SOLICITATION 21-61801-001

BUILDING AN EVENT CENTER AT OCONEE SPRINGS PARK



Putnam County Board of Commissioners 117 Putnam Drive, Suite A Eatonton, GA 31024

APRIL 7, 2021

9:00 A.M.



117 Putnam Drive, Suite A & Eatonton, GA 31024 Tel: 706-485-5826 & Fax: 706-923-2345 & <u>www.putnamcountyga.us</u>

PUTNAM COUNTY SOLICITATION # 21-61801-001 Building an Event Center at Oconee Springs Park

The Putnam County Board of Commissioners requests sealed bids, good for 60 business days, for Building an Event Center at Oconee Springs Park.

Prospective bidders must obtain a bid package from the Putnam County Board of Commissioners via one of the following methods:

- on the county website: www.putnamcountyga.us
- in person at 117 Putnam Drive, Suite A, Eatonton, GA 31024
- by email at putnamboc@putnamcountyga.us
- by fax at 706-923-2345
- by telephone at 706-485-5826

<u>Proposals must be submitted on the proposal form issued by Putnam County and contained in the bid package.</u>

Proposals must be received by <u>Wednesday, April 7, 2021 at 9:00 a.m.</u> The proposals will be read at that time.

LOCAL AND MINORITY OWNED/OPERATED AND/OR WOMEN OWNED/OPERATED BUSINESSES ARE ENCOURAGED TO SUBMIT PROPOSALS.

PUTNAM COUNTY RESERVES THE RIGHT TO REJECT ANY AND ALL BIDS, TO WAIVE ANY AND ALL TECHNICALITIES AND TO AWARD THE BID BASED ON THE LOWEST AND/OR BEST INTEREST OF PUTNAM COUNTY.

03/11/2021; 03/18/2021; 03/25/2021; 04/01/2021



117 Putnam Drive, Suite A & Eatonton, GA 31024 Tel: 706-485-5826 & Fax: 706-923-2345 & <u>www.putnamcountyga.us</u>

INSTRUCTIONS AND SPECIFICATIONS FOR BIDDERS: SOLICITATION # 21-61801-001 BUILDING AN EVENT CENTER AT OCONEE SPRINGS PARK PUTNAM COUNTY, GEORGIA

SECTION 1 - GENERAL NOTICE

Sealed proposals for BUILDING AN EVENT CENTER AT OCONEE SPRINGS PARK (SOLICITATION: 21-61801-001) will be received by the office of the Board of Commissioners of Putnam County, Georgia, up to the hour of 9:00 A.M. local time, on Wednesday, April 7, 2021, at which time and place they will be publicly opened and read aloud. Bidders are invited to be present.

SECTION 2 - BID DOCUMENTS

Copies of the Proposal, Specifications, Plans (if required) and other document forms may be obtained from the office of the County Commissioners. Bidders are required to examine the same and satisfy themselves that all requirements are fully understood. They should also personally inspect the location of the project upon which they are bidding.

SECTION 3 - BIDDING PROCEDURE

Bids shall be presented in a sealed envelope with the bid number (21-61801-001) and the name of the company or firm submitting clearly marked on the outside of the envelope. ONE (1) ORIGINAL (PAPER) AND TWO (1) COPY (PAPER) AND A PDF COPY OF THE BID ON A CD OR FLASH DRIVE MUST BE SUBMITTED. Bids will not be accepted verbally, by fax or email. All appropriate blanks shall be completed. Any interlineations, alteration, or erasure on the specification document shall be initialed by the signer of the bid. Bidder shall not change the proposal form nor make additional stipulations on the specification document. Any amplified or qualifying information shall be on the bidder's letterhead and firmly attached to the bid document. Items in RED are requirements for bid consideration.

Bid prices shall be submitted on the Proposal Form included in the bid document.

Each bid must be legibly printed in ink or by printer, include the full name, business address, and telephone number of the bidder and be signed in ink by the bidder.

A bid by a firm or organization other than a corporation must include the name and address of each member.

A bid by a corporation must be signed in the name of such corporation by a duly authorized official thereof.

No bidder shall submit more than one proposal nor submit two or more proposals under different names.

In order to be considered, the outside of the sealed envelope must be clearly marked with **the offeror's name, address and phone number, the project number, name of the project for** which the proposal is being submitted, and the bid opening date and time of Wednesday, April 7, 2021 at 9:00 a.m. All proposals shall be delivered by a delivery service or in person to Putnam County Board of Commissioners, 117 Putnam Drive, Suite A, Attn: County Manager, Eatonton, GA 31024, on or before the time and date prescribed above.

For your convenience, please use the label on the enclosed "Submittal Requirement" page.

Bids received after the time and date established for receiving bids will be rejected.

SECTION 4 - QUALIFICATION OF BIDDERS

<u>All bidders</u> shall provide a Work Resume and file it with their bid. The resume shall include projects which are similar to the type of work being bid for which the bidder had direct control over and was charged with full responsibility of the outcome.

SECTION 5 - ADDENDA

Addenda are written instruments issued by the County prior to the date for receipt of bids which modify or interpret the specification document by addition, deletion, clarification, or correction.

Addenda will be mailed or delivered to all who are known by the County to have received a complete set of specification documents.

Copies of addenda will be posted on the county website and will also be available for inspection at the office of the County Manager.

No addendum will be issued later than forty-eight (48) hours prior to the date and time for receipt of bids, except an addendum withdrawing the invitation to bid or an addendum which includes postponement of the bid.

Bidders shall ascertain prior to submitting their bid that they have received all addenda issued and they shall acknowledge receipt of addenda on the proposal form.

SECTION 6 - BIDDER'S REPRESENTATION

Each bidder by signing and submitting a bid, represents that the bidder has read and understands the specification documents and the bid has been made in accordance therewith.

Each bidder for services further represents that the bidder is familiar with the local conditions under which the work is to be done and has correlated the observations with the requirements of the bid documents.

NON-COLLUSION AFFIDAVIT: By submitting a proposal, the bidder represents and warrants that such bid is genuine and not a sham or collusion or made in the interest or in behalf of any person not therein named, and that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other firm, person or corporation to refrain from bidding and that the bidder has not in any manner sought by collusion to secure to that bidder any advantage over any other bidder.

INTEREST OF: By submitting a proposal, the bidder represents and warrants that neither a commissioner, administrator, manager, employee, nor any other person employed by PUTNAM COUNTY or in any other way connected with the county has, in any manner, an interest, either directly or indirectly, in the bid or in the contract which may be made under it, or in any expected profits to arise therefrom.

CERTIFICATE OF INDEPENDENT PRICE DETERMINATION: By signing and submitting this bid, the bidder certifies that the prices in this bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder prior to bid opening directly or indirectly to any other bidder or to any competitor; no attempt has been made, or will be made, by the bidder to induce any person or firm to submit, or not to submit, a bid for the purpose of restricting competition.

Various professions within the building industry are required by state law to be licensed. These professions include electricians, plumbers, conditioned air contractors, low voltage contractors, utility contractors, and certain residential and general contractors. Putnam County will be complying with state laws and board rules regarding licensure. No bid or proposal for projects that require a licensed professional will be accepted from unlicensed persons. In addition, the licensed contractor must be the prime contractor on the project. It is not permissible for an unlicensed individual/firm to subcontract with a licensed contractor. The validity of all licenses will be checked.

SECTION 7 - BIDDER'S SECURITY

BID BOND: The contractor shall deposit with his bid, a bid bond in an amount not less than five (5) percent of the total bid, and a consent of surety from a surety company licensed to conduct business in the State of Georgia, agreeing to furnish the required completion bond or bonds upon award of the contract.

PERFORMANCE BOND: Upon award, the successful bidder will be required to furnish a performance bond and payment bond in the amount of one hundred percent (100%) of the total bid.

SECTION 8 - EQUAL OPPORTUNITY

Each bidder agrees that it shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, disability, national origin, age, or marital status. In the employment of persons, bidder shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to race, color, religion, sex, disability, national origin, age, or marital status.

SECTION 9 - CLARIFICATION OF SPECIFICATION DOCUMENTS

Bidders shall promptly notify the County Manager of any ambiguity, inconsistency, or error which they may discover upon examination of the specification documents.

Bidders desiring clarification or interpretation of the Specification documents shall make a written request which must reach the County Manager at least seven (7) calendar days prior to the date and time for receipt of bids.

Interpretations, corrections, and changes made to the Specification Documents will be made by written addenda. Oral interpretations or changes to the Specification Documents made in any other manner, will not be binding on the County; and bidders shall not rely upon such interpretations or changes.

SECTION 10 - SCHEDULE

The project shall be Substantially Complete within 120 calendar days from the date of issuance of Notice to Proceed. Liquidated damaged of \$500 per day will be assessed if work is not completed within 120 calendar days (excluding weather delays) from the date of the Notice to Proceed. Oconee Springs Park is located at 109 S. Spring Road, Eatonton, GA 31024.

SECTION 11 - BID EVALUATION AND AWARD

The signed bid proposal shall be considered an offer on the part of the bidder. Such offer shall be deemed accepted upon issuance, by the County, of purchase orders, contract award notifications, or other contract documents appropriate to the work.

No bid shall be modified or withdrawn for a period of sixty (60) calendar days after the time and date established for receiving bids and each bidder so agrees in submitting the bid.

Award will be made to the vendor submitting the lowest responsive and responsible bid. The Putnam County Board of Commissioners reserves the right to reject any or all bids, to waive technicalities and to re-advertise or make an award as deemed in its best interest. The written bid documents supersede any verbal or written prior communication between the parties.

SECTION 12 - CONTRACT AND BOND

After the acceptance of the bid, the successful bidder must execute a written Contract between the bidder and the County; such contract will incorporate the County's contract documents and be on forms provided by the County.

SECTION 13 - INSURANCE

All bidders shall take special note of the attached insurance sheet titled "Insurance Clause for all County Contracts."

The successful bidder must provide proof of insurance in accordance with the contract documents.

SECTION 14 - INDEMNIFICATION

The bidder shall indemnify and hold harmless the County, its members, its officers, and employees from and against all claims, damages, losses, and expenses, including, but not limited to attorney's fees arising out of or resulting from the performance of the contract, provided that any such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property other than goods, materials, and equipment furnished under this contract, including the loss of use resulting therefrom; is caused in whole or part by any negligent act or omission of the bidder, any subcontractor, or anyone directly or indirectly employed by any one of them or anyone for whose acts made by any of them may be liable, regardless of whether or not it is caused by a party indemnified hereunder.

In any and all claims against the County or its members, officers or employees by an employee of the bidder, any subcontractor, anyone directly or indirectly employed by any of them or by anyone for whose acts made by any of them may be liable, the indemnification obligation listed above shall not be limited in anyway by any limitation of the amount or type of damages, compensation, or benefits payable by **or for the bidder or any subcontractor under worker's or workmen's compensation acts, disability benefit** acts, or other employee benefit acts.

SECTION 15 - LAWS

The Laws of the State of Georgia shall govern the rights, obligations, and remedies of the Parties under this proposal and any agreement reached as a result of this process.

SECTION 16 - INDEPENDENT CONTRACTOR

It is the express intent of the parties that this Contract shall not create an employer-employee relationship, and the Contractor, or any employee or other person acting on behalf of Contractor in the performance of this Contract, shall be deemed to be independent contractor(s) during the entire term of this Contract or any renewals thereof. Contractor shall be responsible for all compensation and **benefits payable to Contractor's employee(s) under this Contract and Contractor's employees** shall not be entitled to any compensation from County or to any benefits made to their employees, including, but **not limited to, overtime, vacation, retirement benefits, workers' compensation, sick leave, or injury** leave. Contractor shall also be responsible for maintaining workers' compensation insurance, unemployment insurance, and for payment of all federal, state, local and any other payroll taxes with **respect to the employee's compensation.**

SECTION 17 - CERTIFICATION

By signing and submitting a proposal, the bidder certifies that they have carefully examined the plans for this project and the applicable federal, state, and local regulations and the special provisions included in and made a part of this proposal, and have also personally examined the site of the work. If awarded, the bidder further proposes to execute the contract agreement described in the specifications as soon as the work is awarded.

SECTION 18 - DRUG-FREE WORK PLACE CERTIFICATION

By signing and submitting a proposal, the bidder certifies that the provisions of Code Sections 50-24-1 through 50-24-6 of the Official Code of Georgia Annotated, relating to the "Drug-**free Work Place Act"**, have been complied with in full. The bidder further certifies that:

(1) A drug-free work place will be provided for the contractor's employees during the performance of the contract; and

(2) Each contractor who hires a subcontractor to work in a drug-free work place shall secure from that subcontractor a written certification that a drug free work place will be provided for the subcontractor's employees during the performance of this contract pursuant to paragraph (7) of subsection (b) of Code Section 50-24-3.

Also, they further certify that they will not engage in the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana during the performance of the contract.

SECTION 19 - SECURITY AND IMMIGRATION COMPLIANCE

It is further certified that pursuant to O.C.G.A. §13-10-91 I and all contractors and sub-contractors performing work under this Agreement are in compliance with the Federal Work Authorization Program. Prime contractors and sub-contractors may participate in any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 ("IRCA"). Contractor Affidavit, Subcontractor Affidavit (if applicable), and Sub-subcontractor Affidavit (if applicable) must be completed and turned in with your bid.

It is further certified that pursuant to O.C.G.A. §50-36-1 I am a United States citizen, a legal permanent resident of the United States, or a qualified alien or non-immigrant under the Federal Immigration and Nationality Act with an alien number issued by the Department of Homeland Security or other federal immigration agency. Affidavit must be completed and turned in with your bid, along with a copy of your driver's license.

SECTION 20 - PAYMENTS

Contractor shall be paid by and in accordance with Putnam County payment regulations. Putnam County will strive to take advantage of all discounts offered for prompt payment, therefore, indicate all discounts on monthly invoices. Invoices shall not be submitted more frequently than once a month.

SECTION 21 - SPECIFICATIONS

See plans identified as "A NEW EVENT CENTER AT OCONEE SPRINGS PARK PUTNAM COUNTY BOARD OF COMMISSIONERS EATONTON, GA."

Additional Information:

AMENDMENTS TO DRAWINGS

ITEM NO. 1: All sitework (grading, clearing, erosion control, storm water control, water and sewer lines, sidewalks, paving and testing) shall be excluded from the contractor's scope of work. This work will be performed by Putnam County

ITEM NO. 2: Putnam County will waive all building permit fees

ITEM NO. 3: Drawings A-5, A-6, A-7: Change note that reads: "6" simple saver insulation" to read: "Thermal Design Simple Saver Insulation System with 3 1/2" thick insulation above purlin and 6 thick insulation between the purlins to achieve an R-Value of 30."

ITEM NO. 4: See Attached Hardware Schedule

ITEM NO. 5: Include an allowance of \$300 to purchase each electrical light fixture tagged as "A" fixture.

ITEM NO. 6: The contractor shall include in his bid the electrical meter base. The actual service will not be in the contractor's scope of work.

ITEM NO. 7: It is the contractor's responsibility to engage a professional pest control operator, licensed in accordance with regulations of governing authorities for application of soil treatment solution under building footprint before the slab is installed. Use only termiticides which bear a Federal registration number of the U.S. Environmental Protection Agency.

ITEM NO. 8: All building main frame columns are straight. No tapered frames are acceptable.

For additional information, please contact Oconee Springs Park Director Lonnie Campbell at 706-485-8423 or onsite at 109 S. Spring Road, Eatonton, GA 31024.

IMPORTANT SUBMITTAL REQUIREMENT

Submittals must be properly labeled to ensure they are not inadvertently opened before the designated time. Affix the label below to the outside of the sealed submittal envelope or delivery package.

If this label is **not used (i.e. in case of some delivery services), it is the bidder's responsibility to** ensure that all required information (**offeror's name, address and phone number, the project number,** name of the project for which the proposal is being submitted, and the bid opening date and time) is on the OUTSIDE of the delivery package. Submissions that do not comply may be rejected.

2 2 2	 	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u>~</u>	<u>~</u>
FROM: Company Name Address:	 			
Phone:	 			

Bid/Proposal #: <u>21-61801-001</u>

Bid/Proposal Name: <u>Building an Event Center at Oconee Springs Park</u> Bid Opening Date/Time: <u>Wednesday, April 7, 2021, 9:00 AM</u>

> TO: PUTNAM COUNTY BOARD OF COMMISSIONERS ATTN: COUNTY MANAGER 117 PUTNAM DRIVE SUITE A EATONTON, GA 31024



117 Putnam Drive, Suite A & Eatonton, GA 31024 Tel: 706-485-5826 & Fax: 706-923-2345 & <u>www.putnamcountyga.us</u>

PROPOSAL FORM SOLICITATION 21-61801-001 BUILDING AN EVENT CENTER AT OCONEE SPRINGS PARK

To: The Putnam County Board of Commissioners

Pursuant to the invitation to bid and the instructions to Bidders and according to the specifications attached, the below stated bidder proposes the following prices for Building an Event Center at Oconee Springs Park:

(Name of Bidder)	_ does hereby propose the following:
\$ (Base Bid)	
OPTIONS:	
a)	\$
b)	\$
c)	\$
Grand Total: \$	

Additional sheet may be attached for detailed breakdown.

MARK OUTSIDE OF BID ENVELOPE AS FOLLOWS:

The offeror's name, address, telephone number, the Solicitation # and name, the date Wednesday, April 7, 2021 at 9:00 a.m. and addressed as follows:

Building an Event Center at Oconee Springs Park Attn: Paul Van Haute, County Manager

I hereby acknowledge receipt of the following checked amendments of the Proposal, Plans and/or Specifications, etc.:

Amendment No's: 1___, 2___, 3___, 4___, 5___, I understand that failure to confirm the receipt of amendments is cause for rejection of bids.

Signatures on the following page

The undersigned signatory for the bidder represents and warrants that he has full and complete authority to submit this proposal to the County and to enter into contract with Putnam County.

COMPANY NAME		BY (SIGNATURE)	
STREET ADDRESS o	r P. O. BOX	(PRINT NAME)	
CITY, STATE	ZIP CODE	(TITLE)	
TELEPHONE NO.	FAX NO.	(DATE)	
EMPLOYERS FEDERA SOCIAL SECURITY N		Email	
		s on this document, having perso hat the above statements are true	

Sworn to and subscribed before me this _____day of _____, 20____.

Notary signature:	
5 8	

My commission expires: _____ (seal)



117 Putnam Drive, Suite A & Eatonton, GA 31024 Tel: 706-485-5826 & Fax: 706-923-2345 & <u>www.putnamcountyga.us</u>

INSURANCE CLAUSE FOR ALL COUNTY CONTRACTS

The Contractor shall indemnify and hold harmless, to the fullest extent allowed by law, Putnam County, Georgia, its members, its officers and employees from and against all losses, claims, damages and expenses, including court-ordered attorney's fees, arising out of or resulting from the performance of the contract that results in bodily injury, sickness, disease, death or injury to or destruction of tangible property, including the loss of use resulting therefrom and is caused in whole or in part by the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

Contractor shall not commence work under this contract until he has obtained all insurance required under this Section and such insurance has been approved by PUTNAM COUNTY, nor shall the Contractor allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been so obtained and approved.

A. <u>Workers' Compensation Insurance and Employer's Liability Insurance:</u>

The Contractor shall take out and maintain during the life of this contract the applicable statutory Worker's Compensation Insurance, and in the case of any work sublet, the Contractor shall require the subcontractor similarly to provide statutory Worker's Compensation Insurance for the latter's employees. Coverage shall be provided by an insurance company authorized to write such insurance in all states where the Contractor will have employees located in the performance of this contract, and the Contractor shall require each of his subcontractors similarly to maintain Employer's Liability Insurance similarly to the Contractor.

Worker's Compensation – Required limits: Coverage A – Coverage will include Statutory requirements Coverage B – Employers Liability \$100,000 Each Person \$100,000 Each Person by Disease \$500,000 Policy Limit – Disease

B. <u>General Liability Insurance</u>

 The Contractor shall maintain during the life of this contract, Commercial General Liability Insurance, naming and protecting him and Putnam County against claims for damages resulting from (a) bodily injury, including wrongful death, and (b) property damage which may arise from operations under this contract whether such operations be by himself or by any subcontractor or anyone directly or indirectly employed by either of them. The insurance requirements are: Commercial General Liability with limits of:

\$1,000,000 Each Occurrence

\$1,000,000 Personal Injury

\$2,000,000 Products/Completed Operations

- \$2,000,000 General Aggregate
- 2. Coverage shall include Contractual Liability coverage insuring the contractual exposure as addressed in this contract.
- 3. There shall be no exclusion or limitation for the Explosion (X), Collapse (C) and Underground (U) hazards.
- 4. Putnam County shall be named as Additional Insured.
- 5. The Commercial General Liability coverage shall be endorsed with the Designated Construction Project(s) General Aggregate Limit endorsement.
- C. <u>Automobile Liability Insurance:</u> The Contractor shall take out and maintain during the life of the contract such Automobile Liability Insurance as shall protect him against claims for damages resulting from (a) bodily injury, including wrongful death, and (b) property damage which may arise from the operations of any owned, hired, or non-owned automobiles used by or for him in any capacity in connection with the carrying out of this contract. The minimum acceptable limits of liability to be provided by such Automobile Liability Insurance shall be as follows:

Bodily Injury and Property Damage \$1,000,000 Combined Single Limit

- D. <u>Builder's Risk Insurance:</u> (For Building Construction Contracts <u>Only</u>) Unless otherwise specified where buildings are to be constructed under this contract, the Contractor shall provide coverage for all direct physical loss (also known as "Special Causes of Loss"). Such insurance shall be written on a Replacement Cost basis covering such building in the amount equal to one-hundred percent (100%) of the contract amount (minimum) as specified herein. Losses, if any, shall be made payable to PUTNAM COUNTY and Contractor as their interest may appear. A certificate of insurance evidencing such insurance coverage shall be filed with PUTNAM COUNTY by the time work on the building begins and such insurance shall be subjected to the approval of PUTNAM COUNTY.
- E. <u>Minimum Scope of Insurance:</u> All Liability Insurance policies shall be written on an <u>"Occurrence"</u> basis only. All insurance coverage is to be placed with insurers authorized to do business in the State of Georgia.
- F. <u>Certificate of Insurance</u>: All Certificates of Insurance shall be filed with PUTNAM COUNTY on the standard ACCORD CERTIFICATE OF INSURANCE form showing the specific limits of insurance, coverage modifications and endorsements required by the preceding Sections A, B, C, D and showing PUTNAM COUNTY as an additional insured where required. Such certificate shall specifically state that insurance policies are to be endorsed to require the insurer to provide PUTNAM COUNTY thirty days notice of cancellation, non-renewal or any material reduction of insurance coverage.

The original certificate shall be provided to the Putnam County Board of Commissioners as designated and mailed to: 117 Putnam Drive, Suite A, Eatonton, GA 31024.



117 Putnam Drive, Suite A & Eatonton, GA 31024 706-485-5826 & 706-923-2345 fax www.putnamcountyga.us

SAVE Affidavit

(U.S. Citizens are only required to provide this affidavit one time)

By executing this affidavit under oath, as bidder to Putnam County Georgia as referenced in O.C.G.A. § 50-36-1, the undersigned applicant verifies one of the following with respect to my application for a public benefit:

Please check one box only

1) I am a United States citizen

2) I am a legal permanent resident of the United States

3) I am a qualified alien or non-immigrant under the Federal Immigration and Nationality Act with an alien number issued by the Department of Homeland Security or other federal immigration agency

My alien number issued by the Department of Homeland Security or other federal immigration agency is:

The undersigned applicant also hereby verifies that he or she is 18 years of age or older and has provided at least one secure and verifiable document, as required by O.C.G.A. § 50-36-1(e)(1), with this affidavit.

The secure and verifiable document provided with this affidavit can best be classified as:

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of O.C.G.A. § 16-10-20, and face criminal penalties as allowed by such criminal statue.

Executed in	(city),	(state).
Signature of Applicant:		
Printed Name:		
Date		
SUBSCRIBED AND SWORN BEFORE ME ON THIS DAY OF, 20		
Notary Public Signature:		Affix Notary stamp/seal here
My Commission Expires:		



117 Putnam Drive, Suite A & Eatonton, GA 31024 706-485-5826 & 706-923-2345 fax & www.putnamcountyga.us

Contractor Affidavit Under O.C.G.A. § 13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of the Putnam County Board of Commissioners has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization number and date of authorization are as follows:

Federal Work Authorization User Identification Number	Date of Authorization
Name of Contractor	
Name of Project	
Putnam County Board of Commissioners Name of Public Employer	
I hereby declare under penalty of perjury that the foregoin	ng is true and correct.
Executed on the day of	, 20 in
(city),	(state).
Signature of Authorized Officer or Agent Printed	Name and Title of Authorized Officer or Agent
SUBSCRIBED AND SWORN BEFORE ME ON THIS 7	ГНЕ
DAY OF, 20	
Notary Public Signature	

My Commission Expires:



117 Putnam Drive, Suite A & Eatonton, GA 31024 706-485-5826 ◊ 706-923-2345 fax ◊ www.putnamcountyga.us

Subcontractor Affidavit Under O.C.G.A. § 13-10-91(b)(3)

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with _____ (name of contractor) on behalf of the Putnam County Board of Commissioners has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice of receipt of an affidavit from any sub-subcontractor that has contracted with a sub-subcontractor to forward, within five business days of receipt, a copy of such notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Project

Name of Subcontractor

Putnam County Board of Commissioners Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on the _____ day of _____, 20____ in

_____(city), _____(state).

 Signature of Authorized Officer or Agent
 Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE ____ DAY OF ______, 20_____

Notary Public Signature

My Commission Expires:



117 Putnam Drive, Suite A & Eatonton, GA 31024 706-485-5826 \0020 706-923-2345 fax \0000 www.putnamcountyga.us

Sub-subcontractor Affidavit Under O.C.G.A. § 13-10-91(b)(4)

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with ______ (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and ______ (name of contractor) on behalf of t _____ (name of contractor) on behalf of the subcontractor has privity of contract) and ______ (name of contractor) on behalf of the Putnam County Board of Commissioners has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subsubcontractor will contract for the physical performance of services in satisfaction of such contract only with subsubcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. § 13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to

(name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to ______ (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-subcontractor

Putnam County Board of Commissioners Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on the _____ day of _____, 20___ in

_____(city), ______(state).

 Signature of Authorized Officer or Agent
 Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE _____ DAY OF ______, 20_____

My Commission Expires:

Name of Project

Notary Public Signature

A NEW EVENTS CENTER AT **OCONEE SPRINGS PARK** PUTNAM COUNTY BOARD OF COMMISSIONERS

APPLICABLE CODES

BUILDING: 2012 INTERNATIONAL BUILDING CODE / 2014, 2015, & 2017 GEORGIA AMENDMENTS

PLUMBING: 2012 INTERNATIONAL PLUMBING CODE / 2014, AND 2015 GEORGIA AMENDMENTS

MECHANICAL: 2012 INTERNATIONAL MECHANICAL CODE/ 2014 AND 2015 GEORGIA AMENDMENTS

ELECTRICAL: 2017 NATIONAL ELECTRICAL CODE / NO AMENDMENTS

GAS: 2012 INTERNATIONAL FUEL GAS CODE / 2014 AND 2015 GEORGIA AMENDMENTS

FIRE: 2012 INTERNATIONAL FIRE CODE WITH GEORGIA AMENDMENTS

ENERGY: 2009 INTERNATIONAL ENERGY CONSERVATION CODE WITH 2014 AND 2015 GEORGIA AMENDMENTS

LIFE SAFETY: 2012 NFPA 101 LIFE SAFETY CODE WITH GEORGIA AMENDMENTS

HANDICAP: 2010 ADA STANDARDS FORACCESSIBLE DESIGN / GEORGIA AMENDMENTS

BUILDING FEATURES

*

CONSTRUCTION TYPE (NFPA 101) TYPE II (0,0,0) FIRE PROTECTION: NOT SPRINKLED NUMBER OF STORIES: ONE GROSS AREA: 1,848 SQUARE FEET **TYPE OCCUPANCY: ASSEMBLY** OCCUPANT LOAD (NFPA 101): 125 NUMBER OF EXITS - 4



EATONTON, GA.

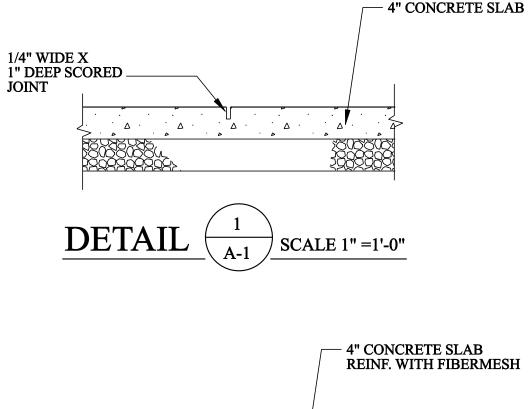


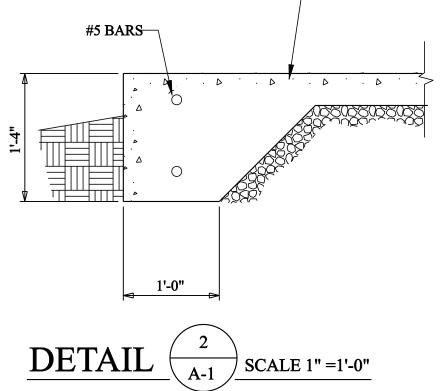
RAY FORDHAM, ARCHITECT A.I.A. 745 S. CHICKASAW TRAIL SPARTA, GA. 31087 PH. 478-251-1758 E-MAIL rfordham@windstream.net website - http://fordhamandco.com/

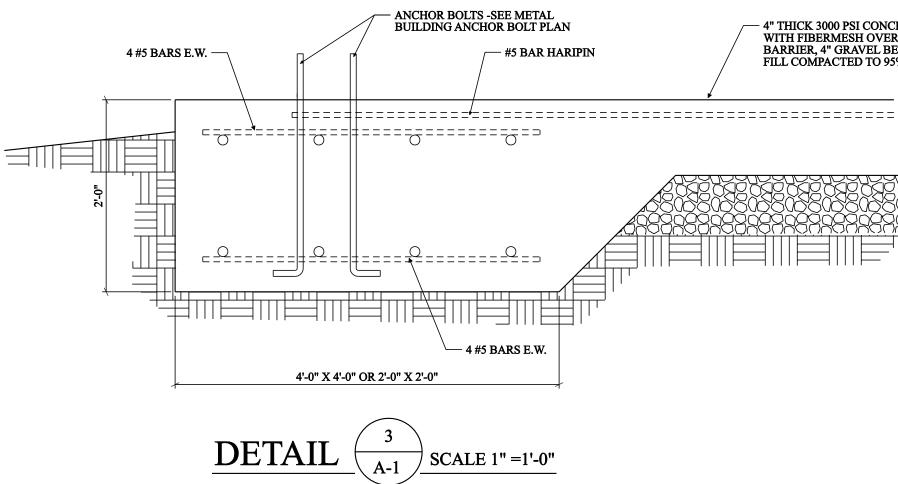
GENERAL NOTES

- 1- COMPLY WITH APPLICABLE STANDARDS OF THE AMERICAN CONCRETE INSTITUTE, STANDARD NO. 318 LATEST EDITION AND ACI DOCUMENT 301, WITH EXCLUSIONS NOTED.
- 2- CONCRETE SHALL BE OF NORMAL WEIGHT (150 PCF) AND SHALL DEVELOP A MIN. COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. AIR-ENTRAINING ADMIXTURES, ASTM DESIGNATION C260, WILL BE REQUIRED IN ALL CONCRETE AND COURSE GROUT. INTERIOR SLABS THAT ARE TO RECEIVE A HARD TROWEL FINISH SHALL HAVE NO MORE THAN 3% TOTAL AIR CONTENT. NO MATERIALS WITH FREE CHLORIDE IONS WILL BE PERMITTED. SLUMP SHALL BE 4" (È1")
- 3- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, HAVING A MIN. YIELD POINT STRENGTH OF 60 KSI. ANCHOR BOLTS AND TIE RODS SHALL CONFORM TO ASTM F1554 (GRADE 36) RODS WITH THREADED ENDS AS SHOWN ON DETAILS. NUTS SHALL CONFORM TO ASTM A563.
- 4- DRAINAGE FILL UNDER SLABS ON GRADE: CLEAN UNCOATED GRAVEL OR CRUSHED STONE (NO. 57 STONE), FREE FROM SHALE OR OTHER SOFT MATERIAL. ROLL DRAINAGE FILL THOROUGHLY AND TAMP TO LEVEL OF AT LEAST THE THICKNESS SHOWN WHEN TAMPED AND COVERED WITH VAPOR BARRIER.
- 5- VAPOR BARRIER SHALL BE 6 MILS THICK POLYETHELYNE FILM LAID IN GREATEST PRACTICAL LENGTHS AND LAPPED 12" MIN.
- 6- FIBROUS CONCRETE REINFORCEMENT (REQUIRED IN ALL SLABS ON GRADE): 100 PERCENT VIRGIN POLYPROPYLENE, FIBRILLATED FIBERS CONTAINING NO REPROCESSED OLEFIN MATERIALS AND SPECIFICALLY MANUFACTURED FOR USE AS CONCRETE SECONDARY REINFORCEMENT. VOLUME PER CUBIC YARD SHALL EQUAL A MINIMUM OF 0.1% (1.5 POUNDS). FIBERS SHALL BE MINIMUM S" LENGTH, 80 KSI MINIMUM TENSILE STRENGTH, SP. GR. OF 0.9 AND LESS THAN 100 DENIER. FIBERS ARE FOR THE CONTROL OF CRACKING DUE TO DRYING, SHRINKAGE, AND THERMAL EXPANSION/CONTRACTION, REDUCTION OF PERMEABILITY, INCREASED IMPACT CAPACITY, SHATTER RESISTANCE ABRASION RESISTANCE, AND ADDED TOUGHNESS. FIBER MANUFACTURER MUST DOCUMENT COMPLIANCE WITH APPLICABLE BUILDING CODES AND ASTM C-1116 TYPE III 4.1.3 AND ASTM C-1116 (REF. ASTM C-1018) PERFORMANCE LEVEL I/5 OUTLINE IN SECTION 21, NOTE 17. FIBER REINFORCING SHALL BE PLACED IN THE CONCRETE MIX ONLY AT THE BATCH PLANT. ALL ADDITIONS, MIXING, FINISHING, CURING OR OTHER OPERATIONS RELATED TO THE USE OF THE FIBER MATERIAL SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. ALLOWABLE FIBERS AND MANUFACTURERS ARE FIBERMESH BY FIBERMESH COMPANY, FORTA ECONO-NET BY FORTA CORP., OR GRACE FIBERS BY W.R. GRACE CO.
- 7- USE OF CURING COMPOUNDS IS PROHIBITED FOR INITIAL CURING, INITIAL CURING SHALL BE BY PONDING, CONTINUOUS SPRINKLING, SAND KEPT MOIST OR MOISTURE RETAINING COVER (6 MIL. POLY). CURING PROCEDURE SHALL CONTINUE FOR AT LEAST 7 DAYS AFTER CONCRETE IS PLACED.
- 8- FOUNDATION DESIGN ASSUMES SITE IS LEVELED TO ACCOMODATE MINIMUM FOOTING COVER SHOWN. CONTACT A GEOTECHNICAL ENGINEER TO DEVELOP STRUCTURAL FILL REQUIREMENTS AS NEEDED.

9- SOIL BEARING CAPACITY SHALL BE A MINIMUM OF 2500 PSF.





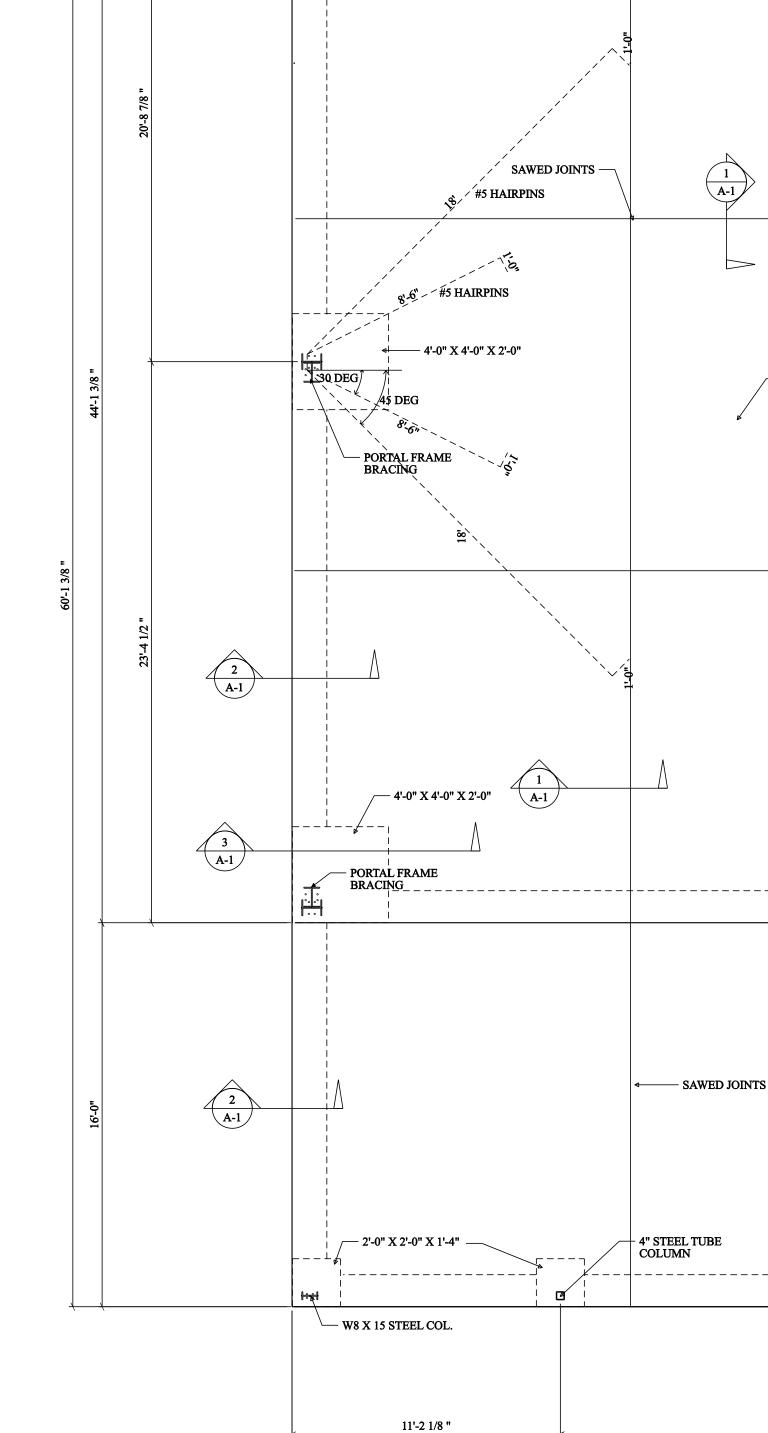


- 4" THICK 3000 PSI CONCRETE SLAB REINF. WITH FIBERMESH OVER 6 MIL VAPOR

BARRIER, 4" GRAVEL BED AND EARTH

FILL COMPACTED TO 95%

FOUNDATION AND FLOOR SLAB PLAN

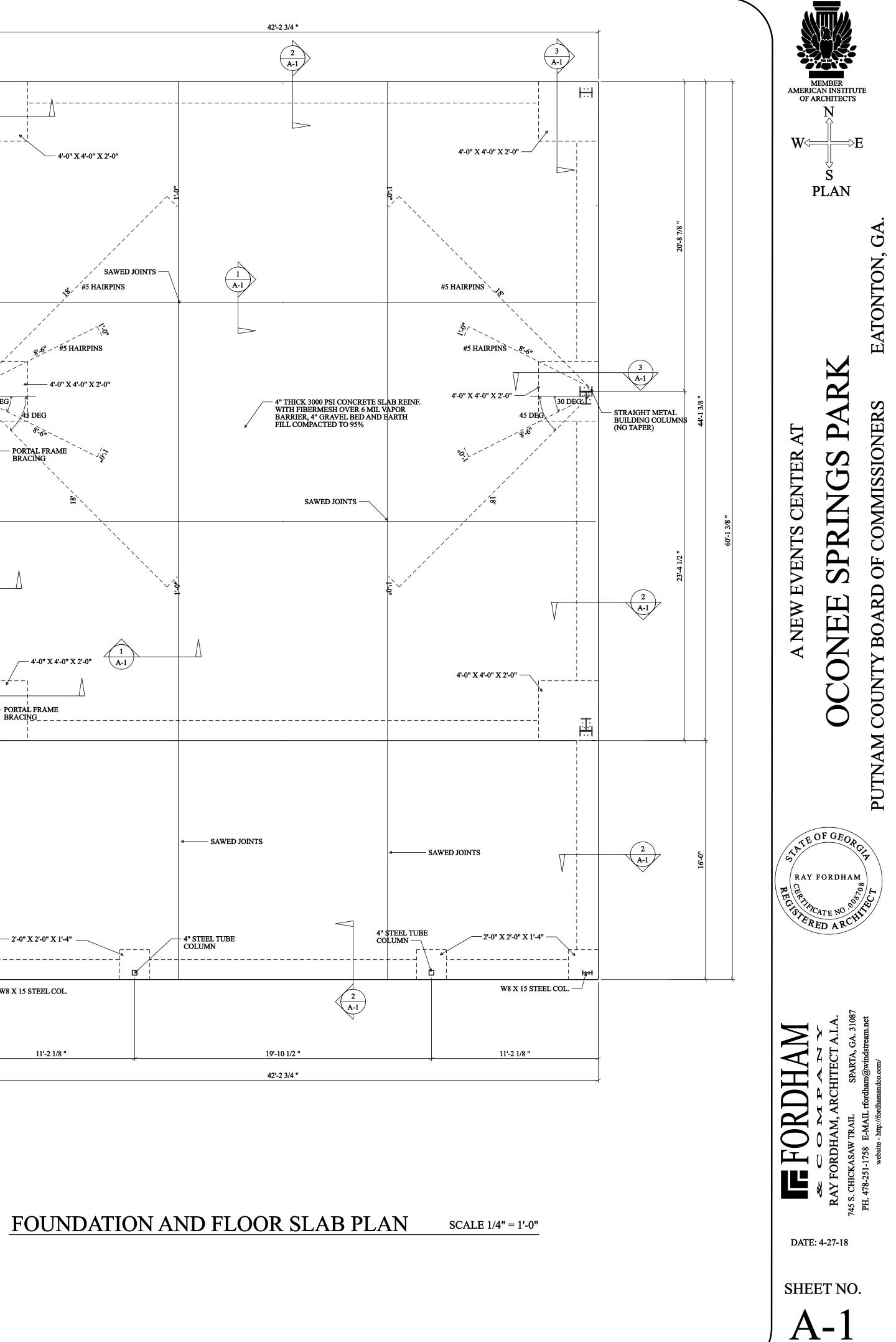


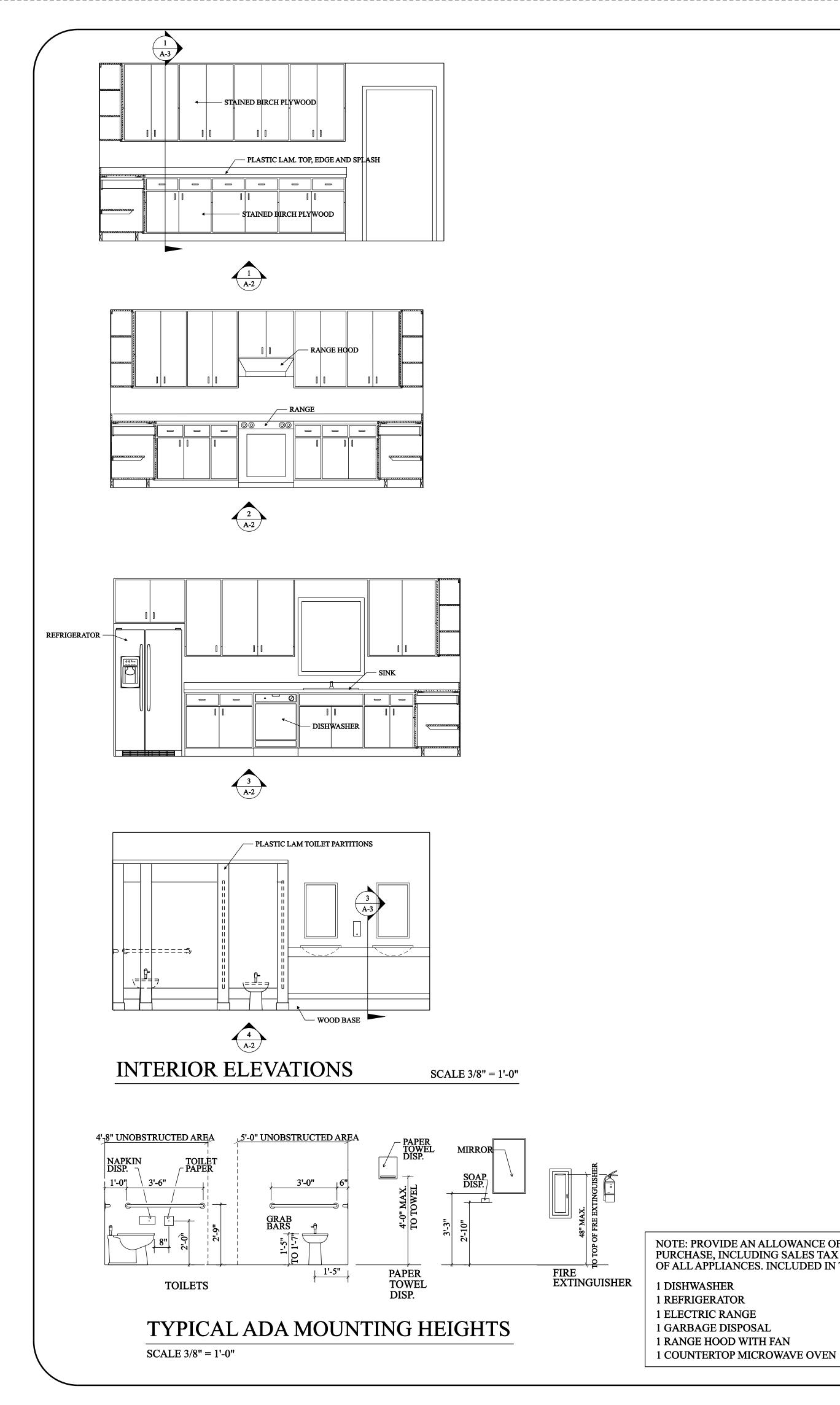
1 3 `

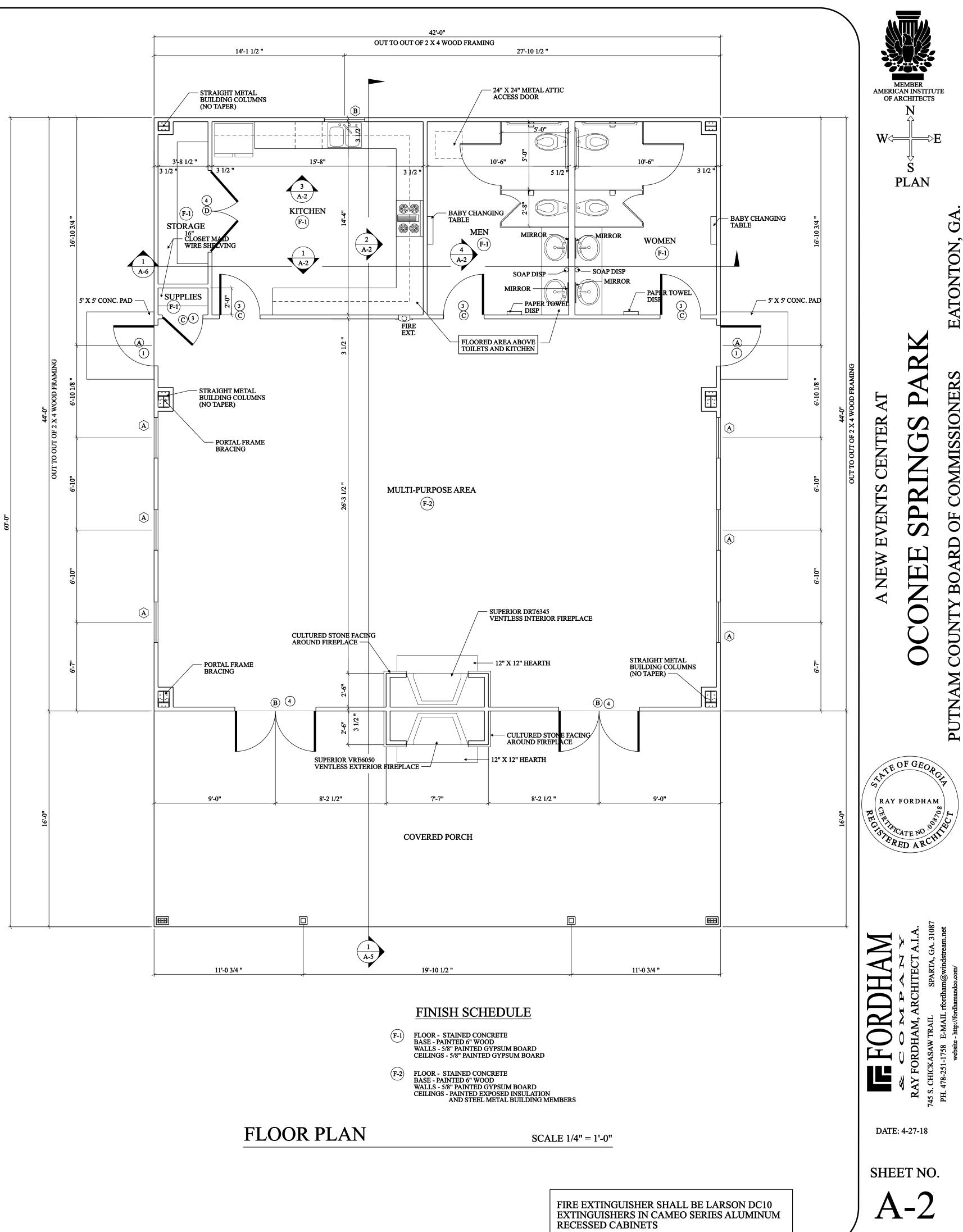
A-1

_ _ _ _ _ _ _

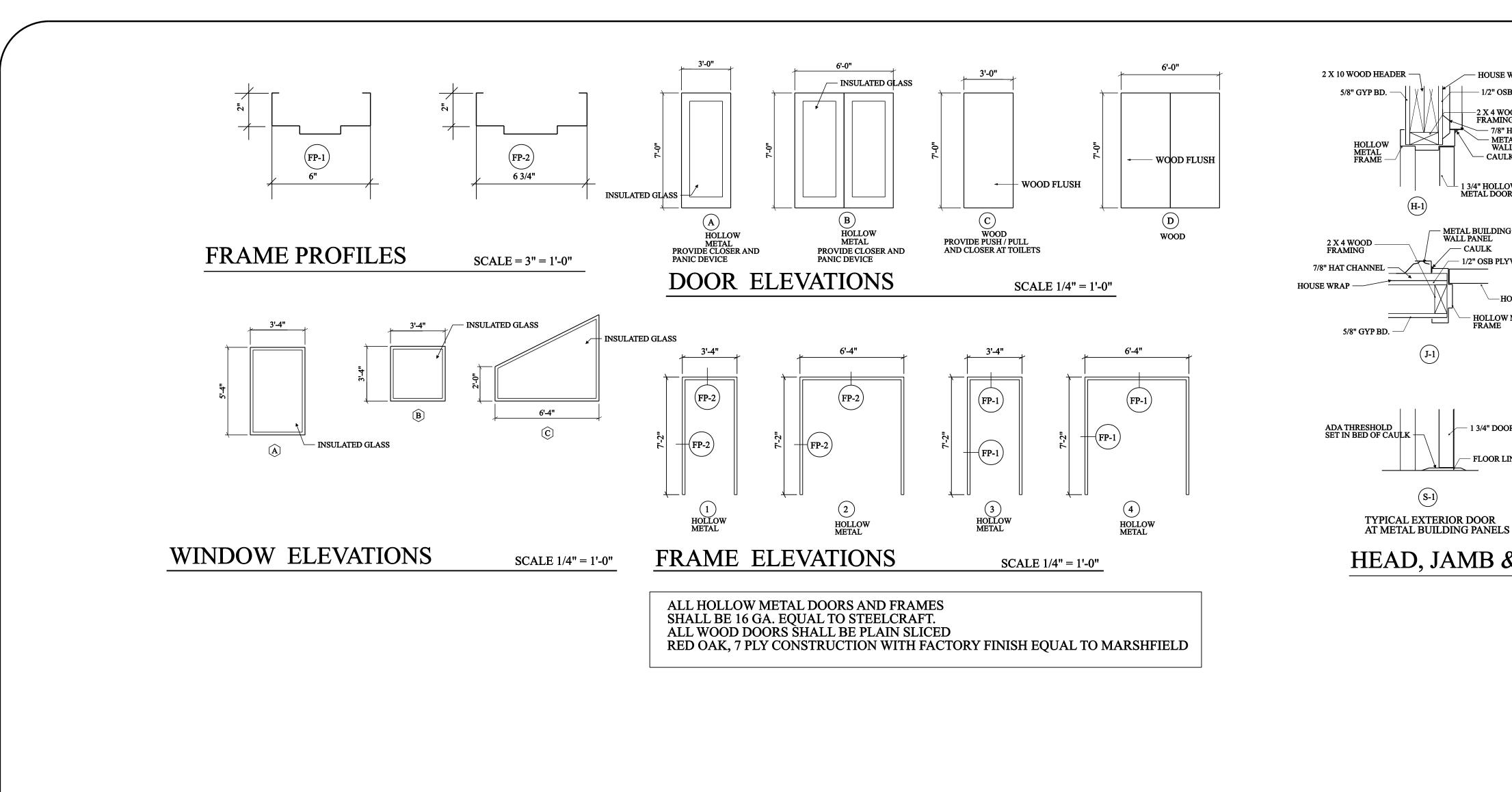
— 4'-0" X 4'-0" X 2'-0"







NOTE: PROVIDE AN ALLOWANCE OF \$6000 FOR THE PURCHASE, INCLUDING SALES TAX AND INSTALLATION OF ALL APPLIANCES. INCLUDED IN THE ALLOWANCE ARE: 1 DISHWASHER **1 REFRIGERATOR 1 ELECTRIC RANGE 1 GARBAGE DISPOSAL** 1 RANGE HOOD WITH FAN



PAINTING SCHEDULE EXTERIOR:

Ferrous Metals One Coat: S-W) B50N2 Ken Kromik Metal Primer Two Coats: (S-W) B-54 Exterior Gloss Enamel

Galvanized Metals One Coat: (S-W) B50W3 Galvite Two Coats: (S-W) B-54 Exterior Gloss Enamel **INTERIOR:**

Steel One Coat: (S-W) DTM Acrylic Primer Two Coats: (S-W) DTM Acrylic Finish Coating

Galvanized Metals One Coat: (S-W) B50W3 Galvite Two Coats: (S-W) A-40 Classics 99 Semi-Gloss

Wood (Painted) One Coat: S-W) B49W2 Enamel Undercoater Two Coats: (S-W) A-40 Classic 99 Semi Gloss

Wood (Stain finish) Wood doors, One Coat: (S-W) A48 Interior Stain One Coat: Varnish sand and sealer One Coat: (S-W) A67V1 Marvethane Gloss One Coat: (S-W) A67F1 Marvethane Satin

Gypsum Board One Coat: (S-W) B28Wl Primer Sealer Two Coats: (S-W) Classic 99 Flat Latex

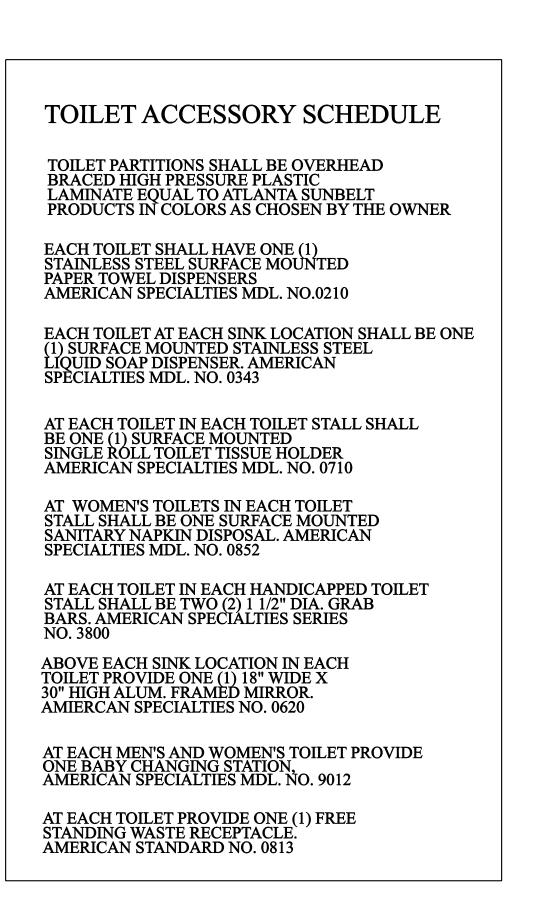
GYPSUM BOARD INSTALLATION: A.Gypsum board shall be installed at locations noted on drawings.

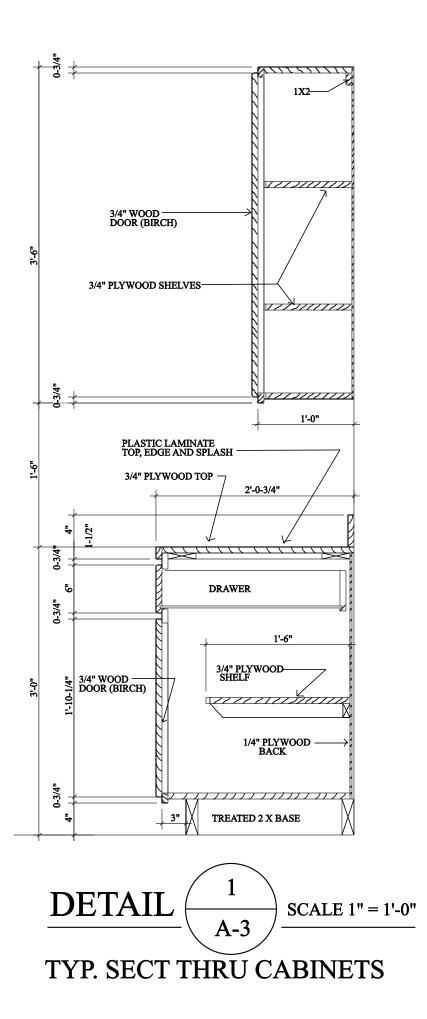
- B.Gypsum board shall be secured to wood studs at 8" o. c. at joints and 12" o. c. in field. Drive screws 3/8 inch from ends or edges of board to provide a uniform dimple 1/32 inch deep.
- C. Gypsum board shall be taped, sanded and ready to receive specified finish.
- D.Casing beads shall be installed where gypsum board abuts other material.
- E. Corner beads shall be installed at all outside corners.
- F. Install wall partition boards horizontally.

G.Install exposed gypsum board with face side out. Do not install imperfect, damaged or damp boards. Butt boards together for a light contact at edges and ends with not more than 1/16- inch open space between boards. Do not force into place.

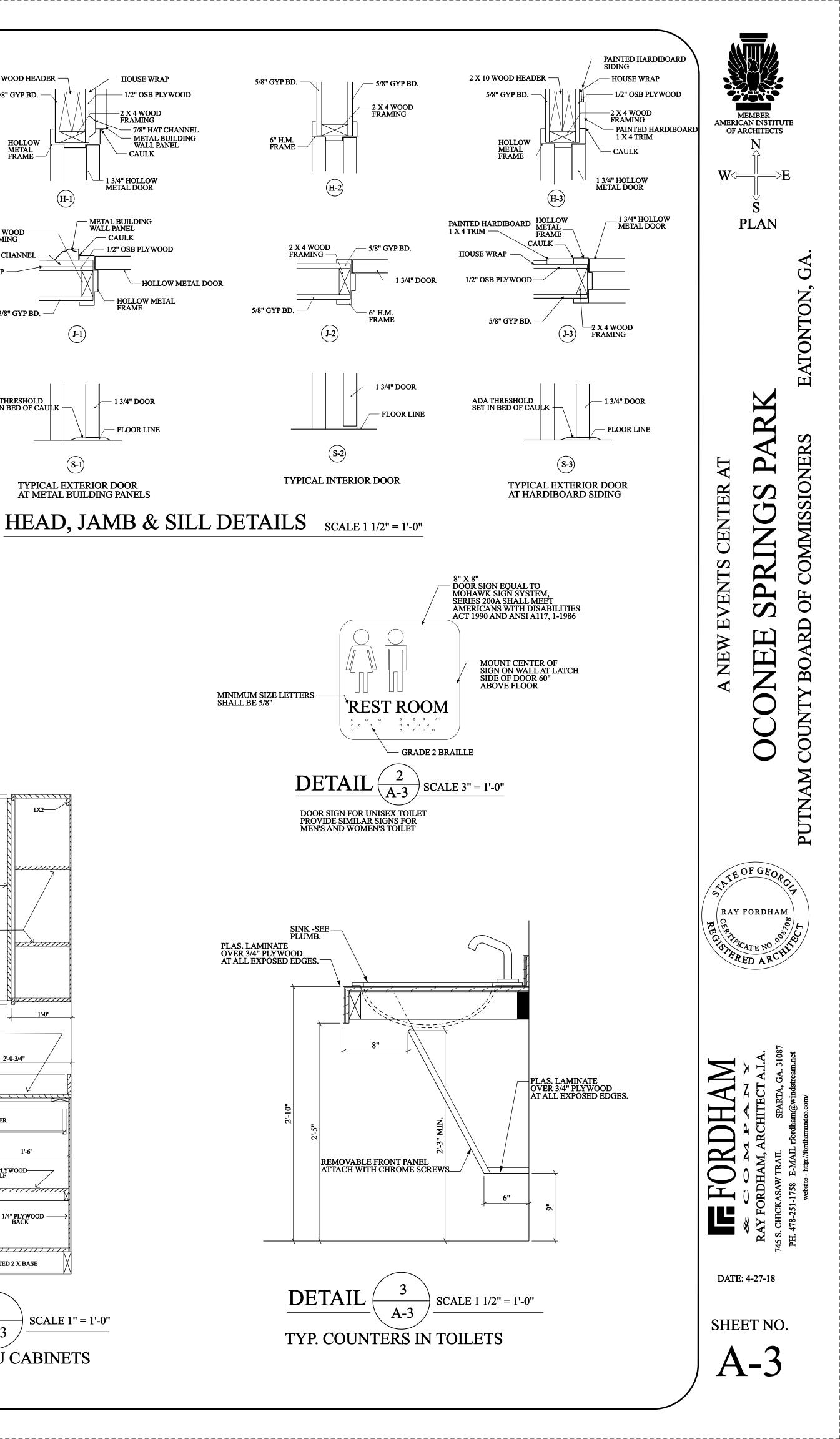
H.Locate end joints over supports. Position boards so that like edges abut, tapered edges against tapered edges and mill-cut or field-cut ends against mill-cut or field-cut ends. Do not place tapered edges against cut edges or ends. Stagger vertical joints over different studs on opposite sides of partitions.

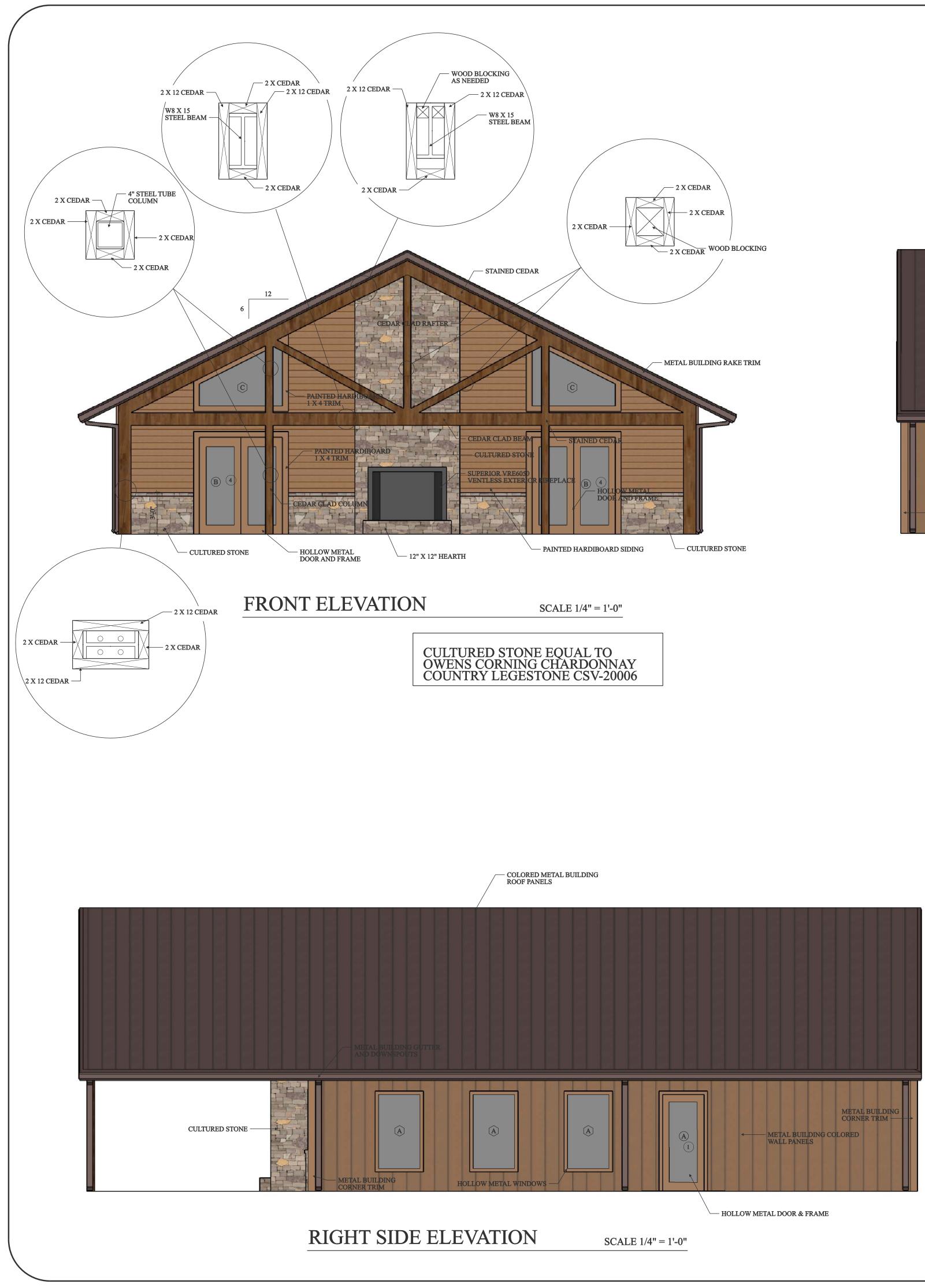
- I.Provide sound attenuation blankets in all interior gypsum board/wood stud walls. Extend from bott plate to top plate. Sound attenuation blankets shall be snug fit at joints, against wood studs and at penetrations of pipes thru wall, leaving no open areas. Provide sound/attenuation blankets in gypsum board walls of plumbing chases plumbing chases.
- J.Provide corner guard at all outside corners of gypsum board walls. Bottom at 4" above finish floor. Secure to wall with 3 chrome plated screws on each leg.
- K.Provide control joints in wallboard where length of wall exceeds 30 feet. Control joints shall cut wallboard from top to bottom to control stresses in wallboard. Architect shall approve location of all control joints.
- FINISHING GYPSUM BOARD JOINTS: A. Provide a Level 5 (highest quality) finish to all gypsum board surfaces in accordance with guidelines and procedures outlined in the United States Gypsum Company Gypsum Construction Handbook.





- CAULK



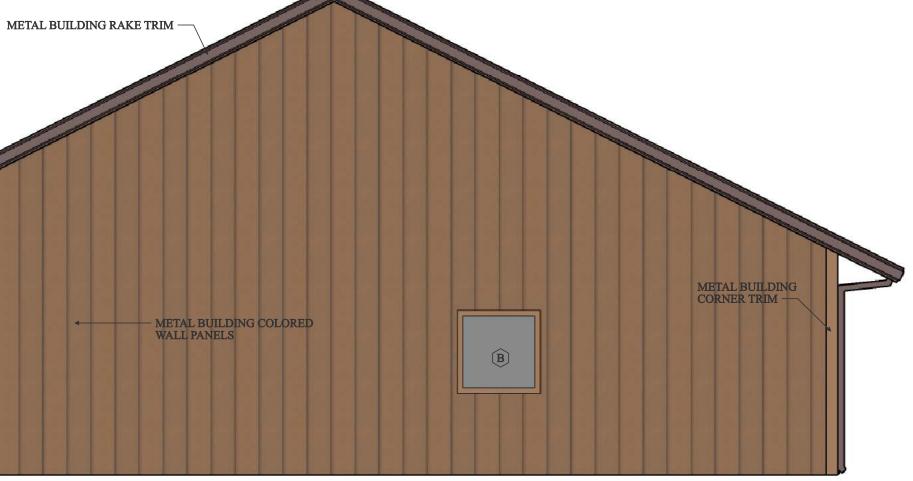




LEFT SIDE ELEVATION

REAR ELEVATION

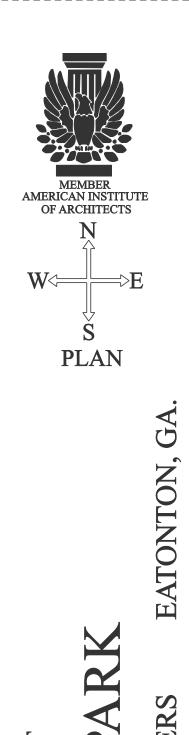
SCALE 1/4" = 1'-0"







SCALE 1/4" = 1'-0"



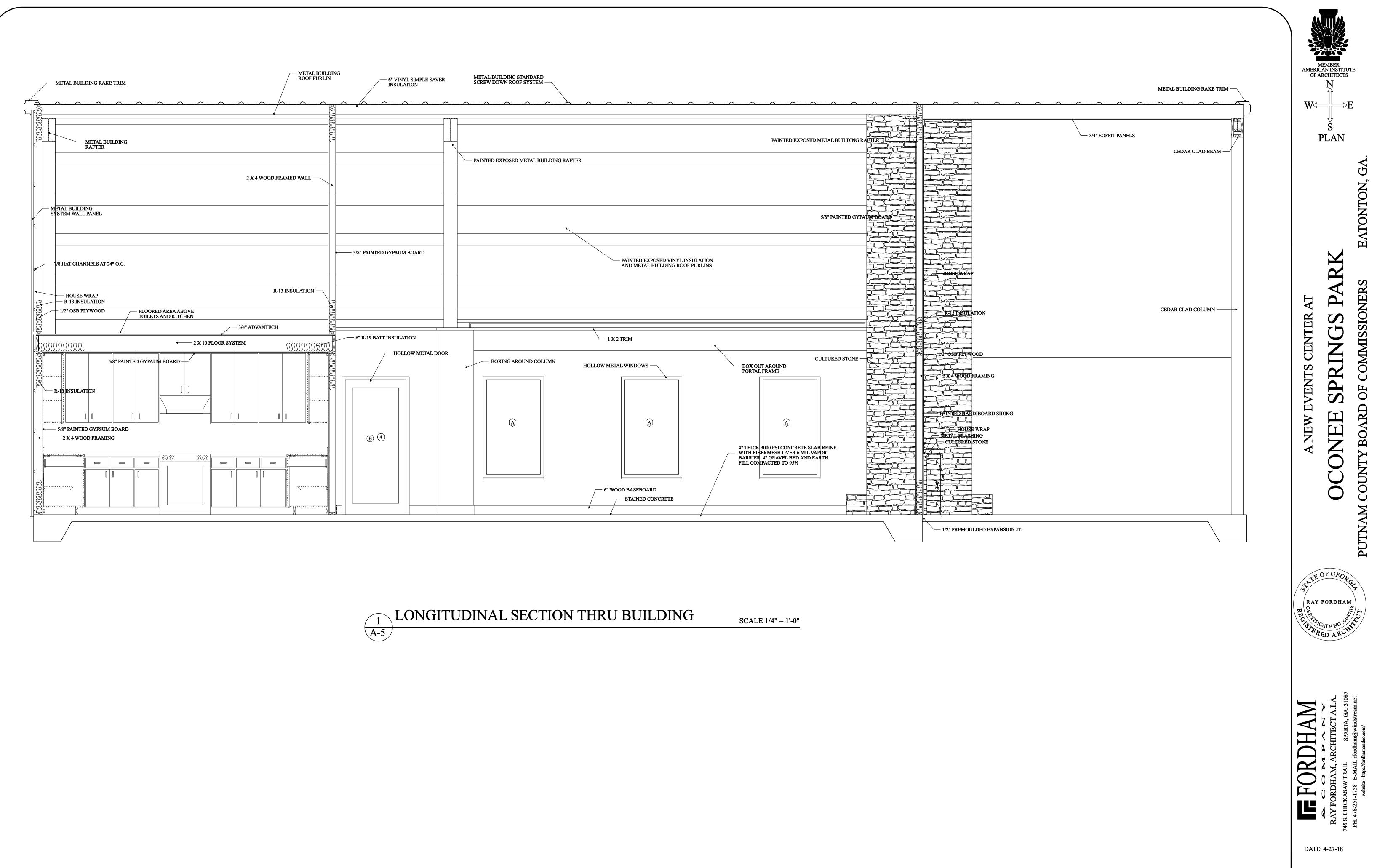
ARK OF COMMISSIONERS NEW EVENTS CENTER AT 2 SPRINGS **OUNTY BOARD** NEE A C S **PUTNAM C** TE OF GEOR RAY FORDHAM I STERED AV F FORDH CHIT FORDHAM,

DATE: 4-27-18

RAY

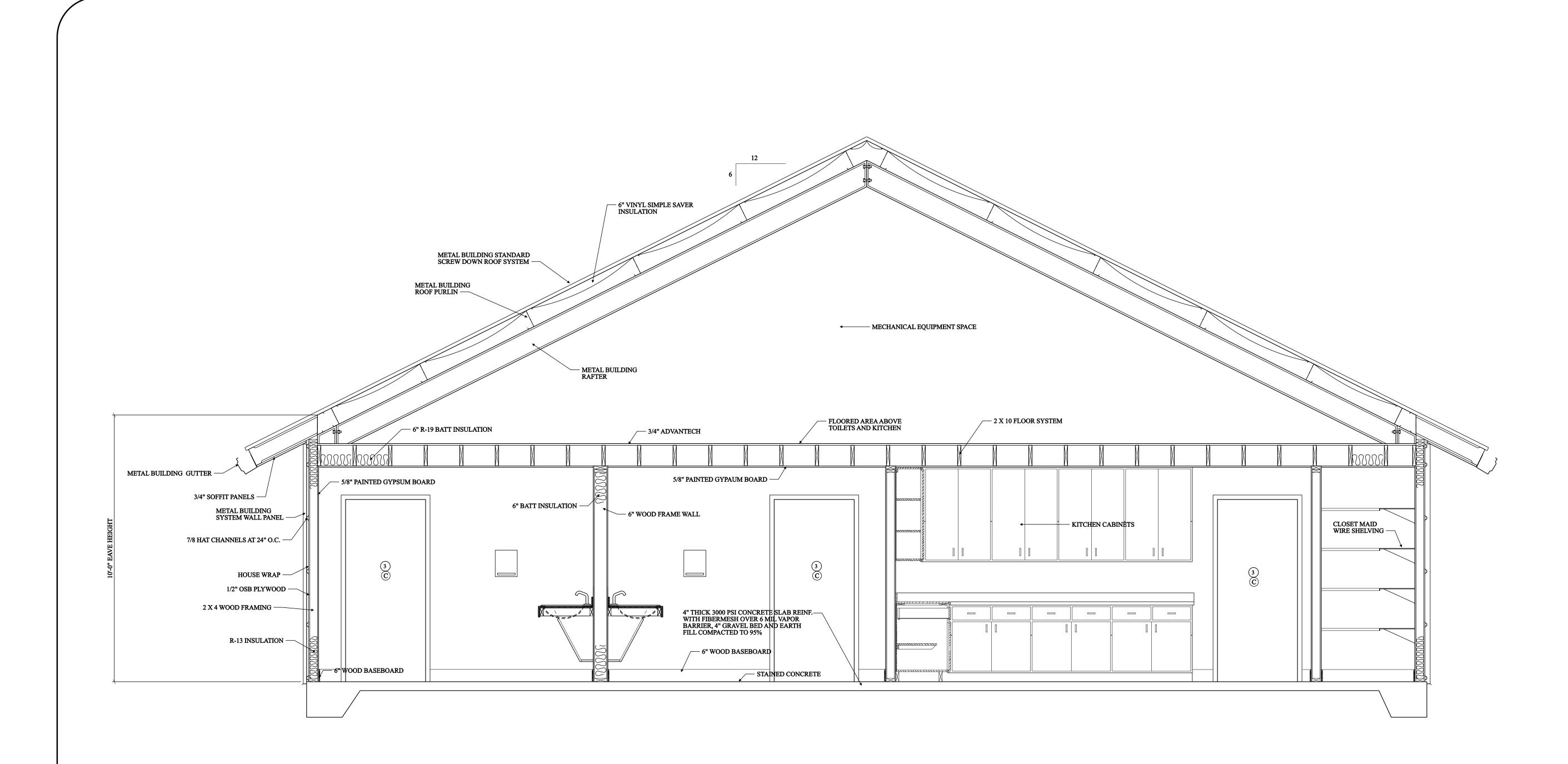
SHEET NO.





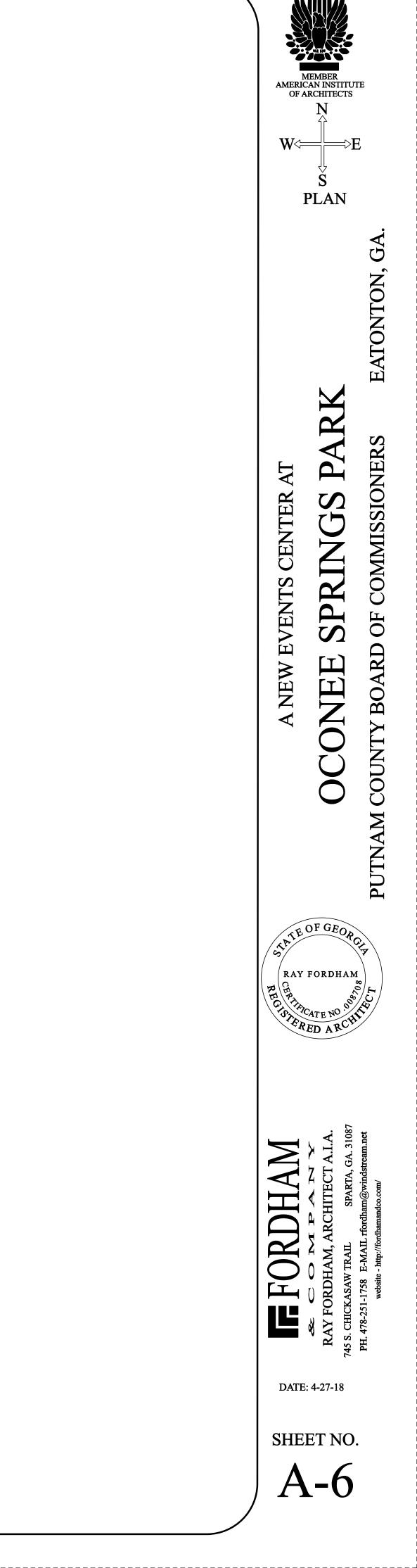
SHEET NO.

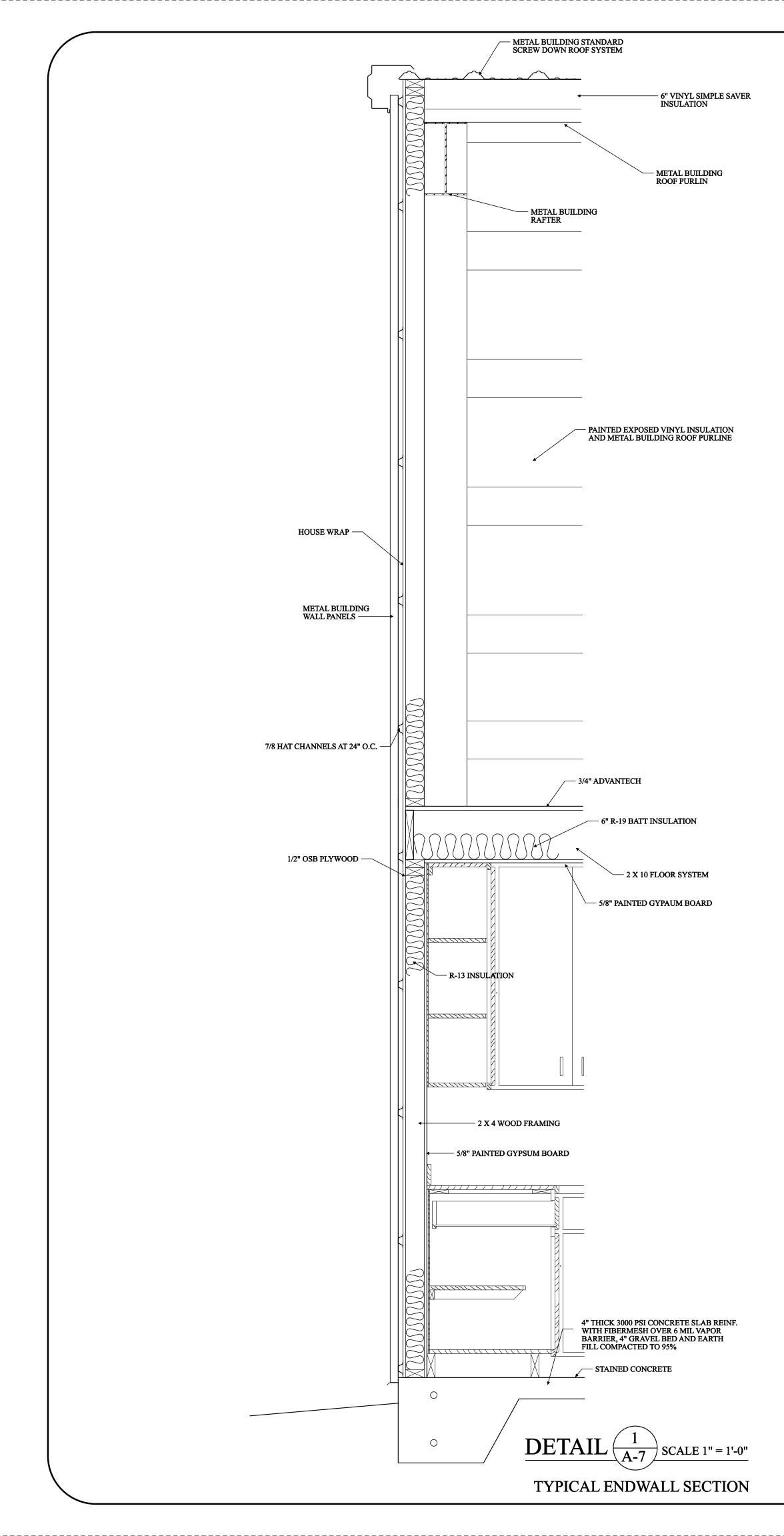
A-5

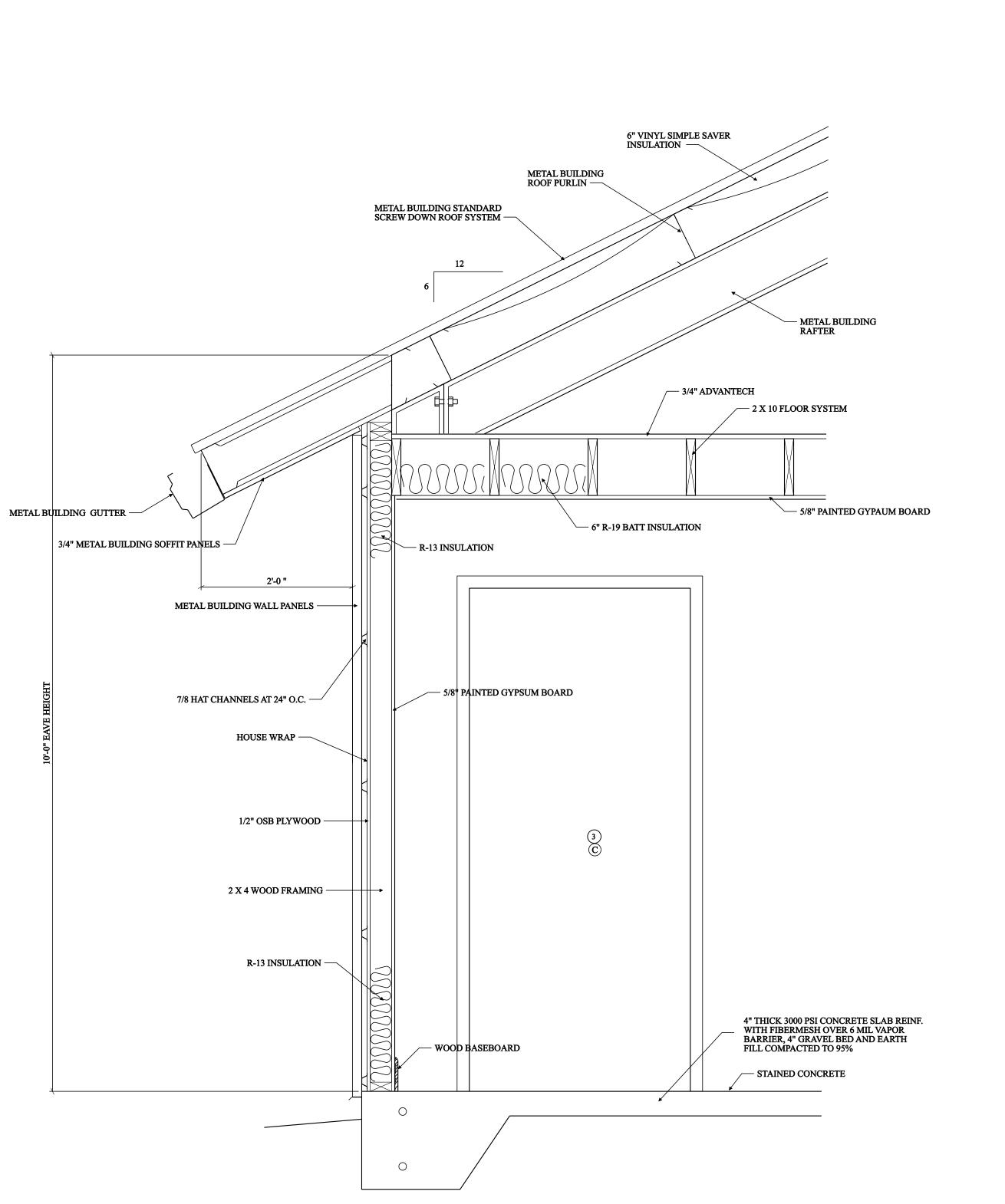




SCALE 1/4" = 1'-0"

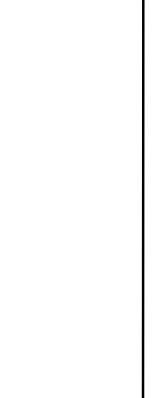






 $\underline{\text{DETAIL}} \underbrace{\binom{2}{\text{A-7}}}_{\text{SCALE 1'' = 1'-0''}}$ **TYPICAL SIDEWALL SECTION**







DATE: 4-27-18





RAY . CH 478

I STERED ARU

CENTER EVENTS S L) NEW

 \sim AТ \mathbf{v} 5 R

MEMBER AMERICAN INSTITUTE OF ARCHITECTS

PLAN

5

ATONTON,

ΓT)

COMMISSIONERS

OF

ARD

BO

Y

OUNT

Ŭ

TNAM

PU

TE OF GEOR

RAY FORDHAM

W<=



Provide all plumbing items indicated on the drawings, described herein or otherwise required for a complete and proper installation, includina:

A. Plumbina fixtures, fittings and equipment.

B. Hot and cold water systems. C. Drain waste and vent piping systems.

D. Indirect waste piping, including all valves, traps, piping and accessories for all equipment. Size per equipment requirements.

Comply with all applicable codes, standards and ordinances, including requirements of the Georgia State Minimum Standard Plumbing Code (2012 International Plumbing Code with all Georgia State Amendments). Georaia State Minimum Standard Gas Code (2012 International Gas Code with all Georaia State Amendments), and the DOJ 2010 ADA Standards for Accessible Design.

The contractor should not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearance. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or to actual building construction, shall be made at no additional cost to the owner.

The submission of a bid or proposal will be construed a evidence that the contractor has familiarized himself with the plans and building site. Claims made subsequent to the proposal for materials and/or labor due to difficulties encountered will not be recognized unless these difficulties could not have been foreseen, even though proper examination had been made.

Fabrication or ordering of any material or equipment prior to verification of site conditions shall be done at the contractor's risk.

All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings.

Coordinate with all trades and verify all equipment rough-in items and locations with the equipment supplier or contractor. All re-work and corrections required due to lack of coordination shall be the contractor's responsibility, and done at no cost to the owner.

Submit shop drawings and material data submittals to the engineer for approval before installation. No substitutions shall be allowed without prior approval by the engineer. Product data for piping, insulation, valves, specialties and all fixtures and equipment scheduled and specified here.

All equipment and flue materials shall be U.L. listed.

Installation shall comply with manufacturer requirements including all clearances recommended for proper operation of service. All serviceable parts shall be readily accessible.

Below ground sanitary drain, roof drainage, overflow roof drainage, and vent piping shall be solid-wall ASTM D2665 schedule 40 PVC. Install underground, PVC plastic drainage piping according to ASTM D2321. Above ground sanitary drain, roof drainage, overflow roof drainage, and vent piping shall be cellular-core ASTM F891 schedule 40 PVC. Install aboveground PVC piping according to ASTM D 2665. All aboveground piping shall be adequately supported. Sanitary drain, roof drainage, overflow roof drainage, and vent piping shall have PVC Socket Fittings (ASTM D 2665, made to ASTM D 3311, drain, waste, and vent patterns and to fit Schedule 40 pipe). Slope at 1/8 inch per foot continuously toward

All above ground domestic water distribution piping shall be ASTM D 2846, SDR11, schedule 40 CPVC with socket fittings. All piping shall be adequately supported. Disinfect all domestic water piping after installation. All underground domestic water distribution piping shall be ASTM D 1785 schedule 40 PVC with ASTM D 2466 PVC socket fittings. Wrap piping larger than 2" in return air plenums with fire barrier plenum rated wrap.

public sewer. Wrap piping in return air plenums with fire barrier plenum rated wrap.

Insulate all above ceiling domestic water piping with 3/4" flexible elastomeric. Flexible Elastomeric Insulation shall be closed—cell, sponge— or expanded—rubber materials. Comply with ASTM C 534, Type I for tubular materials.

Above ground natural gas piping shall be ASTM A53; Type E or S; Grade B; Schedule 40; black steel with malleable iron threaded fitting per ASME 16.3 Class 150. Flexible connectors shall comply be ANSI Z21.24 of copper alloy. Gas stops shall have bronze body with AGA stamp and bronze plug with lever handle. Valves shall be ASME B16.33 with IAS-listed bronze body. Coordinate connection of gas service and installation of meter with gas utility company. All piping shall be adequately supported. Prime & paint all exposed outdoor piping.

HW & CW Valves: Use pipe size valves, as shown below: A. Ball: Spears CPVC True Union.

B. Check: Spears CPVC True Union.

Fixture tailpieces, wall escutcheon, and traps for lavatories and sinks shall be brass tubing, semi-cast, or cast iron: All brass tubing shall be 17 gage, chrome plated. Excemption: If the fixture tailpieces and traps are located in cabinets, the tailpiece & trap shall be schedule 40 PVC. Grid drains for public lavatories. Basket strainers for break room sinks.

Thermometers shall comply with standard ASME B40.200.

Lavatory/ Sink supply fittings: NSF Standard: Comply with NSF/ANSI 61 Annex G, "Drinking Water System Components – Health Effects," for supply-fitting materials that will be in contact with potable water. Standard: ASME A112.18.1/CSA B125.1. Supply Stops: Chrome-plated-brass, one-quarter-turn, ball-type valve with inlet connection matching supply piping. Wheel handle operation. Risers: Chrome-plated, soft-copper flexible tube for exposed applications and ASME A112.18.6, braided- or corrugated-stainless-steel, flexible hose for conceal behind cabinet applications.

Provide ADA Supply and Drain Protective Shielding Guards on ADA fixtures that piping is exposed. Supply and Drain Protective Shielding Guards shall comply with ICC A117.1 and Americans with Disabilities Act (ADA) requirements. Manufactured plastic wraps shall cover hot and cold water supplies, trap, and drain piping.

All pipe hangers, clamps and channels shall be adequately sized to carry pipe loads and prevent sagging.

All other materials not specifically described but required for a complete and proper installation of work of this section, shall be new, first quality of their respective kinds, and as selected by the contractor subject to acceptance by the engineer.

Lay out the plumbing system in careful coordination with the drawings, determining proper elevations for all components of the system and using only the minimum number of bends to produce a satisfactorily functioning system. Follow the general layout shown on the drawings in all cases except where other work may interfere. Unless shown otherwise, lay out all pipes to fall within partition, wall floor, or roof cavities, and to not require furring other than as shown on the drawings.

Do not cut into or reduce the size of any load-carrying member without the prior approval of the architect. Install all pipes to clear all beams and obstructions.

Extend all plumbing vents above roof to parapet height.

Permanently close and make weatherproof any openings or penetrations of the building envelope made for plumbing systems. All wall and floor penetrations shall be sleeved. All exterior wall or foundation wall penetrations shall use a mechanical seal.

Coordinate all roof penetrations with architectural plans and building and roofing trades.

Provide shut-off balls valves and unions at all water connections to equipment and appliances. Provide chrome plate brass stops and rigid chrome plated brass supplies at all fixtures.

pipe.

Install piping in concealed locations, unless otherwise indicated and except in equipment rooms, and service areas. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal. Install piping to permit valve servicing. Install piping at indicated slopes. Install piping free of sags and bends. Install fittings for changes in direction and branch connections. Install piping to allow application of insulation. Select system components with pressure rating equal to or greater than system operating pressure. Install escutcheons for penetrations of walls, ceilings, and floors. Verify final equipment locations for roughing—in.

Confirm that millwork is constructed with adequate provision for the installation of counter top lavatories and sinks.

Seal fixtures to wall and floor surfaces with sealant, color to match fixture.

All vents thru roof (VTR) shall be offset a minimum of 10'-0" from all outside air intakes.

Provide Plastic Pipe Markers on all aboveground plumbing piping that Comply with ASME A13.1. Minimum information indicating flow direction arrow and identification of fluid being conveyed. Install labeling on pipe at intervals of not more than 20 feet and at least once in each room.

Approved manufactures: (Items submitted shall be approved by architect and engineer. Architect and engineer reserve the right to reject any item substituted for basis of design item for any reason.) China Fixtures: American Standard, Kohler, Toto, Zurn, Sloan Faucets: Delta, T&S Brass, Chicago Faucets, Zurn, Kohler, Grohe, Moen, Speakman, Symmons

Supplies & Traps: Engineered Brass CO., Mcguire, Charlotte Pipe, Brasscraft, IPS, Watts, Zurn Floor Drains & Cleanouts: Zurn, Jay R Smith, Proset, Watts, Mifab, Wade, Josam, Sioux Chief, Oatey Water Heaters: A.O. Smith, Lochinar, Bradford White, State, Vaughn Toilet Seats: Bemis, Centoco, Church Seats, Olsonite, Beneke, Zurn, Mainline Stainless Steel Sinks: Dayton, Elkay, Just, Kohler, Moen, Sterling, Just ADA Protective Shielding Pipe Covers: Engineered Brass, McGuire, Plumberex, TRUEBRO, Zurn, Oatey Fixture Supports: MIFAB, Jay R. Smith, Wade, Watts, Zurn Mixing Valves: Armstrong, Leonard, Powers, Symmons, Lawler

Expansion Tanks: AMTROL, State, Watts, Wilkins Outlet Boxes: Acorn, IPS, Oatey Brass Valves: American, Crane, Watts, Apollo

CPVC Valves: American, NIBCO, Spears

PLUMBING SPECIFICATIONS(CONTINUED)

Isolate all dissimilar metals with "EPCO" dielectric unions, except for brass or bronze valves with steel

Protect the potable water supply against backflow and siphonage from equipment, fixtures, etc., using approved backflow and anti-siphon devices.

Thoroughly clean all piping and equipment. Removing all dirt, rust, oil, and plaster.

Test Sanitary drainage piping by plugging all openings and filling with water to a height equal to a 10 foot head. Allow to stand one hour or longer as required. Repair leaking joints and then re-test.

No work shall be covered until it has been inspected and accepted by the local authority and the enaineer.

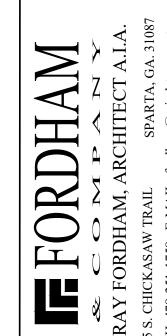
Test water lines at 100 PSIG. Retain for 24 hours, repair all leaks and retest.

The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. All labor and materials necessary to repair or replace the system, or portions thereof, during that time shall be warranted for a period of one (1) year from the repair or replacement.

Wall Hydrants/ Hose Bibbs: MIFAB, Jay R. Smith, Wade, Watts, Woodford, Zurn

Air Admittance Valves: Studor. Oatev

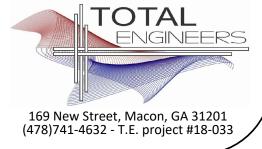


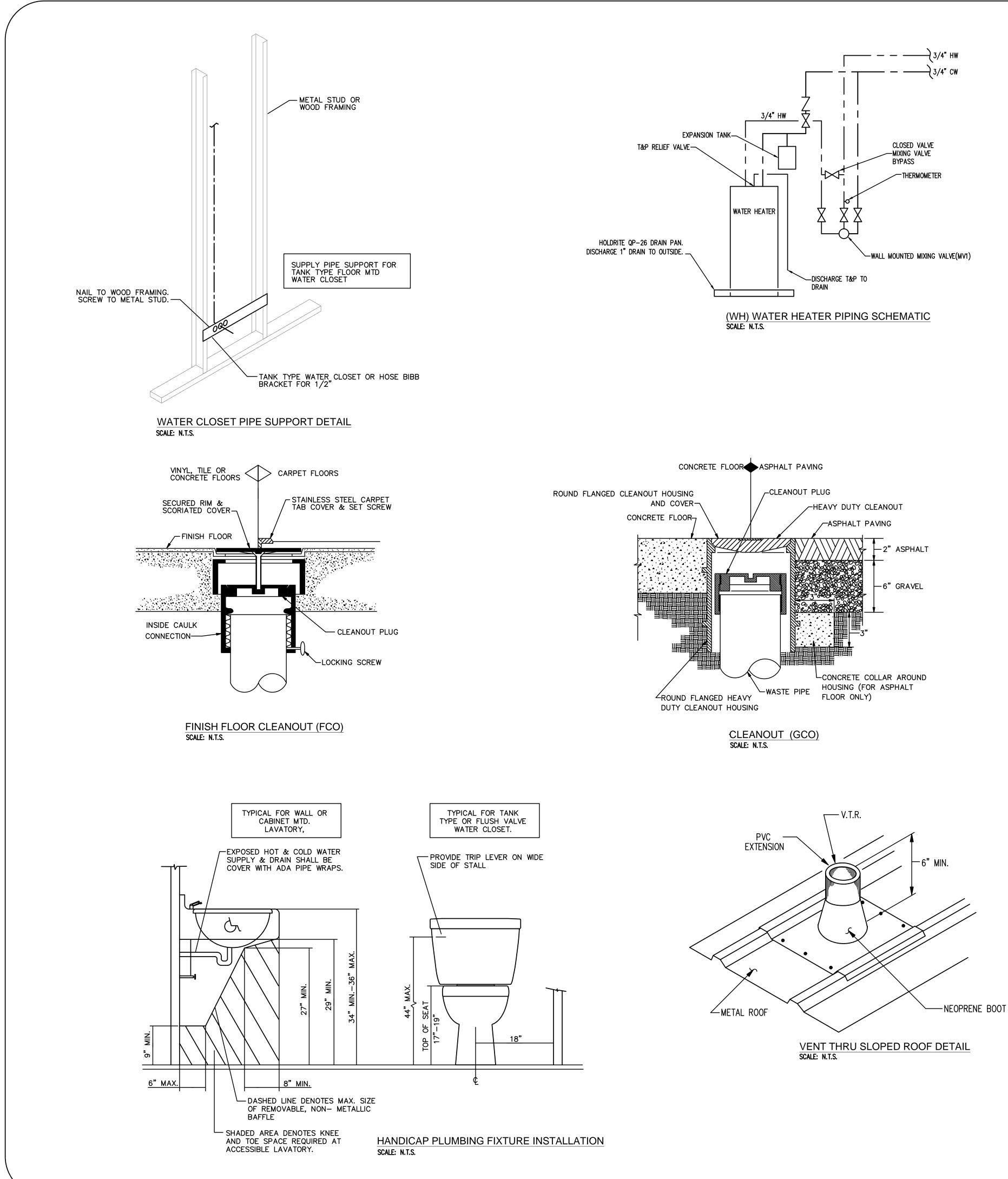


DATE: 4-27-18



D_1





		FIX	TURE	AND	EQU	IPME	NT SC	CHEDULE
#	FIXTURE TYPE		ste Fixture Conn.		Supply Hot	Water F Cold	ix. conn. Hot	MODEL NUMBER
WC1	TANK TYPE ADA WATER CLOSET WITH RIGHT HAND TRIP LEAVER	3"	3"	1/2"		3/8"		KOHLER K-3999 WATER CLOSET. BEMIS 1655SSCT SEAT
WC2	TANK TYPE ADA WATER CLOSET	3"	3"	1/2"		3/8"		KOHLER K-3999 WATER CLOSET. BEMIS 1655SSCT SEAT
WC3	TANK TYPE WATER CLOSET	3"	3"	1/2"		3/8"		KOHLER K-3999 WATER CLOSET. BEMIS 1655SSCT SEAT
LAV	ADA DROP-IN LAVATORY	2"	1-1/4"	1/2"	1/2"	1/2"	1/2"	KOHLER K-2196-8 LAVATORY. MOEN 9220F05 FAUCET.
SNK	TWO COMPARTMENT SINK	2"	1-1/2"	1/2"	1/2"	1/2"	1/2"	ELKAY NEPTUNE NLX3322104 SINK, MOEN 5923 FAUCET.
OB1	ICE MAKER BOX WITH WATER HAMMER ARRESTOR			1/2"		1/2"		WATER TITE W9701 HA
HB	Exterior hose bibb			3/4"		3/4"		ZURN Z1346
FCO	FLOOR CLEANOUT	4"	4"					ZURN CO-2449. PROVIDE CARPET MARKER FOR CARPET FLOORS
GCO	GRADE CLEANOUT	4*	4*					ZURN Z1400
MV	MIXING VALVE			3/4"	3/4"	3/4"	3/4"	LEONARD TM-26-LF.
AAV	AIR ADMITTANCE VALVE	1-1/2"	1-1/2"					studor min-vent.
FD	FLOOR DRAIN	3"	3"					SIOUX CHIEF 842—3—P—NR FLOOR DRAIN. RECTORSEAL "SURESEAL PLUS" WATERLESS TRAP PRIMER.
OB2	DISHWASHER BOX WITH WATER HAMMER ARRESTOR				1/2"		1/2"	WATER TITE AB9302HA.

SHOWER DIMENSIONS SHALL BE COORDINATED WITH ARCHITECT BEFORE INSTALLATION.

WATER HEATER & TANK SCHEDULE										
MARK	MANUFACTURER	MODEL NUMBER	TYPE	GPH @1 00° RISE	GALLON	KW				
WH1	BRADFORD WHITE	RE240S6	RESIDENTIAL ELECTRIC	19	40	4.5				
ET	ZURN/WILKINS	XT-8	EXPANSION TANK		2.1					
CONTRACTOR SHALL CONSULT THE ELECTRICAL DOCUMENTS FOR VOLTAGE AND PHASE										

LEGEND									
	BALL VALVE		COLD WATER						
	CHECK VALVE		HOT WATER						
	BALANCING VALVE		HOT WATER RETURN						
<u> </u>	PIPE UP		VENT						
G	PIPE DOWN		SEWER						
PDI-B	- PDI UNIT 	CW	COLD WATER						
U.G.	UNDER GROUND	HW	HOT WATER						
(TYP)	TYPICAL	HWR	HOT WATER RETURN						
N.T.S.	NOT TO SCALE								
VTR	VENT THRU ROOF								

W⇐━━►E PLAN GA EATONTON, COMMISSIONERS \mathbf{v} Z \mathbf{A} OF \mathcal{O} OARD $[\mathbf{T}]$ VEW ΓT) B(A $\mathbf{\Sigma}$ COUNT ŏ PUTNAM

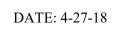
AT

CENTER

EVENTS

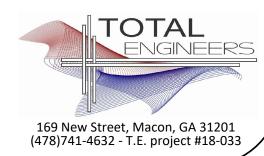
MEMBER AMERICAN INSTITUTE OF ARCHITECTS

FORDH ARCHITI RA



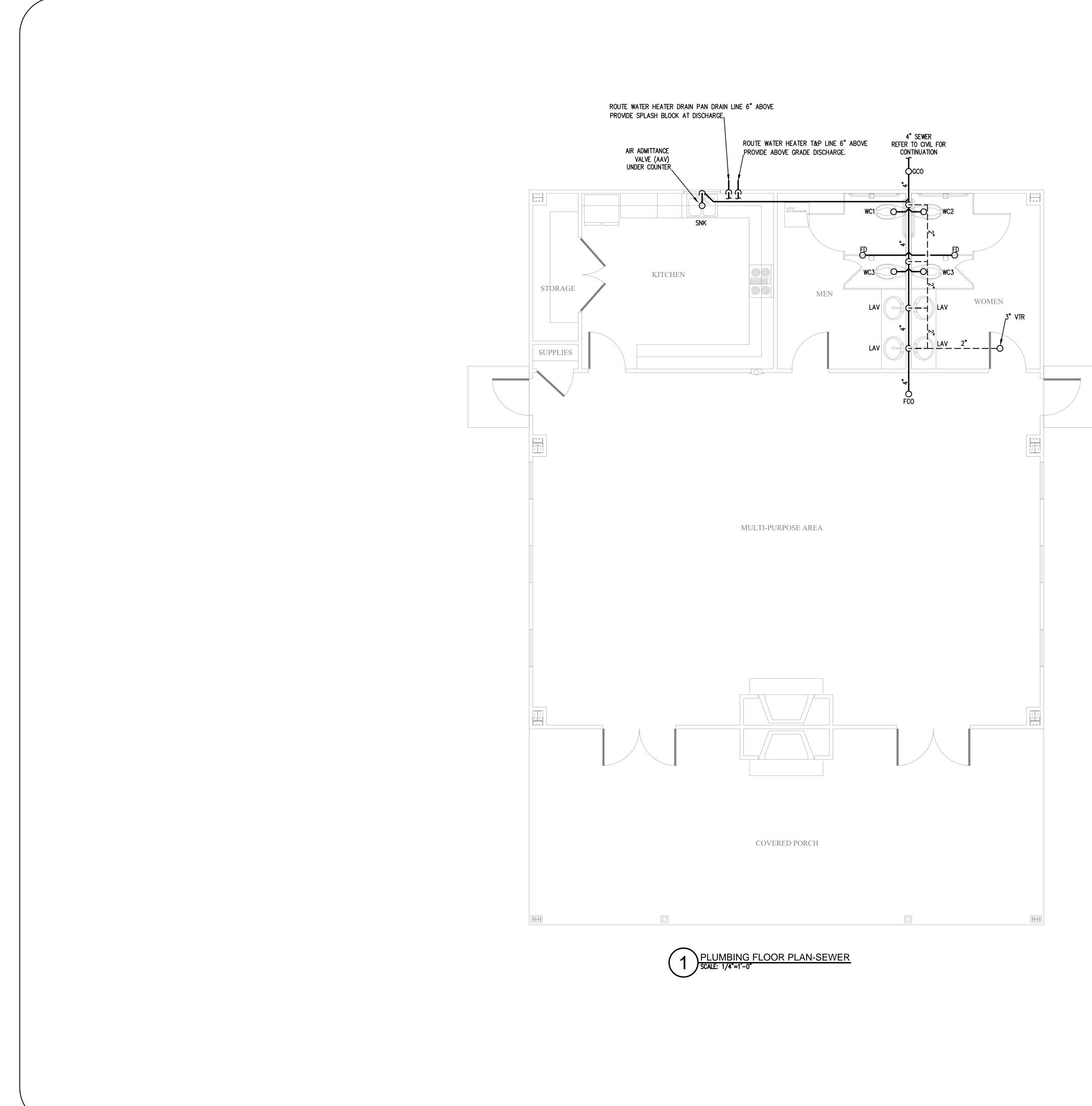




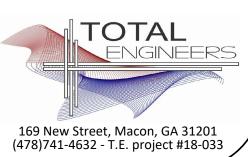








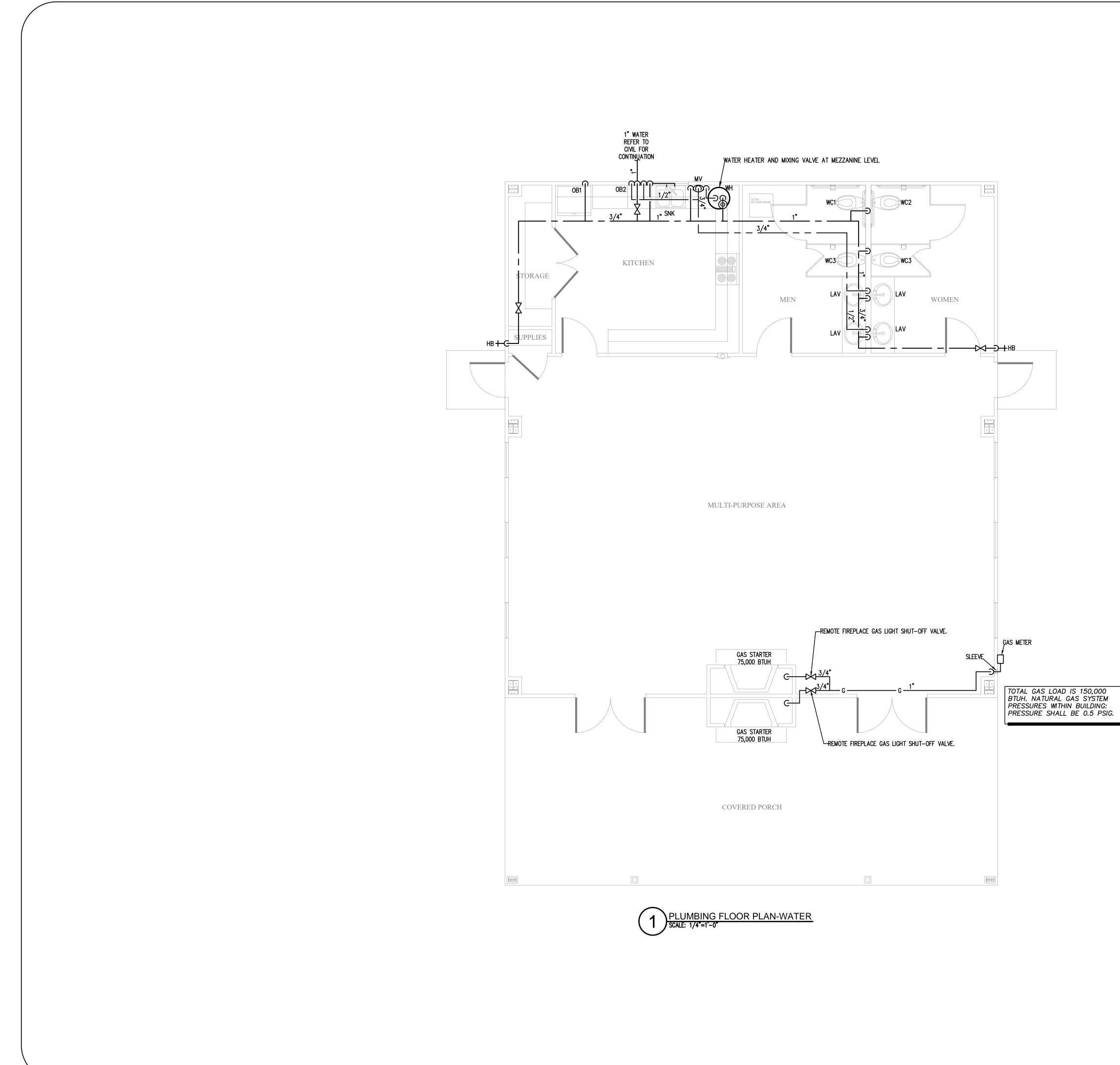




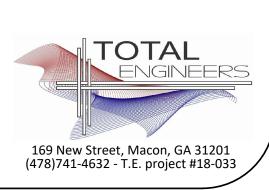


SHEET NO.



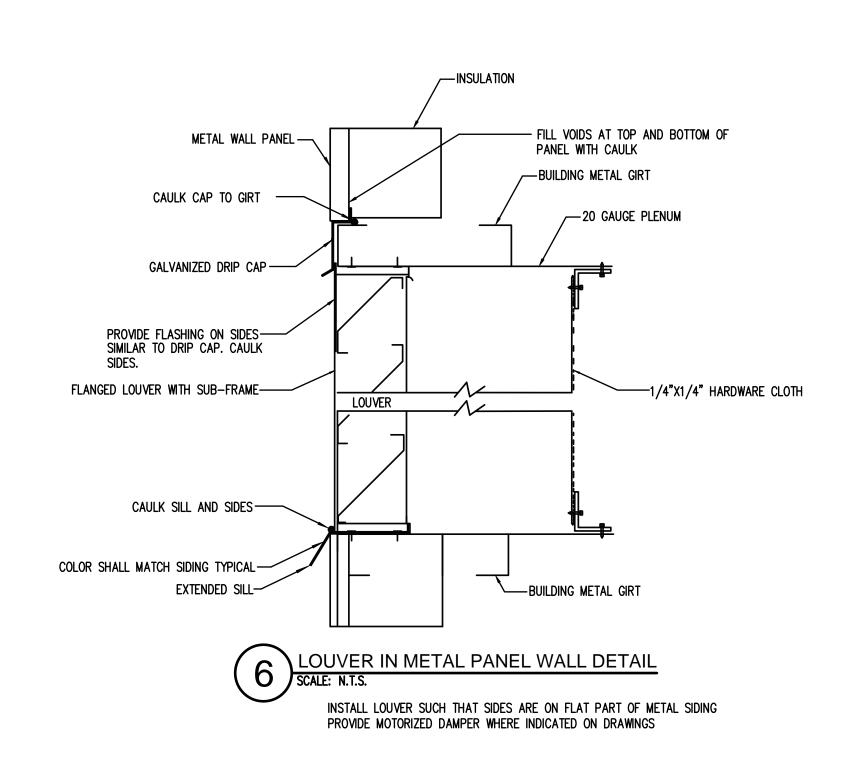






SHEET NO.

P-4



MECHANICAL SPECIFICATIONS

ductwork with mastic sealant.

contact points.

1) Provide all heating, ventilation and air conditioning items indicated on the drawings, described in this specification or required for a complete and proper installation.

- 2) Comply with all pertinent codes, ordinances and reaulations. Refer to website community Affairs http://www.dca.state.ga.us/development/constructioncodes/programs/codes2.asp for current Codes Editions.
- 3) The contractor shall not attempt to precisely scale dimensions from these drawings to obtain construction dimensions and clearances. The contractor shall verify all actual dimensions and clearances. Although these plans are diagrammatic in nature, they shall be followed as closely as site conditions, new construction, and work by other trades shall permit. Deviations from these drawings, which are required to conform to the available space or the actual building construction, shall be made at no additional cost to the owner.
- 4) Furnish without extra charge, any additional material and labor required to comply with the above codes and standards, even though the work may not be described in the contract documents. Where the requirements of the contract documents exceed the requirements of the above codes and standards, the contract documents shall take precedence.
- 5) All equipment and material shall be new and of first quality. Equipment and material shall be the same or equal to the basis of design listed on these drawings and shall be
- 6) Cooperate and coordinate with other trades in order that all systems in the work may be installed in the best arrangement.
- 7) Examine the areas and conditions under which work of this section will be installed. Correct conditions detrimental to the proper and timely completion of the work. Notify Architect of any discrepancies. Do not proceed until unsatisfactory conditions have been corrected.
- 8) Avoid interference with structure, and with work of other trades. Install all equipment per manufacturer's instructions. Install accessible parts, including equipment, coils, valves, dampers, controls, and filters with adequate clearance for inspection, adjustments, repair and replacement.
- 9) All other materials not specifically described but required for a complete and proper installation shall be as selected by the contractor subject to acceptance by the Engineer. 10) All ductwork shall be fabricated from galvanized sheet metal duct and conform to SMACNA "HVAC Duct Construction Standards—Metal and Flexible. Seal all joints in
- 11) Flexible duct: Flexmaster; Atco UPC#30(R-4.2); Atco UPC#31 (R-8) or Thermaflex, Type 3, insulated. 5'-0" Maximum length unless noted otherwise. Class 1 rating with R-value of 4.2 when located inside building insulation envelope and R-8 when located outside building insulation envelope. Install with no more than 135 degrees maximum of total bends per run. Maximum individual bend shall not exceed 45 degrees each. Support at five feet on centers with hangers having at least 2-inches of width at duct
- 12) Duct Liner: Owens Corning Aeroflex Plus, or equivalent. Incombustible glass fiber complying with ASTM C 1071; flexible blanket; impregnated surface and edges coated with acrylic polymer shown to be fungus and bacteria resistant by testing to ASTM G 21. Apparent Thermal Conductivity: Maximum of 0.31 at 75 degrees F. Service Temperature: 250 degrees F. Density: 1.5 pounds/cubic foot. Install using adhesive (50% coverage) and galvanized steel fasteners with welded press-on head Thickness: 1-inch.
- 13) Condensate drain piping shall be ASTM D2665 PVC with solvent welded fittings. Drain piping shall be no smaller than the drain connection size on equipment. Slope at 1/8 inch per foot continuously toward drains. All indoor condensate drain piping shall be insulated with preformed flexible plastic cellular foam. All outdoor condensate drain piping shall be primed and painted with a coating system recommended by the piping manufacturer for protection against deterioration from weather and UV—light exposure. All piping shall be adequately supported to maintain proper slope and avoid sagging.
- 14) Refrigerant piping shall conform to manufacturer's recommendations and installation instructions. Refrigerant piping shall be ASTM B280 Type ACR or ASTM B88 Type L drawn copper tubing with wrought copper fittings. Insulate suction line with ½" thick flexible foamed plastic cellular foam (Armaflex or equivalent). All piping shall be adequately supported. Insulation installed outdoors shall be painted with two coats of Armacell WB coating or equivalent.
- 15) Thermostats: Provide 24 volt, programmable 24 hour, 7 day thermostat to control heating stages in sequence with delay between stages and supply fan to maintain temperature setting. For Heat Pumps include system selection switch heat-off-cool and fan control switch (auto-on), emergency heat switch (auxiliary/emergency heat indicator lights).
- 16) Provide fire and smoke rated flexible connections between fans and ducts. Material shall comply with NFPA 90A requirements for material in supply air stream.
- 17) Install all equipment in accordance with manufacturer's instructions and recommendations including clearances recommended for proper operation or service. All filters and serviceable parts shall be readily available.
- 18) Indoor duct insulation: Foil-faced fiberglass, Owens Corning type 75 or equal, 2" thick, unless the insulated duct is outside building insulation envelope (attic, crawlspace or unconditioned space) in which case the duct insulation thickness shall be 3" thick. Duct shall have a flame spread rating of not more than 25 and smoke developed rating of not more than 50. Glass-Fiber Insulation: All service duct wrap with foil scrim and having backing and a k-value of 0.30 at 75° F mean temperature and an average maximum density of 0.75 lb/cu. ft.
- 19) All supply, return and outside air ducts shall be insulated. Install acoustical duct liner on the interior surface of the first five (5) linear feet of supply duct downstream and the last five (5) linear feet of return duct upstream of all air handlers and rooftop units. Insulate the concealed tops of all ceiling mounted supply air diffusers with foil-faced fiberglass, 1.5#/cubic foot density, 2" thick. Seal edges to ceiling grid with foil faced tape to provide vapor tight seal.
- 20) All low pressure duct branches shall contain manual balancing dampers. Manual balancing dampers shall also be installed in the continuation of the main, if the main duct is smaller or the same size as the branch duct, or if the continuation of the main serves only one device.
- 21) Make all duct elbows right angle type with single —thickness turning vanes or construct with centerline radius 1—1/2 times the duct width.
- 22) Duct sizes shown on plans are clear, interior dimensions. Duct sizes shown shall be enlarge to allow for liner at locations of interior liner.
- 23) Do not cut into or reduce the size of any structural member without the permission of the Architect.
- 24) Provide weather-proof flashing at all duct and pipe penetrations through the building walls and roof. As a minimum, flashings shall be designed and installed in accordance
- with SMACNA standards. Flashings shall be guaranteed weatherproof for the duration of the guarantee.
- 25) Support all HVAC units, ductwork, piping and other appurtenances from structure, provide vibration isolation at all fans which are not internally isolated. Provide hanger rod with built in rubber-in-shear isolator. Between drain pan and unit provide 4 each rubber-in-shear isolator. Do not attach vibration isolator to drain pan. Do not screw or drive fasteners into non-structural components such as roof decks or non-load bearing walls.
- 26) Thoroughly clean all components and remove all dirt, scale, oil, and other foreign substances. Provide clean air filters for all equipment.
- 27) Perform all tests necessary to demonstrate the integrity of the complete installation to the approval of the Engineer and all other authorities having jurisdiction. Make all adjustments necessary and balance the completed system in accordance with the data shown. Balance the systems in accordance with NEBB or AABC standards. Acceptable tolerances shall be minus ten percent to plus five percent of all measurements. Balancing shall be done by an independent licensed (by NEBB or AABC) TAB contractor. Make the following tests and submit reports to the Architect:
- a) Airflow rate at each supply, return and exhaust outlet or inlet.
- b) Total airflow rate and total static pressure for each supply and exhaust fan. Test exhaust fans with room doors closed.
- c) Motor speed, for multiple speed fans (e.g. high, medium, low).
- d) For direct drive fans, provide speed settings and actual rpm, including ECM motor driven fans e) Provide fan and motor rom for belt driven fans. Provide sheave sizes.
- f) Outside airflow rate to each HVAC unit and supply fan.
- g) Motor current (and compare with nameplate data) at all motors.
- h) Entering and leaving air dry-bulb and wet-bulb conditions at all cooling coils.
- i) Heat output capacity for unit heaters, heating devices and coils (kW or MBH).
- i) Manufacturer, model and serial number for each piece of HVAC equipment scheduled on drawings.
- k) Calibrate thermostats to be within one degree of actual temperature at thermostat.
- I) Verify that all HVAC devices operate as scheduled or indicated (i.e. ON-OFF, 2-stage, variable output (SCR heaters), etc.

28) The entire system shall be warranted for a period of one (1) year beginning with Owner's acceptance of the work. Compressors shall include a minimum of five (5) year parts only warranty from the manufacturer. All labor and materials necessary to repair or replace the system or portions thereof, during that time shall be warranted for a 44) Acceptable Manufacturers are: period of one (1) year from the repair of replacement.

29) SUBMITTALS AND SUBMITTAL PROCEDURES:

- b. Transmit each submittal electronically in PDF format
- included in file.
- g. Deliver submittals electronically to the Design Professional.

- n. Submittals not requested will not be recognized or processed.

30) Instruct Owner's representative in the operation of the systems, using the operation and maintenance manual as a teaching aid.

- e. Manufacturers' warranties.

32) Horizontal Air Handler unit: Indoor fan-coil unit shall be direct-expansion horizontal heat pump air handler with electric strip heat suspended from structure with auxiliary drip pan and condensate drain. Provide float switch in drip pan to shut down unit if pan begins to fill. Unit shall be complete with cooling coil, fan, fan motor, piping connectors, electrical controls, microprocessor control system, and integral temperature sensing. Cabinet shall be fully insulated for improved thermal and acoustic performance. Condensate pan shall have internal trap and auxiliary drip pan under coil header. Provide condensate trap recommended by manufacturer. Air filters shall be 1 inch thick alass fiber, disposable type arranged for easy replacement. Provide number of stages as scheduled. Provide condensate overflow switch (Rectorseal Safe-T-Switch Model SS1 or equivalent) wired to shut unit down in case of condensate overflow.

- relav.
- normal range, unless otherwise indicated.
- shapes and plates: steel shapes complying with ASTM A 36/A 36M.
- ASTM C 920, type S, grade NS, class 25, use 0.

39) Gravity Ventilators: Heavy gauge arched sheet aluminum with interlocking seams or spun aluminum with base for curb mounting. Provide matching pre-fabricated roof curb and bird screen. Provide normally closed aravity backdraft damper.

Air Handlers & Heat Pumps. Packaged Units: Carrier, Trane, York, Lennox.

Louvers/Dampers/Fire Dampers: Controls-provided with unit

- Fans:

a. Contractor shall review the submittal data and check for the purpose of compliance with safety requirements, verification of dimensions, contract documents and methods and means prior to submitting to design professional. Contractor shall indicate approval by indicating such on the submittal.

c. Sequentially number submittal files and transmittal form. Revise submittals with original number and a sequential alphabetic suffix. File names shall describe item

d. Identify Project, the Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate on each copy. Each file shall include an index of items included in file. e. Apply the Contractor's stamp, signed or initialed certifying that review, approval, verification of Products required, field dimensions, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents.

f. Submittal data for all items in project shall be submitted at one time. Submittal shall be divided into groups with file sizes not exceeding 6 MB. If there is unavailable data such as control submittal, etc., these may be submitted later if not doing so would delay project progress. Data shall include capacities, complete installation instructions, dimensional data and electrical data, BHP, motor HP, operating weights and load distribution at mounting points.

h. Schedule submittals to expedite the Project, and coordinate submission of related items.

i. For each submittal for review, allow 15 days excluding delivery time to and from the Contractor.

j. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work. k. Provide space for the Contractor and the Architect/ review stamps.

I. When revised for resubmission, identify all changes made since previous submission. m. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.

o. Provide files containing only related items (such as piping, equipment, air distribution, etc.)

31) Provide an operation and maintenance manual. As a minimum, the manual shall contain:

a. A complete list of all equipment and appurtenances with equipment designations (per Drawings), manufacturers, and catalog numbers. b. Copies of manufacturers' brochures and instructions for operation and maintenance of all mechanical equipment, including replacement parts lists. c. Typed system operation and maintenance instructions, including inspection, lubrication, and service instructions and schedules. d. List of names, addresses and phone numbers of distributors of all equipment and appurtenances.

33) Air Source Heat Pumps (HP-1, 2, 3): outdoor-mounted, air-cooled split system outdoor section suitable for rooftop installation, consisting of a hermetic compressor, an air-cooled coil, propeller-type blow-thru outdoor fans, accumulator, full refrigerant charge (R-410A), and control box. Unit shall function as the outdoor component of an air-to air cooling system and used in a refrigeration circuit matched to the indoor unit. Unit construction shall comply with ANSI/ASHRAE 15, latest revision, the NEC, and UL standards. Unit shall be equipped with Refer to Schedule on Drawings for additional specifications.

34) Provide a duct smoke detector on the supply duct of each air handling unit or rooftop unit with design airflows exceeding 2,000 CFM, and where smaller air handling units serve common areas and the sum of these air handling units' airflows exceed 2,000 CFM. Install detector in accordance with the International Mechanical Code with Georgia Amendments. Detectors shall be provided by the electrical/fire alarm subcontractor and shall be installed by the mechanical subcontractor. For other fans, such as exhaust fans with design airflows exceeding 2,000 CFM, coordinate with the electrical/fire alarm subcontractor to provide room or duct smoke detectors. Provide contacts to automatically shut down all such fan motors when smoke is detected, to indicate detector status to the fire alarm system, and to require a manual reset of the shut-down

35) Grilles, Registers and Diffusers: Grilles, registers, and diffusers as indicated on the drawings have been selected from the catalog of the manufacturer noted as the basis of design. Sizes, types, and performance of the devices to be provided must be coordinated to insure conformity with design basis. Sidewall supply grilles and registers shall have vertical front blades; sidewall return grilles shall have horizontal blades. Grilles and registers with borders shall have felt or rubber gaskets cemented to the back face and holding screws not over 18 inches on centers around the perimeter. Holding screws shall be counter-sunk to fit flush with face of grille or register. Grilles passing air through partitions shall be as described for wall return grilles, one for each side of partition. Register dampers shall be of the gang-operated, opposed blade type, operated through the face of the register. Operating mechanism shall not project through the register face. Mounting frame shall be coordinated with architectural reflected ceiling plans. Construction shall be of steel or aluminum as scheduled, with frame type to match ceiling construction. Sidewall supply grilles and registers shall be double-deflection type, with vertical front vanes. Construction shall be of steel, with 3/4 inch blade spacing. Return air grilles, return air registers, exhaust grilles, exhaust registers and transfer air grilles located in ceilings shall be constructed of aluminum with "egg-crate" design, with 1/2 inch x 1/2 inch x 1/2 inch x 1/2 inch grids. Frame style shall be compatible with ceiling construction. Install wall grilles and registers with horizontal edges parallel to ceiling. Concentric diffuser assemblies at roof top units shall have paint-ready exterior finish and 1-inch lined supply and return ducts that transition to diffuser size within 24 inches vertically of the bottom of roof top unit curb.

36) Basic motor requirements: basic requirements apply to mechanical equipment motors, unless otherwise indicated. Motors 1/2 hp and larger: Polyphase, unless otherwise scheduled. Motors smaller than 1/2 hp: single phase. Frequency rating: 60 Hz. Service factor: according to NEMA MG 1, general purpose continuous duty, design type "B." Enclosure: open drip-proof, unless otherwise indicated. Efficiency: motors shall have a higher efficiency rating than industry standard average motor as delineated in IEEE Standard 112, test method 13. Thermal protection: where indicated or required, internal protection automatically opens power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal protection device automatically resets when motor temperature returns to

37) Hanaers and supports: Building attachments: concrete inserts or structural-steel fasteners appropriate for building materials, and beam clamps. Hanaer materials: galvanized, sheet steel or round, threaded steel rod. Hangers installed in corrosive atmospheres: electrogalvanized, all-thread rod or galvanized rods with threads painted after installation. Straps and rod sizes: comply with SMACNA's "HVAC Duct Construction Standards——Metal and Flexible" for sheet steel width and thickness and for steel rod diameters. Duct attachments: sheet metal screws, blind rivets, or self-tapping metal screws; compatible with duct materials. Trapeze and riser supports galvanized steel

38) Sealant materials: joint and seam sealants, general: the term "sealant" is not limited to materials of adhesive or mastic nature but includes tapes and combinations of open-weave fabric strips and mastics. Joint and seam tape: 2 inches wide; alass-fiber fabric reinforced. Joint and seam sealant: one-part, nonsag, solvent-release-curing, polymerized butyl sealant, formulated with a minimum of 75 percent solids. Flanged joint mastics: one-part, acid-curing, silicone, elastomeric joint sealants, complying with

40) All HVAC equipment such as AH, CU, EF, AC, HP, and RTU shall have visible nameplates with their associated marks on them.

41) Louvers: 4" deep, 12 gauge (0.081) etched and 30 minute clear anodized extruded aluminum, drainable blades and frame; back mounted 1/2" mesh 19 aauae screen: flanae frame. Louver shall be rated for no water carry-through at 900 face velocity, 0.15" maximum pressure drop for 4-foot square sample tested according to AMCA Standard 500, 1973. American Warming LE-33 (alum.); Ruskin [ELF-6375D; Louvers & Dampers IEL-6; Industrial Louvers 653 alum.; Vent Products #4650; Shipman LE-33 (alum.); Arrow United EA615-D (alum.); Greenheck ESD-403. Provide adapter to match corrugations in metal panel.

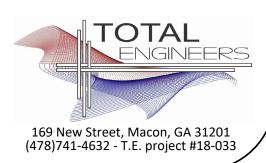
42) Ceiling Ventilator shall have corrosion resistant galvanized steel housing with four-point mounting capability. It shall be ducted to a cap on wall using 8" round ductwork. Blower assembly shall be removable, have a centrifugal-type blower wheel and a permanently lubricated motor designed for continuous operation. Non-metallic damper/duct connector shall be included. Air delivery shall be no less than scheduled and sound level no greater than scheduled. All air and sound ratings shall be certified by HVI. Ceiling ventilator shall be Energy Star® qualified and have an energy efficient permanent split capacitor motor.

43) Kitchen Hood (KH-1): Provide under cabinet kitchen hood as scheduled. Kitchen hood shall be 30" wide. Hood shall have UL rated, class 2 filter located in the middle of the hood. Provide Grease filter GD-06, and Charcoal Filter CF-06. Hood body shall be made of 24 gauge, grade 430 stainless steel. Painted hood shall be 23 gauge cold rolled commercial grade (CRCQ) steel, Auto welded. Hood shall have fully enclosed PSC 4 pole motor. Variable speed, thermally protected, permanently lubricated. Rated 115/120 Volts, 60 Hz. Hood shall have enclosed in a polycarbonate lens, 60 watt max. Type A15 appliance lamp, complete with night light setting. Hood shall exhaust to outside by 10"x4" exhaust duct thru wall or 7" round ductwork thru roof or wall as per drawing. Provide duct adapter and damper. Provide Stainless steel finish for the hood.

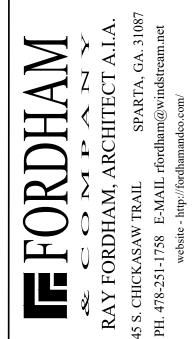
Grilles, Registers & Diffusers: Titus, Nailor, Price, Tuttle & Bailey (Color selection submitted to Architect)

Twin-City, Cook, Greenheck, PennBarry, Acme, American CoolAir

United Enertech, Greenheck, Ruskin, Arrow United, Lloyd Industries (Color selection submitted to Architect) Provide thermostats by same manufacturer as equipment



AMERIC OF A W =	N 1	
		ronton, ga.
VTER AT	GS PARK	SSIONERS EATC
A NEW EVENTS CENTER AT	ONEE SPRINGS PARK	INTY BOARD OF COMMISSIONERS
A NI	OCONE	PUTNAM COUNTY BO



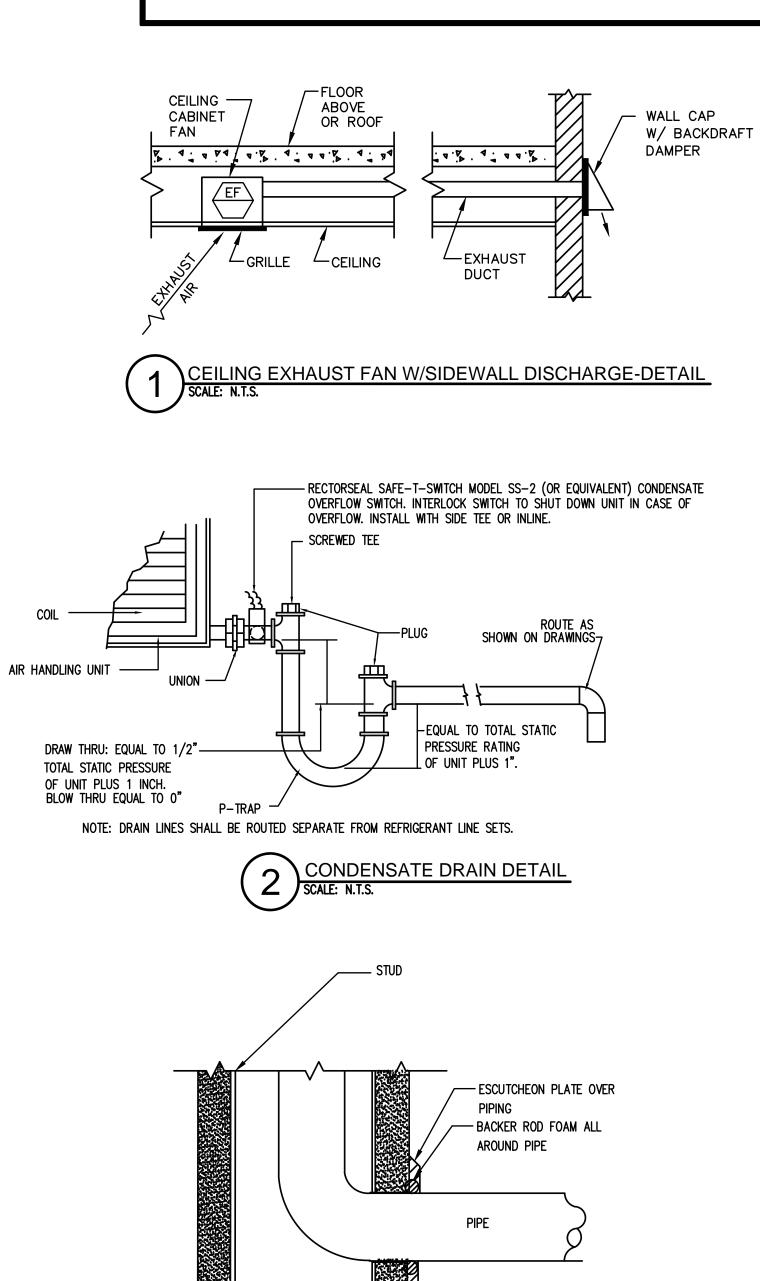
DATE: 4-27-18





KITCHEN HOOD SCHEDULE			SPLIT SYSTEM AIR HANDLER SCHEDULE																
MARK	CFM	WIDTH	VOLTTS/PH	LAY-OUT BASIS:			TOTAL	04	MOTOR	EXTERNAL			COOLING - D	X	HEATING	POWER	WEIGHT	LAY-OUT BASIS:	
ΜΑΚΛ	HI/LO	IN	VOEITS/TT	AIRKING MODEL	REMARKS	MARK	MARK CFM CFM H.P. S.P.		SENS	TOTAL	EADB/ EAWB	LADB/ LAWB	ELECTRICAL VOLT	VOLTS/PH	(LBS)	CARRIER	REMARKS		
KH-1	250/150	30"	120/1	QZ SERIES	1: 2: 3: 4: 5					(114 17.0.)	MBH	MBH	(⁰ F)	(°F)	HEAT (KW)			MODEL NO.	
						AH-1	700	100	1/2	0.55	18.0	23.0	77.0/64.0	55/54	3.8	208/1ø	200	FV4CNF002L00	1: 2: 3: 4: 5: 7: 8
					R DUCT ADAPTER AND DAMPER.	AH-2	1750	315	3/4	0.60	45.0	54.0	78.0/65.0	55/54	7.5	208/1ø	200	FV4CNB006L00	1: 2: 3: 4: 5: 6: 7: 8
ERIFY ELECTRIC Rovide Stinles	C Power Requirements SS Steel Finish for Th	MTH ELECTRIC/ E KITCHEN HOO	AL PLANS, WHICH D.	TAKE PRECEDENCE (IN DOCT ADAPTER AND DAMPER.	1. WIRE FLOA 2. VERIFY EL 3. PROVIDE (4. PROVIDE F 5. FLOAT AC	I AT ACTIVATED I ECTRICAL REQU CONDENSATE TI FLOAT ACTIVATI TIVATED CONDE	L DRAIN PAN JIREMENTS RAP(S) AS ED CONDEN ENSATE SW	SWITCH IN WITH ELECT RECOMMENI SATE SWITC TCH SHALL	L SERIES WITH RICAL PLANS DED BY MAN CH WIRED TO BE PROVIDE CHANGAL D	L DRAIN OL S WHICH TA UFACTUREI SHUT AIR D AND INS	JTLET SWITC AKES PREC R AND ROU HANDLING STALLED BY	L Edence over Ite condensa Unit down II / HVAC contr	This infor Te piping NCASE of (Actor.	I MATION. TO OUTSIDE. CONDENSATE OVE	I RFLOW. SWITC	L XH TO BE L	ocated in the drain	PAN BELOW UNIT.
	FIRE SUF	PRESSION	SYSTEM FO	r kitchen ho	OD	6. INSTALL D 7. VARIABLE 8. PROVIDE	SPEED AIR-HA	ANDLING UN	IT WITH ECH ON.	M MOTOR.	LAN FUR L								
MARK	SERVES	GURD	lay-out bas Ian safty solut		REMARKS	9. DUCT SMO	KE DETECTORS	5 SHALL BE	PROVIDED	BY ELECIRIC	CAL CONTR	ACTOR AND) INSTALLED E	IY HVAC CU	IN IRACTOR.				
						AIR COOLED HEATPUMP UNIT SCHEDULE													

FIRE SUPPRESSION SYSTEM FOR KITCHEN HOOD								
MARK	SERVES	LAY-OUT BASIS: GURDIAN SAFTY SOLUTIONS, INC	REMARKS					
FS-1	KH—1	GURDIAN III	1: 2: 3: 4					
2. FIRE SUPPRESSION 3. FOLOW LOCAL FIR	n system to be pro E protection codes	ATED IN THE CABINET ABOVE KITCHEN HOOD PER MANU VIDED AND INSTALLED BY GUARDIAN SAFETY SOLUTION, FOR INSTALLING FIRE SUPPRESSION SYSTEM. T RANGE TURNS OFF WHEN FS—1 IS ON.						



ESCUTCHEON WITH RECTORSEAL 'FORTRESS', MP-1 OR EQUIVALENT PRODUCT -OUTSIDE WALL CONDENSATE PIPE SLEEVE THROUGH WALL DETAIL

3

SCALE: N.T.S.

- SEAL ANNULAR SPACE BEHIND

	AIR COOLED HEATPUMP UNIT SCHEDULE									
MARK	AHU SERVED	HEAT PUMP HEATING CAP (MBH)	Nominal Tons	REFRIG	OA TEMP SUMMER (DB)	OA TEMP WINTER (DB)	WEIGHT (LBS)	POWER VAC/PH	BASIS OF DESIGN	NOTES
HP-1	AH-1	24.0	2.0	R-410A	95.0	17.0	270	208/1ø	25HCB624A003	1: 2: 3: 4: 5: 6
HP-2	AH-2	47.0	5.0	R-410A	95.0	17.0	270	208/1ø	25HCB660A003	1: 2: 3: 4: 5: 6
HP-3	AH-3	47.0	5.0	R-410A	95.0	17.0	270	208/1ø	25HCB660A003	1: 2: 3: 4: 5: 6

PROVIDE WITH DEFROST CONTROLS, LOW AMBIENT HEAD PRESSURE CONTROLS, AND ANTI-SHORT CYCLE TIMER. PROVIDE COIL GUARD.

PROVIDE POWER CONNECTION TO INDOOR UNIT PER MANUFACTURER'S RECOMMENDATIONS. VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS. WHICH TAKE PRECEDENCE OVER THIS INFORMATION.

PROVIDE LIQUID LINE SOLENOID, CRANKCASE HEATER, TXV, START CAPACITOR AND RELAY AS RECOMMENDED BY MANUFACTURER FOR LONG LINE APPLICATIONS. TWO-STAGE HEAT PUMP UNIT.

HEAT PUMP UNITS SHALL BE LOCATED ON GROUND. REFER TO CONDENSING UNIT INSTALLATION DETAIL PROVIDED.

								FAN SCHEDULE		
MARK	CFM	ext. Sp in W.G.	DRIVE TYPE	MOTOR (HP/W)	MAX FAN (RPM)	MAX SONES	POWER/ PHASE	BASIS OF DESIGN	SERVES	NOTES
EF-1	140	0.25	DIRECT	128 W	965	2.5	115/1	GREENHECK SP-B150	RESTROOM/SHOWER ROOM	1: 2: 3: 4: 5
EF-2	140	0.25	DIRECT	128 W	965	2.5	115/1	GREENHECK SP-B150	RESTROOM/SHOWER ROOM	1: 2: 3: 4: 5
1 VERIEY	VERIEV ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS WHICH TAKE PRECEDENCE OVER THIS INFORMATION									

VERIFY ELECTRIC POWER REQUIREMENTS WITH ELECTRICAL PLANS, WHICH TAKE PRECEDENCE OVER THIS INFORMATION. INTERLOCK FAN WITH LIGHT. PROVIDE 15 MINUTE TIME DELAY. PROVIDE FACTORY SOLID STATE FAN SPEED CONTROLLER.

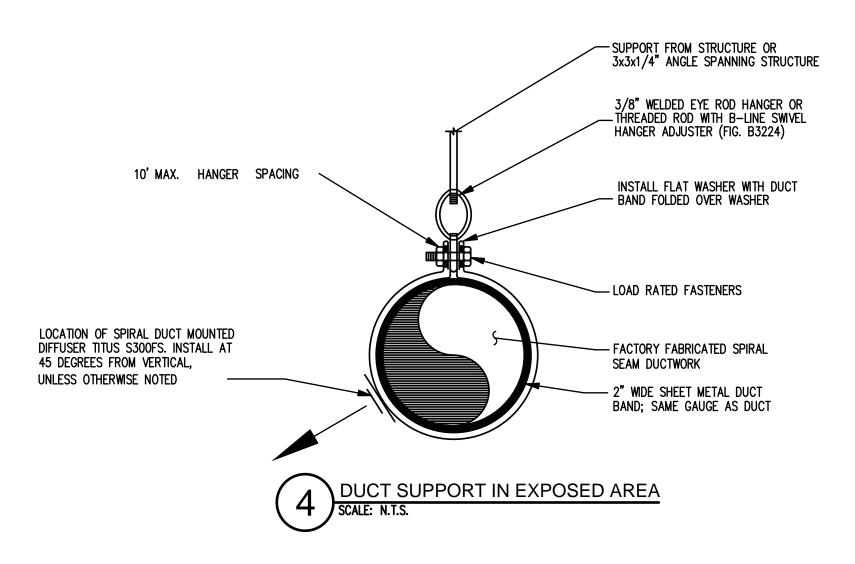
DIRECT DRIVE CENTRIFUGAL CEILING FAN. PROVIDE FACTORY SUPPLIED DISCONNECT SWITCH, BACK DRAFT DAMPER, MOTOR WITH THERMAL OVERLOAD AND FLEXIBLE DUCT CONNECTION. PROVIDE MANUFACTURER'S DESIGNER GRILL.

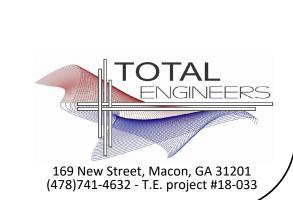
						LOUVER SCHEDULE
MARK	SIZE W X H (INCHES)	MIN. FREE AREA (SQ. FT.)	MAXIMUM PRESS. DROP (IN. W.G.)	FINISH (Color By Architect)	BASIS OF DESIGN	NOTES
L-1	36"X24"	2.78	0.08	ENAMEL	GREENHECK ESD 403	1:2:3

TOP OF LOUVER AT BOTTOM OF STRUCTURE. REFER TO ARCHITECTURAL PLANS FOR FURTHER INFORMATION. STATIONARY LOUVER, PROVIDE WITH BIRDSCREEN AND FACTORY BAKED ENAMEL FINISH. COORDINATE COLOR WITH ARCHITECT (PROVIDE COLOR SAMPLES WITH SUBMITTAL). PROVIDE FULL SIZE 18" DEEP SHEET METAL PLENUM BEHIND LOUVER.

					AIR DEVIC	e sche	DULE		
MARK	SERVICE	NECK SIZE	SIZE	MATERIAL	TYPE	PATTERN	Mounting Type	LAYOUT BASIS	NOTES
S1	SUPPLY	SEE PLANS	24" X 24"	STEEL	SQUARE CONC.	4-WAY	SURFACE	TITUS TMS	1:2:3
S2	SUPPLY	SEE PLANS	NECK+ 1-3/4"	STEEL	DOUBLE DEFLECTION REGISTER	2-WAY	DUCT MOUNT	TITUS S300FS	6:7
S3	SUPPLY	SEE PLANS	12" X 12"	STEEL	SQUARE CONC.	4-WAY	SURFACE	titus tms	1: 2: 3
R1	RETURN	SEE PLANS	24 " X24"	ALUMINUM	EGGCRATE		SURFACE	50F	1:4
R2	RETURN	SEE PLANS	NECK + 1-3/4"	STEEL	LOUVERED RETURN GRILL		WALL	350RL	5:8
1. PR	OVIDE STANDA	RD WHITE FINISH							

PROVIDE STANDARD WHITE FINISH. INSULATE BACK OF DEVICE. BALANCE AIRFLOW TO QUANTITY SHOWN. PROVIDE FULL SIZE SHEET METAL PLENUM ON TOP OF GRILLE FOR CONNECTION TO DUCT. CONSULT ARCHITECT FOR GRILL FINISH. ADJUST DEFLECTORS FOR TWO-WAY THROW. GRILL SHALL BE SAME COLOR AS EXPOSED DUCT. CONSULT ARCHITECT FOR DUCT FINISH. PROVIDE MANUFACTURER'S RETURAN AIR DAMPER ADJUSTABLE FROM THE FACE OF GRILL.





CONTROL

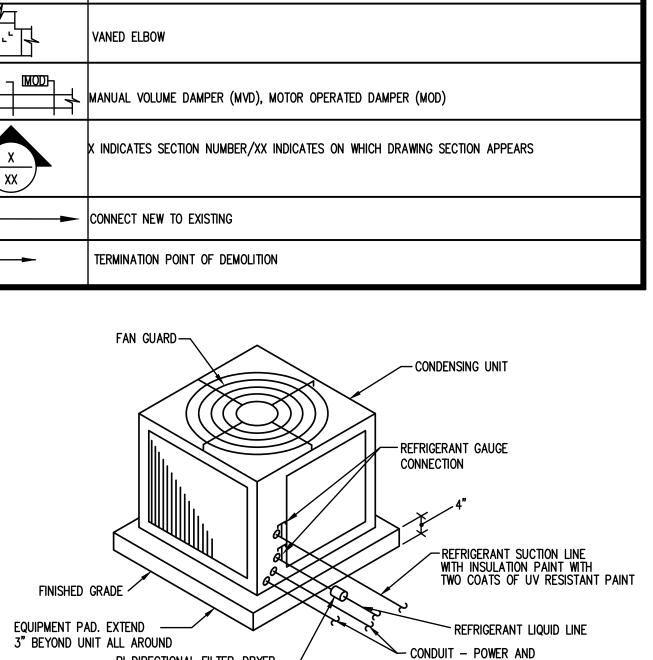
2) PROVIDE 4"X4"WELDED WIRE MESH REINFORCING AT CENTER LINE FOR THE CONCRETE PAD.

AIRCOOLED CONDENSING UNIT SLAB MOUNTED

3) PAD MAY BE PREFABRICATED DIVERSITECH ULTRALITE EQUIPMENT PAD OR EQUIVALENT.



DATE: 4-27-18



BI DIRECTIONAL FILTER-DRYER -----

SCALE: N.T.S.

5

NOTE: 1) THIS DETAIL IS FOR HEAT PUMP UNIT 5 TONS AND UNDER

Ý	
U.C.	UNDER-CUT DOOR 3/4", UNLESS OTHER SIZE NOTED
ZD E16	NDICATES EQUIPMENT ON PLANS; TOP ITEM SHOWS TYPE OF EQUIPMENT AND BOTTOM ITEM SHOWS SPECIFIC MARK NUMBER
4 (S1) 8"ø 300	TEM IN HEXAGON SHOWS AIR DEVICE MARK NUMBER, ITEM ABOVE LINE SHOWS NECK SIZE, ITEM BELOW LINE SHOWS AIR FLOW THROUGH DEVICE, AND NUMBER IN FRONT SHOWS QUANTITY IF MORE THAN ONE
AFF	Above Finished Floor
AH	AIR HANDLING UNIT
	BYPASS DAMPER
	BRITISH THERMAL UNITS, THOUSAND BRITISH THERMAL UNITS
CAP	CAPACITY
	CUBIC FEET PER MINUTE
CLG	CEILING
CU	Condensing Unit
DB, WB	DRY BULB TEMPERATURE, WET BULB TEMPERATURE
EA, EG	EXHAUST AIR, EXHAUST GRILLE
EF	EXHAUST FAN
EXT SP	EXTERNAL STATIC PRESSURE (USUALLY EXPRESSED IN INCHES OF WATER IN GAGE)
HP	HEAT PUMP UNIT
MVD, VD	MANUAL VOLUME DAMPER
OA	DUTSIDE AIR
	RETURN AIR, RETURN GRILLE
RTU	PACKAGED ROOFTOP UNIT
SA	SUPPLY AIR
SF	SUPPLY FAN FOR SHOP VENTILATION
VAC, PH	VOLTS ALTERNATING CURRENT, NUMBER OF PHASES
W, KW	WATTS, KILOWATTS
UH	
A	AUDIBLE/VISUAL ALARM DEVICE CONNECTED TO DUCT SMOKE DETECTOR
	ACCESS DOOR
	CONTROL DAMPER-OPPOSED BLADE
	CONTROL DAMPER-PARALLEL BLADE
	BACKDRAFT DAMPER
	RADIUS ELBOW (R=1.5)
	VANED ELBOW
	MANUAL VOLUME DAMPER (MVD), MOTOR OPERATED DAMPER (MOD)
x	X INDICATES SECTION NUMBER/XX INDICATES ON WHICH DRAWING SECTION APPEARS
	CONNECT NEW TO EXISTING
	TERMINATION POINT OF DEMOLITION

NEW PIPE, DUCTWORK OR EQUIPMENT

CHANGE IN PIPE OR DUCT SIZE OR SHAPE

CONDENSATE OR OTHER DRAIN PIPING

SIDEWALL REGISTER OR GRILLE

C----- C----- ELBOW TURNED DOWN OR TURNED UP IN PIPING

REFRIGERANT PIPING

TIME CLOCK DIAMETER

FI-, SCD-,SD-FIRE DAMPER, SMOKE DAMPER, SMOKE DETECTOR

CEILING SUPPLY DIFFUSER

-///////

— R —

— D —

ø

MECHANICAL SYMBOLS & ABBREVIATIONS LEGEND	
EW PIPE, DUCTWORK OR EQUIPMENT	
JCT SIZE: FIRST DIMENSION IS SIDE DRAWN	
EXIBLE ROUND DUCTWORK	MEMBER
RE DAMPER, SMOKE DAMPER, SMOKE DETECTOR	AMERICAN INSTITUTE OF ARCHITECTS
EILING SUPPLY DIFFUSER	N
EILING RETURN OR EXHAUST AIR	
A DUCT OUT OF TU BOX WITH DUCT LINER FOR THR FIRST FIVE FEET OF DUCT OUT OF TU BOX	l l l
DEWALL REGISTER OR GRILLE	W<→E
HANGE IN PIPE OR DUCT SIZE OR SHAPE	
EFRIGERANT PIPING	
ONDENSATE OR OTHER DRAIN PIPING	Ś
BOW TURNED DOWN OR TURNED UP IN PIPING	PLAN
HERMOSTAT, ARROW SHOWS CONTROL WIRING PATH	FLAN
ME CLOCK	
AMETER	EURG
NDER-CUT DOOR 3/4", UNLESS OTHER SIZE NOTED	GEGISTERE T
DICATES EQUIPMENT ON PLANS; TOP ITEM SHOWS TYPE OF EQUIPMENT AND BOTTOM ITEM SHOWS PECIFIC MARK NUMBER	* Non 236264 *
EM IN HEXAGON SHOWS AIR DEVICE MARK NUMBER, ITEM ABOVE LINE SHOWS NECK SIZE, ITEM BELOW NE SHOWS AIR FLOW THROUGH DEVICE, AND NUMBER IN FRONT SHOWS QUANTITY IF MORE THAN ONE	FRGINEER
BOVE FINISHED FLOOR	RAMAL M. PATT
r handling unit	MAL M. Pr.
YPASS DAMPER	
RITISH THERMAL UNITS, THOUSAND BRITISH THERMAL UNITS	U U
APACITY	
JBIC FEET PER MINUTE	
EILING	
ONDENSING UNIT	
RY BULB TEMPERATURE, WET BULB TEMPERATURE	
KHAUST AIR, EXHAUST GRILLE	
KHAUST FAN	

S Δ [T]

ER

H

Z

CE

 $\boldsymbol{\mathcal{N}}$

EN

μ

 \geq

μ

 \sim

A

 \sim

 \triangleleft

FORDH

RCHIT

 \sim

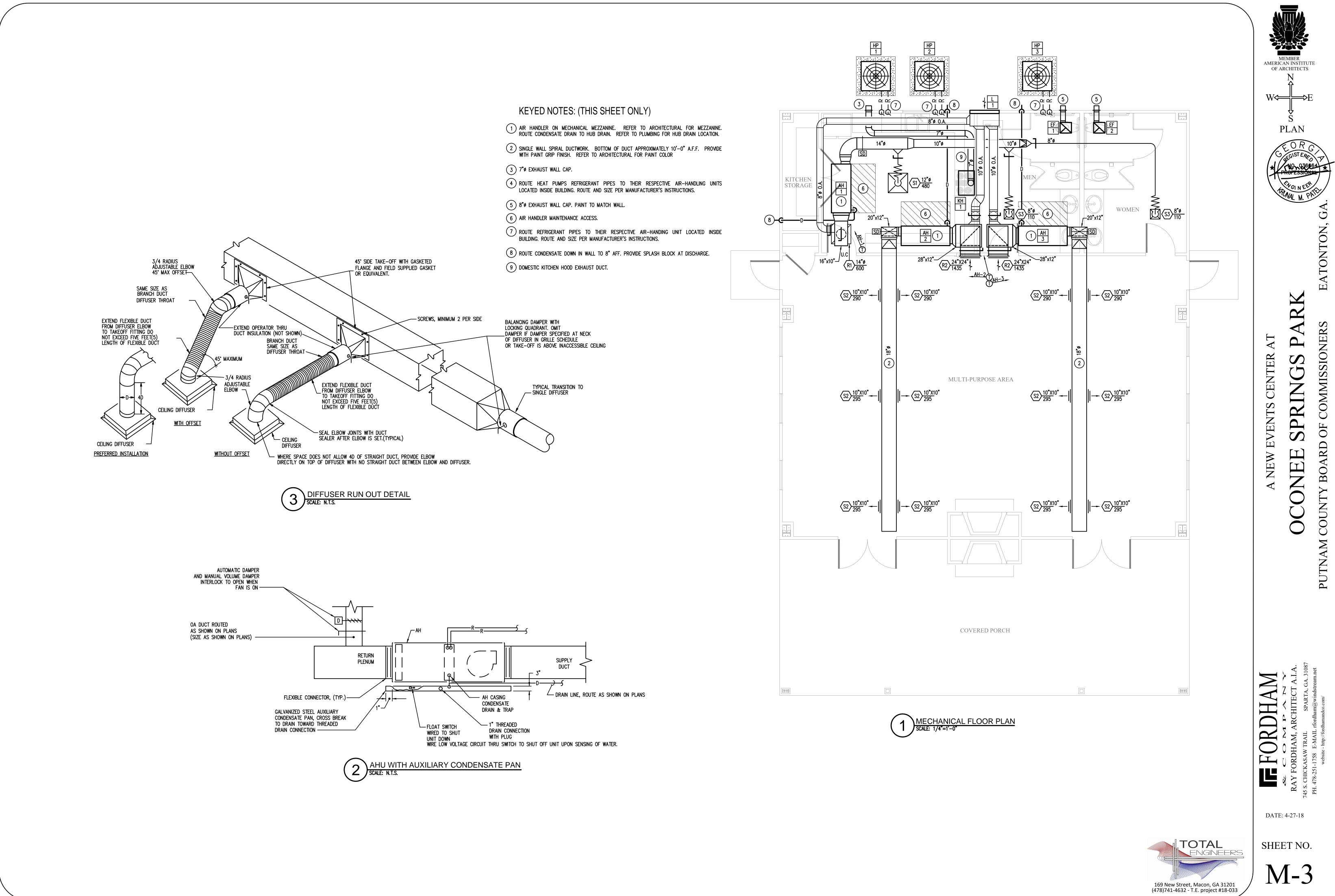
R

NEJ COMMISSIO OF \square AR \frown BC Ζ COU PUTNAM

GA

ATONTON,

[T]



ELECTRICAL SPECIFICATIONS

DIVISION 16

ELECTRICAL

SECTION A: GENERAL ELECTRICAL REQUIREMENTS

. THESE PLANS AND SPECIFICATIONS APPLY TO THE OCONEE SPRINGS PARK EVENT CENTER, EATONTON, GEORGIA. THE WORK DESCRIBED BY THESE PLANS AND SPECIFICATIONS APPLY TO THE INDICATED PROJECT AND MAY NOT BE MODIFIED OR REUSED WITHOUT WRITTEN APPROVAL OF THE ENGINEER. 2. ALL WORK SHALL BE PERFORMED BY LICENSED ELECTRICAL CONTRACTOR WITH MINIMUM OF TWO YEARS OF EXPERIENCE, LIST OF PREVIOUS JOBS AND REFERENCES SHALL BE MADE AVAILABLE UPON REQUEST. CONTRACTOR SHALL PROVIDE ADEQUATE

INSURANCE FOR PERSONNEL AND SHALL REPAIR ANY DAMAGE OCCURRING AS THE RESULT OF THIS PROJECT SITE AND RELATED PROPERTY. 3. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL MANNER IN ACCORDANCE WITH THE 2017 NATIONAL ELECTRICAL CODE, LIFE SAFETY CODE NFPA IOI, ADA CODE, GA ACCESSIBILITY CODE, STATE OF GEORGIA ENERGY CODE AND ALL OTHER APPLICABLE CODES AND ORDINANCES.

4. ALL PERMITS AND FEES SHALL BE OBATINED AND PAID FOR BY THE CONTRACTOR. 5. ALL EQUIPMENT, MATERIAL, AND DEVICES SHALL BE LISTED OR RECOGNIZED BY UNDERWRITER'S LABORATORY OR ELECTRICAL TESTING LABORATORY AND USED AND INSTALLED IN ACCORDANCE WITH IT'S LISTING.

6. ALL WORK PERFORMED SHALL BE WARRANTED FOR A PERIOD OF ONE YEAR FROM THE THE FINAL COMPLETION DATE EXCEPT FOR FUSES AND LAMPS IN LIGHT FIXTURES. UPON NOTIFICATION OF A PROBLEM. THE CONTRACTOR SHALL INVESTIGATE THE PROBLEM WITHIN 48 HOURS UNLESS A DIFFERENT TIME PERIOD IS AGREED TO. THE CONTRACTOR SHALL INVESTIGATE, REPAIR OR REPLACE ALL FAULTY EQUIPMENT WITHIN A REASONABLE TIME PERIOD WITHOUT CHARGE TO THE OWNER.

7. THE TERM "PROVIDE" SHALL BE UNDERSTOOD TO MEAN, OBTAIN THE ITEM DESCRIBED, INSTALL ITEM IN ACCORDANCE WITH THESE PLANS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS.

8. ALL PENETRATIONS MADE IN FIRE RATED BUILDING PORTIONS SHALL BE SEALED WITH A LISTED RESISTANT MATERIAL SUITABLE FOR THE APPLICATION.

9. ALL INSTALLATIONS OF ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE COORDINATED WITH OTHER TRADES PRIOR TO INSTALLATION. IO. PLANS ARE DIAGRAMMATIC AND SHOW THE LOCATION OF THE EQUIPMENT, RACEWAY AND FIXTURES, AND ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED AT THE BUILDING SITE.

II. CONTRACTOR SHALL VERIFY AND COORDINATE ALL EQUIPMENT AND DEVICE LOCATIONS WITH OWNER'S PROJECT MANAGER PRIOR TO INSTALLATION.

12. EQUIPMENT POWER SUPPLY AND WIRING REQUIREMENTS: THE CONTRACTOR SHALL SUBMIT FOR REVIEW A TABULATED SHEET OF EQUIPMENT POWER SUPPLY AND WIRING REQUIREMENTS FOR ALL MECHANICAL EQUIPMENT REQUIRING POWER AS SPECIFIED IN DIVISION 15. REQUIREMENTS SHALL BE IDENTIFIED BY HORSEPOWER OR KW, OPERATING AMPERAGE, REQUIRED VOLTAGE AND PHASE REQUIREMENTS, AND MANUFACTURERS SUGGESTED OVERCURRENT CIRCUIT PROTECTION DEVICE SIZE AND MINIMUM CIRCUIT AMPACITY SIZE. WHERE THE ELECTRICAL REQUIREMENTS SUBMITTED FOR MECHANICAL EQUIPMENT DIFFERS FROM THE BRANCH CIRCUITRY SHOWN ON THE ELECTRICAL DRAWINGS (WHEN USING THE BASIS OF DESIGN UNIT LISTED IN THE MECHANICAL SCHEDULES/SPECIFICATIONS OR A SIMILAR UNIT OF THE SAME SIZE FROM LISTED ALTERNATE MANUFACTURERS), THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS TO THE BRANCH CIRCUITRY PER THE CURRENT NEC AT NO ADDITIONAL COST TO THE OWNER. WHEN CHANGES ARE MADE TO POWER REQUIREMENTS FOR EQUIPMENT DUE TO OWNER, ARCHITECT/ENGINEER APPROVED VALUE ENGINEERING CHANGES TO EQUIPMENT, THE COST MUST NE INCLUDED IN THE VALUE ENGINEERING OVERALL CHANGE ORDER COST. COSTS DUE TO ADJUSTMENTS IN BRANCH CIRCUITRY TO EQUIPMENT DUE TO VALUE ENGINEERING CHANGES WILL NOT BE ALLOWED AFTER THE OVERALL VALUE ENGINEERING CHANGE ORDER HAS BEEN APPROVED. IN ALL CASES, POWER WIRING REQUIREMENTS FOR MECHANICAL EQUIPMENT MUST BE PROVIDED TO THE ENGINEER BEFORE OR AT THE SAME TIME AS THE SHOP DRAWINGS FOR THE ELECTRICAL DISTRIBUTION GEAR OR EQUIPMENT. IN NO CASE SHALL THE ELECTRICAL DISTRIBUTION GEAR OR EQUIPMENT BE ORDERED OR BRANCH CIRCUITRY ROUGHED IN PRIOR TO ENGINEER REVIEW AND COMMENT ON THIS DOCUMENT. ANY EQUIPMENT ORDERED OR BRANCH CIRCUITRY ROUGHED IN ON THE JOBSITE WITHOUT THIS REVIEW AND COMMENT WILL BE TOTALLY AT THE CONTRACTORS RISK.

SECTION B: BASIC MATERIALS

I. ALL CONDUCTORS USED FOR 600 VOLTS OR LESS SHALL BE HIGH GRADE COPPER CONDUCTORS WITH 75 DEGREE C, THHN OR THWN THERMOPLASTIC INSULATION. ALL NDUCTORS SHALL BE MADE IN THE USA. ALL CONDUCTORS ROUTED IN UNDERGROUND CONDUIT SHALL BE RATED FOR WET LOCATIONS. 2. ALL INTERIOR 120 VOLT, 20 AMP POWER AND LIGHTING WIRING SHALL BE INSTALLED

IN ELECTRICAL METALLIC TUBING OR "MC" CABLE (IF NOT EXPOSED) FOR ALL INTERIOR CIRCUITS UNLESS OTHERWISE NOTED. IF "MC" CABLE IS USED, HOMERUNS SHALL BE IN 3/4 IN. EMT. POWER CIRCUITS FOR HVAC EQUIPMENT SHALL BE IN 3/4" ELECTRICAL METALIC CONDUIT MINIMUM. ALL CONDUIT SHALL BE SUPPORTED FROM BUILDING STRUCTURE. IT SHALL NOT BE SUPPORTED FROM DUCTWORK, PIPING, CEILING GRID OR CEILING GRID SUPPORTS, OR ANY OTHER NON-STRUCTURAL ITEM. CONDUIT SHALL BE SUPPORTED IN ACCORDANCE WITH THE NEC. CONDUIT IN EXPOSED STRUCTURE AREAS SHALL BE EMT. GALVANIZED RIGID STEEL CONDUIT SHALL BE USED IN AREAS WHERE IT WILL BE EXPOSED TO PHYSICAL DAMAGE.

3. CONDUIT UNDERGROUND SHALL BE SCHEDULE 40 PVC. IF MORE THAN ONE CONDUIT IS PROVIDED IN A SINGLE TRENCH, THE CONDUIT SHALL BE RACKED WITH SPACERS EVERY FOUR FEET TO MAINTAIN A MINIMUM SPACING BETWEEN CONDUIT OF TWO INCHES. BACKFILL USED FOR UNDERGROUND INSTALLATIONS SHALL BE FREE OF FOREIGN MATTER. WHERE EXPOSED TO WEATHER, CONDUIT SHALL BE GALVANIZED RIGID STEEL OR INTERMEDIATE METALLIC CONDUIT. THE CONDUIT SHALL BE TERMINATED WITH LISTED FITTINGS AND ALL CONDUIT ENDS SHALL BE REAMED AND SMOOTH. ALL CONDUIT ENDS IN BOXES SHALL BE PROVIDED WITH INSULATED BUSHINGS.

4. A #12 INSULATED COPPER GROUND CONDUCTOR SHALL BE INCLUDED IN ALL BRANCH CIRCUITS RATED 20 AMPERES. ALL OTHER CIRCUITS AND FEEDERS WILL BE PROVIDED WITH AN INSULATED COPPER CONDUCTOR SIZED AS NOTED OR IN ACCORDANCE WITH THE NEC, WHICHEVER IS GREATER.

5. THE MINIMUM SIZE OF ALL CONDUCTORS NOT OTHERWISE INDICATED IS #12 AND THE MINIMUM SIZE OF ALL CONDUIT UNLESS OTHERWISE INDICATED IS 1/2 IN. 6. ALL JUNCTION BOXES SHALL BE PROVIDED WITH COVERS AND ALL UNUSED OPENINGS SHALL BE PLUGGED. ALL JUNCTION BOXES SHALL BE INDEPENDENTLY SUPPORTED FROM STRUCTURE. COVERS OF BOXES SHALL BE LABELED WITH THE CIRCUIT NUMBER WITH A BLACK PERMANENT MARKER IN 3/4 IN. HIGH LETTERS (LEGIBLE HANDWRITTEN LETTERING IS ACCEPTABLE).

7. ALL OUTLET BOXES SHALL BE SQUARE METAL BOXES. PROVIDE PLASTER RINGS FOR ALL OUTLET BOXES CONTAINING DEVICES TO PROVIDE A FIRM MOUNTING SUPPORT FOR THE DEVICE.

8. ALL CONVENIENCE RECEPTACLES SHALL BE SPECIFICATION GRADE 20 AMP RECEPTACLES, OWNER TO SELECT COLOR.

9. ALL LIGHT SWITCHES SHALL BE SPECIFICATION GRADE 20 AMP TOGGLE SWITCHES FULL LOAD RATED FOR TUNGSTEN-HALOGEN LAMPS, OWNER TO SELECT COLOR.

IO. PROVIDE FACEPLATES FOR ALL RECEPTACLES AND SWITCHES. COORDINATE STYLE AND COLOR WITH OWNER'S PROJECT MANAGER. II. PROVIDE BETWEEN 12 AND 24 INCHES OF LIQUID TIGHT FLEXIBLE CONDUIT BETWEEN RIGID CONDUIT AND ANY EQUIPMENT CONTAINING MOTORS. THE FLEXIBLE CONDUIT SHALL BE SUPPORTED TO PREVENT THE CONDUIT FROM RESTING ON THE GROUND OR CONCRETE PAD.

12. PROVIDE WEATHERPROOF RECEPTACLE WITHIN 25 FEET OF EACH PIECE OF EXTERIOR EQUIPMENT. THIS RECEPTACLE SHALL BE MOUNTED HORIZONTALLY WITH METAL HINGED "IN USE" COVER MOUNTED TO OPEN UP. THIS OUTLET SHALL BE A GFCIRECEPTACLE. THIS RECEPTACLE SHALL BE BE MOUNTED IN DIE CAST NON CORRODING METAL BOX. I3. WHEN OUTLETS OR BOXES ARE INDICATED INSTALLED ON OPPOSITE SIDES OF THE SAME WALL. THE CONTRACTOR SHALL ADJUST THE LOCATION TO OFFSET THE OUTLETS WITH A WALL STUD PROVIDING SEPERATION.

SECTION C: DISTRIBUTION EQUIPMENT

I. CONTRACTOR SHALL PROVIDE CONDUCTORS ACCORDANCE WITH THE PLANS.

2. SEPERATELY MOUNTED CIRCUIT BREAKERS ENCLOSURES IN INDOOR APPLICATIONS AND IN WET LOCATIONS. ALL CIRCUIT BREAKER ENCLO COVERS AND PROVISIONS FOR PADLOCKING THE 3. ALL EQUIPMENT CONTAINING MOTORS SHALL MEANS WITHIN TEN FEET OF THE UNIT UNLESS MEANS SHALL AS A MINIMUM BE A NON-FUSED MATCH THE EQUIPMENT. PROVIDE OTHER DEVIC NEMA TYPE IENCLOSURES INDOORS AND NEMA

4. PROVIDE GFCICIRCUIT BREAKERS AND RECEP AND IN THESE SPECIFICATIONS. THESE DEVICES

5. PROVIDE PANELS AS SCHEDULED ON PLANS THERMAL-MAGNETIC BREAKERS WITH A MINIMUM FOR 120/208V OR AS INDICATED ON THE PLAN DEGREE C RATED TERMINATIONS. PANEL NOTEI MOUNT PANELS WITH TOP OF PANEL 6 FT. AB PAINTED PLYWOOD BACKBOARD FOR ALL PANE TOGGLE BOLTS. PANEL MANUFACTURERS: SQUA ALL CURRENT CARRYING PARTS SHALL BE COF 6. SYSTEM COORDINATION: THE MANUFACTURE SERIES RATED EQUIPMENT BASED ON U.L. LIST SHALL VERIFY THE AVAILABLE SHORT CIRCUIT TRANSFORMER.

7. PROVIDE EACH PANELBOARD WITH A TYPEWF INSIDE A PLASTIC COVERING (EVERY CIRCUIT A LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT NDETIFICATION SHALL INCLUDE SUFFICIENT DE DISTINGUISHED FROM ALL OTHERS). THE DIREC NSIDE A STEEL FRAME PROVIDED INSIDE THE DIRECTORY SHALL BE TYPED TO IDENTIFY THE AND THE AREAS SERVED.

8. PROVIDE NAMEPLATES FOR ALL PANELBOAR CIRCUIT BRAKERS, COMBINATION STARTERS, CON DISTRIBUTION EQUIPMENT PANELS. MOUNT NAM ALL SURFACE MOUNTED PANELS AND EQUIPMEN PLASTIC PLATES WITH 3/16 IN. HIGH WHITE LE NAME PLATES SHALL BE INSTALLED PARALLE USFAGE OF EACH DEVICE OR BRANCH CIRCUIT CONTRACTOR TO COORDINATE EXACT EQUIPMEN SECURE NAMEPLATES VIA EPOXY GLUE.

SECTION D: LIGHTING

. TYPES AND SPECIFIC REQUIREMENTS ARE PRI SCHEDULE ON THE PLANS. ALL LIGHT FIXTURE DRIVERS, BALLASTS, AND FULLY FUNCTIONING 2. ALL LED FIXTURES SHALL BE U.L. LISTED REPLACEMENT WARRANTY FOR DEFECTIVE OR DRIVERS, AND FOR LUMINAIRES EXHIBITING INADE MATERIAL, FIXTURE FINISH, WORKMANSHIP, AND INCLUDE TRANSPORTATION, REMOVAL, AND INSTA

3. RATED LUMINAIRE WATTAGE SHALL BE ACT EFFICIENCY DUE TO SUB-OPTIMAL LOADING OF

4. DRIVERS SHALL BE CAPABLE OF ACCEPTING LIGHTING FIXTURE SCHEDULE AND CAPABLE OF HAVE A CLASS A RATING, TOTAL HARMONIC DI NOT CONTAIN ANY POLYCHLORINATED BIPHENYL 5. ALL LED FIXTURES SHALL BE TESTED TO OUTDOOR FIXTURES SHALL BE IP65 RATED. LED SHALL HAVE A SYSTEM LIFETIME OF 50,000 AND SHALL MAINTAIN A MINIMUM OF 85% OF I HOURS OF OPERATION. LED'S SHALL HAVE COL GREATER.

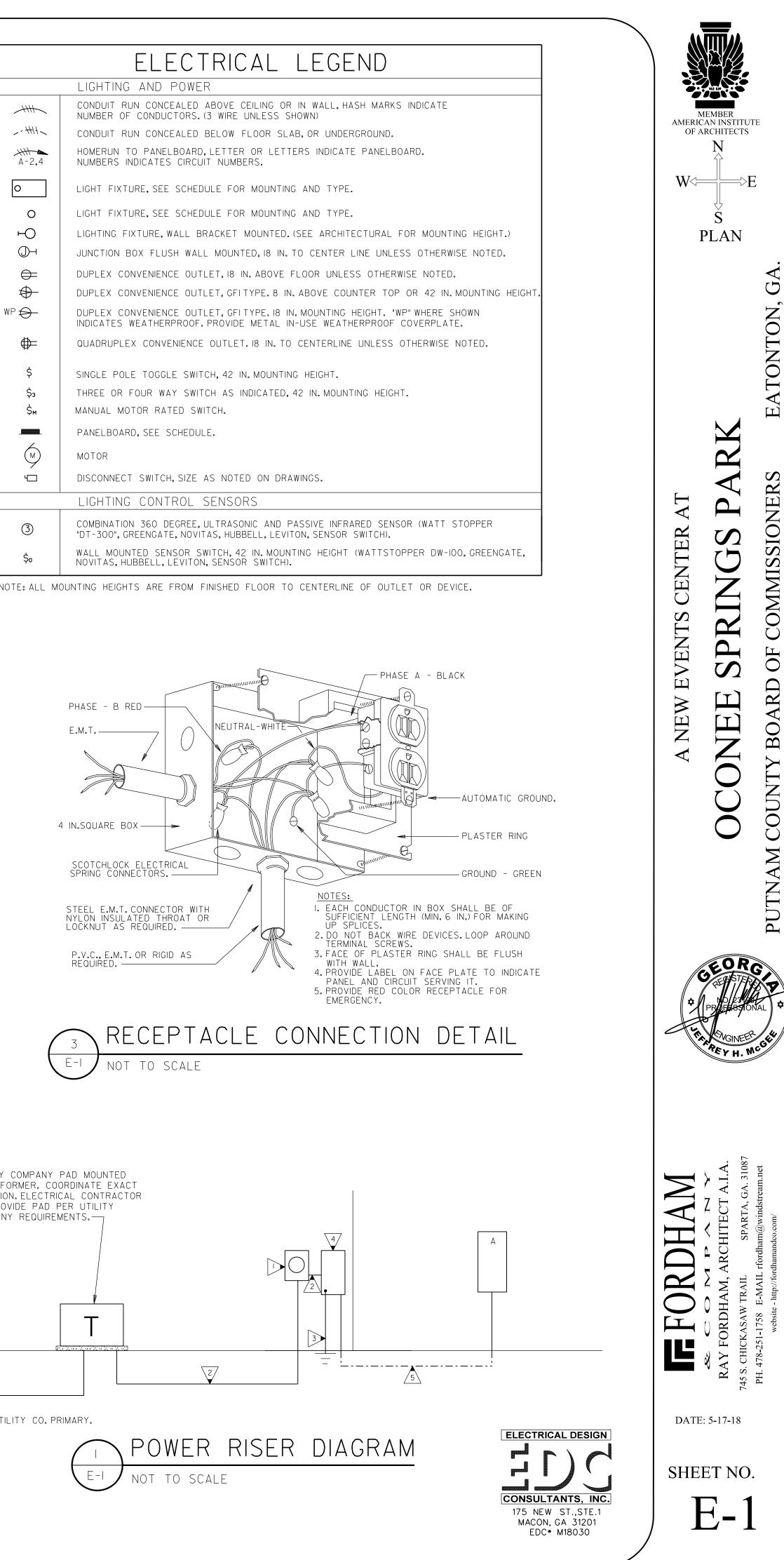
6. ALL SURFACE MOUNTED FIXTURES SHALL B STRUCTURE. ALL CEILING MOUNTED FIXTURES AND BRACED TO PREVENT MOVEMENT IF IMPAC 7. ALL RECESSED FIXTURES IN LAY IN TYPE IPS TO EASTEN FIRMLY TO CELLING SUPPO SUPPORTED AT EACH CORNER OF A FIXTURE.

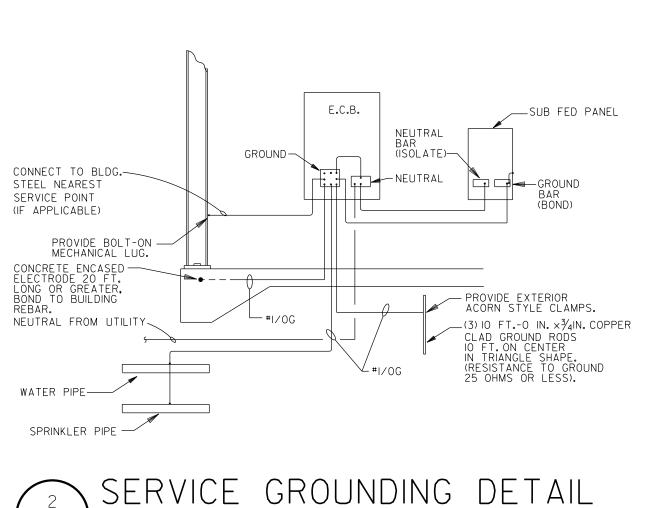
8. CONNECTION TO ALL FIXTURES IN LAYIN CE FOUR TO SIX FEET IN LENGTH. A GROUND CON CONNECTION.

9. ALL LENSES ON FIXTURES SHALL BE 0.125 I SHALL BE 22 GAUGE STEEL MIN. AND HAVE A WHITE FINISH.

		LIGHTING FIXTURE SCHEDL	IJЕ
		DESCRIPTION PENDANT MOUNT CHOSEN BY ARCHITECT/OWNER. (200 WATTS MAX)	MANUFACTU
AND CONDUIT FOR ALL FEEDERS IN SHALL BE MOUNTED IN NEMA TYPE I			
NEMA 3R ENCLOSURES IN EXTERIOR OR SURES SHALL BE PROVIDED WITH HINGED E COVERS. BE PROVIDED WITH A DISCONNECTING S OTHERWISE NOTED. THIS DISCONNECTING D SWITCH OR TOGGLE STARTER SIZED TO SES AS NOTED ON THE PLANS. PROVIDE		2 FT.X 4 FT.SURFACE CONTEMPORARY LOW PROFILE ARCHITECTURAL TROFFER WITH ACRYLIC CENTER LENS AND MATTE WHITE POWDER PAINT REFLECTOR.(VERIFY CEILING TYPE) LAMPS: LED,4800 LUMENS MINIMUM,45 WATTS,3500 DEGREE K DRIVER: UNV.VOLT	LITHONIA "E SERIES CO "LCAT" SERI
3R OUTDOORS. PTACLES AS INDICATED ON THE PLANS S SHALL BE CLASS A GFCIDEVICES. G. CIRCUIT BREAKERS SHALL BE M INTERRUPTING RATING OF 10,000 AIC	С	4 FT LED STRIPLIGHT, PROVIDE WITH LENS , SURFACE MOUNTED. LAMPS: LED, 5000 LUMENS, 42 WATTS, 3500 DEGREE K	LITHONIA "Z SERIES, COL "LCS" SERIE
NS. BREAKERS SHALL HAVE 65/75 D SHALL BE SERVICE ENTRANCE RATED. OVE FLOOR, PROVIDE 3/4 IN., GREY LS SECURED TO WALL WITH I/4 IN. RE D, GE, SEIMENS, AND CULTER HAMMER. PPER. R OF THE PANELBOARDS SHALL PROVIDE	ΟΑ	DRIVER: UNV. VOLT DRIVER ARCHITECTURAL VANDAL RESISTANT WALL LUMINAIRE, UV STABALIZED MOLDED POLYCARBONATE AND HIGH IMPACT LENS ; UL LISTED FOR WET LOCATION LAMPS: LED: 2000 LUMENS, 35 WATTS, 4000 DEGREE K	JUNO "STO SERIES, FAI "TR" SERIES BROWNLEE
ED TEST RESULTS. THE CONTRACTOR CURRENT AT THE SERVING RITTEN CIRCUIT BREAKER DIRECTORY CARD ND CIRCUIT MODIFICATION SHALL BE T, AND SPECIFIC PURPOSE OR USE. THE	<u>م ک</u>	DRIVER: UNV VOLT LED 2 HEAD EMERGENCY UNIT, LOW PROFILE CONTEMPORARY DESIGN WITH THERMOPLASTIC HOUSING, IMPACT RESISTANT.90 MINUTE BATTERY. LAMPS: LED (2)1.5W	COMPASS " SERIES, LIT "ELM2 LED" SURELITES
TAIL TO ALLOW EACH CIRCUIT TO BE TORY AND COVERING SHALL BE LOCATED DOOR OF EACH PANELBOARD. THE E LOAD FED BY EACH CIRCUIT BREAKER RDS, DISCONNECT SWITCHES, ENCLOSED NTACTORS, AND ALL OTHER ELECTRICAL		BALLAST:UNV. VOLT LED, RED LETTER COMMODITY GRADE COMBO THEMOPLASTIC UNIT, IMPACT RESISTANT HOUSING, UNIVERSAL MOUNTING, 90 MINTUTE BATTERY AND OUTDOOR REMOTE HEAD. LAMPS: LED (2)1.5W	EVENLITE " COMPASS " SERIES, LIT "ECR LED" S
IEPLATES ON EXTERIOR OF THE DOOR OF NT. NAME PLATES SHALL BE LAMINATED ITERS ETCHED ON BLACK BACKGROUND. TO EQUIPMENT LINES. THE NAME OR SHALL BE ETCHED IN THE NAMEPLATE. NT IDENTIFICATION WITH THE OWNER.	LIGHTIN NOTES: I. CONTF	BALLAST:UNV. VOLT <u>G FIXTURE SCHEDULE</u> RACTOR TO VERIFY ALL VOLTAGES, GRID AND CEILING TYPES WITH THE ARCH DIMENSION SIZE TO ENSURE A PROPER FIT IN ALL CEILING TYPES PRIOR T	
ROVIDED ON THE LIGHTING FIXTURE (S SHALL BE PROVIDED WITH LAMPS, AT COMPLETION OF PROJECT. AND HAVE A MINIMUM OF 5 YEAR ON-SITE NON-STARTING LED SOURCE ASSEMBLIES, EQUATE LUMEN OUTPUT, IT SHALL COVER SHIPPING, ON-SITE REPLACEMENT SHALL ALLATION OF NEW FIXTURE. UAL, ACCOUNTING FOR ANY REDUCTION IN DRIVERS. (G THE VOLTAGE INDICATED ON THE DIMMING IF REQUIRED. DRIVERS SHALL STORTION OF LESS THAN 20%, AND SHALL _ (PCB). IES LM-79 AND IES LM-80 STANDARDS. D'S, DRIVERS AND ALL COMPONENTS HOURS OR MORE AT 25 DEGREES CELSIUS NITIAL LUMEN OUTPUT AFTER 55,000 OR RENDERING INDEX (CRI) OF 80 OR SE INDEPENDENTLY SUPPORTED FROM SHALL BE SUPPORTED FROM STRUCTURE CTED. CELLINGS SHALL BE PROVIDED WITH GRID T GRID. THE CEILING GRID SHALL BE SILLING SHALL BE BY FLEXIBLE CONDUIT OF NDUCTOR WILL BE INCLUDED WITH THIS INCH THICK MINIMUM. ALL HOUSINGS POST FABRICATION HIGH REFLECTIVE		REBAR. NEUTRAL FROM UTILITY WATER PIPE SPRINKLER PIPE 2 SERVICE GROUNDING DE	J BAR (BOND) EXTERIOR STYLE CLAMPS. TO IN. ×¾IN. C(ROUND RODS N CENTER IGLE SHAPE. ANCE TO GROUNI 5 OR LESS).
		E-I NOT TO SCALE	
		 KEYED NOTES: (THIS SHEET ONLY) METER BASE SUPPLIED BY POWER COMPANY AND INSTALLED BY CONCONTRACTOR TO PAY ALL COSTS FOR METER BASE AND SERVICE S 3#600, 3¹/₂IN.C. SEE SERVICE GROUNDING DETAIL, 2/E-I. 	ITRACTOR. HOWN.

PE	LIGHTING FIXTURE SCHEDL	
<u>ре</u> А	DESCRIPTION PENDANT MOUNT CHOSEN BY ARCHITECT/OWNER.(200 WATTS MAX)	MANUFACTURER
В	2 FT.X 4 FT.SURFACE CONTEMPORARY LOW PROFILE ARCHITECTURAL TROFFER WITH ACRYLIC CENTER LENS AND MATTE WHITE POWDER PAINT REFLECTOR.(VERIFY CEILING TYPE)	LITHONIA "BLT" SERIES COLUMBIA "LCAT" SERIES
	LAMPS: LED,4800 LUMENS MINIMUM,45 WATTS,3500 DEGREE K Driver: UNV.VOLT	
С	4 FT LED STRIPLIGHT, PROVIDE WITH LENS , SURFACE MOUNTED.	LITHONIA "ZLIN" SERIES, COLUMBIA "LCS" SERIES,
	LAMPS: LED, 5000 LUMENS,42 WATTS,3500 DEGREE K DRIVER: UNV.VOLT DRIVER	
ΟΑ	ARCHITECTURAL VANDAL RESISTANT WALL LUMINAIRE, UV STABALIZED Molded polycarbonate and high impact lens ;ul listed for wet location	JUNO "STONEWALL" SERIES, FAIL SAFE "TR" SERIES
	LAMPS: LED:2000 LUMENS,35 WATTS,4000 DEGREE K DRIVER: UNV VOLT	BROWNLEE "7700
2	LED 2 HEAD EMERGENCY UNIT, LOW PROFILE CONTEMPORARY DESIGN WITH THERMOPLASTIC HOUSING, IMPACT RESISTANT.90 MINUTE BATTERY.	COMPASS "CU2" SERIES, LITHONIA "ELM2 LED" SERIES,
	LAMPS: LED (2)1.5W BALLAST:UNV.VOLT	SURELITES "SELI7" EVENLITE "TCL"
¥ Y	LED, RED LETTER COMMODITY GRADE COMBO THEMOPLASTIC UNIT, IMPACT RESISTANT HOUSING, UNIVERSAL MOUNTING , 90 MINTUTE BATTERY AND OUTDOOR REMOTE HEAD.	COMPASS "CC" SERIES, LITHONIA "ECR LED" SERIES,
4	LAMPS: LED (2)1.5W BALLAST:UNV.VOLT	

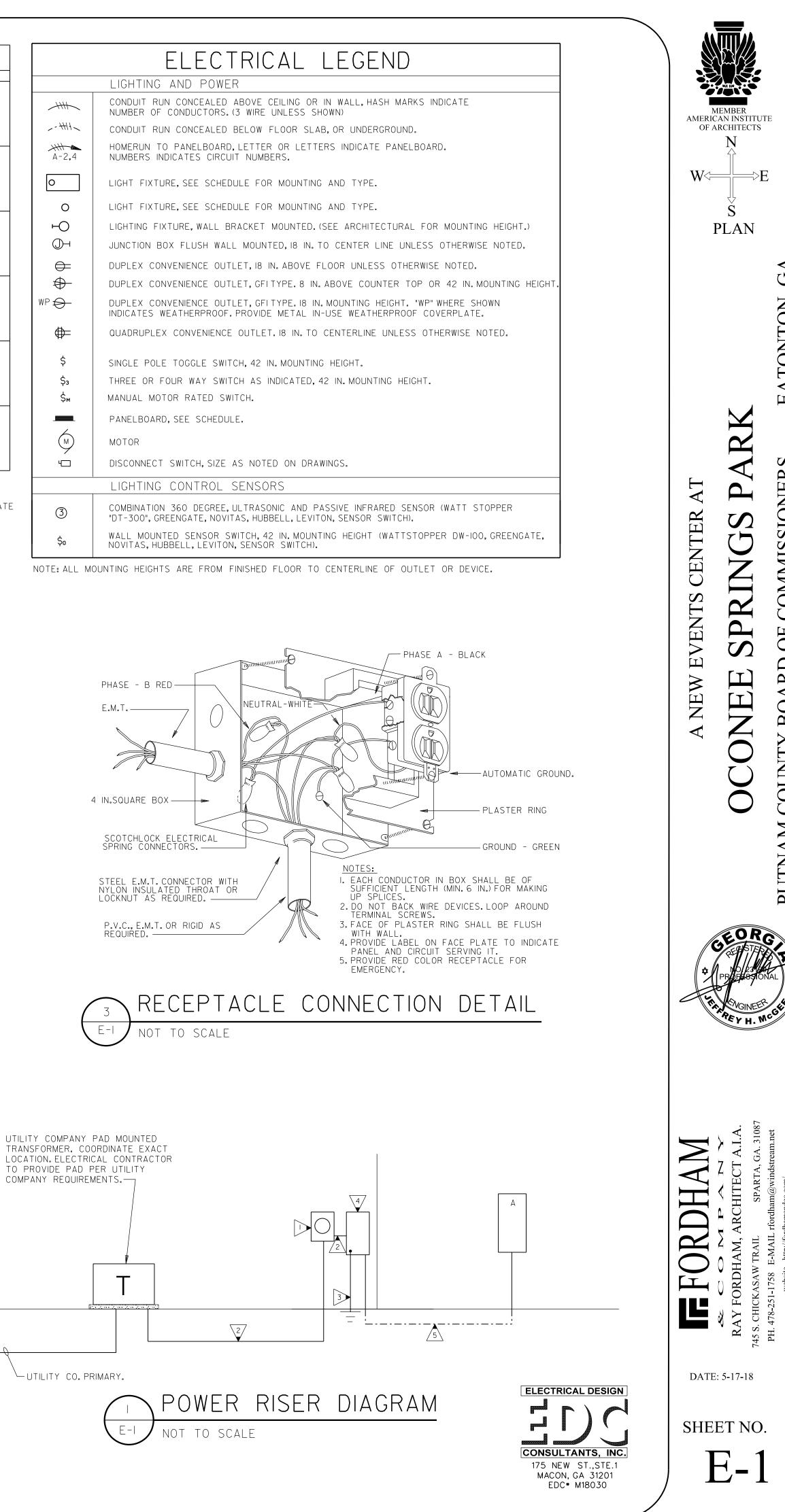


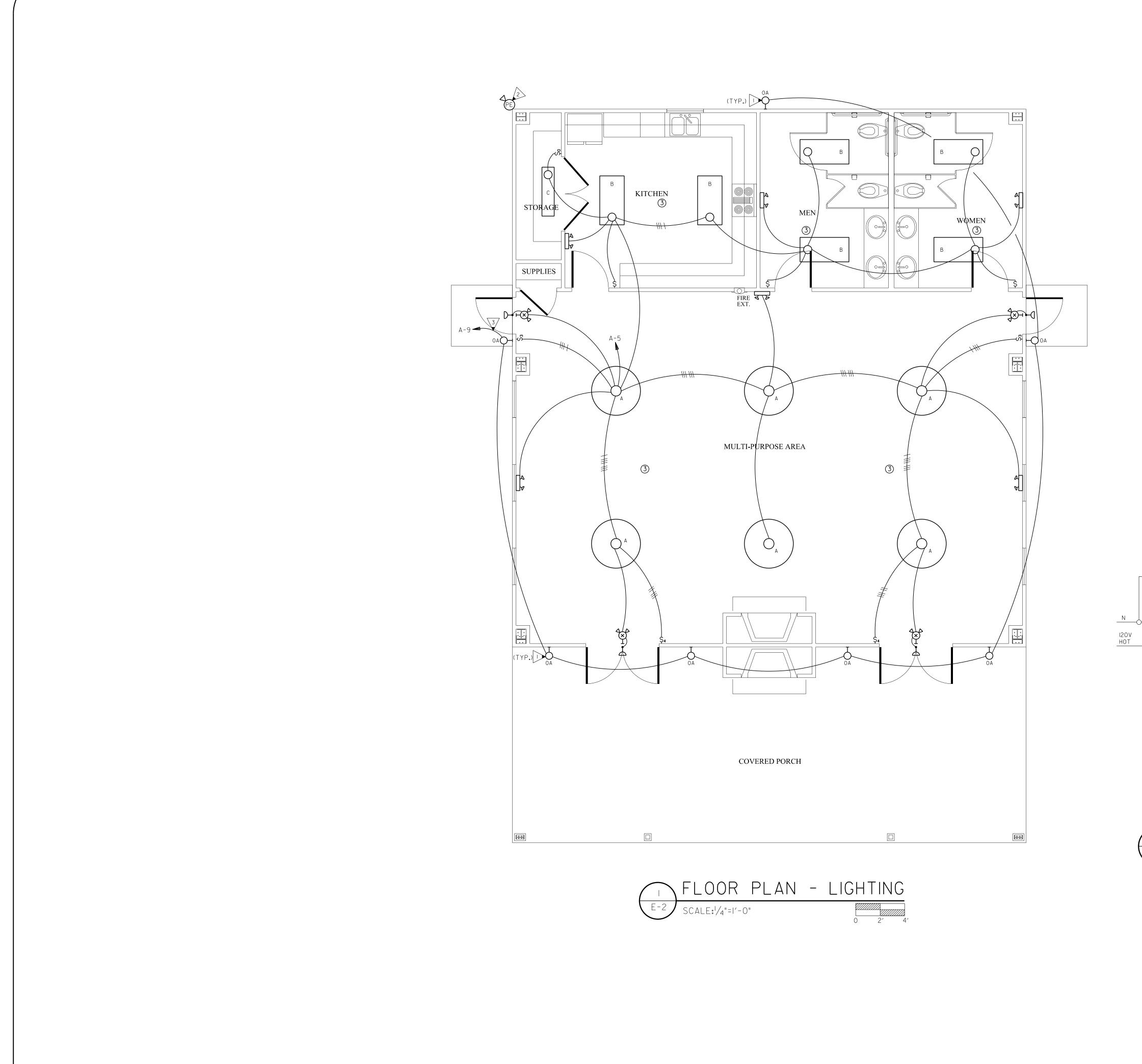


KEYED NOTES: (THIS SHEET ONLY)

- ↓ → METER BASE SUPPLIED BY POWER COMPANY AND INSTALLED BY CONTRACTOR. CONTRACTOR TO PAY ALL COSTS FOR METER BASE AND SERVICE SHOWN.
- 2 3#600, 3¹/₂IN.C.
- 3 SEE SERVICE GROUNDING DETAIL, 2/E-I.

- ▲ SERVICE ENTRANCE RATED, 400A/2P/3R ENCLOSED CIRCUIT BREAKER, IOKAIC MINIMUM.
- 5→ 3#600, #3G., 4 IN.C.



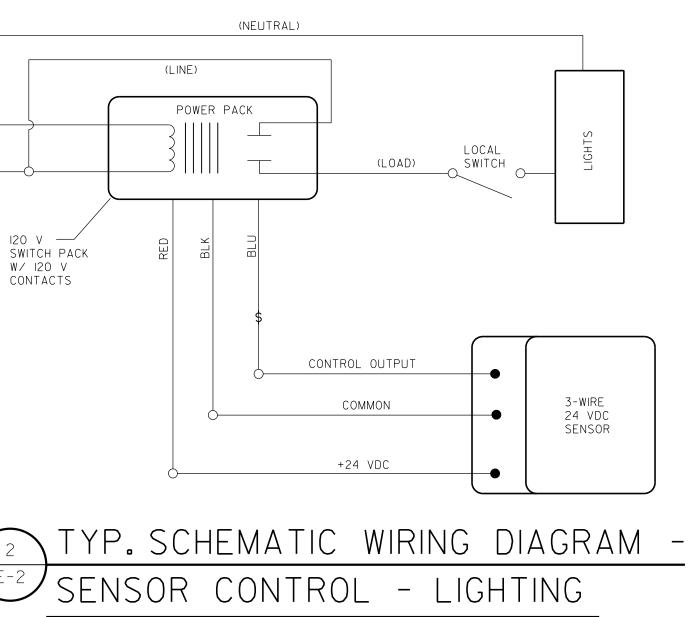


GENERAL NOTES:

- A. THIS PLAN INDICATES AREAS TO BE CONTROLLED BY MOTION SENSORS. SINCE COVERAGES AND DEVICES VARY BETWEEN MANUFACTURERS IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE PROPER DEVICE LOCATION, ORIENTATION AND QUANTITIES WITH THE MANUFACTURER OF THE SYSTEM BEING INSTALLED TO MEET THE SPECIFIED CRITERIA.
- B. ALL AREA'S OF THIS PLAN REQUIRE OCCUPANCY SENSOR COVERAGE EXCEPT FOR SHOWROOM, SERVICE DRIVE (LANES) AND SERVICE BAYS. SEE LIGHTING SENSOR LEGEND 2/E-2 (TYPICAL).
- C. THERE ARE NO SWITCHPACKS SHOWN ON THIS PLAN. PROVIDE SWITCHPACKS AS REQUIRED WITH SENSORS. SWITCHPACKS ARE TO BE RATED AT 20A. PROVIDE ONE SWITCHPACK PER 20A LIGHTING CIRCUIT OR PER INDIVIDUAL AREA BEING CONTROLLED.
- D. CEILING SENSORS ARE TO BE MOUNTED AWAY FROM ANY STRONG AIRFLOW. COORDINATE LOCATION OF SENSOR WITH MECHANICAL AND LIGHTING PLANS.
- E. ALL SENSORS SHALL BE CEILING MOUNTED EXCEPT WHERE CEILING HEIGHTS EXCEED 15 FT .- O IN. PROVIDE SENSOR WITH ADAPTOR PLATE FOR JUNCTION BOX MOUNTING (JUNCTION BOX SHALL BE CONCEALED ABOVE ACCESSIBLE CEILING) JUNCTION BOX SHALL BE SUPPORTED FROM STRUCTURE UTILIZING A 3/81N. THREADED ROD. WHERE CEILING HEIGHTS EXCEED 15 FT.-O IN. WALL MOUNT SENSORS AT 12 FT.-O IN.
- F. PROVIDE UNSWITCHED HOT CONDUCTOR TO ALL EMERGENCY AND EXIT LIGHTS.

KEYED NOTES: (THIS SHEET ONLY)

- SEE ARCHITECTURAL ELEVATIONS FOR EXACT MOUNTING HEIGHT OF FIXTURE.
- 2> LOCATE P.E. CELL FACING NORTH, CLEAR OF MAN MADE LIGHT SOURCES. J-BOX TO HOUSE P.E. CELL SHALL BE RECESSED MOUNTED WITH STAINLESS STEEL COVER.
- 3 ROUTE VIA EXTERIOR LIGHTING CONTACTOR/TIMECLOCK LOCATED ADJACENT PANEL "A". PHOTO CELL SHALL CONTROL DUSK TILL DAWN OPERATION. TIMECLOCK SHALL INTERRUPT CIRCUIT DURING MIDNIGHT HOURS. TIMECLOCK SHALL BE 365 DAY, DIGITAL, PROGRAMMABLE WITH 20A RATED CONTACTS. USE #10'S ENTIRE CIRCUIT.



NOT TO SCALE

(SEE MANUFACTURERS RECOMMENDATION FOR SCHEMATIC WHERE MULTIPLE SENSORS OCCUR IN SAME SPACE.)

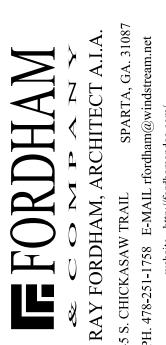


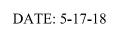
AMERICAN INSTITUTE OF ARCHITECTS W E PLAN U ATONTON RK COMMISSIONER H TER \mathcal{O} PRING CEN EVENTS OF \mathbf{v} BOARD [L] NEW Y C **–** OUN Ū PUTNAM

MEMBER

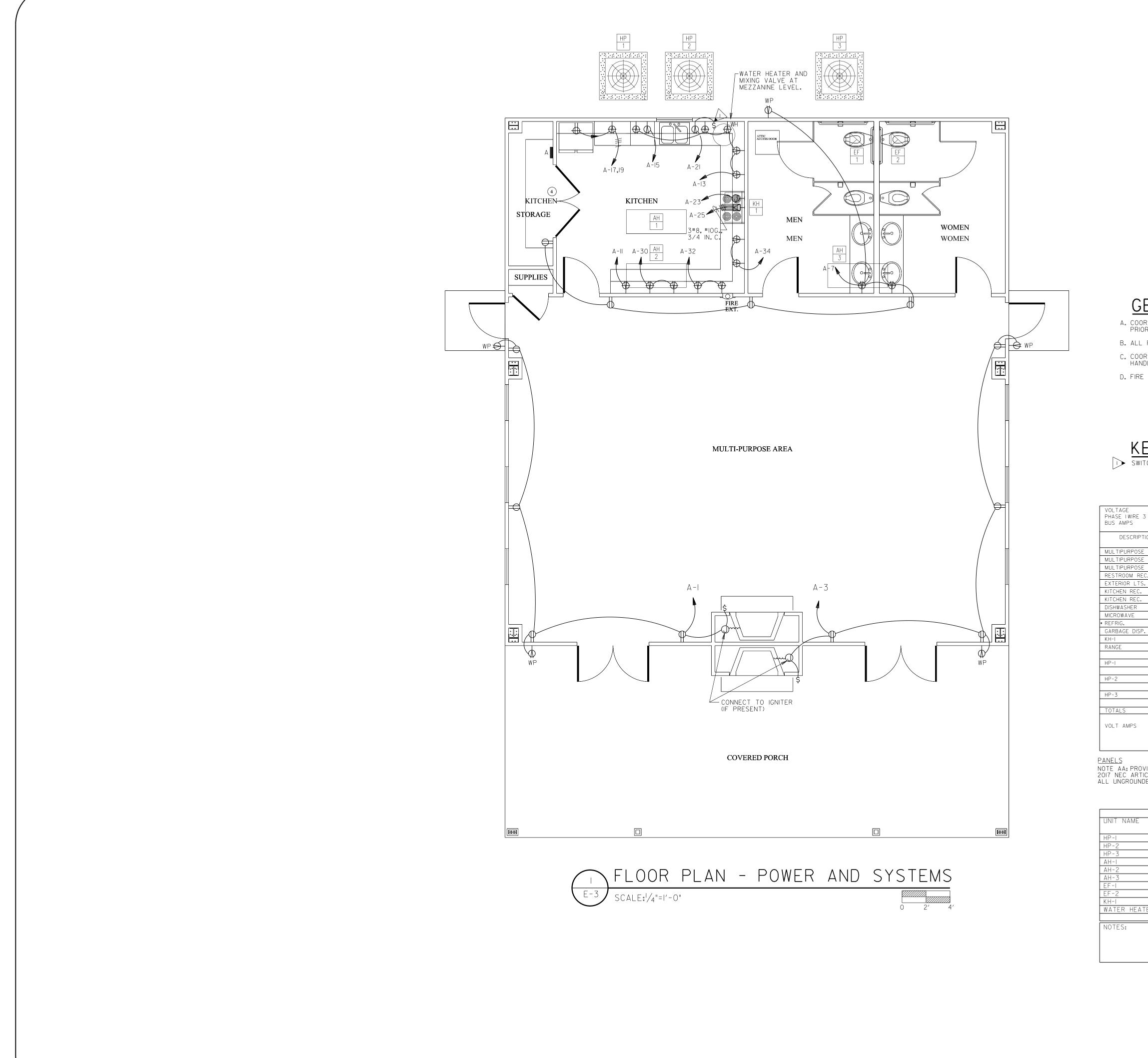
•











GENERAL NOTES:

A. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT. PRIOR TO ELECTRICAL ROUGH-IN.

- B. ALL FLEXIBLE CONDUIT SHALL BE METALLIC WATERPROOF.
- C. COORDINATE EXACT CONDUIT REQUIREMENTS FOR THERMOSTATS TO ALL AIR HANDLING UNITS.SEE MECHANICAL DRAWINGS FOR EXACT LOCATIONS. D. FIRE SEAL ALL FIREWALL PENETRATIONS.

KEYED NOTES: (THIS SHEET ONLY) SWITCH FOR GARBAGE DISPOSAL.

3	<u> 120 </u>	240 00	- M/		PANEL AMPS					LOCAT MOUN MAIN		STORAGE SURFACE LUGS
TION	VOLT	AMPS	BRKR		СКТ	BUS	СКТ	E	BRKR	VOLT	AMPS	DESCRIPTION
	А	В	AMP	Ρ	NO	CONN	NO	Ρ	AMP	В	А	
E REC.	1200		20	1		А	2	2	35		3360	AHU-I
E REC.		1200	20	1	3	В	4			3360		
E LTS.	1128		20	1	5	А	6	2	60		5760	AHU-2
EC.		1200	20	1	7	В	8			5760		
S.	528		20	1	9	А	10	2	60		5760	AHU-3
•		400	20	1		В	12			5760		
	1200		20	1	13	А	14	2	30		2250	WATER HEATER
		1500	20	1	15	В	16			2250		
	1500		20	1	17	А	18		20			SPARE
		1200	20	T	19	В	20		20			SPARE
Ρ.	500		20	1	21	А	22		20			SPARE
		600	20	1	23	В	24		20			SPARE
	4500		50	2	25	А	26		20			SPARE
		4500			27	В	28		20			SPARE
	1944		25	2	29	А	30		20		400	RECEPT.
		1944			31	В	32		20	400		RECEPT.
	4500		60	2	33	А	34		20		400	RECEPT.
		4500			35	В	36					SPACE
	4500		60	2	37	А	38					SPACE
		4500			39	В	40	1				SPACE
	21500	21544								17530	17930	
	BUS A BUS B TOTAL	BUS B 39074 *PROVIDE GFCI BREAKER										

NOTE AA: PROVIDE HANDLE TIES FOR ALL 2 AND 3 CIRCUIT MULTI-WIRE BRANCH CIRCUITS IN ACCORDANCE WITH 2017 NEC ARTICLE 210.4. MULTI-WIRE BRANCH CIRCUITS MUST BE GROUPED AND PHYSICALLY TIED TO DISCONNECT ALL UNGROUNDED CONDUCTORS SIMULTANEOUSLY.

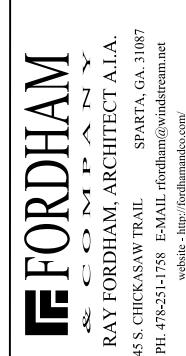
		MEC	CHANICAL EQUIPME	INT POWER SCHEDULE		
	VOLTAGE/ PHASE	CIRCUIT BREAKER	PANEL NAME/ CIRCUIT NUMBER	FEEDER	DISCONNECT SWITCH	NOTES
	208V/IØ	25A/2P	A-29	3#10,3/4 IN.C.	30A/2P/3R	
	208V/IØ	60A/2P	A-33	2#6, #IOG., 3/4 IN.C.	60A/2P/3R	2
	208V/IØ	60A/2P	A-37	2#6, #IOG., 3/4 IN.C.	60A/2P/3R	2
	208V/IØ	35A/2P	A-2	2#8, #IOG., 3/4 IN.C.	60A/2P	2
	208V/IØ	60A/2P	A-6	2#6, #IOG., 3/4 IN.C.	60A/2P	2
	208V/IØ	60A/2P	A-10	2#6, #IOG., 3/4 IN.C.	60A/2P	2
	120V/1Ø	20A/IP	-	3#12,1/2 IN.C.	BUILT-IN	3
	120V/1Ø	20A/IP	-	3#12,1/2 IN.C.	BUILT-IN	3
	120V/1Ø	20A/IP	A-23	3#12,1/2 IN.C.	MOTOR RATED SWITCH	
ATER	240V/IØ	30A/2P	Δ-14	3#10,1/2 IN.C.	30A/2P	
	2.PROVIDE D	UCT SMOKE	EXACT CONTROL DETECTOR IN RE R FAN VIA LIGHTI		RVED. PROVIDE 15 MIN. TI	ME DELAY



5



Ũ



DATE: 5-17-18

SHEET NO. E-3

SECTION 08 71 00

DOORHARDWARE

PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes: Finish Hardware for door openings, except as otherwise specified herein.
 - 1. Door hardware for steel (hollow metal) doors.
 - 2. Door hardware for aluminum doors.
 - 3. Door hardware for wood doors.
 - 4. Door hardware for other doors indicated.
 - 5. Keyed cylinders as indicated.
- B. Related Sections:
 - 1. Division 6: Rough Carpentry.
 - 2. Division 8: Aluminum Doors and Frames
 - 3. Division 8: Hollow Metal Doors and Frames.
 - 4. Division 8: Wood Doors.
- C. References: Comply with applicable requirements of the following standards. Where these standards conflict with other specific requirements, the most restrictive shall govern.
 - 1. Builders Hardware Manufacturing Association (BHMA)
 - 2. NFPA 101 Life Safety Code
 - 3. NFPA 80 -Fire Doors and Windows
 - 4. ANSI-A156.xx- Various Performance Standards for Finish Hardware
 - 5. UL10C Positive Pressure Fire Test of Door Assemblies
 - 6. ANSI-A117.1 Accessible and Usable Buildings and Facilities
 - 7. DHI /ANSI A115.IG Installation Guide for Doors and Hardware
 - 8. ICC International Building Code
- D. Intent of Hardware Groups
 - 1. Should items of hardware not definitely specified be required for completion of the Work, furnish such items of type and quality comparable to adjacent hardware and appropriate for service required.
 - 2. Where items of hardware aren't definitely or correctly specified, are required for completion of the Work, a written statement of such omission, error, or other discrepancy to be submitted to Architect, prior to date specified for receipt of bids for clarification by addendum; or, furnish such items in the type and quality established by this specification, and appropriate to the service intended.
- 1.2 SUBSTITUTIONS:
 - A. Comply with Division 1.
- 1.3 SUBMITTALS:
 - A. Comply with Division 1.
 - B. Special Submittal Requirements: Combine submittals of this Section with Sections listed below to ensure the "design intent" of the system/assembly is understood and can be reviewed together.
 - C. Product Data: Manufacturer's specifications and technical data including the following:

- 1. Detailed specification of construction and fabrication.
- 2. Manufacturer's installation instructions.
- 3. Submit 6 copies of catalog cuts with hardware schedule.
- 4. Provide 9001-Quality Management and 14001-Environmental Management for products listed in Materials Section 2.2
- D. Shop Drawings Hardware Schedule: Submit 6 complete reproducible copy of detailed hardware schedule in avertical format.
 - 1. List groups and suffixes in proper sequence.
 - 2. Completely describe door and list architectural door number.
 - 3. Manufacturer, product name, and catalog number.
 - 4. Function, type, and style.
 - 5. Size and finish of each item.
 - 6. Mounting heights.
 - 7. Explanation of abbreviations and symbols used within schedule.
- E. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.
- F. Samples: (If requested by the Architect)
 - 1. 1 sample of Lever and Rose/Escutcheon design, (pair).
 - 2. 3 samples of metal finishes
- G. Contract Closeout Submittals: Comply with Division 1 including specific requirements indicated.
 - 1. Operating and maintenance manuals: Submit 3 sets containing the following.
 - a. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Name, address, and phone number of local representative for each manufacturer.
 - d. Parts list for each product.
 - 2. Copy of final hardware schedule, edited to reflect, "As installed".
 - 3. Copy of final keying schedule
 - 4. One set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

1.4 QUALITY ASSURANCE

- A. Comply with Division 1.
 - 1. Statement of qualification for distributor and installers.
 - 2. Statement of compliance with regulatory requirements and single source responsibility.
 - 3. Distributor's Qualifications: Firm with 3 years experience in the distribution of commercial hardware.
 - a. Distributor to employ full time Architectural Hardware Consultants (AHC) for the purpose of scheduling and coordinating hardware and establishing keying schedule.
 - b. Hardware Schedule shall be prepared and signed by an AHC.
 - 4. Installer's Qualifications: Firm with 3 years experienced in installation of similar hardware to that required for this Project, including specific requirements indicated.
 - 5. Regulatory Label Requirements: Provide testing agency label or stamp on hardware for labeled openings.

- a. Provide UL listed hardware for labeled and 20 minute openings in conformance with requirements for class of opening scheduled.
- b. Underwriters Laboratories requirements have precedence over this specification where conflict exists.
- 6. Single Source Responsibility: Except where specified in hardware schedule, furnish products of only one manufacturer for each type of hardware.
- B. Review Project for extent of finish hardware required to complete the Work. Where there is a conflict between these Specifications and the existing hardware, notify the Architect in writing and furnish hardware in compliance with the Specification unless otherwise directed in writing by the Architect.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping: Comply with Division 1.
 - 1. Deliver products in original unopened packaging with legible manufacturer's identification.
 - 2. Package hardware to prevent damage during transit and storage.
 - 3. Mark hardware to correspond with "reviewed hardware schedule".
 - 4. Deliver hardware to door and frame manufacturer upon request.
- B. Storage and Protection: Comply with manufacturer's recommendations.
- 1.6 PROJECT CONDITIONS:
 - A. Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security, and similar requirements indicated, as necessary for the proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents.
 - B. Review Shop Drawings for doors and entrances to confirm that adequate provisions will be made for the proper installation of hardware.

1.7 WARRANTY:

- A. Refer to Conditions of the Contract
- B. Manufacturer's Warranty:
 - 1. Closers: Ten years
 - 2. Exit Devices: Five Years
 - 3. Locksets & Cylinders: Three years
 - 4. All other Hardware: Two years.
- 1.8 OWNER'S INSTRUCTION:
 - A. Instruct Owner's personnel in operation and maintenance of hardware units.

1.9 MAINTENANCE:

- A. Extra Service Materials: Deliver to Owner extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels. Comply with Division 1 Closeout Submittals Section.
 - 1. Special Tools: Provide special wrenches and tools applicable to each different or special hardware component.
 - 2. Maintenance Tools: Provide maintenance tools and accessories supplied by hardware component manufacturer.

- 3. Delivery, Storage, and Protection: Comply with Owner's requirements for delivery, storage, and protection of extra service materials.
- B. Maintenance Service: Submit for Owner's consideration maintenance service agreement for electronic products installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

A. The following manufacturers are approved subject to compliance with requirements of the Contract Documents. Approval of manufacturers other than those listed shall be in accordance with Division 1.

Item:	Manufacturer:	Approved:
Hinges	Stanley	Bommer, McKinney
Continuous Hinges	Stanley	Select, ABH
Locksets	Best	No Substitution
Cylinders	Best	No Substitution
Exit Devices	Precision	No Substitution
Closers	Stanley D-4550	No Substitution
Push/Pull Plates	Trimco	Burns, DonJo
Protection Plates	Trimco	Burns, DonJo
Overhead Stops	ABH	Dorma, Trimco
Door Stops	Trimco	Burns, DCI
Flush Bolts	Trimco	ABH, Burns, DCI
Threshold & Gasketing	National Guard	Reese, K.N. Crowder

2.2 MATERIALS:

- A. Geared Continuous Hinges:
 - 1. Tested and approved by BHMA for ANSI A156.26-1996 Grade 1
 - 2. Anti-spinning through fastener
 - 3. UL10C listed for 3-hour Fire rating
 - 4. Non-handed
 - 5. Lifetime warranty
 - 6. Provide Fire Pins for 3-hour fire ratings
 - 7. Sufficient size to permit door to swing 180 degrees
- B. Cylindrical Type Locks and Latchsets:
 - 1. Tested and approved by BHMA for ANSI A156.2, Series 4000, Operational Grade 1, Extra-Heavy Duty, and be UL10C listed.
 - 2. Provide 9001-Quality Management and 14001-Environmental Management.
 - 3. Fit modified ANSI A115.2 door preparation.
 - 4. Locksets and cores to be of the same manufacturer to maintain complete lockset warranty
 - 5. Locksets to have anti-rotational studs that are thru-bolted
 - 6. Keyed lever shall not have exposed "keeper" hole
 - 7. Each lever to have independent spring mechanism controlling it
 - 8. 2-3/4 inch (70 mm) backset
 - 9. 9/16 inch (14 mm) throw latchbolt
 - 10. Provide sufficient curved strike lip to protect door trim
 - 11. Outside lever sleeve to be seamless, of one-piece construction made of a hardened steel alloy
 - 12. Keyed lever to be removable only after core is removed, by authorized control key
 - 13. Provide locksets with 7-pin removable and interchangeable core cylinders

- 14. Hub, side plate, shrouded rose, locking pin to be a one-piece casting with a shrouded locking lug.
- 15. Locksets outside locked lever must withstand minimum 1400-inch pounds of torque. In excess of that, a replaceable part will shear. Key from outside and inside lever will still operate lockset.
- 16. Core face must be the same finish as the lockset.
- 17. Functions and design as indicated in the hardware groups.
- C. Mortise Deadbolt:
 - 1. Tested and approved by ANSI A156.36, Operational Grade 1.
 - 2. Provide 9001-Quality Management and 14001-Environmental Management.
 - 3. Locksets and cores to be of the same manufacturer to maintain complete lockset warranty
 - 4. 2-3/4 inch (70mm) backset
 - 5. 1 inch throw deadbolt
 - 6. Provide locksets with 7-pin core.
- D. Exit Devices:
 - 1. Exit devices to meet or exceed BHMA for ANSI 156.3, Grade 1.
 - 2. Exit devices to be tested and certified by UL or by a recognized independent laboratory for mechanical operational testing to 10 million cycles minimum with inspection confirming Grade 1 Loaded Forces have been maintained.
 - 3. Exit devices chassis to be investment cast steel, zinc dichromate.
 - 4. Exit devices to have stainless steel deadlocking $\frac{3}{4}$ " through latch bolt.
 - 5. Exit devices to be equipped with sound dampening on touchbar.
 - 6. Non-fire rated exit devices to have cylinder dogging.
 - 7. Non-fire rated exit devices to have ¹/₄" minimum turn hex key dogging.
 - 8. Touchpad to be "T" style constructed of architectural metal with matching metal end caps.
 - 9. Touchbar assembly on wide style exit devices to have a ¹/₄" clearance to allow for vision frames.
 - 10. All exposed exit device components to be of architectural metals and "true" architectural finishes.
 - 11. Provide strikes as required by application.
 - 12. Fire exit hardware to conform to UL10C and UBC 7-2. UL tested for Accident Hazard.
 - 13. The strike is to be black powder coated finish.
 - 14. Exit devices to have field reversible handing.
 - 15. Provide heavy duty vandal resistant lever trim with heavy duty investment cast stainless steel components and extra strength shock absorbing overload springs. Lever shall not require resetting. Lever design to match locksets and latchsets.
 - 16. Provide 9001-Quality Management and 14001-Environmental Management.
 - 17. Vertical Latch Assemblies to have gravity operation, no springs.
 - 18. Approved Manufacturers
 - a. The following manufacturers will be approved contingent on meeting or exceeding the above performance criteria:
 - 1) Precision Manufactured by Stanley Security Solutions

E. Cylinders:

- 1. Provide the necessary cylinder housings, collars, rings & springs as recommended by the manufacturer for proper installation.
- 2. Provide the proper cylinder cams or tail piece as required to operate all locksets and other keyed hardware items listed in the hardware sets.
- 3. Coordinate and provide as required for related sections.
- F. Door Closers shall:
 - 1. Tested and approved by BHMA for ANSI 156.4, Grade 1
 - 2. UL10C certified
 - 3. Provide 9001-Quality Management and 14001-Environmental Management.
 - 4. Closer shall have extra-duty arms and knuckles

- 5. Conform to ANSI 117.1
- 6. Maximum 2 7/16 inch case projection with non-ferrous cover
- 7. Separate adjusting valves for closing and latching speed, and backcheck
- 8. Provide adapter plates, shim spacers and blade stop spacers as required by frame and door conditions
- 9. Full rack and pinion type closer with 1¹/₂ "minimum bore
- 10. Mount closers on non-public side of door, unless otherwise noted in specification
- 11. Closers shall be non-handed, non-sized and multi-sized.
- G. Push Plates: Provide with four beveled edges ANSI J301, .050 thickness, size as indicated in hardware set. Furnish oval-head countersunk screws to match finish.
- H. Pulls with plates: Provide with four beveled edges ANSI J301, .050 thickness Plate s with ANSI J401 Pull as listed in hardware set. Provide proper fasteners for door construction.
- I. Kickplates: Provide with four beveled edges ANSI J102, 10 inches high by width less 2 inches on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- J. Mop plates: Provide with four beveled edges ANSI J103, 6 inches high by width less 1 inch on single doors and 1 inch on pairs of doors. Furnish oval-head countersunk screws to match finish.
- K. Door Bolts: Flush bolts for wood or metal doors.
 - 1. Provide a set of Automatic bolts, Certified ANSI/BHMA 156.3 Type 27 at wood label doors.
 - 2. Provide Dust Proof Strike, Certified ANSI/BHMA 156.16 at doors with flush bolts without thresholds.
- L. Seals: All seals shall be finished to match adjacent frame color. Seals shall be furnished as listed in schedule. Material shall be UL listed for labeled openings.
- M. Weatherstripping: Provide at head and jambs only those units where resilient or flexible seal strip is easily replaceable. Where bar-type weatherstrip is used with parallel arm mounted closers install weatherstrip first.
 - 1. Weatherstrip shall be resilient seal of silicone.
 - 2. UL10C Positive Pressure rated seal set when required.
- N. Door Bottoms/Sweeps: Surface mounted or concealed door bottom where listed in the hardware sets.
 - 1. Door seal shall be resilient seal of nylon brush.
 - 2. UL10C Positive Pressure rated seal set when required.
- 0. Thresholds: Thresholds shall be heavy duty cast or epoxy filled aluminum beveled type with maximum height of 1/2" for conformance with ADA requirements. Furnish as specified and per details. Provide fasteners and screws suitable for floor conditions.
- P. Silencers: Furnish silencers on all interior frames, 3 for single doors, 2 for pairs. Omit where any type of seals occur.
- 2.3 FINISH:
 - A. Designations used in Schedule of Finish Hardware 3.05, and elsewhere to indicate hardware finishes are those listed in ANSI/BHMA A156.18 including coordination with traditional U.S. finishes shown by certain manufacturers for their products
 - B. Powder coat door closers to match other hardware, unless otherwise noted.
 - C. Aluminum items shall be finished to match predominant adjacent material. Seals to coordinate with frame color.

2.4 KEYS AND KEYING:

- A. Provide keyed brass construction cores and keys during the construction period. Construction control and operating keys and core shall not be part of the Owner's permanent keying system or furnished in the same keyway (or key section) as the Owner's permanent keying system. Permanent cores and keys (prepared according to the accepted keying schedule) will be furnished to the Owner.
- B. Cylinders, removable and interchangeable core system: Best CORMAXTM Patented 7-pin.
- C. Permanent keys and cores: Stamped with the applicable key mark for identification. These visual key control marks or codes will not include the actual key cuts. Permanent keys will also be stamped "Do Not Duplicate."
- D. Transmit Grand Masterkeys, Masterkeys and other Security keys to Owner by Registered Mail, return receipt requested.
- E. Furnish keys in the following quantities:
 - 1. 2 each Masterkeys
 - 2. 2 each Change keys each keyed core
 - 3. 5 each Construction masterkeys
 - 4. 1 each Control keys
- F. The Owner, or the Owner's agent, will install permanent cores and return the construction cores to the Hardware Supplier. Construction cores and keys remain the property of the Hardware Supplier.
- G. Keying Schedule: Arrange for a keying meeting, and programming meeting with Architect Owner and hardware supplier, and other involved parties to ensure locksets and locking hardware, are functionally correct and keying and programming complies with project requirements. Furnish 3 typed copies of keying and programming schedule to Architect.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verification of conditions: Examine doors, frames, related items, and conditions under which Work is to be performed and identify conditions detrimental to proper and or timely completion.
 - 1. Do not proceed until unsatisfactory conditions have been corrected.

3.2 HARDWARE LOCATIONS:

- A. Mount hardware units at heights indicated in the following publications except as specifically indicated or required to comply with the governing regulations.
 - 1. Recommended Locations for Builder's Hardware for Standard Steel Doors and Frames, by the Door and Hardware Institute (DHI).
 - 2. Recommended locations for Architectural Hardware for flush wood doors (DHI).
 - 3. WDMA Industry Standard I.S.-1A-04, Industry Standard for Architectural wood flush doors.

3.3 INSTALLATION:

- A. Install each hardware item per manufacturer's instructions and recommendations. Do not install surface mounted items until finishes have been completed on the substrate. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- B. Conform to local governing agency security ordinance.

C.Install Conforming to ICC/ANSI A117.1 Accessible and Usable Building and Facilities.

- 1. Adjust door closer sweep periods so that from the open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch, measured to the landing side of the door.
- D. Installed hardware using the manufacturers fasteners provided. Drill and tap all screw holes located in metallic materials. Do not use "Riv-Nuts" or similar products.

3.4 FIELD QUALITY CONTROL AND FINAL ADJUSTMENT

- A. Contractor/Installers, Field Services: After installation is complete, contractor shall inspect the completed door openings on site to verify installation of hardware is complete and properly adjusted, in accordance with both the Contract Documents and final shop drawings.
 - 1. Check and adjust closers to ensure proper operation.
 - 2. Check latchset, lockset, and exit devices are properly installed and adjusted to ensure proper operation.
 - a. Verify levers are free from binding.
 - b. Ensure latchbolts and dead bolts are engaged into strike and hardware is functioning.
 - 3. Report findings, in writing, to architect indicating that all hardware is installed and functioning properly. Include recommendations outlining corrective actions for improperly functioning hardware if required.

3.5 SCHEDULE OF FINISH HARDWARE:

Manufacturer List

Code	Name
AB	ABH Manufacturing Inc.
BE	Best Access Systems
BY	By Others
NA	National Guard
PR	Precision
SD	Stanley Door Closers
ST	Stanley
TR	Trimco

Option List

Code	Description
CD	CYLINDER DOGGING
DA	Delayed Action
RP	RINGS-RIM CYLINDER
AVB	Advanced Variable Backcheck
B4E	BEVELED 4 EDGES - KICK PLATES
CFC	CUT FOR CYLINDER
CSK	COUNTER SINKING OF KICK and MOP PLATES
RP3	RINGS-7 PIN MORTISE
S3B	ANSI Strike Package w/Plastic Box
SRI	Special Rust Inhibitor
CA-03	Cylinder Attachment Kit (Rim/SVR Device)
S3B-7/8	ANSI Strike -7/8" Flat Lip w/Plastic Box
P45HD-112	Angle Brkt - Shoe Support HD, Arms
S3B-7/8	ANSI Strike -7/8" Flat Lip w/Plastic Box
P45HD-112	Angle Brkt Shoe Support HD Arms
1/4-20-2" COMBO	1/4-20 X COMBO MS/ANCHOR (SS)
171202 COMBO	$1/1 \ge 0 \ge 0.0000 = 0.0000 \times 10000 \times 100000000$

Code	Description
AL	Aluminum
DB	Dark Bronze Anodized
613	Oxidized Satin Bronze, Oil Rubbed
626	Satin Chromium Plated
630	Satin Stainless Steel
689	Aluminum Painted
690	Statuary Bronze, Painted
695	Dark Bronze Painted
BROWN	Brown
US10B	Dull Bronze, Oxidized and Oil Rubbed
US32D	Stainless Steel, Dull

Hardware Sets

SET #1 - Sngl. Exterior

Doors: A1, A2

1 Continuous Hinge	662HD UL 83"	DB	ST
1 Exit Device	2103 X 2003C CA-03 CD	613	PR
1 Rim Cylinder	12E-72 PATD RP	613	BE
1 Mortise Cylinder	1E-74 PATD RP3	613	BE
1 Door Closer	CLD-4550 HCS AVB P45HD-112 SRI	690	SD
1 Kick Plate	K0050 10" x 34" B4E CSK	613	TR
1 Gasket	700 SDKB FATT 1 x 36" 2 x 84"		NA
1 Brush Sweep W/ Drip	C627 DKB FATT 36"		NA
1 Saddle Threshold	425 HD 36" 1/4-20-2" COMBO	AL	NA

SET #2 - Pr. Exterior

Doors: B1, B2

ontinuous Hinge	662HD UL 83"	DB	ST
emovable Mullion	KR822	695	PR
it Device	2103 X 2003C CA-03 CD	613	PR
tit Device	2102 X 2002C CD	613	PR
m Cylinder	12E-72 PATD RP	613	BE
ortise Cylinder	1E-74 PATD RP3	613	BE
oor Closer	CLD-4550 HCS AVB P45HD-112 SRI	690	SD
ck Plate	K0050 10" x 34" B4E CSK	613	TR
ush Sweep W/ Drip	C627 DKB FATT 36"		NA
asket	700 SDKB FATT 1 x 72" 2 x 84"		NA
reshold	896HD S 72" 1/4-20-2" COMBO	AL	NA
	ontinuous Hinge emovable Mullion .it Device .it Device m Cylinder ortise Cylinder oor Closer ck Plate ush Sweep W/ Drip asket areshold	emovable MullionKR822tit Device2103 X 2003C CA-03 CDtit Device2102 X 2002C CDm Cylinder12E-72 PATD RPtortise Cylinder1E-74 PATD RP3tor CloserCLD-4550 HCS AVB P45HD-112 SRIck PlateK0050 10" x 34" B4E CSKush Sweep W/ DripC627 DKB FATT 36"asket700 SDKB FATT 1 x 72" 2 x 84"	emovable Mullion KR822 695 cit Device 2103 X 2003C CA-03 CD 613 cit Device 2102 X 2002C CD 613 m Cylinder 12E-72 PATD RP 613 ortise Cylinder 1E-74 PATD RP3 613 oor Closer CLD-4550 HCS AVB P45HD-112 SRI 690 ck Plate K0050 10" x 34" B4E CSK 613 ush Sweep W/ Drip C627 DKB FATT 36" 613 asket 700 SDKB FATT 1 x 72" 2 x 84" 500

SET #3 - Kitchen

Doors: C1

1 Continuous Hinge	662HD UL 83"	DB	ST
1 Deadlock	48H-7R PATD	613	BE
1 Hospital Pull	1135	630	TR
1 Push Plate	1001-11 CFC	613	TR
1 Pull Plate	1001-11 Mount Pull on Plate	630	TR
1 Mop Plate	KM050 6" x 35" B4E CSK	630	TR
1 Wall Bumper	1270CX	626	TR
1 Sound / Smoke Seal	5075 CL @ Head & Jambs		NA

SET #4 - Gang Toilets

Doors: C2, C3

1 Continuous Hinge	662HD UL 83"	DB	ST
1 Pull Plate	1018-3B	630	TR
1 Door Closer	CLD-4551 STD W/PA BRKT DA	689	SD TD
1 Kick Plate	K0050 10" x 34" B4E CSK	613	TR
1 Mop Plate	KM050 6" x 35" B4E CSK	630	TR
1 Push Plate	1001-11	613	TR
1 Wall Bumper	1270CX	626	TR

SET #5 - Supplies

Doors: C4

1 Continuous Hinge	662HD UL 83"	DB	ST
1 Lockset	9K3-7R14K PATD S3B	613	BE
1 Overhead Holder	9033 A	US10B	AB
1 Mop Plate	KM050 6" x 35" B4E CSK	613	TR
3 Door Silencers	1229A	BROWN	TR

SET #6 - Kitchen Storage

Doors: D1

2 Continuous Hinge	662HD UL 83"	DB	ST
1 Set CL-FB/Auto	3825L X 3815L	630	TR
1 Dustproof Strike	3911	630	TR
1 Lockset	9K3-7R14K PATD S3B-7/8	626	BE
2 Overhead Holder	9033 A	US32D	AB
2 Mop Plate	KM050 6" x 35" B4E CSK	630	TR
1 Astragal	BY DOOR MFG		BY
2 Door Silencers	1229A	BROWN	TR