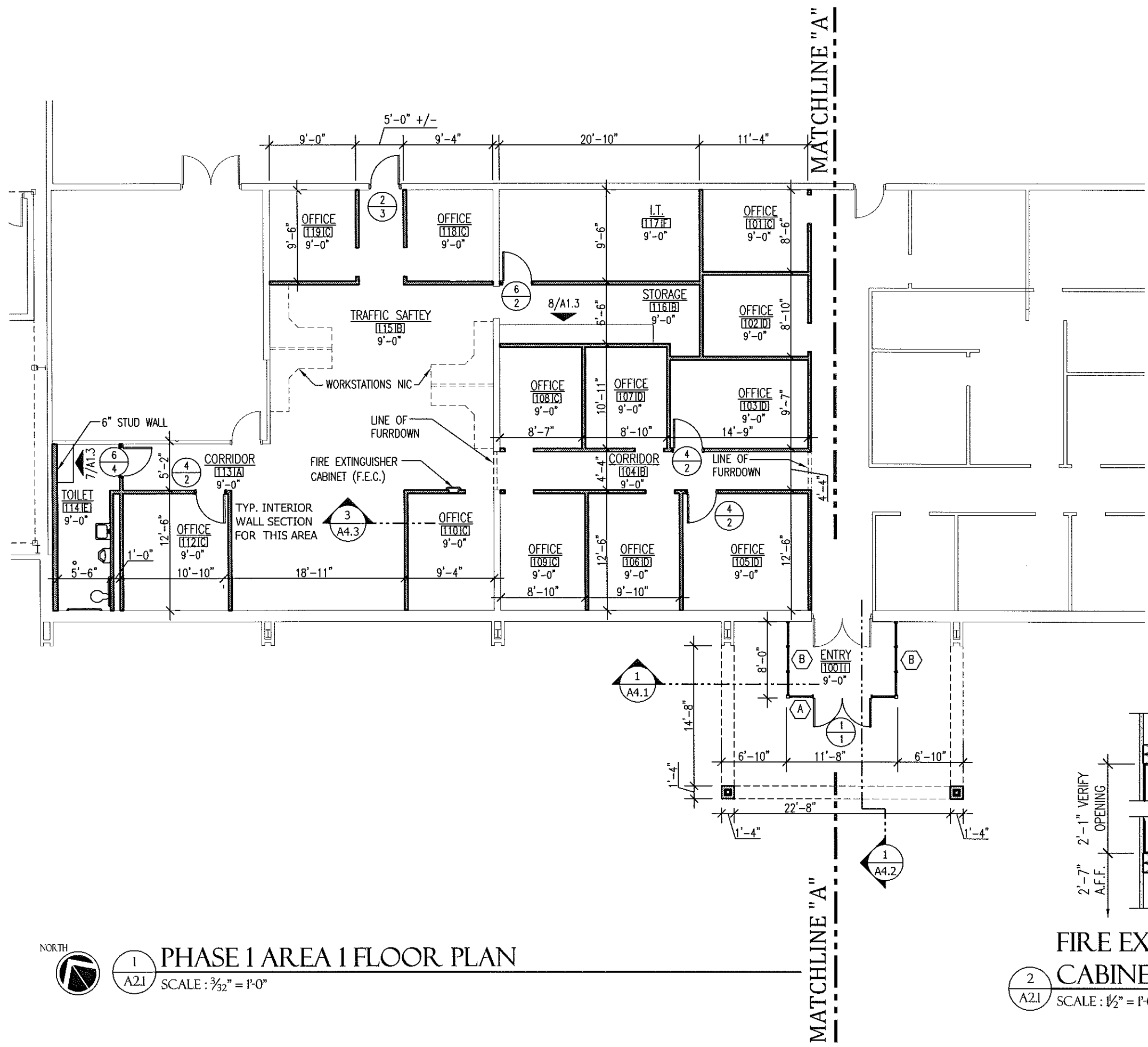
DATE: JULY 17, 2015  
JOB NO: 42-92  
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**A1.4**





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**2**  
**A2.1**  
 FIRE EXTINGUISHER  
 CABINET DETAIL  
 SCALE: 1/2" = 1'-0"

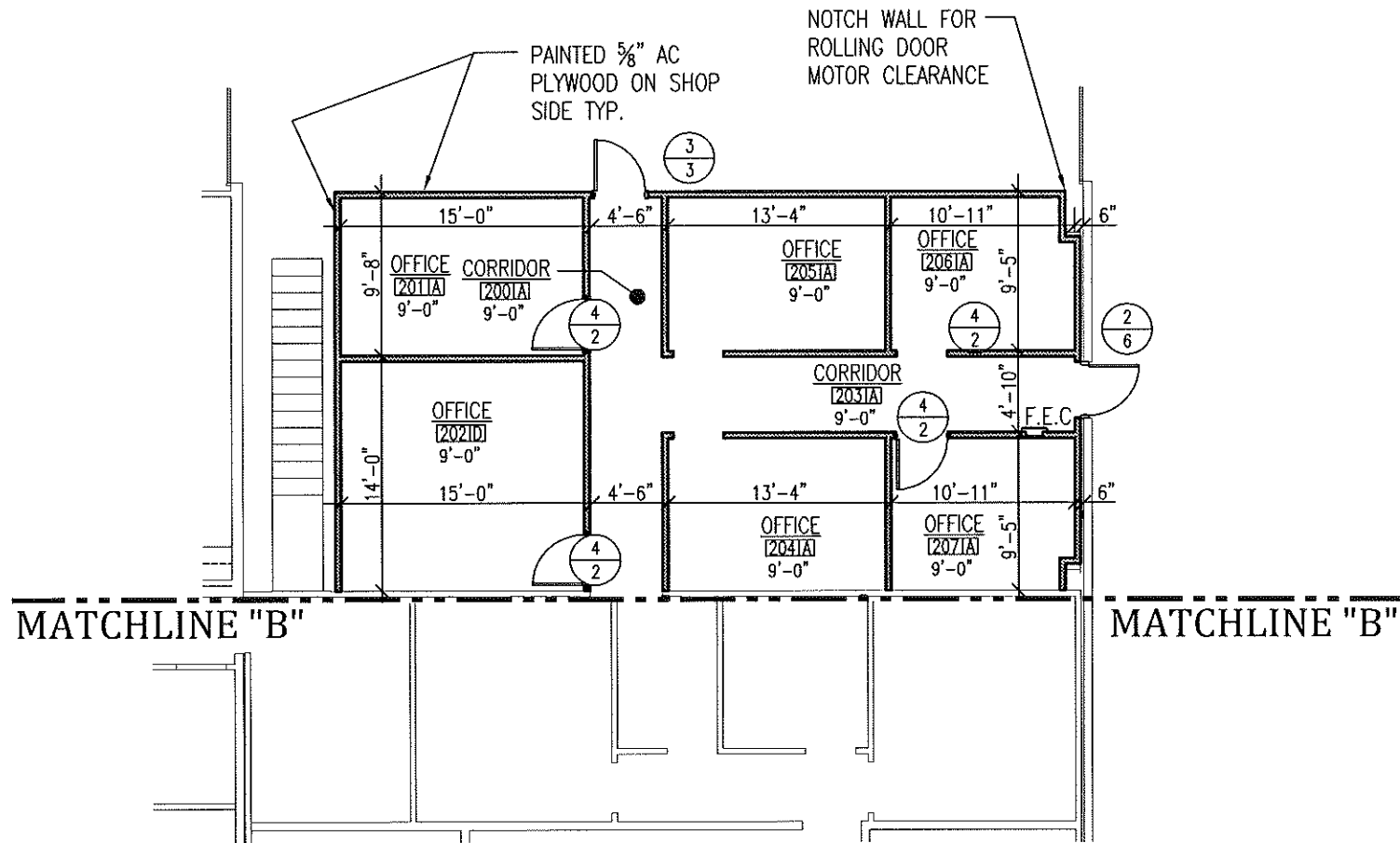
**1**  
**A2.1**  
 PHASE 1 AREA 1 FLOOR PLAN  
 SCALE: 3/32" = 1'-0"

DATE: JULY 17, 2015  
 JOB NO: 42-92  
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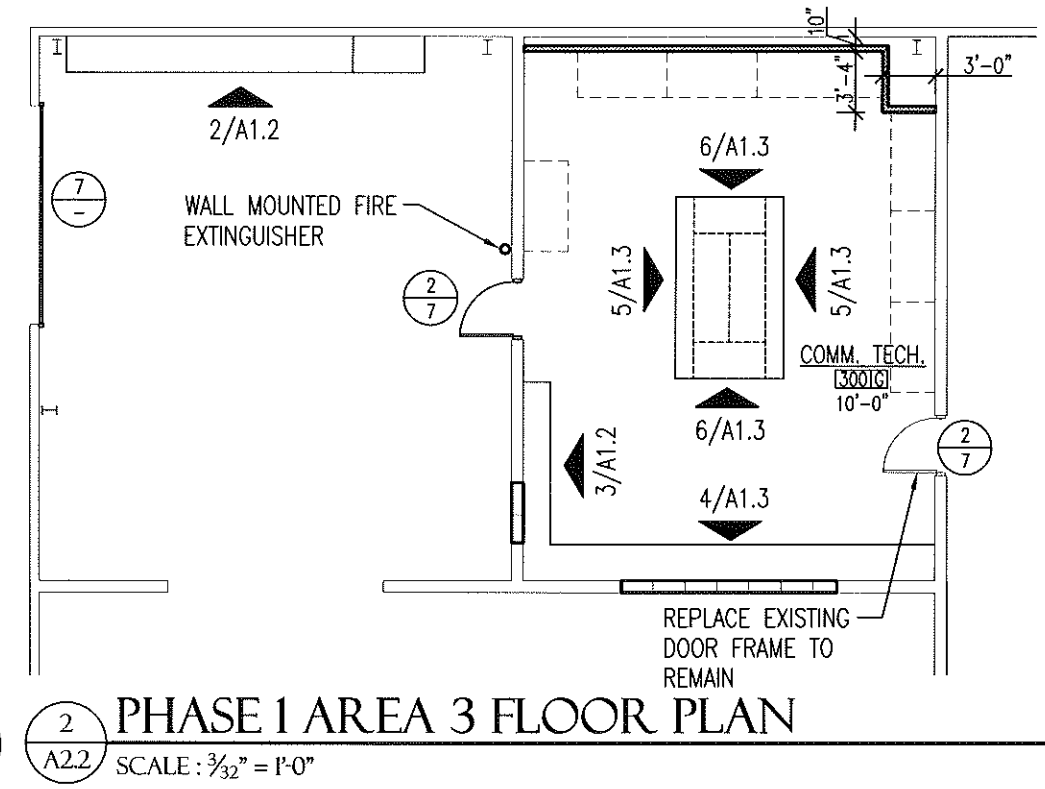
**A2.1**  
 13 OF 42



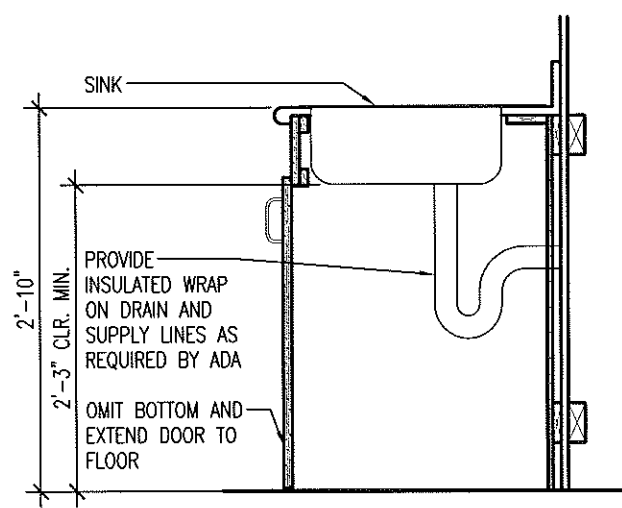
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Pulaski County



**1 PHASE 1 AREA 2 FLOOR PLAN**  
A2.2 SCALE: 3/32" = 1'-0"



**2 PHASE 1 AREA 3 FLOOR PLAN**  
A2.2 SCALE: 3/32" = 1'-0"

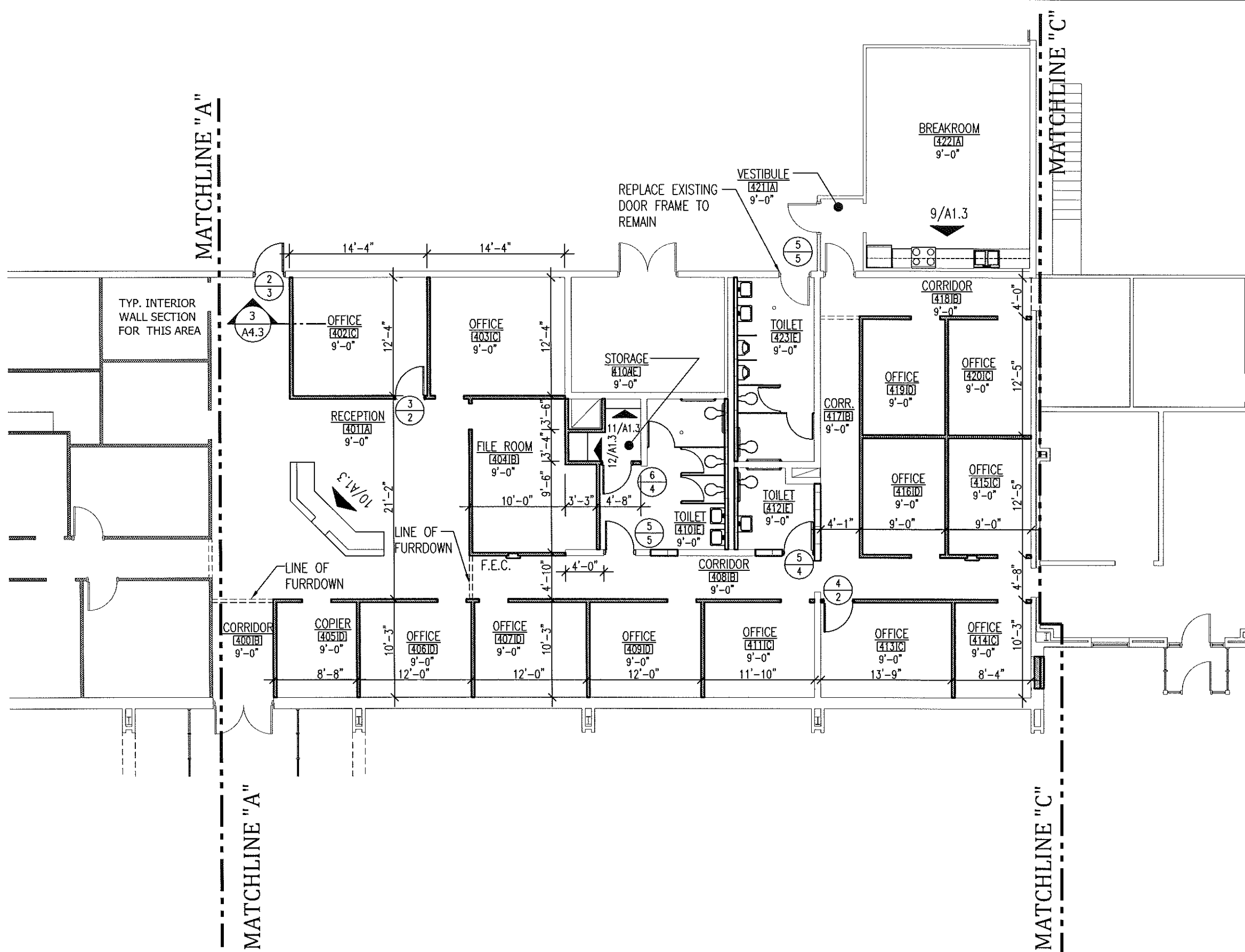


**3 SINK BASE SECTION**  
A2.2 SCALE: NO SCALE

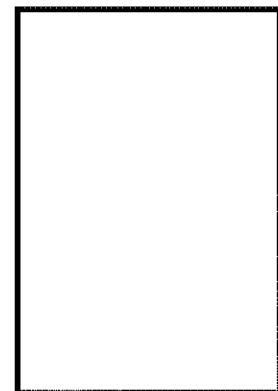
DATE: JULY 17, 2015  
JOB NO: 42-92  
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**PHASE 2 FLOOR PLAN**  
SCALE: 3/32" = 1'-0"

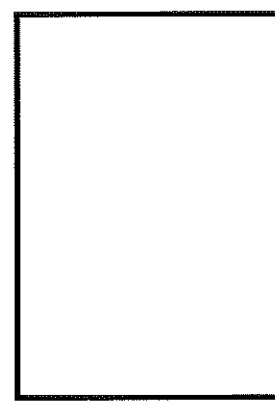


DATE: JULY 17, 2015  
JOB NO: 42-92  
DRAWN BY: KB  
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**A2.3**  
15 OF 42

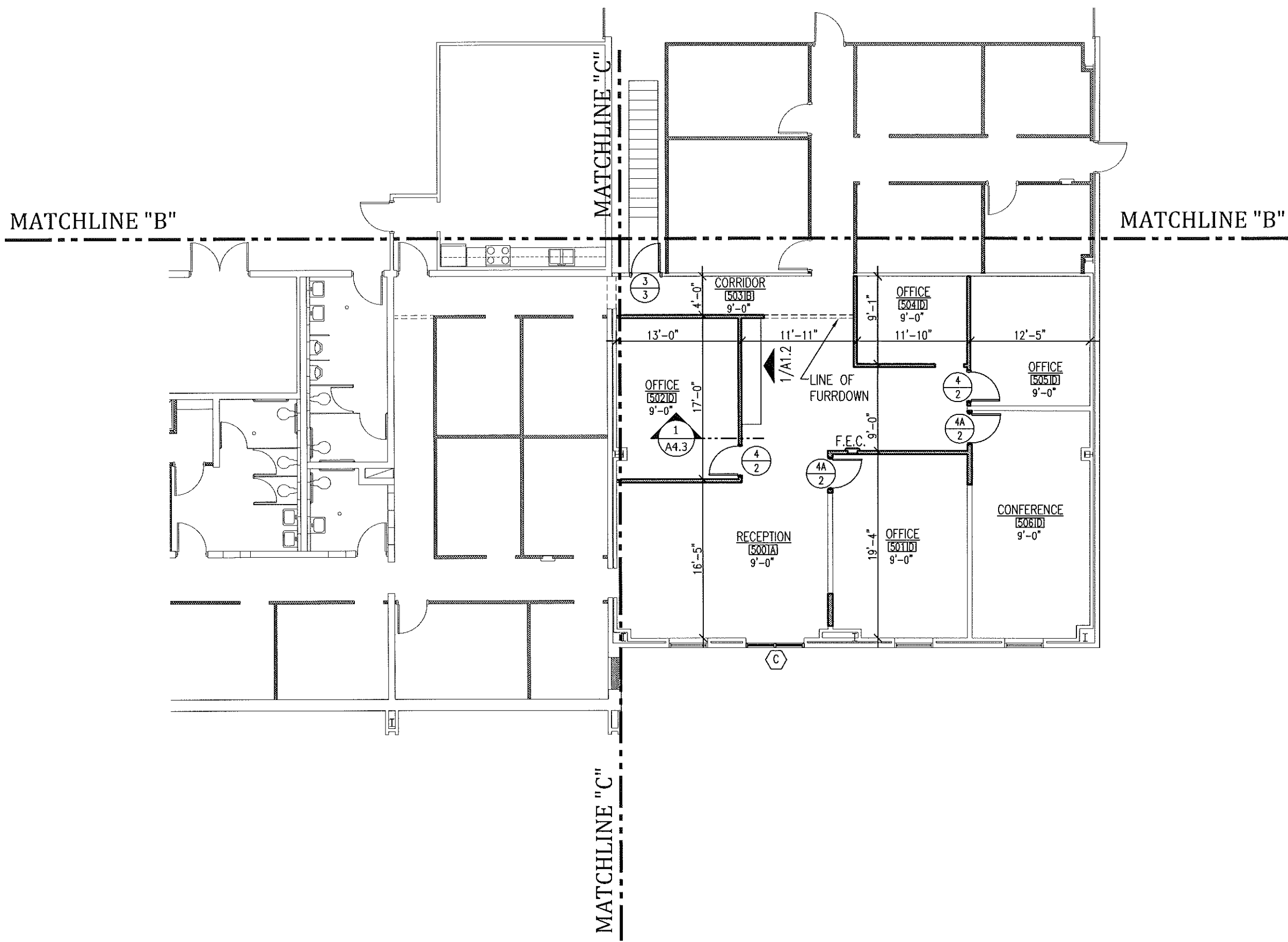


**MAINTENANCE DIVISION  
ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



DATE: JULY 17, 2015  
JOB NO: 42-92  
DRAWN BY: KB  
REVISIONS:

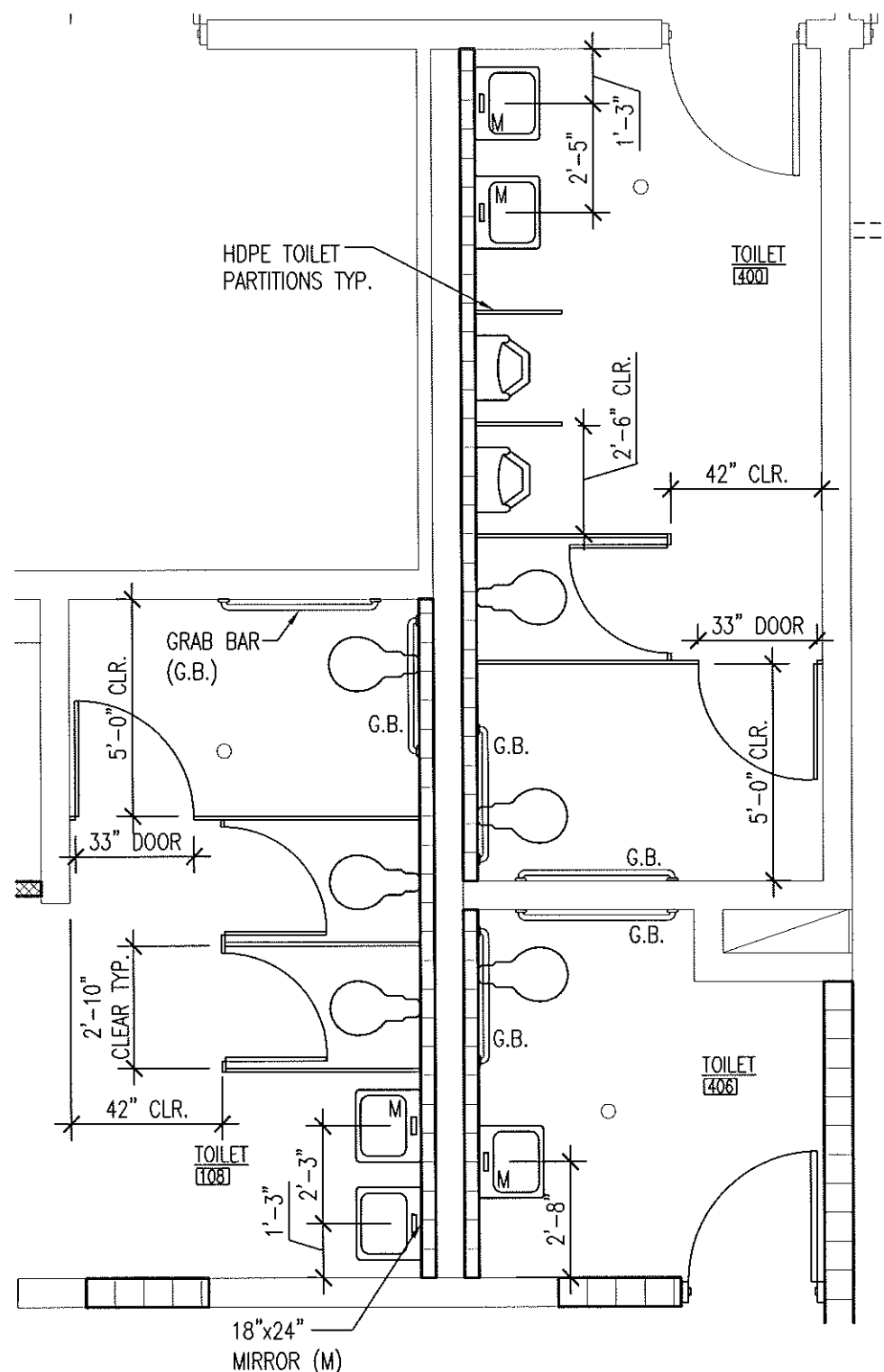
**A2.4**  
16 OF 42



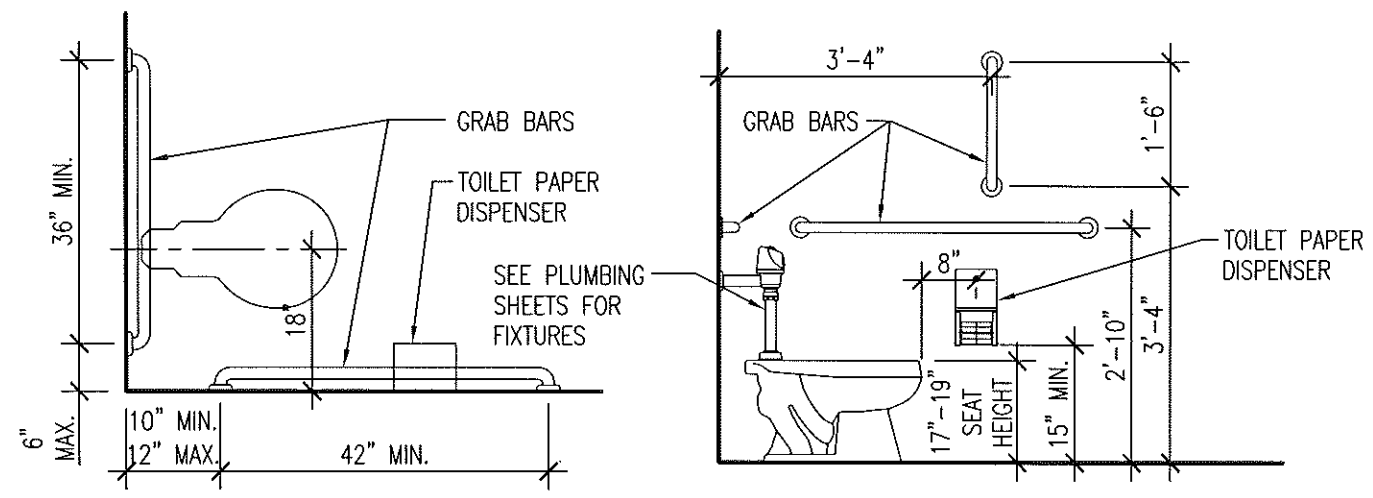
**1** PHASE 3 FLOOR PLAN  
A2.4 SCALE: 3/32" = 1'-0"



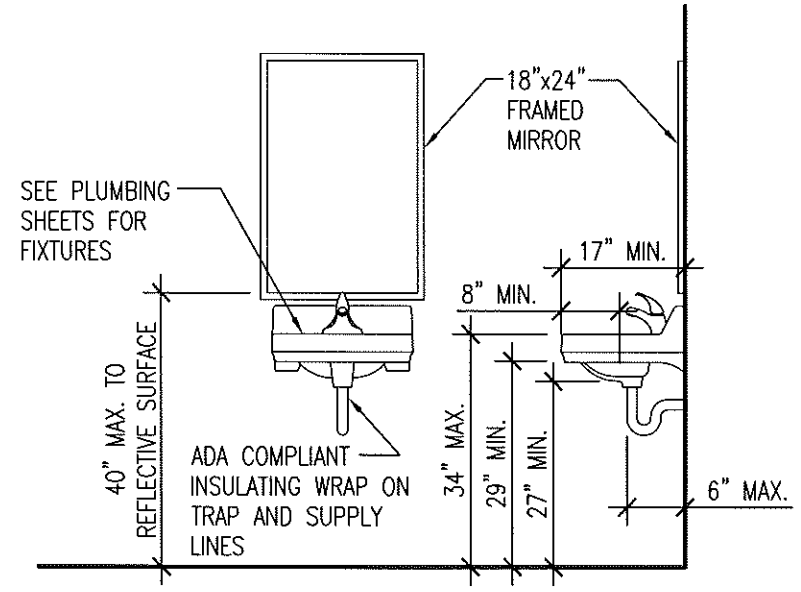
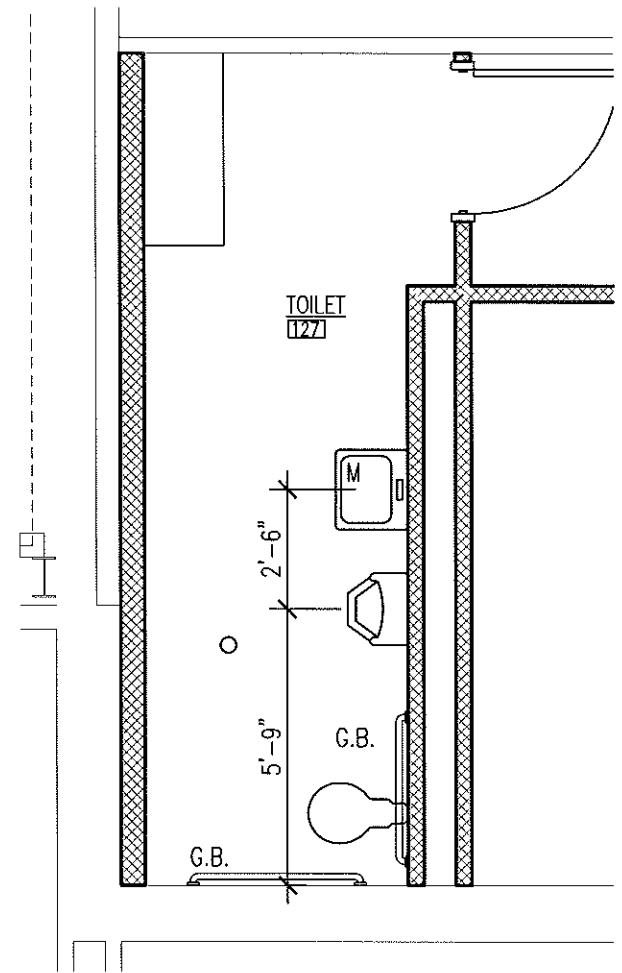
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Little Rock, Arkansas  
Pulaski County



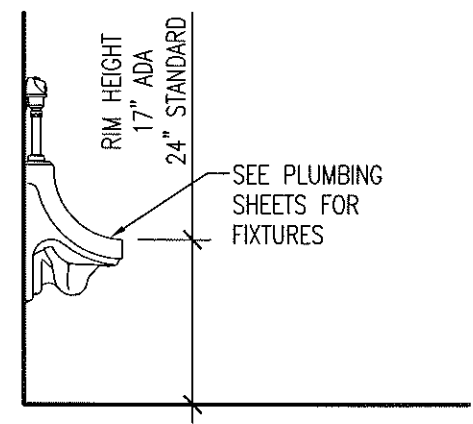
**1 ENLARGED TOILET PLANS**  
SCALE: 1/4" = 1'-0"



**2 ADA TOILET DETAIL**  
SCALE: NO SCALE



**3 LAVATORY DETAIL**  
SCALE: NO SCALE

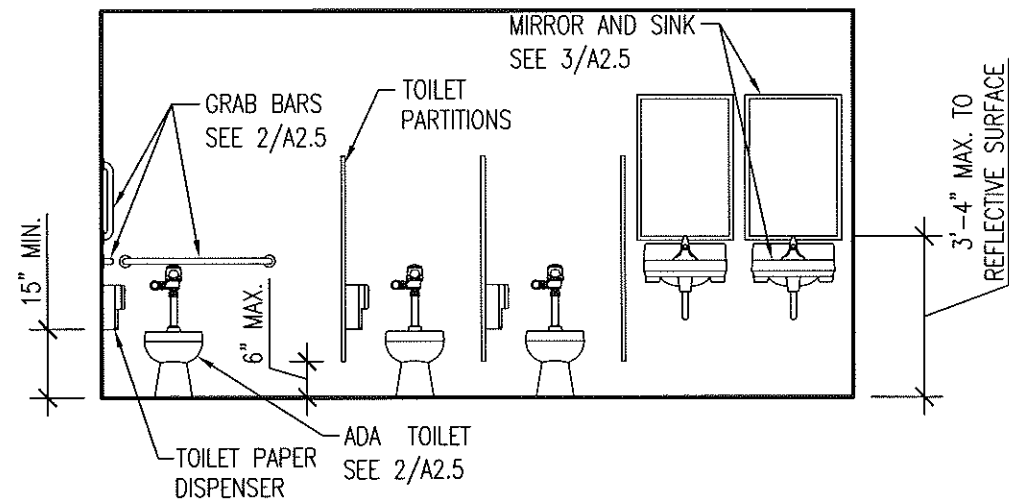


**4 URINAL DETAIL**  
SCALE: NO SCALE

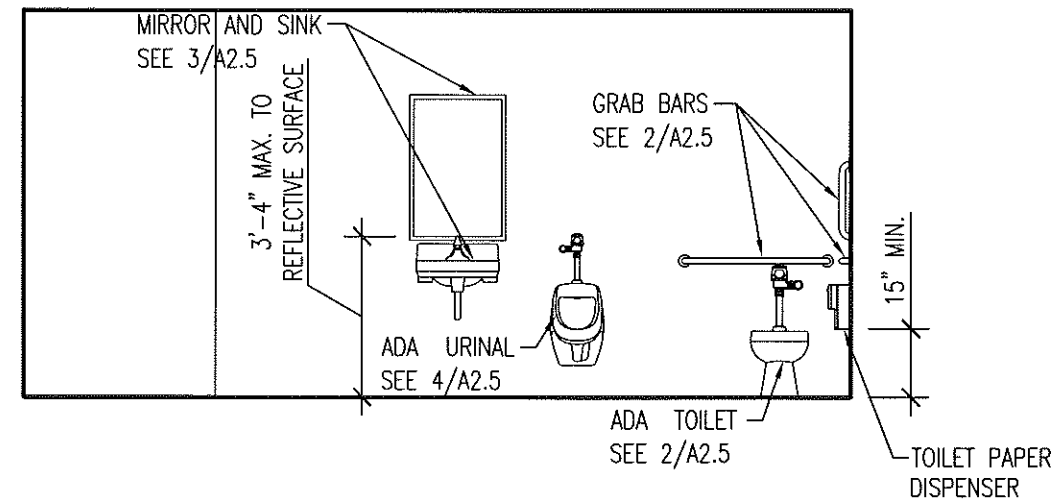
DATE: JULY 17, 2015  
JOB NO: 42-92  
DRAWN BY: KB  
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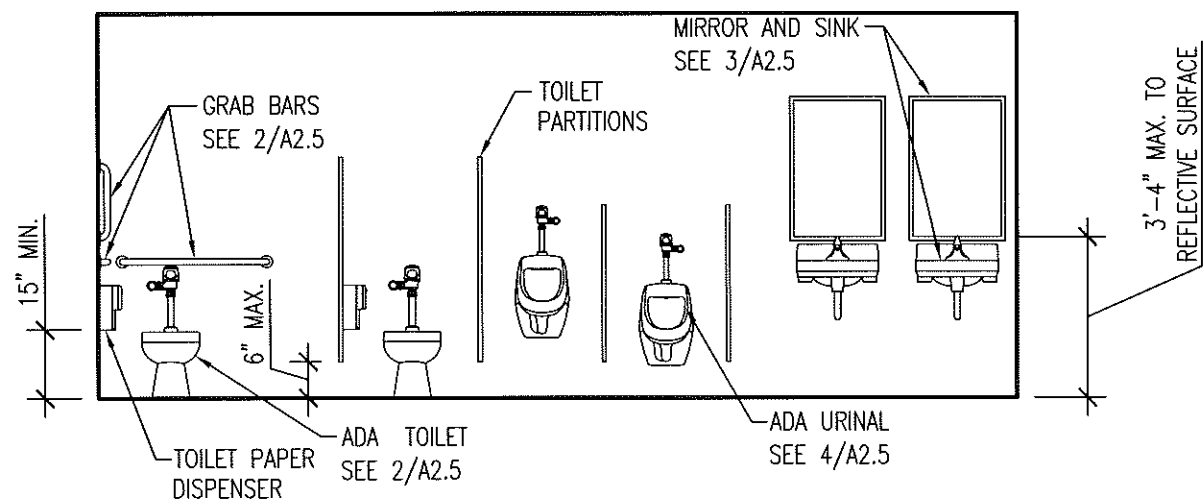
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 Little Rock, Arkansas  
 Pulaski County



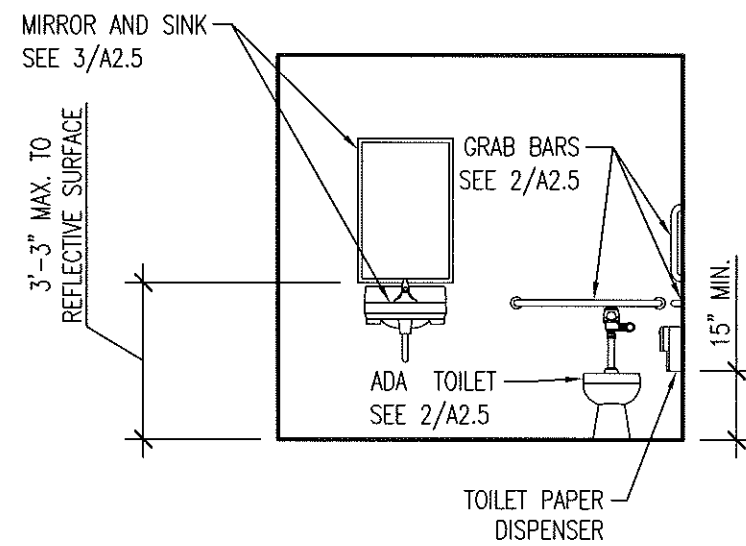
**1 TOILET 108 ELEVATION**  
 A2.6 SCALE: 1/4" = 1'-0"



**2 TOILET 125 ELEVATION**  
 A2.6 SCALE: 1/4" = 1'-0"



**3 TOILET 400 ELEVATION**  
 A2.6 SCALE: 1/4" = 1'-0"

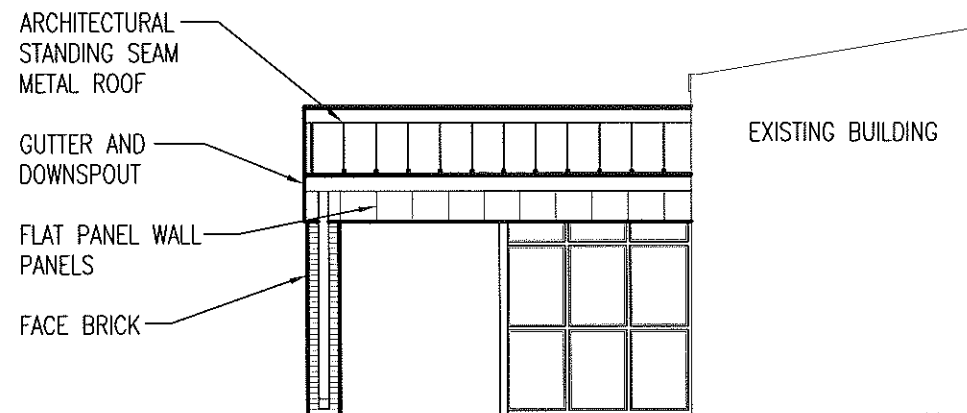


**4 TOILET 406 ELEVATION**  
 A2.6 SCALE: 1/4" = 1'-0"

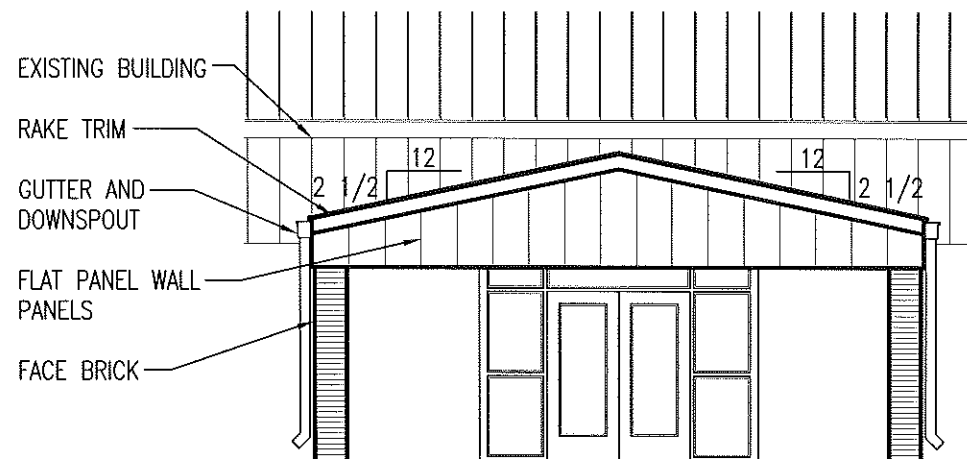
DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:



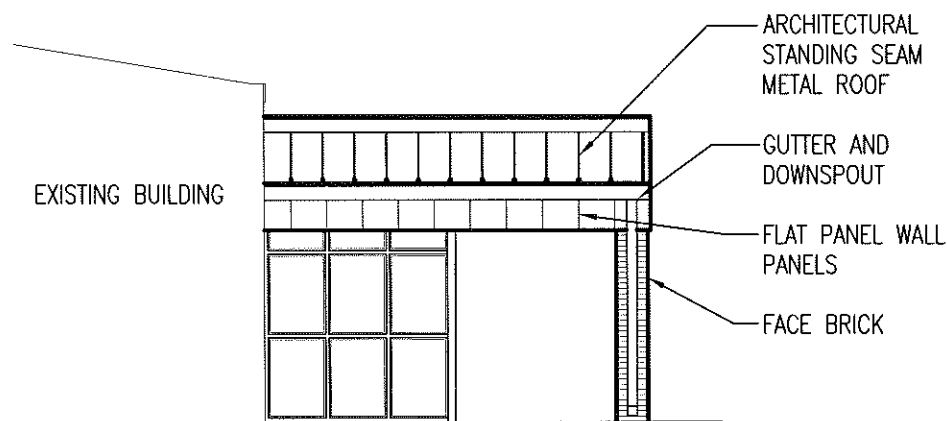
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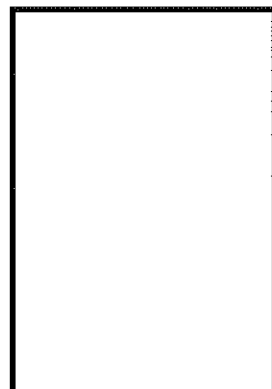
**1 EAST ELEVATION**  
 A3.1 SCALE: 1/8" = 1'-0"



**2 SOUTH ELEVATION**  
 A3.1 SCALE: 1/8" = 1'-0"



**3 WEST ELEVATION**  
 A3.1 SCALE: 1/8" = 1'-0"



DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

**A3.1**  
 19 OF 42

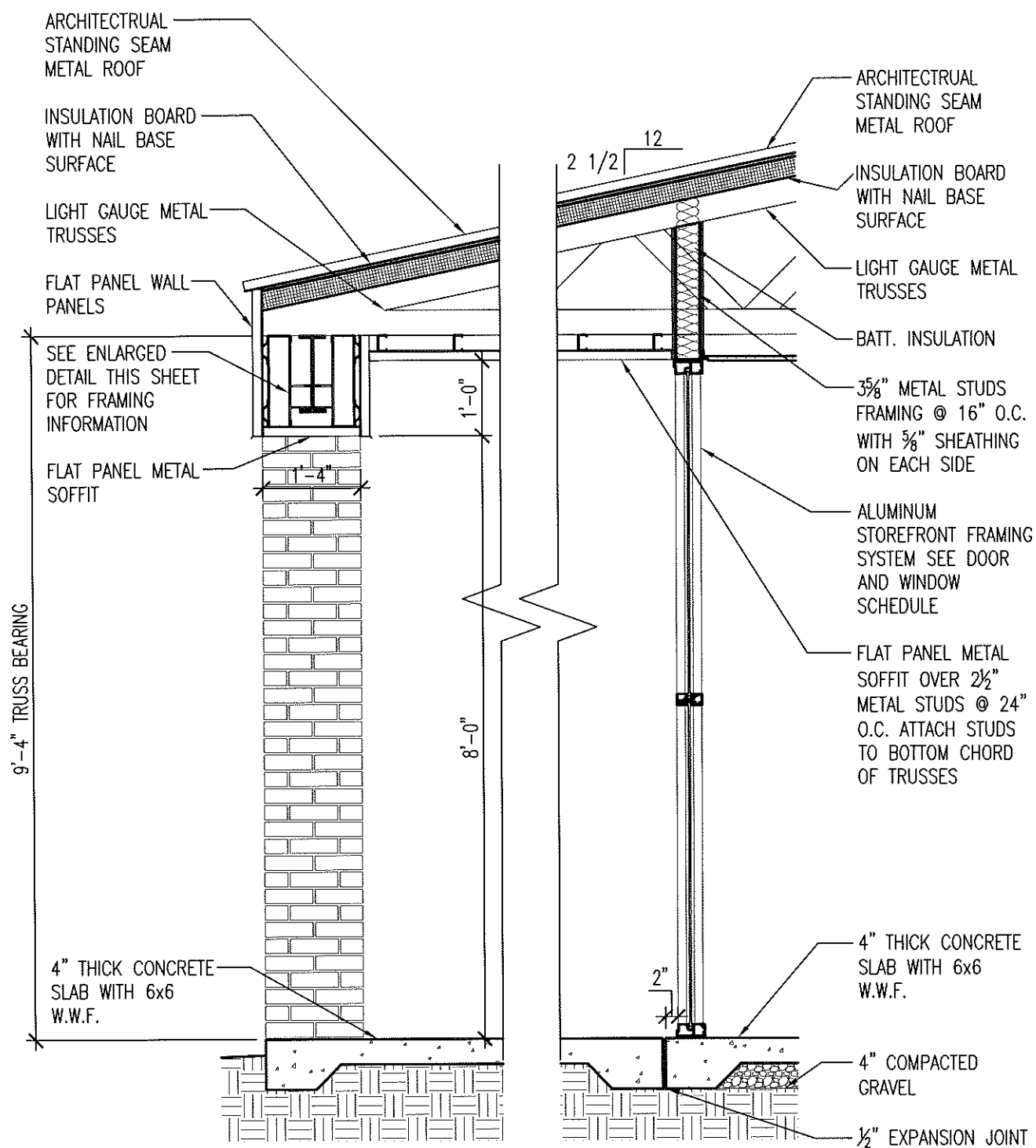


**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County

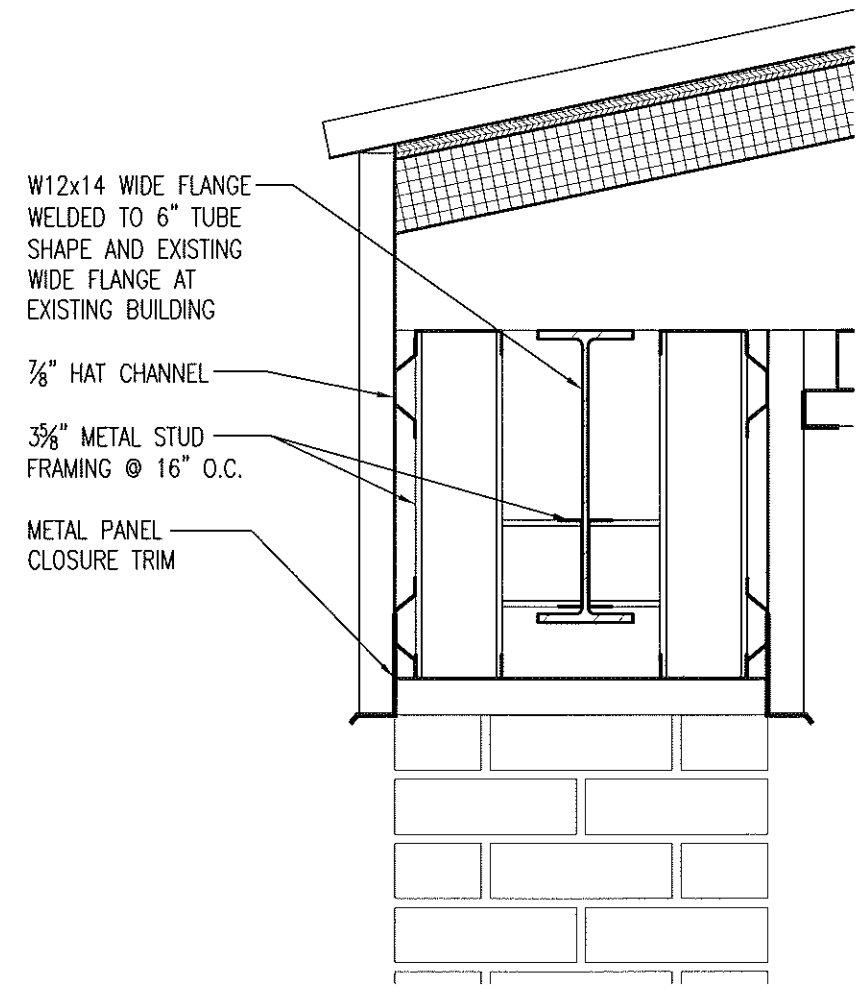


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 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

**A4.1**  
 20 OF 42



**1 SECTION**  
 A4.1 SCALE: 1/2" = 1'-0"

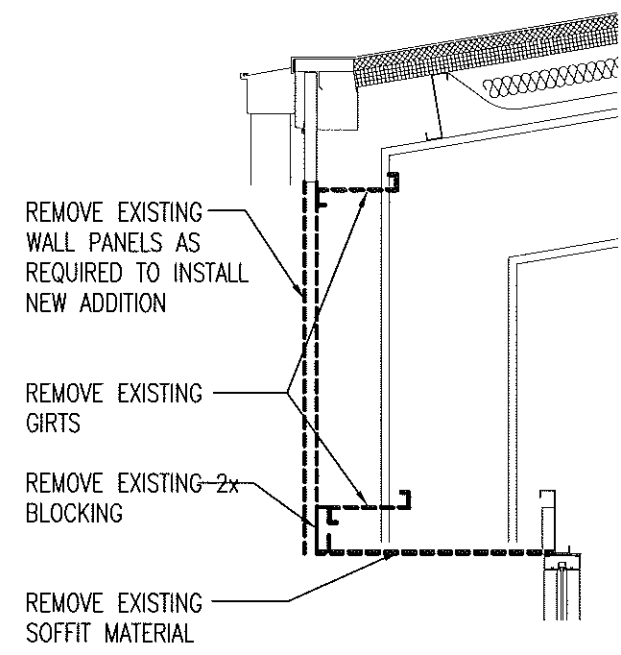
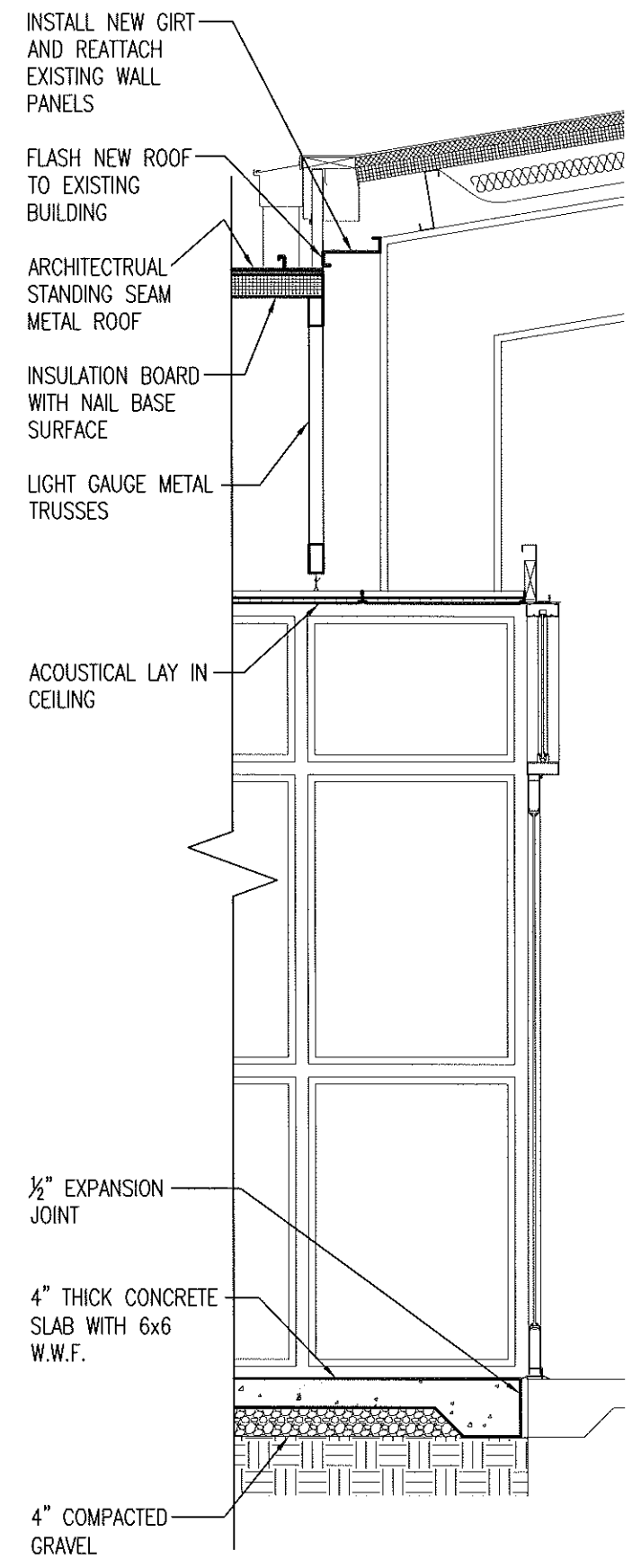
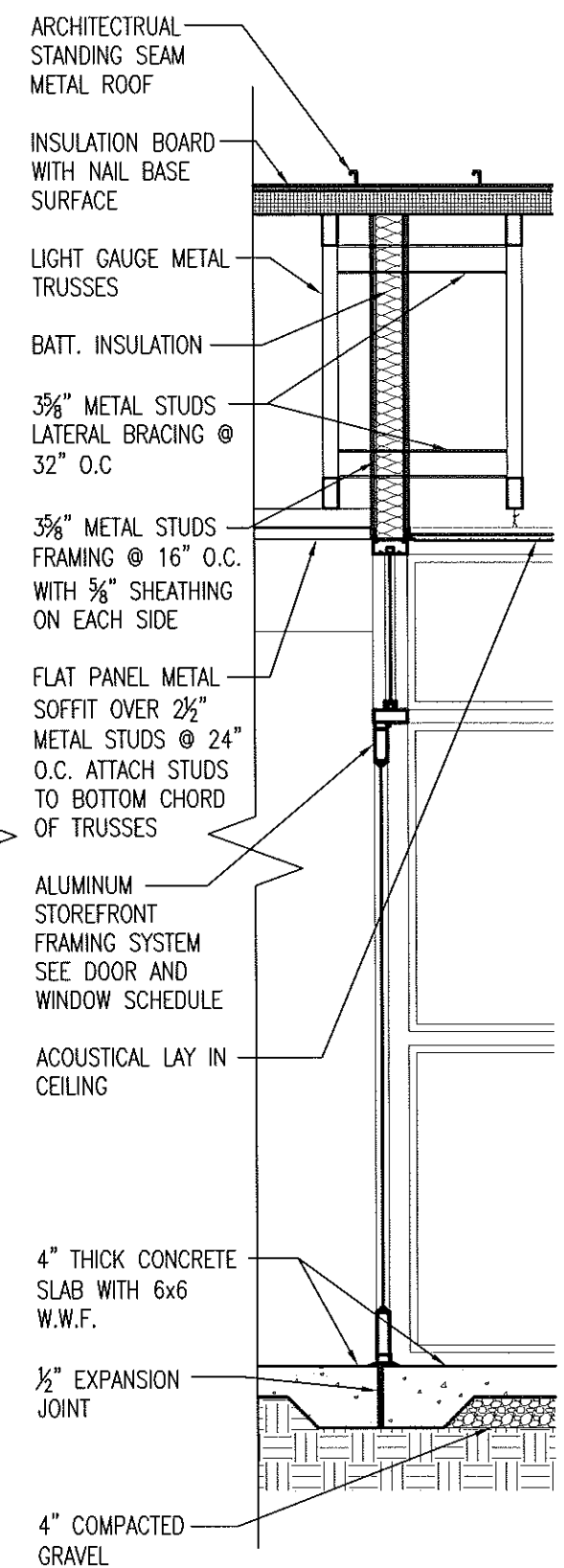
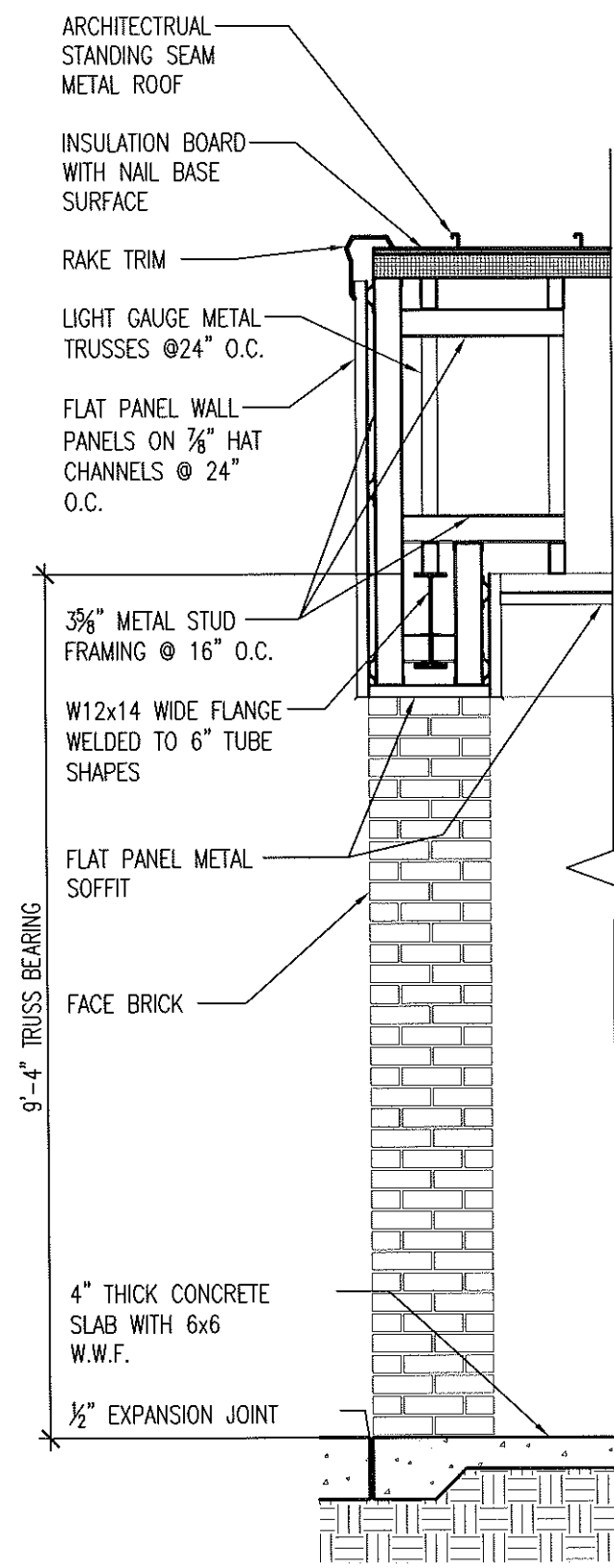


**2 ENLARGED FRAMING DETAIL**  
 A4.1 SCALE: 1/2" = 1'-0"





**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
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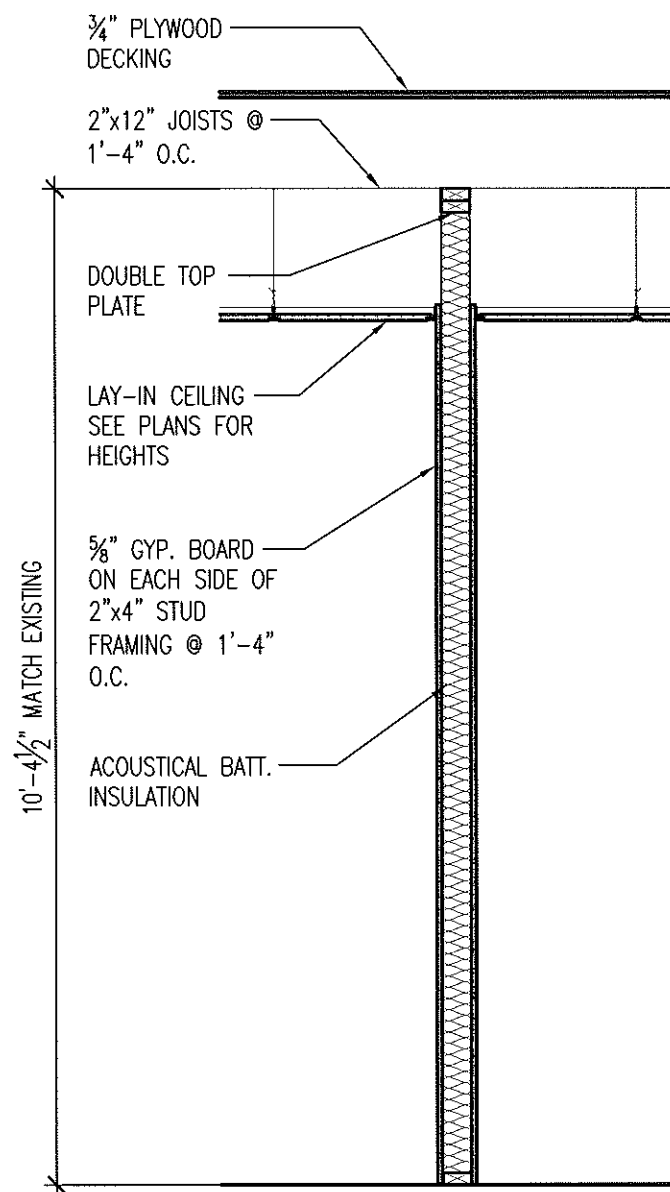
**2 DEMO SECTION**  
 A4.2 SCALE: 1/2" = 1'-0"

**1 SECTION**  
 A4.2 SCALE: 1/2" = 1'-0"

DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:

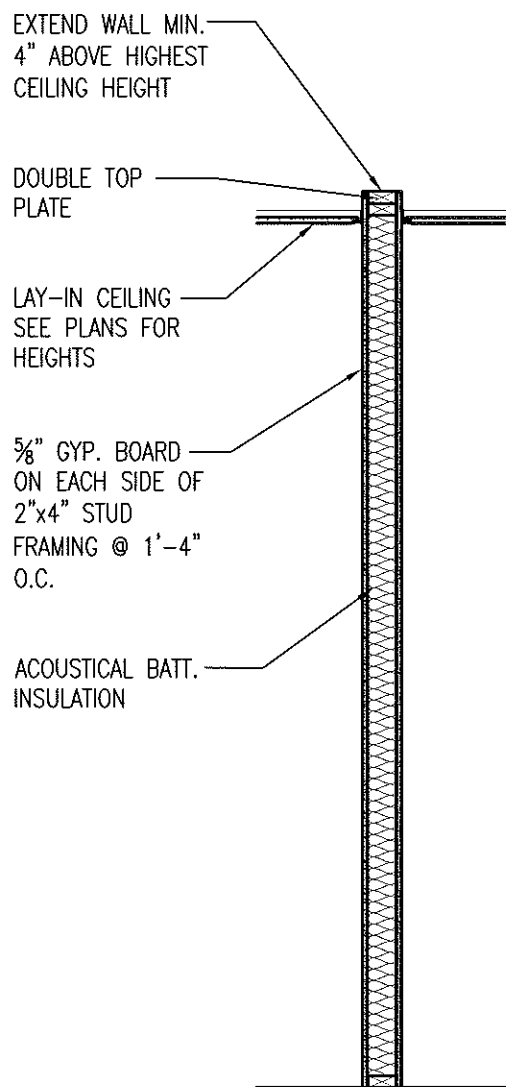


**MAINTENANCE DIVISION**  
**ADMIN. OFFICE RENOVATION**  
 Little Rock, Arkansas  
 Pulaski County



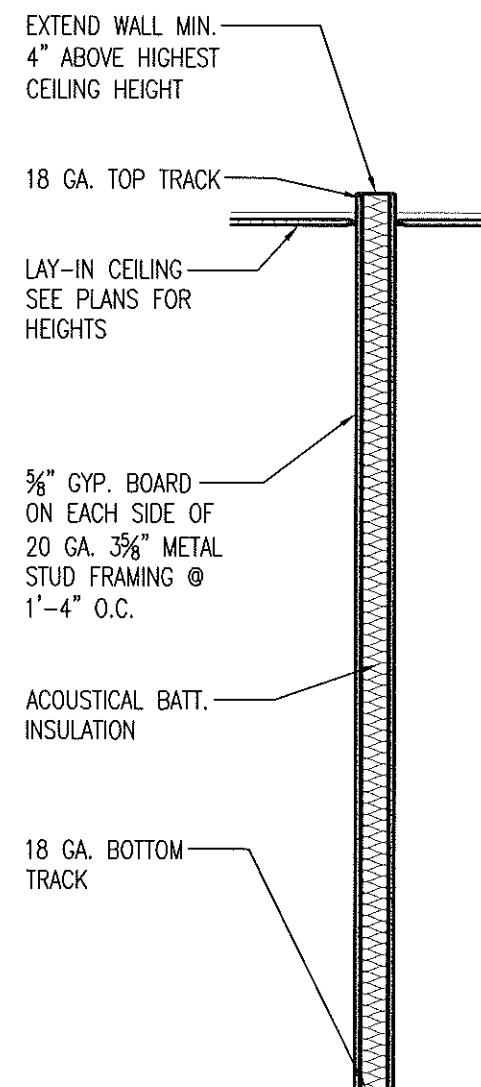
**TYPICAL WALL SECTION BEARING WALLS**

1  
 A4.3 SCALE : 1/2" = 1'-0"



**TYPICAL WALL SECTION WOOD STUD WALLS**

2  
 A4.3 SCALE : 1/2" = 1'-0"



**TYPICAL WALL SECTION METAL STUD WALLS**

3  
 A4.3 SCALE : 1/2" = 1'-0"

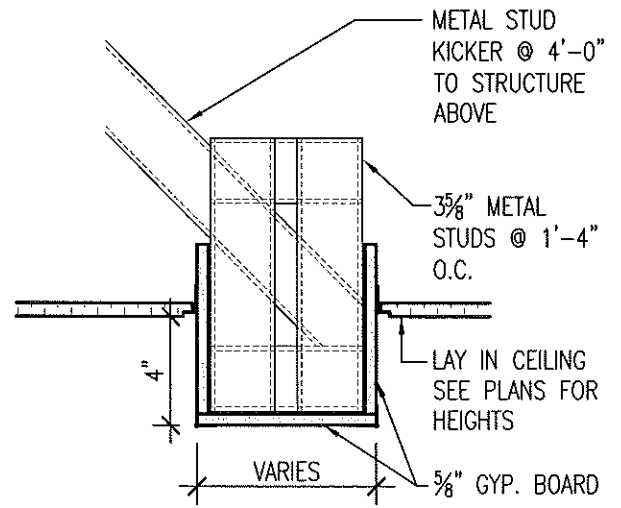
DATE: JULY 17, 2015  
 JOB NO: 42-92  
 DRAWN BY: KB  
 REVISIONS:



**MAINTENANCE DIVISION  
ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



CEILING LEGEND	
	2'x4' LIGHT FIXTURE
	2'x2' LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE
	EF EXHAUST FAN
	FLAT PANEL METAL SOFFIT



**1 PHASE 1 AREA 1 REFLECTED CEILING PLAN**  
A5.1 SCALE: 3/32" = 1'-0"

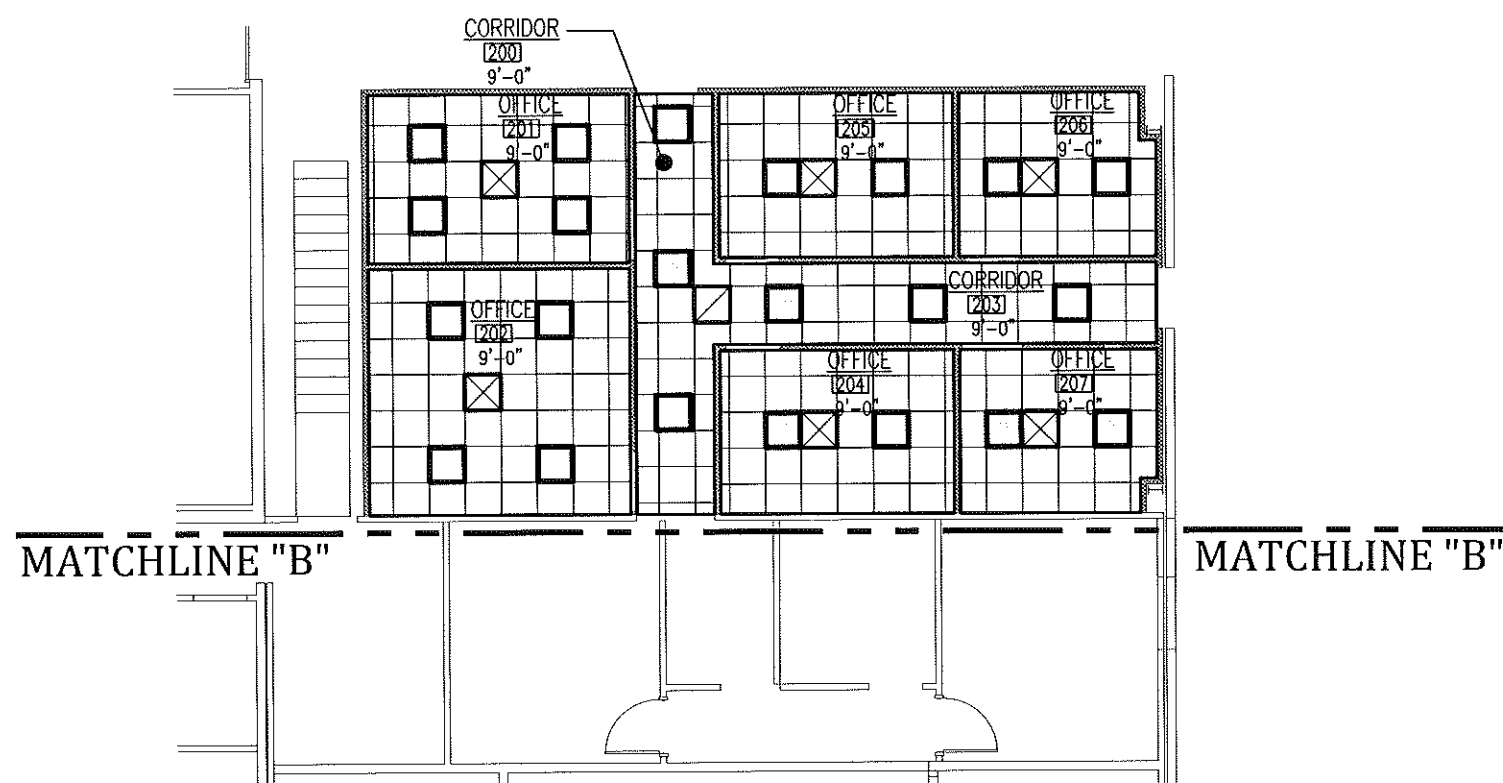
**2 FURR-DOWN DETAIL**  
A5.1 SCALE: NO SCALE

DATE: JULY 17, 2015  
JOB NO: 42-92  
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REVISIONS:

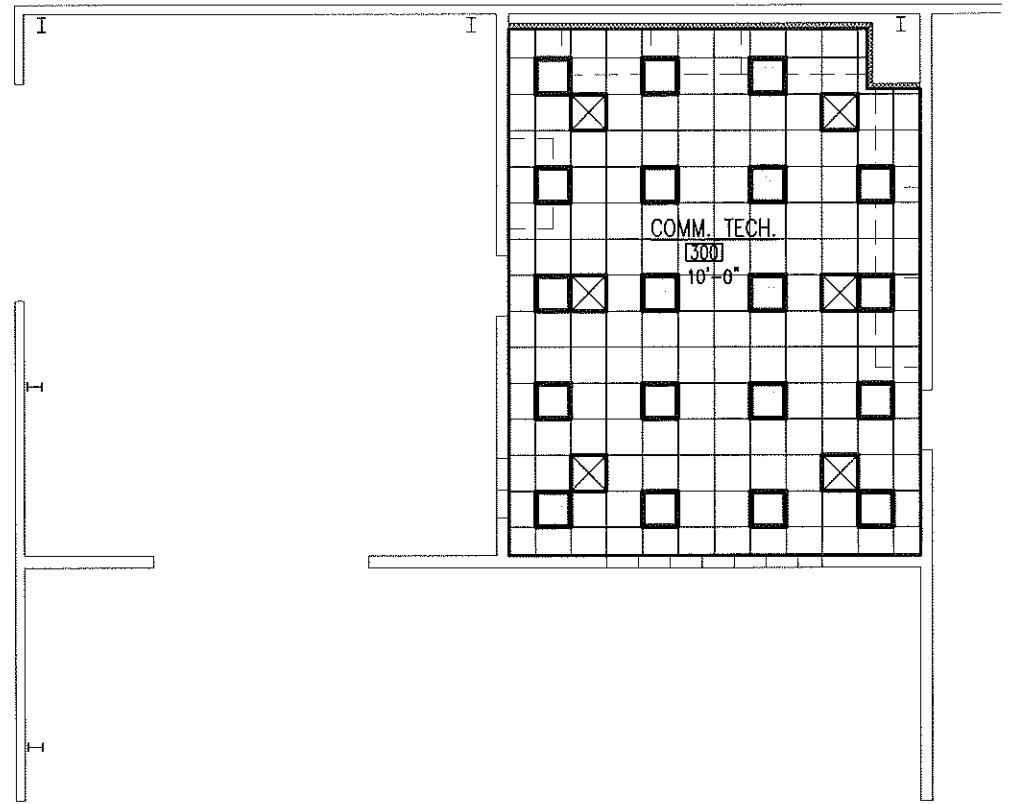
**A5.1**  
23 OF 42



**MAINTENANCE DIVISION  
ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



**1 PHASE 1 AREA 2 REFLECTED CEILING PLAN**  
A5.2 SCALE: 3/32" = 1'-0"  
NORTH



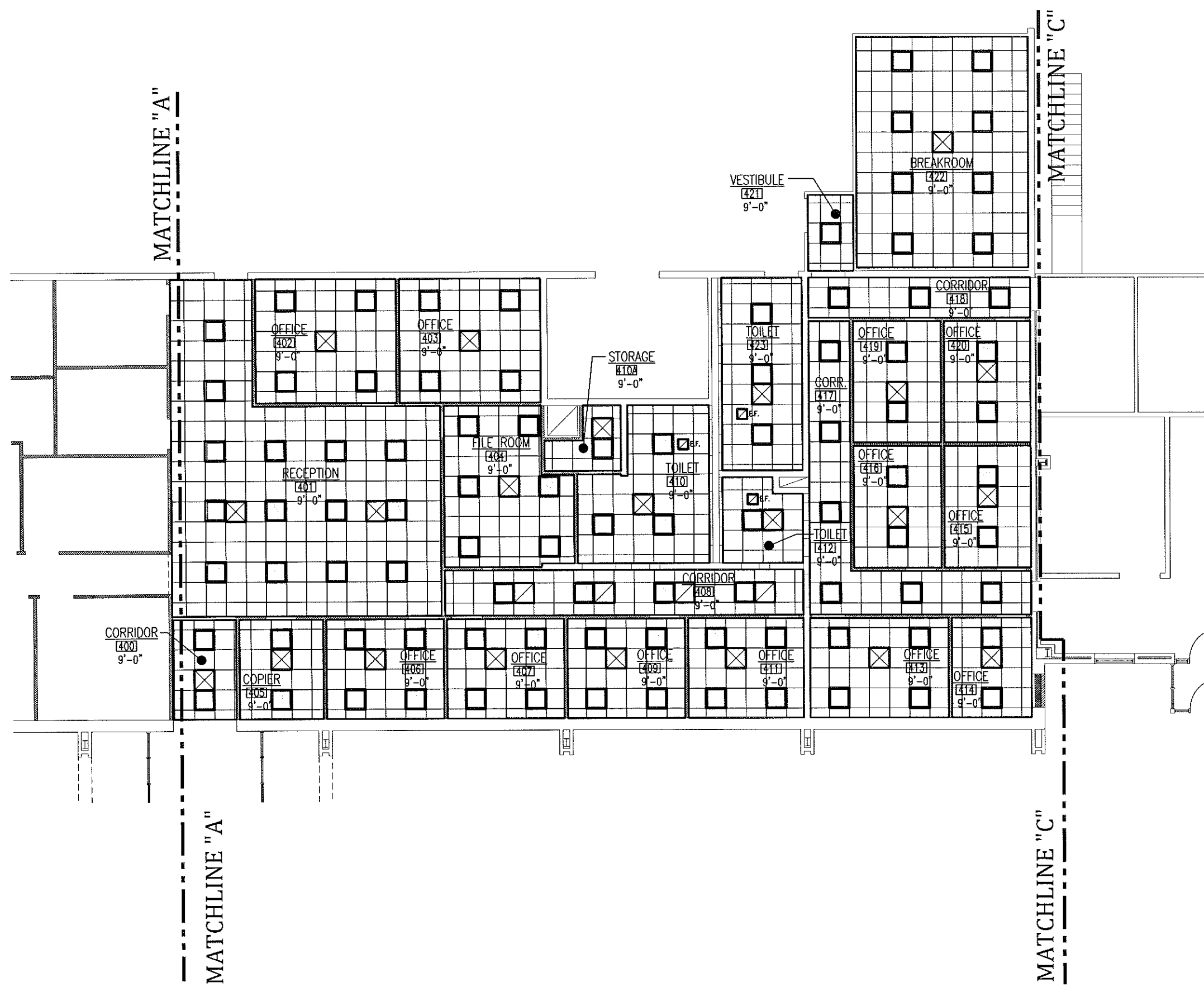
**2 PHASE 1 AREA 3 REFLECTED CEILING PLAN**  
A5.2 SCALE: 3/32" = 1'-0"  
NORTH

CEILING LEGEND	
	2'x4' LIGHT FIXTURE
	2'x2' LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE
	EXHAUST FAN
	FLAT PANEL METAL SOFFIT

DATE: JULY 17, 2015  
JOB NO: 42-92  
DRAWN BY: KB  
REVISIONS:



**MAINTENANCE DIVISION  
ADMIN. OFFICE RENOVATION**  
Little Rock, Arkansas  
Pulaski County



CEILING LEGEND	
	2'x4' LIGHT FIXTURE
	2'x2' LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE
	EF EXHAUST FAN
	FLAT PANEL METAL SOFFIT

NORTH **1** PHASE 2 REFLECTED CEILING PLAN  
A5.3 SCALE: 3/32" = 1'-0"

DATE: JULY 17, 2015  
JOB NO: 42-92  
DRAWN BY: KB  
REVISIONS:



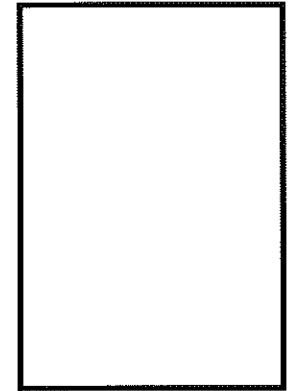
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CEILING LEGEND	
	2'x4' LIGHT FIXTURE
	2'x2' LIGHT FIXTURE
	RECESSED LIGHT FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE
	EXHAUST FAN
	FLAT PANEL METAL SOFFIT



**1** PHASE 3 REFLECTED CEILING PLAN  
A5.4 SCALE: 3/32" = 1'-0"

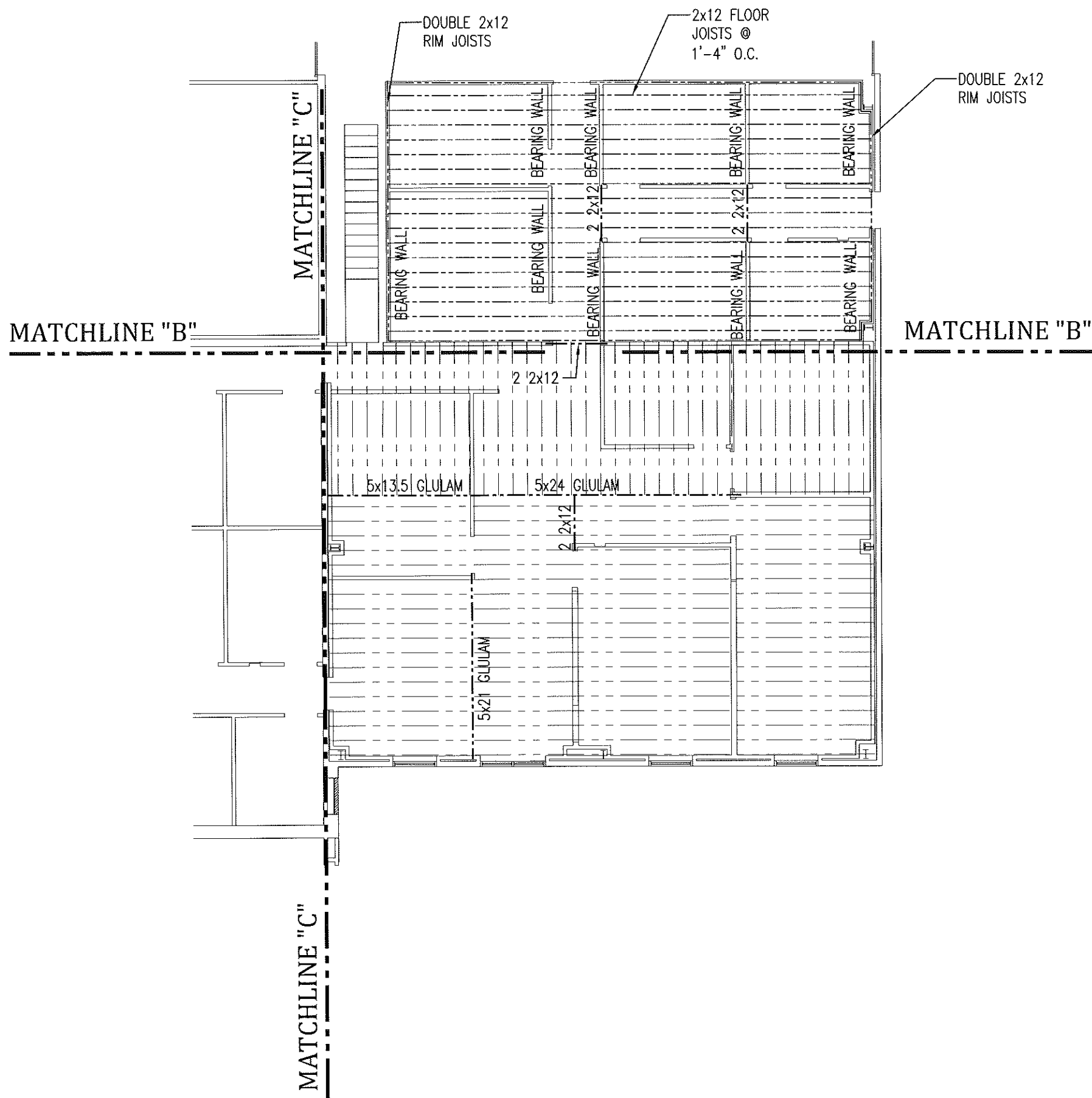


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**A5.4**  
26 OF 42



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Pulaski County



NORTH



1  
SII

**PHASE 1 AREA 2 AND PHASE 3 FLOOR FRAMING PLAN**

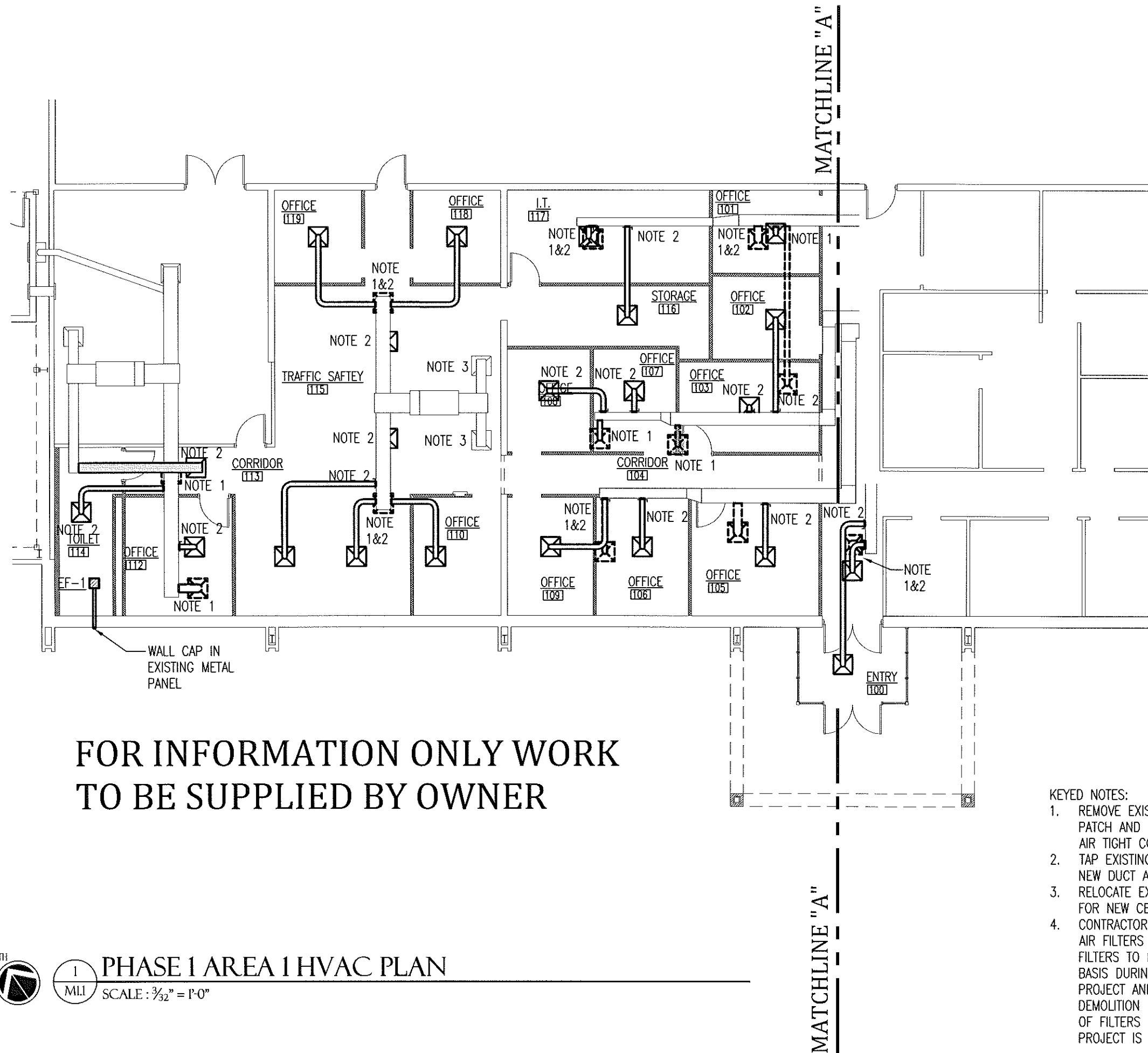
SCALE:  $\frac{3}{32}'' = 1'-0''$

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JOB NO: 42-92  
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**S1.1**  
27 OF 42



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**KEYED NOTES:**

1. REMOVE EXISTING GRILLE, AND DUCT, PATCH AND REPAIR EXISTING DUCT FOR AIR TIGHT CONSTRUCTION.
2. TAP EXISTING DUCT AND INSTALL DAMPER, NEW DUCT AND GRILLE AS SHOWN.
3. RELOCATE EXISTING GRILLE AS REQUIRED FOR NEW CEILING GRID LAYOUT.
4. CONTRACTOR TO SUPPLY AND CHANGE AIR FILTERS DURING CONSTRUCTION. AIR FILTERS TO BE CHANGED ON A WEEKLY BASIS DURING DEMOLITION PHASES OF PROJECT AND A BI-WEEKLY BASIS AFTER DEMOLITION IS COMPLETED. A NEW SET OF FILTERS SHALL BE INSTALLED AFTER PROJECT IS COMPLETED.



1  
M.I.I

**PHASE 1 AREA 1 HVAC PLAN**

SCALE : 3/32" = 1'-0"

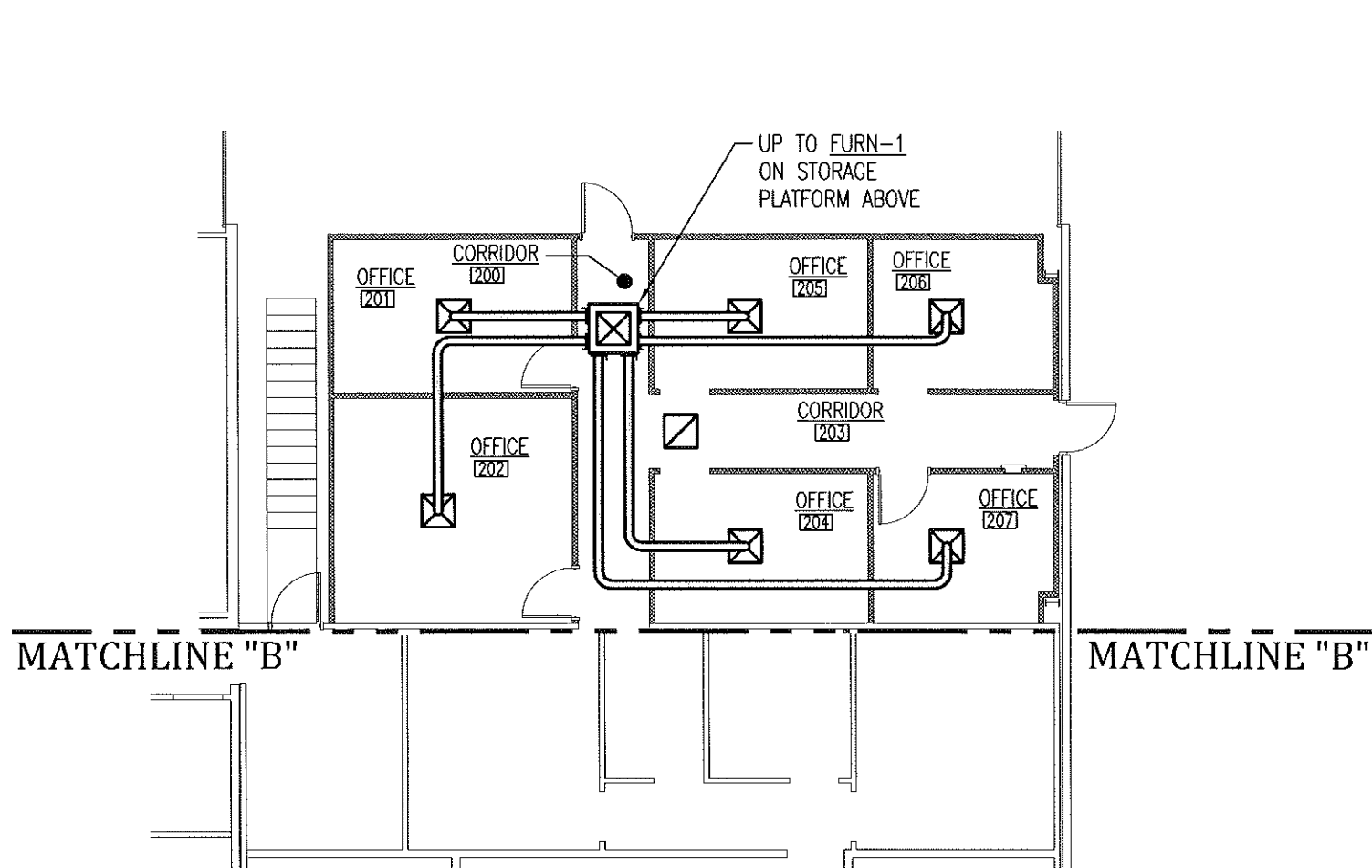
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**M1.1**  
28 OF 42

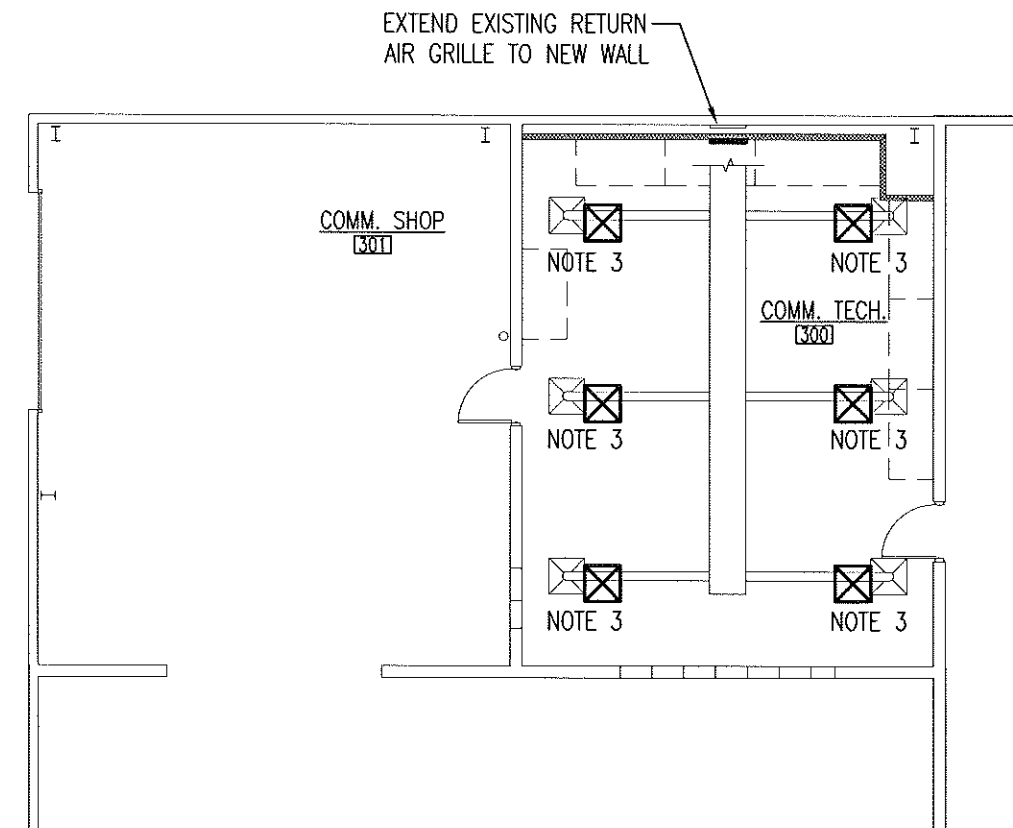




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**ADMIN. OFFICE RENOVATION**  
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NORTH  
 1 PHASE 1 AREA 2 HVAC PLAN  
 ML2 SCALE: 3/32" = 1'-0"



NORTH  
 2 PHASE 1 AREA 3 HVAC PLAN  
 ML2 SCALE: 3/32" = 1'-0"

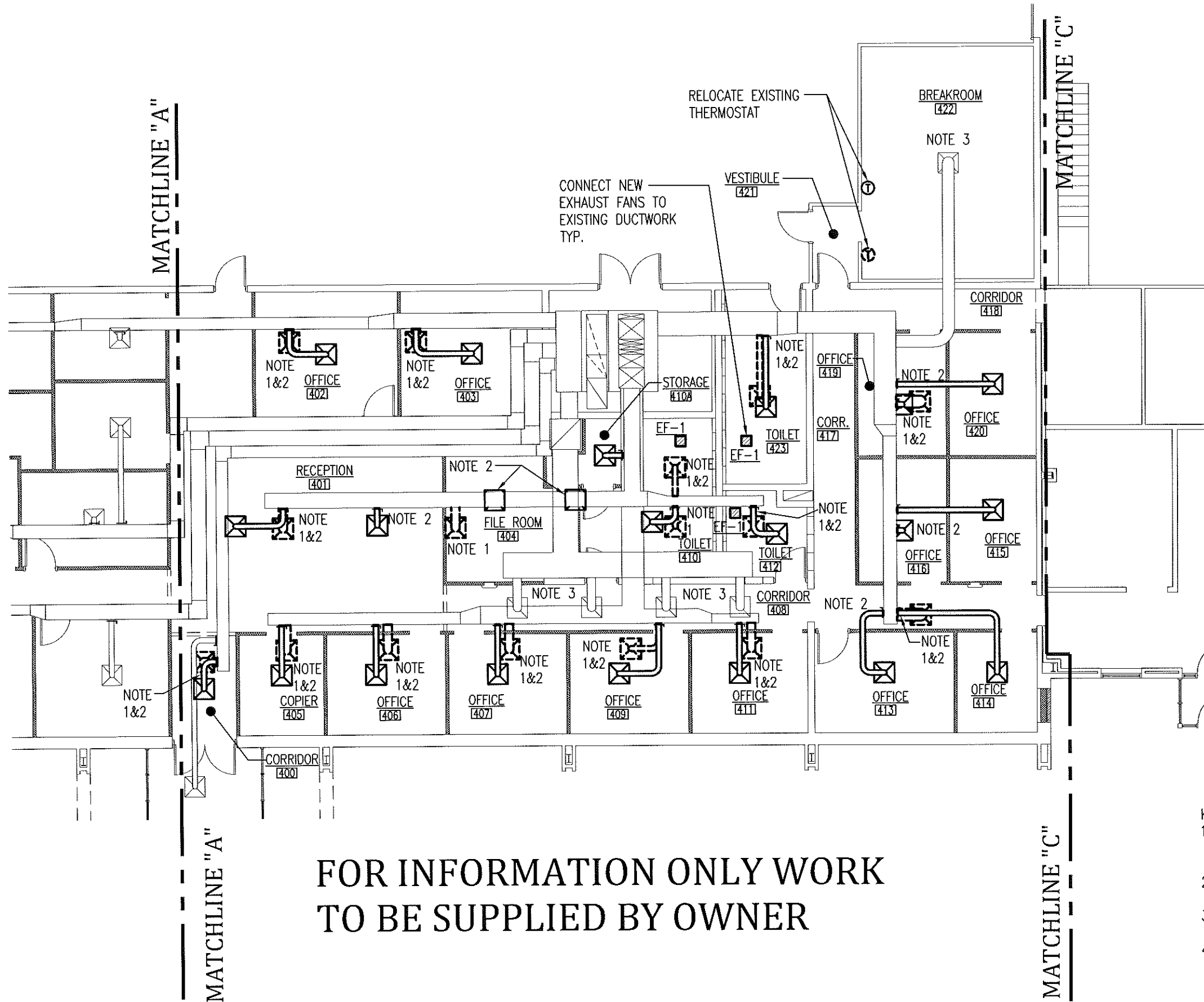
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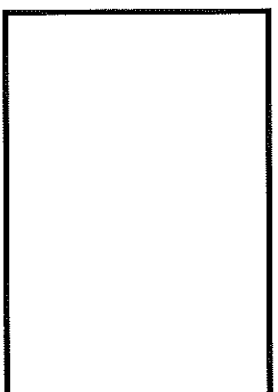


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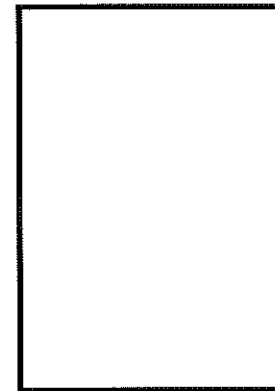
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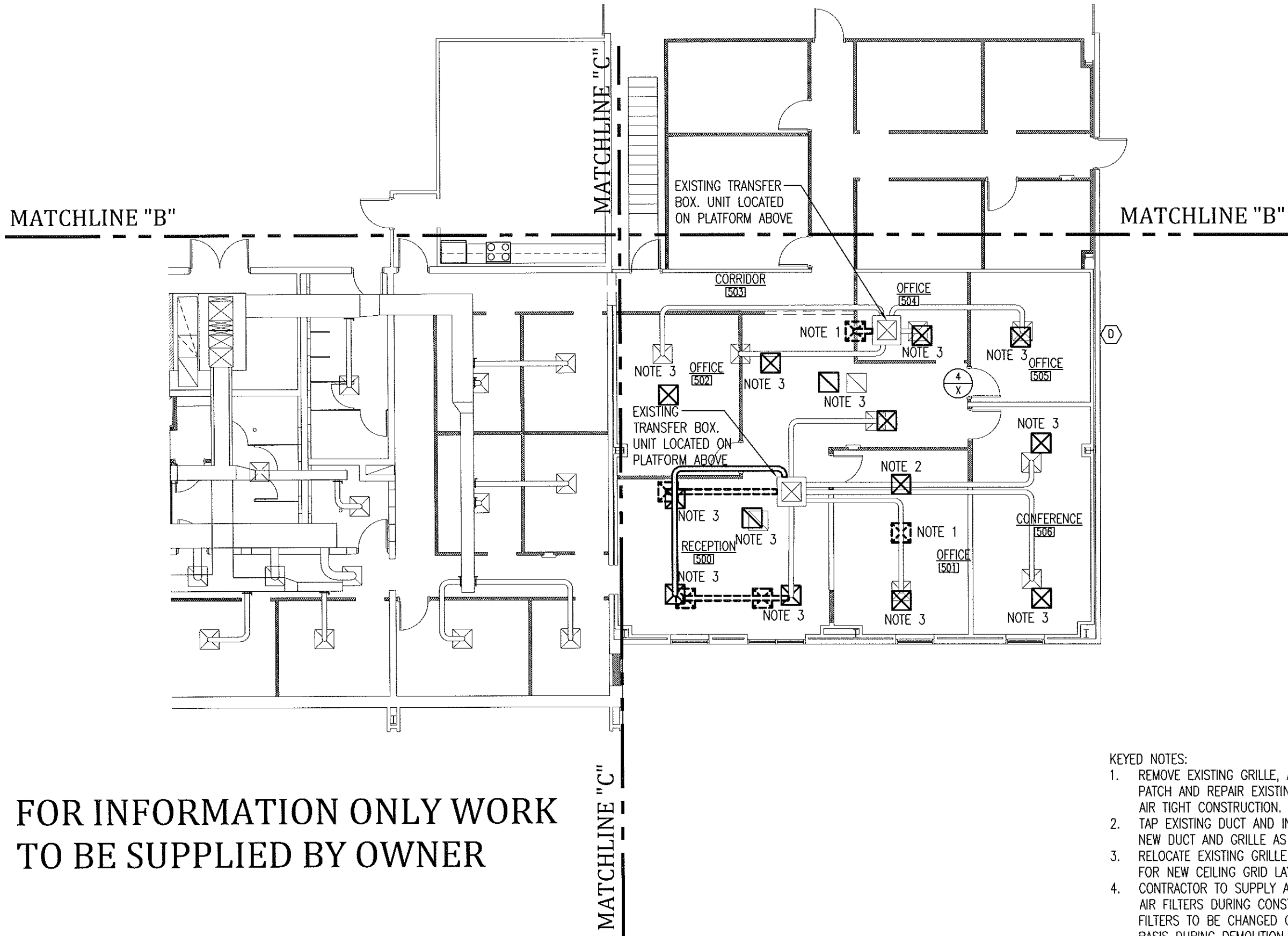


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**M1.4**  
 31 OF 42



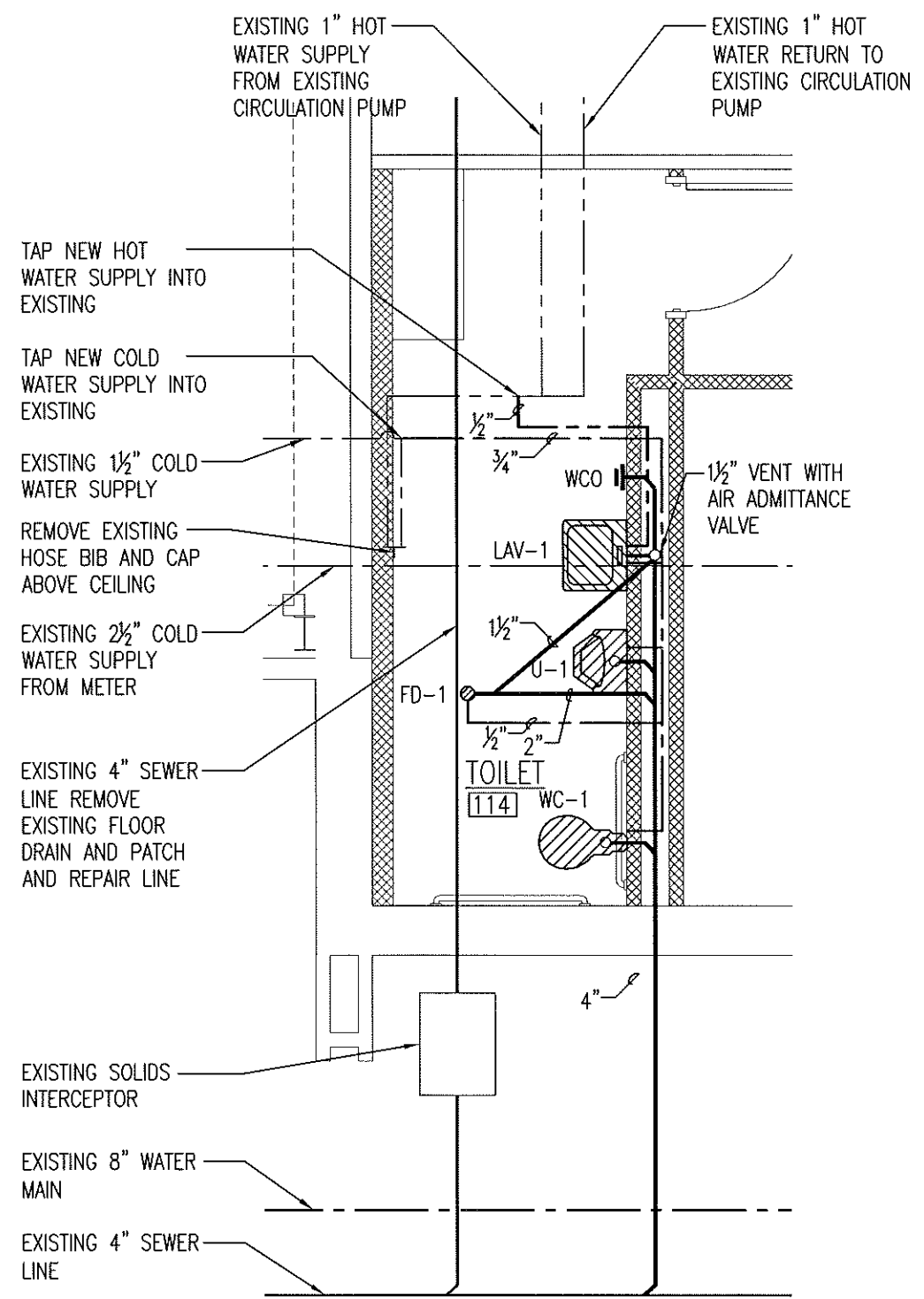
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NORTH  
 1 PHASE 3 HVAC PLAN  
 M1.4 SCALE: 3/32" = 1'-0"



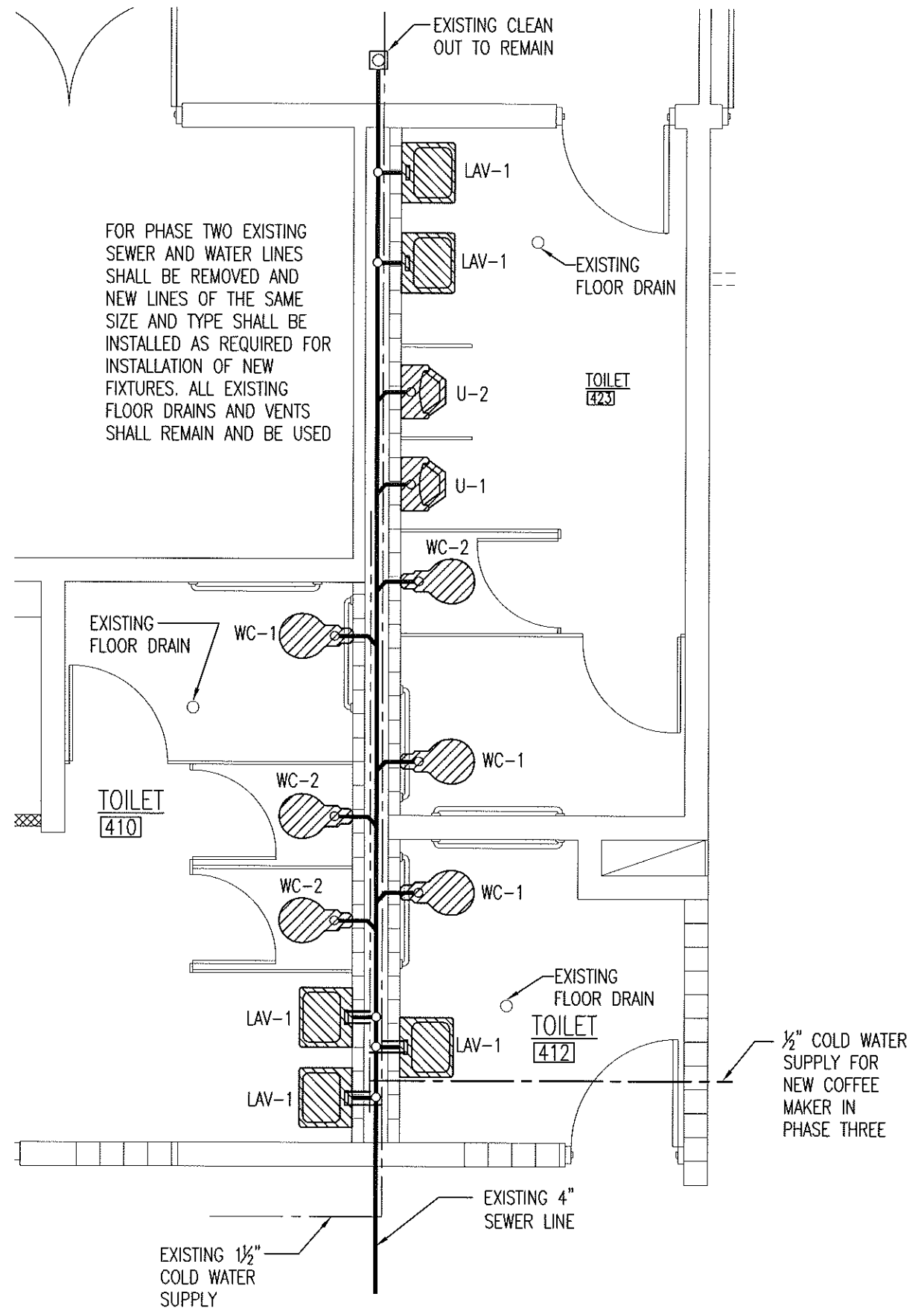
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NORTH

**PHASE 1 AREA 1 PLUMBING PLAN**

1  
 P1.1  
 SCALE: 1/4" = 1'-0"



FOR PHASE TWO EXISTING SEWER AND WATER LINES SHALL BE REMOVED AND NEW LINES OF THE SAME SIZE AND TYPE SHALL BE INSTALLED AS REQUIRED FOR INSTALLATION OF NEW FIXTURES. ALL EXISTING FLOOR DRAINS AND VENTS SHALL REMAIN AND BE USED

NORTH

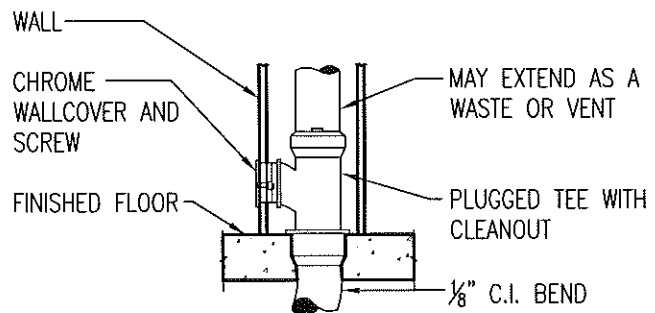
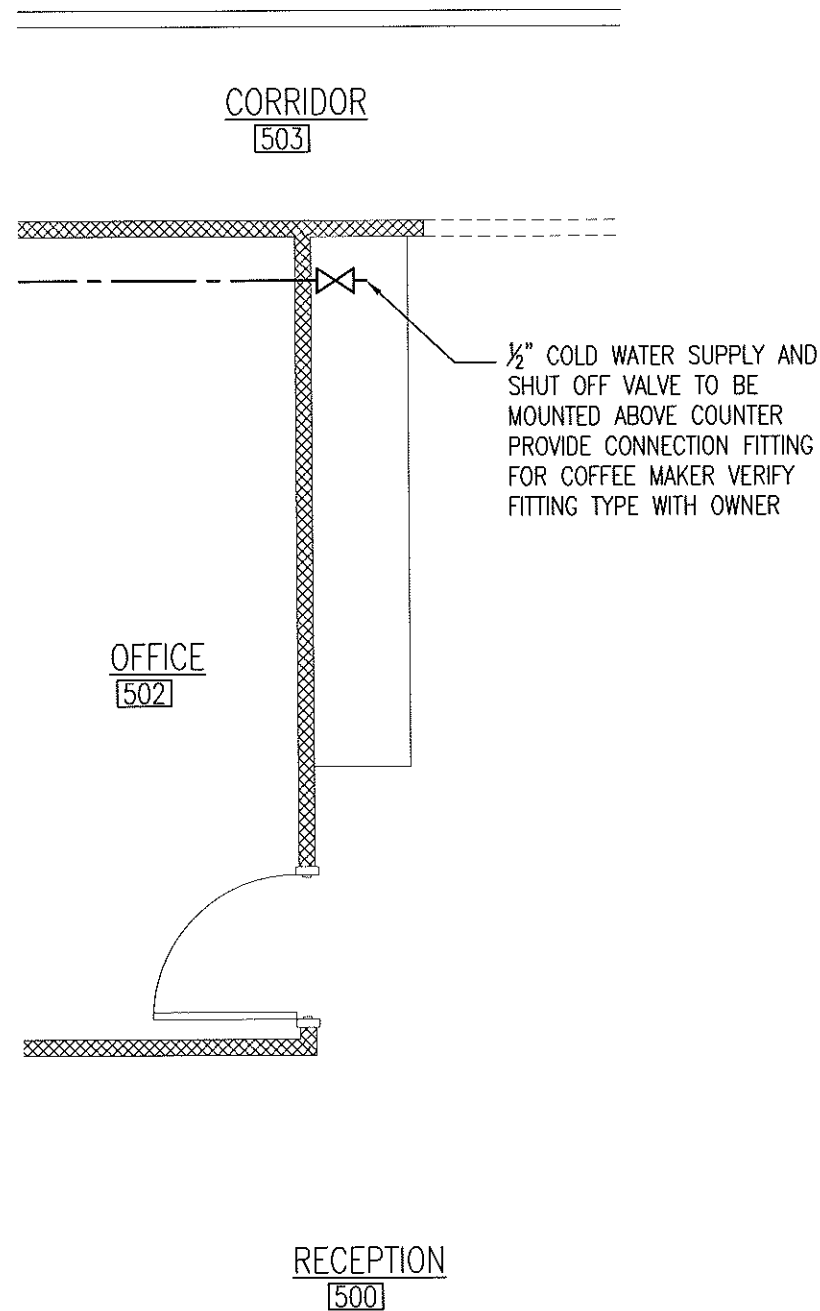
**PHASE 2 PLUMBING PLAN**

2  
 P1.1  
 SCALE: 1/4" = 1'-0"

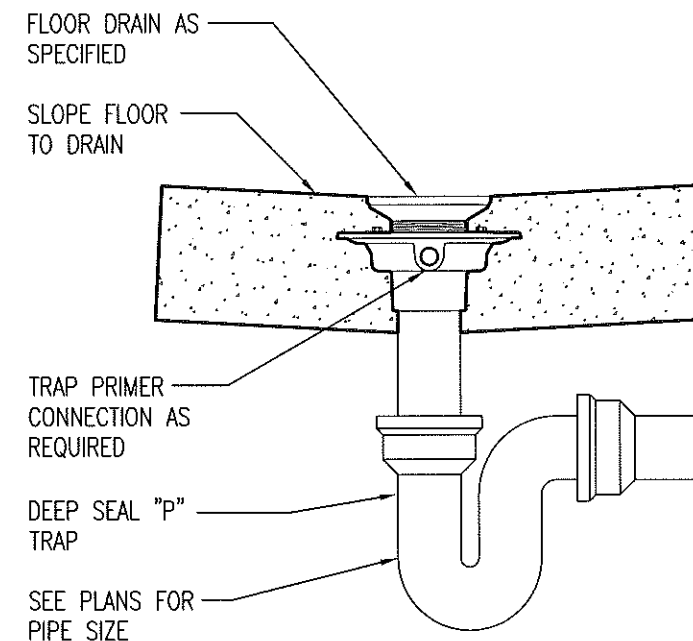
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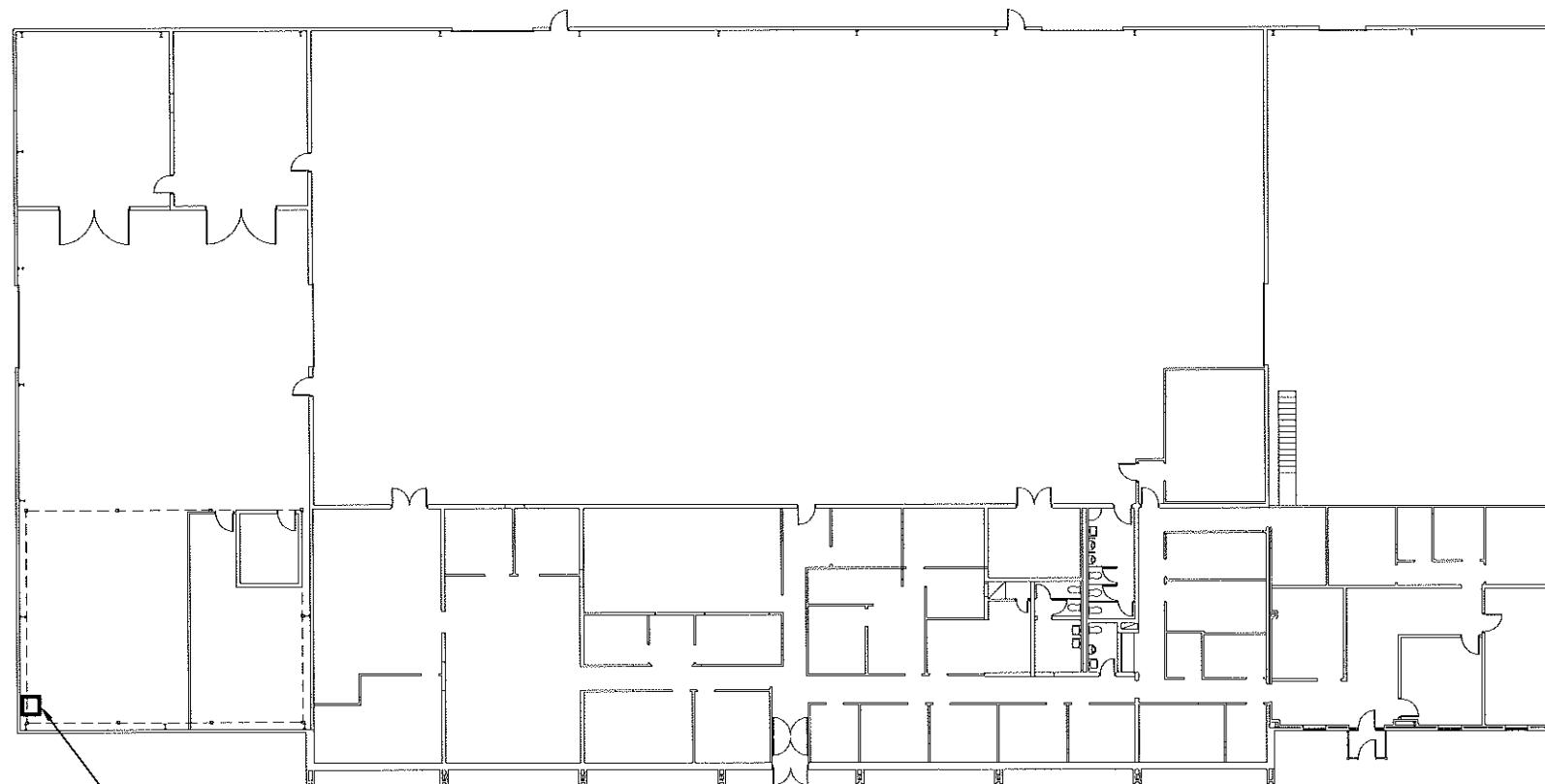
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**2 WALL CLEANOUT (WCO)**  
PI.2 SCALE : NO SCALE



**3 FLOOR DRAIN**  
PI.2 SCALE : NO SCALE



INSTALL NEW 2" BACKFLOW PREVENTION ASSEMBLY ON EXISTING DOMESTIC WATER SUPPLY

**4 PLUMBING PLAN**  
PI.2 SCALE : 1/32" = 1'-0"



**1 PHASE 3 PLUMBING PLAN**  
PI.2 SCALE : 1/4" = 1'-0"

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JOB NO: 42-92  
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## PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER	MODEL	REMARKS
WC-1	AMERICAN STANDARD	3461.660.020 "MADERA" 1.6 GPF ADA EVERCLEAN TOILET WITH SELECTRONIC EXPOSED BATTERY FLUSH VALVE SYSTEM PROVIDE 5910.110.020 SEAT	SEAT HEIGHT SHALL BE AT 17"-19" A.F.F.
WC-2	AMERICAN STANDARD	3461.660.020 "MADERA" 1.6 GPF ADA EVERCLEAN TOILET WITH SELECTRONIC EXPOSED BATTERY FLUSH VALVE SYSTEM PROVIDE 5910.110.020 SEAT	SEAT HEIGHT SHALL BE AT STANDARD HEIGHT
U-1	AMERICAN STANDARD	6590.510 "WASHBROOK" 0.5 GPF WASHOUT TOP SPUD URINAL WITH SELECTRONIC EXPOSED AC FLUSH VALVE SYSTEM	RIM HEIGHT SHALL BE AT 17" A.F.F.
U-2	AMERICAN STANDARD	6590.510 "WASHBROOK" 0.5 GPF WASHOUT TOP SPUD URINAL WITH SELECTRONIC EXPOSED AC FLUSH VALVE SYSTEM	RIM HEIGHT SHALL BE AT STANDARD HEIGHT
LAV-1	AMERICAN STANDARD	0356.421 "LUCERNE" WALL MOUNTED SINK ADA WITH 1340M.119 PILLAR TAP FAUCET WITH EXTENDED SPOUT 0.5 GPM NON-AERATED SPRAY	RIM SHALL BE MOUNTED AT 34" A.F.F. PROVIDE CONCEALED CARRIER AND ADA COMPLIANT INSULATION WRAP ON EXPOSED PIPING AND DRAIN
FD-1	WADE	1100STD CAST IRON FLOOR DRAIN WITH FLANGE, 1/2" PRIMER TAP, 5" DIA. NICKEL BRONZE STRAINER AND "P" TRAP	

## PLUMBING SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
-----	DOMESTIC COLD WATER	♀	ELBOW UP
-----	DOMESTIC HOT WATER	⊥	TEE
—SS—	SANITARY SEWER	⊥	TEE DOWN
—CA—	COMPRESSED AIR	⊥	TEE UP
—GAS—	GAS NATURAL OR PROPANE	⊗	GATE VALVE
⌒	ELBOW	⊗HB	HOSE BIB
⊥	ELBOW DOWN	○FUH	FREEZELESS UTILITY HYDRANT

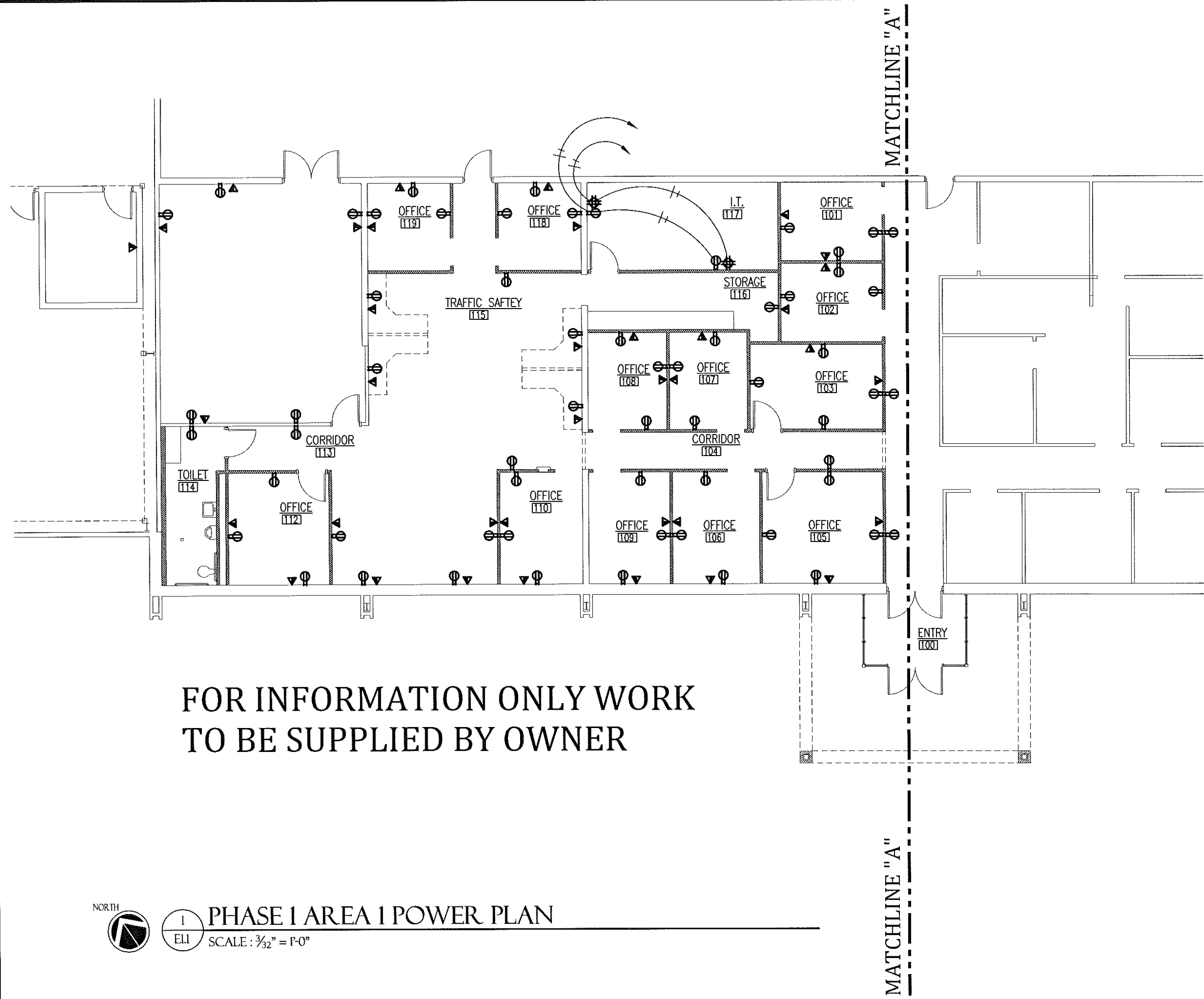
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P2.1



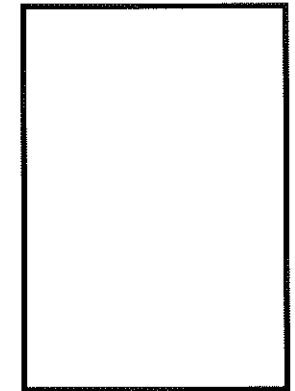
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**1** PHASE 1 AREA 1 POWER PLAN  
ELI SCALE: 3/32" = 1'-0"

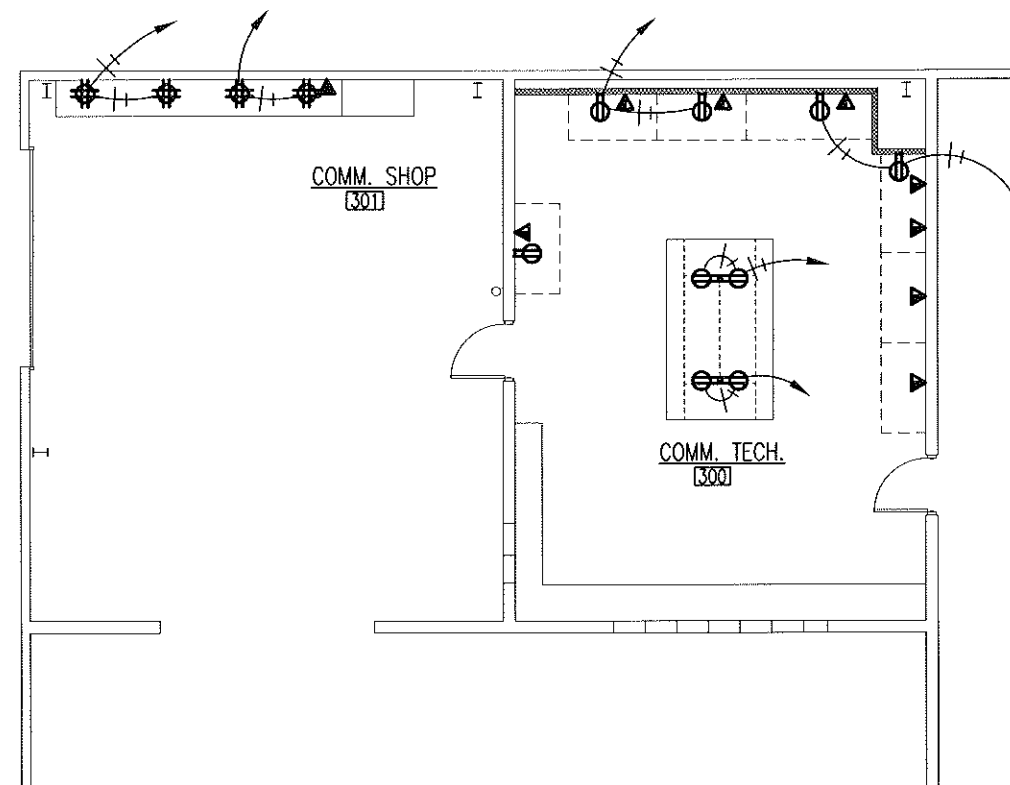
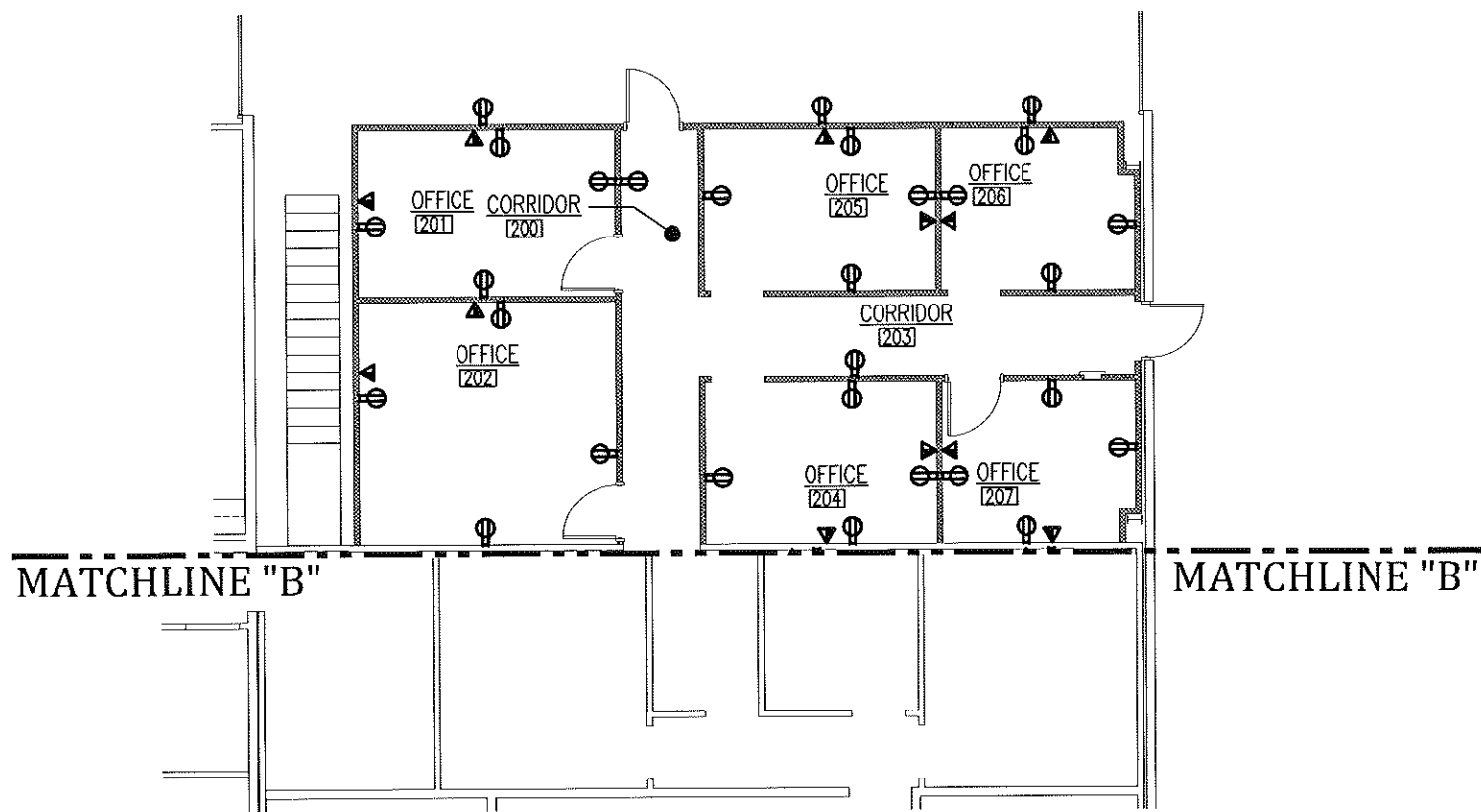


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**E1.1**  
35 OF 42



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1 PHASE 1 AREA 2 POWER PLAN  
E1.2 SCALE: 3/32" = 1'-0"



2 PHASE 1 AREA 3 POWER PLAN  
E1.2 SCALE: 3/32" = 1'-0"

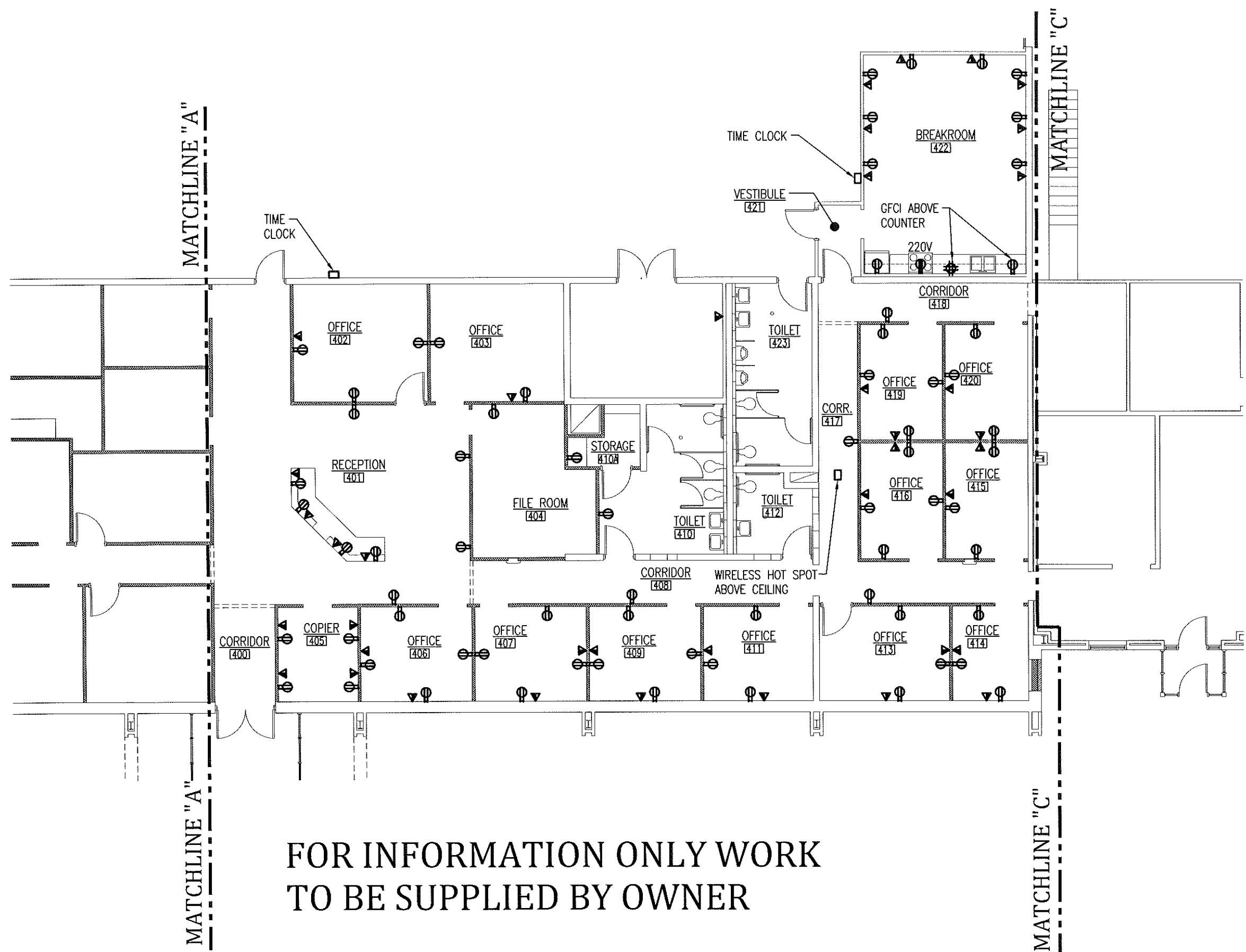
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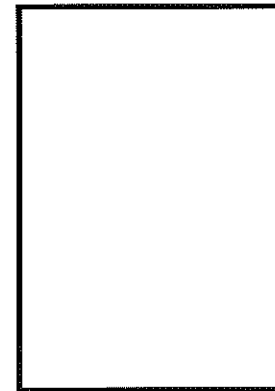
**1 PHASE 2 POWER PLAN**  
EL.3 SCALE: 3/32" = 1'-0"

DATE: JULY 17, 2015  
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**E1.3**  
37 OF 42

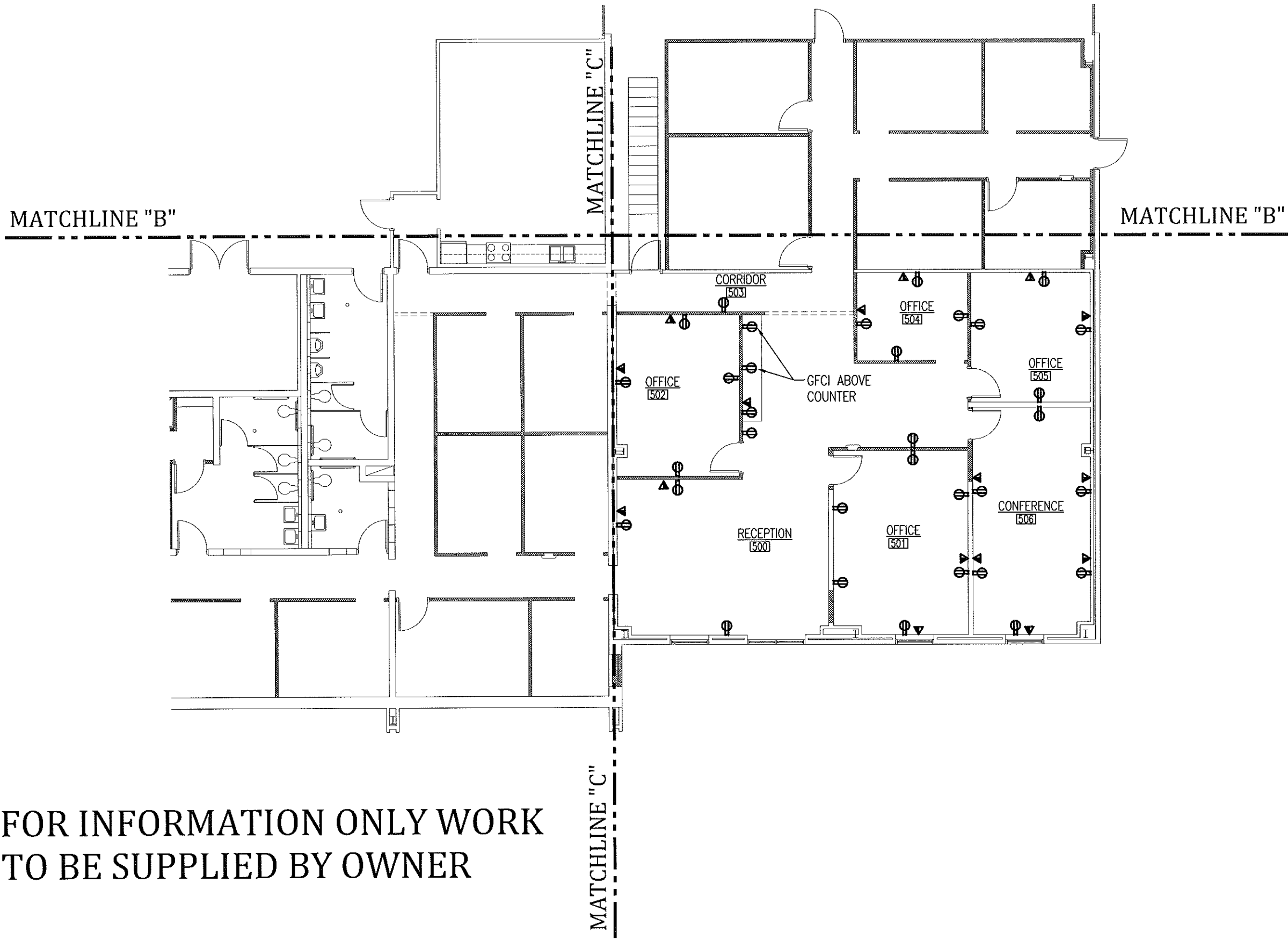


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**E1.4**  
 38 OF 42

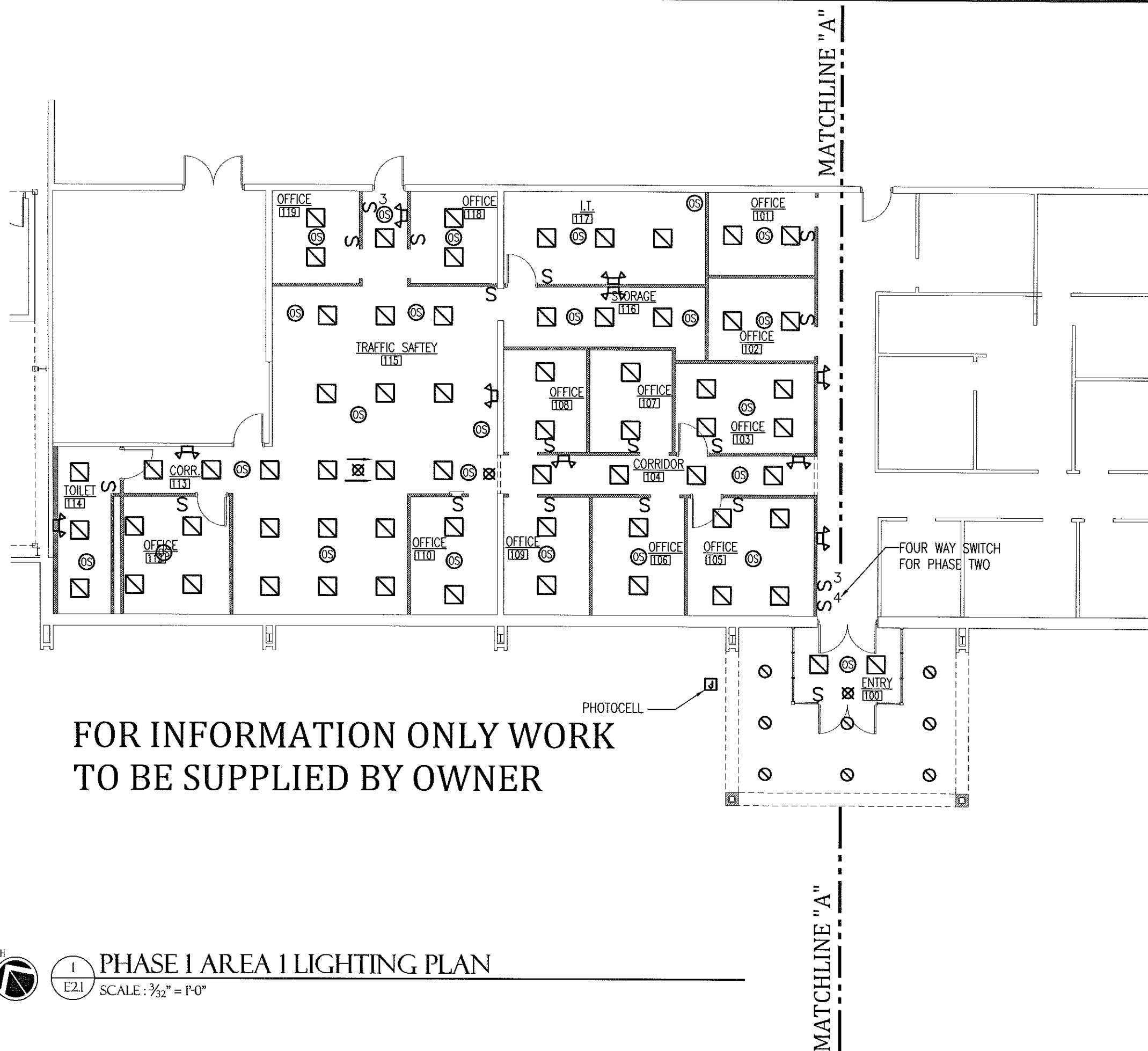


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NORTH **PHASE 3 POWER PLAN**  
 E1.4 SCALE: 3/32" = 1'-0"



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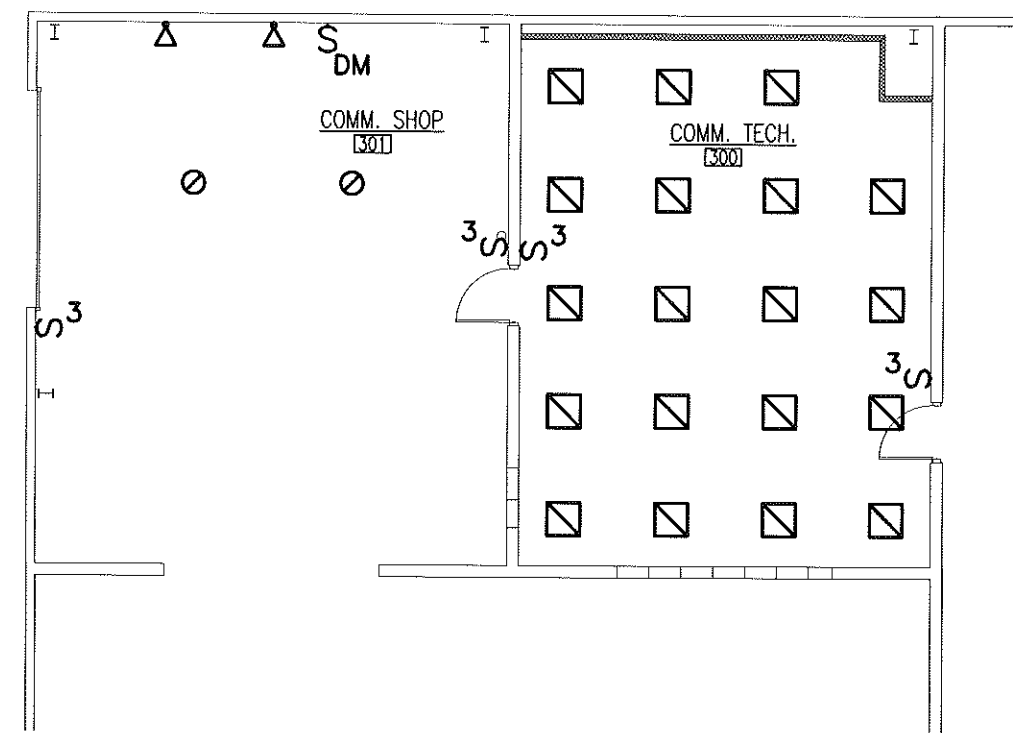
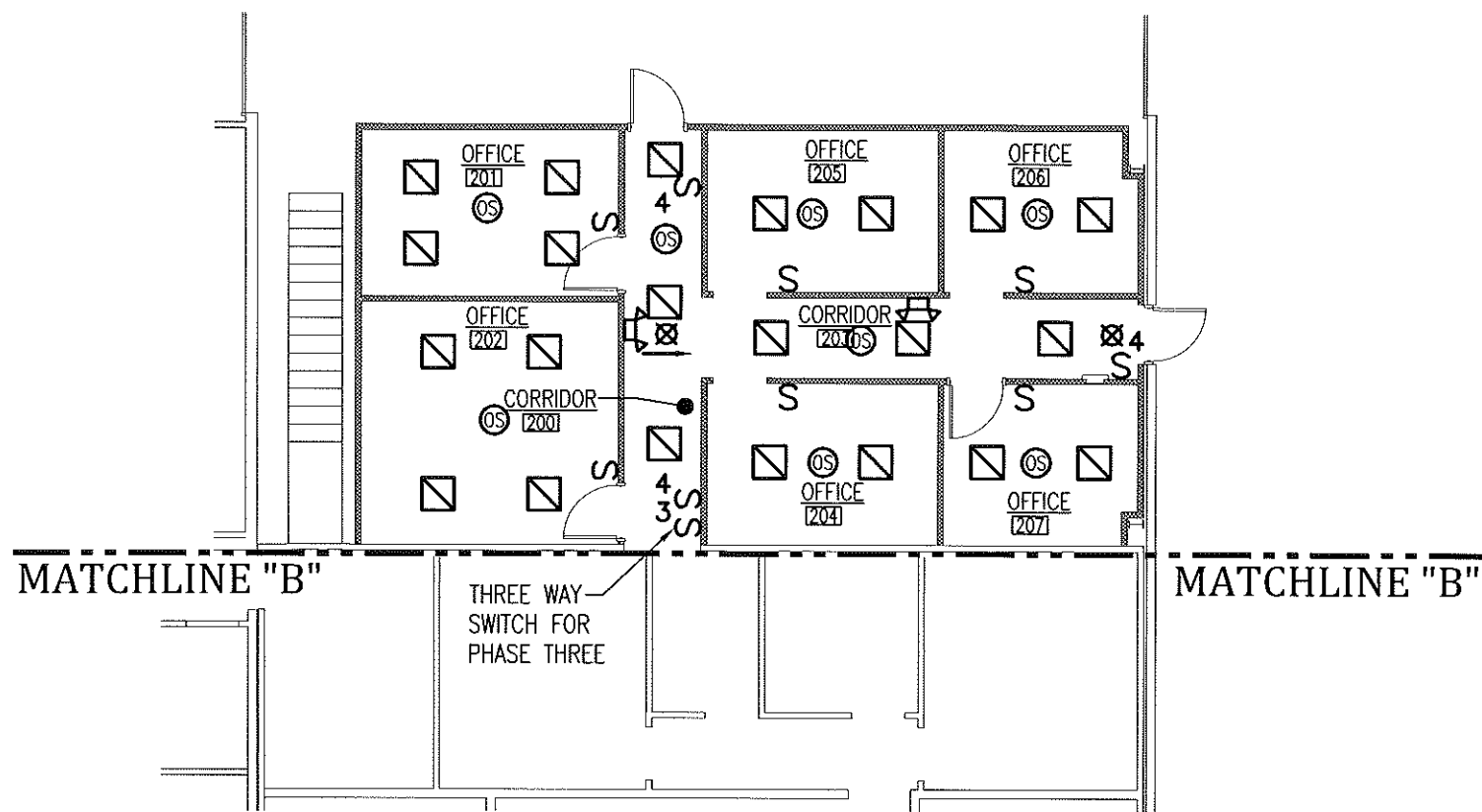
**PHASE 1 AREA 1 LIGHTING PLAN**  
SCALE: 3/32" = 1'-0"

DATE: JULY 17, 2015  
JOB NO: 42-92  
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**E2.1**  
39 OF 42



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1 PHASE 1 AREA 2 LIGHTING PLAN  
E2.2 SCALE: 3/32" = 1'-0"



2 PHASE 1 AREA 3 LIGHTING PLAN  
E2.2 SCALE: 3/32" = 1'-0"

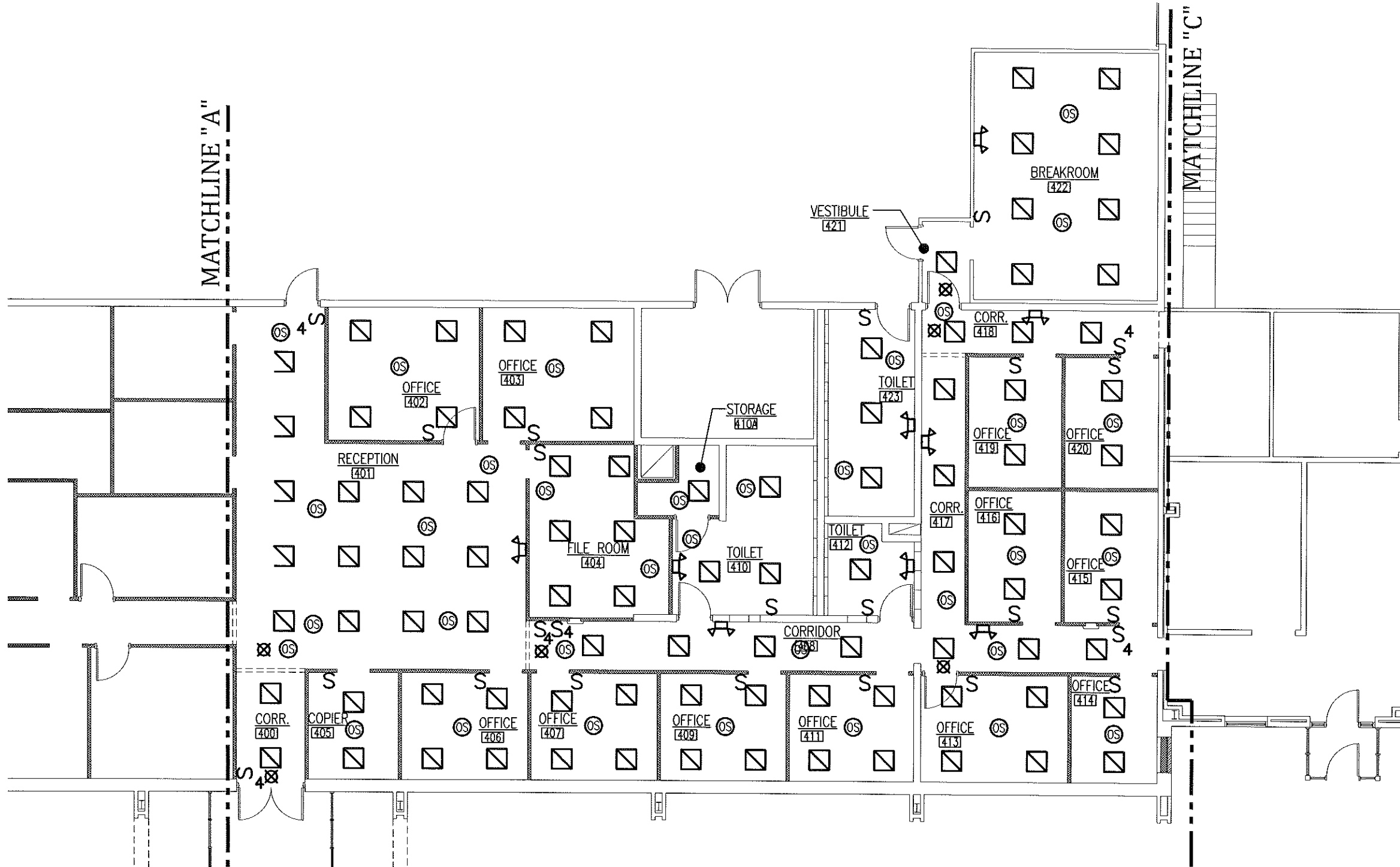
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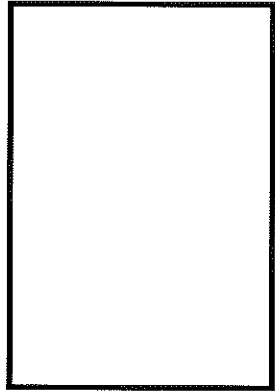
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1  
E2.3

**PHASE 2 LIGHTING PLAN**

SCALE : 3/32" = 1'-0"

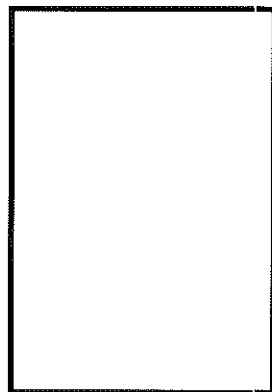


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41 OF 42

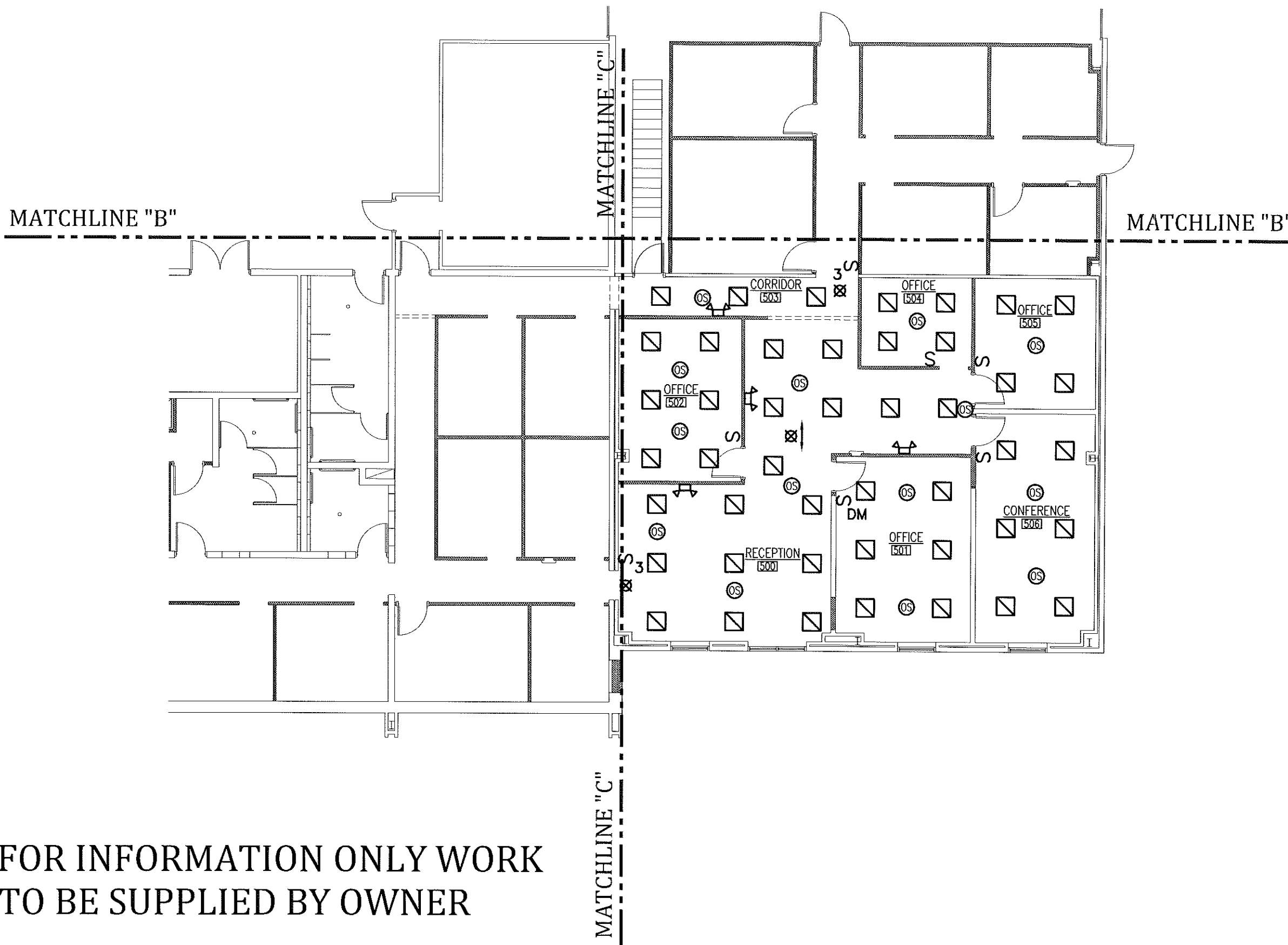


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 42 OF 42



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1 PHASE 3 LIGHTING PLAN  
 E2.4 SCALE: 3/32" = 1'-0"