RFP NO. 322010



DANE COUNTY DEPARTMENT OF ADMINISTRATION

PUBLIC WORKS ENGINEERING DIVISION 1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

REQUEST FOR PROPOSALS NO. 322010 ARCHITECTURAL / ENGINEERING DESIGN SERVICES FOR PAVILIONS NO 1 & NO 2 UPGRADES ALLIANT ENERGY CENTER 1919 ALLIANT ENERGY WAY MADISON, WISCONSIN

ISSUED FOR PROPOSALS: FEBRUARY 22, 2022

Due Date / Time: TUESDAY, MARCH 29, 2022 / 2:00 P.M.

FOR INFORMATION ON THIS REQUEST FOR PROPOSALS, PLEASE CONTACT:

ERIC URTES, AIA - PROJECT MANAGER TELEPHONE NO.: 608/266-4798 E-MAIL: <u>urtes.eric@countyofdane.com</u>



Department of Administration Public Works Engineering Division

608/266-4018

Director of Administration

Greg Brockmeyer

Todd Draper

Joseph T. Parisi County Executive

1919 Alliant Energy Center Way Madison, Wisconsin 53713 Fax: 608/267-1533 https://pwht.countyofdane.com/public_works.aspx#engineering

February 22, 2022

INVITATION FOR PROPOSALS

You are invited to submit a Proposal for RFP No. 322010 to provide professional architectural & engineering, design services for Pavilion Upgrades for the Alliant Energy Center Pavilions No 1 & 2. The Proposals are due on or before **2:00 p.m., Tuesday, March 29, 2022**. No performance bond is required for this project.

SPECIAL INSTRUCTIONS

Please provide the entire proposal package in these formats: three (3) bound hard copies and an electronic version on a USB flash drive (or compact disk). Follow these instructions when submitting your proposal:

- 1. Place the signed Proposal Form on top as page 1.
- 2. Place the signed Fair Labor Practices Certification after the Proposal Form as page 2.
- 3. Place the Proposal information after Fair Labor Practices Certification.
- 4. Clearly label your envelope containing your proposal in the lower left-hand corner as follows:

Proposal No. 322010 Pavilions No 1 & No 2 Upgrades March 29, 2022 by2:00 p.m.

5. Mail or deliver to:

Eric Urtes, AIA-Project Manager Dane County Public Works Engineering Division 1919 Alliant Energy Center Way Madison, Wisconsin 53713

Use the drop box just outside our Office if you choose to hand deliver. If you need any additional information about this Request for Proposals, please call Eric Urtes, AIA, at 608/266-4798 or send email to <u>urtes.eric@countyofdane.com</u>.

Sincerely,

Eric Urtes. a7a

Project Manager

Enclosure: Request for Proposals No. 322010 Package

SECTION 00 01 10

TABLE OF CONTENTS

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

- 00 01 01 RFP Cover Page
- 00 01 02 RFP Cover Letter
- 00 01 10 Table of Contents
- 00 11 19 Request for Proposal
- 00 24 16 Scopes of Proposals
- 00 42 13 Proposal Form
- 00 52 98 Sample Professional Services Agreement
- 00 73 11 Fair Labor Practices Certification

REFERENCE DRAWINGS

- M201A First Foor HVAC Plan Area A BLD 1
- M201B First Floor HVAC Plan Area B BLD 1
- M201C First Floor HVAC Plan Area C BLD 2
- M201D First Floor HVAC Plan Area D BLD 2
- M201E Maintenance Shop HVAC Plan
- M202A Mezzanine HVAC Plan Area A BLD 1
- M202B Mezzanine HVAC Plan Area B BLD 1
- M202C Mezzanine HVAC Plan Area C BLD 2
- M202D Mezzanine HVAC Plan Area D BLD 2
- M301 Mechanical Sections and Expanded Plans
- M401 Mechanical Details
- M402 HVAC Details
- M501 Mechaincal Equpment Schedules

E001 – Electrical Symbols/Abbrev. Fixture Schedule

E002 – Electrical Overall Site Plan

- EP201A First Floor Power Plan Area A Building 1
- EP201B First Floor Power Plan Area B Building 1
- EP201C First Floor Power Plan Area C Building 2
- $EP201D-First\ Floor\ Power\ Plan\ Area\ D-Building\ 2$
- EP201E First Floor Power Plan Area E Building 2
- EP201F First floor Power Plan Area F Buiding 2
- ES201A First Floor Systes Plan Area A Building 1
- ES201B First Floor Systems Plan Area B Building 1
- ES201C First Floor Systems Plan Area C Building 2
- ES201D First Floor Systems Plan Area D Building 2
- ES201E First floor Systems Plan Area E Building 2
- ES201F First Floor Systems Plan Area F Building 2
- EP202A Mezzanine Power/Systems Floor Plan Area A
- $EP202B-Mezzanine\ Power/Systems\ Area\ B-Building\ 1$
- $EP202C-Mezzanine\ Power/Systems\ Area\ C-Building\ 2$
- $EP202D-Mezzanine\ Power/Systems\ Area\ D-Building\ 2$
- E501 Panelboard Schedules
- E502 Panelboard Schedules
- E503 Panelboard Schedules
- E504 Panelboard Schedules
- E505 Electrical Schedules
- E506 Panelboard Schedules

E601 - Electrical One-Line Diagram

- FP201A First Floor Fire Protection Plan Area A BLD 1
- FP201B First Floor Fire Protection Plan Area B BLD 1
- FP201C First Floor Fire Protection Plan Area C BLD 2
- FP201D First Floor Fire Protection Plan AREA D,E,F BLD 2
- FP202A Mezzanine Fire Protection Plane Area A BLD 1

END OF SECTION

SECTION 01 11 19

REQUEST FOR PROPOSAL

LEGAL NOTICE

Dane County Public Works, 1919 Alliant Energy Center Way, Madison, WI 53713, will receive sealed Proposals until:

2:00 P.M., TUESDAY, MARCH 29, 2022

RFP NO. 322010

PAVILIONS NO 1 & NO 2 UPGRADES

ALLIANT ENERGY CENTER

1919 ALLIANT ENERGY WAY, MADISON, WI

Dane County is inviting Proposals for professional architectural & engineering design services related to fire protection, radiant heating, electrical, and associated controls upgrades to Pavilions No 1 and No 2 at Alliant Energy Center. Only firms with capabilities, experience & expertise with similar projects should obtain this RFP document & submit Proposals.

RFP document may be obtained after 2:00 p.m., February 22, 2022 from <u>bids</u>-<u>pwht.countyofdane.com</u>. Call Eric Urtes, AIA, Project Mgr., 608/266-4798, or our office, 608/266-4018, with any questions.

Informational facility tour will be March 8, 2022 at 10:00 a.m. at the Alliant Energy Center Pavilions, 1919 Alliant Energy Way, Madison. Interested firms are strongly encouraged to attend this tour. See RFP for mandatory disease transmission prevention practices.

PUBLISH: FEBRUARY 22 & MARCH 1, 2022 - WISCONSIN STATE JOURNAL FEBRUARY 21 & FEBRUARY 28, 2022 - THE DAILY REPORTER

Request for Proposal 00 11 19 - 1

SECTION 00 24 16

SCOPES OF PROPOSALS

1. GENERAL INFORMATION

- A. Dane County is inviting proposals for professional architectural and engineering (A/E) design services for the Alliant Energy Center New Holland Pavilions No 1 & No 2 Upgrades for event exhibits. Updates include establishment of fire protection (dry system) to extend to cover the outside canopies on both sides of both Pavilions, electrical upgrades to provide additional service within the interior exhibit stall areas to reduce the use of horizontal extension cords (and will include panel + breaker modifications to existing service), installation of radiant heat in Pavilion 2 (already included in Pavilion 1) along with associated controls system upgrades to improve remote staff supervision and other exhibit area modifications/improvements to serve the year-round needs of cattle, horse, and other animal shows.
- B. The Alliant Energy Center hosts a variety of events that utilize the New Holland Pavilions; including the World Dairy, Mid-West Horse Fair, Dane County Fair, and many other annual agriculture and animal exhibitions. Significant upgrades are needed to provide heating, additional ventilation/cooling, fire protection, electrical, and associated control systems to serve the year-round needs of cattle, horse, and other animal shows. These shows have distinct requirements for care, grooming, assessment, showing, and housing. Specifically, these upgrades will help add more than 600 in-stall electrical receptacles, radiant and forced air heating equipment, physical plant power distribution improvements, fan/cooling/air movement equipment, a dry-chemical fire suppression system to protect storage areas for bedding, food, tack, and equipment, and upgraded air filtration equipment.
- C. To be considered for this project, the Consultant must meet or exceed the following criteria:
 - 1. Have at least one registered architect & one registered professional engineer as lead responsible members of the firm or project team.
 - 2. Have been in business for a period of not less than five (5) years.
 - 3. Must have been responsible for the design and completion of at least three (3) projects of similar design scope and size of the Alliant Energy Center Pavilions No.1 & No. 2 Upgrades.
 - 4. Consideration may be given to joint ventures consisting of two or more firms organized for the purpose of furnishing professional services as a single entity, providing the assignment of and provisions for continuity of the various responsibilities within the joint venture are approved by the County, and further providing that either of the individual firms constituting the joint venture meets the eligibility requirements listed above.

2. SCOPE OF WORK

- A. The Professional Services Agreement details project deliverables and specific tasks.
- B. Study Phase:
 - Refer to existing drawings for dimensions, layout, and work location for each of Three (3) Request-for-Bids packages. Define a scope of work with County to establish

important issues and priorities. Prepare on-site condition assessment with scheduled access, dates, and times with County.

- 2. Develop schematic drawings and specifications for the three Request for Bids to be issued (per D. Bidding Documents following below). Review findings with County. Provide Opinion of Probable Cost (OPC).
- C. Design Development
 - 1. Attend on-site kick-off meeting, time and date to be decided.
 - 2. Prepare preliminary drawings summarizing findings from site inspection
 - 3. Develop preliminary specifications, this does NOT include front-end bidding documents which will be developed by Public Works..
 - 4. Drawings with specifications to be reviewed by County.
 - 5. Provide revised Opinion of Probable Cost (OPC).
- D. Bidding Documents
 - 1. Revise preliminary drawings with specifications from County.
 - 2. Develop final construction documents (Drawings and Specifications) based on County review of preliminary design drawings and specs. Contact potential bidders. County will provide Front End Documents and post the Request for Bid Package on the Dane County Website and receive the bids.
 - Develop three (3) separate Request for Bid (RFB) Packages for each of the following: **RFB No.1**: Electrical upgrades to provide additional service within the interior exhibit stall areas to reduce the use of horizontal extension cords (and will include panel + breaker modifications to existing service).
 - **RFB No. 2**: Establishment of fire protection (dry system) to extend to cover the outside canopies on both sides of both Pavilions,

RFB No. 3: Installation of radiant heat in Pavilion 2 (already included in Pavilion 1) to include addition/ upgrade of DDC Building Automation system to include major mechanical systems in Pavilions. Provide hardware/software for complete BAS to allow for integration of all facilities on AEC campus.

- E. Construction Administration
 - a. Attend pre-bid, pre-construction, and progress meetings with the selected Contractor for each of the three RFB projects. A/E shall issue Construction Bulletins, handle Requests for Information, review Change Order requests, review Pay Applications from the Contractor, and develop Punch-Lists for each project.
 - 2. Provide for 2 on-site visits and time for associated construction administration services related to the visits (photo documentation, e-mail memos, etc.) for each of the three RFB projects issued.
- F. In-person meetings shall be limited & shall follow current *Public Health Madison & Dane County* procedures & recommendations (see

<u>publichealthmdc.com/documents/office_space_checklist.pdf</u> and <u>publichealthmdc.com/coronavirus/forward-dane/current-order</u>). The consultant may host meetings via teleconference or videoconference. Dane County reserves right to mandate safe physical distancing & use of facemasks by all personnel while inside any County facility or on any County grounds.

3. PROPOSAL CONTENT

- A. Interested consultants shall submit the following information in their proposal, in eight, sections or divisions:
 - 1. Proposal Form, Fair Labor Practices Certification and Proposer's cover letter.
 - 2. Description of firm's qualifications, related experience, organization and resources.
 - Brief list (min. of three, max. of five) of similar <u>completed</u> projects with the project details, name, address and telephone number of the clients. Make specific reference to projects involving public facilities as is being proposed. You may <u>separately</u> list additional professional references.
 - 4. Description of planning and design techniques for approaching the project.
 - 5. List of staff that will be committed to the Work with their professional resumes. Dane County may interview short-listed firms' principal design team. Include listing of other consultants who may participate in this project and their area of expertise.
 - 6. Indicate staff availability and tentative timetable with project tasks for the Work, including all project phases.
 - 7. Cost for services stated as lump sum fixed fee (not-to-exceed price without authorization by Public Works during the project development) and include hourly rates for the design services included in the associated work in the lump sum fixed fee.
 - 8. State clearly any limitations you wish to include and detail any conditions that you may have with the *Professional Services Agreement*.

4. EVALUATION CRITERIA

A. Proposing consultants will be evaluated on this criteria:

Project Personnel	25%
Relative Experience	35%
Past Project References	20%
Planning Process	10%
Pricing / Cost Proposal	10%
Total	100%

5. PRICING

- A. The *Professional Services Agreement* details additional information about project phases, pricing & payments.
- B. Submit cost for services stated as lump sum fixed fee.

6. FACILITY TOUR

- A. A proposing firm facility tour will be on March 8, 2022 at 10:00 a.m. at the Alliant Energy Center Pavilions, 1919 Alliant Energy Way, Madison, Wisconsin. This walk-through tour with AEC facility Staff will go until approximately 11:00 a.m.. Proposing companies are strongly encouraged to attend this tour, however attendance is optional.
- B. Safe distancing & facemasks are required for all tour attendees.

7. OWNER'S RESPONSIBILITY

A. Dane County will provide all available building, site, architectural, structural, mechanical, electrical, plumbing, telecommunications, fire protection, and security drawings and specifications to selected A/E firm. These drawings and specifications may not be complete or in an as-built condition. A/E firm will need to confirm accuracy of drawings and specifications. Dane County will provide any necessary hazardous material protection, testing or abatement.

8. TIMETABLE

A. This project's specific and estimated dates and times of events are below. Some of the events below have specific completion dates. In the event that Dane County finds it necessary to change any of the specific dates and times in the calendar of events listed below, it will do so by issuing an addendum to this RFP. There may or may not be a formal notification issued for changes in the estimated dates and times.

DATE	EVENT		
February 22, 2022	RFP issued		
March 8, 2022 - 10:00 a.m.	Facility tour		
March 22, 2022 - 2:00 p.m.	Written inquiries due		
March 24, 2022	Latest addendum (if necessary)		
March 29, 2022 - 2:00 p.m.	Proposals due		
Date April 5, 2022 (estimated)	Notification of intent to award sent out		
May - July (estimated)	Design Phases		
• May 10, 2022 (estimated)	Agreement start date		
• July, 2022 (estimated)	Design Development Phase deliverables due		
• July, 2022 (estimated)	Construction Documents Phase deliverables due		
August - December (estimated)	Bidding-Construction -Start Up Phases		
Construction to start on project areas after December 5/2022.			

9. ADDITIONAL INFORMATION

- A. Dane County Public Works Engineering Division, 1919 Alliant Energy Center Way, Madison, Wisconsin 53713, will receive your Proposal.
- B. Obtain any additional information regarding this project from Eric Urtes, AIA-Public Works Project Manager, 608/266-4798, <u>urtes.eric@countyofdane.com</u>.
- C. Obtain RFP documents from the Dane County web site. Proposing company is responsible to check back there regularly for Addenda.
- D. All Proposals must be submitted by 2:00 p.m., Tuesday, March 29, 2022.

- E. Dane County reserves the right to accept or reject any Proposal submitted.
- F. We will review information submitted by consultants and will distribute the proposals for evaluation to Alliant Energy Center staff and Public Works. Scores for the areas listed above in the Evaluation Criteria section will be entered in to a matrix to determine the selection of the A/E firm.
- G. Dane County reserves the right to negotiate an Agreement after selecting the successful firm. Selection is only on the proposal submitted and subsequent interviews. Therefore, the proposals must be complete. Submission of a proposal shall constitute a valid offer, which may be accepted by the County for a period of ninety (90) calendar days following the proposal due date.
- H. Dane County is an Equal Opportunity Employer.

END OF SECTION



Department of Administration Public Works Engineering Division

Greg Brockmeyer Director of Administration

Director of Public Works Todd Draper 608/266-4018

Joseph T. Parisi County Executive

1919 Alliant Energy Center Way Madison, Wisconsin 53713 Fax: 608/267-1533 https://pwht.countyofdane.com/public_works.aspx#engineering

SECTION 00 42 13

PROPOSAL FORM

PROPOSAL NO. 322010 PROJECT: PAVILIONS NO 1 & NO 2 UPGRADES ALLIANT ENERGY CENTER

The undersigned, submitting this Proposal, hereby agrees with all terms, conditions and requirements of the above referenced Request for Proposals, and declares that the attached Proposal and pricing are in conformity therewith.

SIGNATURE			
	(Proposal is	s invalid without signatu	re)
Print or Type N	Name:		Date:
Title:			
Address:			
Email Address	:		
Contact Person	1:		
Receipt of the	following addenda and inclusion o	f their provisions	in this Proposal is hereby acknowledged:
	Addendum No(s).	through	
	Dated		

All Proposers are strongly encouraged to be a registered vendor with Dane County. Registering allows vendors an opportunity to receive notifications for RFPs & RFBs issued by the County and provides the County with up-to-date company contact information. Complete a new form or renewal online at: <u>danepurchasing.com/Account/Login?</u>.

COUNTY OF DANE

PROFESSIONAL SERVICES AGREEMENT

SIGNATURE PAGE

Date:

Project No.: <u>322010</u>

Agreement No.:

THIS AGREEMENT is between the County of Dane, by its Department of Administration, hereinafter referred to as "COUNTY", and A/E Name, Address, City, State, Zip, hereinafter called the "A/E".

WITNESSETH

WHEREAS, COUNTY proposes securing architectural / engineering services for a project described as follows:

Alliant Energy Center - Pavilions No 1 & No 2 Upgrades

WHEREAS, COUNTY deems it advisable to engage the services of the A/E to furnish professional services in connection with this project, and

WHEREAS, COUNTY has authority to engage such services, and

WHEREAS, the A/E represents that it is in compliance with the applicable Wisconsin Statutes relating to the registration of architects and professional engineers and designers, and has agreed to furnish professional services for CQUNTY,

NOW, **THEREFORE**, in consideration of the premises and to their mutual and dependent agreements, the parties hereto agree as set forth in the following pages, which are annexed hereto and made a part hereof.

IN WITNESS WHEREOF, COUNTY and the A/E have executed this Agreement as of the above date.

A/E Firm Name	
---------------	--

COUNTY OF DANE

Signature

Date

Printed Name

Scott McDonell, County Clerk

Joseph T. Parisi, County Executive

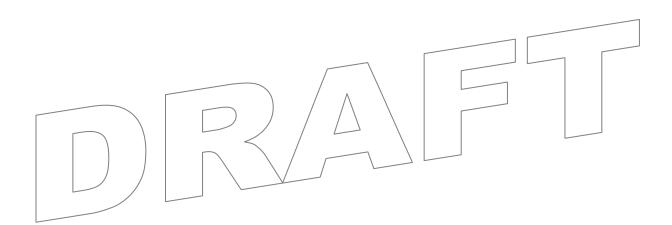
Date

Date

Title

Federal Employer Identification Number (FEIN)

This Agreement, and any amendment or addendum relating to it, may be executed and transmitted to any other party by legible facsimile reproduction or by scanned legible electronic PDF copy, and utilized in all respects as, an original, wet-inked manually executed document. Further, this Agreement and any amendment or addendum thereto, may be stored and reproduced by each party electronically, photographically, by photocopy or other similar process, and each party may at its option destroy any original document so reproduced. All parties hereto stipulate that any such legible reproduction shall be admissible in evidence as the original itself in any judicial, arbitration or administrative proceeding whether or not the original is in existence and whether or not each party made such reproduction in the regular course of business. This term does not apply to the service of notices under this Agreement.



COUNTY OF DANE

PROFESSIONAL SERVICES AGREEMENT

TABLE OF CONTENTS

	<u>PAGE</u>
SIGNATURE PAGE	1
TABLE OF CONTENTS	3
ARTICLES:	
1. ARTICLE 1: SCOPE OF AGREEMENT	4
2. ARTICLE 2: SCOPE OF THE SERVICES TO BE PROVIDED	5
2.A. General:	5
2.B. Study Phase:	5
2.C. Design Development Phase:	6
2.D. Construction Documents Phase:	8
2.E. Bidding Phase:	12
2.F. Construction Phase:	13
3. ARTICLE 3: COUNTY'S RESPONSIBILITIES	17
4. ARTICLE 4: COMPENSATION	17
5. ARTICLE 5: ACCOUNTING RECORDS	
6. ARTICLE 6: TERMINATION OF AGREEMENT	
7. ARTICLE 7: OWNERSHIP OF DOCUMENTS	
8. ARTICLE 8: LIABILITY-HOLD HARMLESS AND INDEMNIFICATION	N21
9. ARTICLE 9: PROFESSIONAL LIABILITY INSURANCE	
10. ARTICLE 10: OTHER INSURANCE	22
11. ARTICLE 11: MISCELLANEOUS PROVISIONS	22
12. ARTICLE 12: NONDISCRIMINATION IN EMPLOYMENT	23
ATTACHMENT A - CONSTRUCTION PHASE SITE VISITS AGREEMENT.	25
ATTACHMENT B - A/E / CONSULTANT AGREEMENT	26

1. ARTICLE 1: SCOPE OF AGREEMENT

- 1.A. This Agreement between COUNTY and the person or firm, duly licensed under the laws and in accordance with the regulations of the State of Wisconsin, hereinafter referred to as the "A/E" shall be governed by the following Terms and Conditions.
- 1.B. The A/E shall provide technical and professional services under this Agreement. The Terms and Conditions of this Agreement shall apply to modifications made to this Agreement and shall apply to both the services rendered in the creation of the design and to the additional services called for in carrying out the design.
- 1.C. The A/E shall serve as the professional technical advisor and consultant to COUNTY in matters arising out of or incidental to the performance of this Agreement and in that capacity, the A/E shall not have a contractual duty or responsibility to any other person or party or individual regarding the services under this Agreement, except as that duty may arise under the laws of the State of Wisconsin. The A/E is not an agent of the COUNTY within the meaning of s. 893.80 or 895.46, Wis. Stats.
- 1.D. Professional services performed or furnished under this Agreement shall be based on the care and skill ordinarily used by members of the profession involved, who practice under the authority of and who are governed by the license issued under the Wisconsin Statutes and the Wisconsin Administrative Code. The standard of care for architectural and engineering services under this Agreement shall include designing buildings, structures and / or related infrastructural systems that comply with all applicable building and safety codes.
- 1.E. By accepting this Agreement, the A/E represents possession of the necessary skill and other qualifications to perform work under this Agreement and is familiar with the practices in the locality where such services and work shall be performed.
- 1.F. The A/E shall review and become familiar with the current Division 00 & 01 requirements utilized by COUNTY in construction contracts and shall provide services and work, consistent with such requirements, so that the Contractor's schedule is not negatively impacted.
- 1.G. The A/E shall be professionally responsible for work performed under this Agreement. Upon written approval of COUNTY, the A/E may subcontract work to an approved consultant under this Agreement, to the specific extent authorized by COUNTY. The authorization to subcontract shall not relieve the A/E of professional or contractual responsibility for any work performed or delivered under this Agreement. The authorization to subcontract shall not be construed to create any contractual relationship between COUNTY and such consultant.
- 1.H. Subcontracts for services under this Agreement shall provide that work performed under such subcontract, shall be subject to provisions of this Agreement and shall also provide that any professional duty or responsibility pertaining thereto shall be accomplished to the benefit of COUNTY. Upon request, an electronic copy of each such subcontract for which COUNTY approval is granted shall be furnished to COUNTY.
- 1.I. The A/E may substitute consultants or professional staff under this Agreement only to the specific extent authorized by COUNTY in writing.
- 1.J. In the performance of this Agreement, the A/E shall become familiar with and perform such services in accordance with the specifications set forth in the Request for Proposals document. The COUNTY reserves the right to update County Master Specifications Division 00 and Division 01 at any time, including after the signing date of this Agreement.

The A/E shall use and conform to the most current County Master Specifications Division 00 and Division 01 available at the time of Final Review Documents and the A/E shall not be eligible for a change order based upon alterations to said County Master Specifications Division 00 and Division 01 occurring after the date of Agreement signing.

- 1.K. For this project the following terms will be in use:
 - 1.K.1) Project Planning Team = Dane County staff from Alliant Energy Center, Public Works Engineering Division, and the architect / engineering design team (A/E). Occasionally, others may join or provide input to this team.

2. ARTICLE 2: SCOPE OF THE SERVICES TO BE PROVIDED

- 2.A. General:
 - 2.A.1) Services are to be provided by the A/E in each of the following phases:

Study Phase Design Development Phase Construction Documents Phase Bidding Phase Construction Phase

2.A.2) An assigned COUNTY Public Works Project Manager will be the A/E's contact in securing COUNTY direction and for arranging the necessary meetings with COUNTY or other County Departments and obtaining the approvals required by COUNTY.

The A/E shall create a log of all COUNTY and A/E generated design changes 2.A.3)resulting from meetings and communications from COUNTY. Keep this log throughout the entire design process.

- 2.A.4) The term "written" or "in writing" may be either electronic or hard copy documentation, unless otherwise stated or directed by COUNTY.
- 2.B. Study Phase:
 - 2.B.1) The A/E shall obtain from COUNTY information and materials necessary to ascertain scope of the Project and shall verify with COUNTY program and functional requirements of the Project. This shall include gathering information from building users subject to approval by the COUNTY Public Works Project Manager.
 - 2.B.2) Based on information, materials and requirements as verified by COUNTY, A/E shall prepare a Summary and Study consisting of text, drawings and other documents illustrating scale and relationship of the Project components. Draft version of Study shall be submitted to COUNTY for review, modifications and written approval before submitting Final version.
 - 2.B.3) The A/E shall submit to COUNTY in the Summary and Study, a construction cost estimate based on information provided by COUNTY and gathered by A/E for Final version of Study.
 - 2.B.4) Study Phase deliverables shall be:
 - 2.B.4) a. Draft Study, electronic copies of:

- (1) Word 2016 (or earlier version);
- (2) Any other files (e.g., AutoCAD 2019, Excel 2016, PowerPoint 2016, etc. (or earlier versions)) included in Study; and
- (3) Adobe Acrobat 2020 (or earlier version) (PDFs converted from Word, AutoCAD, or other programs; minimize pdf file size by converting files rather than scanning printouts).
- 2.B.4) b. Final Study:
 - (1) Original unbound, hard copy in $8\frac{1}{2} \times 11$ and / or 11×17 format prints;
 - (2) Three (3) bound, hard copies in $8\frac{1}{2} \times 11$ and / or 11 x 17 format;
 - (3) Electronic version of all documents delivered on a USB flash drive or compact disk:
 - (a) Word 2016 (or earlier version);
 - (b) Any other files (e.g., AutoCAD 2019, Excel 2016, PowerPoint 2016, etc. (or earlier versions)) included in Study; and
 - (c) Adobe Acrobat 2020 (or earlier version) (PDFs converted from Word, AutoCAD, or other programs; minimize pdf file size by converting files rather than scanning printouts).

2.C. Design Development Phase:

- 2.C.1) The A/E shall review the program and functional requirements, plans and specifications of record, (to the extent that such documents are reasonably available), and applicable COUNTY standards and guides or other written direction by COUNTY. The A/E shall establish the limiting parameters of the design as defined by the instructions issued to it by COUNTY, to determine if the design concept is achievable within the schedule and budget proposed by COUNTY.
- 2.C.2) To the existing could have project.
 - To the extent necessary, the A/E shall facilitate investigation of the Pavilionsfor existing conditions which differ from those indicated in the record drawings or which could have a detrimental/impact on the achievement of the work called for under the project.
 - 2.C.3) Within seven (7) calendar days of receipt of the program and functional requirements, plans and specifications of record, the A/E and COUNTY shall schedule a meeting to review the A/E's design concept and such other matters as are necessary to establish that at this preliminary point, the proposed design concept is consistent with the requirements of COUNTY.
 - 2.C.4) The A/E shall document the results of design meetings, including design factors agreed to, with any instructions furnished by COUNTY to carry out such factors, including, but not limited to:
 - Program clarification Scheduling concerns Project cost estimates Cost-value trade offs Quality requirements Special material requirements Communications requirements Engineering requirements
 - 2.C.5) The A/E shall furnish a copy of the documentation produced under this Phase to each participant attending a design concept meeting.

- 2.C.6) In agreements which involve renovation or remodeling of or additions to existing facilities, the A/E shall evaluate the suitability of existing building elements, materials and equipment for reuse in the renovated project. Reasonably accessible areas shall also be observed by the A/E or its consultants to evaluate existing major mechanical, plumbing and electrical systems. Any of the foregoing considered to be economically reusable shall be reported to COUNTY and may be reused unless directed otherwise by COUNTY.
- 2.C.7) The A/E shall provide sufficient, alternative design solutions on major design features to allow COUNTY to ascertain that the recommended design achieves a practical programmatic and economic solution, within the limitations of the authorized program, schedule and budget. Include staffing and occupancy considerations provided by COUNTY.
- 2.C.8) The major design features, equipment and systems that must be evaluated include, but are not limited to:

Fire protection systemupgrades (canopy protection) Radiant Heating & associated controls Electrical System upgrades & associated controls

Each feature above is subject to its own individual Request for Bid (REB).

2.C.9) The A/E shall provide a working analysis of each major design feature included in the selected design concept, with constraints and dependencies that is sufficiently complete to allow commencement of the Construction Documents Phase:



- 2.C.9) a. The A/E shall prepare preliminary drawings, specifications and other data tailored to the project that fix and describe the size and character of the entire project as to major design features and systems and such other essentials outlined by COUNTY:
 - (1) The preliminary drawings shall include plans, elevations, sections and details at a scale which is sufficient to fully illustrate the design concepts, materials and finishes to be employed. Drawings shall be in format as approved by COUNTY.
 - (2) The outline specifications shall include relevant specific information for Division 01 Bidding and Contract Requirements and a list of the applicable technical divisions.
- 2.C.9) b. The A/E shall prepare a Design Report that includes:
 - (1) A time estimate for completion of each separate phase of the work (Design, Construction Documents, Bidding, and Construction).
 - (2) A detailed estimate of project cost based on the preliminary design concept, which indicates that the project budget limitations will not be exceeded. Factors influencing the cost feasibility of each major division of the specification and related drawings shall be identified.
 - (3) An analysis of the biddability and constructability of the project within the time allowed by COUNTY.
 - (4) An identification of any part of the work that might require special monitoring or consideration during construction to prevent quality control problems, delays, or cost escalation. Include any long lead

time equipment or materials, items which interface with difficulty, areas of work requiring significant care, sequencing or precision in installation and full or partial User occupancy during construction.

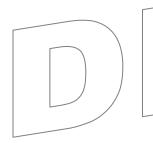
- (5) As a safeguard against unforeseen bidding conditions, the A/E may recommend appropriate alternate bids for COUNTY's consideration. Such alternates shall be identified and developed at no additional cost to this Agreement.
- 2.C.10) Upon determination by the A/E that the final design is represented by the preliminary drawings and specifications, those documents along with a final Design Report shall be submitted to COUNTY for review and concurrence prior to commencement of Construction Documents.
 - 2.C.10) a. The A/E shall provide COUNTY with one (1) electronic file of the Design Report with appendix, preliminary drawings and outline specifications for review and coordination purposes. Electronic documents shall be in a format approved by COUNTY.
 - 2.C.10) b.COUNTY will issue a list of recommended changes / corrections to be incorporated into the documents. Within seven (7) calendar days of receipt, the A/E shall transmit written replies to review comments issued by COUNTY. Directions by COUNTY shall be incorporated into the design, unless the A/E shall have explained objections to COUNTY and obtained prior written approval of noncompliance from COUNTY before proceeding with related work.



- 2.C.10) c. The A/E or COUNTY may call a further preliminary review meeting, when necessary to finalize the design concept. Written replies to additional COUNTY comments shall be made before proceeding to the Construction Documents Phase.
- 2.C.10) d. Approval of these documents by COUNTY will complete the Design Development Phase, whereupon COUNTY will issue written instruction to the A/E to proceed to the Construction Documents Phase.
- 2.C.11) Design Development Phase deliverables shall be:
 - 2.C.11) a. Three (3) bound, hard copies of drawings (full size-typical of all submissions) & specifications (in 8¹/₂ x 11 format-typical of all submissions); and
 - 2.C.11) b.Electronic version of all documents delivered on a USB flash drive or compact disk:
 - (1) Drawings in AutoCAD 2019 (or earlier version);
 - (2) Specifications in Word 2016 (or earlier version); and
 - (3) Adobe Acrobat 2020 (or earlier version) of drawings and specifications (PDFs converted from Word, AutoCAD, or other programs; minimize pdf file size by converting files rather than scanning printouts).
- 2.D. Construction Documents Phase:
 - 2.D.1) Upon receipt of written instructions from COUNTY, the A/E shall prepare Construction Documents for bidding, and construction of the project. The

Construction Documents shall provide the detailed requirements for the successful construction of the entire project.

- 2.D.2) Construction Documents shall comply with the COUNTY Master Specifications Division 00 and Division 01.
- 2.D.3) The Construction Documents shall be internally consistent in terms of coordination between:
 - 2.D.3) a. Work of the A/E and its consultants.
 - 2.D.3) b. Requirements of various divisions or trades.
 - 2.D.3) c. Drawings and specifications.
- 2.D.4) During this phase, the A/E shall develop and provide documents for the systems designed under this Agreement which will achieve a biddable and constructible project, compliant with all applicable building and safety codes and within the assumption of professional responsibility set forth in this Agreement. These services shall include, but not be limited to:
 - 2.D.4) a. Coordination, to protect the integrity of the design and facilitate construction with:
 - (1) Manufacturers: Ensure that manufactured items called for in the documents are currently available and will fit, interface and perform as required to achieve design intent.
 - (2) Consultants: Énsure that information necessary to their work is provided in a timely manner and that consultants exchange information with each other and the A/E.
 - (3) Utility Companies: Determine the standard operating procedures and time requirements for obtaining the services and the cooperation of the utility companies involved in the execution of the project. Provide this information in writing to interested parties as needed.
 - (4) Governmental authorities having jurisdiction over the work:
 - (a) The A/E shall submit documents for approval to public agencies having jurisdiction over the project and after obtaining such approval of those agencies, the A/E shall file two (2) copies of such approval with COUNTY.
 - (5) Such other agencies, boards, associations or individuals whose activities could impact or interfere with the successful completion of the project.
 - 2.D.4) b. Inclusion in the Construction Documents of:
 - (1) Plans, elevations and sections at a scale which is sufficient to give a full and complete understanding of the construction, dimensions thereof, materials to be employed, location of utilities and any other pertinent data.
 - (2) Details, diagrams, schedules, photo reproductions and other graphic methods appropriate to define work required to be performed to accomplish the purposes of the project.
 - (3) Description of existing conditions of site and / or structures with sufficient clarity to permit their use without ambiguity in the bidding, construction and process.



- 2.D.4) c. Inclusion in the specifications documents of bidding and contract requirements, special provisions and / or appendices, and technical sections. Unless otherwise agreed to by COUNTY in writing, the format shall generally follow the divisions of the Construction Specifications Institute. If approved by COUNTY in writing, short form specifications for limited scope work may be included on the drawings in lieu of Construction Specifications Institute format specifications.
 - (1) The technical sections of the specifications shall completely and concisely describe the materials and services to be employed or installed by the construction contractor(s) in the work. These specifications shall describe the work to be done and shall be arranged by work or material in appropriate divisions with suitable crossreferences for clarity and continuity
 - (2) The technical sections of the specifications shall be carefully worded to allow a clear understanding of the work required by each of the construction contractors and their subcontractors, and to describe the responsibility for the work required to be performed by such contractor(s), individually and collectively, for the performance of work required to deliver the project complete, without ambiguity as to which technical sections of the specifications cover each element of work.
 - (3) The technical sections of the specifications shall clearly state the minimum grade, quality, and type of materials and workmanship required. These specifications shall not restrict competition, where it is available, but shall state a level of quality, which can be objectively determined by persons normally engaged in the type of trade or
 - practice described. (4) When two (2) or more manufacturers offer on the open market
 - materials, equipment or devices of equal quality and usability needed for the project, each such known manufactured product shall be specified for potential use on the project.
 - (5) The professional judgment of the A/E or the direction of the COUNTY may limit competition to a brand name, process, or technique of manufacture.
 - (6) The A/E shall compile and include in the construction contract documents a summary listing of all submittals required for the project from the construction contractor(s). Included shall be shop drawings, samples, cuts, catalogs, models, mockups and other preliminary information needed from the contractors to describe how they will fulfill their responsibilities under their contracts.
- 2.D.5) Upon determination by the A/E that the final project design is represented by completed Construction Documents, those documents shall be submitted to COUNTY for review and concurrence prior to release for bidding.
 - 2.D.5) a. The A/E shall provide COUNTY with review sets in a format and standard specified by the COUNTY.
 - 2.D.5) b. COUNTY will issue a list of recommended changes / corrections to be incorporated into the next review set or final documents. The A/E shall within seven (7) calendar days transmit written replies from the A/E and its sub-consultants to review comments issued by COUNTY or for which clarification requests were identified or for which changes were authorized



at the final design review meeting and communicated to the A/E. Directions by COUNTY shall be incorporated into the documents.

- 2.D.6) Prior to submission of the final documents, the A/E shall call for a final review meeting with COUNTY, if needed, to finalize and prepare for publication of the final bidding documents, with any conditions required by COUNTY.
- 2.D.7) A/E shall affix to both the cover sheet of Drawings and & inside cover of Project Manual current State of Wisconsin registration seal, number & signature. These shall be applied by registered architect and each professional engineer responsible for project design.
- 2.D.8) At the time of delivery of the final documents, the A/E shall report to COUNTY, in writing with updated estimates of project costs and schedules.
- 2.D.9) COUNTY will print and distribute drawings and specifications for bidding purposes without cost to the A/E. The A/E shall provide the original drawings, original specifications and an electronic copy of both the drawings and original specifications for printing by COUNTY, in a format as approved by COUNTY. If the A/E is directed by COUNTY to acquire the necessary printing services, these services shall be a reimbursable expense as provided in Article 4.C. hereof.
- 2.D.10) Constructions Documents Phase documents shall indicate in the drawings' title block or specifications' footer what they are (e.g., 60% CDs, 95% CDs, Issued for Bids). The deliverables shall be:

2.D.10) a. 60% Review Construction Documents:



- (1) Electronic version of all documents delivered on a USB flash drive or compact disk:
 - (a) Drawings in Adobe Acrobat 2020 (or earlier version; PDFs); and
 - (b) Specifications in Word 2016 (or earlier version).

2.D.10) b.95% Review Construction Documents:

- (1) Electronic version of all documents delivered on a USB flash drive or compact disk or ShareFile Link:
 - (a) Drawings in Adobe Acrobat 2020 (or earlier version; PDFs); and
 - (b) Specifications in Word 2016 (or earlier version).
- 2.D.10) c. Final Construction Documents (Issued for Bids Set):
 - (1) Electronic version of all documents delivered on a USB flash drive or compact disk or ShareFile Link:
 - (a) Drawings (.dwg files) in AutoCAD 2019 (or earlier version):
 - 1. Each drawing sheet shall be complete with x-refs or base plan sheets <u>included and attached;</u>
 - 2. All external data from non-AutoCAD programs (e.g., Excel or Word) shall be <u>included and attached</u>; and
 - 3. Include copy of Plot Style Table (ctp file) used to print drawings.
 - (b) Drawings in Adobe Acrobat 2020 (or earlier version; minimize pdf file size by converting files from AutoCAD or other programs); and
 - (c) Project Manual in Word 2016 (or earlier version).

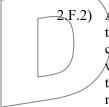
- 2.E. Bidding Phase:
 - 2.E.1) The Bidding Phase shall commence with the publication of the Invitation to Bid and shall conclude with the award of the number of contracts necessary to achieve the purposes of construction.
 - 2.E.2) The A/E shall serve as the professional technical consultant and advisor to COUNTY during the bidding process, including the preparation for and participation in Pre-Bid Conferences.
 - 2.E.3) The A/E shall answer all pre-bid questions from contractors in an addendum and prepare any additional addenda necessary, for COUNTY to authorize, print and distribute as appropriate.
 - 2.E.4) The A/E shall assist COUNTY by evaluating and making recommendations to COUNTY on the qualifications of prospective construction contractors and subcontractors.
 - 2.E.5) The A/E shall assist COUNTY in analyzing bids and negotiating with the lowest, qualified, responsible bidders as deemed appropriate by COUNTY.
 - 2.E.6) If the low bids submitted by qualified, responsible bidders exceed construction cost estimate approved at Construction Documents Phase by five percent (5%) or more, the A/E shall revise and change the Construction Documents for a project rebidding, as approved by and without additional cost to COUNTY that will permit a proper award of the contract(s) within the approved estimate of project cost or other funding limitation. If the low bid exceeds construction cost estimate approved at Construction Documents Phase by less than five percent (5%), at the COUNTY's option, the A/E shall revise and change the Construction Documents for a project rebidding, as approved by COUNTY, but shall be compensated for revisions per negotioned amendment to this Professional Services Agreement.
 - 2.E.7) In the event that there is a reduction in scope to keep the project within budget and this results in low bid(s) which total less than the construction budget, then the A/E shall, at no additional fee, prepare construction bulletin(s) to add deleted program work back into the project.
 - 2.E.8) Upon construction contract offer, the A/E shall immediately prepare Issued for Construction / Permitting Documents that incorporate the final bidding documents, addenda issued, alternate bids accepted and negotiated contract changes. Incorporate all of which into the Issued for Construction / Permitting Documents. Remove all references to accepted or rejected alternate bids and change the drawings' title block or specifications' footer appropriately. Complete such work in a timely fashion so not to delay construction or AHJ review & approval for permitting, but no later than seven (7) calendar days.
 - 2.E.9) Bidding Phase deliverables for each project shall be:
 - 2.E.9) a. Issued for Construction / Permitting Documents:
 - (1) Original unbound, hard copy of Drawings and Project Manual in full size, paper format;
 - (2) Three (3) hard, bound copies of Drawings and Project Manual;
 - (3) Two (2) bound, hard copies of Drawings and Project Manual to be submitted by A/E to State of Wisconsin and City of Madison for

stamped approval (it is the responsibility of the A/E to determine if additional sets are required for this or any other AHJ & to provide those sets); and

- (4) Electronic version of all documents delivered on a USB flash drive or compact disk:
 - (a) Drawings (.dwg files) in AutoCAD 2019 (or earlier version):
 - 1. Each drawing sheet shall be complete with x-refs or base plan sheets <u>included and attached;</u>
 - 2. All external data from non-AutoCAD programs (e.g., Excel or Word) shall be <u>included and attached</u>; and
 - 3. Include copy of Plot Style Table (ctp file) used to print drawings.
 - (b) Drawings in Adobe Acrobat 2020 (or earlier version; minimize pdf file size by converting files from AutoCAD or other programs);
 - (c) Project Manual in Word 2016 (or earlier version); and
 - (d) Project Manual in Adobe Acrobat 2020 (or earlier version; minimize pdf file size by converting files from Word or other programs, rather than scanning printouts).

2.F. Construction Phase:

2.F.1) An assigned COUNTY Project Manager will be responsible for arranging and conducting construction-related meetings as required and act as the point of contact for the construction contractors. A COUNTY approved A/E representative shall attend, take notes, publish and distribute COUNTY approved minutes of job meetings.



- After the award of the construction contract(s), the A/E shall become an on-site technical and professional advisor to COUNTY. In this capacity the A/E will have continuous access to the site. The A/E, through COUNTY's Project Representative, will have access to data in the construction contractor(s) files or offices pertaining to the quality or time requirements of the construction contract(s), in the same mode, manner and extent that such data would be available to COUNTY.
 - 2.F.2) a. When requested and specifically contracted for by COUNTY, the A/E shall provide a full-time, on-site representative who shall be qualified in construction administration and subject to the approval of COUNTY. On projects for which COUNTY does not authorize full-time, on-site representation, the A/E shall provide, in accordance with ATTACHMENT A CONSTRUCTION PHASE SITE VISITS AGREEMENT, a COUNTY-approved person, with suitable experience in the construction process to visit the site in order to monitor and report the progress, quality, and timely performance of the work relative to the Construction Documents, as such work is being performed by the construction contractor(s). The A/E shall keep COUNTY informed of the progress and quality of the work based on on-site observations and shall endeavor to protect COUNTY against defects and deficiencies in the work.
- 2.F.3) Immediately following the pre-construction meeting and prior to the start of construction, the A/E shall review the proposed schedule for submittals from the construction contractor(s). The A/E shall assess the timing feasibility of such submittals relative to the construction schedule and review needed, and advise COUNTY in writing accordingly.

- 2.F.3) a. The A/E shall be responsible for the professional review and approval or rejection of shop drawings, samples and other submittals from the construction contractor(s) to determine conformance with the specific portions of the Construction Documents under which the submittal was made. Deviation from the Construction Documents as noted by the contractor on submittals or otherwise observed by the A/E shall be brought to the attention of COUNTY's Project Representative and concurrence received from COUNTY before any approval is given to a contractor. Review of the submittals which have priority status as determined by COUNTY's Project Representative, must be completed within five (5) business days of receipt. Review of other submittals shall be completed within ten (10) business days of receipt, or in accordance with the submittal schedule prepared by the General Contractor and as approved by COUNTY and A/E at the start of construction. The A/E is responsible for submittal activity conducted by its consultants in the same manner as if such review were made by the A/E.
- 2.F.3) b. The A/E shall also review the results of all testing conducted during or after construction and report to COUNTY whether these results meet the design intent and the requirements of the Construction Documents.
- 2.F.4) The A/E's site representative shall observe the construction process to evaluate the adequacy and completeness of the construction contractor(s) compliance with the Construction Documents, and shall immediately report any noncompliance to the COUNTY Project Manager in writing.



- 2.F.4) a. The A/E shall be responsible for the coordination and performance of onsite services performed by consultants employed by the A/E and shall review reports and other data submitted by such consultants. The A/E and each consultant engaged under Article 1.G. and ATTACHMENT B. - A/E CONSULTANT AGREEMENT shall visit the job site as delineated in ATTACHMENT A. - CONSTRUCTION PHASE SITE VISITS AGREEMENT. The A/E shall provide in each consultant agreement, a requirement for consultant visits to the site and a schedule for such visits for professional evaluation of the work monitored by each consultant and a reporting system to inform COUNTY. Site visits shall coincide with crucial times of the construction for the specialty area involved.
- 2.F.4) b. Following construction site visits, the A/E shall make routine, written status reports detailing observations and activities on the project, at such intervals as is elsewhere herein established and in a format approved by COUNTY. The A/E shall submit the reports within three (3) business days of the site visit by the A/E's representative. Reporting requirements for full-time, on-site representation shall be established by each Agreement for such professional services.
- 2.F.4) c. The A/E's site representative will receive copies of reports submitted by the General Contractor and shall provide site observation to evaluate the reports. Discovered construction variances shall immediately be reported to COUNTY.
- 2.F.4) d. If it becomes necessary during construction, to interpret, construe, clarify or to otherwise determine the reasonable meaning, application or implementation of the Construction Documents, the A/E acting in good

faith, based upon the facts made known to it at the time, shall recommend to COUNTY in writing, a reasonable course of conduct in connection with the issues involved. Such recommendation(s) may be considered for further contractual action by COUNTY.

- 2.F.4) e. Should the A/E become aware that the work of any contractor or subcontractor in place or underway does not conform to the work or quality required by the Construction Documents, the COUNTY Project Manager shall be immediately notified in writing. It is appropriate for the A/E to also immediately advise the contractors of substantial deficiencies, and that notification of these deficiencies will be made to COUNTY. The A/E shall furnish such data as necessary to inform COUNTY of the degree of the noncompliance with the Construction Documents, the cause thereof, the impact on schedule and cost, if known, and a recommended course of conduct. COUNTY shall be solely responsible for implementation of the A/E's recommendation. This assumption of responsibility by COUNTY shall not relieve the A/E or its consultants for negligence in the discovery of the condition, which was or should have been discovered.
- 2.F.4) f. If the A/E considers suspension of construction work appropriate, the A/E shall notify COUNTY in writing and state the reasons, which, in the professional opinion of the A/E, justify such action.
- 2.F.5) Necessary professional services or construction required to repair or overcome problems caused by errors, omissions, ambiguities or changes not authorized by COUNTY in the preparation of the documents or design shall be the responsibility of the A/E or its consultants, without additional cost to COUNTY.
- 2.F.6) The A/E shall review requests for information (RFIs) and shall respond within five (5) business days.
- 2.F.7) The A/E shall develop and issue appropriate construction bulletins (CBs) at the direction of the COUNTY Project Manager. The A/E shall then evaluate the CB proposals received from the construction contractors and provide COUNTY with a written recommendation regarding the appropriateness of the proposals. The evaluation and recommendation shall be completed within five (5) business days of receipt, or in accordance with another schedule approved by COUNTY. The evaluation shall consider the necessity for such change, the reasonableness of the proposed change, and an analysis of the cost proposed for effecting the change.
- 2.F.8) The A/E shall assist in the preparation of applications for energy incentive programs, when applicable.
- 2.F.9) Upon contractor's written notification and the COUNTY Project Manager's confirmation that Substantial Completion has taken place, the A/E shall observe the construction and provide a written punchlist to the COUNTY Project Manager. The COUNTY Project Manager will schedule the punchlist inspection in conjunction with the User and contractors involved. The punchlist shall contain items found not to be complete, in need of correction, replacement or otherwise not in accordance with the Construction Documents. As part of the Substantial Completion verification, the A/E shall perform or witness and document functional testing and review the testing and balance report prepared by others for all plumbing, HVAC, fire protection and electrical systems to verify installation and operation meet the intent of their design. The A/E shall forward the results of the functional testing and

provide written recommendations for corrective measures where systems do not meet the intent of their design. The A/E shall prepare and distribute the Certificate of Substantial Completion when appropriate.

2.F.10) COUNTY will provide a set of Construction Documents to General Contractor on which daily records of changes and deviations shall be recorded. At completion of the project, General Contractor will submit its marked-up as-built documents to the A/E who shall, based on these marked up as-built documents, revise the original documents, including the electronic files, showing changes in the work made during the construction process to produce a set of Record Documents. Electronic documents shall be in a format and on a medium required by COUNTY. This work shall be completed and submitted to COUNTY within thirty (30) calendar days of receipt of the last marked up prints. The consequences of addenda, change orders and other circumstances known by the A/E to have caused change shall be included in the production of the Record Documents. The marked-up as-built documents shall be turned over to the COUNTY at the same time as the Record Documents.

2.F.10) a. Record Documents deliverables shall be:

- (1) Three (3) hard, bound copies of Drawings and Project Manual; and
- (2) Electronic version of all documents delivered on a USB flash drive or compact disk:
 - (a) Drawings (.dwg files) in AutoCAD 2019 (or earlier version):
 - 1. Each drawing sheet shall be complete with x-refs or base plansheets included and attached;
 - 2. All external data from non-AutoCAD programs (e.g., Excel or Word) shall be included and attached; and
 - 3. Include copy of Plot Style Table (ctp file) used to print drawings.
 - (b) Drawings in Adobe Acrobat 2020 (or earlier version; minimize pdf file size by converting files from AutoCAD or other programs);
 - (c) Project Manual in Word 2016 (or earlier version); and
 - (d) Project Manual in Adobe Acrobat 2020 (or earlier version; minimize pdf file size by converting files from Word or other programs, rather than scanning printouts).
- 2.F.11) The A/E shall obtain from the General Contractor, and review for compliance with design intent, an Operating and Maintenance Manual for building systems and operable mechanical and electrical equipment on the project, both powered and manual. Two (2) copies of the Manuals shall be provided to COUNTY's Project Representative. These manuals shall include:
 - 2.F.11) a. Manufacturer's Instruction for Maintenance and Operation of Equipment and Systems, including a Spare Parts List; and
 - 2.F.11) b. Temperature Control Record Drawings and Equipment Data Sheets including recommended maintenance procedures.
- 3. IT IS NOT INTENDED BY THIS AGREEMENT TO IMPOSE UPON THE A/E THE DUTY OF A GUARANTOR OF THE CONSTRUCTION CONTRACTOR(S). IT IS, HOWEVER, THE INTENT OF THE AGREEMENT TO IMPOSE UPON THE A/E THE DUTY OF THE FAITHFUL FULFILLMENT, IN ACCORDANCE WITH THE STANDARD OF CARE ORDINARY TO THE PROFESSION, OF THE

PERFORMANCE OF THE DUTIES SPECIFICALLY ENUMERATED HEREIN AND FOR THE CLOSE MONITORING OF THE WORK OF ITS CONSULTANTS AS IF THE WORK WERE PERFORMED BY THE A/E. AS SUCH, THIS SHALL NOT PRECLUDE THE ENTITLEMENT TO COUNTY OF REASONABLE EXPECTATION THAT SYSTEMS AS DESIGNED BY THE A/E OR THEIR CONSULTANTS WILL OPERATE AS ANTICIPATED BY COUNTY ARTICLE 3: COUNTY'S RESPONSIBILITIES

- 3.A. COUNTY will determine the project scope for which the professional design services are required and will fully cooperate in achieving completion of that work.
- 3.B. COUNTY will establish an internal operating procedure for timely and proper performance of any COUNTY duty required to fulfill the needs of the project.
- 3.C. COUNTY will provide available information regarding the requirements for the project, which set forth COUNTY's objectives for program, schedule and overall budget. COUNTY will make available to the A/E data known to COUNTY or requested by the A/E, which may be needed for the fulfillment of the professional responsibility of the A/E. This data may include, but is not limited to, prints of existing buildings or record drawings and COUNTY standards and guides. Such documents will be the most recent and accurate available. The use of any such data by the A/E shall be without contractual or legal significance unless otherwise established elsewhere in this Agreement. However, providing of documents by COUNTY shall not relieve the A/E from the responsibility for conducting a field-survey to verify existing conditions as specified herein.
- 3.D. COUNTY will communicate to the A/E the format of the documents required to be submitted.
- 3.E. COUNTY will examine documents submitted by the A/E and will render decisions regarding them promptly, to avoid unreasonable delay in the progress and sequence of the A/E's work. COUNTY will coordinate review comments from the User agency and COUNTY staff prior to issuance to the A/E.
- 3.F. COUNTY will distribute Construction Documents and any necessary addenda to prospective bidders, and conduct the bid opening for the project.
- 3.G. COUNTY will prepare and process the Agreements between COUNTY and A/E, and between COUNTY and construction contractor(s).
- 3.H. Unless otherwise specified in this Agreement, COUNTY will arrange for services of a testing laboratory to furnish structural, chemical, mechanical and other laboratory tests, inspections and reports as required by law or deemed necessary by COUNTY.

4. ARTICLE 4: COMPENSATION

- 4.A. A/E fees for basic services will be compensated by COUNTY in accordance with the Terms and Conditions of this Agreement as follows:
 - 4.A.1) COUNTY will pay the A/E a lump sum fixed fee of \$[].
 - 4.A.1) a. The A/E fee for professional services shall be in accordance with the terms of this Agreement and based on the scope of services contained in the Request for Proposals, dated February 22, 2022, including any subsequent Addenda.

- 4.A.2) No change in fee shall result from change orders to construction contracts unless such change is described as an Additional Service under Article 4.D. of this Agreement and approved by COUNTY. When the A/E's Design Report estimate indicates a revised project cost and such revision is approved by COUNTY, the amount of the lump sum fee may be renegotiated.
- 4.A.3) In the event the lowest acceptable construction bids exceed the fixed limit of construction, as shown above, plus any COUNTY increases approved before bidding, COUNTY will do one or more of the following:
 - 4.A.3) a. Cooperate in revising the project scope and quality as required to reduce the project cost;
 - 4.A.3) b. Authorize the rebidding of the project within a reasonable time; and / or
 - 4.A.3) c. Give written approval of an increase in such fixed limit.
- 4.A.4) Compensation for any revisions of project scope & necessary rebidding based lowest acceptable construction bids exceeding the construction cost estimate approved at Construction Documents Phase shall be as described in "2.F. Bidding Phase" section above.
- 4.B. The A/E's Compensation for Additional Services, as described in Article 4.D., will be computed as follows:
 - 4.B.1) Principals' time at a fixed rate of \$[] per hour, unless separate amounts are provided for each Principal. For the purposes of this Agreement, the Principals are:



4.B.2) Other design staff shall be billed at these fixed rates:

Senior design architect / engineer:	\$[] per hour
Junior design architect / engineer:	\$[] per hour
Senior designer:	\$[] per hour
Junior designer:	\$[] per hour
Drafting:	\$[] per hour
Clerical:	\$ſ] per hour

4.B.3) Employee's time shall be computed using the employee's basic hourly salary and include overhead costs for clerical support and mandatory and customary benefits such as statutory employee benefits, insurance, sick leave, holidays and vacations, pensions and similar benefits for persons in consultation, research and design in producing drawings, specifications and other documents pertaining to the project and for services during construction at the site.

- 4.C. Reimbursable Expenses:
 - 4.C.1) Reimbursable Expenses are actual, incidental expenses incurred by the A/E, its employees or consultants, in the interest of the project and are not included in overhead costs for the Fees for Basic Services (4.A.) and Additional Services (4.D.). Reimbursable Expenses shall be incurred or contracted for only with PRIOR written approval from COUNTY. Such approval shall be based on a written proposal delineating the nature of the services, the time involved, the estimated cost thereof, and the individuals or firms involved. Payment Requests from consultants and construction contractors providing these Reimbursable Expenses shall be reviewed by the A/E to check the accuracy of and entitlement to the sums requested. There are no markups allowed for Reimbursable Expenses. Reimbursable Expenses may include, but are not limited to, the following incidental expenses:
 - 4.C.1) a. Expense of reproduction of drawings and specifications, excluding the review sets required in Article 2.
 - 4.C.1) b. Expense of State and / or City review fees when required.
 - 4.C.2) Expenses not eligible for reimbursement shall include, but are not limited to, indirect project overhead costs associated with the Fees for Basic Services (4.A.) and Additional Services (4.D.) such as mileage, travel, lodging, replication of drawings for the design development meetings and subsequent design meetings, preliminary and final review document printing, handling and postage, cost of correspondence transmittals, telephone expenses, and CAD / electronic graphic services. Such expenses shall be included as part of the Lump Sum fee.

4.D. Additional Services:

- 4.D.1) The following services are/in addition to but are not covered in Article 4.A. These services may be identified as part of the A/E's fee proposal and included with the lump sum fee as such. Compensation for these additional services or other services must be requested by the A/E, and subsequently approved by COUNTY <u>prior</u> to proceeding with the work. If the additional services are requested after the Agreement has been issued, such authorization shall be based on a written proposal delineating the nature of the services, the time involved, the estimated cost thereof, the effect on the project schedule and the individuals or firms involved. When authorized, an Agreement Change Order will be used to modify the A/E's Agreement.
 - 4.D.1) a. Providing planning surveys, program revision, site feasibility, or comparative studies of prospective sites.
 - 4.D.1) b. Revising previously approved drawings, specifications or other documents after written approval of Design Development Phase, to accomplish changes not initiated by the A/E other than record documents and revisions normally to be expected or required to correct deficiencies in the approved drawings and specifications.
 - 4.D.1) c. Preparing detailed models, perspective or renderings.
 - 4.D.1) d. Preparing documents for alternate bids or petitions for waiver when requested by COUNTY and, requiring significant additional time and expense on the part of the A/E or its consultants.

- 4.D.1) e. Obtaining or participating in third party Value Engineering / Enhancement of the project when directed by COUNTY.
- 4.D.1) f. Providing services other than corrective design work and record documents, after final payment to the construction contractor(s).
- 4.D.1) g. Providing services requested by COUNTY for or in connection with the selection of specific movable furniture, fixtures and equipment (FF&E) by the occupying agency during the Construction Phase.
- 4.D.1) h. Providing services as expert witness in connection with any public hearings, arbitration proceeding, or the proceedings of a court of record except when the A/E is party thereto.
- 4.D.1) i. Providing historical preservation research or documentation.
- 4.D.1) j. Providing specialized design services, including, but not limited to Sustainability design or LEED certification, vibration, wind or acoustical analysis, energy modeling.
- 4.D.1) k. Participation in post-project evaluations.
- 4.D.1) l. Preparing multiple bid packages.
- 4.E. Payments to the A/E:
 - 4.E.1) Payments of the A/E's lump sum fee will be made monthly, in proportion to services performed as confirmed by COUNTY, to increase the compensation to the following percentages of the lump sum fee at the completion of each phase of the work.



- percentages of the lump sum fee at the completion of each phase of the w Design Development Phase 30% Construction Documents Phase 70% Bidding Phase 75% Construction Phase 100%
- 4.E.2) No more than ninety percent (90%) of the A/E's lump sum fee shall be paid out prior to substantial completion of the project. When COUNTY confirms that development of punch lists, review of Operating & Maintenance Manuals, submittal of record documents, has been satisfactorily completed by the A/E, COUNTY will determine how and when the remaining lump sum fee is disbursed.
- 4.E.3) Payments for COUNTY-approved Reimbursable Expenses as defined in Article 4.C. and Additional Services of the A/E as defined in Article 4.D., will be made monthly upon request.
- 4.E.4) An A/E whose work is found deficient or fails to conform to the requirements set forth in the Agreement, is not entitled to further payments, until corrected to the satisfaction of COUNTY.
 - 4.E.4) a. Payments to the A/E may be withheld for damages sustained by COUNTY due to error, omission, unauthorized changes or negligence on the part of the A/E. COUNTY will notify the A/E in writing of the alleged, specific damages and amounts involved, on a timely basis.

- 4.E.5) Payments to the A/E will not be withheld due to disputes between construction contractor(s) and COUNTY.
- 4.E.6) If the project is suspended for more than three (3) months in whole or in part, the A/E will be paid fees for services performed prior to receipt of written notice from COUNTY of the suspension, together with Reimbursable Expenses then due and reasonable expenses resulting from this suspension, as approved by COUNTY. If the project is resumed after being suspended for more than three (3) months, the A/E's compensation will be subject to renegotiation.

5. ARTICLE 5: ACCOUNTING RECORDS

5.A. Records of the A/E's direct personnel, consultants, and reimbursable expenses pertaining to the project shall be kept in accordance with Generally Accepted Accounting Principles (GAAP) and shall be available to COUNTY or an authorized representative throughout the term of this Agreement and for at least three (3) years after final payment to the A/E.

6. ARTICLE 6: TERMINATION OF AGREEMENT

- 6.A. This Agreement may be terminated by COUNTY without cause upon ten (10) calendar days written notice to the A/E. In the event of termination, the A/E will be paid fees for services performed to termination date, reimbursable expenses then due, and termination expenses as approved by COUNTY. Work performed prior to the date of termination shall be in accordance with the terms and conditions of this Agreement. Upon termination, the results of such work shall immediately be turned over to the COUNTY Project Manager and is a condition precedent to further payment by COUNTY.
- 6.B. In the event the Agreement between the A/E and any consultant on this project is terminated, the results of work by that consultant shall immediately be turned over to the A/E.
- 7. ARTICLE 7: OWNERSHIP OF DOCUMENTS
- 7.A. All drawings and specifications, renderings, models, scale details, approved copies of shop drawings and other such documents prepared by the A/E or any consultant pursuant to this Agreement shall become the property of COUNTY on completion and acceptance of any of the A/E's work, or upon termination of the Agreement, and shall be delivered to COUNTY upon request.
- 7.B. Documents prepared under this Agreement may be used by COUNTY for informational purposes without additional compensation to the A/E.
- 7.C. Specifications and isolated, detail drawings inherent to the architectural / engineering design of the project, whether provided by the COUNTY or generated by the A/E, shall be available for future use by the parties to this Agreement and other parties, each at their own risk.

8. ARTICLE 8: LIABILITY- HOLD HARMLESS AND INDEMNIFICATION

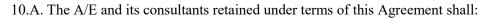
8.A. A/E shall indemnify, hold harmless and defend COUNTY, its boards, commissions, agencies, officers, employees and representatives against any and all liability, loss (including, but not limited to, property damage, bodily injury and loss of life), damages, costs or expenses which COUNTY, its officers, employees, agencies, boards, commissions and representatives may sustain, incur or be required to pay by reason of A/E furnishing the services required to be provided under this Agreement, provided, however, that the provisions of this paragraph shall not apply to liabilities, losses, charges, costs, or expenses caused or resulting from the acts or omissions of COUNTY, its agencies, boards,

commissions, officers, employees or representatives. The obligations of A/E under this paragraph shall survive the expiration or termination of this Agreement.

9. ARTICLE 9: PROFESSIONAL LIABILITY INSURANCE

9.A. The A/E and its consultants retained under the terms of this Agreement shall procure and maintain a professional liability insurance policy with at least \$1,000,000 in coverage that provides for payment of the insured's liability for errors, omissions or negligent acts arising out of the performance of the professional services required under this Agreement. The A/E shall provide up-to-date, accurate professional liability information on the A/E's Data Record, including amount of insurance, deductible, carrier and expiration date of coverage. Upon request by COUNTY, the A/E shall furnish COUNTY with a Certificate of Insurance showing the type, amount, deductible, effective date and date of expiration of such policy. Such certificate shall also contain substantially the following statement: "The insurance covered by this certificate shall not be canceled, the coverage changed or reduced by endorsement, by the insurance company, except after thirty (30) calendar days written notice has been received by COUNTY." The A/E shall not cancel or materially alter this coverage without prior written approval by COUNTY. The A/E shall be responsible for consultants maintaining professional liability insurance during the life of their Agreement.

10. ARTICLE 10: OTHER INSURANCE



10.A.1) Maintain Worker's Compensation Insurance:

10.A.1) a.Procure and maintain Worker's Compensation Insurance as required by State of Wisconsin Statutes for all of the A/E's and consultant's employees engaged in work associated with the project under this Agreement.

10.A.1) b. Maintain Employer's Liability Insurance with a policy limit of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate. Insurance may be met by a combination of primary and excess coverage.

- 10.A.2) Procure and maintain during the life of this Agreement, and until one year after the completion of this Agreement, Commercial General Liability Insurance, including Products and Completed Operations for all claims that might occur in carrying out the Agreement. Minimum coverage shall be \$1,000,000 per occurrence, \$1,000,000 general aggregate, combined single limit for bodily injury, personal injury, and property damage. Such coverage shall be of the "occurrence" type form and shall include the employees of the A/E as insureds.
- 10.A.3) Procure and maintain Commercial Automobile Liability Insurance for all owned, non-owned, and hired vehicles that are used in carrying out the Agreement. Minimum coverage shall be \$1,000,000 per occurrence combined single limit for bodily injury and property damage. Insurance may be met by a combination of primary and excess coverage.
- 10.A.4) Provide an insurance certificate indicating the above Commercial Liability Insurance and property damage coverage, countersigned by an insurer licensed to do business in Wisconsin, covering and maintained for the period of the Agreement. Upon request by COUNTY, the insurance certificate is to be presented on or before execution of the Agreement.

11. ARTICLE 11: MISCELLANEOUS PROVISIONS

- 11.A. A/E warrants that it has complied with all necessary requirements to do business in the State of Wisconsin, that the persons executing this Agreement on its behalf are authorized to do so.
- 11.B. Legal Relations. The A/E shall comply with and observe federal and state laws and regulations and local zoning ordinances applicable to this project and in effect on the date of this Agreement.
- 11.C. Approvals or Inspections. None of the approvals or inspections performed by COUNTY shall be construed or implied to relieve the A/E from any duty or responsibility it has for its professional performance, unless COUNTY formally assumes such responsibility in writing from COUNTY so stating that the responsibility has been assumed.
- 11.D. Successors, Subrogees and Assigns. COUNTY and A/E each bind themselves, their partners, successors, subrogees, assigns, and legal representatives to the other party to this Agreement and to the partners, successors, subrogees, assigns and legal representatives of such other party with respect to covenants of this Agreement.
- 11.E. Claims. The A/E's project manager will meet with COUNTY's Project Manager to attempt to resolve claims, disputes and other matters in question arising out of, or relating to, this Agreement or the breach thereof. Issues not settled are to be presented in writing to the COUNTY Director of Public Works for review and resolution. The decision of the Director of Public Works shall be final. Work shall progress during the period of any dispute or claim. Unless specifically agreed between the parties, venue will be in Dane County, Wisconsin.
- 11.F. Amendment of Agreement. This Agreement may be amended in writing by both COUNTY and A/E.
- 11.G. It is expressly understood and agreed to by the parties hereto that in the event of any disagreement or controversy between the parties, Wisconsin law shall be controlling. Venue for any legal proceedings shall be in the Dane County Circuit Court.
- 11.H. This Agreement is intended to be an agreement solely between the parties hereto and for their benefit only. No part of this Agreement shall be construed to add to, supplement, amend, abridge or repeal existing duties, rights, benefits or privileges of any third party or parties, including but not limited to employees of either of the parties.
- 11.I. The entire agreement of the parties is contained herein and this Agreement supersedes any and all oral agreements and negotiations between the parties relating to the subject matter hereof. The parties expressly agree that this Agreement shall not be amended in any fashion except in writing, executed by both parties.

12. ARTICLE 12: NONDISCRIMINATION IN EMPLOYMENT

12.A. During the term of this Agreement, A/E agrees not to discriminate on the basis of age, race, ethnicity, religion, color, gender, disability, marital status, sexual orientation, national origin, cultural differences, ancestry, physical appearance, arrest record or conviction record, military participation or membership in the national guard, state defense force or any other reserve component of the military forces of the United States, or political beliefs against any person, whether a recipient of services (actual or potential) or an employee or applicant for employment. Such equal opportunity shall include but not be limited to the following: employment, upgrading, demotion, transfer, recruitment, advertising, layoff, termination, training, rates of pay, and any other form of compensation or level of service(s). A/E agrees to post in conspicuous places, available to all employees, service recipients and applicants for employment and services, notices setting forth the provisions of this paragraph.

listing of prohibited bases for discrimination shall not be construed to amend in any fashion state or federal law setting forth additional bases and exceptions shall be permitted only to the extent allowable in state or federal law.

12.B. Civil Rights Compliance:

12.B.1) If A/E has twenty (20) or more employees and receives \$20,000 in annual contracts with COUNTY, the A/E shall submit to COUNTY a current Civil Rights Compliance Plan (CRC) for Meeting Equal Opportunity Requirements under Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title VI and XVI of the Public Service Health Act, the Age Discrimination Act of 1975, the Omnibus Budget Reconciliation Act of 1981 and Americans with Disabilities Act (ADA) of 1990. A/E shall also file an Affirmative Action (AA) Plan with COUNTY in accordance with the requirements of Chapter 19 of the Dane County Code of Ordinances. A/E shall submit a copy of its discrimination complaint form with its CRC/AA Plan. The CRC/AA Plan must be submitted prior to the effective date of this Agreement and failure to do so by said date shall constitute grounds for immediate termination of this Agreement by COUNTY. If an approved plan has been received during the previous calendar year, a plan update is acceptable. The plan may cover a two-year period. If A/E has less than twenty (20) employees, but receives more than \$20,000 from the COUNTY in annual contracts, it may be required to submit a CRC Action Plan to correct any problems discovered as the result of a complaint investigation or other Civil Rights Compliance monitoring efforts set forth herein below. If A/E submits a CRC/AA Plan to a Department of Workforce Development Division or to a Department of Health and Family Services Division that covers the services purchased by COUNTY, a verification of acceptance by the State of A/E's Plan is sufficient.

12.B.2) A/E agrees to comply with the COUNTY's civil rights compliance policies and procedures. A/E agrees to comply with civil rights monitoring reviews performed by the COUNTY, including the examination of records and relevant files maintained by the A/E. A/E agrees to furnish all information and reports required by the COUNTY as they relate to affirmative action and non-discrimination. A/E further agrees to cooperate with COUNTY in developing, implementing, and monitoring corrective action plans that result from any reviews.

- 12.B.3) A/E shall post the Equal Opportunity Policy, the name of A/E's designated Equal Opportunity Coordinator and the discrimination complaint process in conspicuous places available to applicants and clients of services, applicants for employment and employees. The complaint process will be according to COUNTY's policies and procedures and made available in languages and formats understandable to applicants, clients and employees. A/E shall supply to COUNTY's Contract Compliance Specialist upon request a summary document of all client complaints related to perceived discrimination in service delivery. These documents shall include names of the involved persons, nature of the complaints, and a description of any attempts made to achieve complaint resolution.
- 12.B.4) A/E shall provide copies of all announcements of new employment opportunities to COUNTY's Contract Compliance Specialist when such announcements are issued.

ATTACHMENT A

PROFESSIONAL SERVICES AGREEMENT

CONSTRUCTION PHASE SITE VISITS AGREEMENT

Project No.: <u>322010</u>

Agreement No.:

Project Name: Pavilions No 1 & No 2 Upgrades

Either the A/E or its Consultants shall provide construction phase services, for the Project referenced above, as follows and in compliance with Article 2.G.:

- 1. The A/E shall visit the site as dictated below; attend the pre-construction meeting, biweekly progress meetings and final inspection to determine if completed work is according to plans and specifications. Conduct site visits at essential times during the construction phase. A site visit is a close-up observation of the current building elements in process of being constructed. Additional site visits necessitated by A/E error, omission, unauthorized changes or negligence, shall be accomplished without additional cost to COUNTY. Additional site visits necessitated by significant failure on the part of the lead or other prime construction contractors to perform, will be given consideration as additional services, reimbursable by the responsible construction contractor(s) through COUNTY. The "in-house" staff or outside Consultants performing specialty work shall visit the site as indicated below.
- 2. The Architectural Consultant shall visit the site a minimum of 15 times during the construction phase.
- 3. The Fire Protection/Plumbing Consultant shall visit the site a minimum of 5 times during the construction phase.

4. The HVAC Consultant shall visit the site a minimum of 5 times during the construction phase.

5. The Electrical Consultant shall visit the site a minimum of 5 times during the construction phase.

ATTACHMENT B

PROFESSIONAL SERVICES AGREEMENT

A/E / CONSULTANT AGREEMENT

Agreement No.:	
Agreement No.:	

THIS AGREEMENT is between [A/E Name], hereinafter called "A/E", executing this Agreement, and [Consultant Name] hereinafter called the "Consultant".

WITNESSETH

WHEREAS, the A/E has entered into an Agreement with COUNTY to furnish professional services with a project, hereinafter named "Project", which is described as follows:

Pavilions No 1 & No 2 Upgrades

WHEREAS, the A/E deems it advisable to engage the services of a Consultant to furnish professional services in connection with this project, and

WHEREAS, the A/E and Consultant agree that the terms of the Agreement between COUNTY and the A/E also apply to this Agreement as though fully set forth and binding upon the Consultant, and

WHEREAS, the Consultant agrees that in the event of conflict between the A/E's Agreement with COUNTY and the A/E's Agreement with the Consultant, the A/E's Agreement with COUNTY shall take precedence, and

WHEREAS, the Consultant has signified willingness to furnish services for the A/E;

NOW, THEREFORE, in consideration of the premises and to their mutual and dependent agreements, the parties hereto agree as set forth in the Agreement between COUNTY and the A/E which are annexed hereto and made a part hereof.

IN WITNESS WHEREOF, the A/E and the Consultant have executed this Agreement.

Consultant Firm Name	<u>A/E Firm Name</u>
Signature Date	Signature Date
Printed Name	Printed Name
Title	Title
Providing the following services: <u>Rrofessional architectural & engineering design</u>	n services related to pavilion upgrades.

SECTION 00 73 11

FAIR LABOR PRACTICES CERTIFICATION

The undersigned, for and on behalf of the BIDDER, APPLICANT or PROPOSER named herein, certifies as follows:

- A. That he or she is an officer or duly authorized agent of the above-referenced BIDDER, APPLICANT or PROPOSER, which has a submitted a bid, application or proposal for a contract or agreement with the county of Dane.
- B. That BIDDER, APPLICANT or PROPOSER has (check one):

_____ not been found by the National Labor Relations Board ("NLRB") or the Wisconsin Employment Relations Commission ("WERC") to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

______been found by the National Labor Relations Board ("NLRB") or the Wisconsin Employment Relations Commission ("WERC") to have violated any statute or regulation regarding labor standards or relations in the seven years prior to the signature date of this Certification.

Officer or Authorized Agent Signature	Date	

Printed or Typed Name and Title

Printed or Typed Business Name

NOTE: You can find information regarding the violations described above at: <u>www.nlrb.gov</u> and <u>werc.wi.gov</u>.

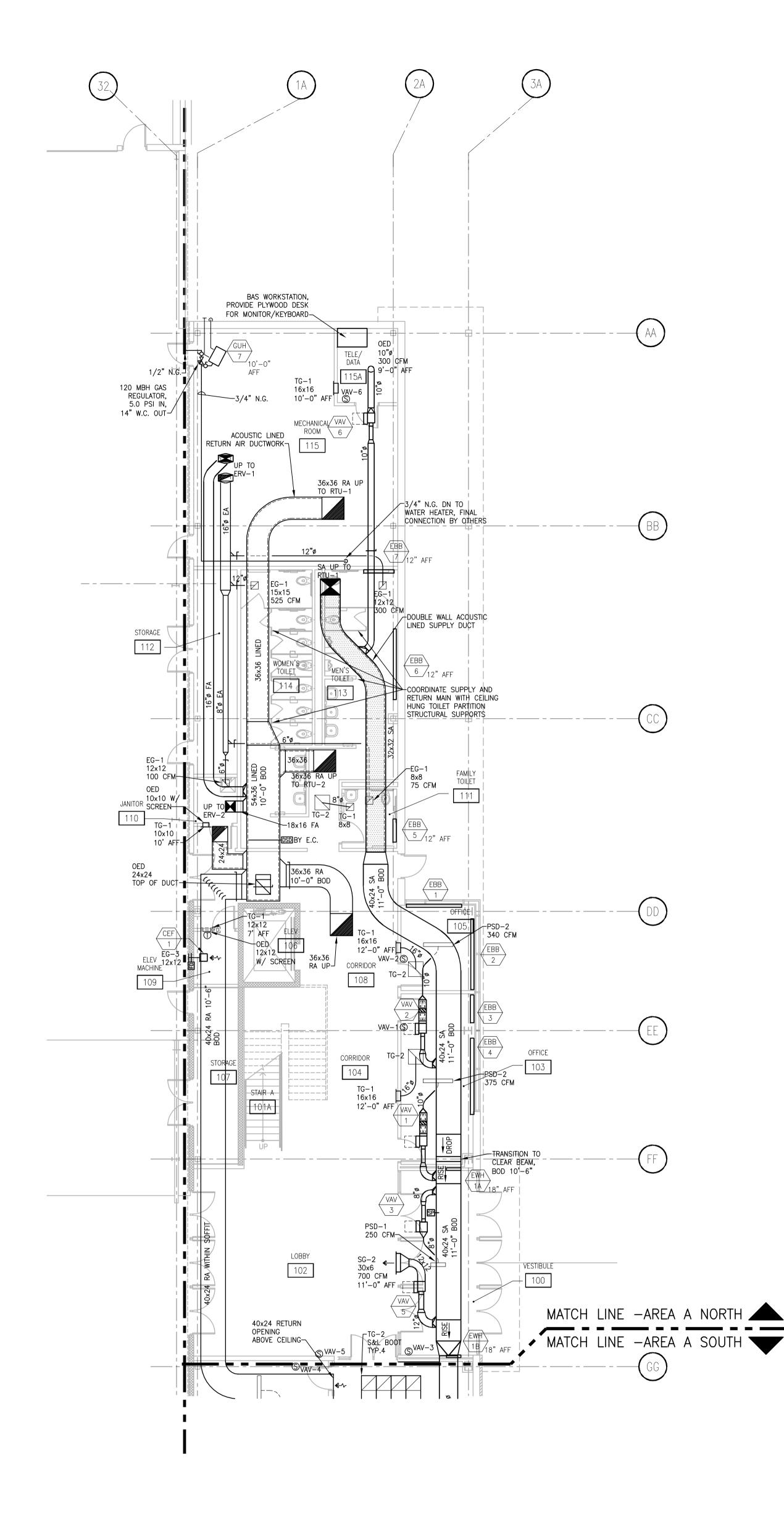
For reference, Dane County Ordinance 25.09 is as follows:

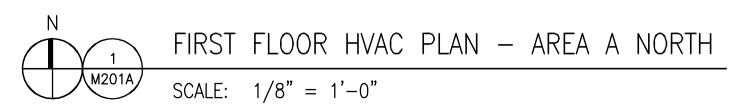
(1) BIDDER RESPONSIBILITY. (a) Any bid, application or proposal for any contract with the county, including public works contracts regulated under chapter 40, shall include a certification indicating whether the bidder has been found by the National Labor Relations Board (NLRB) or the Wisconsin Employment Relations Committee (WERC) to have violated any statute or regulation regarding labor standards or relations within the last seven years. The Controller shall investigate any such finding and make a recommendation to the committee, which shall determine whether the conduct resulting in the finding affects the bidder's responsibility to perform the contract.

If you indicated that the NLRB or WERC have found you to have such a violation, you must include copies of any relevant information regarding such violation with your proposal, bid or application.

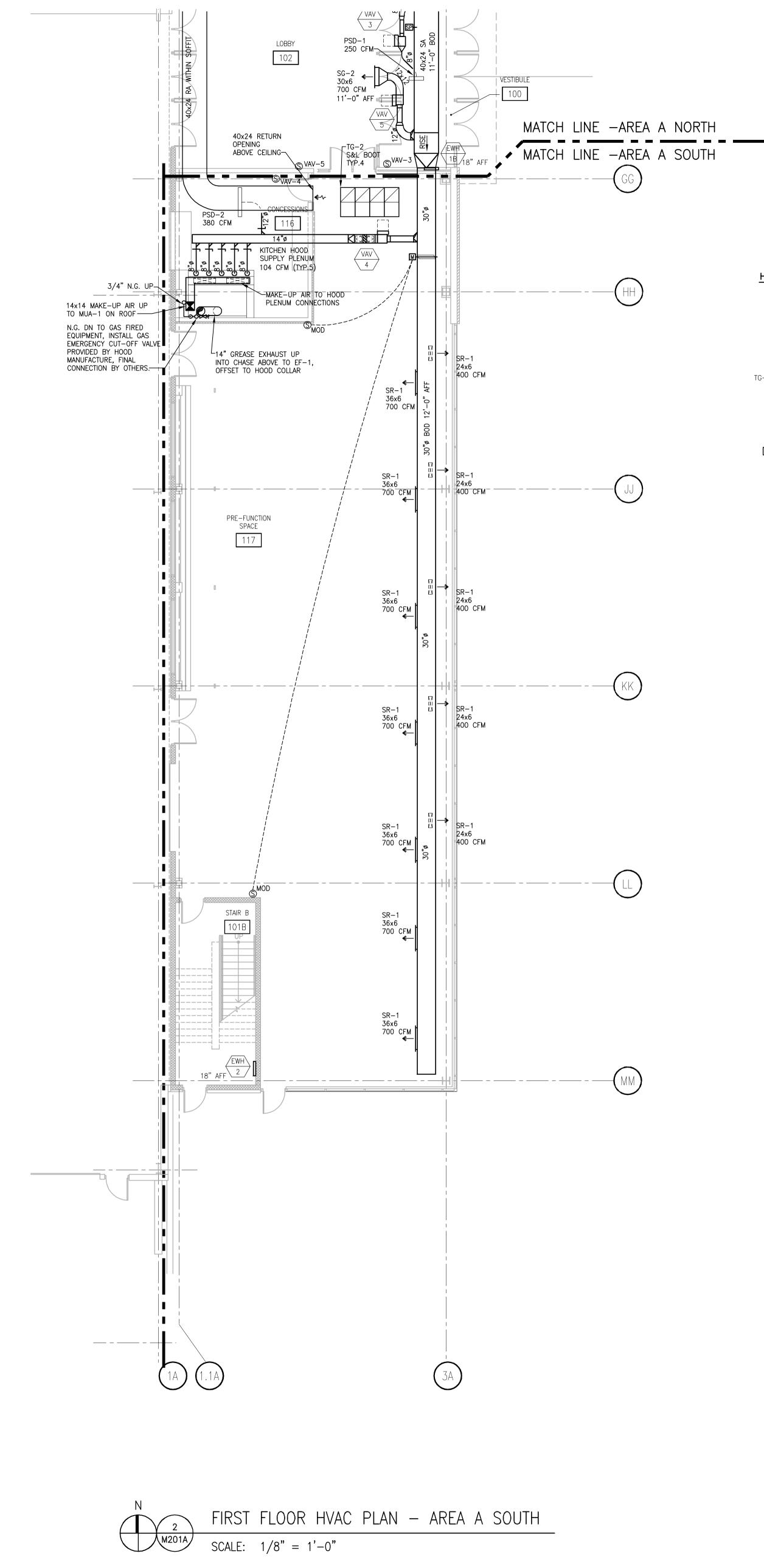
Include this completed Certification with your bid, application or proposal.

END OF SECTION





Xref List: 2013027_ 2013027_02~*~01. 2013027_02~*~01 2013027_02~*~01 2013027_026RID 2013027_02~X~M0



HVAC LEGEND HVAC SYMBOL LEGEND _____ Aco _____ [×] RA RA TG−"×" RA \bigcirc S $\check{\boxtimes}$ DSD------M_____ FD-----SP-----TAG

uble Wall	Ductwork
	ed Ductwork
or OA Du or OA Du	•
or EA Du	
or EA Du	ict Riser
	Sound/Light Boot
	hermostat
DDC TEM	PERATURE SENSOR
CD Ce	iling Diffuser
PSD Ple	enum Slot Diffuser
DSD Du	ict Smoke Detector
MOD Mo	otor Operated Damper
BD Bo	llancing Damper
FD Fir	re Damper
SP St	atic Pressure Sensor
EQUIPMEN	T TAG

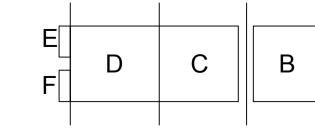
PIPIN	G SYMBOL LE	GEND	
&		Reducing	Valve
<u>-</u> ዮ 	— Piping — ⁻ — Piping — f		
<u>AIR D</u>	EVICE TAGS		
TAG-# SIZE Air Device Plan Tag DESIGN CFM			
SG RG EG TG	Supply Grille Return Grille Exhaust Grille Transfer Grille	SD PSD CD SR	Supply Diffuser Plenum Slot Diffuser Ceiling Diffuser Supply Register

ABBREVIATIONS

	Access Door
F D	Above Finished Floor
D	Backdraft Damper Bottom of Duct
iP	Bottom of Pipe
H	Cabinet Unit Heater
D	Duct Smoke Detector
B	Electric Baseboard
D.	Electrical Contractor
	Exhaust Fan
Ή	Electric Wall Heater
Н	Exhaust
	General Contractor
	Mechanical Contractor
C. C. C.	Normally Closed
)	Normally Open
	Outside Air
D	Open End Duct
5.	Plumbing Contractor
	Return Air
	Supply Air
C.C.	Temperature Control Contractor
C.C. V	Temperature Control Valve
D P	Top of Duct
	Top of Pipe
ł	Unit Heater
V	Variable Air Volume

GENERAL NOTES

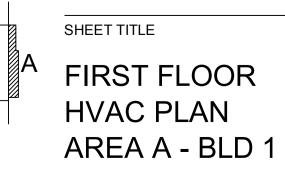
THIS BUIDLING UTILIZES A RETURN AIR PLENUM. ALL MATERIALS INSTALLED ABOVE CEILING SHALL BE RATED FOR PLENUM USE. MOUNT ROOM TEMPERATURE SENSORS @ 60" AFF UNLESS NOTED OTHERWISE.











1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

DRAWN	NJZ
CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

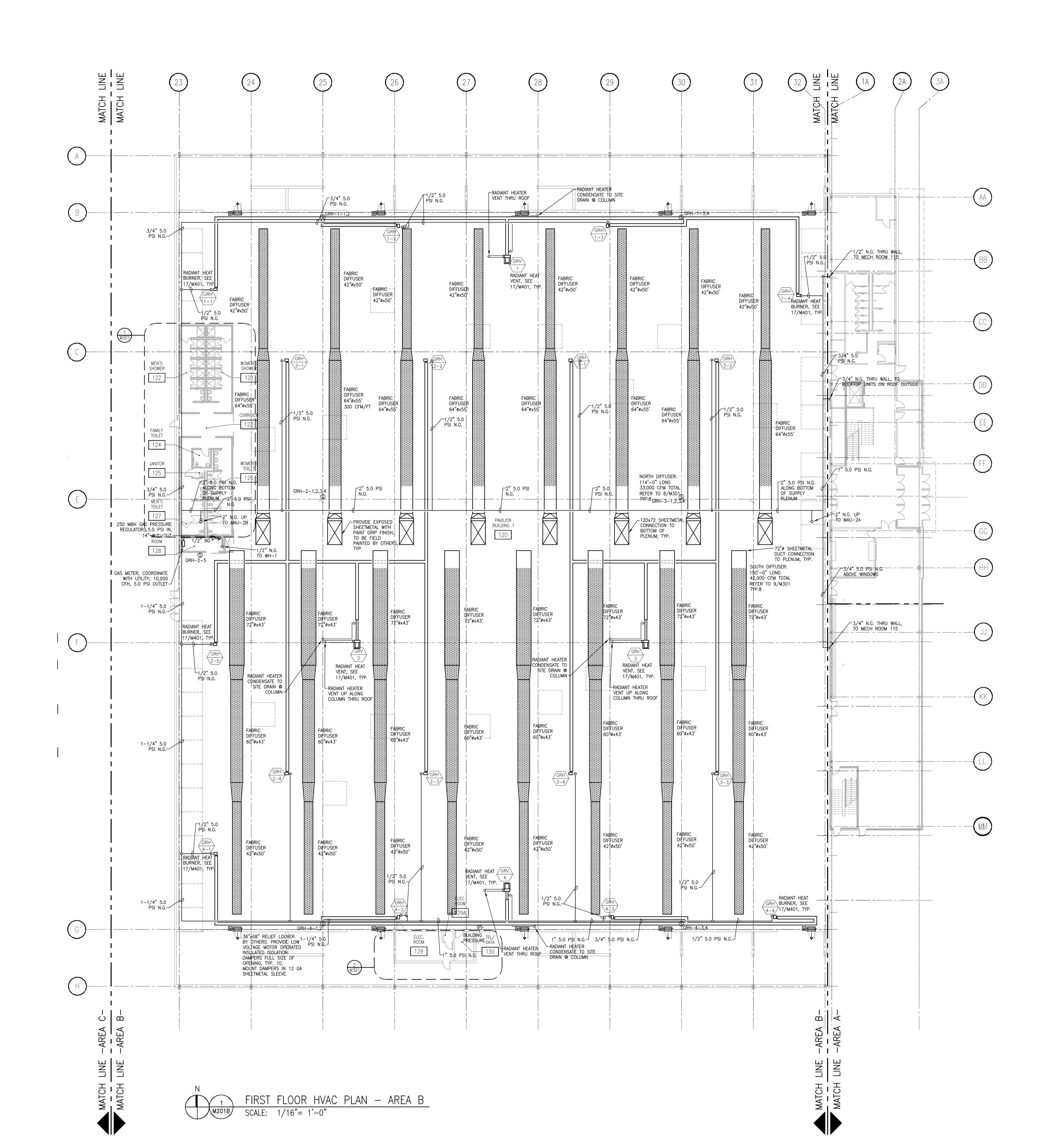
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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 60**8** 276 9200 F/ 608 276 9204

ARCHITECTURE

INTERIOR DESIGN



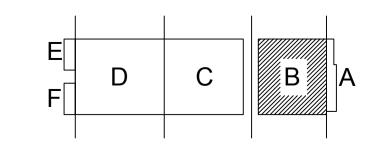


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N BALLWEG 2013-6-12 1:40 PM K:_2013/2013/27 - ALLIANT ENERGY CENTER - LESE\2013/027_02 - AEC - LE HALL/DRAWINGS/2013/027_02-M2016

GENERAL NOTES

MOUNT ZONE TEMPERATURE SENSORS @ 72" AFF UNLESS NOTED OTHERWISE.









SHEET TITLE FIRST FLOOR HVAC PLAN AREA B - BLD 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

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CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

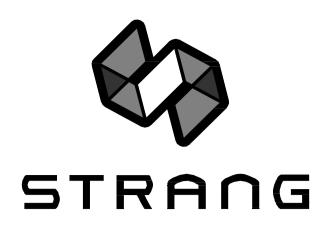
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CONST. SET 01-08-14

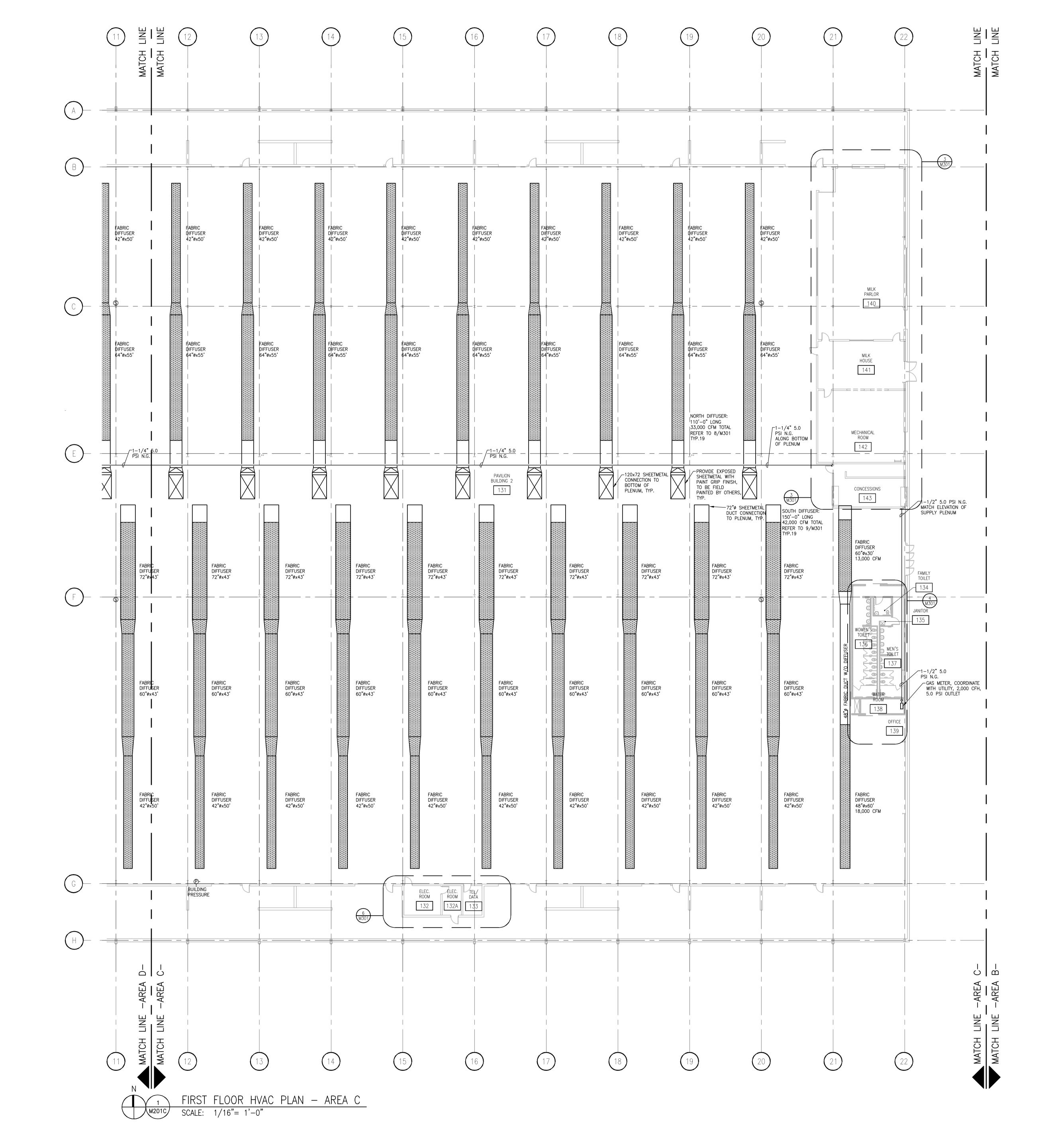
REVISIONS

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705–4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE Engineering

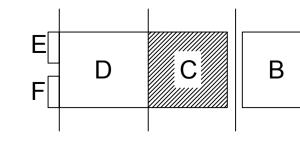


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GENERAL NOTES

MOUNT ZONE TEMPERATURE SENSORS @ 72" AFF UNLESS NOTED OTHERWISE.





KEY PLAN



SHEET TITLE FIRST FLOOR HVAC PLAN AREA C - BLD 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	NJZ
CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

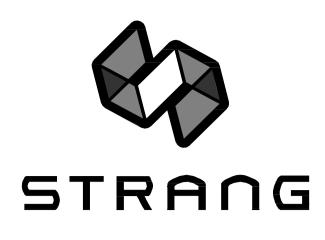
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FILE NAME	2013027_02-M201C.DWG
REVISIONS	CONST. SET 01-08-14

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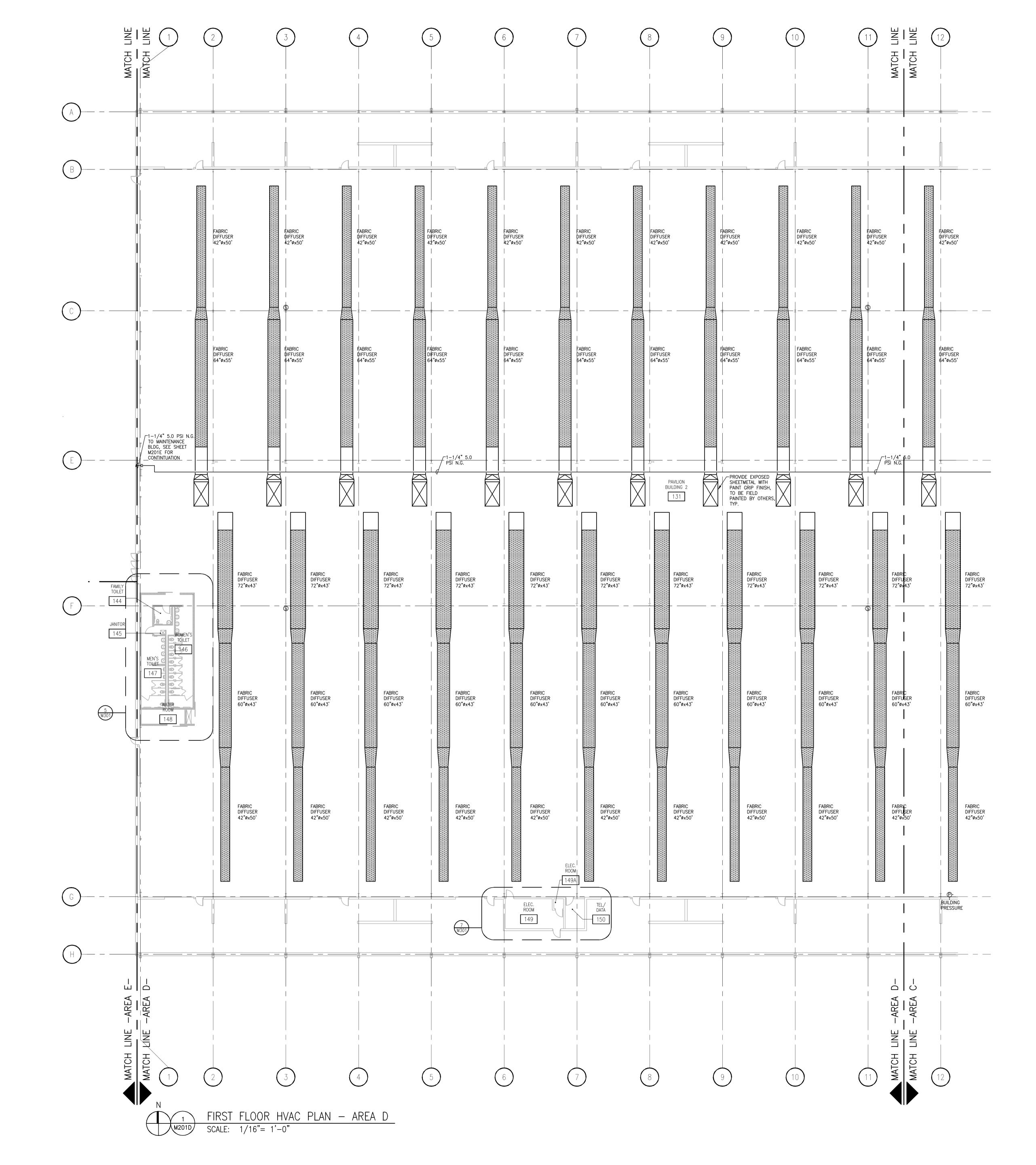
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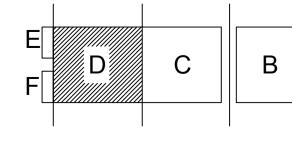
ARCHITECTURE Engineering Interior design







GENERAL NOTES MOUNT ZONE TEMPERATURE SENSORS @ 72" AFF UNLESS NOTED OTHERWISE.





KEY PLAN



SHEET TITLE FIRST FLOOR HVAC PLAN AREA D - BLD 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

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PROJECT NO.	2013027_02
PROJECT TITLE	

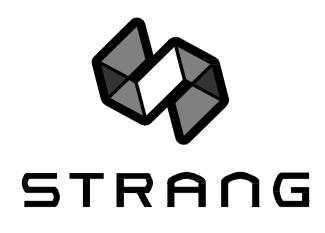
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STRANG, INC.	
FILE NAME	2013027_02-M201D.DWG
REVISIONS	CONST. SET 01-08-14

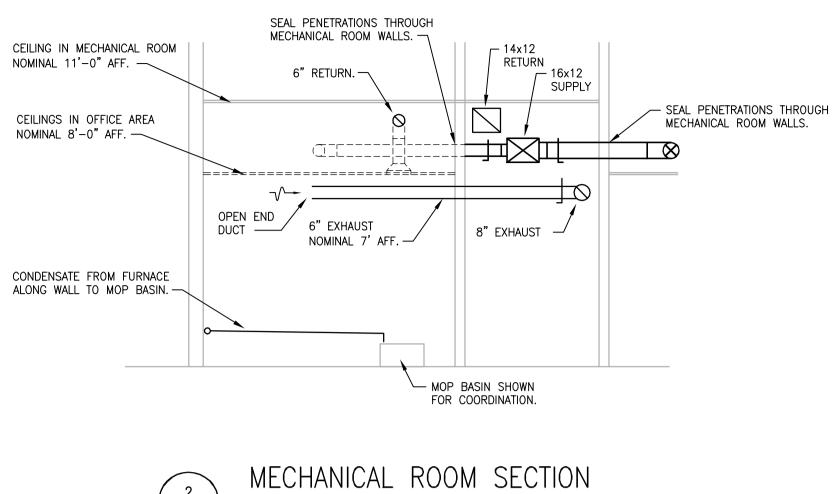
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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705–4395 T/ 608 276 9200 F/ 608 276 9204

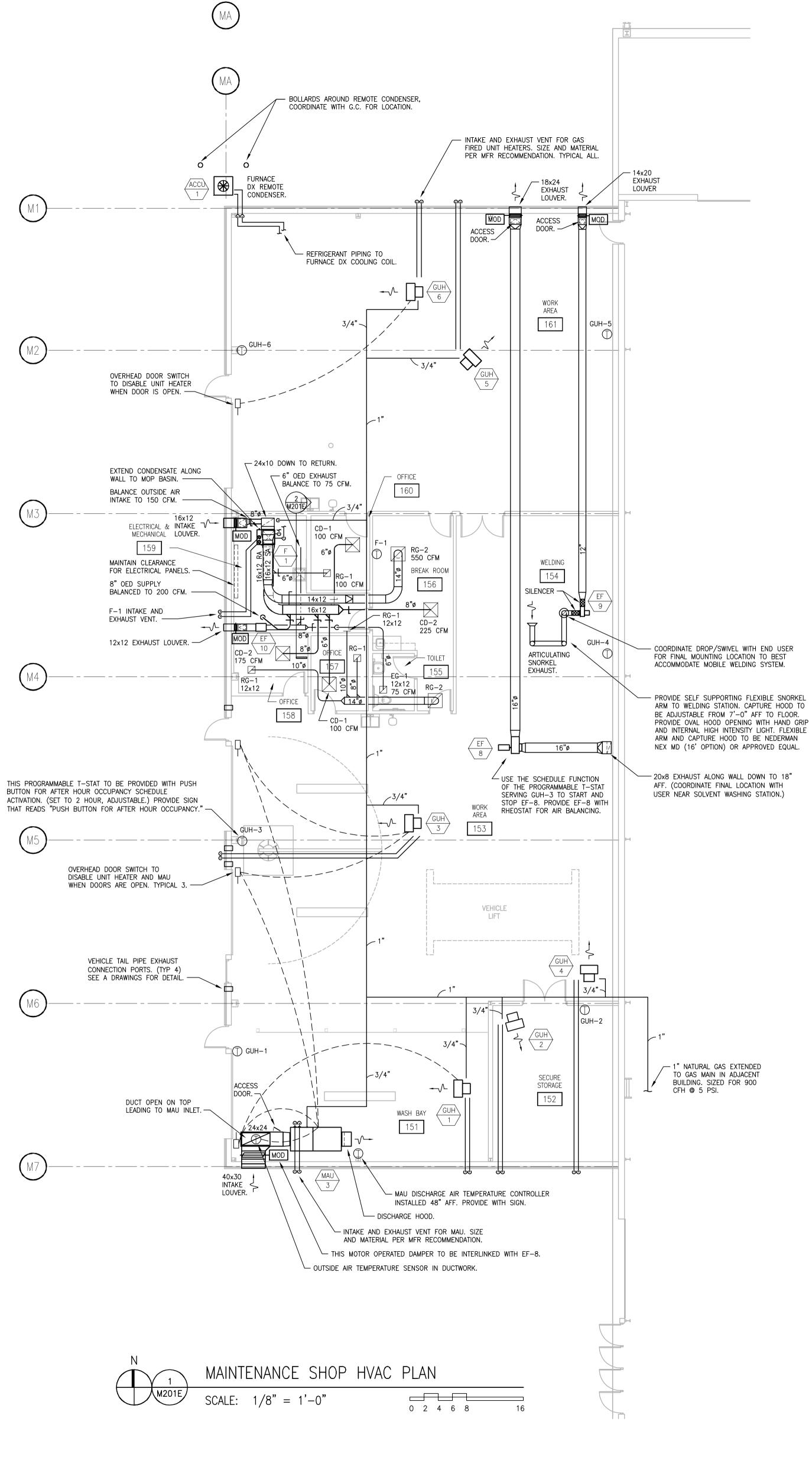
ARCHITECTURE Engineering Interior design

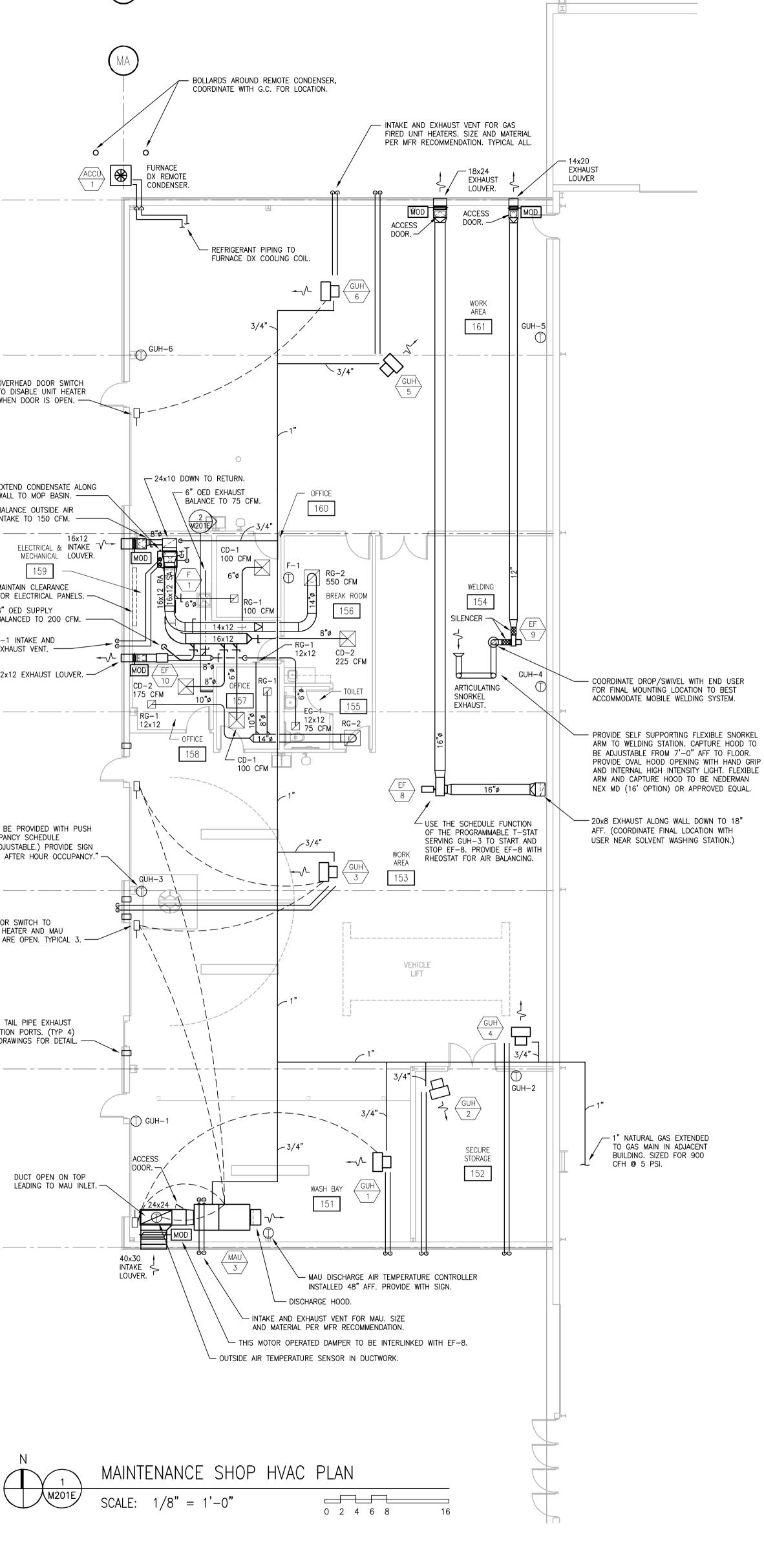


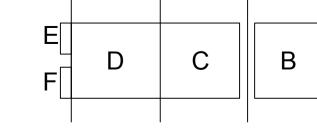


SCALE: 1/4" = 1'-0"

M201E









KEY PLAN



SHEET TITLE MAINTENANCE SHOP HVAC PLAN

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

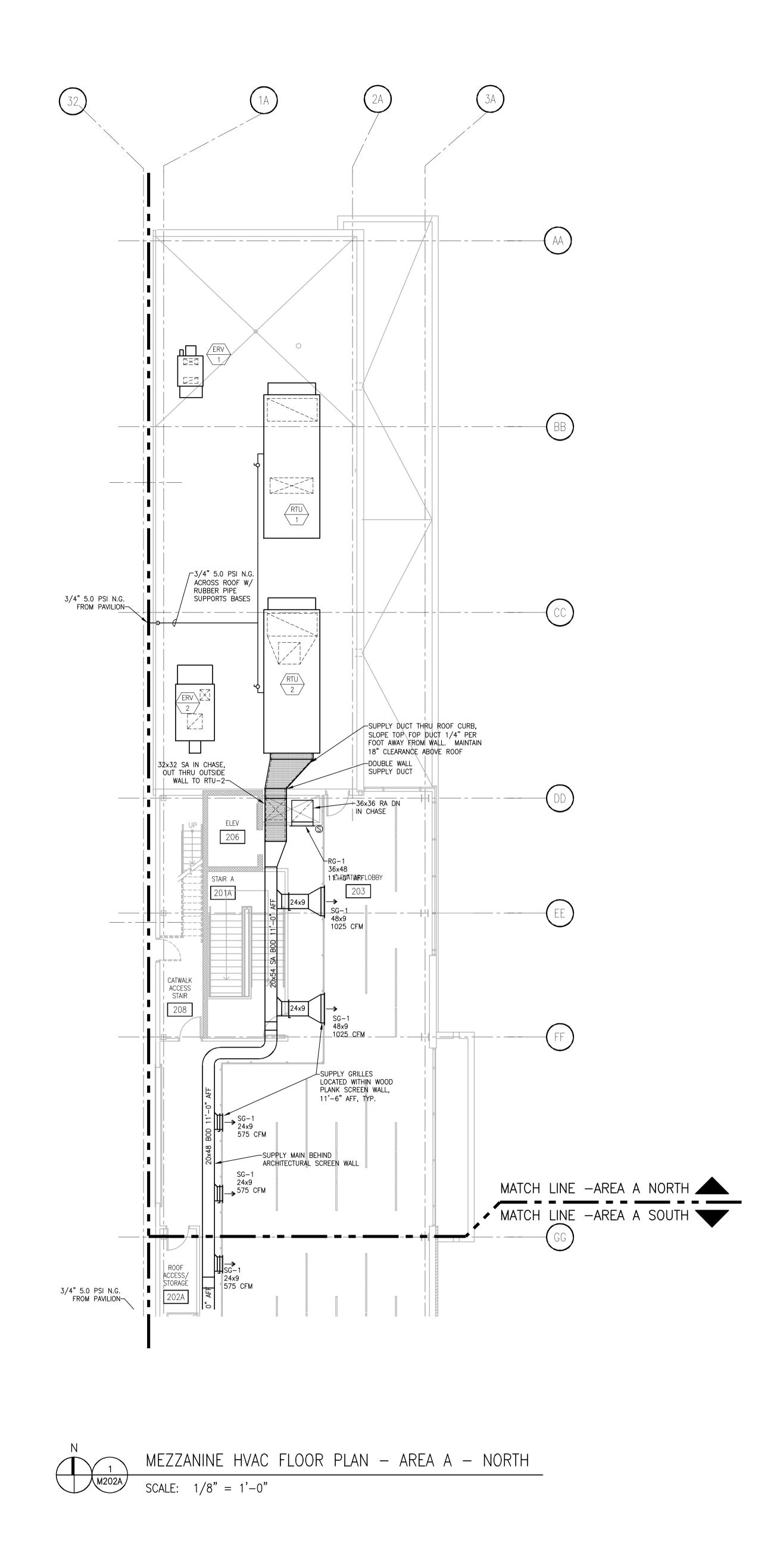
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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FILE NAME	2013027_02-M201E.DWG
REVISIONS	CONST. SET 01-08-14

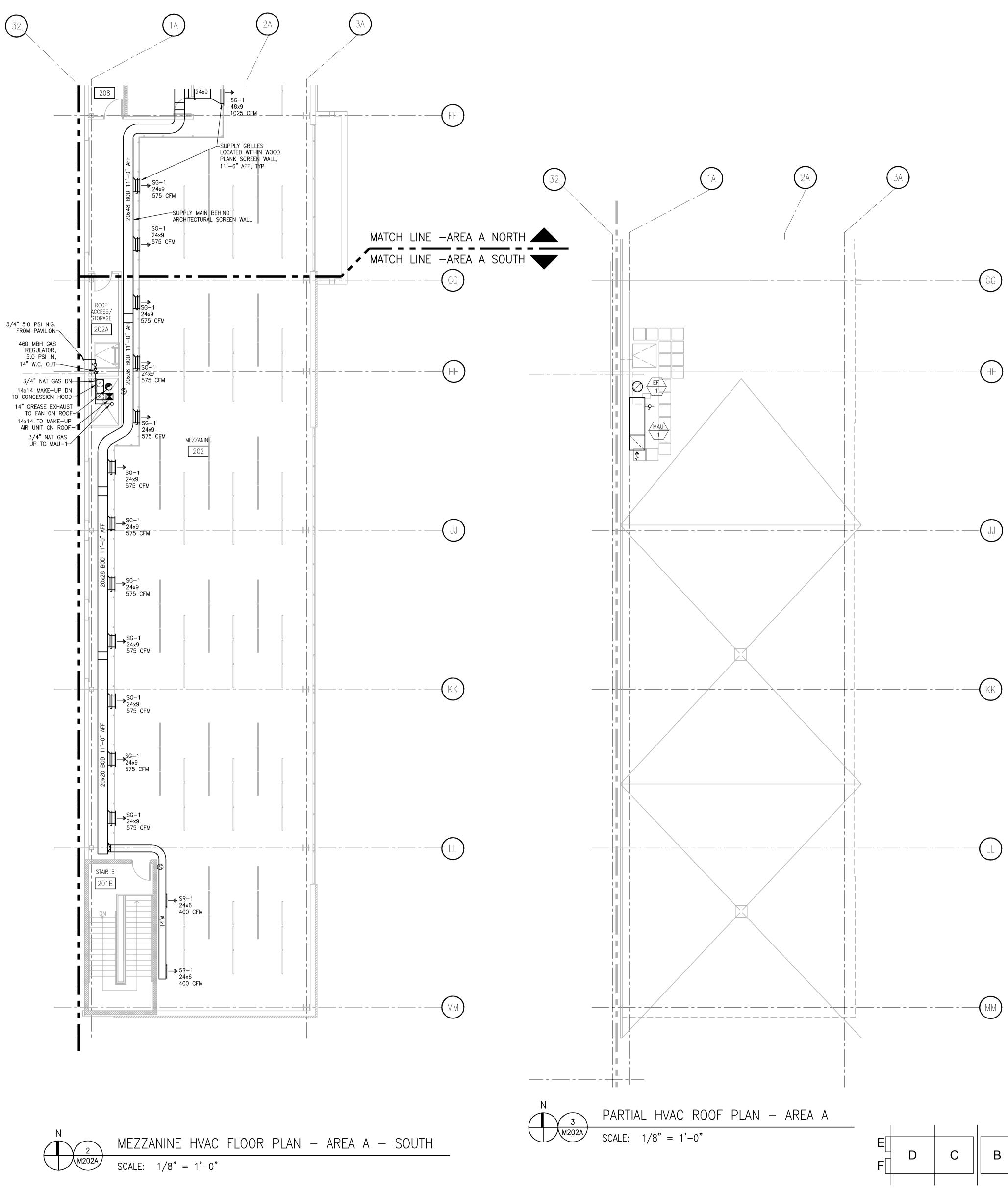
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

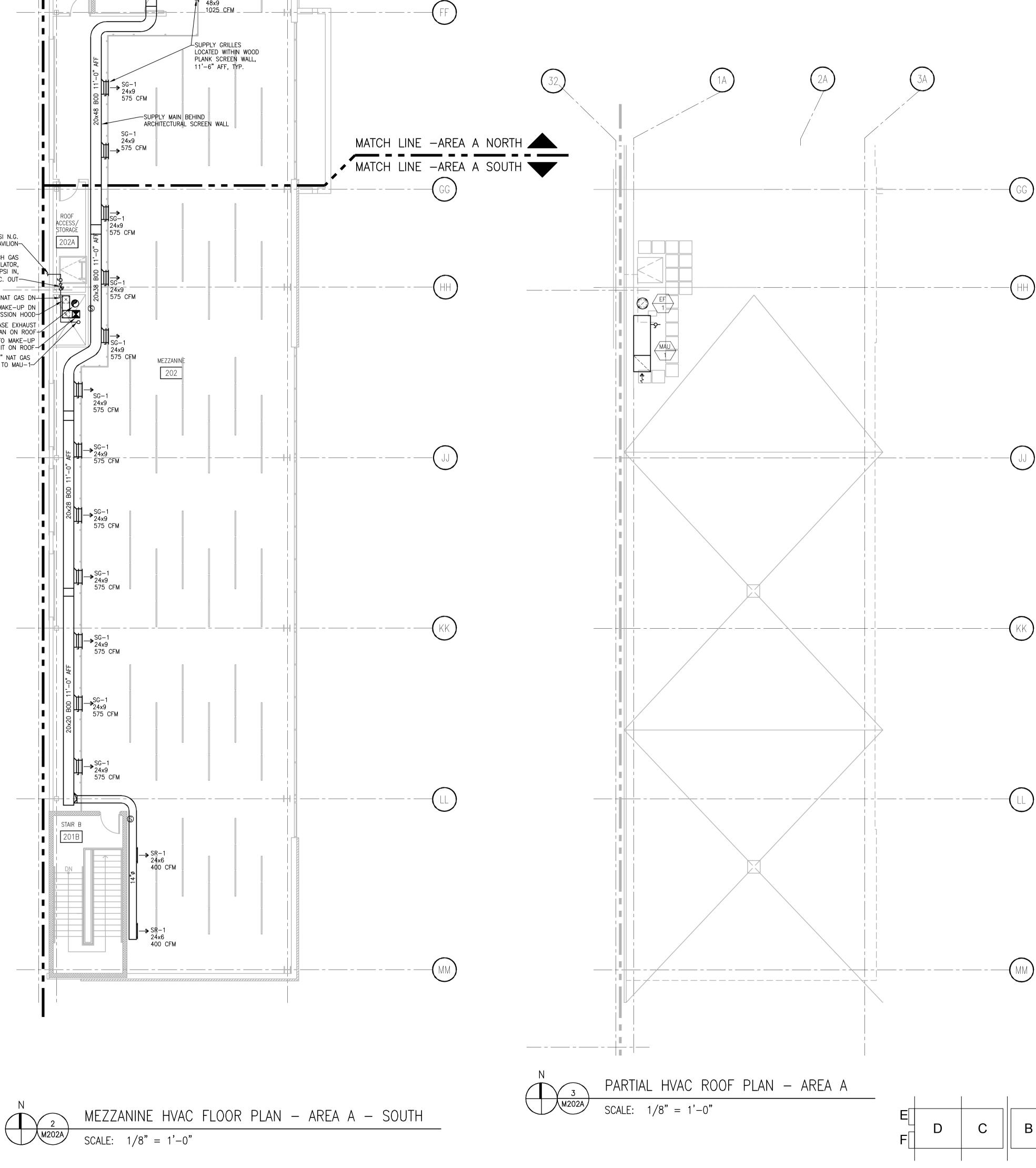
ARCHITECTURE ENGINEERING





Xref List: 2013027_02~X-TB_30 2013027_02~~~01_PF_Mezz 2013027_20~XH01_PF_Mezz 2013027_02~~M01_PF_MEZZ 2013027_02~~~01_R04_PF 2013027_02~X-M01_PF_R00F







KEY PLAN

SHEET NO. M202A

SHEET TITLE MEZZANINE HVAC PLAN AREA A - BLD 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

DRAWN	NJZ
CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

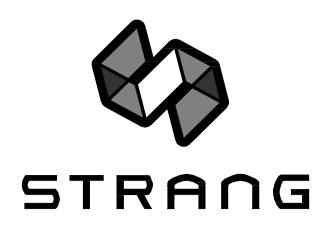
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FILE NAME	2013027_02-M202A.DWG
REVISIONS	CONST. SET 01-08-14

CD

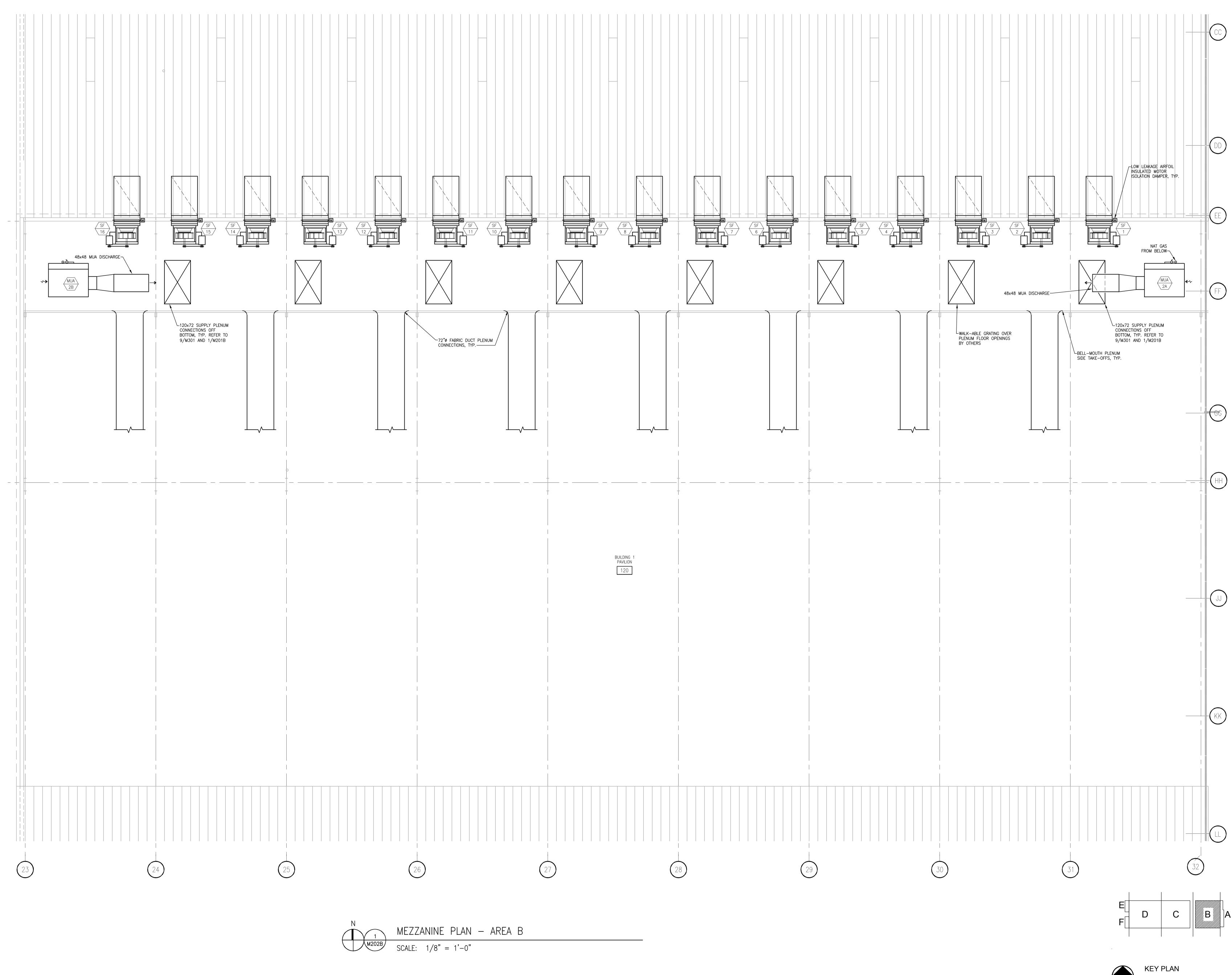
DRAWING SET

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE ENGINEERING









N

SHEET TITLE MEZZANINE HVAC PLAN AREA B - BLD 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

DRAWN	NJZ
CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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COPYRIGHT STRANG, INC.	2013
FILE NAME	2013027_02-M202B.DW
REVISIONS	CONST. SET 01-08-14

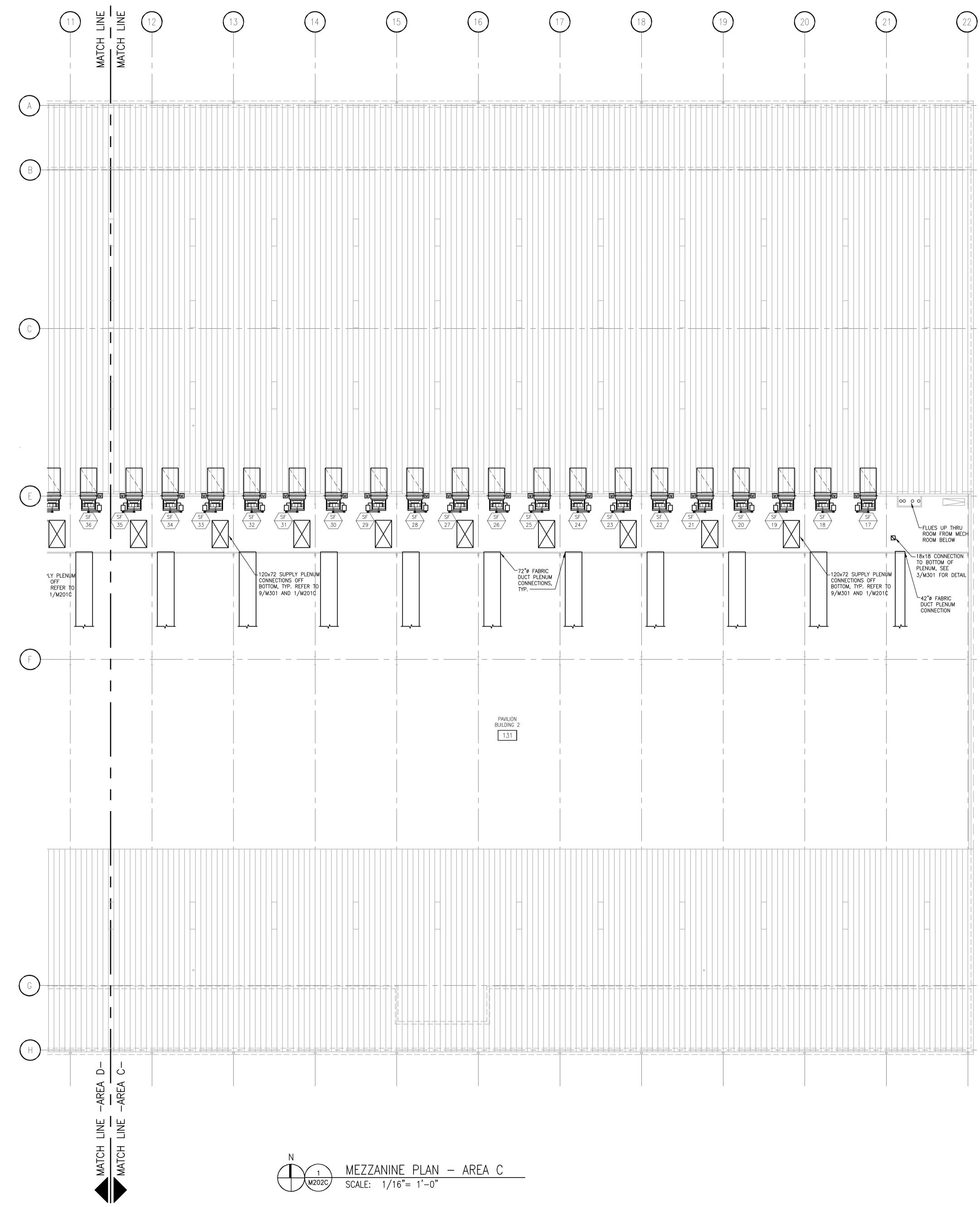
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395

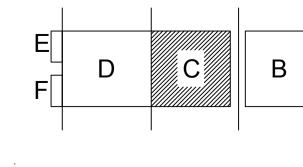
ARCHITECTURE ENGINEERING INTERIOR DESIGN

T/ 608 276 9200 F/ 608 276 9204

STRANG













SHEET TITLE MEZZANINE HVAC PLAN AREA C - BLD 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

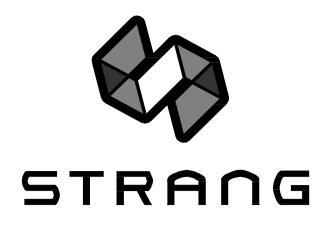
DRAWN	NJZ
CHECKED	RM
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

COPYRIGHT STRANG, INC.	2013
FILE NAME	2013027_02-M202C.DWG
REVISIONS	CONST. SET 01-08-14

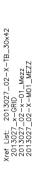
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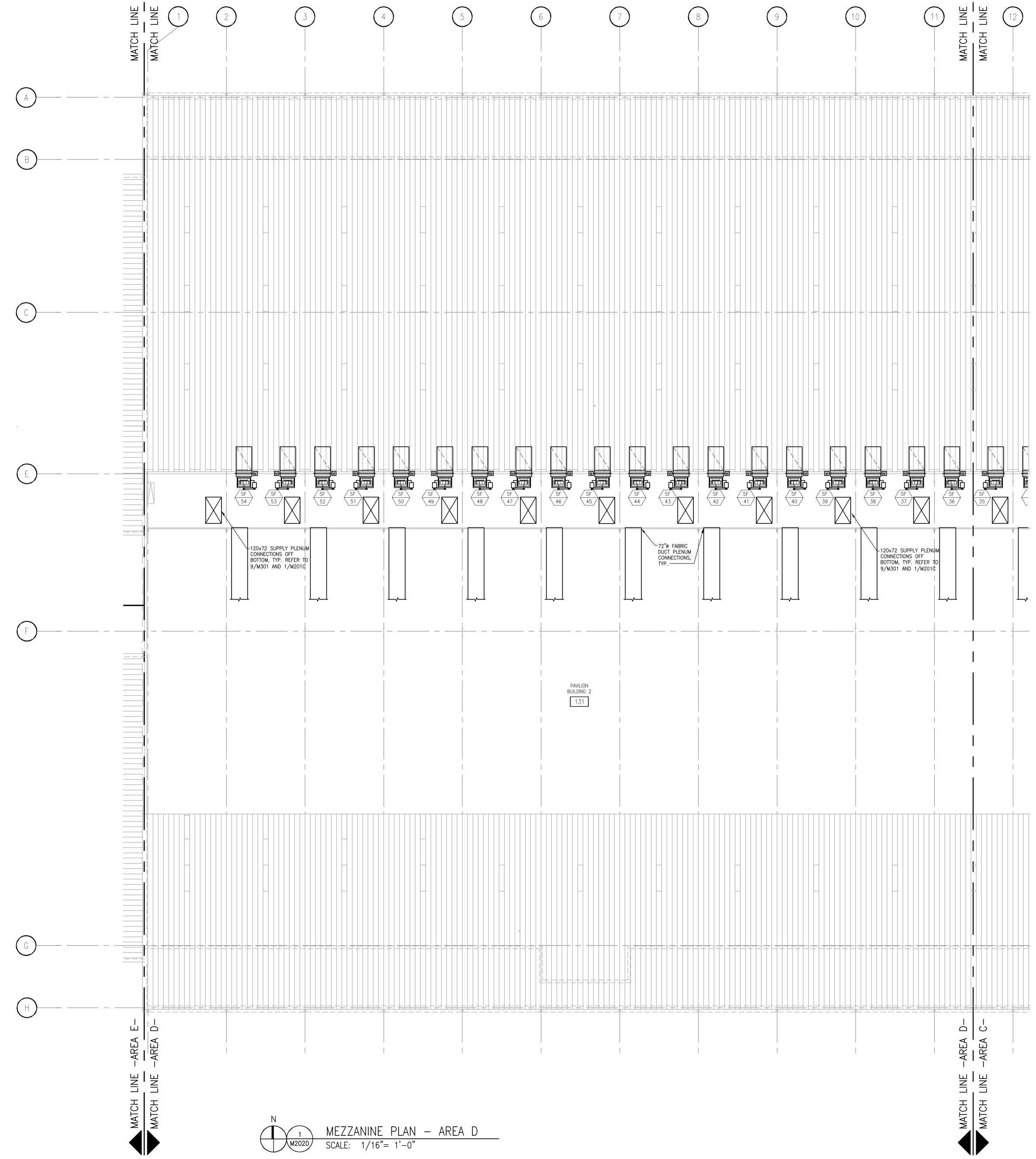
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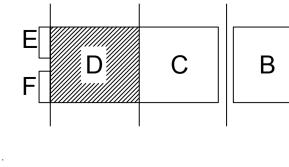
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204













KEY PLAN



SHEET TITLE MEZZANINE HVAC PLAN AREA D - BLD 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

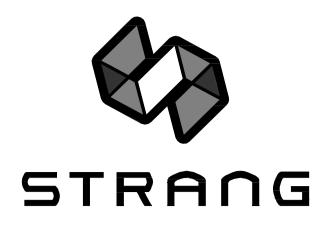
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

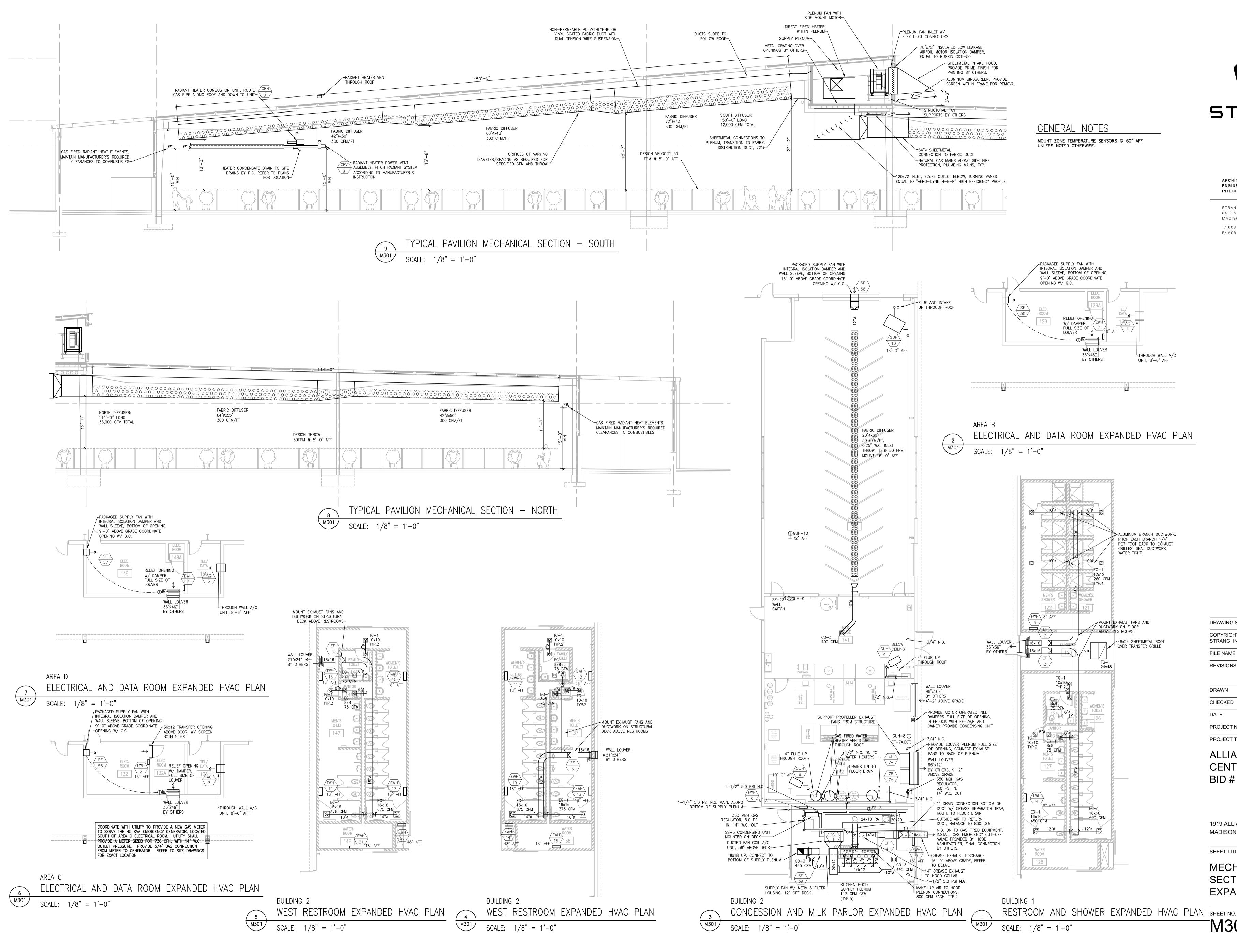
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FILE NAME	2013027_02-M202D.DWG
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⁻M301

SHEET TITLE MECHANICAL SECTIONS AND EXPANDED PLANS

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

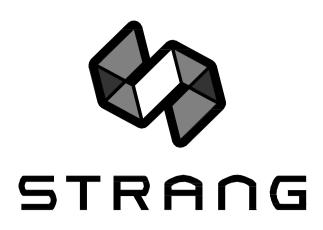
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

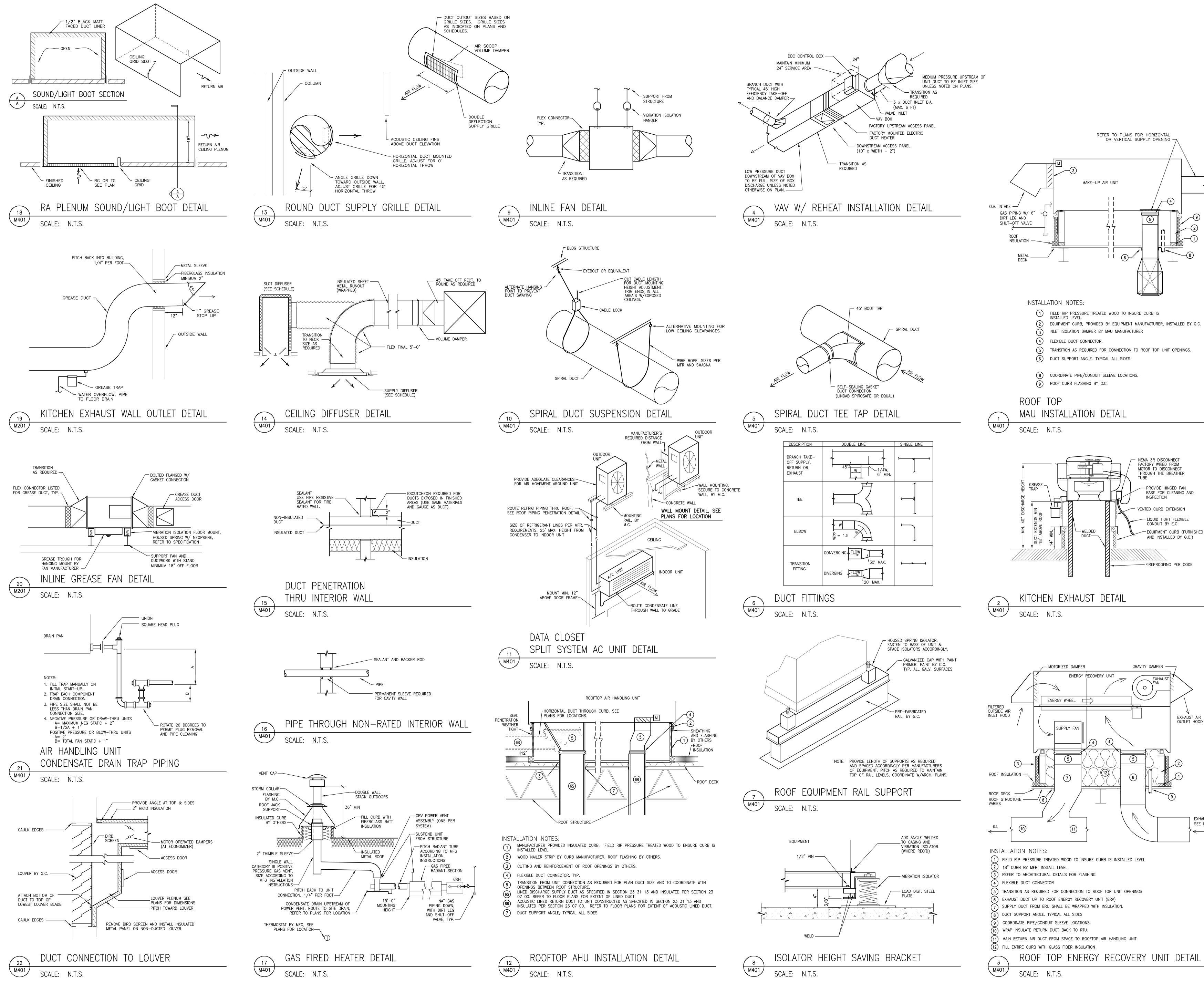
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FILE NAME	2013027_02-M301.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE

ENGINEERING INTERIOR DESIGN





SHEET NO. M401

•	REVISIONS	CONST. SET 01-08-14
AIR HOOD	DRAWN	NJZ
	CHECKED	BK
	DATE	10-29-13
	PROJECT NO.	2013027_02
	PROJECT TITLE	
exhaust See plan	,,	ENERGY PAVILIONS 3072
	1919 ALLIANT E MADISON, WIS	ENERGY CENTER WAY CONSIN 53713
	SHEET TITLE	
	MECHAN DETAILS	
	SHEET NO.	

DRAWING SET

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FILE NAME

CD

2013

2013027_02-M401.DWG

ARCHITECTURE ENGINEERING INTERIOR DESIGN

6411 MINERAL POINT ROAD

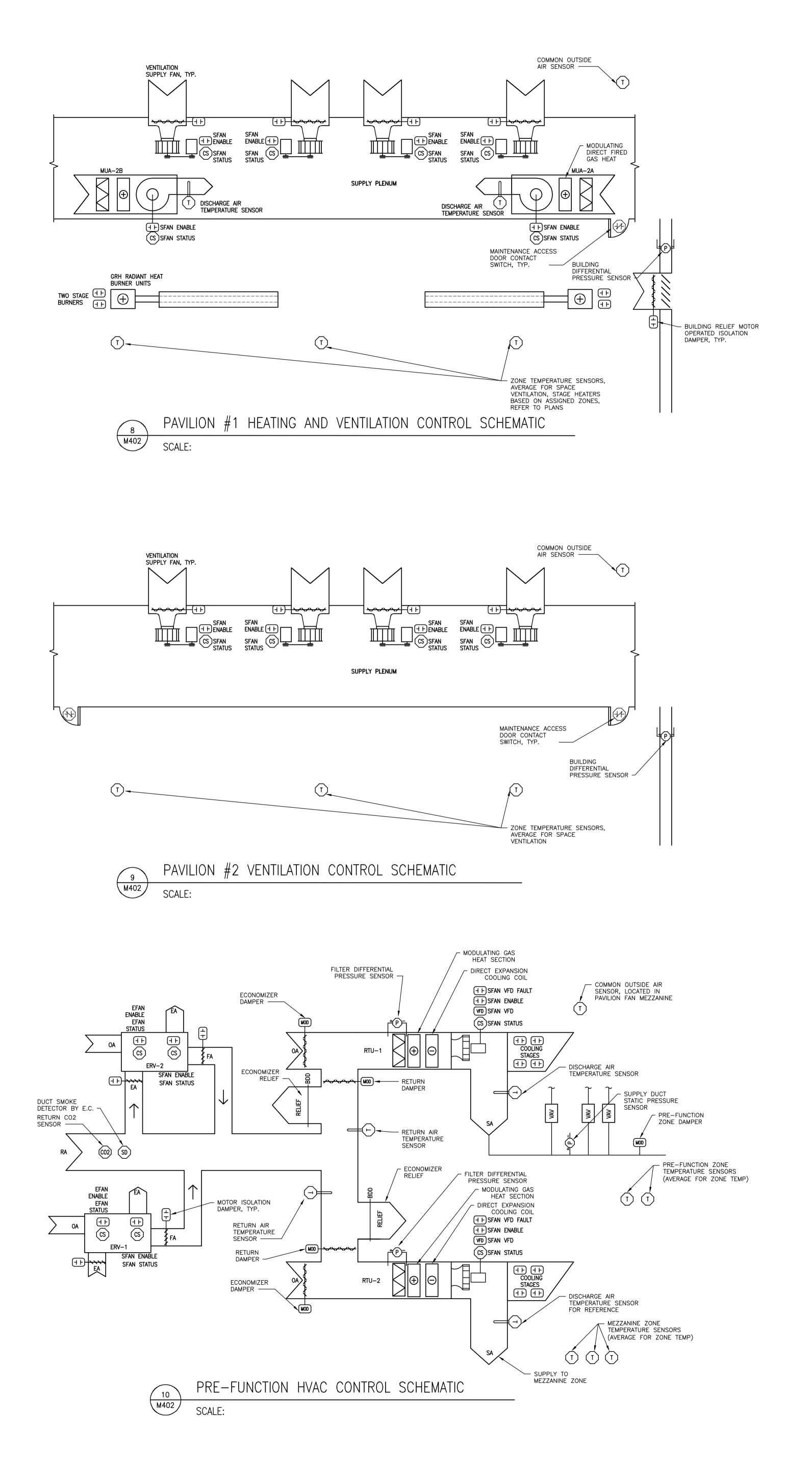
MADISON, WI 53705-4395

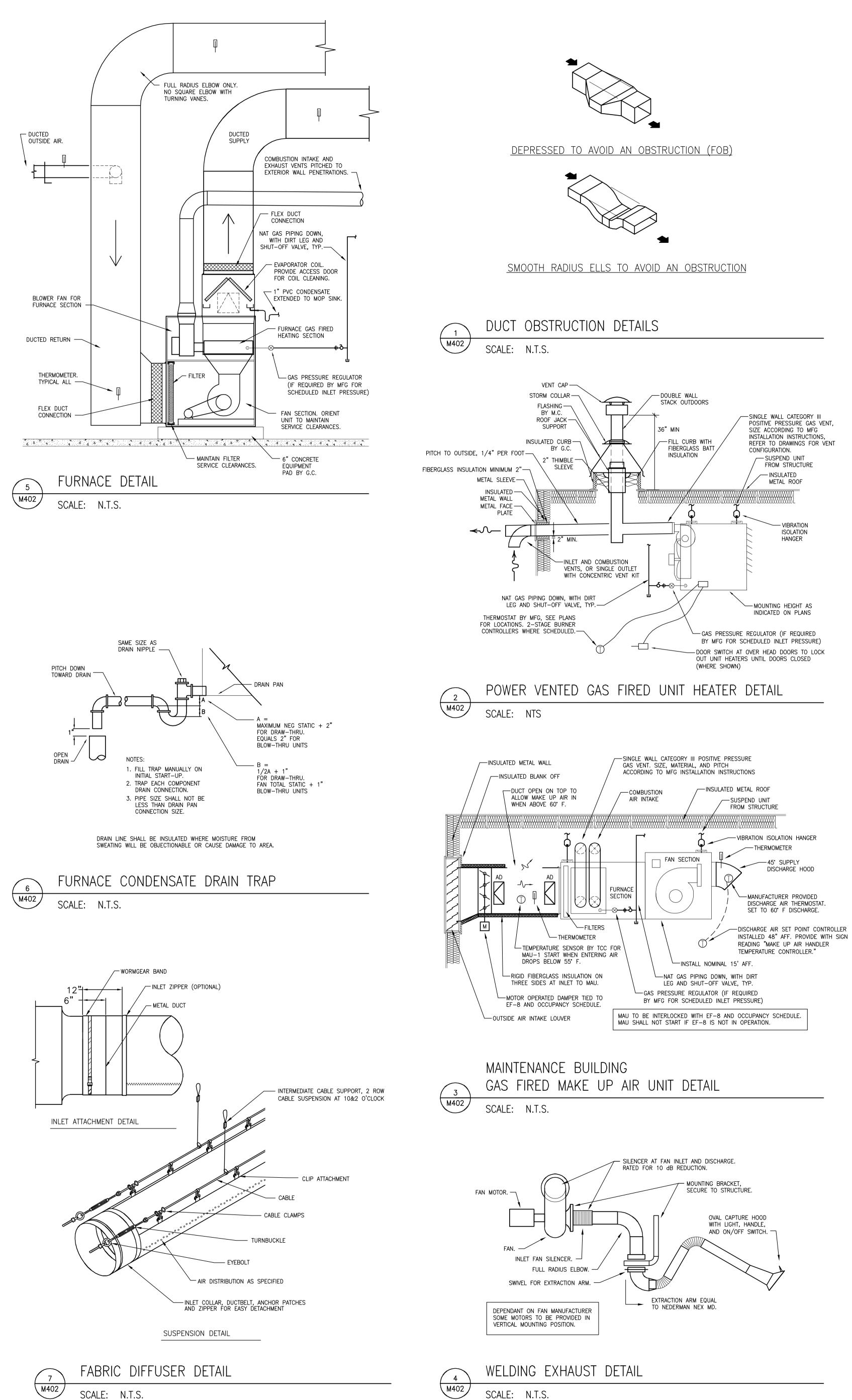
STRANG INC.

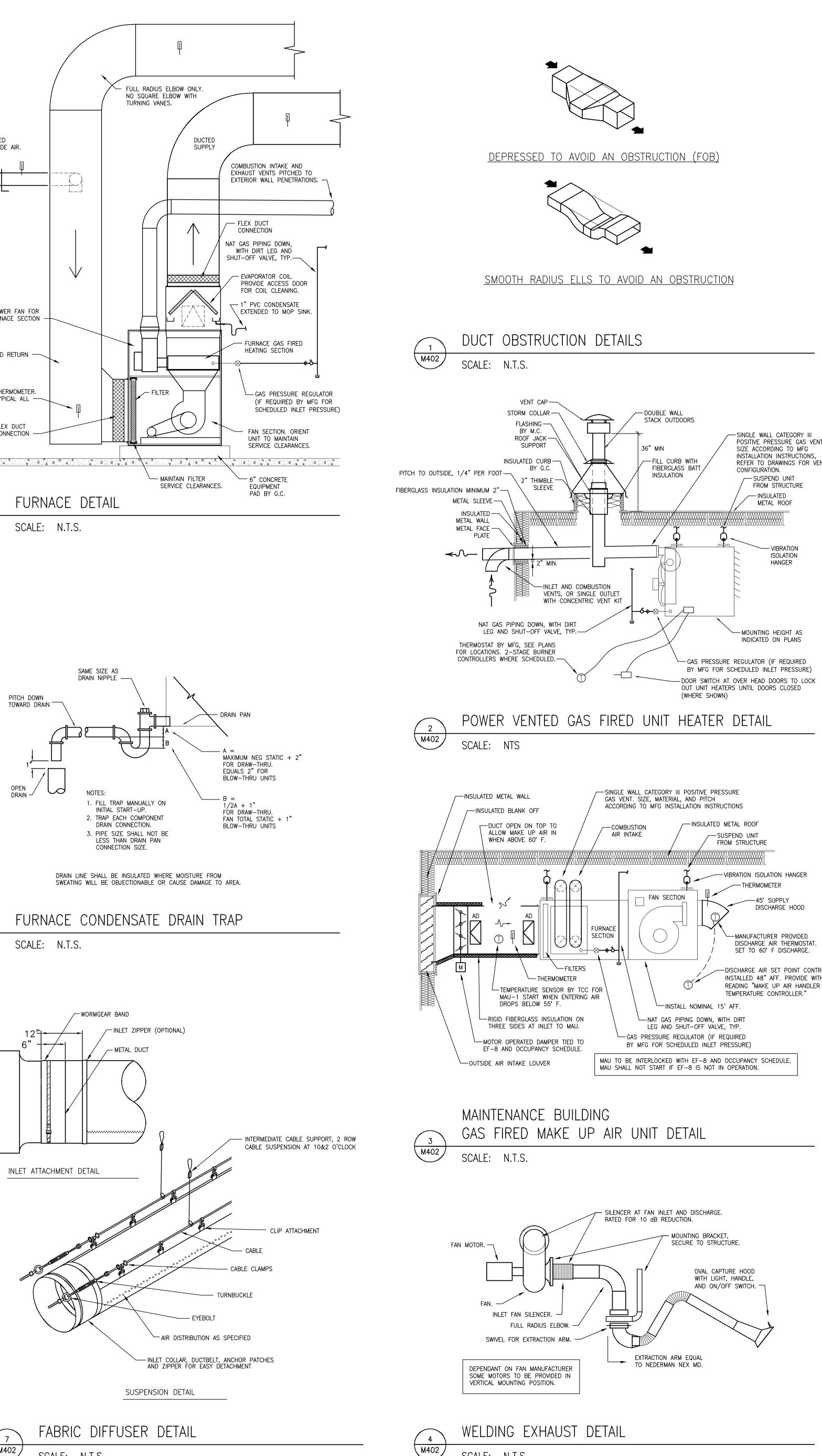
T/ 608 276 9200

F/ 608 276 9204

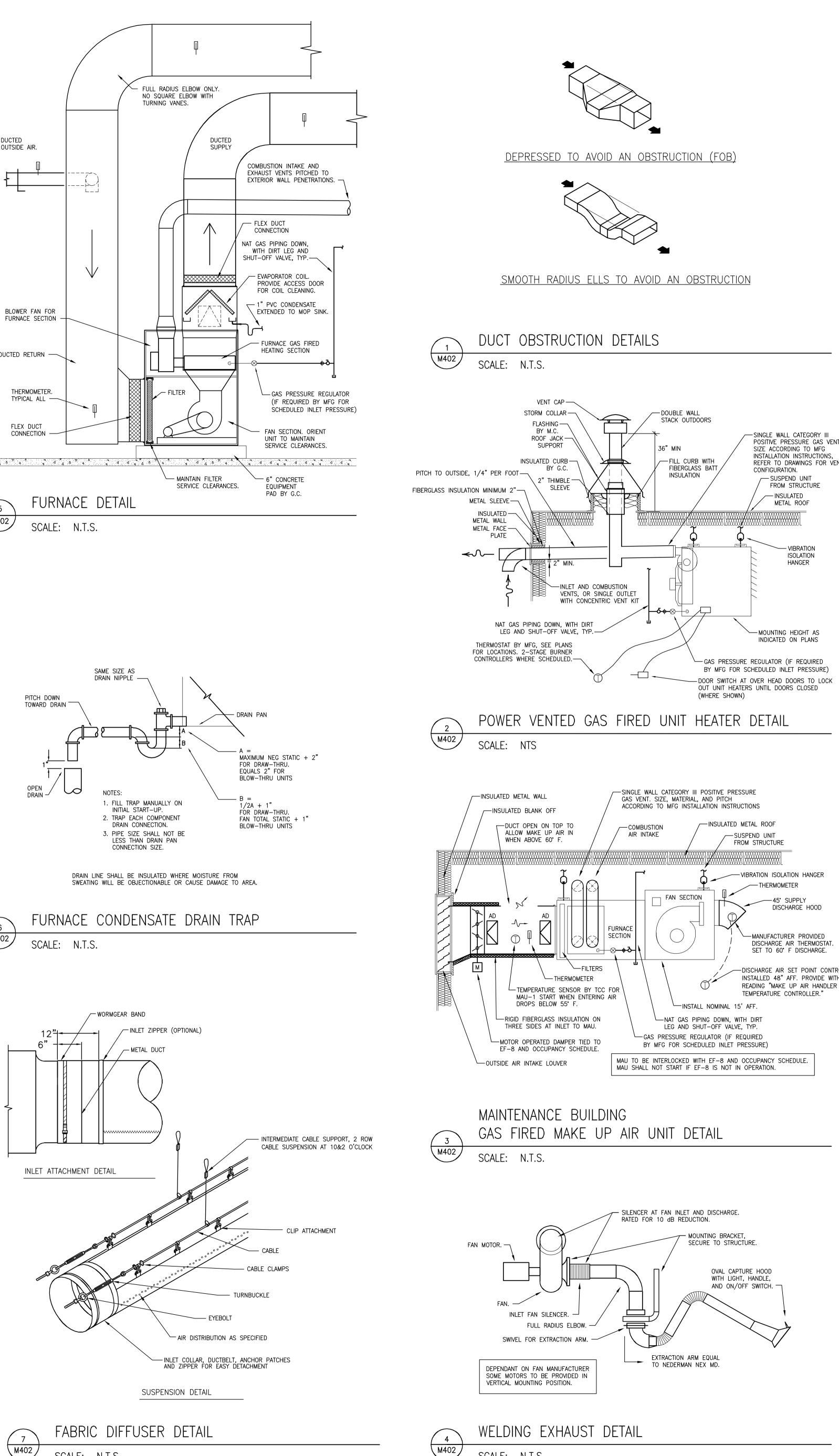














SCALE: N.T.S.

SHEET NO. M402

HVAC DETAILS

SHEET TITLE

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

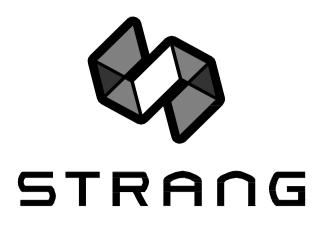
DRAWN	TMS
CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
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FILE NAME	2013027_02-M402.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 60**8** 276 9204

ARCHITECTURE

INTERIOR DESIGN



				WHEEL	TYPE			TOTAL							MOTOR	
TAG #	LOCATION	SERVICE	FAN TYPE	TYPE	MIN DIA	CFM	RPM	S.P. ("WG)	BHP	FAN ARRANG.	DRIVE	DAMPER	INTERLOCK	HP	VOLT	PI
SF-1-16	BLDG 1 FAN MEZZANINE	PAVILION 1 VENTILATION	PLENUM	AF	48"	37,500	581	0.8	9.85	INLINE	BELT	MOD	BAS	10	460	3
SF-17-54	BLDG 2 FAN MEZZANINE	PAVILION 2 VENTILATION	PLENUM	AF	48"	36,850	574	0.8	9.5	INLINE	BELT	MOD	BAS	10	460	3
SF-55	129 ELEC ROOM	EQUIPMENT COOLING	PROP	PROP	12"	1,000	890	0.30	0.21	WALL	DIRECT	MOD	RELIEF	1/4	120	1
SF-56	132 ELEC ROOM	EQUIPMENT COOLING	PROP	PROP	12"	1,000	890	0.30	0.21	WALL	DIRECT	MOD	RELIEF	1/4	120	1
SF-57	149 ELEC ROOM	EQUIPMENT COOLING	PROP	PROP	12"	1,000	890	0.30	0.21	WALL	DIRECT	MOD	RELIEF	1/4	120	1
SF-58	140 MILK PARLOR	140 MILK PARLOR	WALL SUPPLY	PROP	24"	3,400	1098	0.5	0.635	WALL	BELT	MOD		3/4	120	1
SF-59	143 CONCESSION	KITCHEN HOOD	INLINE	CENT	18"	2,400	960	0.75	0.58	INLINE	BELT	MOD	HOOD	3/4	120	1
CEF-1	109 ELEV EQUIP	ELEVATOR EQUIPMENT	CEILING CENTRIFUGAL	CENT	-	300	-	0.25	0.20	CABINET	DIRECT	BDD	-	1/4	120	1
EF-1	PRE-FUNCTION ROOF	GREASE EXHAUST	UPBLAST CENTRIFUGAL	BI	13.5	1350	1544	1.0	0.5	UPBLAST	DIRECT	-	HOOD	3/4	120	1
EF-2	BLDG 1 SHOWER	SHOWERS	INLINE CENTRIFUGAL	BI	12	1040	1450	0.6	0.28	INLINE	DIRECT	MOD		1/2	120	1
EF-3	BLDG 1 RESTROOM	RESTROOMS	INLINE CENTRIFUGAL	BI	12	1200	2273	0.6	0.34	INLINE	DIRECT	MOD		1/2	120	1
EF-4	143 CONCESSIONS	GREASE EXHAUST	TUBULAR CENTRIFUGAL	BI	12	1350	2160	1.0	0.47	INLINE	BELT	-	HOOD	3/4	120	1
EF-5	BLDG 2 EAST RESTROOM	RESTROOMS	INLINE CENTRIFUGAL	ВІ	12	1200	2273	0.6	0.34	INLINE	DIRECT	MOD		1/2	120	1
EF-6	BLDG 2 WEST RESTROOM	RESTROOMS	INLINE CENTRIFUGAL	ВІ	12	1200	2273	0.6	0.34	INLINE	DIRECT	MOD		1/2	120	1
EF-7A	142 MECHANICAL ROOM	MECH ROOM VENTILATION	WALL EXHAUST	PROP	36	7,500	679	0.25	0.825	WALL	BELT	BDD	ROOM INLET MOD	1	208	1
EF-7B	142 MECHANICAL ROOM	MECH ROOM VENTILATION	PROP	PROP	36	7,500	679	0.25	0.825	WALL	BELT	BDD	ROOM INLET MOD	1	208	1
EF-8	153 WORK AREA	153 WORK AREA	CENTRIFUGAL	CENT	-	1250	977	0.5	0.21	INLINE	DIRECT	MOD	DAMPER	1/2	120	1
EF-9	154 WELDING	WELDING SNORKEL	CENTRIFUGAL	CENT	-	700	3450	6.00	_		DIRECT	MOD	DAMPER	2	208	3
EF-10	159 MECH ROOM	RESTROOM AND MECH ROOM	CENTRIFUGAL	CENT	_	150	1288	0.25	_	INLINE	DIRECT	MOD	DAMPER	_	120	1

KEMAKKS:

1. PROVIDE VIBRATION ISOLATION. 2. PROVIDE OSHA APPROVED BELT GUARD.

3. PROVIDE ROOF CURB.

4. PROVIDE WITH ELECTRONICALLY COMMUTATED MOTORS AND FAN MOUNTED DIAL FOR BALANCING SPEED CONTROL. D. INTERLOCK WITH KITCHEN HOOD CONTROLS BY OTHERS.

5. MOTOR STARTER PROVIDED BY E.C.

6. DISCONNECT PROVIDED AND INSTALLED BY E.C.

7. PRE-WIRED DISCONNECT PROVIDED BY MANUFACTURER.

8. PROVIDE PACKAGED WALL FAN WITH INLET LOUVER, ISOLATION DAMPER, AND OUTLET SCREEN/MOTOR GUARD

9. PROVIDE FAN ASSEMBLY UL 762 LISTED FOR GREASE EXHAUST UP TO 300°F, INCLUDE GREASE TRAPS, DRAINS AND ACCESS DOORS AND OTHER ACCESSORIES AS REQUIRED.

10. MOTOR STARTER PROVIDED BY FAN MANUFACTURER.

11. PROVIDE PLENUM FANS WITH ALUMINUM WHEELS AND EXTENDED GREASE LINES.

										F	ROC)F T	ΤΟΡ	AIF	λ Η	AND	LIN	IG	UN	IT SO	CHED)ULI	-									
	_					S	JPPLY F/	AN CHARACTE	Eristics						C	COOLING C	COIL				HEATING (I	NATURAL	GAS)		U	NIT / EL	ECTRIC/	AL				
$\left< \begin{array}{c} RT \\ \# \end{array} \right.$		SERVICE	TOTAL	MINIMUM CFM	MIN.	WHEEL TYPE	RPM	TOTAL S.P.		FAN		MOTOR		EAT(*F.)	LA	T(*F.)	TOTAL	SENS	MIN.	HEATING	output MBH	EAT (*F.)	LAT	MIN. %	VOLTS		МСА	MOCR	FILTER SECTION	100% ECONOMIZER	DISCHARGE DIRECTION	REMARKS
<u> </u>			CFM	CFM	0.A. CFM	TYPE		(IN. WG)	(IN. WG)	BHP	HP	VOLT	PH	DB WE	B DB	WB	MBH	MBH	EER	CFM	MBH	(*F.)	(*F.)	EFF.	VOLIS	FNASE	NCA	MOCF				
1		FIRST FLOOR PRE-FUNCTION	8,500	2,500	0	FC	1572	3.25	1.5	6.64	7.5	460	3 8	30.8 67.	5 54.3	54.3	314	219	10.7	4,250	190	44	85	80	460	3	70	90	2" MERV 8	YES	VERTICAL	1,2,3,4,5,6
2		MEZZANINE PRE-FUNCTION	10,000	3,000	0	FC	1423	3.76	1.5	8.78	15	460	3 8	30.8 67.	5 55.7	55.6	331	241	11	5,000	222	44	85	80	460	3	80	100	2" MERV 8	YES	VERTICAL	1,2,3,5,6

REMARKS: 1. BASED ON JCI, AAON

REMARKS:

2. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COOLING COIL/CABINET AND SCHEDULED FILTERS.

3. UNIT MOUNTED VARIABLE FREQUENCY DRIVE AND DISCONNECTS TO BE PROVIDED BY UNIT MANUFACTURER

4. INCLUDE 120 VOLT UNPOWERED GFI OUTLET WITH UNIT; FIELD POWER BY ELECTRICAL CONTRACTOR.

								EN	IERG	YF	RECO	VER	X V	/EN7	rila ⁻	TOR	•									
						CTERIST	105								(COOLING	(SUMME	ER)				HEATING	(WINTER	R)		
				UNIT	СПАКА	CIERISI	105							OL	itside/ai	r supp	LY	EXHA	AUST AIR	0	utside/su	PPLY AII	۲	EXHAU	IST AIR	
ERV	SERVES	TYPE		UNIT	ELECT	RICAL		EX⊦	IAUST FAN	l	OA S	SUPPLY F	AN	EAT	(° F)	LAT	ſ (*F)	E/	AT(*F)	EA	T(*F)	LAT	(' F)	EAT	(* F)	REMARKS
#/		2	VOLTS	PH	FLA	MCA	MOCP	CFM	ESP	HP	CFM	ESP	HP	DB	WB	DB	WB	DB	RH (%)	DB	WB	DB	WB	DB	RH (%)	
1	PRE-FUNCTION RESTROOMS	ENTHALPY CROSS FLOW CORE	460	3	4.8	10.8		1000	0.5	1.5	1,500	0.3	1.5	92.0	75.0	82.9	70.3	75.0	50.0	-15.0	-15.0	30.7	23.2	70.0	10.0	1,3,4
2	RTU-1,2 EVENT VENTILATION	ENTHALPY WHEEL	460	3	22	24.8	35.8	6,000	0.3	5.0	6,500	0.3	5.0	92	75	80.3	66.8	75	50	-15	-15	43.7	36.5	70	10	2,3,4

1. BASED ON RENEWAIRE CROSS FLOW ENTHALPY UNITS

2. BASED ON SEMCO ENTHALPY WHEEL UNITS

3. INCLUDE DISCONNECT AND INDIVIDUAL FAN MOTOR STARTERS BY MANUFACTURER 4. ROOFTOP UNIT W/ VERTICAL EXHAUST AND SUPPLY CONNECTIONS, ROOF CURB PROVIDED BY MANUFACTURER

	ELE	CTRIC	BAS	EBOAI	RD SO	CHED)ULE		
EBB	LOCATION	MOUNTING	CAPACITY	CAPACITY	ELECTRIC	DIMEN	nsions (inc	CHES)	REMARKS
#/	LOCATION	MOONTING	(W)	(BTUH)	(VOLT/PH)	DEPTH	LENGTH	HEIGHT	
1	103 OFFICE	PEDESTAL	1200	4100	208/1	3"	8'-0"	5"	1,2
2	103 OFFICE	PEDESTAL	1200	4100	208/1	3 "	8'-0"	5"	1,2
3	105 OFFICE	PEDESTAL	600	2050	208/1	3"	3'-0"	5"	1,2
4	105 OFFICE	PEDESTAL	2000	6825	208/1	3"	10'-0"	5"	1,2
5	111 RESTROOM	WALL	600	2050	208/1	3"	3'-0"	5"	1,2,3
6	113 RESTROOM	WALL	2000	6800	208/1	3"	8'-0"	5"	1,2,3
7	113 RESTROOM	WALL	1000	3400	208/1	3"	4'-0"	5"	1,2,3

									FL	JRNA	4CE	S S	CHE	DUL	-										AIF	R COO	LED CONDI	ENSI	NG	UNIT	SC	HEDUI	LE	
	、					FAN							COOL	NG COIL			N	IATURAL GAS HE	EATING SEC	TION				ACC		мвн	NOMINAL TONS	U	NIT		ELECTR	ic	REMARKS	
F		SERVICE		NG MIN. OA E.S.P. MOTOR							EA	T(*F)	LAT("F		SENSIBI E	INPUT CAPACITY	OUTPUT CAPACTY	INLET GAS	# OF	HEATING	EAT	LAT	REMARKS	#		моп	NOMINAL TONS	AMBIENT	SEER	MCA	MOCP	VOLT/PH	REMARKS	
<u></u>			COOLING CFM	CFM		HP	VOLT	PHASE	MCA	MOCP	DB	WB	DB		. SENSIBLE MBH	CAPACITY (MBH)	CAPACTY (MBH)	PRESSURE (IN. W.C.)	# OF HEAT STAGES	HEATING CFM	(°F)	LAT (°F)		1	F-1	28	2.5	95.0	13	15.6	25	208/1	1	
	159 MECH	1ST FLOOR OFFICE	800	200	0.5	1/3	120	1	_	15	80	67	55	55 28	21	55	50	0.5	1	800	50	110	1,2											
																								REMARKS: 1. DISCONNECT BY E.C.										
REMA	KS:																																	

REMARKS:

1. BASED ON VULCAN LBT

2. PROVIDE INTEGRAL UNIT MOUNTED LINE VOLTAGE DOUBLE POLE THERMOSTAT AND DISCONNECT.

3. MOUNT BASEBOARD 8" AFF IN RESTROOMS

										0	SPL	_IT S	SYSTE	EM A/	/C	UN	IT SO	СНЕ	DULE	_ _											
																						ουτι	DOOR UNIT								
TAG	$ \longrightarrow $ LOCATION MODEL TYPE TONG DUMP (N) (N) (N) (OULING (OULING (N)) (N) (POWER		MODEL	SEER	NOM. TONS	UNIT WEIGHT	LENGTH	REFRIG.	PIPE SIZE	REFRIGERANT		UNIT	POWER		REMARKS					
#/	200/11011	MODEL		TONS	PUMP	(IN.)	(IN.)	(IN.)	(MBH)	DB	WB	(CFM)	(IN W.C.)		МСА	MOCP	VOLTS	PHASE		OLLIN	TONS	(LBS.)	(IN.)	LIQUID	SUCTION	TYPE	MCA	MOCP	VOLTS	PHASE	
SS-1	143 CONECSSIONS	PEAD-A42	HORIZONTAL DUCTED	3.5	YES	56	30	10	35	80	67	1450	0.5"	WASHABLE	POW	/ered by	OUTDOOR	R UNIT	PUY-A42	13.8	3.5	258	38	3/8"	5/8"	R410A	26	40	208	1	1,2,3,4

REMARKS: 1. BASED ON MITSUBISHI MR SLIM.

2. REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATION. EXTEND CONDENSATE TO LOCAL DRAIN WITH PROPER PITCH.

3. DISCONNECT PROVIDED BY E.C.

4. INCLUDE MANUFACTURER PROVIDED WIRED REMOTE CONTROLLER

A. T.C.C. TO INTERLOCK WITH B.A.S.

B. MANUAL CONTROL WITH WALL SWITCH BY E.C.

C. MANUAL CONTROL WITH UNIT SWITCH, WIRED BY E.C.

E. INTERLOCK WITH PROGRAMMABLE THERMOSTAT (OCCUPANCY)

F. INTERLOCK WITH LIGHTS BY E.C.

G. THERMOSTAT CONTROL. (REVERSE ACTING)

SPLIT	SYSTEM	A/C	UNI

1. DISCONNECT BY E.C.

CONTROLS	REMARKS
A	1,7,10,11
A	1,7,10,11
G	2,5,7,8
G	2,5,7,8
G	2,5,7,8
В	2,5,7,8
D	1,2,4,7
G	6
В	3,4,7,9
F	1,4,5,7
F	1,4,5,7
D	1,2,7,9
F	1,4,5,7
F	1,4,5,7
G	2,5,7
G	2,5,7
E	1,4
С	1,7,10
E	1,4,5,6

			DIF	FUSER	, REGISTER AND	GRILL	E SCH	HEDU	LE								GAS	s fire	D UI	IT F	HEATER	SCH	EDUI	E				
MARK	SERVICE	MOUNTING TYPE	FRAME	FASTENER	STYLE	PATTERN	MATERIAL	DAMPER	FINISH	COLOR	MAX. P.D. (HORIZ.)	MODEL	REMARKS	GUH #		TYPE (PROJECTION)	MODEL SIZE	FUEL/INLET PRESSURE (IN. W.C.)	AFUE (%)	BURNER OUTPUT (MBH)	VENTING CONFIGURATION	DISCHARGE LOUVER	CFM	THROW (FT)	HP	MOTOR VOLTS	РН	- REMARK
PSD-1	SUPPLY	CEILING	T–GRID	LAY-IN	24" LONG X (4) 1-1/2" WIDE SLOT	ADJUSTABLE 2-WAY	STEEL	NO	BAKED ENAMEL	WHITE	.10	CARNES DARD	2,3	1	WASH BAY 151	PROP FAN HORIZONTAL	150	N.G. / 7"	81%	120	POWER VENT	YES	2100	40	1/6	115	1	1,2,3,4
PSD-2	SUPPLY	CEILING	T-GRID	LAY-IN	48" LONG X (4) 1-1/2" WIDE SLOT	ADJUSTABLE 2-WAY	STEEL	NO	BAKED ENAMEL	WHITE	.10	CARNES DARD	2,3	2	STORAGE 152	PROP FAN HORIZONTAL	30	N.G. / 7"	81%	10	POWER VENT	YES	500	25	1/15	115	1	1,2,3,0
CD-1	SUPPLY	CEILING	BEVELED	SCREW	LOUVERED VANES 9x9x6"ø	4-WAY	STEEL	NO	BAKED ENAMEL	WHITE	0.06	CARNES SKSJ		3	WORK AREA 153	PROP FAN HORIZONTAL	300	N.G. / 7"	81%	250	POWER VENT	YES	4500	40	1/2	115	1	1,2,3,4
CD-2	SUPPLY	CEILING	BEVELED	SCREW	LOUVERED VANES 12x12x8"ø	4-WAY	STEEL	NO	BAKED ENAMEL	WHITE	0.06	CARNES SKSJ		4	WELDING 154	PROP FAN HORIZONTAL	60	N.G. / 7"	81%	50	POWER VENT	YES	900	36	1/12	115	1	1,2,3,4
CD-3	SUPPLY	CEILING	BEVELED	SCREW	LOUVERED VANES 15x15x10"ø	4-WAY	STEEL	NO	BAKED ENAMEL	WHITE	0.06	CARNES SKSJ		5	WORK AREA 161	PROP FAN HORIZONTAL	60	N.G. / 7"	81%	50	POWER VENT	YES	900	36	1/12	115	1	1,2,3,6
SR-1	SUPPLY	ROUND DUCT	CURVED FRAME	SCREW	SIZES INDICATED ON PLAN	DOUBLE DEFLECTION	ALUMINUM	YES	CLEAR ANODIZED	NATURAL	0.09	CARNES RDDMH	4	6	WORK AREA 161	PROP FAN HORIZONTAL	150	N.G. / 7"	81%	120	POWER VENT	YES	2100	40	1/6	115	1	1,2,3,4
SG-1	SUPPLY	DUCT	FLANGED	-	3/4" BLADE SPACING, GRILLE DIMENSIONS INDICATED ON PLAN	DOUBLE DEFLECTION	ALUMINUM	NO	CLEAR ANODIZE	NATURAL	.10	CARNES RADMH		7	115 MECHANICAL ROOM	PROP (HORIZ.)	30	N.G. / 7"	81%	24	POWER VENT	YES	505	25	1/20	120	1	1,2,3,6
SG-2	SUPPLY	WALL	FLANGED	SCREW	3/4" BLADE SPACING, GRILLE DIMENSIONS INDICATED ON PLAN	DOUBLE DEFLECTION	STEEL	NO	BAKED ENAMEL	WHITE	.10	CARNES RSDBH		8	140 MILK PARLOR	PROP (HORIZ.)	100	N.G. / 7"	81%	80	POWER VENT	YES	1490	42	1/12	120	1	1,2,3,
EG-1/TG-1/RG-1	EXH/TA/RA	CEILING / WALL	FLANGED	SURFACE	1/2"x1/2"x1/2" EGG CRATE		ALUMINUM	NO	BAKED ENAMEL	WHITE	0.05	CARNES RAPAF	2	9	141 MILK HOUSE	PROP (HORIZ.)	30	N.G./ 7"	81	24	POWER VENT	YES	505	25	1/20	120	1	5
EG-2/TG-2/RG-2	EXH/TA/RA	CEILING	FLANGED	LAY-IN	1/2"x1/2"x1/2" EGG CRATE		ALUMINUM	NO	BAKED ENAMEL	WHITE	0.05	CARNES RAPAF	1,2	10	142 MECHANICAL ROOM	PROP (HORIZ.)	30	N.G./ 7"	81	24	POWER VENT	YES	505	25	1/20	120	1	5
REMARKS: 1. 24"x24" CEILING	TERMINALS TO) BE FLANGE	FRAME FOR LAY-	IN ON T-GRID	CEILING FRAMES																							
2. BLACK INTERIOR	COLOR OF PL	ENUM																										

3. PROVIDE CENTER TEES, NO INTERNAL INSULATION (MANUFACTURER PROVIDED EXTERNAL INSULATION OR FIELD WRAP EXTERIOR OF THE PLENUM). PROVIDE 48" UNITS WITH NOTCH AT MIDPOINT FOR 24x24 GRID. 4. PROVIDE WITH AIR SCOOP DAMPER OPTION.

EQUIPMENT SOUND POWER LEVELS										
UNIT	MEASURED	DESIC	SN OCI	AVE B	and di	SCHARG	e sound	POWER	? − dB	REMARKS
UNIT	LOCATION	63f	125f	250f	500f	1000f	2000f	4000f	8000f	REMARKS
SF-1-54	OUTLET	94	98	91	87	86	86	76	69	1,2
SF-1-54	INLET	90	85	85	83	83	82	73	64	1,2
MUA-2A, 2B	OUTLET	94	97	90	85	82	81	75	64	1,2

	VAV UNI	ΓW/	ELE	С. Н	EAT	SC
				MIN.		B00
#	SERVES	MAX. CFM	MIN. CFM	INLET SIZE	ĸw	
1	103 OFFICE	375	80	6	0.8	12
2	105 OFFICE	340	80	6	0.8	12
3	100 VESTIBULE	250	0	6	_	
4	116 CONCESSIONS	900	270	10	3.2	208
5	102 LOBBY	700	210	8	_	
6	115A DATA CLOSET	350	80	6	-	

1. DISCHARGE SOUND POWER BASED ON MANUFACTURER'S PUBLISHED SOUND POWER 2. SOUND CRITERIA BASED ON PROVIDING SPACE NOISE CRITERIA OF NC-50, 55 dBA SOUND PRESSURE AT EXTERIOR WALKWAYS.

GENERAL NOTES FOR ZONE VAV UNITS

A. MAXIMUM TOTAL HEATER & VALVE STATIC PRESSURE DROP = 0.25" WG

B. BASED ON TITUS MODEL DESV. C. HEATING ELEMENTS SIZED BASED ON 55°F EAT.

REMARKS:

1. COOLING ONLY UNIT

2. 2 STAGE ELECTRIC HEATING ELEMENT

5. PROVIDE BAROMETRIC RELIEF DAMPER WITH ECONOMIZER (100% RELIEF).

6. PROVIDE GAS PRESSURE REGULATORS (IF REQUIRED) FOR BUILDING GAS PRESSURE OF 5.0 PSI

REMARKS

	ELECTRIC	WAL	L HE,	ATER	SC	HEDULE	-
EWH		CAPACITY	۵	MENSIONS	ELECTRICAL		
#	LOCATION	(KW)	Н	w	D	VOLT/PH/AMP	REMARKS
1A	100 VESTIBULE	8.0	23"	32"	4"	208/1/38.5	1,2,3
1B	100 VESTIBULE	8.0	23"	32"	4"	208/1/38.5	1,2,3
2	101B STAIR	8.0	23"	32"	4"	208/1/38.5	1,2,4
3	122 MENS SHOWER	3.0	20"	16"	6"	208/1/14.4	2,4,5
4	127 MENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
5	129 ELEC ROOM	4.0	20"	16"	6"	208/1/19.2	2,4,5
6	132 ELEC ROOM	4.0	20"	16"	6"	208/1/19.2	2,4,5
7	149 ELEC ROOM	4.0	20"	16"	6"	208/1/19.2	2,4,5
8	143 CONCESSIONS	3.0	20"	16"	6"	208/1/14.4	2,4,5
9	143 CONCESSIONS	3.0	20"	16"	6"	208/1/14.4	2,4,5
10	136 WOMENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
11	136 WOMENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
12	137 MENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
13	137 MENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
14	BLDG 2 EAST MOP BASIN	1.5	20"	16"	6"	208/1/7.2	2,4,5
15	138 WATER ROOM	3.0	20"	16"	6"	208/1/14.4	2,4,5
16	146 WOMENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
17	146 WOMENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
18	147 MENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
19	147 MENS TOILET	4.0	20"	16"	6"	208/1/19.2	2,4,5
20	BLDG 2 WEST MOP BASIN	1.5	20"	16"	6"	208/1/7.2	2,4,5
21	148 WATER ROOM	3.0	20"	16"	6"	208/1/14.4	2,4,5

1. BASED ON Q-MARK EFQ

2. PROVIDE INTEGRAL DISCONNECT AND TAMPERPROOF THERMOSTAT.

3. RECESSED MOUNTING (2 TOTAL)

4. SURFACE MOUNTING

5. BASED ON QMARK AWH

2. MANUFACTURER PROVIDED PROGRAMMABLE THERMOSTAT WITH SCHEDULING FUNCTION.

	THROUGH THE WALL AIR CONDITIONER UNIT SCHEDULE															
LOCATION MODEL WIDTH DEPTH HEIGHT NET NET LOCATION MODEL WIDTH (N) (N) (N) (N) (N) EICOLING HEATING EAT ('F) EER WEIGHT REFRIGERANT UNIT POWER								REMARKS								
#/	LOCATION	MODEL	(IN.)	(IN.)	(IN.)	(MBH)	(MBH)	DB	WB		(LBS.)	TYPE	AMPS	VOLTS	PHASE	
AC-1	130 TELE/DATA	AEE18DR	24	26	18	18	11	80	67	9.7	133	R410A	16	208	1	1,2,3
AC-2	133 TELE/DATA	AEE18DR	24	26	18	18	11	80	67	9.7	133	R410A	16	208	1	1,2,3
AC-3	150 TELE/DATA	AEE18DR	24	26	18	18	11	80	67	9.7	133	R410A	16	208	1	1,2,3

REMARKS: 1. BASED ON GE.

2. DISCONNECT PROVIDED BY E.C.

3. PROVIDE WALL SLEEVE KIT.

SCHEDULE OOSTER COIL RFMARKS V/PH/A LAT (°F) 120/1/6.7 75 120/1/6.7 75 _ - 1 208/1/15.2 75 2 - | - |1 | - |1 _

2. SOUND CRITERIA AHRI STANDARD 350–2000; SOUND POWER LEVEL IN dB SHALL NOT EXCEED 55 IN ANY OCTAVE BAND.

REMARKS:

3. LOW VOLTAGE THERMOSTAT, BURNER CONTROLS AND DISCONNECT BY UNIT MANUFACTURER.

1. BASED ON MODINE MODEL HDS/BTS INDIRECT GAS FIRED UNIT HEATERS.

4. 2-STAGE BURNER, LOW (50%) & HIGH (100%) FIRE CAPABILITY. (THERMOSTAT WITH 2-5 DEGREE TEMPERATURE DIFFERENTIAL BETWEEN BURNER STAGE OPERATION.) 5. EXISTING UNIT TO BE RE-LOCATED.

6. PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT CONTROL.

	POWE	R VENT	GAS	—FI	RED F	RADIA	NT HI	EATEF	R SCH	HEDUL	E						
		COMMON	VACUUM EXH	AUSTER	PUMP	GAS FIRED BURNER UNITS											
GRV #	LOCATION	TOTAL SYSTEM INPUT (BTU/HR)	Burners Per Pump	VENT SIZE	ELECTRICAL (V/PH/A)	GRH #-#	MOUNTING HEIGHT (AFF)	TOTAL INPUT (MBH)	Maximum Inlet gas	ELECTRICAL (V/PH/A)	Mounting Angle	REMARKS					
						1-1	15'–0"	150	14" W.C.	120/1/0.7	45°						
1	120 BUILDING 1	600,000	4	4"	120/1/11.6	1–2	15'-0"	150	14" W.C.	120/1/0.7	45°	1,2,3,4,5					
	PAVILION - NORTH	000,000	+	4	120/1/11.0	1–3	15'-0"	150	14" W.C.	120/1/0.7	45°	1,2,3,4,3					
						1-4	15'-0"	150	14" W.C.	120/1/0.7	45°						
	2 120 BUILDING 1 410,000 5 PAVILION – WEST			2–1	15'–0"	90	14" W.C.	120/1/0.7	0°								
		410,000				2–2	15'–0"	90	14" W.C.	120/1/0.7	0°						
2			5	4"	120/1/9.6	2–3	15'-0"	90	14" W.C.	120/1/0.7	0"	1,2,4,5					
						2-4	15'-0"	90	14" W.C.	120/1/0.7	0°						
						2–5	15'-0"	75	14" W.C.	120/1/0.7	0°						
						3–1	15'–0"	90	14" W.C.	120/1/0.7	0°						
3	120 BUILDING 1	360,000	4	4"	120/1/9.6	3–2	15'-0"	90	14" W.C.	120/1/0.7	0"	1,2,4,5					
5	PAVILION - EAST	300,000	+	4	120/1/9.0	3–3	15'-0"	90	14" W.C.	120/1/0.7	0"	1,2,4,5					
						3-4	15'-0"	90	14" W.C.	120/1/0.7	0*						
						4–1	15'-0"	150	14" W.C.	120/1/0.7	45°						
	120 BUILDING 1	600 000		" "	100 /1 /11 0	100 /1 /11 0	100 /1 /11 0	100 /1 /11 0	100 /1 /11 0	120/1/11.6	4-2	15'–0"	150	14" W.C.	120/1/0.7	45 *	12345
4	120 Building 1 Pavilion – South	600,000	4	4"	120/1/11.0	4–3	15'-0"	150	14" W.C.	120/1/0.7	45°	— 1,2,3,4,5 					
						4-4	15'-0"	150	14" W.C.	120/1/0.7	45°						

REMARKS: 1. BASED ON DETROIT RADIANT HLV.

2. PROVIDE GAS PRESSURE REGULATORS (IF REQUIRED) TO ACCEPT 5.0 PSI BUILDING GAS PRESSURE.

3. ADJUST REFLECTOR 45' AWAY FROM OUTSIDE WALL

4. PROVIDE COMPLETE SYSTEM, ENGINEERED ACCORDING TO MANUFACTURERS GUIDELINES FOR MAXIMUM LENGTH OF RADIANT TUBING INCLUDING COMMON PIPE

5. REFER TO PLANS FOR LENGTH AND CONFIGURATION OF RADIANT SYSTEM.

MAKE-UP AIR UNIT SCHEDULE																
MAU			BURNER	INPUT	OUTPUT	AVG TEMP	AIRFLOW	EXT. S.P.	F	AN MOTO	R		FL	JEL		
#/	LOCATION	MODEL	TYPE	(MBH)		RISE (*F)	(CFM)	(IN)	HP	VOLTS	PHASE	TYPE	INLET PRESSURE	BURNER	TURNDOWN	REMARKS
1	PRE-FUNCTION ROOF	MDB	DIRECT FIRED	110	-	80	1280	0.5	3/4	208	3	NAT GAS	14" W.C.	MODULATING	20:1	1,4,5,6,7,8
2A	BLDG 1 SUPPLY PLENUM	MDB-130	DIRECT FIRED	3400	-	115	27,200	0.3	20	460	3	NAT GAS	5.0 PSI	MODULATING	30:1	1,2,7,9
2B	BLDG 1 SUPPLY PLENUM	MDB-130	DIRECT FIRED	3400	-	115	27,200	0.3	20	460	3	NAT GAS	5.0 PSI	MODULATING	30:1	1,2,7,9
3	WASH BAY 151	IBS150	INDIRECT FIRED	150	120	88.9	1250	0.5	1/3	120	1	NAT GAS	5.0 PSI	MODULATING	2.4:1	3,7,8,9
REMARKS	•															

1. BASED ON MODINE.

2. PROVIDE ALUMINUM MESH FILTERS ON UNIT INLET, INTERNALLY ISOLATED FAN MOTOR AND EXTENDED GREASE LINES.

3. BASED ON AIREDALE

4. INCLUDE MOTOR OPERATED INTAKE DAMPER, V-BANK FILTER SECTION W/ 2" MERV 8 FILTERS, ROOF CURB, AND INLET HOOD w/ BIRD SCREEN

5. FACTORY INSTALLED 115V GFI SERVICE RECEPTACLE (POWER BY E.C.)

6. ROOF CURB PROVIDED BY M.C., INSTALLED BY G.C.

7. PROVIDE UNIT GAS PRESSURE REGULATORS AS REQUIRED FOR INLET PRESSURE SCHEDULED.

8. INCLUDE FACTORY PROVIDED DISCHARGE AIR TEMPERATURE CONTROLS

9. DISCONNECT BY E.C.

SHEET NO. M501

SHEET TITLE MECHANICAL EQUIPMENT SCHEDULES

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

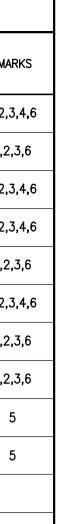
ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	NJZ
CHECKED	BK
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
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REVISIONS	CONST. SET 01-08-14

INTERIOR DESIGN STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE

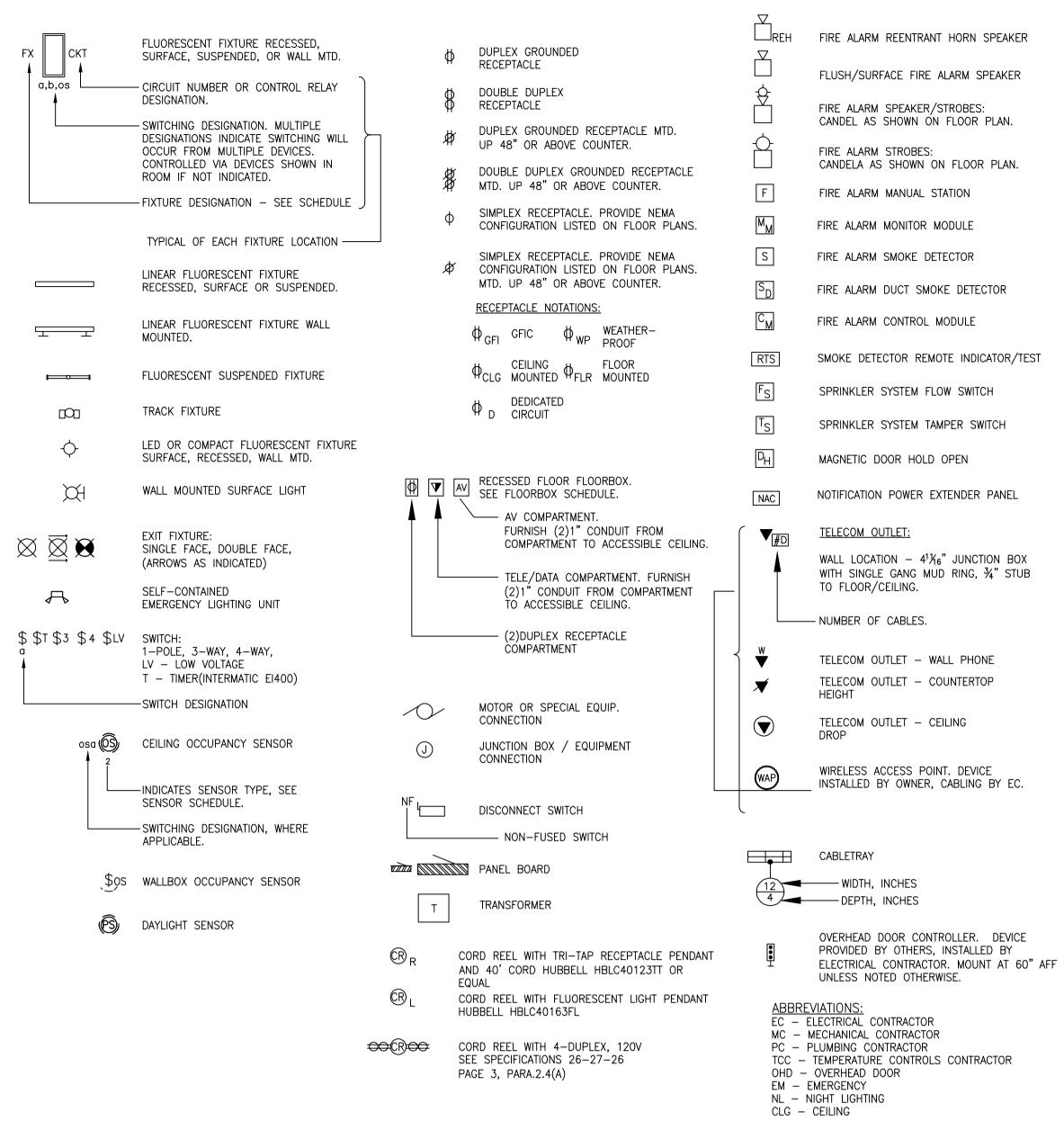




TYPE 	1. MANUFACTURERS SHOWN ARE BASIS OF DESIGN. EM – EMERGENCY; CONNECT TO EMERGENCY 2. SEE SPECIFICATION SECTION 26 51 00 FOR AP	Y CIRCUIT	INDICAT	DUCTS SIMILAR ED.	IN APPEAR	RANCE AI		PPROVAL	FROM A/E.		
RE SP CL W UC CV PL S U	INTING: (MTG) – RECESSED – SUSPENDED – CEILING SURFACE – WALL – UNDER CABINET – COVE – COVE – COVE – COVE – DOLE – UNIVERSAL – UNIVERSAL – OTHER (SEE DESCRIPTION) – RECESSED – LIGHT EMITTING I – INCANDESCENT – COMPACT FLUOR – FLUORESCENT – COMPACT FLUOR – COMPACT FLUOR – COMPACT FLUOR – COMPACT FLUOR – INCANDESCENT – INCANDESCENT – INCANDESCENT – INCANDESCENT – COMPACT FLUOR – INCANDESCENT – INCANDESCENT – INCANDESCENT – INCANDESCENT – INCANDESCENT – INCANDESCENT – INCANDESCENT – INCANDESCENT – COMPACT FLUOR – COMPACT FLUOR – COMPACT FLUOR – COMPACT FLUOR – COMPACT FLUOR – INCANDESCENT – INCAN	DIODE SODIUM ETAL HALII HALIDE	A B D L DE S O	NS/LOUVER: – ACRYLIC – BLACK B – CLEAR A – PARABOL – LOW IRID ALUMINUI – NONE – SPECULA – OTHER (LZAK JC JESCENT SE M R CLEAR		BALLAST TYPE:EM– EMERGENCY BATTERYDIM– DIMMING BALLASTSDIM– STEP DIMMING BALLASTADIM– DIGITAL ADDRESSABLE BALLASTCULARISIS– INSTANT STARTPS– PROGRAMMED STARTRS– RAPID STARTSCWA– SUPER CONSTANT WATTAGEeHID– ELECTRONIC HIDLED– LED ELECTRONIC DRIVER		<u>BALLAST FA</u> LBF — LOW, f NBF — NORMA HBF — HIGH,	3F < 0.85 L, BF 0.85-1.0	
FIXTURE NUMBER	DESCRIPTION	MTG	I TYPE	LAMPS QUANTITY AND SIZE	VOLTAGE	LENS/ LOUVER	APPROVED MANUFACTURERS (LIST IS NOT EXCLUSIVE. MANUFACTURERS LISTED ARE BASIS FOR DESIGN.)	B/ TYPE	ALLAST BALLAST FACTOR	NOTES	
D1	6" ROUND DOWNLIGHT, MEDIUM BEAM	RE	LED	1000LMN 4100K	MVOLT		GOTHAM EVO 41 10 6AR MD LD OR APPROVED EQUAL	PS	NBF		
D2	6" ROUND DOWNLIGHT, WIDE BEAM	RE	LED	1000LMN 4100K	MVOLT		GOTHAM EVO 41 10 6AR WD LD OR APPROVED EQUAL	PS	NBF		
D3	6" ROUND DOWNLIGHT, NARROW BEAM	RE	LED	1000LMN 4100K	MVOLT		GOTHAM EVO 41 14 6AR ND LD OR APPROVED EQUAL	PS	NBF		
EX1	SINGLE FACE EXIT FIXTURE	w	LED	LED			LITHONIA – LVSAWXRUMCW	_	_	MOUNT EXIT FIXTURES ON WALL ABOVE DOOR FRAME AND	
	EXIT FIXTURE			LED			LITHONIA – EDG W 1 R			BELOW LOUVERS IN PAVILION	
EX2		W	LED				LITHONIA – LVSAWXRUMCW	_	-		
EX3	DOUBLE FACE EXIT FIXTURE	w	LED	LED				_	-		
F1	EXISTING 1X4 FIXTURE	s	FL	(2)F32WT8			EXISTING	_	_	REMOVED FROM EXISTING BUILDINGS AND REUSED AS INDICATED. SEE SPEC 26–00–00 PAGE 1,PARA 1.4	
F2	4–LAMP HIGH PRESSURE HOSE–DOWN IP65, IP66 AND IP67 RATED.	s	FL	(4)F54T5HO 4100K	MVOLT		LITHONIA – FHF 454L SD WITH (2) 2 LAMP BALLASTS	PS	NBF	<	 1.) UL Listed for 40 degree C Ambient 2.) Suitable For Wet Location but more importantly IP65, IP66 and IP6 3.) Certified to meet NSF Splash Zone 2 4.) NEMA 4X , 1500 PSI Hose Down.
F3	FLUORESCENT DIRECT SUSPENED FIXTURE	s	FL	(2)F54T5H0 4100K	MVOLT		AXIS BEAM 4 – BBD S NO 4 NL4 T5HO 2 0 OR APPROVED EQUAL	PS	NBF	BOTTOM OF FIXTURE MOUNTED FLUSH WITH BOTTOM OF ACOUSTIC PANELS	 5.) One-Piece 5VA rated Fiberglass housing with continuous closed ce minimize 6.) Tool Less ballast and wiring access. 7.) Injection Molded, Impact Resistant clear acryluc diffuser with froste prisms. (Helps control Brightness/Glare) 8.) The diffuse must be securely tethered to the fixture for ease of r
F4	2X4 FLUORESCENT LENSED TROFFER	RE	FL	(2)32WT8 4100K	277V		LITHONIA 2SP8 G 3 32 A12125 277	PS	NBF	INSTALL LENS PRISM UP FOR EASE OF CLEANING	9.) There must be 12 Stainless Steel Diffuser Latches. 10.) The reflectors are segmented optics with 95% reflectivity. 11.) T5HO Starting Temperature is -20 F. 12.) Lamp sockets are rotary locking for ease of maintenance and mi from any building vibration.
F5	2X4 FLUORESCENT DIRECT/INDIRECT TROFFER	RE	FL	(2)F32WT8 4100K	MVOLT		LEDALITE SHINE SERIES 3324-D1-SMS-T232-S-1 OR APPROVED EQUAL	PS	NBF		
F6	1X4 FLUORESCENT LENSED FIXTURE	RE	FL	(1)F32WT8 4100K	MVOLT		LITHONIA GT8 1 32 FW A12 MVOLT OR APPROVED EQUAL	PS	NBF		
F7	LINEAR FLUORESCENT WRAPAROUND	s	FL	(2) F32WT8 4100K	277V	A	LITHONIA LB METALUX WN	PS	1.15	_	
F8	LINEAR FLUORESCENT STRIP WITH WIREGUARD	SP/S	FL	(2) F32WT8 4100K	277V	A	LITHONIA C METALUX	IS	.88	CHAIN HANG AT 12' AFF UNLESS OTHERWISE NOTED.	
F9	LINEAR FLUORESCENT HIGH BAY, WIDE DISTRIBUTION	SP	FL	(6) F54T5H0 4100K		A	DAYBRITE LITHONIA IBZ METALUX HBL DAYBRITE	PS	1.15	CHAIN/CABLE HANG AT 18' AFF UNLESS OTHERWISE NOTED. WHERE MULTI-LEVEL SWITCHING IS SHOWN, SWITCH OUTER (2) LAMPS SEPARATELY FROM INNER LAMPS. WHERE 'NL' IS SHOWN OUTER (2)	
				(2) F54T5H0			LITHONIA VRI			LAMPS SHALL BE UNSWITCHED AND INNER (4) LAMPS SWITCHED. CHAIN HANG AT 15' AFF UNLESS	
F10	VAPORTITE INDUSTRIAL	SP/S	FL	4100K	277V	A	METALUX VT2 DAYBRITE	PS	1.01	OTHERWISE NOTED.	
F11	OUTDOOR LED WALLPACK, FULL CUTOFF WITH INTEGRAL PHOTOCELL.	WL	LED	OUTPUT 4100K	277V	A	DAYBRITE WRN LUMARK XTOUR1A LITHONIA	LED	_	-	
F12	1X4 (2) LAMP FLUORESCENT ROUGH SERVICE FIXTURE 0' STARTING ELECTRONIC BALLAST	S	FL	(2)32W T8, 4100K	120V	_	LITHONIA – VDS 2 32 MVOLT	PS	NBF		
F13	LED STRIPLIGHT.	w	LED	2100 LUMEN 4100K	277V	A	LITHONIA MNSL MV M6 OR APPROVED EQUAL	LED	1.01	<	MOUNTED IN WOOD SCRIM AS SHOWN ON ARCHITECTURAL PLANS, ELEVATIONS AND SECTIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FINAL FIXTURE COUNT AND FOR MOUNTING DETAILS AND REQUIREMENTS
F14	2' WALL MOUNTED WRAPAROUND	w	FL	(1)17WT8 4100K	277V	_	LITHONIA – VWC 1 17 277	PS	NBF		
F15	LENSED LED LIGHT CHANNEL, IP66 RATED, FROSTED DIFFUSER	w	LED	60 LMN/FT 2700K	277V	_	TRAXON TU.DM OR APPROVED EQUAL	LED	_	<	PROVIDE ALL FIXTURE LENGTHS, CONNECTORS, DRIVERS AND MOUNTING ACCESSORIES TO PROVIDE CONTINUOUS AROUND (BOTTOM AND SIDES) OF ALL
P1	16' DIAMETER INDIRECT PENDANT	_	_	(48) 14W T5	277V	_	VISA CP5022	FL	0.7-0.8BF	_	WOOD ELEMENTS DENOTED "WD-2" ON ARCHITECTURAL DRAWINGS. LAYOUT SHOWN ON E DRAWINGS IS FOR REFERENCE ONLY, REFER TO ARCHITECTURAL ELEVATIONS AND SECTIONS. CONTRACTOR SHALL SUBMIT DIMENSIONED SHOP
P2	MINI CYLINDER SUSPENDED DOWNLIGHT. ALUMINUM HOUSING, AIRCRAFT CABLE MOUNTED, NATURAL ALUMINUM FINISH. CAP WITH 1" RECESSED LENS.	SP	LED	250 LUMEN 25* BEAM 3000K	277V	_	B-K RM LED OR APPROVED EQUAL	LED	_	SUSPEND SO FIXTURE IS AT 12' AFF PROVIDE ALL REQUIRED ACCESSORIES AND TRANSFORMERS FOR A COMPLETE SYSTEM.	DRAWINGS SHOWING ELEVATIONS AND SECTIONS OF INSTALLED FIXTURES IN EACH INSTANCE OF WD-2.
P2B	SAME AS P2 WITH 18" BEAM	-	_	250 LUMEN 18' BEAM 3000K	277V	_	B–K RM LED OR APPROVED EQUAL	_	_	_	
P2C	SAME AS P2 WITH 36° BEAM	_	_	250 LUMEN 36' BEAM 3000K	277V	_	B-K RM LED OR APPROVED EQUAL	_	_	-	
T1	TWO HEAD, CANOPY MOUNTED, AIMABLE TRACK LUMINAIRE NATURAL ALUMINUM FINISH.		_	1600 LUMEN/HEAD 50* BEAM 3000K	277V	_	INTENSE MBS OR APPROVED EQUAL	_	_	_	
T1B	SAME AS T1 WITH 24° BEAM SPREAD	_	_	1600 LUMEN/HEAD 24* BEAM 3000K	277V	_	INTENSE MBS OR APPROVED EQUAL	_	_	_	
T1C	SAME AS T1 WITH ONE HEAD AND 16" BEAM SPREAD	_	_	1600 LUMEN 16' BEAM 3000K	277V	_	INTENSE MBS OR APPROVED EQUAL	_	_	_	

d IP67 rated. d cell gasket. rosted ends and side lineal maintenance. d minimizing lamps loosening

ELECTRICAL SYMBOL LEGEND



	OCCUPANCY SENSOR SCHEDULE									
SENSOR TAG	DESCRIPTION	APPROVED MANUFACTURERS (LIST IS NOT EXCLUSIVE. MANUFACTURERS LISTED ARE BASIS FOR DESIGN.)	NOTES							
NONE	CEILING MOUNTED DUAL TECHNOLOGY. 360° COVERAGE FURNISH WITH REQUIRED POWER PACK(S)	SENSOR SWITCH CM-PDT-9-R ALTERNATES MUST BE SIMILAR IN PERFORMANCE & APPEARANCE	ALL SENSORS ARE THIS TYPE UNLESS TAGGED OTHERWISE. ADD EXTRA CONTACTS FOR HVAC EXHAUST FAN CONTROLS							
TYPE 1	WALL MOUNTED DUAL TECHNOLOGY. FURNISH WITH REQUIRED POWER PACK(S)	SENSOR SWITCH WSD PDT 2P MLO WH ALTERNATES MUST BE SIMILAR IN PERFORMANCE & APPEARANCE								

<u>GENERAL NOTES:</u> 1. SEE SHEET E401 FOR ADDITIONAL OCCUPANCY SENSOR DETAILS.

SHEET NO. E001

SHEET TITLE ELECTRICAL SYMBOLS/ABBREV. FIXTURE SCHEDULE

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

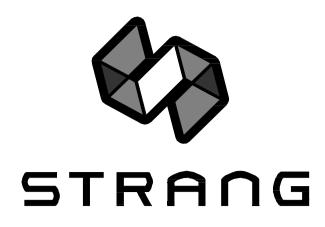
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

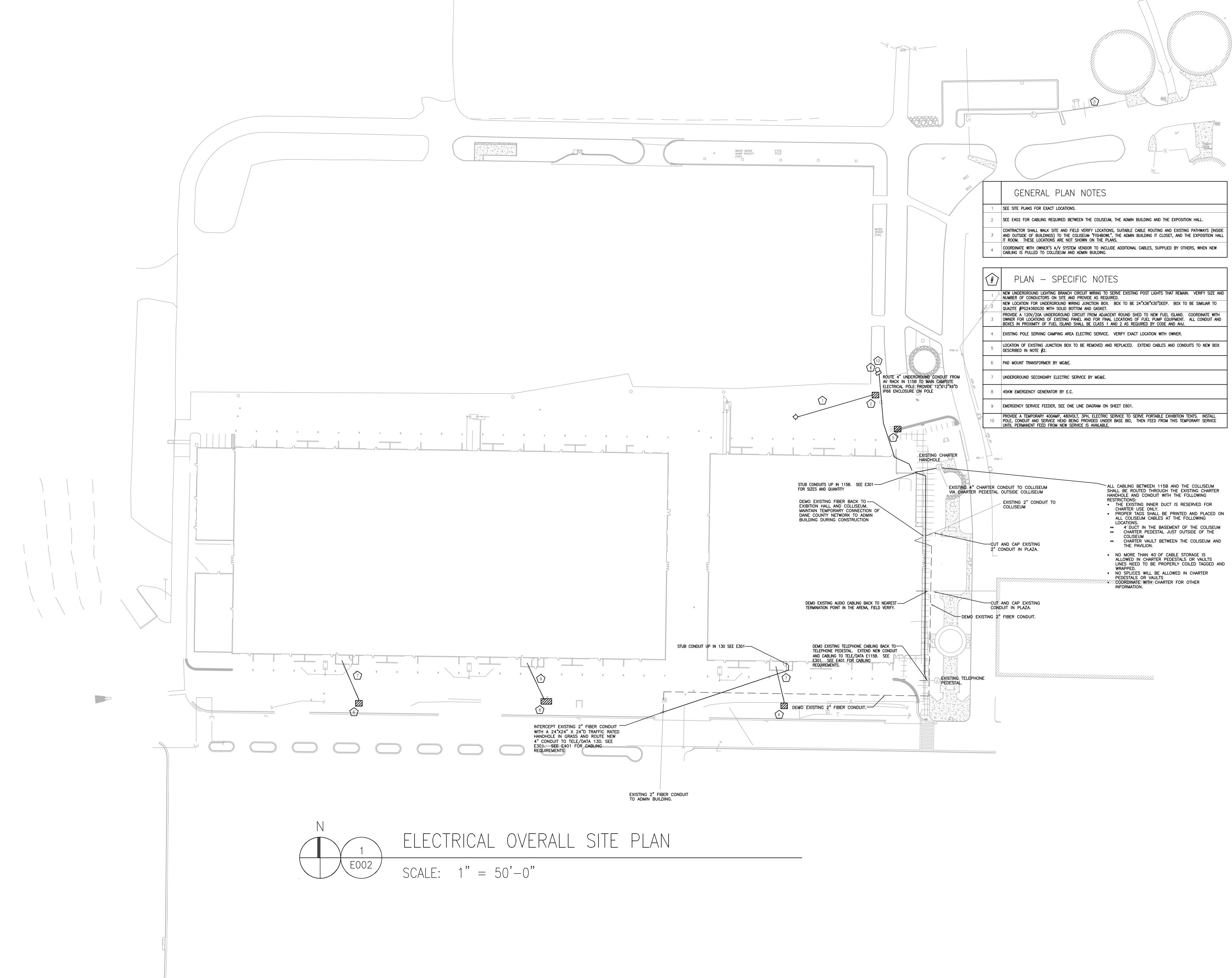
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ARCHITECTURE

INTERIOR DESIGN





SHEET NO. E002

SHEET TITLE ELECTRICAL OVERALL SITE PLAN

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

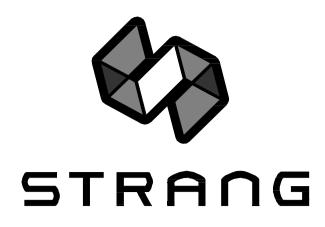
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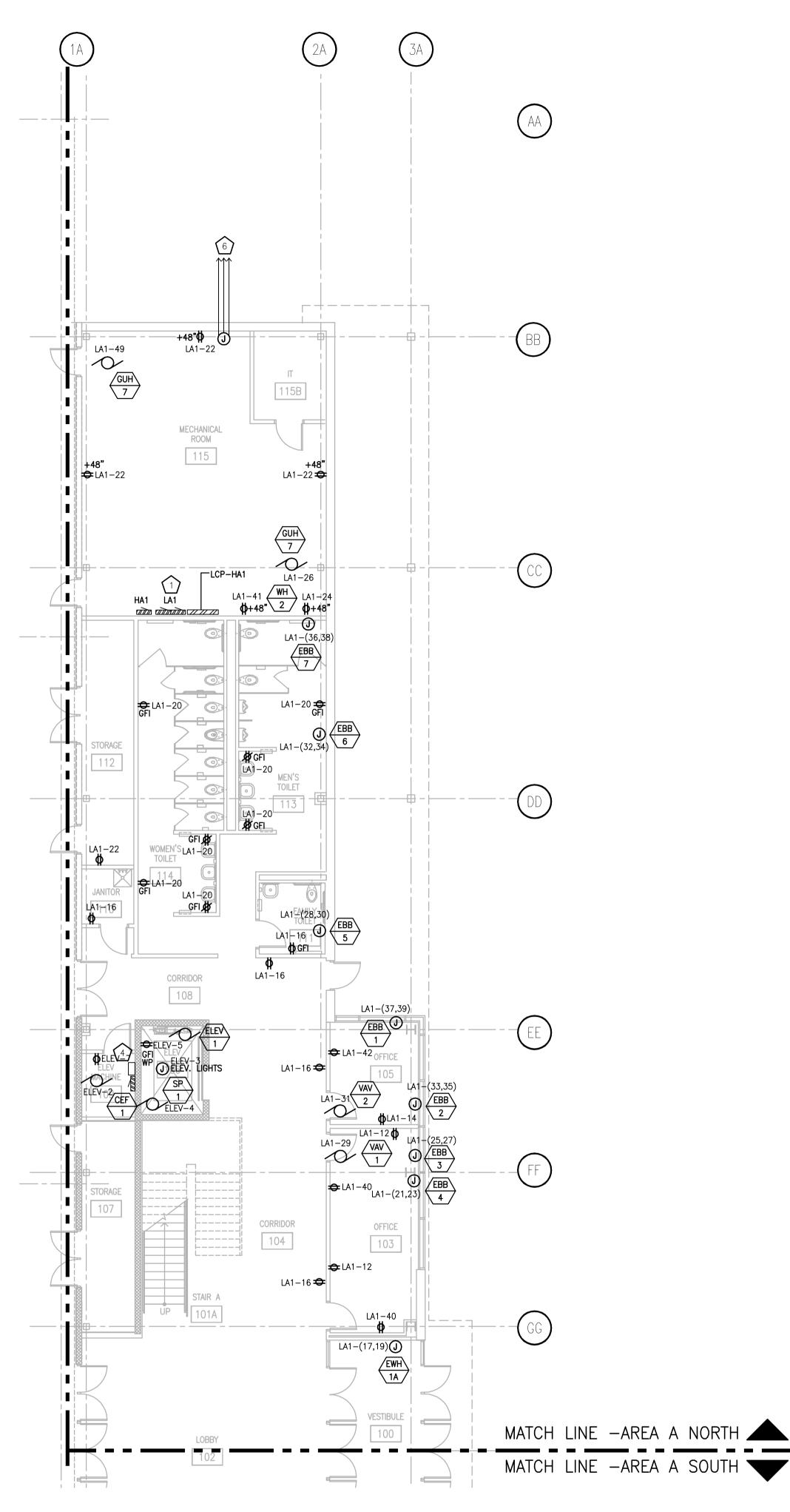
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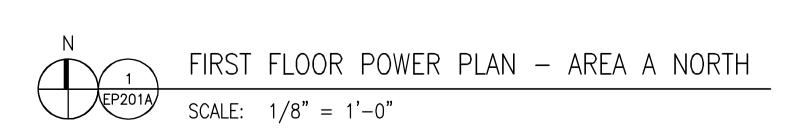
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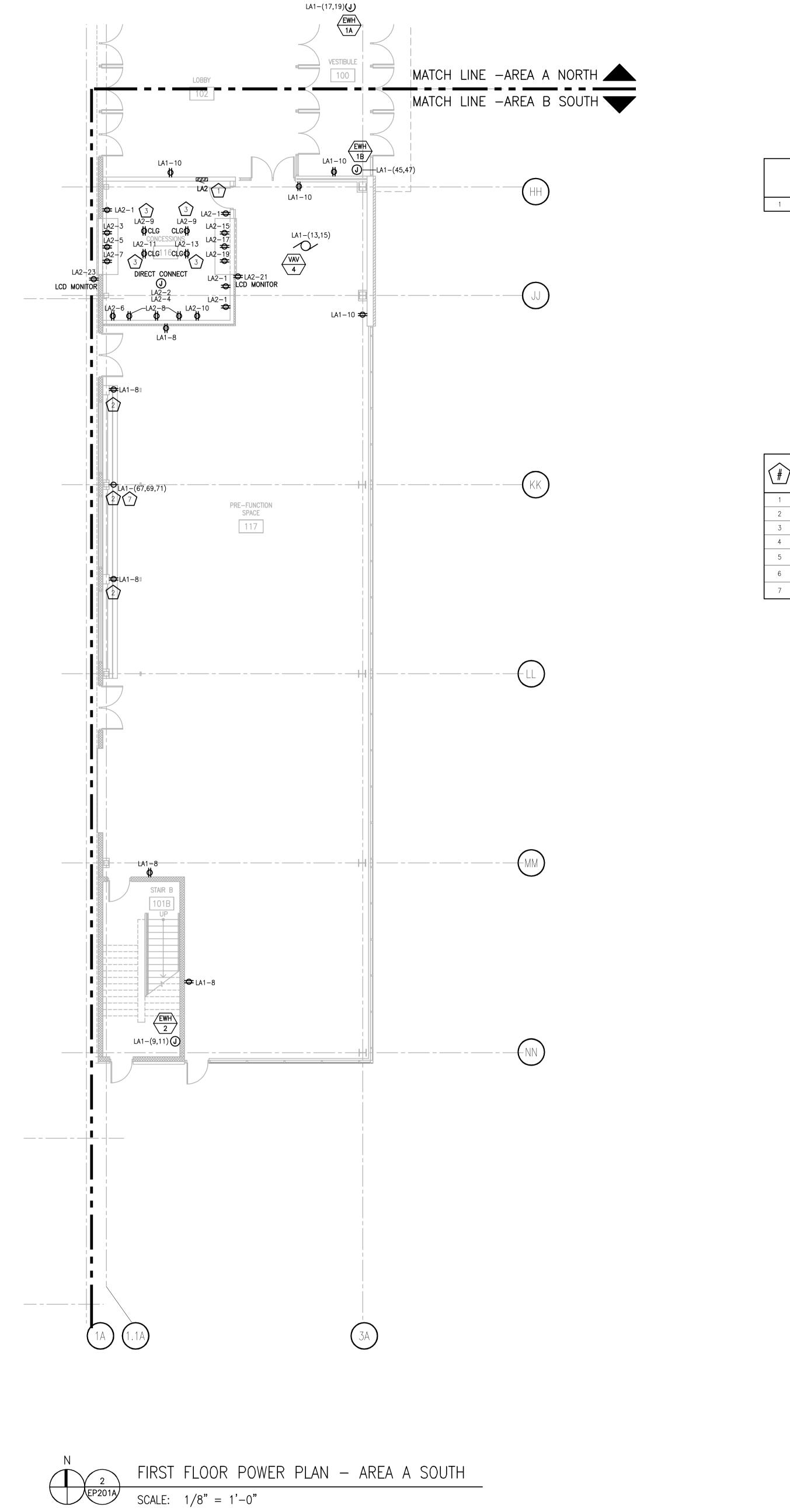
ARCHITECTURE ENGINEERING







Xref List: 2013027_ 2013027_02-x-01_ 2013027_x-GRID 2013027_02-E-01





GENERAL PLAN NOTES ALL RECEPTACLES IN CONCESSIONS RM 116 SHALL BE GFI TYPE.

(#)	PLAN – SPECIFIC NOTES
1	TRANSFORMER MOUNTED ABOVE PANELBOARD. SEE SHEET E601 FOR TRANSFORMER SIZE.
2	RECEPTACLE COLOR SHOULD COORDINATE WITH COLUMN "GREY".
3	PROVIDE TWIST-LOCK RECEPTACLE CEILING MOUNTED.
4	ELEVATOR POWER MODULE, SEE ONE-LINE DIAGRAM.
5	NOT USED.
6	PROVIDE (3) 4" PVC RACEWAYS TO NEW PULL BOX THAT REPLACES EXISTING PULL BOX BEING RELOCATED BECAUSE OF CANOPY SUPPORT BEAM.
7	PROVIDE A 30AMP 3PH TWIST-LOCK RECEPTACLE.
L	

E_ F[D	С	В



KEY PLAN



SHEET TITLE FIRST FLOOR POWER PLAN AREA A BUILDING 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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PROJECT NO.	2013027_02
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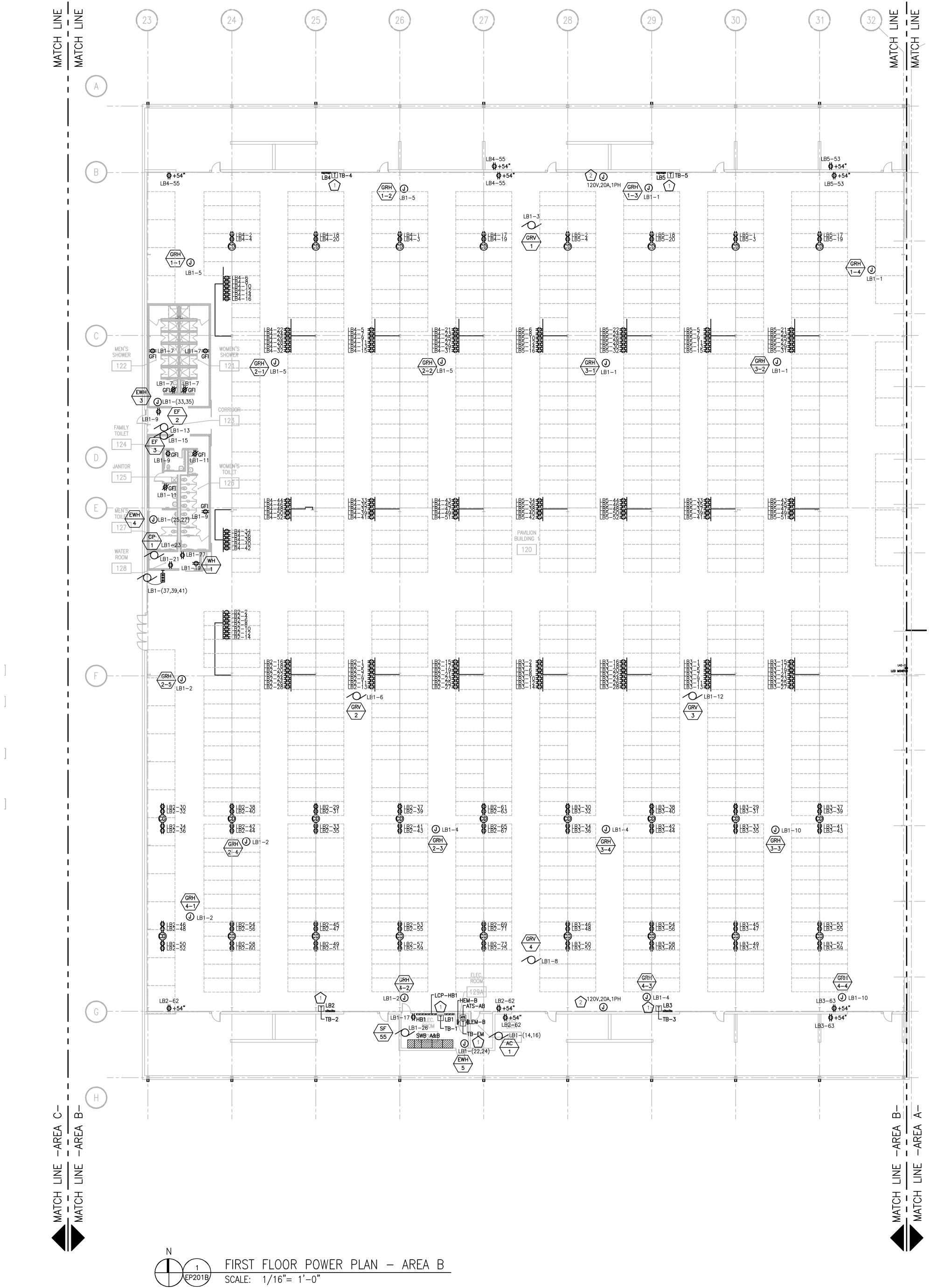
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE

ENGINEERING INTERIOR DESIGN







↓EP201B

	GENERAL PLAN NOTES
1	ALL RECEPTACLES IN THE PAVILION BUILDING SHALL BE GFI AND WATER PROOF.
2	SEE SHEET E401 DETAIL #11 FOR CORD DROP DETAIL.

	PLAN – SPECIFIC NOTES	
1	TRANSFORMER MOUNTED ABOVE PANELBOARD. SEE SHEET E601 FOR TRANSFORMER SIZE.	
2	PROVIDE A 120V, 20AMP, 1PH CONNECTION FOR MECHANICAL LOW-VOLTAGE DAMPER CONTROLS. COORDINATE EXAC LOCATION WITH MECHANICAL CONTRACTOR.	ст

E[F[D	С	B









SHEET TITLE FIRST FLOOR POWER PLAN AREA B - BUILDING 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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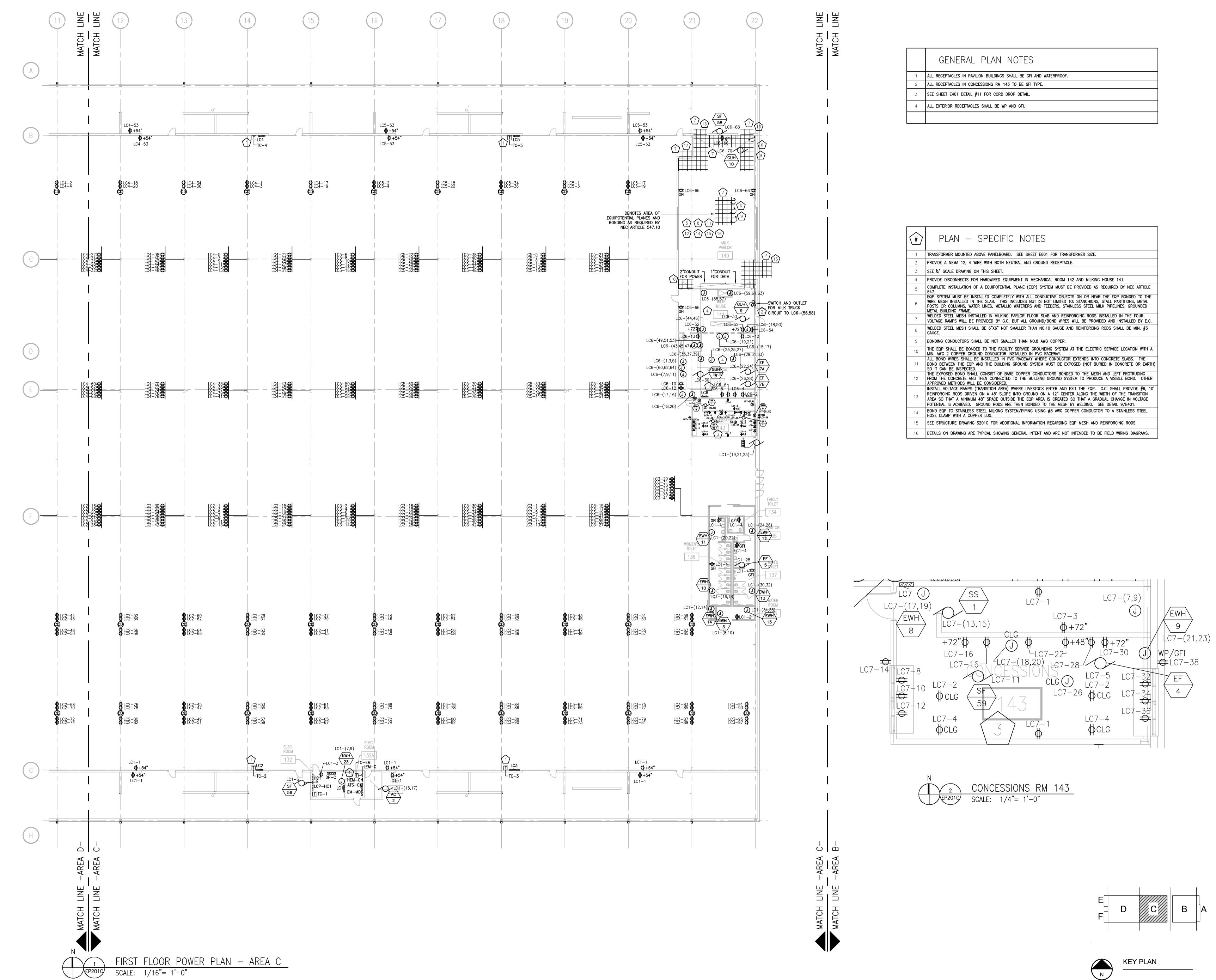
ARCHITECTURE ENGINEERING

INTERIOR DESIGN

T/ 608 276 9200 F/ 608 276 9204

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395

STRANG





	GENERAL PLAN NOTES
1	ALL RECEPTACLES IN PAVILION BUILDINGS SHALL BE GFI AND WATERPROOF.
2	ALL RECEPTACLES IN CONCESSIONS RM 143 TO BE GFI TYPE.
3	SEE SHEET E401 DETAIL #11 FOR CORD DROP DETAIL.
4	ALL EXTERIOR RECEPTACLES SHALL BE WP AND GFI.

)	13	

	\/	TLAN STECTIONOTES
	1	TRANSFORMER MOUNTED ABOVE PANELBOARD. SEE SHEET E601 FOR TRANSFORMER SIZE.
	2	PROVIDE A NEMA 12, 4 WIRE WITH BOTH NEUTRAL AND GROUND RECEPTACLE.
	3	SEE ¼" SCALE DRAWING ON THIS SHEET.
-	4	PROVIDE DISCONNECTS FOR HARDWIRED EQUIPMENT IN MECHANICAL ROOM 142 AND MILKING HOUSE 141.
	5	COMPLETE INSTALLATION OF A EQUIPOTENTIAL PLANE (EQP) SYSTEM MUST BE PROVIDED AS REQUIRED BY NEC ARTICLE 547.
	6	EQP SYSTEM MUST BE INSTALLED COMPLETELY WITH ALL CONDUCTIVE OBJECTS ON OR NEAR THE EQP BONDED TO THE WIRE MESH INSTALLED IN THE SLAB. THIS INCLUDES BUT IS NOT LIMITED TO: STANCHIONS, STALL PARTITIONS, METAL POSTS OR COLUMNS, WATER LINES, METALLIC WATERERS AND FEEDERS, STAINLESS STEEL MILK PIPELINES, GROUNDED METAL BUILDING FRAME.
	7	WELDED STEEL MESH INSTALLED IN MILKING PARLOR FLOOR SLAB AND REINFORCING RODS INSTALLED IN THE FOUR VOLTAGE RAMPS WILL BE PROVIDED BY G.C. BUT ALL GROUND/BOND WIRES WILL BE PROVIDED AND INSTALLED BY E.C.
	8	WELDED STEEL MESH SHALL BE 6"X6" NOT SMALLER THAN NO.10 GAUGE AND REINFORCING RODS SHALL BE MIN. #3 GAUGE.
	9	BONDING CONDUCTORS SHALL BE NOT SMALLER THAN NO.8 AWG COPPER.
	10	THE EQP SHALL BE BONDED TO THE FACILITY SERVICE GROUNDING SYSTEM AT THE ELECTRIC SERVICE LOCATION WITH A MIN. AWG 2 COPPER GROUND CONDUCTOR INSTALLED IN PVC RACEWAY.
	11	ALL BOND WIRES SHALL BE INSTALLED IN PVC RACEWAY WHERE CONDUCTOR EXTENDS INTO CONCRETE SLABS. THE BOND BETWEEN THE EQP AND THE BUILDING GROUND SYSTEM MUST BE EXPOSED (NOT BURIED IN CONCRETE OR EARTH) SO IT CAN BE INSPECTED.
	12	THE EXPOSED BOND SHALL CONSIST OF BARE COPPER CONDUCTORS BONDED TO THE MESH AND LEFT PROTRUDING FROM THE CONCRETE AND THEN CONNECTED TO THE BUILDING GROUND SYSTEM TO PRODUCE A VISIBLE BOND. OTHER APPROVED METHODS WILL BE CONSIDERED.
	13	INSTALL VOLTAGE RAMPS (TRANSITION AREA) WHERE LIVESTOCK ENTER AND EXIT THE EQP. G.C. SHALL PROVIDE #6, 10' REINFORCING RODS DRIVEN ON A 45' SLOPE INTO GROUND ON A 12" CENTER ALONG THE WIDTH OF THE TRANSITION AREA SO THAT A MINIMUM 48" SPACE OUTSIDE THE EQP AREA IS CREATED SO THAT A GRADUAL CHANGE IN VOLTAGE POTENTIAL IS ACHIEVED. GROUND RODS ARE THEN BONDED TO THE MESH BY WELDING. SEE DETAIL 9/E401.
	14	BOND EQP TO STAINLESS STEEL MILKING SYSTEM/PIPING USING #8 AWG COPPER CONDUCTOR TO A STAINLESS STEEL HOSE CLAMP WITH A COPPER LUG.
	15	SEE STRUCTURE DRAWING S201C FOR ADDITIONAL INFORMATION REGARDING EQP MESH AND REINFORCING RODS.
	16	DETAILS ON DRAWING ARE TYPICAL SHOWING GENERAL INTENT AND ARE NOT INTENDED TO BE FIELD WIRING DIAGRAMS



SHEET TITLE FIRST FLOOR POWER PLAN AREA C - BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

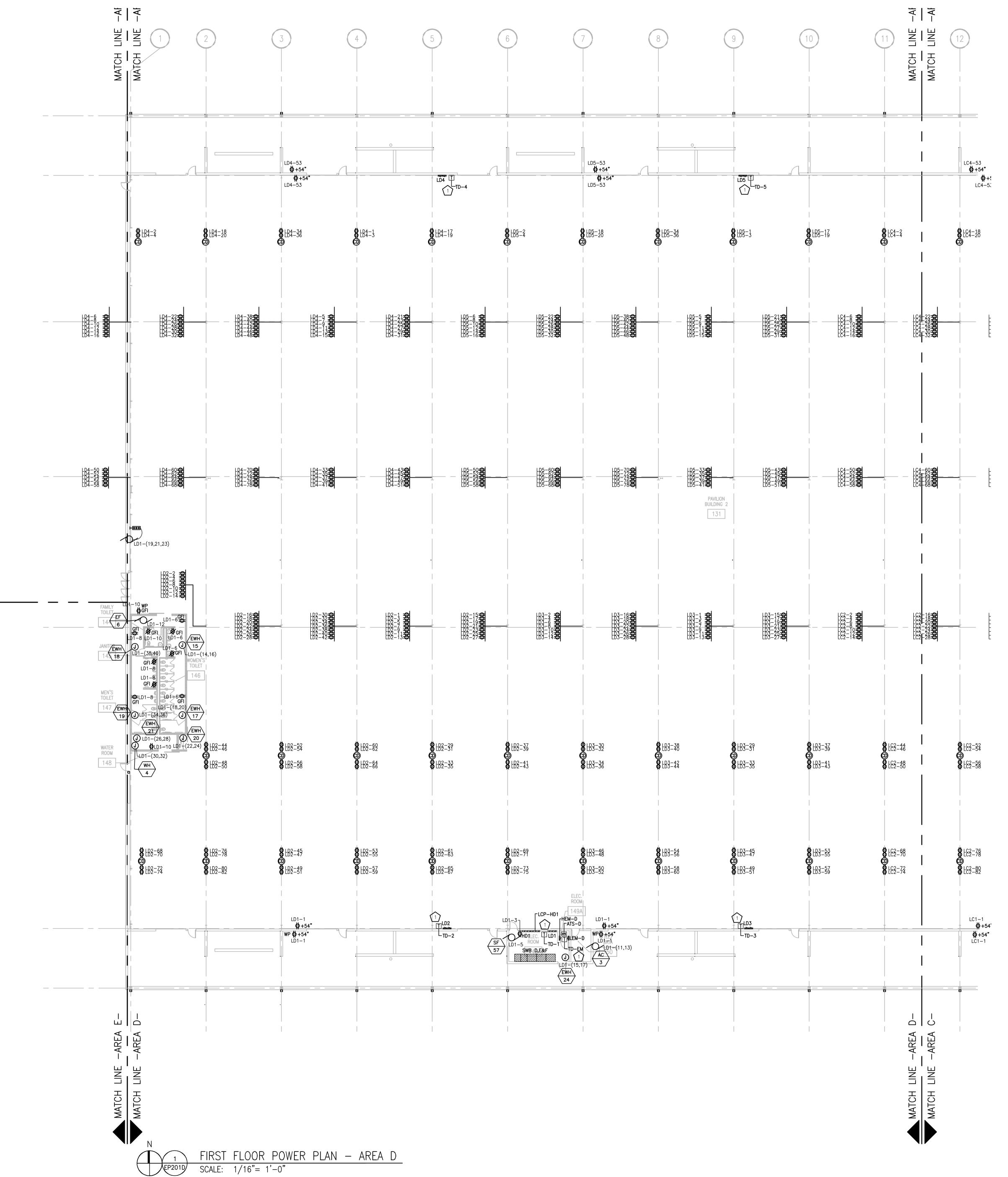
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REVISIONS	ADDENDUM #2 11-14-13 CONST. SET 01-08-14
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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 60**8** 276 9200 F/ 608 276 9204

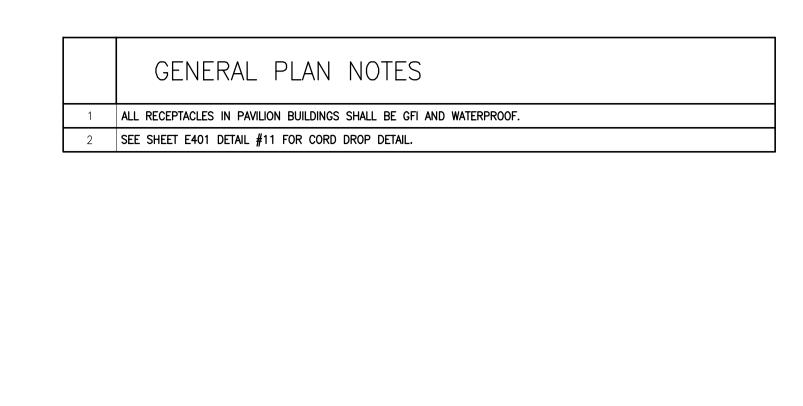
ARCHITECTURE

INTERIOR DESIGN

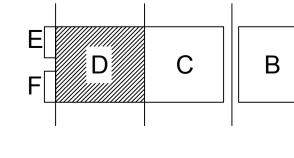








(#)	PLAN – SPECIFIC	C NOTES
1	TRANSFORMER MOUNTED ABOVE PANELBOARD	. SEE SHEET E601 FOR TRANSFORMER SIZE.









SHEET TITLE FIRST FLOOR POWER PLAN AREA D - BUILDING 2

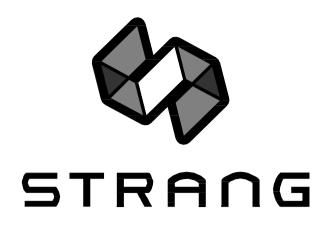
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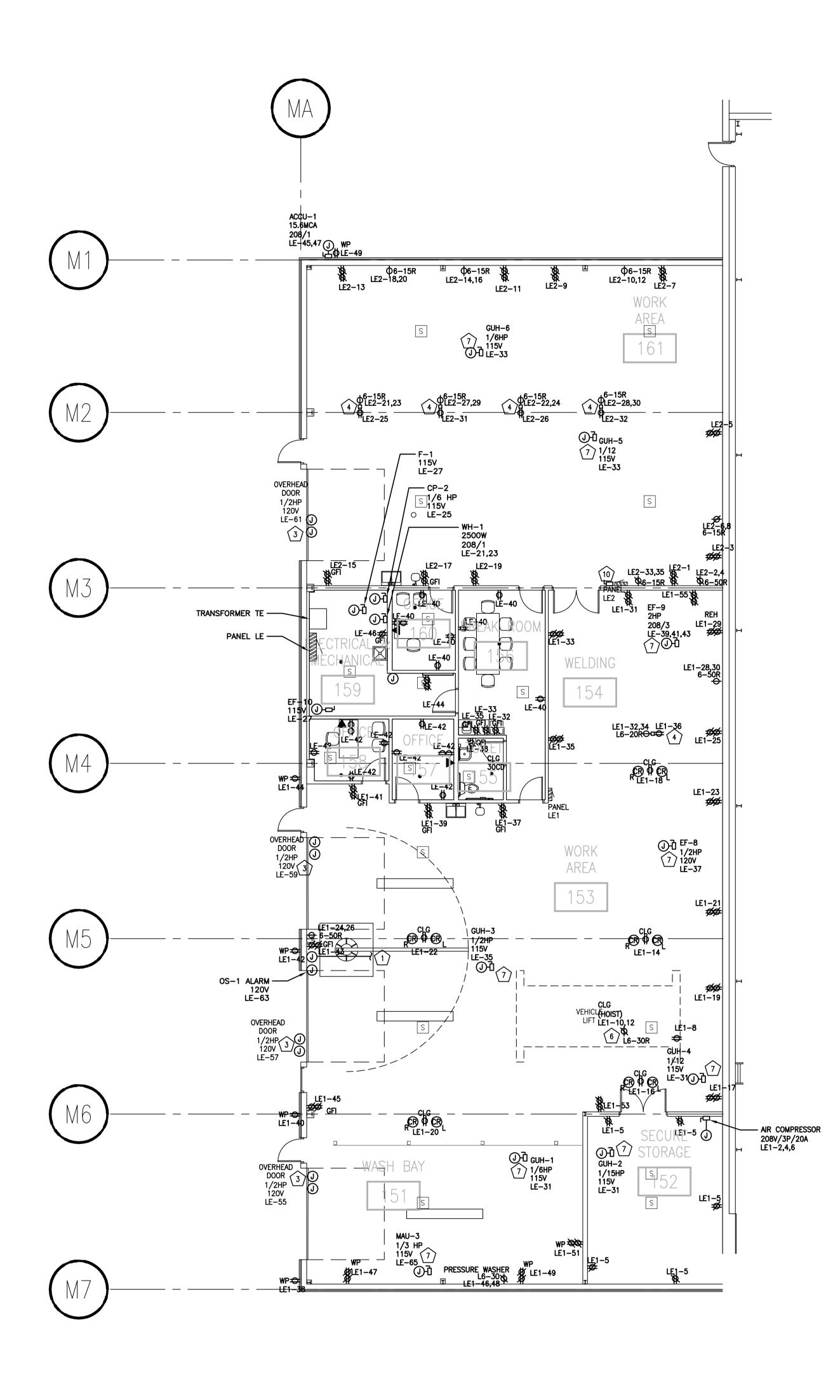
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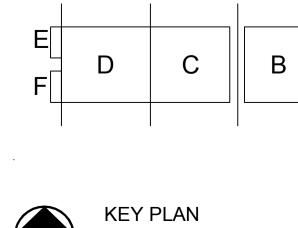
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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 60**8** 276 9200 F/ 608 276 9204





	BUILDING E SPECIFIC
	LIGHTING/POWER/SYSTEMS NOTES
#	PLAN NOTE
1	ROUTE 3/4" CONDUIT FROM OS-1 ALARM ON WALL TO OS-1 PIT UNDER SLAB. COORDINATE LOCATIONS AND ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
2	EXTERIOR WALL MOUNT SO JUNCTION BOX IS CENTERED 1' ABOVE OH DOOR.
3	COORDINATE HEIGHT AND TYPE OF DOOR OPERATOR POWER CONNECTION WITH DOOR OPERATOR SUPPLIE PROVIDE BACKBOX AT 42" AFF FOR OH DOOR CONTROL BUTTON STATION BY OTHERS. COORDINATE BOX SIZE WITH DOOR OPERATOR SUPPLIER. ROUTE 1/2" CONDUIT TO LOCATION OF DOOR OPERATOR. COORDINATE LOCATION WITH DOOR OPERATOR SUPPLIER. PROVIDE DISCONNECTING MEANS, COORDINATE WITH GC.
4	PROVIDE 12GA CORD PENDANT (NOT A CORD REEL) FOR 208V AND 120V RECEPTACLE FROM CEILING IN THIS LOCATION. PENDANT BOX SHALL HAVE A DUPLEX 120V RECEPTACLE ON ONE SIDE AND A SIMPLEX 208V RECEPTACLE ON THE OTHER SIDE COORDINATE DEVICE TYPE WITH THAT SHOWN ON DRAWINGS. HAPENDANT DOWN TO 6'-5" AFF. PROVIDE STRAIN RELIEF/WIRE GRIPS INDEPENDENT OF JUNCTION BOX A CEILING AND PROVIDE STRAIN RELIEF ON OUTLET PENDANT END. COORDINATE ALL MOUNTING AND LOADI REQUIREMENTS WITH GENERAL CONTRACTOR.
5	PROVIDE CEILING OR BEAM MOUNTED RECEPTACLE FOR CORD REELS AS SHOWN. ADJUST REEL STOP SO CORDS HANG AT 7' AFF. COORDINATE ALL MOUNTING AND LOADING REQUIREMENTS WITH GENERAL CONTRACTOR.
6	PROVIDE FIXED 10GA CORD PENDANT FOR 208V PENDANT CORD/PLUG FROM CEILING IN THIS LOCATION. HANG PENDANT DOWN TO 6'-5" AFF. PROVIDE STRAIN RELIEF/WIRE GRIPS INDEPENDENT OF JUNCTION BOX AT CEILING AND PROVIDE STRAIN RELIEF ON OUTLET PENDANT END. COORDINATE ALL MOUNTING AN LOADING REQUIREMENTS WITH GENERAL CONTRACTOR.
7	COORDINATE REQUIRED DISCONNECT LOCATION WITH AHJ. IF ALLOWED, THE PREFERRED OPTION IS TO LOCATE DISCONNECT ADJACENT TO OR ON UNIT SERVED. HOWEVER, IF THE AHJ'S INTERPRETATION OF 'READILY ACCESSIBLE' REQUIRES THAT THE DISCONNECT BE LOCATED WITHIN REACH OF THE FLOOR, LOCA DISCONNECT ON THE NEAREST WALL.
8	CEILING MOUNT OR WALL MOUNTED WITHIN 12" OF CEILING.
9	4'X8'T UL LISTED FIRE RATED PLYWOOD PANEL AND 12 SPACE WALL MOUNTED RACK. PROVIDE PATE PANELS AND WIRE MANGEMENT AS REQURIED IN SPECIFICATIONS AND ON E402 TELECOMMUNICATIONS RISER DIAGRAM.
10	PADLOCKABLE NON FUSED DISCONNECT WIRED AHEAD OF PANEL B TO ALLOW LOCKOUT OF ENTIRE PANE POWER.
11	PROVIDE ELECTRICALLY HELD 3-POLE CONTACTOR IN OR ADJACENT TO PANEL B. CONTACTOR SHALL BE WIRED TO SWITCH IN OFFICE 110. CONTACTOR SHALL HAVE NO EXTERNAL CONTROLS OR OVERRIDE AND SHALL BE PROVIDED WITH A PADLOCKABLE COVER. IF A CONTACTOR INTEGRAL TO THE PANEL IS PROVIDED, THE PANEL COVER SHALL BE PADLOCKABLE.
12	PROVIDE FIXED 12GA CORD PENDANT FOR RECEPTACLE FROM CEILING IN THIS LOCATION. HANG RECEPTACLE DOWN TO 6'-5" AFF. PROVIDE STRAIN RELIEF/WIRE GRIPS INDEPENDENT OF JUNCTION BOX AT CEILING AND PROVIDE STRAIN RELIEF ON OUTLET PENDANT END. PROVIDE DEVICE AS SHOWN ON DRAWINGS. COORDINATE ALL MOUNTING AND LOADING REQUIREMENTS WITH GENERAL CONTRACTOR.
13	LOCATED ON MAIN SPACE CEILING, ABOVE ROOM.
14	LOCATE WITHIN 3' OF CEILING PEAK.



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SHEET TITLE FIRST FLOOR POWER PLAN AREA E - BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

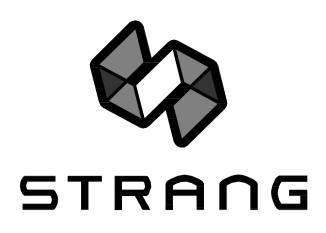
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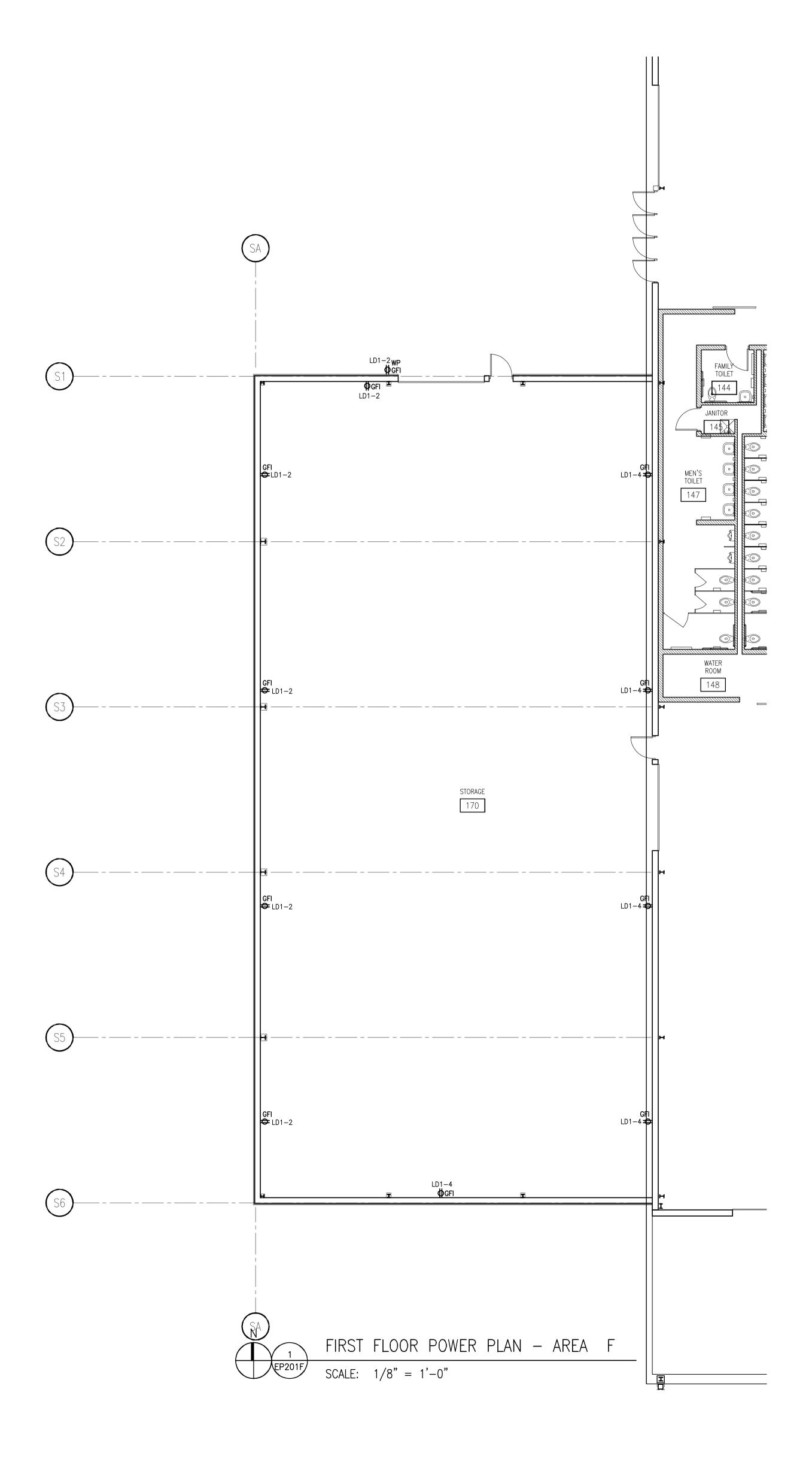
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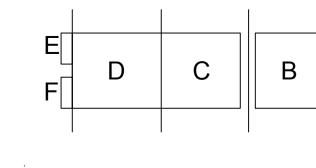
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ARCHITECTURE Engineering







KEY PLAN

GENERAL PLAN NO



SHEET TITLE FIRST FLOOR POWER PLAN AREA F BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

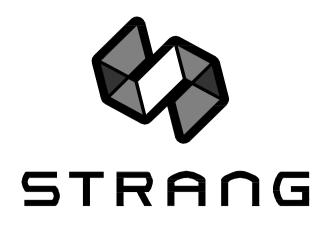
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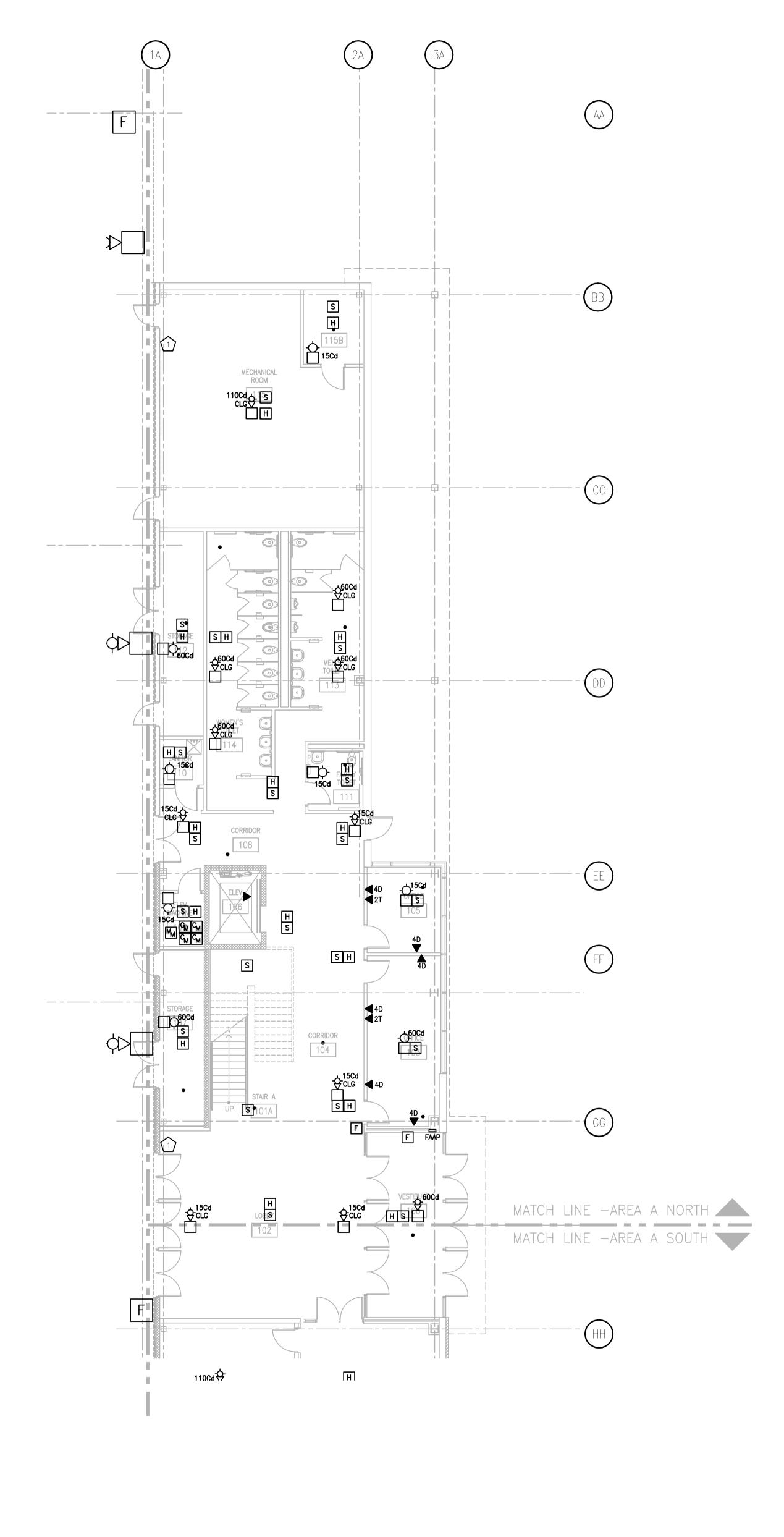
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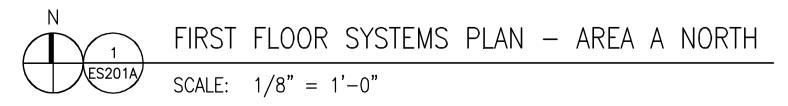
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ARCHITECTURE Engineering Interior design

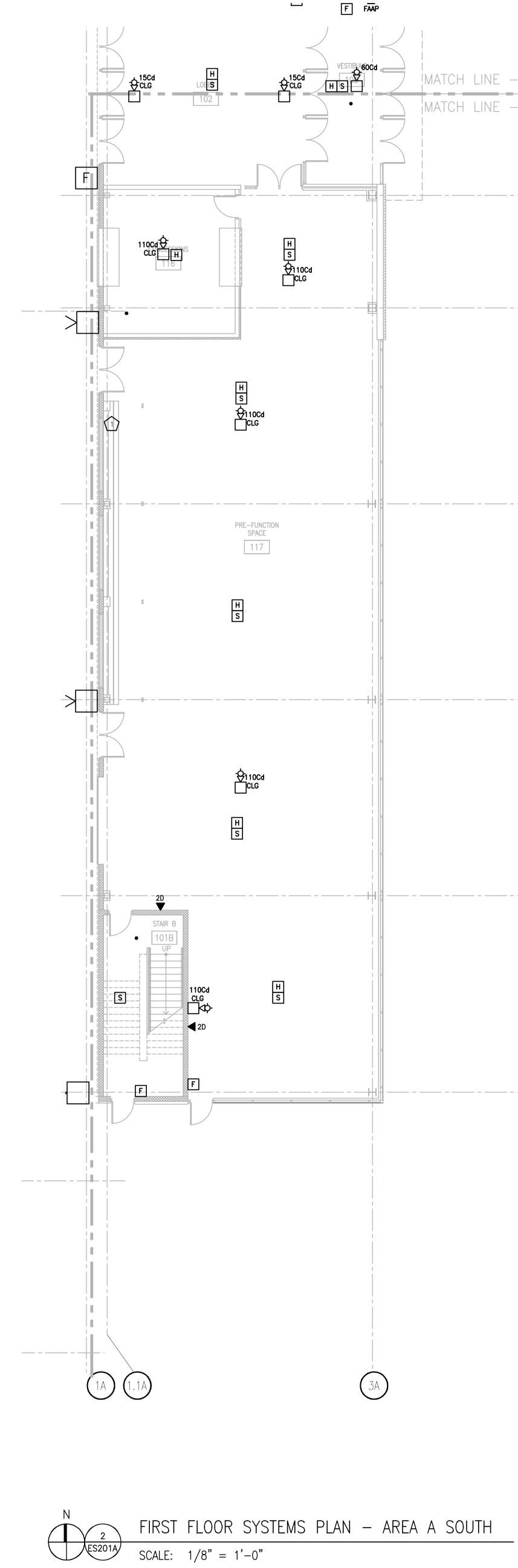






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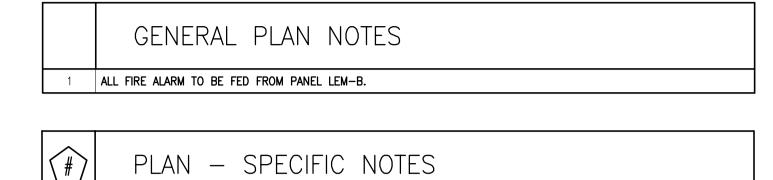
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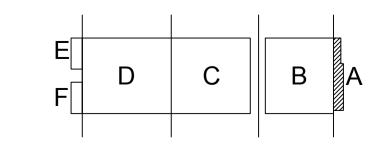
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—(MM)



PROVIDE WALL PASS-THROUGH ASSEMBLY IN THIS LOCATION. SEE 2/E402 LOCATE 18" AFF.









SHEET TITLE FIRST FLOOR SYSTEMS PLAN AREA A BUILDING 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

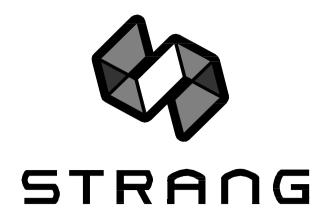
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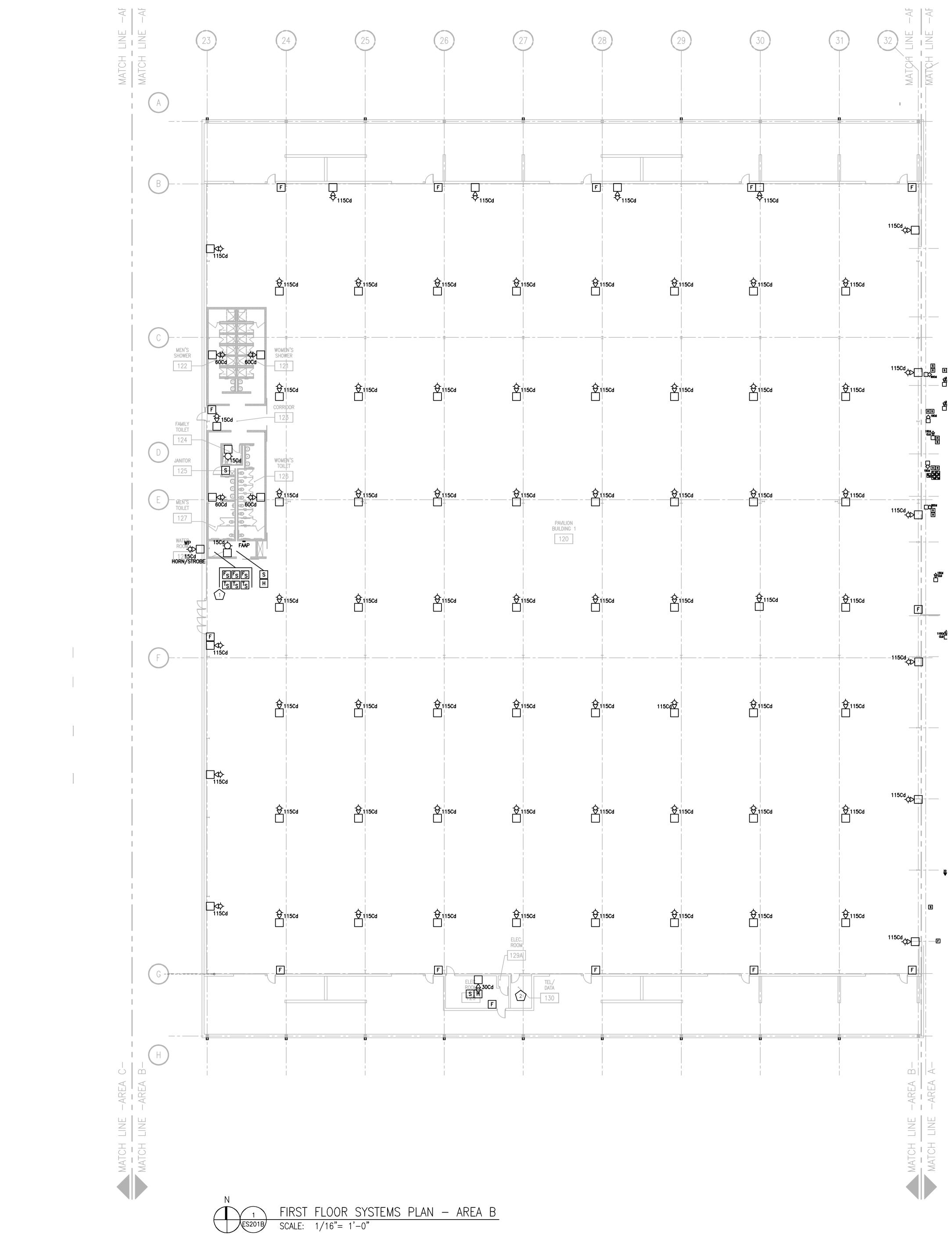
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REVISIONS	CONST. SET 01-08-14

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ARCHITECTURE

INTERIOR DESIGN





Xref List: 201302 2013027_02-x-C 2013027_x-GRID 2013027_02-E-C

GENERAL PLAN NOTES
ALL SPEAKER/STROBES ARE SURFACE MOUNTED TO UNISTRUT UNLESS LOCATED ON WALL.
ALL FIRE ALARM SYSTEM EQUIPMENT IN PAVILION BUILDING 120 MUST BE WATERPROOF.
ALL FIRE ALARM EQUIPMENT TO BE FED FROM PANEL LEM-B.

(#)	PLAN – SPECIFIC NOTES
1	QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES TO BE COORDINATED WITH SPRINKLER CONTRACTOR.
2	REFER TO SHEET E301 FOR EQUIPMENT LOCATED IN ROOM.

E[F[D	С	B



KEY PLAN





SHEET TITLE FIRST FLOOR SYSTEMS PLAN AREA B - BUILDING 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

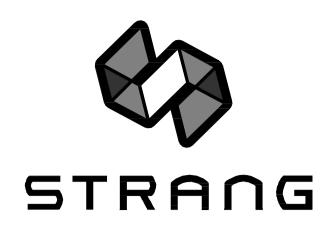
ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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PROJECT NO.	2013027_02
PROJECT TITLE	

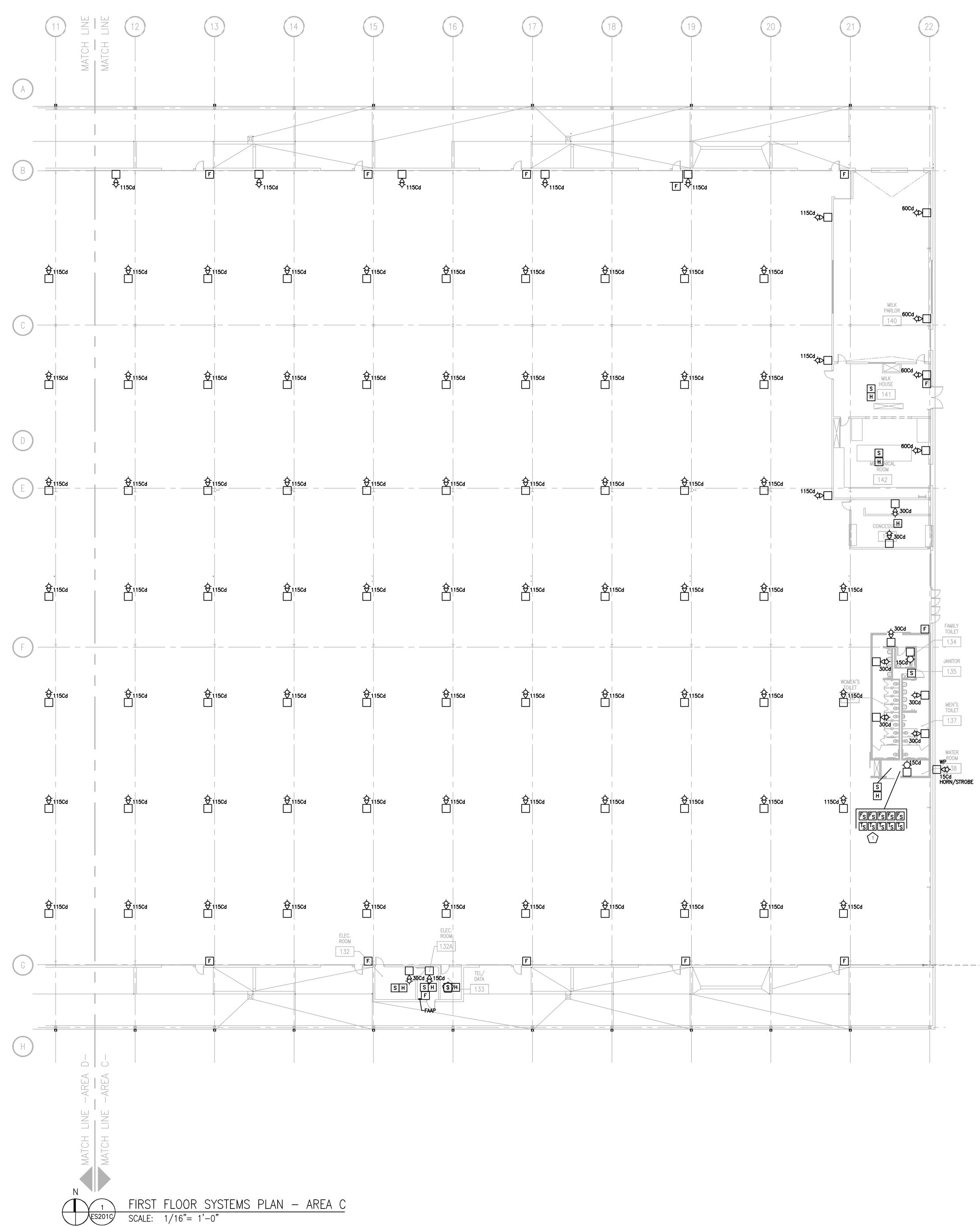
DRAWING SET	CD
COPYRIGHT STRANG, INC.	2013
FILE NAME	2013027_02-ES201B.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

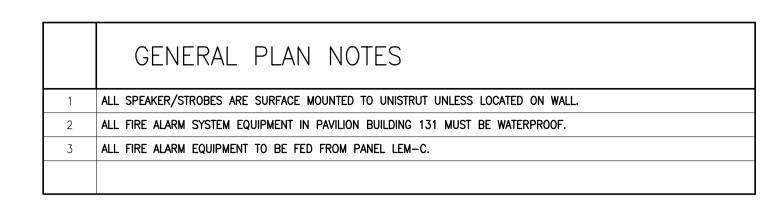
ARCHITECTURE ENGINEERING











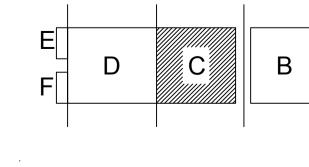
 $\left|\left\langle \#\right\rangle \right|$

LINE | K

MATCH MATCH

PLAN – SPECIFIC NOTES

QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES TO BE COORDINATED WITH SPRINKLER CONTRACTOR. REFER TO SHEET E301 FOR EQUIPMENT LOCATED IN ROOM.





KEY PLAN



SHEET TITLE FIRST FLOOR SYSTEMS PLAN AREA C - BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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FILE NAME	2013027_02-ES201C.DWG
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CD

DRAWING SET

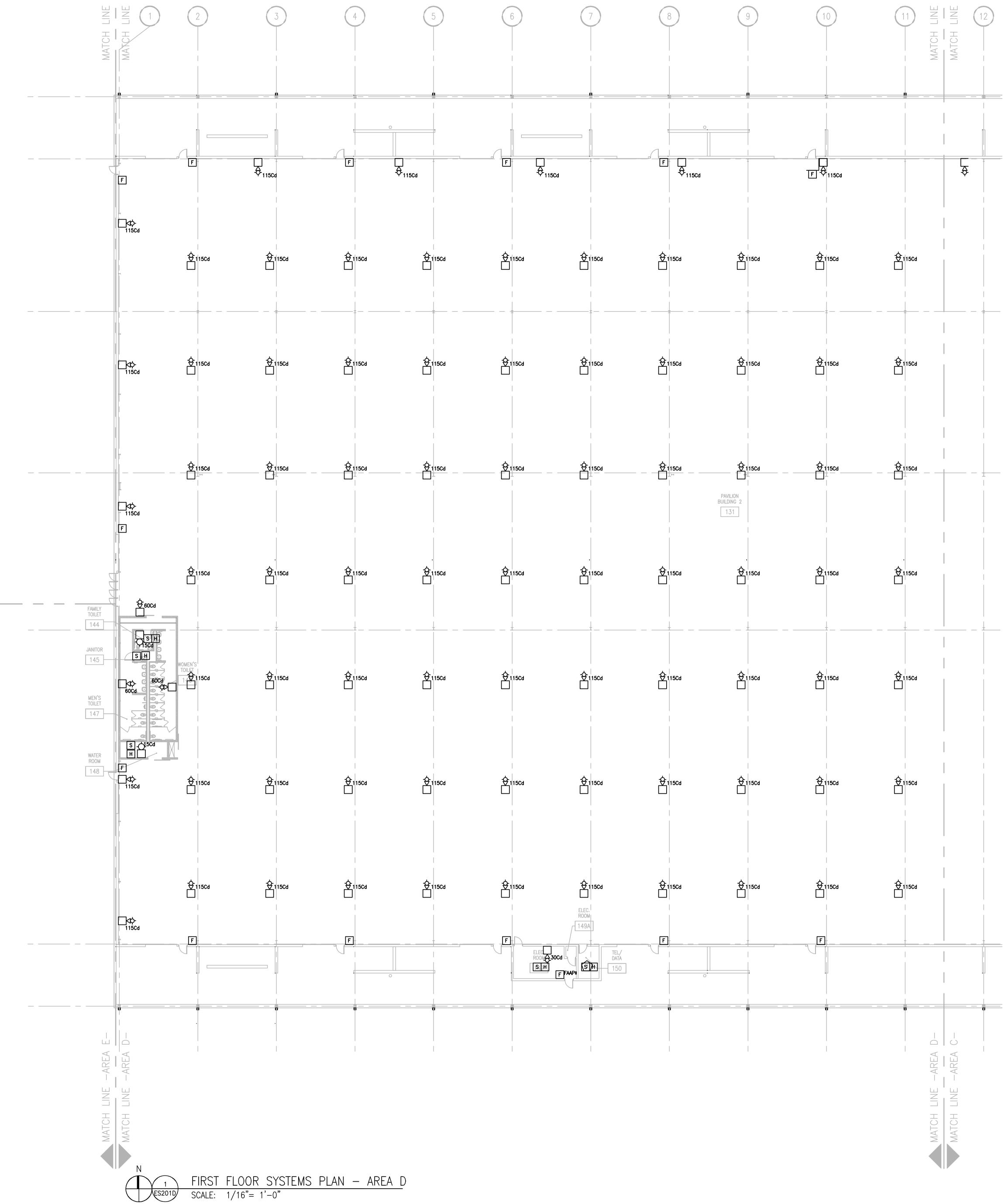
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

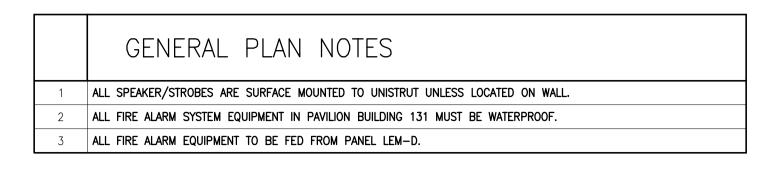
ARCHITECTURE ENGINEERING











MATCH MATCH

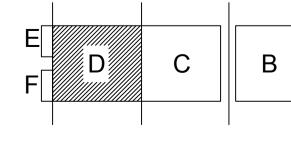
₽

AREA D-AREA C-

TEM MAT

(12)

	(#)	PLAN – SPECIFIC NOTES
	1	REFER TO SHEET E301 FOR EQUIPMENT LOCATED IN ROOM.
l	1	REFER TO SHEET E301 FOR EQUIPMENT LOCATED IN ROOM.





KEY PLAN



SHEET TITLE FIRST FLOOR SYSTEMS PLAN AREA D - BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

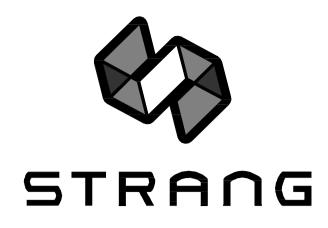
ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

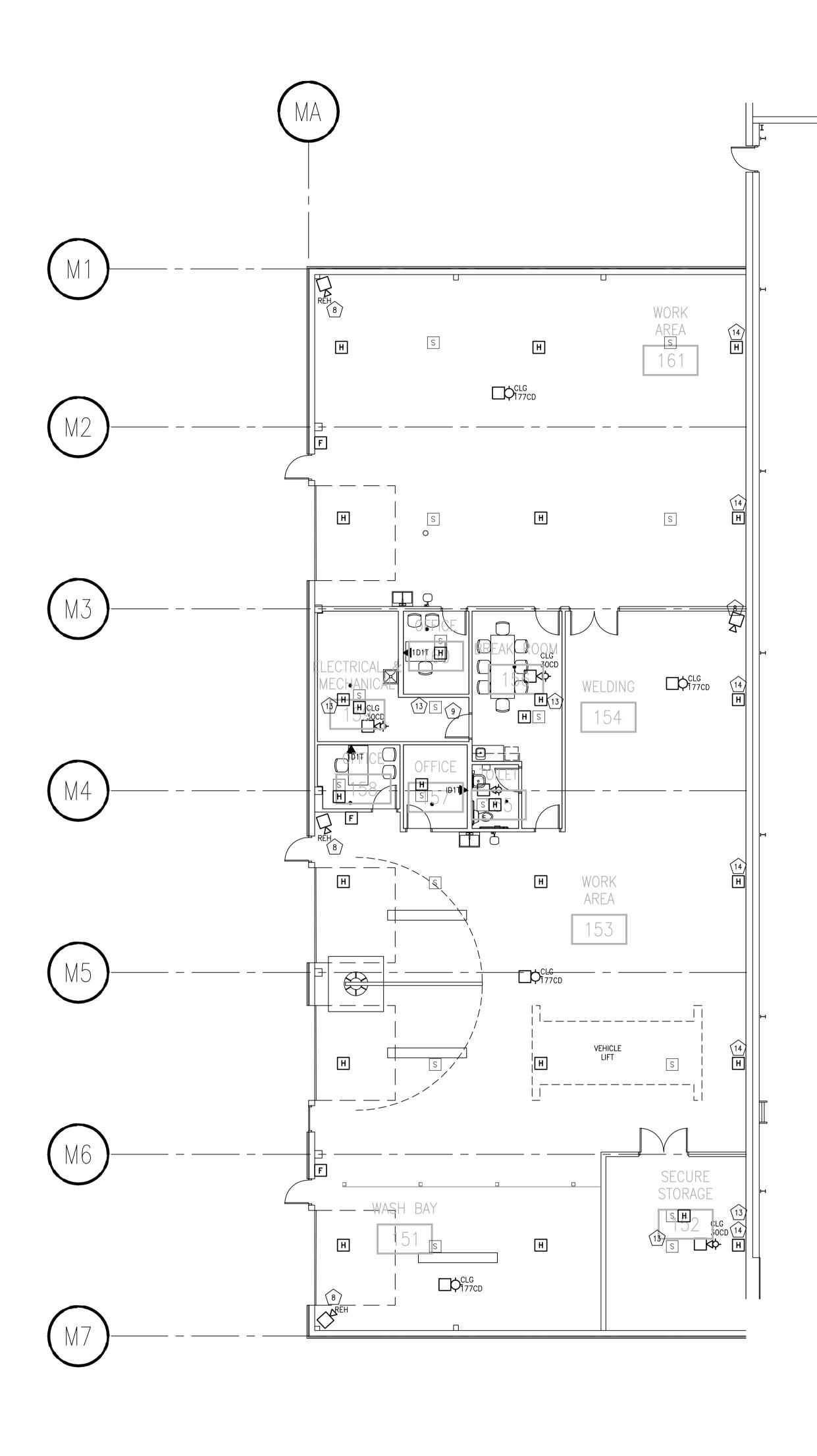
DRAWN	КК
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
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FILE NAME	2013027_02-ES201D.DWG
REVISIONS	CONST. SET 01-08-14

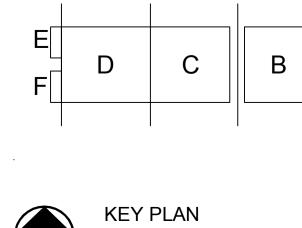
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE ENGINEERING





	BUILDING E SPECIFIC
	LIGHTING/POWER/SYSTEMS NOTES
#	PLAN NOTE
1	ROUTE 3/4" CONDUIT FROM OS-1 ALARM ON WALL TO OS-1 PIT UNDER SLAB. COORDINATE LOCATIONS AND ADDITIONAL REQUIREMENTS WITH PLUMBING CONTRACTOR.
2	EXTERIOR WALL MOUNT SO JUNCTION BOX IS CENTERED 1' ABOVE OH DOOR.
3	COORDINATE HEIGHT AND TYPE OF DOOR OPERATOR POWER CONNECTION WITH DOOR OPERATOR SUPPLIE PROVIDE BACKBOX AT 42" AFF FOR OH DOOR CONTROL BUTTON STATION BY OTHERS. COORDINATE BOX SIZE WITH DOOR OPERATOR SUPPLIER. ROUTE 1/2" CONDUIT TO LOCATION OF DOOR OPERATOR. COORDINATE LOCATION WITH DOOR OPERATOR SUPPLIER. PROVIDE DISCONNECTING MEANS, COORDINATE WITH GC.
4	PROVIDE 12GA CORD PENDANT (NOT A CORD REEL) FOR 208V AND 120V RECEPTACLE FROM CEILING IN THIS LOCATION. PENDANT BOX SHALL HAVE A DUPLEX 120V RECEPTACLE ON ONE SIDE AND A SIMPLEX 208V RECEPTACLE ON THE OTHER SIDE COORDINATE DEVICE TYPE WITH THAT SHOWN ON DRAWINGS. HAPENDANT DOWN TO 6'-5" AFF. PROVIDE STRAIN RELIEF/WIRE GRIPS INDEPENDENT OF JUNCTION BOX A CEILING AND PROVIDE STRAIN RELIEF ON OUTLET PENDANT END. COORDINATE ALL MOUNTING AND LOADI REQUIREMENTS WITH GENERAL CONTRACTOR.
5	PROVIDE CEILING OR BEAM MOUNTED RECEPTACLE FOR CORD REELS AS SHOWN. ADJUST REEL STOP SO CORDS HANG AT 7' AFF. COORDINATE ALL MOUNTING AND LOADING REQUIREMENTS WITH GENERAL CONTRACTOR.
6	PROVIDE FIXED 10GA CORD PENDANT FOR 208V PENDANT CORD/PLUG FROM CEILING IN THIS LOCATION. HANG PENDANT DOWN TO 6'-5" AFF. PROVIDE STRAIN RELIEF/WIRE GRIPS INDEPENDENT OF JUNCTION BOX AT CEILING AND PROVIDE STRAIN RELIEF ON OUTLET PENDANT END. COORDINATE ALL MOUNTING AN LOADING REQUIREMENTS WITH GENERAL CONTRACTOR.
7	COORDINATE REQUIRED DISCONNECT LOCATION WITH AHJ. IF ALLOWED, THE PREFERRED OPTION IS TO LOCATE DISCONNECT ADJACENT TO OR ON UNIT SERVED. HOWEVER, IF THE AHJ'S INTERPRETATION OF 'READILY ACCESSIBLE' REQUIRES THAT THE DISCONNECT BE LOCATED WITHIN REACH OF THE FLOOR, LOCA DISCONNECT ON THE NEAREST WALL.
8	CEILING MOUNT OR WALL MOUNTED WITHIN 12" OF CEILING.
9	4'X8'T UL LISTED FIRE RATED PLYWOOD PANEL AND 12 SPACE WALL MOUNTED RACK. PROVIDE PATE PANELS AND WIRE MANGEMENT AS REQURIED IN SPECIFICATIONS AND ON E402 TELECOMMUNICATIONS RISER DIAGRAM.
10	PADLOCKABLE NON FUSED DISCONNECT WIRED AHEAD OF PANEL B TO ALLOW LOCKOUT OF ENTIRE PANE POWER.
11	PROVIDE ELECTRICALLY HELD 3-POLE CONTACTOR IN OR ADJACENT TO PANEL B. CONTACTOR SHALL BE WIRED TO SWITCH IN OFFICE 110. CONTACTOR SHALL HAVE NO EXTERNAL CONTROLS OR OVERRIDE AND SHALL BE PROVIDED WITH A PADLOCKABLE COVER. IF A CONTACTOR INTEGRAL TO THE PANEL IS PROVIDED, THE PANEL COVER SHALL BE PADLOCKABLE.
12	PROVIDE FIXED 12GA CORD PENDANT FOR RECEPTACLE FROM CEILING IN THIS LOCATION. HANG RECEPTACLE DOWN TO 6'-5" AFF. PROVIDE STRAIN RELIEF/WIRE GRIPS INDEPENDENT OF JUNCTION BOX AT CEILING AND PROVIDE STRAIN RELIEF ON OUTLET PENDANT END. PROVIDE DEVICE AS SHOWN ON DRAWINGS. COORDINATE ALL MOUNTING AND LOADING REQUIREMENTS WITH GENERAL CONTRACTOR.
13	LOCATED ON MAIN SPACE CEILING, ABOVE ROOM.
14	LOCATE WITHIN 3' OF CEILING PEAK.



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SHEET TITLE FIRST FLOOR SYSTEMS PLAN AREA E - BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

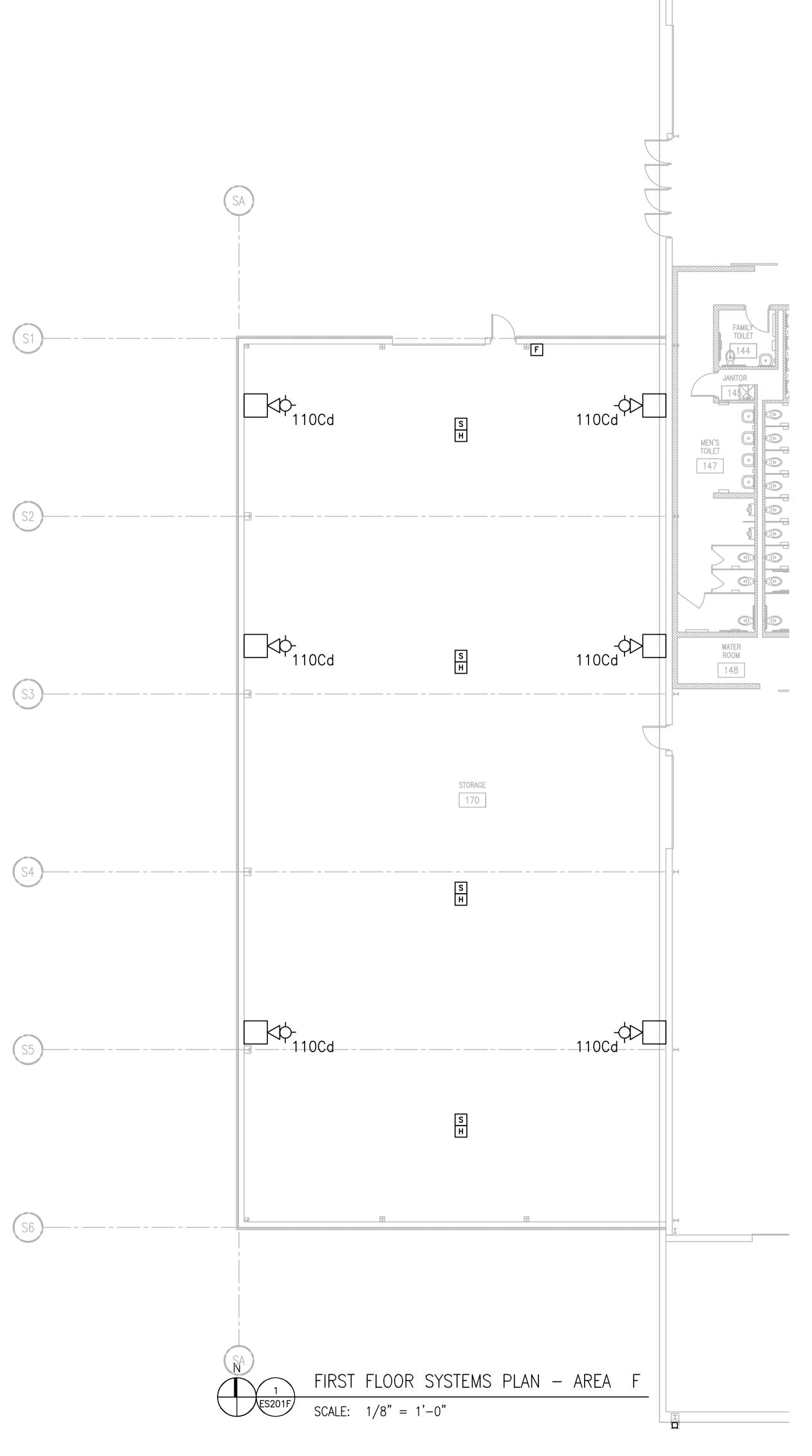
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CHECKED	-
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

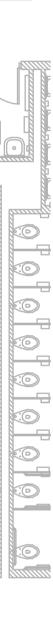
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REVISIONS	CONST. SET 01-08-14

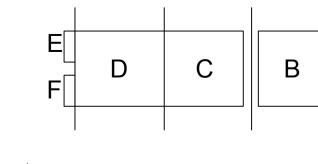
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE Engineering











KEY PLAN



SHEET TITLE FIRST FLOOR SYSTEMS PLAN AREA F BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

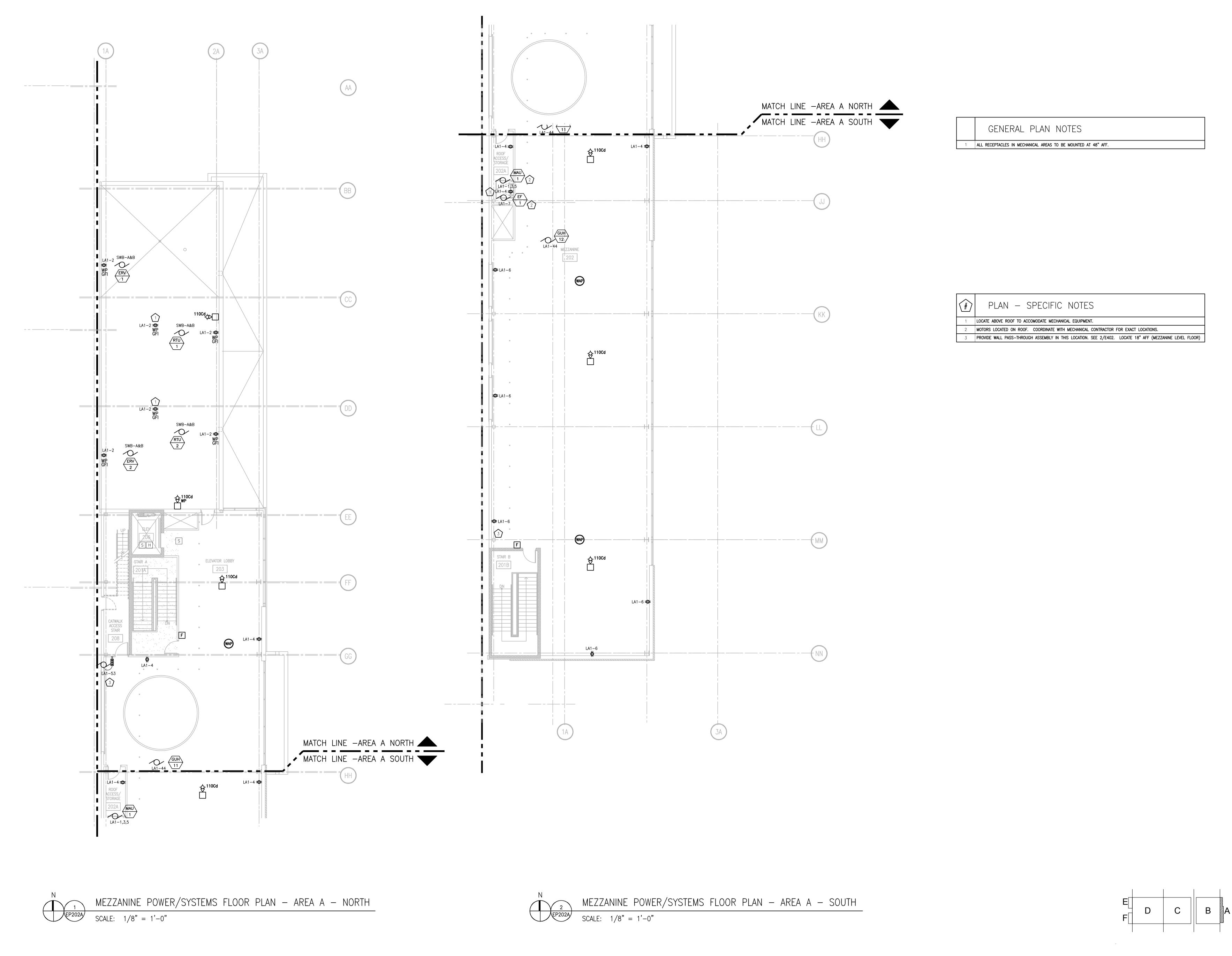
ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204











SHEET TITLE MEZZANINE POWER/SYSTEMS FLOOR PLAN - AREA A

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	KK
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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FILE NAME	2013027_02-EP202A.DWG
REVISIONS	CONST. SET 01-08-14

CD

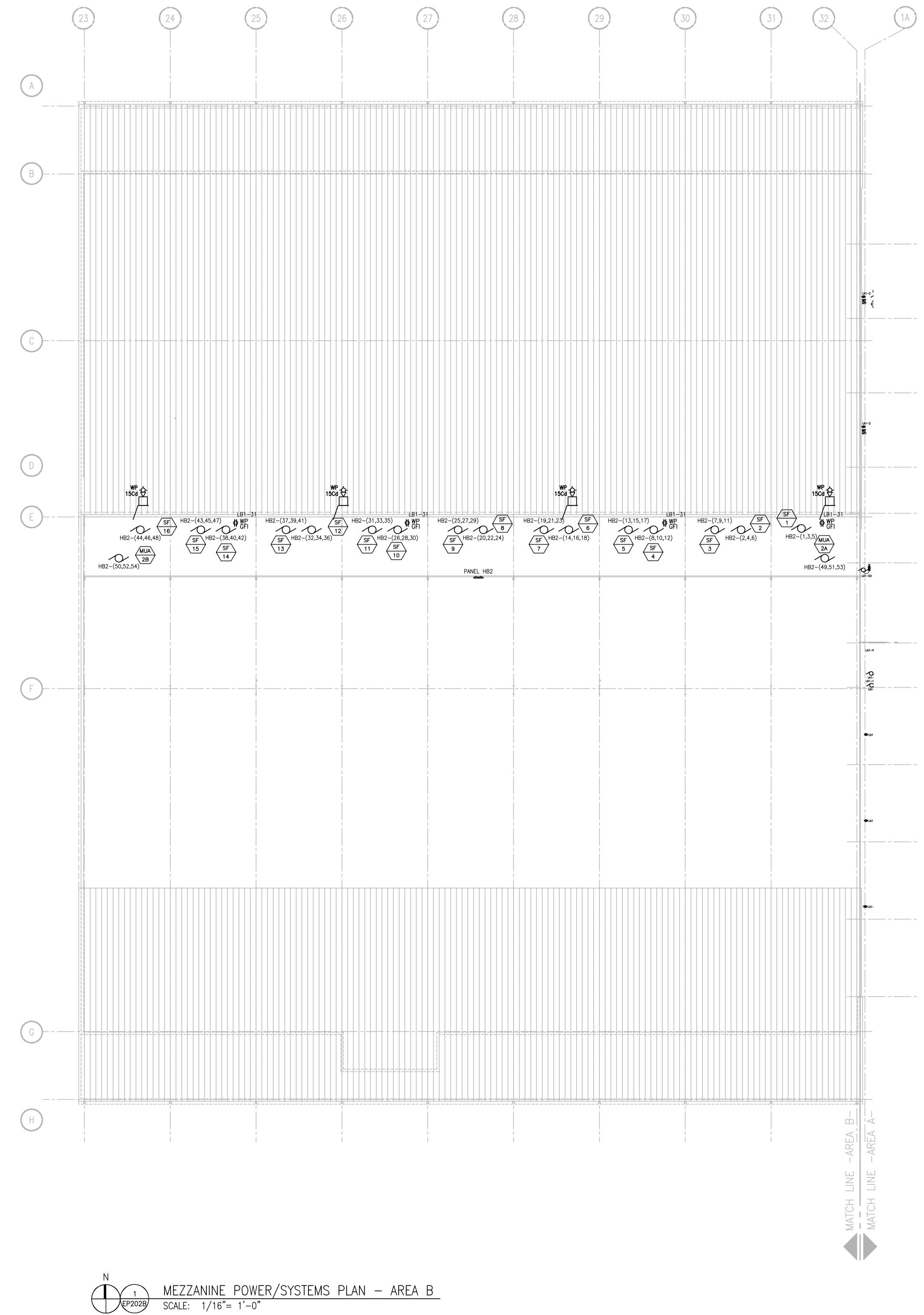
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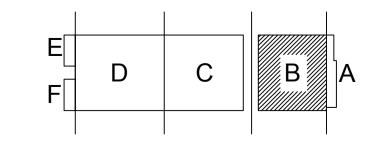
STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705–4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE Engineering Interior design













KEY PLAN

GENERAL PLAN NOTES

COORDINATE WITH MECHANICAL CONTRACTOR EXACT LOCATIONS OF EQUIPMENT.



SHEET TITLE MEZZANINE POWER/SYSTEMS AREA B - BUILDING 1

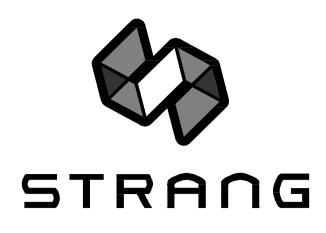
1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

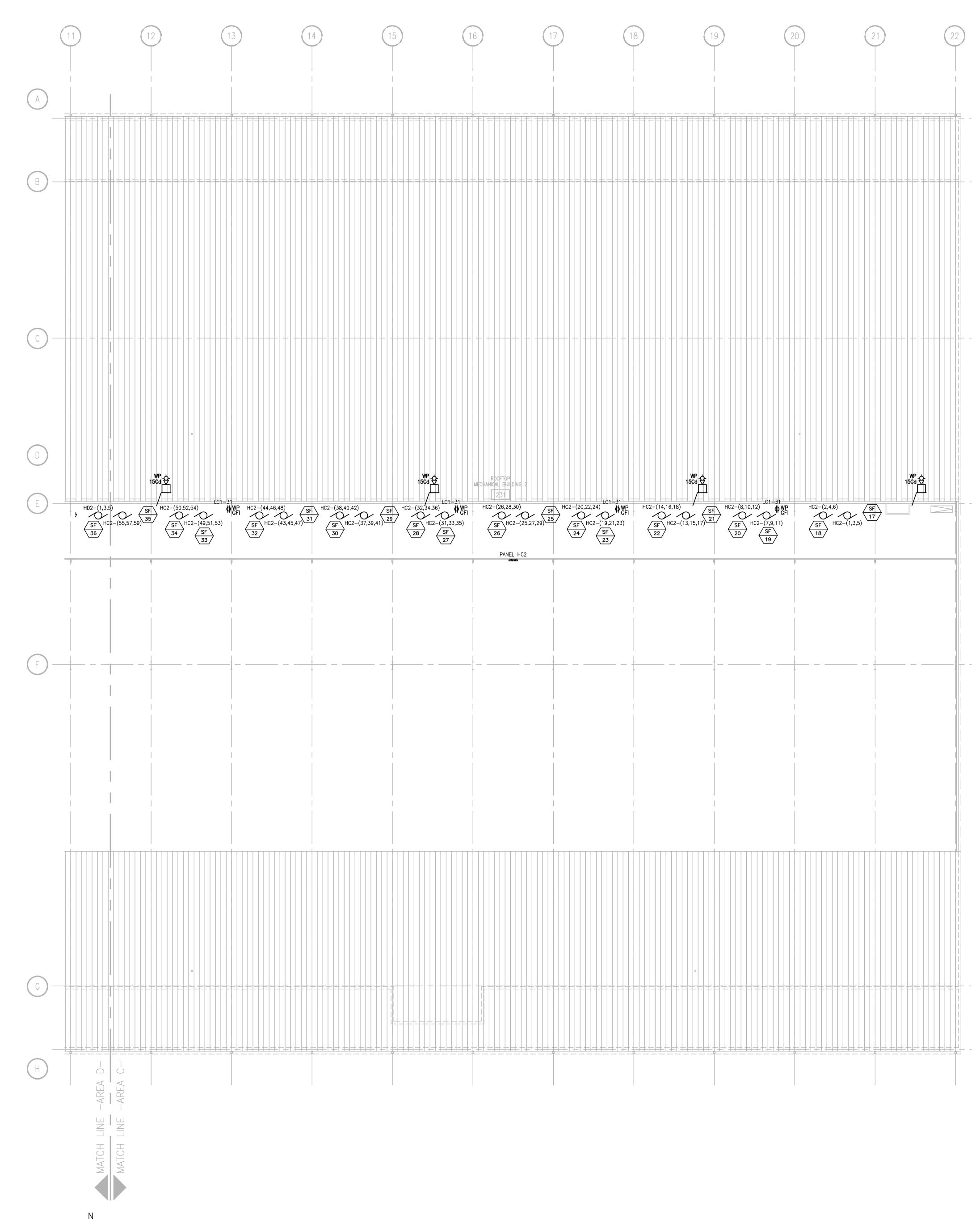
DRAWN	КК
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
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FILE NAME	2013027_02-EP202B.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

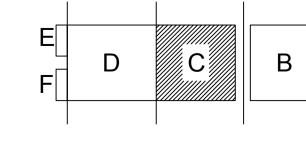






GENERAL PLAN NOTES

COORDINATE WITH MECHANICAL CONTRACTOR EXACT LOCATIONS OF EQUIPMENT.









SHEET TITLE MEZZANINE POWER/SYSTEMS AREA C - BUILDING 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

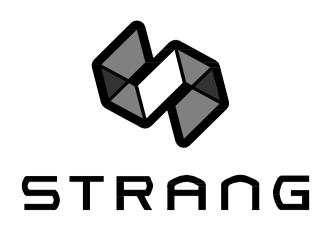
ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	KK
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

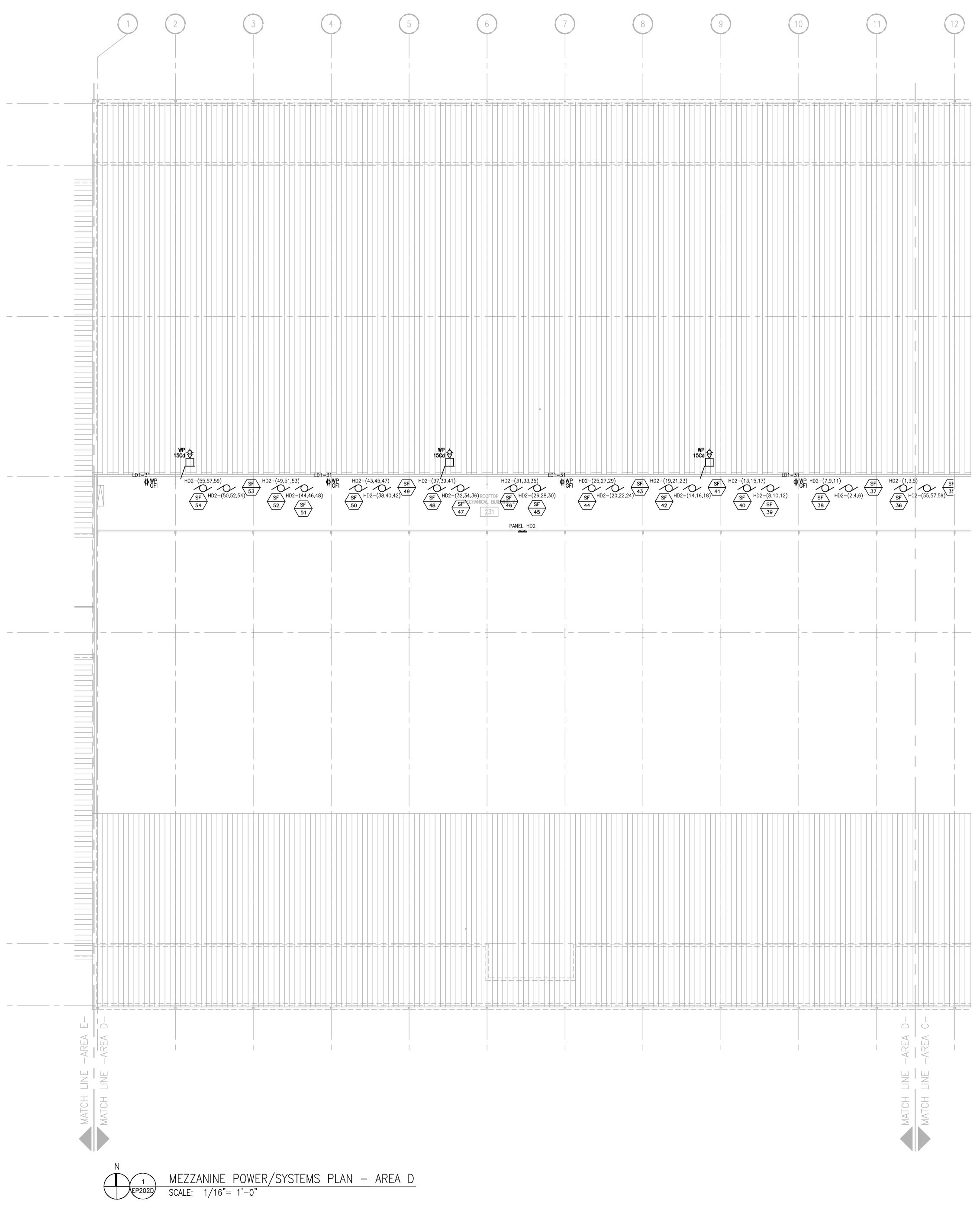
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FILE NAME	2013027_02-EP202C.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE Engineering Interior design







GENERAL PLAN NOTES

COORDINATE WITH MECHANICAL CONTRACTOR EXACT LOCATIONS OF EQUIPMENT.

С D В



KEY PLAN



SHEET TITLE MEZZANINE POWER/SYSTEMS AREA D - BUILDING 2

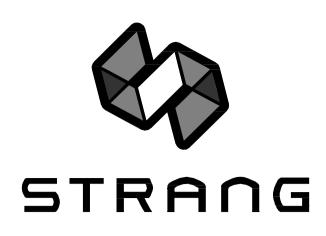
1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	KK
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204



Panelboard:	HA	1				Panel So	urce:	SWB A/	В		
Bus Ampacity	250		Volts	277/480		Feed (Top					
Branch Brkr Space	30		Phase	3		Feed-Thru				-	
MLO Amps	250		Wires	4		1000-1110	Load Fed				
MCB A/P	250		Surface			Sub-Feed					
Pnl Mfr			Recessed			540-1 004	Load Fed				
Pnl Type			AIC	35K		Sub-Feed					
Pnl Height			AIC	55IX		540-1004	Load Fed			-	
Pnl Width			Pnl MCA	29.9 A		Sub-Feed				-	
Pnl Depth			1 III MCA	27.7 A		Sub-recu	Load Fed				
r in Depti							Loau Peu				
Load to be	Cct	Brkr		Left Phases		R	light Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	C	A/P	No	Fed
GEN LTS	1	20/1	1,400			2,500			20/1	2	MEZZ LTS
OUTDOOR LTS	3	20/1	1 Ó	1,000		-	2,000	1	20/1	4	MEZZ LTS
GEN LTS	5	20/1	1	_,,,,,,,,	3,000	1	_,,,,,,,	2,000	20/1	6	MEZZ LTS
GEN LTS	7	20/1	2,000	1	-,,,,,,,	2,000		_,,,,,,,	20/1	8	MEZZ LTS
LTS RM 117	9	20/1	_,000	2,000		_,,,,,,		1	20/1	_	SPARE
TRACTOR LTS	11	20/1	1	_,,,,,,,	1,000	1			20/1		SPARE
LTS	13	20/1	1,000	1	1,000				20/1		SPARE
SPARE	15	20/1	1,000					1	20/1		SPARE
SPARE	17	20/1	1						20/1		SPARE
SPARE	19	20/1							20/1		SPARE
SPACE	21	20/1						1	20/1		SPACE
SPACE	23										SPACE
SPACE	25										SPACE
SPACE	23							1			SPACE
SPACE	29		-			-				30	
SIACE	29									50	STACE
								1		<u> </u>	
			-								
								1			
			1			-					
Total Lights			8,900	5,000	6,000		19,900			-	
Total Recpts			-,	.,	.,		,			-	
Total HVAC Blwrs										+	
Total HVAC A/C										-	
Total HVAC Htg										-	
Total HVAC											
Total MIsc										-	
2 0 0001 111100											
Total Phases			8,900	5,000	6,000		19,900				
Total Panel			0,200	5,000	0,000		17,700			-	
			1			1					

Panelboard:	LA	1A				Panel So	urce:	SWB A/	В		
Bus Ampacity	400		Volts	120/208		Feed (Top			_	-	
Branch Brkr Space	400		Phase	3		Feed-Thru	· · · ·			-	
MLO Amps	72		Wires	4		recu-rint	Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed					
Pnl Mfr	400		Recessed	TLS		540-1 004	Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height				221		540-1004	Load Fed				
Pnl Width			Pnl MCA	157.1 A		Sub-Feed					
Pnl Depth			1 III 10/071	137.171		540 1004	Load Fed				
							Loud I ed				
Load to be	Cet	Brkr		Left Phases		R	Right Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	C	A/P	No	
MAU-1	1	15/3	420			720			20/1		ROOF REC
	3			420			720	1	20/1	4	MEZZ AREA
	5		1		420	1		900	20/1	6	MEZZ AREA
EF-1	7	35/1	1,656			1,080	1	_ ~ ~ ~	20/1	8	GEN REC
EWH-2	9	50/2	-, 3	4,004		-,,	720	1	20/1	-	GEN REC
	11		1	.,	4,004			720	20/1	12	OFFICE REC
VAV-4	13	25/2	1,580		.,	360			20/1		
	15		-,	1,580			1,080		20/1		GEN REC
EWH-1A	17	50/2	-	.,	4,004	-	1,000	720	20/1		BATHROOM 113
	19		4,004		.,	720			20/1	_	BATHROOM 114
EBB-4	21	25/2	.,	1,000			720	1	20/1	22	GEN REC
	23		1	_,	1,000			1,000	20/1	24	WH-2
EBB-3	25	15/2	300		_,	528			15/1	26	CP-2
	27	1		300			300	1	15/2	28	EBB-5
VAV-1	29	20/1	1		804			300		30	
VAV-2	31	20/1	804			1,000			25/2	32	EBB-6
EBB-2	33	20/2		600		,	1,000	1		34	
	35				600		,	500	20/2	36	EBB-7
EBB-1	37	20/2	600			500	1			38	
	39			600			500	1	20/1	40	GEN REC
WATER SOFTNER	41	20/1	1		500	<u> </u>		500	20/1	42	
Total Lights											
Total Recpts			5,848	5,680	5,060		16,588				
Total HVAC Blwrs			2,076	420	420		2,916				
Total HVAC A/C											
Total HVAC Htg			9,288	13,888	15,716		38,892				
Total HVAC			11,364	14,308	16,136		41,808				
Total MIsc					1,500		1,500				
m . 1 m1			1	10.000	00 50 5		70 00 0				
Total Phases			17,212	19,988	22,696		59,896				
Total Panel											

Panelboard:	LB1					Panel So	urce:	SWB A/	В		
Bus Ampacity	225		Volts	120/208		Feed (Top	(Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	,				
MLO Amps	12		Wires	4		reed rine	Load Fed				
MCB A/P	175		Surface	YES		Sub-Feed					
Pnl Mfr	175		Recessed	125		540-1004	Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height			me	221		540-1 004	Load Fed				
Pnl Width			Pnl MCA	98.4 A		Sub-Feed					
Pnl Depth			I III MCA	70.7 A		Sub-PCCu	Load Fed				
I III Deptii							Load Ped				
Load to be	Cct	Brkr	1	Left Phases		L T	l Right Phas	es	Brkr	Cet	Load to be
Fed	No	A/P	A	B	С	A	B	C	A/P	No	Fed
GRH	1	A/F 20/1	336	u u	U	336	Б		A/F 20/1	2	GRH
GRV-1	3	25/1	550	1,392		550	336	1	20/1	4	GRH
GRH	5	20/1	1	1,392	336	4	550	1,152	25/1	4	GRV-2
REC	7	20/1	360		550	1,392	1	1,152	25/1	8	GRV-2 GRV-4
REC	9	20/1	300	540		1,392	168	4	20/1	8 10	GRV-4 GRH
REC	11	20/1	4	540	360	4	108	1 1 5 2	20/1	10	GRH GRV-3
EF-2	11	20/1	1 176	4	300	1 072	{	1,152			SS-1
EF-2 EF-3	13	25/1	1,176	1 176		1,872	1.970	4	30/2	14 16	1-66
	_		4	1,176	2(0	-	1,872		20/1		SPARE
REC	17	20/1	1.500	4 -	360		-		20/1	18	
WH-1	19	20/1	1,500				2 000	-	20/1	20	SPARE
SPARE	21	20/1	4		520	-	2,000	2 000	30/2	22	EWH-22
CP-1	23	15/1	2 000	4 -	528	(0)(-	2,000	1.5/1	24	GT 20
EWH-4	25	30/2	2,000	2 000		696	720		15/1	26	SF-20
	27	20/1	-	2,000		4	720	720	20/1		REC
SPARE	29	20/1				500		720	20/1		REC
Mezz Rec	31	20/1	720	4.500		720			20/1		REC
EWH-3	33	25/2	4	1,500	1 500	4	720		20/1		REC
	35				1,500		-				SPACE
OVERHEAD DOOR	37	25/3	1,272					ł			SPACE
OVERHEAD DOOR	39		4	1,272	1 0 7 0	4					SPACE
OVERHEAD DOOR	41				1,272					42	SPACE
Total Lighta											
Total Lights Total Recpts			1,800	1,980	1,440	+	5,220			-	
Total HVAC Blwrs			1,800	1,980	1,440		3,048				
Total HVAC A/C			1,072	1,170		+	3,040				
Total HVAC Htg			5,936	9,268	6,140	+	21,344				
Total HVAC Htg			7,808	9,208	6,140		21,344				
			2,772		-		5,844				
Total MIsc			2,112	1,272	1,800	+	3,844				
Total Phases			12,380	13,696	9,380		35,456				
Total Panel			12,500	15,070	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	+	55,450				

Panelboard:	LB3	BB				Panel So	urce:				
Bus Ampacity	400		Volts	120/208		Feed (Top					
Branch Brkr Space	400		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4		1000 11110	Load Fed				
MCB A/P	+00		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed	TLS		500-1000	Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height			AIC	221		Sub-Peeu	Load Fed				
Pnl Width			Pnl MCA			Sub-Feed					
Pnl Depth			I III MCA			500-1000	Load Fed				
							Load Ped				
Load to be	Cct	Brkr		Left Phases		F	Right Phase	es	Brkr	Cct	Load to be
Fed	No	A/P	A	B	С	A	B	C	A/P	No	Fed
REC	43	20/1	1,000	_		1,000			20/1	44	REC
REC	45	20/1	,	1,000		,	1,000		20/1	46	
REC	47	20/1	1	-,	1,000	1	-,	1,000	20/1	48	REC
REC	49	20/1	1,000		1,000	1,000		1,000	20/1	50	REC
REC	51	20/1	1,000	1,000		1,000	1,000		20/1	52	REC
REC	53	20/1	1	1,000	1,000	1	1,000	1,000	20/1	54	REC
REC	55	20/1	1,000		1,000	1,000		1,000	20/1	56	
REC	57	20/1	1,000	1,000		1,000	1,000		20/1	58	REC
REC	59	20/1	1	1,000	1,000		1,000	1,000	20/1	60	REC
SPARE	61	20/1			1,000			1,000	20/1	62	SPARE
SPARE	63	20/1							20/1	64	
SPARE	65	20/1	-			1			20/1	66	SPARE
SPARE	67	20/1							20/1	68	SPARE
SPARE	69	20/1							20/1	70	SPACE
SPARE	71	20/1	-							72	SPACE
SPARE	71	20/1		-						74	SPACE
SPARE	75	20/1								76	SPACE
SPARE	73	20/1	-			-				78	SPACE
SPARE	79	20/1								80	SPACE
SPARE	81	20/1				<u> </u>				82	SPACE
SPARE	83	20/1									SPACE
Total Lights											
Total Recpts			6,000	6,000	6,000		18,000			-	
Total HVAC Blwrs			0,000	0,000	-,		10,000				
Total HVAC A/C			1			<u> </u>				-	
Total HVAC Htg			1							-	
Total HVAC			1								
Total MIsc			1								
1 0 001 111100			<u> </u>			<u> </u>				-	
Total Phases			6,000	6,000	6,000	<u> </u>	18,000				
Total Panel			0,000	0,000	0,000	<u> </u>	10,000			-	

Panelboard:	HB	l				Panel So	ource:	SWB A/	В		
Bus Ampacity	250		Volts	277/480		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	250		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	35K		Sub-Feed					
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	57.4 A		Sub-Feed					
Pnl Depth			1 III INTON			540 1 004	Load Fed				
r in Depti							Loud I ed				
Load to be	Cet	Brkr		Left Phases		F	Right Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
LTS	1	20/1	3,360			2,530			20/1	2	OUTSIDE LTS
LTS	3	20/1		3,360			1,500	1	20/1		GEN LTS
LTS	5	20/1			3,360		,		20/1		SPARE
LTS	7	20/1	3,360				1		20/1		SPARE
LTS	9	20/1	- ,	3,360				1	20/1		SPARE
LTS	11	20/1		- ,	3,360				20/1		SPARE
LTS	13	20/1	3,360		-,		1		20/1		SPARE
LTS	15	20/1	5,500	3,360				1	20/1		SPARE
LTS	17	20/1	-	5,500	3,360				20/1		SPARE
LTS	19	20/1	3,360		5,500		1		20/1		SPARE
SPARE	21	20/1	5,500					1	20/1		SPARE
MEZZ.LTS	23	20/1	-		550				20/1		SPARE
SPACE	25	20/1			550		4		20/1		SPACE
SPACE	23							1			SPACE
SPACE	27		-								SPACE
SPACE	31						{				SPACE
SPACE	33							-			SPACE
			-			-					SPACE
SPACE SPACE	35			4			4				SPACE SPACE
	37							4			
SPACE SPACE	39 41		4			-					SPACE SPACE
SFACE	41									42	SFACE
Total Lights			15,970	11,580	10,630		38,180				
Total Recpts			,	,	.,				1		
Total HVAC Blwrs											
Total HVAC A/C									1		
Total HVAC Htg									1		
Total HVAC Ing									1		
Total MIsc											
10441 191150											
Total Phases			15,970	11,580	10,630		38,180		-		
Total Panel			15,970	11,500	10,050		56,160				

Panelboard:	LB3	A				Panel So	ource:	SWB A/	В		
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)	-			
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps			Wires	4		_	Load Fed				
MCB A/P	300		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed	-			
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	166.0 A		Sub-Feed					
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	Right Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	1	20/1	1,000			1,000			20/1	2	REC
REC	3	20/1		1,000			1,000		20/1	4	REC
REC	5	20/1			1,000			1,000	20/1	6	REC
REC	7	20/1	1,000	1		1,000	1		20/1	8	REC
REC	9	20/1		1,000			1,000		20/1	10	REC
REC	11	20/1			1,000			1,000	20/1	12	REC
REC	13	20/1	1,000	1 1		1,000	1		20/1	14	REC
REC	15	20/1	,	1,000			1,000		20/1	16	REC
REC	17	20/1			1,000		,	1,000	20/1	18	REC
REC	19	20/1	1,000	1 1	,	1,000	1	,	20/1	20	REC
REC	21	20/1	,	1,000		,	1,000		20/1	22	REC
REC	23	20/1		,	1,000		,	1,000	20/1	24	REC
REC	25	20/1	1,000	1 1	,	1,000	1	,	20/1	26	REC
REC	27	20/1		1,000			1,000		20/1	28	REC
REC	29	20/1		,	1,000		,	1,000	20/1	30	REC
REC	31	20/1	1,000	1 1	,	1,000	1	,	20/1	32	REC
REC	33	20/1		1,000			1,000		20/1	34	REC
REC	35	20/1	1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,000	1	,	1,000	20/1	36	REC
REC	37	20/1	1,000	1 1		1,000	1		20/1	38	REC
REC	39	20/1		1,000			1,000	1	20/1	40	REC
REC	41	20/1	1		1,000	1		1,000	20/1	42	REC
Total Lights											
Total Recpts			20,000	20,000	20,000		60,000				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases			20,000	20,000	20,000		60,000				
Total Panel											

Panelboard:	LA1	B				Panel So	urce:				
Bus Ampacity	400		Volts	120/208		Feed (Top					
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed					
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	light Phase	s	Brkr	Cct	Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No	Fed
GUH-7	43	20/1	500		÷	500		÷	20/1	44	GUH-11&12
EWH-1B	45	50/2	200	4,004					20/1	46	SPARE
	47		1	.,	4,004	1			20/1	48	SPARE
SPARE	49	20/2		1 F	1,001	1			20/1	50	SPARE
	51									52	
OVERHEAD DOOR	53	20/1	1	├	1,000	1			20/1	54	SPARE
REC	55	20/1	720	1 -	1,000				20/1	56	SPACE
REC	57	20/1	720	720						58	SPACE
REC	59	20/1	-	120	720	4				60	SPACE
REC	61	20/1	720	1 F	720		-			62	
REC	63	20/1	720	720					<u> </u>	64	
SPACE	65	20/1	-	720		-				66	
REC EQUIP	67	30/3	1,000	1 F			-				SPACE
	69	50/5	1,000	1,000						70	SPACE
	71		-	1,000	1,000	-				70	SPACE
SPACE	73			4 F	1,000		-				SPACE
SPACE	75										SPACE
SPACE	73		-			4					SPACE
SPACE	79			1 F							SPACE
SPACE	81								<u> </u>		SPACE
SPACE SPACE	83		-	├		-					SPACE
STRUE										57	5171012
Total Lights											
Total Recpts			2,440	2,440	1,720		6,600				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg			1,000	4,004	4,004		9,008				
Total HVAC			1,000	4,004	4,004		9,008				
Total MIsc					1,000		1,000				
Total Phases			3,440	6,444	6,724		16,608				
Total Panel			2,110	3,	0,721		10,000		1		

Panelboard:	LB	2A				Panel Se	ource:	SWB A/	В		
Bus Ampacity	400		Volts	120/208		Feed (To	o/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr					
MLO Amps			Wires	4			Load Fed				
MCB A/P	300		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	193.0A		Sub-Feed	1				
Pnl Depth							Load Fed				
1											
Load to be	Cct	Brkr		Left Phases]	Right Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	B	С	Α	В	С	A/P	No	Fed
REC	1	20/1	1,000			1,000			20/1	2	REC
REC	3	20/1		1,000			1,000	1	20/1	4	REC
REC	5	20/1	1		1,000			1,000	20/1	6	REC
REC	7	20/1	1,000			1,000			20/1	8	REC
REC	9	20/1		1,000			1,000		20/1	10	REC
REC	11	20/1	1		1,000			1,000	20/1	12	REC
REC	13	20/1	1,000	1		1,000			20/1	14	REC
REC	15	20/1		1,000			1,000		20/1		REC
REC	17	20/1	1		1,000			1,000	20/1	18	REC
REC	19	20/1	1,000	1		1,000			20/1	20	REC
REC	21	20/1		1,000			1,000		20/1	22	REC
REC	23	20/1	1		1,000			1,000	20/1	24	REC
REC	25	20/1	1,000	1		1,000			20/1	26	REC
REC	27	20/1		1,000			1,000		20/1	28	REC
REC	29	20/1			1,000			1,000	20/1	30	REC
REC	31	20/1	1,000			1,000			20/1	32	REC
REC	33	20/1		1,000			1,000		20/1	34	REC
REC	35	20/1			1,000			1,000	20/1	36	REC
REC	37	20/1	1,000			1,000			20/1		REC
REC	39	20/1		1,000			1,000		20/1		REC
REC	41	20/1			1,000			1,000	20/1	42	REC
m - 1711.											
Total Lights			04.000	22.000	00.000		(0.000				
Total Recpts			24,000	23,000	22,000		69,000			-	
Total HVAC Blwrs			l								
Total HVAC A/C											
Total HVAC Htg											
Total HVAC					500		500				
Total MIsc					500		500				
T			24.000	02.000	22.500		(0.500				
Total Phases Total Panel			24,000	23,000	22,500		69,500				
Total Panel										1	

Panelboard:	LB4	IA				Panel So	ource:	SWB A/	В	
Bus Ampacity	400		Volts	120/208		Feed (Top	o/Bottom)			
Branch Brkr Space	42		Phase	3		Feed-Thr	u Lugs			
MLO Amps			Wires	4			Load Fed			
MCB A/P	300		Surface	YES		Sub-Feed				
Pnl Mfr			Recessed				Load Fed			
Pnl Type			AIC	22K		Sub-Feed	Brkr #1			
Pnl Height							Load Fed			
Pnl Width			Pnl MCA	144.0 A		Sub-Feed				
Pnl Depth							Load Fed			
	a .			I A DI		-				6
Load to be	Cet	Brkr		Left Phases			Right Phas		Brkr	Cc
Fed	No	A/P	A	В	С	A	B	C	A/P	No
REC	1	20/1	1,000	1.000		1,000	1.000	-	20/1	2
REC	3	20/1	4	1,000	1.000	-	1,000	1 000	20/1	4
REC	5	20/1	1 000	4	1,000	1.000	-	1,000	20/1	6
REC	7	20/1	1,000	1.000		1,000	1.000	-	20/1	8
REC	9	20/1	4	1,000	1 000	-	1,000	1 000	20/1	10
REC	11	20/1	1.000	4	1,000	1 0 0 0	4	1,000	20/1	12
REC	13	20/1	1,000	1.000		1,000	1 000	4	20/1	14
REC	15	20/1	4	1,000		-	1,000	1.000	20/1	16
REC	17	20/1			1,000		-	1,000	20/1	18
REC	19	20/1	1,000			1,000		4	20/1	20
REC	21	20/1	4	1,000		4	1,000		20/1	22
REC	23	20/1			1,000		-	1,000	20/1	24
REC	25	20/1	1,000			1,000			20/1	26
REC	27	20/1	1	1,000		_	1,000		20/1	28
REC	29	20/1			1,000			1,000	20/1	30
REC	31	20/1	1,000			1,000			20/1	32
REC	33	20/1		1,000			1,000		20/1	34
REC	35	20/1			1,000			1,000	20/1	36
REC	37	20/1	1,000			1,000			20/1	38
REC	39	20/1		1,000			1,000		20/1	40
REC	41	20/1			1,000			1,000	20/1	42
Total Lights										
Total Recpts			18,000	18,000	16,000		52,000			
Total HVAC Blwrs			,,	,	,	1	,,			1
Total HVAC A/C										
Total HVAC Htg										
Total HVAC										-
Total MIsc										-
										-
Total Phases			18,000	18,000	16,000		52,000			
Total Panel			,,		,000					-
							1	1		

Dowalkoowd	T A '	,									
Panelboard:	LA	2				Panel So		SWB A/I	В		
Bus Ampacity	150		Volts	120/208		Feed (Top	/				
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps			Wires	4			Load Fed				
MCB A/P	125		Surface			Sub-Feed					
Pnl Mfr				YES			Load Fed				
Pnl Type			AIC	22K		Sub-Feed	1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	62.2A		Sub-Feed					
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases		- F	Right Phase	65	Brkr	Cet	Load to be
Fed	No	A/P	A	B	С	A	B	C	A/P	No	Fed
GEN REC	1	20/1	540	2	C	1,800		C	20/1	2	HOOD
REGISTER	3	20/1	210	1,200		1,000	1,000		20/1	4	HOOD LTS
SODA DISPENSER	5	20/1	1	1,200	1,200	-	1,000	1,812	20/1	6	WARMER
REGISTER	7	20/1	1,200		1,200	1,572		1,012	20/1	8	FRYER/FREEZER
FRIDGE	9	20/1	1,200	1,056		1,072	1,000		20/1	10	FRIDGE
WARMER	11	20/1	1	1,000	1,716		1,000		20/1	12	SPARE
WARMER	13	20/1	1,716		1,710				20/1		SPARE
REGISTER	15	20/1	1,710	1,200					20/1	16	
SODA DISPENSER	17	20/1	1	1,200	1,200	-			20/1	18	SPARE
REGISTER	19	20/1	1,200		1,200				20/1	20	SPARE
LCD MONITOR	21	20/1	1,200	1,500					20/1	20	SPARE
LCD MONITOR	23	20/1	1	1,000	1,500				20/1	24	SPARE
SPARE	25	20/1			1,000		1		20/1	26	SPACE
SPARE	27	20/1								28	SPACE
SPARE	29	20/1	1			-				30	SPACE
SPARE	31	20/1								32	SPACE
SPARE	33	20/1								34	SPACE
SPARE	35	20/1								36	SPACE
SPACE	37									38	SPACE
SPACE	39									40	SPACE
SPACE	41		1							42	SPACE
Total Lights											
Total Recpts			8,028	6,956	7,428		22,412				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
T. (1 D1			0.020	6.056	7.400		00.410				
Total Phases Total Panel			8,028	6,956	7,428		22,412				
Total Panel											

Panelboard:	LB2	B				Panel So	ource:				
Bus Ampacity	400		Volts	120/208		Feed (Top					
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		ŀ	Right Phase		Brkr	Cet	
Fed	No	A/P	A	В	С	Α	В	С	A/P	No	Fed
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1	4	1,000		4	1,000		20/1	46	REC
REC	47	20/1			1,000			1,000	20/1	48	REC
REC	49	20/1	1,000	1.000		1,000	1.000		20/1	_	REC
REC	51	20/1	4	1,000	1.000	4	1,000	1.000	20/1	52	REC
REC	53	20/1			1,000		4	1,000	20/1		REC
REC	55	20/1	1,000	1.000		1,000	1.000		20/1		REC
REC	57	20/1	4	1,000		4	1,000	1	20/1		REC
REC	59	20/1	1 000		1,000	1 000		1,000	20/1		REC
REC	61	20/1	1,000	1.000		1,000			20/1		REC
REC	63	20/1	4	1,000	1 000	-			20/1		SPARE
REC	65	20/1	1 000		1,000				20/1		SPARE
REC	67	20/1	1,000	1.000					20/1		SPARE
REC REC	69 71	20/1 20/1	-	1,000	1 000	-			20/1 20/1		SPARE SPARE
REC	71	20/1	1,000		1,000				20/1		SPARE SPARE
REC	75	20/1	1,000	1,000					20/1		SPARE
WATER SOFTNER	73	20/1	-	1,000	500	-			20/1		SPARE
SPARE SOFTNER	79	20/1			300		4		20/1		SPARE
SPARE	81	20/1							20/1		SPARE
SPARE	81	20/1	1			4			20/1		SPARE
~~ * *****	05	- 1/1								51	
Total Lights			1			1					
Total Recpts			10,000	9,000	8,000		27,000				
Total HVAC Blwrs				- ,	-,***		,				
Total HVAC A/C			1			1					
Total HVAC Htg			1			1					
Total HVAC			1			1					
Total MIsc					500		500				
Total Phases			10,000	9,000	8,500		27,500				
Total Panel											

-	Load to be
-	Fed
	REC
	REC
	REC
	REC REC
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_	REC
	REC REC
	REC
	REC REC REC
	REC
	REC REC
	REC
	REC REC
	REC

Panelboard:	LB4	B				Panel So	ource:				
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		ŀ	Right Phase	*S	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	В	С	A/P	No	Fed
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1		1,000			1,000		20/1		REC
REC	47	20/1			1,000			1,000	20/1		REC
REC	49	20/1	1,000			1,000			20/1		REC
REC	51	20/1		1,000			1,000		20/1		REC
SPARE	53	20/1							20/1		SPARE
SPARE	55	20/1							20/1		SPARE
SPARE	57	20/1							20/1		SPARE
SPARE	59	20/1							20/1		SPARE
SPARE	61	20/1							20/1		SPARE
SPARE	63	20/1							20/1		SPARE
SPACE	65								20/1		SPARE
SPACE	67								20/1	68	SPARE
SPACE	69								20/1	70	SPARE
SPACE	71								20/1	72	SPARE
SPACE	73										SPACE
SPACE	75										SPACE
SPACE	77										SPACE
SPACE	79										SPACE
SPACE	81										SPACE
SPACE	83									84	SPACE
Total Lights											
Total Recpts			4,000	4,000	2,000		10,000				
Total HVAC Blwrs					,		-				
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases			4,000	4,000	2,000		10,000				
Total Panel			+,000	4,000	2,000		10,000				



SHEET TITLE

PANELBOARD SCHEDULES

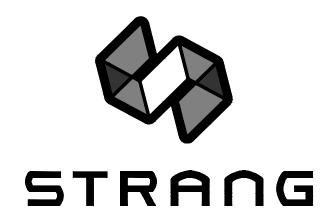
1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	КК
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
COPYRIGHT STRANG, INC.	2013
FILE NAME	2013027_02-E501.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204



Panelboard:	LB5	5A				Panel So	ource:	SWB A/	В			
Bus Ampacity	400		Volts	120/208		Feed (Top						
Branch Brkr Space	42		Phase	3		Feed-Thru						
MLO Amps			Wires	4		r oou mit	Load Fed					
MCB A/P	300		Surface	YES		Sub-Feed						
Pnl Mfr	500		Recessed	125		545 1 004	Load Fed					
Pnl Type			AIC	22K		Sub-Feed						
Pnl Height			inc	2211		546 1 004	Load Fed					
Pnl Width			Pnl MCA	145.0 A		Sub-Feed						
Pnl Depth			1	1101011			Load Fed					
r in Depui							Loud I ed					
Load to be	Cct	Brkr		Left Phases		F	Right Phase	es	Brkr	Cet		Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No		Fed
REC	1	20/1	1,000		÷	1,000			20/1		REC	
REC	3	20/1	1,000	1,000		1,000	1,000		20/1	4	REC	
REC	5	20/1	1	-,000	1,000	1	2,500	1,000	20/1	6	REC	
REC	7	20/1	1,000	1 1	-,500	1,000	1	-,,,,,,,,	20/1	8	REC	
REC	9	20/1	_,	1,000		_,	1,000		20/1		REC	
REC	11	20/1	1	1,000	1,000	-	1,000	1,000	20/1		REC	
REC	13	20/1	1,000	1 1	-,	1.000		-,	20/1		REC	
REC	15	20/1	1,000	1,000		1,000	1,000		20/1		REC	
REC	17	20/1	1	1,000	1,000	-	2,000	1,000	20/1		REC	
REC	19	20/1	1,000	1 1	1,000	1,000	1	2,000	20/1		REC	
REC	21	20/1	-,	1,000			1,000		20/1		REC	
REC	23	20/1	1		1,000	1	,	1,000	20/1	24	REC	
REC	25	20/1	1,000	1 1	_,	1,000	1		20/1	26	REC	
REC	27	20/1	,	1,000		,	1,000		20/1	28	REC	
REC	29	20/1	1		1,000	1		1,000	20/1	30	REC	
REC	31	20/1	1,000	1 1		1,000	1		20/1	32	REC	
REC	33	20/1	,	1,000		,	1,000		20/1	34	REC	
REC	35	20/1	1		1,000	1		1,000	20/1		REC	
REC	37	20/1	1,000	1 1	,	1,000	1		20/1	38	REC	
REC	39	20/1	-	1,000		-	1,000		20/1	40	REC	
REC	41	20/1	1		1,000	1		1,000	20/1		REC	
			Ì									
Total Lights			1									
Total Recpts			18,000	18,000	16,360		52,360					
Total HVAC Blwrs												
Total HVAC A/C												
Total HVAC Htg												
Total HVAC												
Total MIsc												
Total Phases			18,000	18,000	16,360		52,360					
Total Panel												

Panelboard:	LB5	B				Panel So	ource:				
Bus Ampacity	400		Volts	120/208		Feed (Top					
Branch Brkr Space	400		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4		Teeu-Tiire	Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed	115		Sub-reeu	Lugs Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height			AIC	22K		Sub-reeu	Load Fed				
Pnl Width			Pnl MCA			Sub-Feed					
Phi Width Pnl Depth			PIII MCA			Sub-reed	Load Fed				
Phi Depin							Load Fed				
Load to be	Cet	Brkr		Left Phases		F	Right Phase	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1		1,000			1,000		20/1	46	
REC	47	20/1	1	-	1,000	1	-	1,000	20/1	48	REC
REC	49	20/1	1,000	1 1	, -	1,000	1 1	1	20/1	50	REC
REC	51	20/1	,	1,000		,	1,000		20/1	52	REC
REC	53	20/1		,	360				20/1		SPARE
SPARE	55	20/1					1 1		20/1		SPARE
SPARE	57	20/1							20/1		SPARE
SPARE	59	20/1	-						20/1	60	SPARE
SPARE	61	20/1		1 1			1		20/1	62	
SPARE	63	20/1							20/1		SPARE
SPARE	65	20/1	-						20/1		SPARE
SPARE	67	20/1		1 1			1		20/1		SPACE
SPARE	69	20/1								70	SPACE
SPARE	71	20/1								72	SPACE
SPACE	73	20/1		1 1			1			74	SPACE
SPACE	75									76	SPACE
SPACE	77		-			1					SPACE
SPACE	79			1 1			1				SPACE
SPACE	81										SPACE
SPACE	83		1								SPACE
			1			1					
Total Lights											
Total Recpts			4,000	4,000	2,360		10,360				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases			4,000	4,000	2,360		10,360				
Total Panel					-	1	-		1		

Panelboard:	LC	l				Panel Sc	urce:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr					
MLO Amps			Wires	4			Load Fed				
MCB A/P	300		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	123.9 A		Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases		I I	Right Phase	PS	Brkr	Cct	Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No	Fed
GEN REC	1	20/1	1,080		U	540			20/1	2	OFFICE REC
REC	3	20/1	1,000	720		540	900	1	20/1	4	BATHROOMS
SF-21	5	15/1	1	, 20	696	1	,,,,,	1,680	25/1	6	SS-4
EWH-23	7	30/2	2,000		070	1,250	1	1,000	20/2	8	WH-3
	9		_,	2,000		-,	1,250	1		10	
SPARE	11	20/1	1	_,,,,,,,,		1		748	15/2	12	EWH-14
SPARE	13	20/1		1 1		748	1			14	
SS-2	15	30/2		1,872			2,000	1	30/2		EWH-10
	17			7	1,872	1	,	2,000		18	
OVERHEAD DOOR	19	25/3	1,272		,	2,000	1	,	30/2		EWH-11
	21		,	1,272		,	2,000			22	
	23				1,272			2,000	30/2	24	EWH-12
REC	25	20/1	720	1	,	2,000	1			26	
REC	27	20/1		720			1,176		25/1	28	EF-5
REC	29	20/1			720	1		2,000	30/2	30	EWH-13
MEZZ REC	31	20/1	720			2,000	1			32	
REC	33	20/1		720			1,500		25/2	34	EWH-15
SPACE	35							1,500		36	
SPACE	37								20/1		SPARE
SPACE	39								20/1	40	SPARE
SPACE	41								20/1	42	SPARE
Total Lights											
Total Recpts			4,332	4,332	1,992		10,656				
Total HVAC Blwrs				1,176	696		1,872				
Total HVAC A/C											
Total HVAC Htg			8,748	9,372	11,800		29,920				
Total HVAC			8,748	10,548	12,496		31,792				
Total MIsc			1,250	1,250			2,500				
Total Phases			14 220	16 120	11 100		44 049				
Total Phases Total Panel	_		14,330	16,130	14,488		44,948				

Panelboard:	LC3	BB				Panel So	ource:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	o/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr	. /				
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	Right Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	A	B	С	A	B	C	A/P	No	Fed
REC	43	20/1	1,000		-	1,000	-	-	20/1		REC
REC	45	20/1	-,,,,,,,,	1,000		-,000	1,000		20/1		REC
REC	47	20/1	1	_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,000	1	_,	1,000	20/1		REC
REC	49	20/1	1,000	1	-,000	1,000	1	-,,,,,,,	20/1		REC
REC	51	20/1	-,,,,,,,,	1,000		-,000	1,000		20/1		REC
REC	53	20/1	1	_,,,,,,,	1,000	1	_,	1,000	20/1		REC
REC	55	20/1	1,000	1	-,000	1,000	1	-,,,,,,,	20/1		REC
REC	57	20/1	_,	1,000		_,	1,000		20/1		REC
REC	59	20/1	1	-,,,,,,,	1,000	1	_,	1,000	20/1		REC
REC	61	20/1	1,000	1	-,	1,000		-,	20/1		REC
REC	63	20/1	_,	1,000		_,	1,000		20/1		REC
REC	65	20/1	1	,	1,000	1	,	1,000	20/1		REC
REC	67	20/1	1,000	1	_,	1,000			20/1		REC
REC	69	20/1	,	1,000		,	1,000		20/1		REC
REC	71	20/1	1		1,000	1		1,000	20/1		REC
REC	73	20/1	1,000			1,000		,	20/1		REC
REC	75	20/1	, í	1,000		,	1,000		20/1		REC
REC	77	20/1	1		1,000			1,000	20/1	78	REC
REC	79	20/1	1,000	1		1,000			20/1	80	REC
REC	81	20/1		1,000			1,000		20/1	82	REC
REC	83	20/1	1		1,000			1,000	20/1	84	REC
Total Lights											
Total Recpts			18,000	17,000	17,000		52,000				
Total HVAC Blwrs				,	7	1	/				
Total HVAC A/C											
Total HVAC Htg			1			1					
Total HVAC											
Total MIsc											
Total Phases			18,000	17,000	17,000		52,000				
Total Panel											

Panelboard:		2A				Panel So	urce:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	(Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	/				
MLO Amps			Wires	4			Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height			inc			546 1004	Load Fed				
Pnl Width			Pnl MCA	208.0 A		Sub-Feed					
Pnl Depth			1 11 1.1011	2001011		540 1004	Load Fed				
r in Depti							Loud I Cu				
Load to be	Cet	Brkr		Left Phases			Right Phases	5	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	1	20/1	1,000			1,000			20/1	2	REC
REC	3	20/1		1,000			1,000		20/1	4	REC
REC	5	20/1	1	,	1,000	1		1,000	20/1	6	REC
REC	7	20/1	1,000		*	1,000			20/1	8	REC
REC	9	20/1		1,000		-	1,000		20/1	10	REC
REC	11	20/1		-	1,000	1	*	1,000	20/1	12	REC
REC	13	20/1	1,000		,	1,000		,	20/1	14	REC
REC	15	20/1	,	1,000		,	1,000		20/1		REC
REC	17	20/1		,	1,000	1	,	1,000	20/1		REC
REC	19	20/1	1,000		,	1,000		,	20/1	20	REC
REC	21	20/1		1,000		,	1,000		20/1	22	REC
REC	23	20/1		,	1,000	1	,	1,000	20/1	24	REC
REC	25	20/1	1,000		,	1,000		,	20/1	26	REC
REC	27	20/1		1,000			1,000		20/1	28	REC
REC	29	20/1		,	1,000	1		1,000	20/1	30	REC
REC	31	20/1	1,000			1,000			20/1	32	REC
REC	33	20/1	,	1,000		,	1,000		20/1	34	REC
REC	35	20/1			1,000	1		1,000	20/1	36	REC
REC	37	20/1	1,000		*	1,000		-	20/1		REC
REC	39	20/1		1,000			1,000		20/1	40	REC
REC	41	20/1	1		1,000	1		1,000	20/1	42	REC
Total Lights			06.000	05.000	04.000						
Total Recpts			26,000	25,000	24,000		75,000				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases			26,000	25,000	24,000		75,000				
Total Panel			20,000	25,000	27,000		75,000				

Panelboard:		BC				Panel So	urce:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	ı Lugs				
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases		F	Right Phas	es	Brkr	Cet	Load to be
Fed	No	A/P	A	В	С	A	B	C	A/P	No	Fed
REC	85	20/1	1,000		-	1,000		_	20/1	86	REC
REC	87	20/1	,	1,000		,	1,000	1	20/1	88	REC
REC	89	20/1	1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1,000	1	,,	1,000	20/1	90	REC
REC	91	20/1	1,000	1 1	,	1	1	,	20/1	92	SPARE
REC	93	20/1	,	1,000				1	20/1	94	SPARE
REC	95	20/1	1		1,000	1			20/1	96	SPARE
REC	97	20/1	1,000	1 1	_,				20/1	98	SPARE
SPARE	99	20/1	_,						20/1	100	SPARE
SPARE	101	20/1				1			20/1	102	SPARE
SPARE	103	20/1		1 1							SPACE
SPARE	105	20/1									SPACE
SPARE	107	20/1				1					SPACE
SPARE	109	20/1		1 1							SPACE
SPARE	111	20/1									SPACE
SPARE	113	20/1				-					SPACE
SPACE	115			1 1						116	SPACE
SPACE	117									118	SPACE
SPACE	119					1				120	SPACE
SPACE	121			1 1			1			122	SPACE
SPACE	123							1		124	SPACE
SPACE	125		1			1				126	SPACE
Total Lights											
Total Recpts			4,000	3,000	3.000		10,000				
Total HVAC Blwrs			4,000	5,000	5,000		10,000				
Total HVAC A/C											
Total HVAC Htg											
Total HVAC Hig											
Total MIsc											
10441 141100											
Total Phases			4,000	3,000	3,000		10,000				
Total Panel			4,000	5,000	5,000		10,000				

Panelboard:	ELF	EV				Panel So	urce:	rce: SWB A/B		
Bus Ampacity	100	_ ,	Volts	120/208		Feed (Top		0112121	-	
Branch Brkr Space	18		Phase	3		Feed-Thru				
MLO Amps	10		Wires	4		1000-1110	Load Fed			
MCB A/P	70		Surface	YES		Sub-Feed				
Pnl Mfr	/0		Recessed	11.5		540-1004	Load Fed			
Pnl Type			AIC			Sub-Feed				
Pnl Height						540-1004	Load Fed			
Pnl Width			Pnl MCA	7.5 A		Sub-Feed	1			
Pnl Depth			1 111 111071	7.0 11		Sub reeu	Load Fed			
r in Dopin							Loud I ed			
Load to be	Cct	Brkr		Left Phases		F	kight Phase	es	Brkr	
Fed	No	A/P	Α	В	С	Α	B	С	A/P	
LTS	1	20/1	320			696			20/1	
LTS IN CAB	3	20/1		300			500		20/1	
REC	5	20/1	1		360	1				
REC	7	20/1	360							
SPACE	9									
SPACE	11		1							
SPACE	13									
SPACE	15									
SPACE	17									
			1							
m . 1 . 1 .				200			(22)			
Total Lights			320	300			620			
Total Recpts			360	500	360		720			
Total HVAC Blwrs			696	500			1,196			
Total HVAC A/C										
Total HVAC Htg			(0)	500			1.107			
Total HVAC			696	500			1,196			
Total MIsc										
T. (1 Dl			1.076	000	2.00		0.526			
Total Phases			1,376	800	360		2,536			
Total Panel										

Panelboard:	LC	2 B				Panel So	ource:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top					
Branch Brkr Space	42		Phase	3		Feed-Thr					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height						_	Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases	3	I	Right Phase	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1		1,000			1,000		20/1		REC
REC	47	20/1	1		1,000			1,000	20/1	48	REC
REC	49	20/1	1,000]		1,000	1		20/1	50	REC
REC	51	20/1		1,000			1,000		20/1	52	REC
REC	53	20/1			1,000			1,000	20/1	54	REC
REC	55	20/1	1,000			1,000	1		20/1	56	REC
REC	57	20/1		1,000			1,000		20/1	58	REC
REC	59	20/1			1,000			1,000	20/1	60	REC
REC	61	20/1	1,000			1,000	1		20/1	62	REC
REC	63	20/1		1,000			1,000		20/1	64	REC
REC	65	20/1			1,000	1		1,000	20/1	66	REC
REC	67	20/1	1,000			1,000			20/1	68	REC
SPARE	69	20/1					1,000		20/1	70	REC
SPARE	71	20/1	1					1,000	20/1	72	REC
SPARE	73	20/1				1,000	1		20/1	74	REC
SPARE	75	20/1					1,000		20/1	76	REC
SPARE	77	20/1	1					1,000	20/1	78	REC
SPARE	79	20/1				1,000			20/1	80	REC
SPARE	81	20/1					1,000		20/1	82	REC
SPARE	83	20/1							20/1	84	SPARE
Total Lights											
Total Recpts			12,000	11,000	10,000		33,000				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases			12,000	11,000	10,000		33,000				
Total Panel											

Panelboard:	LC4A					Panel So	ource:	DP C			
Bus Ampacity	400 Volts		120/208		Feed (Top	/Bottom)					
Branch Brkr Space	42		Phase	3		Feed-Thru	ı Lugs				
MLO Amps			Wires	4			Load Fed				
MCB A/P	300		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	183.0 A		Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases			Right Phase	s	Brkr	Cet	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	1	20/1	1,000			1,000			20/1	2	REC
REC	3	20/1		1,000			1,000		20/1	4	REC
REC	5	20/1			1,000]		1,000	20/1	6	REC
REC	7	20/1	1,000			1,000			20/1	8	REC
REC	9	20/1		1,000			1,000]	20/1	10	REC
REC	11	20/1			1,000			1,000	20/1	12	REC
REC	13	20/1	1,000			1,000			20/1	14	REC
REC	15	20/1		1,000			1,000		20/1	16	REC
REC	17	20/1			1,000	1		1,000	20/1	18	REC
REC	19	20/1	1,000			1,000			20/1	20	REC
REC	21	20/1		1,000			1,000		20/1	22	REC
REC	23	20/1			1,000			1,000	20/1	24	REC
REC	25	20/1	1,000			1,000			20/1	26	REC
REC	27	20/1		1,000			1,000		20/1	28	REC
REC	29	20/1			1,000			1,000	20/1	30	REC
REC	31	20/1	1,000			1,000			20/1	32	REC
REC	33	20/1		1,000			1,000		20/1	34	REC
REC	35	20/1			1,000			1,000	20/1	36	REC
REC	37	20/1	1,000			1,000			20/1	38	REC
REC	39	20/1		1,000			1,000		20/1	40	REC
REC	41	20/1			1,000			1,000	20/1	42	REC
Total Lights											
Total Recpts			22,000	22,000	22,000		66,000		1		
Total HVAC Blwrs				,							
Total HVAC A/C			1						1		
Total HVAC Htg			1			1			1		
Total HVAC											
Total MIsc											
			1			1					
Total Phases			22,000	22,000	22,000		66,000			1	
Total Panel			,	,		1	,				

Cct	Load to be
No	Fed
	CEF-1
4	SP-1
6	SPACE
8	SPACE
10	SPACE
12	SPACE
14	SPACE
16	SPACE
18	SPACE
10	STREE

Panelboard:	HC	1				Panel So	ource:	DP C			
Bus Ampacity	250		Volts	277/480			o/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr					
MLO Amps	250		Wires	4		1 cou mi	Load Fed				
MCB A/P	250		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed	TLS		540 1 004	Load Fed				
Pnl Type			AIC	35K		Sub-Feed					
Pnl Height				5511		Buo reeu	Load Fed				
Pnl Width			Pnl MCA	64.0 A		Sub-Feed					
Pnl Depth			I III MICH	01.011		540 1 004	Load Fed				
							Loud I ed				
Load to be	Cct	Brkr		Left Phases		I	kight Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
LTS	1	20/1	2,912			2,500			20/1	2	OUTSIDE LTS
LTS	3	20/1		3,360			1,500	1	20/1	4	GEN LTS
LTS	5	20/1	1		3,360	1		1,500	20/1	6	MILKING AREA
LTS	7	20/1	3,360				1		20/1	8	SPARE
LTS	9	20/1		3,360					20/1	10	SPARE
LTS	11	20/1	1		3,360	1			20/1	12	SPARE
LTS	13	20/1	3,360				1		20/1	14	SPARE
LTS	15	20/1		3,360					20/1	16	SPARE
LTS	17	20/1	1		3,360	1			20/1	18	SPARE
LTS	19	20/1	3,360						20/1	20	SPARE
LTS	21	20/1		3,360					20/1	22	SPARE
MEZZ. LTS	23	20/1	1		550	1			20/1	24	SPARE
SPACE	25						1			26	SPACE
SPACE	27									28	SPACE
SPACE	29		1			1				30	SPACE
SPACE	31									32	SPACE
SPACE	33									34	SPACE
SPACE	35									36	SPACE
SPACE	37									38	SPACE
SPACE	39										SPACE
SPACE	41									42	SPACE
					10.100	ļ					
Total Lights			15,492	14,940	12,130		42,562				
Total Recpts											
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
T. (1 D1			15.400	14.040	10.100		10.552				
Total Phases			15,492	14,940	12,130		42,562				
Total Panel											

Panelboard:	LC.	3A				Panel So	urce:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	1 Lugs				
MLO Amps			Wires	4			Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	261.0 A		Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	Right Phase	es	Brkr	Cet	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	1	20/1	1,000		_	1,000			20/1	2	REC
REC	3	20/1	,	1,000		,	1,000		20/1	4	REC
REC	5	20/1	1		1,000	1		1,000	20/1	6	REC
REC	7	20/1	1,000		,	1,000	1		20/1	8	REC
REC	9	20/1		1,000			1,000		20/1	10	REC
REC	11	20/1	1	,	1,000	1	,	1,000	20/1	12	REC
REC	13	20/1	1,000		_,	1,000			20/1	14	REC
REC	15	20/1	_,	1,000			1,000		20/1	16	REC
REC	17	20/1	1	,	1,000	1	,	1,000	20/1	18	REC
REC	19	20/1	1,000		,	1,000		,	20/1	20	REC
REC	21	20/1	,	1,000		,	1,000		20/1	22	REC
REC	23	20/1	1		1,000	1		1,000	20/1	24	REC
REC	25	20/1	1,000		,	1,000		,	20/1	26	REC
REC	27	20/1	, í	1,000			1,000		20/1	28	REC
REC	29	20/1	1		1,000			1,000	20/1	30	REC
REC	31	20/1	1,000			1,000			20/1	32	REC
REC	33	20/1		1,000			1,000		20/1	34	REC
REC	35	20/1	1		1,000	1		1,000	20/1	36	REC
REC	37	20/1	1,000			1,000	1	· · ·	20/1	38	REC
REC	39	20/1		1,000			1,000		20/1	40	REC
REC	41	20/1	1		1,000	1		1,000	20/1	42	REC
Total Lights											
Total Recpts			32,000	31,000	31,000		94,000				
Total HVAC Blwrs			52,000	51,000	51,000	1	> 1,000				
Total HVAC A/C											
Total HVAC Htg						1					
Total HVAC						1					
Total MIsc											
10441 141150											
Total Phases			32,000	31,000	31,000	1	94,000				
Total Panel			,000	21,000	21,000		2.,000				

Panelboard:		LC4B				Panel So	ource:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	· · ·				
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	Right Phas		Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	В	С	A/P	No	Fed
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1	4	1,000		4	1,000		20/1		REC
REC	47	20/1			1,000			1,000	20/1	48	REC
REC	49	20/1	1,000			1,000			20/1	50	REC
REC	51	20/1	4	1,000		4	1,000		20/1	52	REC
REC	53	20/1			1,000			1,000	20/1		REC
SPARE	55	20/1				1,000			20/1	56	REC
SPARE	57	20/1	-			-	1,000		20/1	58	REC
SPARE	59	20/1						1,000	20/1	60	REC
SPARE	61	20/1				1,000			20/1	62	REC
SPARE	63	20/1				4	1,000		20/1	64	REC
SPARE	65	20/1						1,000	20/1	66	REC
SPARE	67	20/1				1,000			20/1	68	REC
SPARE	69	20/1	4			4	1,000	1	20/1	70	REC
SPARE	71	20/1				1 0 0 0		1,000	20/1	72	REC
SPACE	73		-			1,000	1 0 0 0		20/1	74	REC
SPACE	75		-			4	1,000	1.000	20/1	76	REC
SPACE	77						4	1,000	20/1	78	REC
SPACE	79								20/1	80	SPARE
SPACE SPACE	81 83		4			4			20/1 20/1		SPARE SPARE
SIACE	03								20/1	04	SI AILE
Total Lights											
Total Recpts			8.000	8,000	8,000		24,000				
Total HVAC Blwrs			0,000	0,000	0,000		21,000				
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
1.0001 111100			1			1					
Total Phases			8,000	8,000	8,000		24,000				
Total Panel			-,000	- , - • •	- ,		,				



SHEET TITLE PANELBOARD SCHEDULES

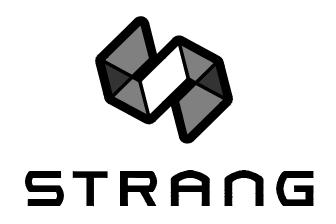
1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	KK
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
COPYRIGHT STRANG, INC.	2013
FILE NAME	2013027_02-E502.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204



Panelboard:	LC	5A				Panel So	ource:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top					
Branch Brkr Space	42		Phase	3		Feed-Thru	,				
MLO Amps			Wires	4			Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	105.5 A		Sub-Feed					
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases		F	kight Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
REC	1	20/1	1,000			1,000			20/1		REC
REC	3	20/1		1,000			1,000	1	20/1	4	REC
REC	5	20/1	1	-	1,000	1		1,000	20/1	6	REC
REC	7	20/1	1,000	1		1,000	1		20/1	8	REC
REC	9	20/1		1,000			1,000	1	20/1	10	REC
REC	11	20/1			1,000	1		1,000	20/1	12	REC
REC	13	20/1	1,000		,	1,000	1	,	20/1		REC
REC	15	20/1	, ,	1,000		,	1,000	1	20/1		REC
REC	17	20/1			1,000	1	,	1,000	20/1	18	REC
REC	19	20/1	1,000	1	,	1,000	1	,	20/1	20	REC
REC	21	20/1		1,000			1,000	1	20/1	22	REC
REC	23	20/1	1		1,000	1		1,000	20/1	24	REC
REC	25	20/1	1,000	1		1,000	1		20/1	26	REC
REC	27	20/1		1,000			1,000	1	20/1	28	REC
REC	29	20/1	1		1,000	1		1,000	20/1	30	REC
REC	31	20/1	1,000	1		1,000	1		20/1	32	REC
REC	33	20/1		1,000			1,000		20/1	34	REC
REC	35	20/1			1,000			1,000	20/1	36	REC
REC	37	20/1	1,000			1,000			20/1		REC
REC	39	20/1		1,000			1,000		20/1	40	REC
REC	41	20/1			1,000			1,000	20/1	42	REC
Total Lights											
Total Recpts			22,000	22,000	22,000		66,000				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases			22,000	22,000	22,000		66,000				
Total Panel			1			1					

 LD2A
 Panel Source:
 Surce:
 Surce:</

Pnl MCA 219.0 A Sub-Feed Brkr #2 Load Fed

Panel Source: SWB D,E,F

Load Fed

Load Fed

1,000

1,000

1.000

79,000

79,000

1,000

 20/208
 Feed (Top/Bottom)

 3
 Feed-Thru Lugs

 4
 Load Fed

 Cct
 Brkr
 Left Phases
 Right Phases
 Brkr
 Cct

 No
 A/P
 A
 B
 C
 A
 B
 C
 A/P
 No

 1
 20/1
 1,000
 1,000
 20/1
 2
 RE

 3
 20/1
 1,000
 1,000
 20/1
 4
 RE

1,000

1,000

1,000

1,000

1,000

000.1

27,000 27,000 25,000

27,000 27,000 25,000

1,000

1,000

1,000

1,000

1,000

Panelboard:

Branch Brkr Space

Load to be Fed

Total Lights Total Recpts Total HVAC Blwrs Total HVAC A/C Total HVAC Htg Total HVAC Total MIsc

Total Phases Total Panel

Bus Ampacity

MLO Amps MCB A/P Pnl Mfr Pnl Type Pnl Height Pnl Width Pnl Depth

Load to b
Fed
REC
SPARE
SPARE SPARE
SPACE
Total Lights
Total Recpts
Total HVAC Blw
Total HVAC Blw Total HVAC A/C Total HVAC Htg Total HVAC
Total HVAC Htg
Total HVAC
Total MIsc
Total Phases
Total Panel
Demelle e end
Panelboard
Bus Ampacity
Branch Brkr Spa
MLO Amps
MCB A/P Pnl Mfr
Pnl Mfr
Pnl Type Pnl Height
Pnl Height
Pnl Width Pnl Depth
Pnl Depth
.
Load to b
Fed
Fed REC
Fed REC REC
Fed REC REC REC
Fed REC REC REC REC
Fed REC REC REC

	Branch Brk
	MLO Amps
	MCB A/P
	Pnl Mfr
	Pnl Type
	Pnl Height
	Pnl Width
	Pnl Depth
	Load
	F
	REC
	SPARE
	SPARE
	SPARE
	SPARE
	Total Lights
	Total Recpt
	Total HVA
	Total MIsc
	T (1 71
	Total Phase
L	Total Panel

<u>Panelboard:</u>	LD4	A				Panel So	urce:	SWB D,I	E,F		
us Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
ranch Brkr Space	42		Phase	3		Feed-Thru					
ILO Amps			Wires	4			Load Fed				
ICB A/P	400		Surface	YES		Sub-Feed					
nl Mfr			Recessed				Load Fed				
nl Type			AIC	22K		Sub-Feed	Brkr #1				
nl Height							Load Fed				
nl Width			Pnl MCA	105.5 A		Sub-Feed	Brkr #2				
nl Depth							Load Fed				
-											
Load to be	Cct	Brkr		Left Phases		F	kight Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	В	С	A/P	No	Fed
EC	1	20/1	1,000			1,000			20/1	2	REC
EC	3	20/1		1,000			1,000		20/1	4	REC
EC EC EC EC EC EC EC EC EC EC EC EC EC E	5	20/1			1,000			1,000	20/1	6	REC
EC	7	20/1	1,000			1,000			20/1	8	REC
EC	9	20/1		1,000			1,000		20/1	10	REC
EC	11	20/1			1,000			1,000	20/1	12	REC
EC	13	20/1	1,000			1,000			20/1	14	REC
EC	15	20/1		1,000			1,000		20/1	16	REC
EC	17	20/1			1,000			1,000	20/1	18	REC
EC	19	20/1	1,000			1,000			20/1	20	REC
EC	21	20/1		1,000			1,000		20/1	22	REC
EC	23	20/1			1,000			1,000	20/1	24	REC
EC	25	20/1	1,000			1,000			20/1	26	REC
EC	27	20/1		1,000			1,000		20/1		REC
EC	29	20/1			1,000			1,000	20/1		REC
EC	31	20/1	1,000			1,000			20/1		REC
EC EC EC	33	20/1		1,000			1,000		20/1		REC
EC	35	20/1			1,000			1,000	20/1		REC
EC	37	20/1	1,000			1,000		1	20/1		REC
EC EC	39	20/1	4	1,000		4	1,000	1.000	20/1		REC
EC	41	20/1			1,000			1,000	20/1	42	REC
			I								
otal Lights											
otal Recpts			22,000	22,000	22,000		66,000				
otal HVAC Blwrs			ļ								
otal HVAC A/C			ļ								
otal HVAC Htg			ļ								
otal HVAC											
otal MIsc											
. 1 D1											
otal Phases			22,000	22,000	22,000		66,000			1	

Load to be Fed

1,000 20/1 6 REC 20/1 8 REC 20/1 10 REC

1,000 20/1 12 R. 20/1 14 RE 20/1 16 REC 20/1 16 REC

1,000 20/1 18 RE

 1,000
 20/1
 18
 REC

 20/1
 20
 REC

 20/1
 20
 REC

 20/1
 22
 REC

 20/1
 22
 REC

 1,000
 20/1
 24
 REC

 20/1
 26
 REC
 20/1
 26
 REC

 1,000
 20/1
 30
 REC
 20/1
 30
 REC

 20/1
 32
 REC
 20/1
 34
 REC

 1,000
 20/1
 36
 REC
 20/1
 38
 REC

 1,000
 20/1
 38
 REC
 20/1
 40
 REC

 1,000
 20/1
 40
 REC
 20/1
 40
 REC

Panelboard:	LC5	SB				Panel Se	ource:	DP C			
Bus Ampacity	400		Volts	120/208		Feed (Top	o/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr	. ,				
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases			Right Phas		Brkr	Cct	
Fed	No	A/P	A	В	С	Α	В	С	A/P	No	
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1	4	1,000		4	1,000		20/1		REC
REC	47	20/1			1,000	<u> </u>	4	1,000	20/1		REC
REC	49	20/1	1,000			1,000			20/1		REC
REC	51	20/1	4	1,000		4	1,000		20/1		REC
REC	53	20/1		-	1,000			1,000	20/1		REC
SPARE	55	20/1				1,000			20/1		REC
SPARE	57	20/1	4			4	1,000	1	20/1		REC
SPARE	59	20/1		-				1,000	20/1		REC
SPARE	61	20/1				1,000	1		20/1		REC
SPARE	63	20/1	4			4	1,000	1 0 0 0	20/1		REC
SPARE	65	20/1		-		1 000		1,000	20/1		REC
SPARE	67	20/1				1,000	1.000		20/1		REC
SPARE	69	20/1	-			-	1,000	1 000	20/1		REC
SPARE CE	71	20/1		-		1.000	-	1,000	20/1		REC
SPACE	73					1,000	1.000		20/1		REC
SPACE SPACE	75 77		-			4	1,000	1,000	20/1 20/1		REC REC
SPACE SPACE	79						-	1,000			SPARE
SPACE SPACE	81								20/1 20/1		SPARE SPARE
SPACE SPACE	81		-			4			20/1		SPARE SPARE
STROL	05		1						20/1	70	
Total Lights											
Total Recpts			8,000	8,000	8,000		24,000				
Total HVAC Blwrs			0,000	0,000	0,000	+	21,000				
Total HVAC A/C			1			1			1		
Total HVAC Htg			1			1					
Total HVAC			1			1					
Total MIsc											
			1								
Total Phases			8,000	8,000	8,000	1	24,000				
Total Panel			,	,	,		,,			-	

ard:		$2\mathbf{B}$				Panel So	urce:				
ty	400		Volts	120/208		Feed (Top	/Bottom)				
Space	42		Phase	3		Feed-Thru					
1	400		Wires	4			Load Fed				
			Surface	YES		Sub-Feed					
			Recessed				Load Fed				
			AIC	22K		Sub-Feed					
							Load Fed				
			Pnl MCA			Sub-Feed					
			1 III IVIC/1			Sub 1 ccu	Load Fed				
							Load I ed				
to be	Cct	Brkr		Left Phases		F	Right Phase	es	Brkr	Cct	Load to be
ed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
	43	20/1	1,000		-	1,000			20/1		REC
	45	20/1	_,000	1,000		-,000	1,000		20/1		REC
	47	20/1	1	1,000	1,000	1	1,000	1,000	20/1		REC
	49	20/1	1,000	1 1	1,000	1,000		1,000	20/1		REC
	51	20/1	1,000	1,000		1,000	1,000		20/1		REC
	53	20/1	1	1,000	1,000	1	1,000	1,000	20/1		REC
	55	20/1	1,000	{ }	1,000	1,000		1,000	20/1		REC
	57	20/1	1,000	1,000		1,000	1,000		20/1		REC
	59	20/1	-	1,000	1,000	-	1,000	1,000			REC
			1.000	{ }	1,000	1.000		1,000	20/1		
	61	20/1	1,000	1.000		1,000	1.000		20/1	_	REC
	63	20/1	-	1,000	1 000	-	1,000	1 000	20/1		REC
	65	20/1	1.000		1,000	1.000		1,000	20/1		REC
	67	20/1	1,000	1.000		1,000	1 0 0 0		20/1		REC
	69	20/1	4	1,000		_	1,000		20/1	_	REC
	71	20/1		4 4	1,000			1,000	20/1	72	REC
	73	20/1	1,000			1,000			20/1		REC
	75	20/1	4	1,000		_	1,000		20/1		REC
	77	20/1						1,000	20/1		REC
	79	20/1				1,000			20/1	_	REC
	81	20/1	1			1	1,000		20/1	82	REC
	83	20/1							20/1	84	SPARE
						ļ					
1			13,000	13,000	11,000		37,000				
Blwrs											
C A/C											
CHtg			I			ļ					
2			I								
			I								
			10.000	10.000	44						
6			13,000	13,000	11,000		37,000				
			1			1			1	1	

ard:	LD ⁴	4B				Panel So	urce:				
ity	400		Volts	120/208		Feed (Top	/Bottom)				
r Space	42		Phase	3		Feed-Thru					
-	400		Wires	4			Load Fed				
			Surface	YES		Sub-Feed	Lugs				
			Recessed				Load Fed				
			AIC	22K		Sub-Feed	Brkr #1				
							Load Fed				
			Pnl MCA			Sub-Feed	Brkr #2				
							Load Fed				
l to be	Cet	Brkr		Left Phases			light Phase		Brkr	Cet	
'ed	No	A/P	A	В	С	Α	В	С	A/P	No	Fed
	43	20/1	1,000			1,000			20/1		REC
	45	20/1	4	1,000		4	1,000		20/1		
	47	20/1			1,000			1,000	20/1		
	49	20/1	1,000			1,000			20/1		REC
	51	20/1	-	1,000		-	1,000		20/1		
	53	20/1			1,000			1,000	20/1		
	55	20/1				1,000			20/1		REC
	57	20/1					1,000		20/1		REC
	59	20/1						1,000	20/1		REC
	61	20/1				1,000			20/1	62	REC
	63	20/1					1,000	1	20/1	64	REC
	65	20/1						1,000	20/1	66	REC
	67	20/1				1,000	1.000		20/1	68	REC
	69	20/1	-			-	1,000	1 0 0 0	20/1	70	REC
	71	20/1				1.000		1,000	20/1	72	REC
	73					1,000	1.000		20/1	74	REC
	75		-			-	1,000	1.000	20/1		
	77							1,000	20/1		REC
	79								20/1	80	SPARE
	81 83		-			4			20/1 20/1	82 84	SPARE SPARE
	03								20/1	04	SI AIKE
,											
s			8,000	8,000	8,000		24,000				
s C Blwrs			8,000	8,000	8,000		24,000				
C A/C											
C Htg											
0											
8			8,000	8,000	8,000		24,000				
3			8,000	0,000	0,000		27,000				

Panelboard:	HD	1				Panel So	ource:	SWB D,	E,F		
Bus Ampacity	250		Volts	277/480		Feed (Tot	o/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr	· /				
MLO Amps	250		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed					
Pnl Mfr			Recessed	120		546 1 004	Load Fed				
Pnl Type			AIC	35K		Sub-Feed					
Pnl Height			1110	5511		540 1 004	Load Fed				
Pnl Width			Pnl MCA	74.9 A		Sub-Feed					
Pnl Depth			1 111 1010/1	71.911		540 1 004	Load Fed				
r in Depti							Loud I ed				
Load to be	Cct	Brkr		Left Phases		1	Right Phase	es	Brkr	Cet	Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No	Fed
LTS	1		3,360		÷	2,500			20/1		OUTSIDE LTS
LTS	3	20/1	2,200	3,360		2,000	1,500		20/1		GEN LTS
LTS	5	20/1	1	2,200	3,360	1	1,000		20/1		SPARE
LTS	7	20/1	3,360		5,500	3,888	1		20/1		MAINTENCE LTS
LTS	9	20/1	5,500	3,360		5,000	3,888		20/1		MAINTENCE LTS
LTS	11	20/1	1	5,500	3,360	1	5,000	3,292	20/1		MAINTENCE LTS
LTS	13	20/1	3,360		5,500	<u> </u>	1	5,272	20/1		SPARE
LTS	15	20/1	5,500	3,360					20/1		SPARE
LTS	17	20/1	1	5,500	3,360	1			20/1		SPARE
LTS	17	20/1	3,360	1 F	5,500		-		20/1		SPARE
STORAGE	21	20/1	5,500	550					20/1		SPARE
MEZZ. LTS	21	20/1	1	550	605	1			20/1		SPARE
SPACE	25	20/1		1 ł	005		-		20/1		SPARE
SPACE	23								20/1		SPARE
SPACE	27		1			1			20/1		SPARE
SPACE	31			┥╴			-		20/1		SPACE
SPACE SPACE	33										SPACE
SPACE	35		1			1					SPACE
SPACE	37			┥┤		<u> </u>	-				SPACE
SPACE SPACE	39										SPACE
SPACE SPACE	41		-	├		1					SPACE
SIACE	41									42	SIACE
Total Lights			19,828	16,018	13,977		49,823				
Total Recpts											
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC										1	
Total MIsc									1		
Total Phases			19,828	16,018	13,977		49,823		1		
Total Panel			,,	,	· · · ·		,			1	

<u> Panelboard:</u>		BA				Panel So	ource:	SWB D,I	Ξ,F		
Bus Ampacity	400		Volts	120/208		Feed (Top	o/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr					
MLO Amps			Wires	4			Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height			_				Load Fed				
Pnl Width			Pnl MCA	166.0 A		Sub-Feed					
Pnl Depth							Load Fed				
			_								
Load to be	Cct	Brkr		Left Phases		I	kight Phase	es	Brkr	Cet	Load to be
Fed	No A/P A B C A B C		С	A/P	No	Fed					
REC	1	20/1	1,000			1,000			20/1	2	REC
REC	3	20/1		1,000			1,000		20/1	4	REC
REC	5	20/1			1,000			1,000	20/1	6	REC
REC	7	20/1	1,000			1,000			20/1	8	REC
REC	9	20/1		1,000			1,000		20/1	10	REC
REC	11	20/1			1,000			1,000	20/1	12	REC
REC	13	20/1	1,000			1,000			20/1	14	REC
REC	15	20/1		1,000			1,000		20/1		REC
REC	17	20/1			1,000			1,000	20/1	18	REC
REC	19	20/1	1,000			1,000			20/1	20	REC
REC	21	20/1		1,000			1,000		20/1	22	REC
REC	23	20/1			1,000			1,000	20/1	24	REC
REC	25	20/1	1,000			1,000			20/1		REC
REC	27	20/1		1,000			1,000		20/1		REC
REC	29	20/1			1,000			1,000	20/1		
REC	31	20/1	1,000			1,000			20/1		REC
REC	33	20/1		1,000			1,000		20/1		REC
REC	35	20/1			1,000			1,000	20/1		REC
REC	37	20/1	1,000			1,000			20/1		REC
REC	39	20/1	1	1,000		1	1,000		20/1		
REC	41	20/1	Ļ		1,000			1,000	20/1	42	REC
			I								
Fotal Lights			20.000	20.000	00.000		(0.000				
Fotal Recpts			20,000	20,000	20,000		60,000				
Total HVAC Blwrs			I								
Total HVAC A/C			I								
Total HVAC Htg			l								
Total HVAC			I								
Total MIsc											
Total Phases	_		20,000	20,000	20,000		60,000				
LOTAL PHASES			20,000	20,000	∠0,000	1	00,000				

Panelboard:	LDS	5A				Panel Source:		SWB D,I	E,F		
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	ı Lugs				
MLO Amps			Wires	4			Load Fed				
MCB A/P	400		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	105.5 A		Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	Right Phas	es	Brkr	Cet	Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No	Fed
REC	1	20/1	1,000		L.	1,000			20/1	2	REC
REC	3	20/1	1,000	1,000		1,000	1,000		20/1	4	REC
REC	5	20/1	1	1,000	1.000	1	1,000	1,000	20/1	6	REC
REC	7	20/1	1,000		1,000	1,000	1	1,000	20/1	8	REC
REC	9	20/1	1,000	1,000		1,000	1,000		20/1	10	REC
REC	11	20/1	1	1,000	1,000	1	1,000	1,000	20/1	12	REC
REC	11	20/1	1,000		1,000	1,000	1	1,000	20/1	12	REC
REC	15	20/1	1,000	1,000		1,000	1,000		20/1	16	REC
REC	13	20/1	1	1,000	1,000	1	1,000	1,000	20/1	18	REC
REC	19	20/1	1,000		1,000	1,000	1	1,000	20/1	20	REC
REC	21	20/1	1,000	1,000		1,000	1,000		20/1	20	REC
REC	23	20/1	1	1,000	1,000	1	1,000	1,000	20/1	24	REC
REC	25	20/1	1,000		1,000	1,000	1	1,000	20/1	24	REC
REC	23	20/1	1,000	1,000		1,000	1,000		20/1		REC
REC	29	20/1	1	1,000	1,000	1	1,000	1,000	20/1		REC
REC	31	20/1	1,000		1,000	1,000	1	1,000	20/1	32	REC
REC	33	20/1	1,000	1,000		1,000	1,000		20/1		REC
REC	35	20/1	1	1,000	1,000	1	1,000	1,000	20/1		REC
REC	37	20/1	1,000		1,000	1,000	1	1,000	20/1		REC
REC	39	20/1	1,000	1,000		1,000	1,000		20/1		REC
REC	41	20/1		1,000	1,000	<u> </u>	1,000	1,000	20/1		REC
TD (1 T 1 1)											
Total Lights			22,000	22,000	22.000		66.000				
Total Recpts Total HVAC Blwrs			22,000	22,000	22,000		66,000				
Total HVAC Blwis			l								
Total HVAC A/C											
Total HVAC Htg											
Total MIsc											
Total Phases			22,000	22,000	22,000		66,000				
Total Panel				-					1		

Panelboard:	LD1					Panel So	urce:	SWB D,I	E,F		
Bus Ampacity	400		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	ı Lugs				
MLO Amps			Wires	4			Load Fed				
MCB A/P	300		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	127.3 A		Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases		F	Right Phas	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	B	С	Α	B	С	A/P	No	Fed
GEN REC	1	20/1	720		_	1,080		_	20/1	2	STORAGE
GEN REC	3	20/1		720		Ĺ,	900	1	20/1	4	STORAGE
SF-22	5	15/1	1		696	1		720	20/1	6	BATHROOM
SPARE	7	20/1	1	1		720	1		20/1	8	BATHROOM
SPARE	9	20/1	1			-	720	1	20/1	10	BATHROOM
SS-3	11	30/2	1		2,000	1		1,176	25/1	12	EF-6
	13		2,000	1		2,000	1	,	30/2	14	EWH-16
EWH-24	15	30/2		2,000			2,000	1		16	
	17				2,000	1	,	2,000	30/2	18	EWH-17
OVERHEAD DOOR	19	25/3	1,272	1	,	2,000		,		20	
	21			1,272			750	1	20/2	22	EWH-20
	23				1,272	1		750	1	24	
REC	25		720	1	,	1,500			25/2	26	EWH-21
REC	27			720			1,500	1		28	
REC	29				720	1		1,250	20/2	30	WH-4
MEZZ REC	31	20/1	720	1 1		1,250				32	
REC	33	20/1		720		,	2,000	1	30/2	34	EWH-19
SPARE	35	20/1				1		2,000		36	
SPACE	37			1		2,000			30/2	38	EWH-18
SPACE	39						2,000	1		40	
SPACE	41					1			20/1	42	SPARE
Total Lights											
Total Recpts			3,960	3,780	1,440		9,180				
Total HVAC Blwrs					1,872		1,872				
Total HVAC A/C											
Total HVAC Htg			9,500	10,250	8,750		28,500				
Total HVAC			9,500	10,250	10,622		30,372				
Total MIsc			2,522	1,272	2,522		6,316				
Total Phases			15,982	15,302	14,584		45,868				
Total Panel			,	,_ •	,		,000				

Panelboard:	LD3	3B				Panel So	ource:				
Bus Ampacity	400		Volts	120/208	1	Feed (Top	o/Bottom)				
Branch Brkr Space	42		Phase	3	1	Feed-Thru					
MLO Amps	400		Wires	4			Load Fed			-	
MCB A/P	+ +		Surface	YES	í	Sub-Feed				-	
Pnl Mfr		1	Recessed		[Load Fed			-	
Pnl Type			AIC	22K		Sub-Feed				1	
Pnl Height			-		1	1	Load Fed				
Pnl Width			Pnl MCA			Sub-Feed					
Pnl Depth						-	Load Fed				
Load to be	Cct	Brkr		Left Phase		<u> </u> Т т	Right Phase		Brkr	Cct	Load to be
Fed	No	A/P	A	B	C	A		C	A/P	No	
REC	43	A/F 20/1	A 1,000			A 1,000			A/F 20/1		REC
REC	45	20/1	1,000	1,000	1	1,000	1,000		20/1		REC
REC	43	20/1	4	1,000	1,000	4	1,000	1,000	20/1		REC
REC	47	20/1	1,000		1,000	1,000	4	1,000	20/1		REC
REC	51	20/1	1,000	1,000	1	1,000	1,000		20/1		
REC	53	20/1	4	1,000	1,000	4	1,000	1,000	20/1		REC
REC	55	20/1	1,000		1,000	1,000	4	1,000	20/1		REC
REC	55	20/1	1,000	1.000	I	1,000	1,000		20/1		REC
REC	57	20/1	-	1,000	1,000	4	1,000	1,000	20/1		
SPARE	61	20/1			1,000		4	1,000	20/1		SPARE
SPARE SPARE	_	20/1		───┦	1				20/1		
SPARE SPARE	63 65	20/1	-			4					
	_	20/1	<u> </u>	4 I	<u> </u>	<u> </u>	4		20/1		
SPARE	67		<u> </u>	───┦	I				20/1	_	SPARE
SPARE	69	20/1	-			4			20/1	70	SPARE
SPARE	71 73	20/1		4 !	l	<u> </u>	4		20/1	72	SPARE
SPARE	73	20/1	<u> </u>	───┦	1		┼───┤			74	SPACE
SPARE	75	20/1 20/1	-		<u> </u>	4				_	SPACE
SPARE SPACE	77	20/1		4 !	I	<u> </u>				78	SPACE
SPACE SPACE				↓ /	1					80	SPACE
SPACE	81 83	i	4	<i> </i>	I	4				82	SPACE SPACE
SPACE	85	<u> </u>	╆────	───	·	┥────	┼───┤		 	04	SPACE
Total Lights	+		┨────	──┦		╂────	<u> </u>				
Total Recpts	+ +		6,000	6,000	6,000	1	18,000			-	
Total HVAC Blwrs	+ +		0,000	0,000	0,000		10,000		I		
Total HVAC A/C	+ +		 	├ ───┦	(+		I		
Total HVAC Htg	+ +		 	├ ───┦	(+		I		
Total HVAC	+ +		 	┼───┦	(+					
Total MIsc	++		<u> </u>	├ ───┦	ſ		+				
	+		 	├ ───┦			+				
Total Phases	++		6,000	6,000	6,000		18,000				
Total Panel	++		0,000	0,000	0,000	+	10,000				

Panelboard:	LD5	5B				Panel Source:					
Bus Ampacity	400		Volts	120/208		Feed (Top)/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thr					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases	8	I	Right Phase	es.	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	В	С	A/P	No	
REC	43	20/1	1,000			1,000			20/1		REC
REC	45	20/1		1,000			1,000		20/1		REC
REC	47	20/1			1,000			1,000	20/1		REC
REC	49	20/1	1,000			1,000			20/1		REC
REC	51	20/1		1,000			1,000		20/1		REC
REC	53	20/1			1,000			1,000	20/1	54	REC
SPARE	55	20/1				1,000			20/1		REC
SPARE	57	20/1					1,000		20/1		REC
SPARE	59	20/1						1,000	20/1		REC
SPARE	61	20/1				1,000			20/1		REC
SPARE	63	20/1					1,000		20/1		REC
SPARE	65	20/1						1,000	20/1		REC
SPARE	67	20/1				1,000			20/1		REC
SPARE	69	20/1					1,000		20/1		REC
SPARE	71	20/1						1,000	20/1		REC
SPACE	73					1,000			20/1		REC
SPACE	75						1,000		20/1		REC
SPACE	77							1,000	20/1	_	REC
SPACE	79								20/1	80	SPARE
SPACE	81								20/1	82	SPARE
SPACE	83								20/1	84	SPARE
T. (11 1 1 (
Total Lights			0.000	0.000	0.000		24.000				
Total Recpts			8,000	8,000	8,000		24,000				
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Tatal Dhasa-			0.000	0.000	0.000		24.000				
Total Phases Total Panel			8,000	8,000	8,000		24,000				
Total Fallel											



SHEET TITLE

PANELBOARD SCHEDULES

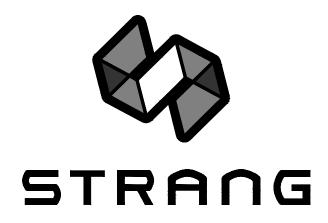
1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

DRAWN	КК
CHECKED	AS
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

DRAWING SET	CD
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FILE NAME	2013027_02-E503.DWG
REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204



Panelboard		LE				Panel Sou	rce:	TRANSFO	ORMEF	R TE	
Bus Ampacity	400A		Volts	120/208		Feed (Top/E	Bottom)	Determine	d by EC		
Branch Brkr Space	84		Phase	3		AIC RATING	G	22,000			
MLO Amps			Wires	4							
MCB A/P	400/3	Р	Surface	YES							
Load to be	Cct	Brkr		Left Phases		F	Right Phase	S	Brkr	Cct	Load to be
Fed	No	A/P	A	В	С	A	В	С	A/P	No	Fed
SPARE	1	20/1				12,744			150/3	2	Panel LE1
SPARE	3	20/1					14,704		-	4	-
SPARE	5	20/1						17,740	-	6	-
SPARE	7	20/1				10,784			150/3	8	Panel LE2
SPARE	9	20/1					13,976		-	10	-
SPARE	11	20/1						11,064	-	12	-
SPARE	13	20/1								14	
SPARE	15	20/1								16	SPACE
SPARE	17	20/1								18	SPACE
SPARE	19	20/1	528							20	SPACE
WH-1	21	20/2		1,250						22	SPACE
WH-1	23	-			1,250					24	SPACE
CP-2	25	20/1								26	SPACE
F-1	27	20/1		1,200						28	SPACE
FIRE ALARM PANEL	29	20/1			500					30	SPACE
GUH-1, 2, 4	31	20/1	928			500			20/1	32	RECEPS
GUH-5,6	33	20/1		700			500		20/1	34	RECEPS
GUH-3	35	20/1			1,176			500	20/1	36	RECEPS
EF-8	37	20/1	696			500			20/1	38	
EF-9	39	15/3		900			1,440		20/1	40	RECEPS
-	41	-			900	= 10		1,800	20/1	42	RECEPS
-	43	-	900	1 000		540	100		20/1	44	RECEPS
ACCU-1	45	25/2		1,622	4 000		180		20/1	46	
-	47	-	100		1,622					48	SPACE
RECEP	49	20/1	180	1 450						50	SPACE
OH DOOR OH DOOR	51	20/1 20/1		1,156	4 450					52	SPACE SPACE
	53	20/1	1 150		1,156					54	
OH DOOR OH DOOR	55 57	20/1	1,156	1,156						56 58	SPACE SPACE
OH DOOR	59	20/1		1,150	1,156					60	SPACE
OH DOOR	61	20/1	1,156		1,100					62	
OS-1 ALARM	63	20/1	1,150	100						64	
MAU-3	65	20/1		100	864					66	
SPARE	67	20/1			004					68	
SPARE	69	20/1								70	
SPARE	71	20/1								70	SPACE
SPARE	73	20/1								74	
SPARE	75	20/1								74	
SPARE	75	20/1								78	
SPARE	79	20/1						1		80	SPACE
SPARE	81	20/1	<u> </u>							82	
SPARE	83	20/1									SPACE
SFARE	03	20/1								04	JOFAGE

Panelboard	1	LE	1			Panel Sour	ce:	Panel LE			
Bus Ampacity	150		Volts	120/208		Feed (Top/B	ottom)	Determine	d by EC		
Branch Brkr Space	72		Phase	3		AIC RATING	-	10,000			
MLO Amps			Wires	4							
MCB A/P	150		Surface	YES							
Load to be	Cct	Brkr		Left Phases		R	ight Phase	S	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	А	В	С	A/P	No	Fed
RECEPS	1	20/1	360			1,920			20/3	2	AIR COMPRESSOR
RECEPS	3	20/1		360			1,920		-	4	-
RECEPS	5	20/1			360			1,920	-	6	-
RECEPS	7	20/1	360			1,000			20/1	8	RECEP
RECEPS	9	20/1		360			1,000		30/1	10	HOIST
RECEPS	11	20/1			900			1,000	-	12	-
AIR COMPRESSOR	13	20/3				200			20/1	14	RECEP
-	15	-					200		20/1	16	RECEP
-	17	-						200	20/1	18	RECEP
RECEPS	19	20/1	360			200			20/1	20	RECEP
RECEPS	21	20/1		360			200		20/1	22	RECEP
RECEPS	23	20/1			360			4,160	50/2	24	WELDER
RECEPS	25	20/1	360			4,160			-	26	
RECEPS	27	20/1		360			4,160		50/2	28	WELDER
RECEPS	29	20/1			360			4,160	-	30	
RECEPS	31	20/1	360			1,664			20/2	32	IRON WORKER
RECEPS	33	20/1		360			1,664		-	34	-
RECEPS	35	20/1			360			200	20/1	36	RECEP
RECEPS	37	20/1	360			180			20/1	38	RECEP
RECEPS	39	20/1		360			180		20/1	40	RECEP
RECEPS	41	20/1			360			180	20/1	42	RECEP
RECEPS	43	20/1	360			180			20/1	44	RECEP
RECEPS	45	20/1		360			2,500		20/1	46	WASHER RECEP
RECEPS	47	20/1			360			2,500	20/1	48	-
RECEPS	49	20/1	360						20/1	50	SPARE
RECEPS	51	20/1		360					20/1	52	SPARE
RECEPS	53	20/1			360				20/1	54	SPARE
RECEPS	55	20/1	360						20/1	56	SPARE
SPARE	57	20/1							20/1	58	SPARE
SPARE	59	20/1							20/1	60	SPARE
SPARE	61	20/1							20/1	62	SPARE
SPARE	63	20/1							20/1	64	SPARE
SPARE	65	20/1							20/1	66	SPARE
SPARE	67	20/1							20/1	68	SPARE
SPARE	69	20/1							20/1	70	SPARE
SPARE	71	20/1							20/1	72	SPARE

Panelboard:	LC	6A				Panel So	ource:	DP C			
Bus Ampacity	600		Volts	120/208		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru	ı Lugs				
MLO Amps			Wires	4			Load Fed				
MCB A/P	600		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA	392.2 A		Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases			Right Phase	s	Brkr	Cct	Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No	Fed
Vacuum Pump	1	60/3	5,500			1,440			15/1	2	WH-5
	3			5,500			1,440	1	15/1	4	WH-6
	5		1	- ,- • •	5,500	1	_,	1,440	15/1	6	WH-7
Vacuum Pump	7	50/3	3,200		-,	1,440		_,	20/1	8	GEN REC
	9		-,	3,200			1,200	1	20/1	10	COMPRESSOR
	11			-,	3,200	1	-,_ • •	1,200	20/1	12	COMPRESSOR
Computer	13	20/1	1,000		2,200	1,664		1,200	20/2	14	MASTER CTRL PNL
EEV Ctrls	15	15/2	_,	520			1,664	1		16	
	17				520	1	1,001	800	15/2		PWR SUPPLY
EEV Ctrls	19	15/2	520		020	800				20	
	21	10/2	020	520			915	1	25/2		EF-7A
Condensing	23	50/3			3,310	1		915		24	
	25		3,310		5,510	915		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	25/2		EF-7B
	27		0,010	3,310			915	1		28	
Condensing	29	50/3	1	0,010	3,310	1	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	500	20/1	30	GUH-8
	31		3,310		5,510			200	20/1	32	SPARE
	33		0,010	3,310				1	20/1	34	SPARE
Chiller	35	90/3	1	-,	6,600	1			20/1	36	SPARE
	37		6,600		0,000				20/1	38	SPARE
	39		-,	6,600				1	20/1	40	SPARE
SPARE	41	20/1		-,					20/1		SPARE
Total Lights											
Total Lights					1 4 4 0		1.440				
Total Recpts Total HVAC Blwrs			1,656	500	1,440		1,440 2,156				
			1,000	500			2,130				
Total HVAC A/C											
Total HVAC Htg			1 (5)	500			2150				
Total HVAC	-		1,656	500	41,845		2,156				
Total MIsc			48,249	47,594	41,845		137,688				
Total Phases			49,905	48,094	43,285		141,284				
Total Panel				+0,07+	-13,205		171,204				

Panelboard:	HE	M-B				Panel So	ource:				
Bus Ampacity	250		Volts	277/480		Feed (Top	o/Bottom)				
Branch Brkr Space	18		Phase	3		Feed-Thr					
MLO Amps			Wires	4			Load Fed				
MCB A/P	50		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed	120			Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height						546 1 004	Load Fed				
Pnl Width			Pnl MCA	21.0 A		Sub-Feed					
Pnl Depth				211011		546 1 004	Load Fed				
1 m Dopti			1				Loud I od				
Load to be	Cct	Brkr		Left Phases		I	Right Phase	es	Brkr	Cet	Load to be
Fed	No	A/P	Α	В	С	A	B	С	A/P	No	Fed
MEZZ AREA	1	20/1	4,500			2,300			20/1		PAV. B LTS
PREF. LTS	3	20/1	,	4,500		,					SPACE
MEZZ, B LTS	5	20/1	1		256						SPACE
LEM-B	7	30/3	1,000	1 1			1				SPACE
	9		_,	1,000							SPACE
	11				1,000	1					SPACE
SPARE	13	20/1		1 1	1,000						SPACE
SPARE	15	20/1									SPACE
SPARE	17	20/1	1			-					SPACE
STRAL	17	20/1		1 1			-			10	STREE
			1			1					
							-				
			1			1					
				1 1							
			1			1					
				1 1							
			1			1					
									1		
Total Lights			6,800	4,500	256	1	11,556		1		
Total Recpts			, í	,		1					
Total HVAC Blwrs			1			1			1		
Total HVAC A/C						1			1		
Total HVAC Htg						1			1		
Total HVAC									1		
Total MIsc			1,000	1,000	1,000		3,000		1		
			1,000	1,000	2,500	1	2,000		1		
Total Phases			7,800	5,500	1,256	1	14,556		-		
Total Panel			7,000	5,500	1,200		11,000		-		

Panelboard:	LC6	B
Bus Ampacity	600	
Branch Brkr Space	42	
MLO Amps	600	
MCB A/P		
Pnl Mfr		
Pnl Type		
Pnl Height		
Pnl Width		
Pnl Depth		
Load to be	Cct	ł
Fed	No	
GLYCOL CHILLER	43	4
	45	
	47	
GLYCOL CHILLER	49	4
	51	
	53	
PIPELINE WASHER	55	
	57	
MILK PUMP CTRL	59	
	61	
	63	
SPACE	65	
SPACE	67	
SPACE	69	
SPACE	71	
SPACE	73	
SPACE	75	
SPACE	77	
SPACE	79	
SPACE	81	
SPACE	83	
Total Lights		
Total Recpts		
Total HVAC Blwrs		
Total HVAC A/C		
Total HVAC Htg		
Total HVAC		
Total MIsc		
Total Phases		
Total Panel		

Panelboard:	HE	M-C				Panel So	ource:				
Bus Ampacity	250		Volts	277/480		Feed (Top					
Branch Brkr Space	18		Phase	3		Feed-Thr					
MLO Amps			Wires	4			Load Fed				
MCB A/P	50		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed					
Pnl Height						_	Load Fed				
Pnl Width			Pnl MCA	7.5 A		Sub-Feed					
Pnl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases			Right Phase	s	Brkr	Cct	Load to be
Fed	No	A/P	A	В	С	A	B	C	A/P	No	Fed
SPARE	1	20/1			-	2,300		-	20/1		PAV. C LTS
SPARE	3	20/1				,				4	SPACE
MEZZ. C LTS	5	20/1	1		300	1			1	6	SPACE
LEM-C	7	30/3	1,000			1	1		1	_	SPACE
	9		,	1,000							SPACE
	11		1	,	1,000	1			1		SPACE
SPARE	13	20/1			_,,		1		1		SPACE
SPARE	15	20/1									SPACE
SPARE	17	20/1				1					SPACE
							1 1				
						1					
							1 1				
						-					
							1 1				
						-					
							1 1				
			1			1			1		
Total Lights			2,300		300		2,600				
Total Recpts											
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc			1,000	1,000	1,000		3,000				
Total Phases			3,300	1,000	1,300		5,600				
Total Panel											

8				Panel So	ource:	DP C			
	Volts	120/208		Feed (Top	/Bottom)				
	Phase	3		Feed-Thru	ı Lugs				
	Wires	4			Load Fed				
	Surface	YES		Sub-Feed	Lugs				
	Recessed				Load Fed				
	AIC	22K		Sub-Feed	Brkr #1				
					Load Fed				
	Pnl MCA			Sub-Feed					
					Load Fed				
Brkr		Left Phases			Right Phas		Brkr	Cct	
A/P	A	В	С	Α	В	С	A/P	No	Fed
40/3	3,600			1,250			15/2	44	GLACIER CTRL
		3,600		4	1,250	1 9 5 9	1.5/2	46	
10/2	2 (00		3,600	1.050	-	1,250	15/2	48	GLACIER CTRL
40/3	3,600	2 (00		1,250	1.000		1.5/1	50	
		3,600	2 (00	-	1,200	100	15/1		TEMP RECORDER
15/0	1.050	-	3,600	1 (00		100	15/1		SMART DAIRY CTRL
15/2	1,250	1.250		1,600	1.600		20/2	56 58	MILK TRUCK
15/2		1,250	500	-	1,600	5 500	60/3	58 60	
15/3	500	-	500	5,500		5,500	60/3	60	VAC PUMP CTRL
	300	500		3,300	5,500			64	1
		300		-	3,300	720	20/1		GEN REC
		-		1,656	-	720	35/1		SF-23
				1,050	500		20/1		GUH-10
					500	720	20/1		GEN REC
						720	20/1		SPACE
									SPACE
									SPACE
									SPACE
									SPACE
				1					SPACE
			1,440		1,440				
	1,656	500			2,156				
	1,656	500			2,156				
	18,550	18,500	14,550		51,600				
	20,206	19,000	15,990		55,196				

Panelboard		LE	2			Panel Sou	rce:	Panel LE			
- Bus Ampacity	150		Volts	120/208		Feed (Top/	Bottom)	Determine	d by EC	;	
Branch Brkr Space	42		Phase	3		AIC RATING		10,000			
MLO Amps			Wires	4							
MCB A/P	150		Surface	YES		-					
Load to be	Cct	Brkr		Left Phases		F	Right Phase	S	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	В	С	A/P	No	Fed
RECEP	1	20/1	360			4,160			50/2	2	WELDER RECEP
RECEP	3	20/1		360			4,160		-	4	-
RECEP	5	20/1			360			1,248	15/2	6	6-15R RECEP
RECEP	7	20/1	360			1,248			-	8	
RECEP	9	20/1		360			1,248		15/2	10	6-15R RECEP
RECEP	11	20/1			360			1,248	-	12	
RECEP	13	20/1	360			1,248			15/2	14	6-15R RECEP
RECEP	15	20/1		360			1,248		-	16	
RECEP	17	20/1			360			1,248	15/2	18	6-15R RECEP
RECEP	19	20/1	360			1,248			-	20	
6-15R RECEP	21	15/2		1,248			1,248		15/2	22	6-15R RECEP
-	23	-			1,248			1,248	-	24	-
RECEP	25	20/1	360			360			20/1	26	RECEP
6-15R RECEP	27	15/2		1,248			1,248		15/1	28	6-15R RECEP
-	29	-			1,248			1,248	-	30	-
RECEP	31	20/1	360			360			20/1	32	RECEP
6-15R RECEP	33	20/2		1,248					20/1	34	SPARE
-	35	-			1,248				20/1	36	SPARE
SPARE	37	20/1							20/1	38	SPARE
SPARE	39	20/1							20/1	40	SPARE
SPARE	41	20/1							20/1	42	SPARE
SPARE	43	20/1							20/1	44	SPARE
SPARE	45	20/1							20/1	46	SPARE
SPARE	47	20/1							20/1	48	SPARE
SPARE	49	20/1							20/1	50	SPARE
SPARE	51	20/1							20/1	52	SPARE
SPARE	53	20/1							20/1	54	SPARE

	7				Panel So	urce:	SWB C			
400		Volts	120/208							
					· ~					
					r cou rme	. <u> </u>				
300					Sub-Feed					
			120		546 1 004					
_			22K		Sub-Feed					
		¹ IIC	2211		546 1 004					
		Pnl MCA	141 0 A		Sub-Feed					
		1 111 101 01 1	111011		546 1004					
						2000100				
Cet	Brkr		Left Phases		F	Right Phas	es	Brkr	Cet	Load to be
	A/P	Α	В	С	A	B	С	A/P		Fed
1		720			1,716				2	WARMER
3	20/1		1,800			1,056		20/1	4	FRIDGE
5	35/1	1		1,656	1		1,716	20/1	6	WARMER
7	20/2	1,477		,	1,200			20/1	8	REGISTER
9			1,477		,	1,200		20/1		SODA DISPENSER
11	35/1	1		1,656	1		1,200	20/1		REGISTER
13		2,704		,	1,500		, , ,			LCD MONITOR
		_,	2,704			1.584				FRIDGE
_	25/2		,	1.500	1	,	2.340		_	COMBO OVEN
		1,500			2,340				_	
	25/2	-,	1,500			816		20/1		FREEZER/FRYER
_		1		1,500	1		1.000			HOOD LTS
_	20/1			,	1,800		,			HOOD
27	20/1				,	1,812		20/1		WARMER
29	20/1	1					912	20/1		FREEZER
31	20/1				1,200			20/1		REGISTER
33		l				1,200		20/1	34	SODA DISPENSER
35		1			1	-	1,200	20/1		REGISTER
37					1,500	1		20/1		LCD MONITOR
39								20/1		SPARE
41		1			1			20/1	42	SPARE
_		44.5=4	0.155	0.4						
_		11,976	9,468							
				3,312		3,312				
						44.100				
				-						
_				6,312		-				
		1,477	1,477			2,954				
		17,657	15,149	14,680		47,486				
			,			,			1	
	42 300 Cct No 1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39	42 300 300 Cct Brkr No A/P 1 20/1 3 20/1 3 7 20/2 9 11 35 17 25/2 23 25 20/1 27 20/1 31 20/1 33 35 37 39	42 Phase 300 Surface 300 Surface Recessed AIC Pnl MCA Pnl MCA Cct Brkr No A/P 1 $20/1$ 5 $35/1$ 7 $20/2$ 1,477 9 9 1 13 $40/2$ 2,704 15 17 $25/2$ 19 1,500 21 $25/2$ 23 1 25 $20/1$ 31 $20/1$ 33 35 37 39	42 Phase 3 Wires 4 300 Surface YES Recessed 1 AIC 22K Pnl MCA 141.0 A Cct Brkr Left Phases No A/P A 1 20/1 720 3 20/1 1,800 5 35/1 1,477 9 1 1,477 11 35/1 1,477 13 40/2 2,704 15 2,704 1,477 17 25/2 1,500 23 1 1,500 25 20/1 1,500 23 1 1,500 21 25/2 1,500 23 1 20/1 31 20/1 1 33 1 1 33 1 1 39 41 1 111,976 9,468 1 1 1,477 1,477 1,477 <	42 Phase 3 Wires 4 300 Surface YES Recessed 1 AIC 22K Pnl MCA 141.0 A Cct Brkr Left Phases No A/P A B C 1 20/1 720 3 20/1 1,800 1,656 7 20/2 1,477 1,656 7 20/2 1,477 1,656 13 40/2 2,704 1,656 13 40/2 2,704 1,500 15 1 2,704 1,500 1,500 21 25/2 1,500 1,500 1,500 23 1 1,500 1,500 1,500 1,500 25 20/1 1 1,500 1,500 1,500 33 0 1 1,500 1,500 1,500 1,500 25 20/1 1 1,500 1,500 1,500 1,500 1,500 1,477 1,477	42 Phase 3 Feed-Thrue 300 Surface YES Sub-Feed 300 Surface YES Sub-Feed AIC 22K Sub-Feed Pnl MCA 141.0 A Sub-Feed Cct Brkr Left Phases Feed No A/P A B C A B C A 1 20/1 720 1,716 3 20/1 1,800 1,656 7 20/2 1,477 1,656 7 20/2 1,477 1,500 11 35/1 1,500 2,340 15	42 Phase 3 Feed-Thru Lugs Wires 4 Load Fed 300 Surface YES Sub-Feed Lugs Recessed Load Fed Load Fed AIC 22K Sub-Feed Brkr #1 Load Fed Load Fed Pnl MCA 141.0 A Sub-Feed Brkr #2 Cct Brkr Left Phases Right Phas No A/P A B C A 3 20/1 1,800 1,716 1,056 7 20/2 1,477 1,656 1,056 7 20/2 1,477 1,500 1,584 17 25/2 1,500 2,340 1,584 17 25/2 1,500 816 1,812 29 20/1 1,500 1,800 1,812 29 20/1 1,500 1,200 1,200 33 1 1,500 1,200 1,200 33 1 1,500 1,200 1,200 33 1 1,200 1,200	42 Phase 3 Feed-Thru Lugs Wires 4 Load Fed 300 Surface YES Sub-Feed Lugs Recessed Load Fed AIC 22K Sub-Feed Brkr #1 Load Fed Load Fed Pnl MCA 141.0 A Sub-Feed Brkr #2 Cct Brkr Left Phases Right Phases No A/P A B C 1 20/1 720 1,716 1,056 5 35/1 1,656 1,200 1,716 7 20/2 1,477 1,656 1,200 13 40/2 2,704 1,500 1,584 17 25/2 1,500 2,340 1,200 23 1 1,500 1,800 1,200 24 20/1 1,500 1,200 1,200 23 1 1,500 1,200 1,200 24 25/2 1,500 1,200 1,200 33 20/1 1,200 1,200 1,200	42 Phase 3 Feed-Thru Lugs Ioad Fed 300 Surface YES Sub-Feed Lugs Ioad Fed Recessed 22K Sub-Feed Brkr #1 Ioad Fed Pn1 MCA 141.0 A Sub-Feed Brkr #2 Ioad Fed Cct Brkr Left Phases Right Phases Brkr No A/P A B C A B C 3 20/1 1,800 1,056 20/1 20/1 20/1 3 20/1 1,477 1,200 20/1 20/1 13 40/2 2,704 1,500 1,200 20/1 15 1 1,500 2,340 1,200 20/1 15 1 1,500 1,800 20/1 20/1 141 1,500 1,800 1,812 20/1 20/1 15 1,500 1,800 1,000 20/1 20/1 25 20/1 1,500 1,812 20/1	42 Phase 3 Feed-Thru Lugs

Panelboard:	HE	M-D				Panel So	ource:		
Bus Ampacity	250		Volts	277/480		Feed (Top	o/Bottom)		
Branch Brkr Space	18		Phase	3		Feed-Thr			
MLO Amps			Wires	4			Load Fed		
MCB A/P	50		Surface	YES		Sub-Feed	Lugs		
Pnl Mfr			Recessed				Load Fed		
Pnl Type			AIC	22K		Sub-Feed	Brkr #1		
Pnl Height							Load Fed		
Pnl Width			Pnl MCA	14.7 A		Sub-Feed	Brkr #2		
Pnl Depth							Load Fed		
Load to be	Cct	Brkr		Left Phases			Right Phase		Brkr
Fed	No	A/P	Α	B	С	Α	В	С	A/P
MAINT. SHOP	1	20/1	4,500			2,300			20/1
STORAGE SHED	3	20/1	4	300		4			
MEZZ AREA D	5	20/1		-	300		4		
LEM-D	7	30/3	1,000						
	9		4	1,000		4			
	11				1,000		4		
SPARE	13	20/1							
SPARE	15	20/1	4			4			
SPARE	17	20/1							
			4			4			
				-			4		
			4			4			
									<u> </u>
			4			-			
							4		
			-			-			
Total Lights			6,800	300	300		7,400		
Total Recpts									
Total HVAC Blwrs									
Total HVAC A/C									
Total HVAC Htg									
Total HVAC									
Total MIsc			1,000	1,000	1,000		3,000		
Total Phases			7,800	1,300	1,300		10,400		
Total Panel									

Cct	Load to be
No	Fed
2	PAV. D LTS
4	SPACE
6	SPACE
8	SPACE
10	SPACE
	SPACE
	SPACE
16	SPACE
18	SPACE



SHEET TITLE PANELBOARD SCHEDULES

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

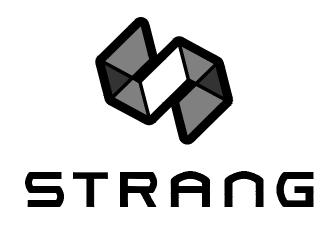
ALLIANT ENERGY CENTER PAVILIONS BID # 313072

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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE Engineering Interior design



					MOTOR	SCHED	ULE					
MECH. Equip. No.	EQUIPMENT	LOCATION ROOM NUMBER	FLA/A/W	MCA	моср	HP	VOLT	РН	STARTER BY MC/PC/EC	DISCONNECT BY MC/PC/EC	CONTROL WIRING BY MC/PC/EC	REMARKS
ERV-1	ENERGY RECOVERY VENTILATOR	PREFUNCTION RESTROOM	4.8FLA	10.8	15	(2)1.5	460	3	мс	мс	мс	
ERV-2	ENERGY RECOVERY VENTILATOR	RTU 1,2 EVENT VENTILATION	22FLA	24.8	40	(2)5	460	3	MC	мс	мс	
RTU-1	ROOFTOP UNIT	1ST FLR PREFUNCTION		70	90	7.5	460	3	мс	мс	мс	4
RTU-2	ROOFTOP UNIT	MEZZ. PREFUNCTION		80	100	15	460	3	MC	мс	мс	2
MAU-1	MAKEUP AIR UNIT	PREFUNCTION ROOF				3⁄4	208	3	MC	мс	МС	4
MAU-2A	MAKEUP AIR UNIT	BLDG 1 SUPPLY FAN	27FLA		60	20	460	3	MC	мс	МС	
MAU-2B	MAKEUP AIR UNIT	BLDG 1 SUPPLY FAN	27FLA		60	20	460	3	мс	мс	мс	
MAU-3	MAKEUP AIR UNIT	WASH BAY 151				Ķ	120	1	мс	EC	мс	
AC-1	THROUGH THE WALL AC	130 TELE/DATA		16	30		208	1	MC	EC	МС	
AC-2	THROUGH THE WALL AC	133 TELE/DATA		16	30		208	1	MC	EC	МС	
AC-3	THROUGH THE WALL AC	150 TELE/DATA		16	30		208	1	мс	EC	мс	
SS-1	SPLIT SYSTEM	143 CONCESSION		26	40		208	1	мс	EC	мс	5
VAV 1	VAV W/ELEC HEAT	OFFICE 103	6.7A				120	1	MC	мс	мс	
VAV 2	VAV W/ELEC HEAT	OFFICE 105	6.7A				120	1	MC	мс	МС	
VAV 4	VAV W/ELEC HEAT	CONCESSIONS 116	15.2A				208	1	мс	мс	мс	
ACCU 1	AIR COOLED CONDENSING UNIT	SERVES F1		15.6	25		208	1	MC	EC	мс	
F1	FURNACE	159 MECH.			15	Ķ	120	1	MC	EC	МС	
CP-1	CIRC PUMP	RM 128				1/6	120	1	PC	EC	-	
CP-2	CIRC PUMP	RM 115				1⁄6	120	1	PC	EC	-	
SP-1	SUMP PUMP	RM 115				3⁄4	208	3	PC	EC	-	
WH-1	WATER HEATER	RM 128					120	1	PC	EC	-	
WH-2	WATER HEATER	RM 115					120	1	PC	EC	-	3
WH-3	WATER HEATER	RM 138	2500kW				208	1	PC	EC	-	
WH-4	WATER HEATER	RM 148	2500kW				208	1	PC	EC	-	
WH-5	WATER HEATER	RM 142					120	1	PC	EC	-	3
WH-6	WATER HEATER	RM 142							PC	EC	-	3
WH-7	WATER HEATER	RM 142							PC	EC	-	3

GENERAL NOTES:

1. WALL SWITCH BY E.C. FOR MANUAL CONTROL.

2. INTERLOCK WITH LIGHTS BY E.C.

3. EXISTING UNIT BEING RELOCATED.

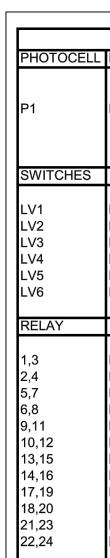
4. E.C. TO PROVIDE 120V POWER TO GFI OUTLET WITH UNIT.

5. E.C. TO PROVIDE POWER WIRING BETWEEN INDOOR AND OUTDOOR UNITS.

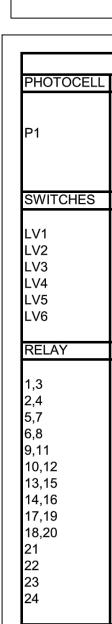
		G SCHEDULES FOR BL		
SWITCHES	LOCATIONS	CIRCUITS	SCENE	PANEL
1.1/4				
LV1				
LV2				
LV3				
LV4				
LV5				
LV6	PAVILION A			
RELAY				
1	PAVILION A	9		HA1
2	PAVILION A	9		HA1
3	PAVILION A	9		HA1
4	PAVILION A	7		HA1
5	PAVILION A	11		HA1
6	PAVILION A	11		HA1
7	PAVILION A	11		HA1
8	PAVILION A	SPARE		HA1
9	PAVILION A	SPARE		HA1
10	PAVILION A	5		HA1
11	PAVILION A	5		HA1
12	PAVILION A	13		HA1
13	PAVILION A	SPARE		HA1
14	PAVILION A	3		HA1
15	PAVILION A	3		HEM-B
16	PAVILION A	SPARE		HA1

		IG SCHEDULES FOR ME		
SWITCHE	S LOCATIONS	CIRCUITS	SCENE	PANEL
LV1	PAVILION A			
_V1 _V2	PAVILION A			
LVZ LV3	PAVILION A			
LV3 LV4	PAVILION A			
 V5	PAVILION A			
LV6	PAVILION A			
RELAY				
1	PAVILION A	4		HA1
2	PAVILION A	4		HA1
3	PAVILION A	4		HA1
4	PAVILION A	4		HA1
5	PAVILION A	8		HA1
6	PAVILION A	6		HA1
7	PAVILION A	4		HA1
3	PAVILION A	SPARE		HA1

PHOTOCELL		CIRCUITS	CONTROLS	PANEL
PHOTOCELL	LUCATION	CIRCUITS	CONTROLS	PANEL
P1	PAVILION AREA B ROOF	2	On at dusk off at preset time	HB1
SWITCHES			SCENE	
LV1 LV2 LV3 LV4 LV5 LV6	PAVILION B PAVILION B PAVILION B PAVILION B PAVILION B PAVILION B	RELAYS 1 THRU 11 RELAYS 1 THRU 11 RELAYS 1 THRU 11 RELAYS 1 THRU 11 ODD RELAYS EVEN RELAYS	ALL ON ALL OFF (2) LAMPS ON/OFF (2) LAMPS ON/OFF HALF BLDG ON/OFF (NORTH) HALF BLDG ON/OFF (SOUTH)	
RELAY				
1,3 2,4 5,7 6,8 9,11 10,12 13,15 14,16 17,19 18,20 21,23 24	PAVILION B PAVILION B	1 3 5 7 9 11 13 15 17 19 2		HB1 HB1 HB1 HB1 HB1 HB1 HB1 HB1 HB1



•



	ING SCHEDULES FOR E		
LOCATION	CIRCUITS	CONTROLS	PANEL
PAVILION AREA C ROOF	2	On at dusk off at preset time	HC1
		SCENE	
PAVILION C PAVILION C PAVILION C PAVILION C PAVILION C PAVILION C	RELAYS 1 THRU 12 RELAYS 1 THRU 12 RELAYS 1 THRU 12 RELAYS 1 THRU 12 EVEN RELAYS ODD RELAYS	ALL ON ALL OFF (2) LAMPS ON/OFF (2) LAMPS ON/OFF HALF BLDG ON/OFF (NORTH) HALF BLDG ON/OFF (SOUTH)	
PAVILION C PAVILION C	1 3 5 7 9 11 13 15 17 19 21 2		HC1 HC1 HC1 HC1 HC1 HC1 HC1 HC1 HC1 HC1

	ING SCHEDULES FOR E		
LOCATION	CIRCUITS	CONTROLS	PANEL
PAVILION AREA D ROOF	2	On at dusk off at preset time	HD1
		SCENE	
PAVILION D PAVILION D PAVILION D PAVILION D PAVILION D PAVILION D	RELAYS 1 THRU 21 RELAYS 1 THRU 21 RELAYS 1 THRU 21 RELAYS 1 THRU 21 EVEN RELAYS ODD RELAYS	ALL ON ALL OFF (2) LAMPS ON/OFF (2) LAMPS ON/OFF HALF BLDG ON/OFF (NORTH) HALF BLDG ON/OFF (SOUTH)	
PAVILION D PAVILION D	1 3 5 7 9 11 13 15 17 19 2		HD1 HD1 HD1 HD1 HD1 HD1 HD1 HD1 HD1 HD1

MECH. EQUIP.	EQUIPMENT	LOCATION ROOM NUMBER	FLA/A/W	MCA	MOCP	HP	VOLT	РН	STARTER BY MC/PC/EC	DISCONNECT BY MC/PC/EC	CONTROL WIRING BY MC/PC/EC	REMARKS
NO. 5F-1-16	SUPPLY FAN	BLDG 1 MEZZANINE	14A		25	50	460	3	MC	мс	мс	5
F-17-54	SUPPLY FAN	BLDG 2 MEZZANINE	14A		25	50	460	3	мс	мс	мс	5
SF-55	SUPPLY FAN	129 ELEC. RM				<i>Y</i> 4	120	1	МС	мс	мс	
SF-56 SF-57	SUPPLY FAN	132 ELEC. RM				<i>Y</i> 4 <i>Y</i> 4	120 120	1	MC MC	мс	MC MC	
SF-58	SUPPLY FAN	149 ELEC. RM 140 MILK PARLOR				74 3⁄4	120	1	MC	MC	MC	1
SF-59	SUPPLY FAN	143 CONCESSION				3⁄4	120	1	МС	мс	мс	
CEF-1	EXHAUST FAN	109 ELEV EQUIP				<i>1</i> /4	120	1	MC	EC	MC	
EF-1 EF-2	EXHAUST FAN EXHAUST FAN	BLDG 1 SHOWER				3⁄4 1⁄2	120 120	1	MC EC	мс	MC EC	1
EF-3	EXHAUST FAN	BLDG 1 RESTROOM				/2 /2	120	1	EC	MC	EC	2
EF-4	EXHAUST FAN	BLDG 2 CONCESSION				3⁄4	120	1	EC		мс	1
EF-5	EXHAUST FAN	BLDG 2 EAST RESTROOM				1/2	120	1	EC		EC	2
EF-6	EXHAUST FAN	BLDG 2 WEST RESTROOM				1/2	120	1	EC		EC	2
EF-7A	EXHAUST FAN	RM 142				1	208	1	EC	MC	MC	
EF-7B	EXHAUST FAN	RM 142				1 <i>v</i>	208	1	EC	MC	MC	
EF-8 EF-9	EXHAUST FAN	153 WORK AREA				½ 2	120 208	13	мс	MC MC	MC	
EF-10	EXHAUST FAN	159 MECH RM					120	1	EC	EC	MC	
EWH-1A	ELEC. WALL HEATER	100 VESTIBULE	38.5A				208	1	МС	мс	MC	
EWH-1B	ELEC. WALL HEATER	100 VESTIBULE	38.5A				208	1	MC	МС	MC	
EWH-2 EWH-3	ELEC. WALL HEATER	101B STAIR RM 122	38.5A 14.4A				208 208	1	MC MC	MC MC	MC MC	
EWH-4	ELEC. WALL HEATER	127 MENS TOILET	14.4A 19.2A				208	1	MC	MC	MC	
EWH-5	ELEC. WALL HEATER	129 ELEC RM	19.2A				208	1	мс	МС	мс	
EWH-6 EWH-7	ELEC. WALL HEATER	132 ELEC RM 149 ELEC RM	19.2A 19.2A				208 208	1	MC MC	MC MC	MC MC	
EWH-8	ELEC. WALL HEATER	143 CONCESSIONS	14.4A				208	1	MC	MC	MC	
EWH-9	ELEC. WALL HEATER	143 CONCESSIONS	14.4A				208	1	мс	МС	мс	
EWH-10	ELEC. WALL HEATER	136 WOMENS TOILET	19.2A				208	1	MC	MC	MC	
EWH-11 EWH-12	ELEC. WALL HEATER	136 WOMENS TOILET 137 MENS TOILET	19.2A 19.2A				208 208	1	MC MC	MC MC	MC MC	
EWH-13	ELEC. WALL HEATER	137 MENS TOILET	19.2A				208	1	МС	мс	мс	
EWH-14	ELEC. WALL HEATER	BLDG 2 EAST MOP BASIN	7.2A				208	1	МС	МС	мс	
EWH-15 EWH-16	ELEC. WALL HEATER	138 WATER ROOM 146 WOMENS TOILET	14.4A 19.2A				208 208	1	MC MC	мс	MC MC	
EWH-17	ELEC. WALL HEATER	146 WOMENS TOILET	19.2A 19.2A				208	1	MC	MC	MC	
EWH-18	ELEC. WALL HEATER	147 MENS TOILET	19.2A				208	1	МС	МС	мс	
EWH-19	ELEC. WALL HEATER	147 MENS TOILET BLDG 2 WEST MOP	19.2A				208	1	MC	MC	мс	
EWH-20 EWH-21	ELEC. WALL HEATER	BLDG 2 WEST MOP BASIN 148 WATER ROOM	7.2A 14.4A				208 208	1	MC MC	MC MC	MC MC	
EBB-1	ELEC. WALL HEATER	103 OFFICE	1200W				208	1	MC	MC	MC	
EBB-2	ELEC. BASEBOARD	103 OFFICE	1200W				208	1	МС	мс	мс	
EBB-3	ELEC. BASEBOARD	105 OFFICE	600W				208	1	MC	MC	MC	
EBB-4 EBB-5	ELEC. BASEBOARD	105 OFFICE	2000W 600W				208 208	1	MC MC	MC	MC	
EBB-6	ELEC. BASEBOARD	113 RESTROOM	2000W				208	1	МС	мс	мс	
EBB-7	ELEC. BASEBOARD	113 RESTROOM	1000W				208	1	MC	MC	MC	
GUH-1 GUH-2	GAS UNIT HEATER	RM 151 RM 152				<u></u> Ж	120 120	1	MC MC	MC MC	MC MC	
GUH-3	GAS UNIT HEATER	RM 153				13	120	1	MC	MC	MC	
GUH-4	GAS UNIT HEATER	RM 154				K2	120	1	MC	MC	MC	
GUH-5 GUH-6	GAS UNIT HEATER	RM 161				¥12 Уб	120 120	1	MC MC	MC MC	MC MC	
GUH-7	GAS UNIT HEATER	RM 115				1/20	120	1	MC	MC	MC	
GUH-8	GAS UNIT HEATER	RM 140				K12	120	1	мс	МС	мс	
GUH-9	GAS UNIT HEATER	RM 141				1/20 1/20	120	1	MC	MC	MC	3
GUH-10 GUH-11	GAS UNIT HEATER	RM 142 202 MEZZ				1/20 1/12	120 120	1	MC MC	MC MC	MC MC	3
GUH-12	GAS UNIT HEATER	202 MEZZ				K2	120	1	мс	МС	мс	
GRV-1	GAS RADIANT VENT	120 BLDG 1 NORTH	11.6A				120	1	MC	EC	MC	
GRV-2 GRV-3	GAS RADIANT VENT	120 BLDG 1 WEST 120 BLDG 1 EAST	9.6A 9.6A				120 120	1	MC MC	EC	MC MC	
GRV-4	GAS RADIANT VENT	120 BLDG 1 SOUTH	11.6A				120	1	MC	EC	мс	
GRH 1-1	GAS RADIANT HEATER	BLDG 1 NORTH	0.7A				120	1	MC	EC	MC	
GRH 1-2 GRH 1-3	GAS RADIANT HEATER	BLDG 1 NORTH BLDG 1 NORTH	0.7A 0.7A				120 120	1	MC MC	EC	MC MC	
GRH 1-4	GAS RADIANT HEATER	BLDG 1 NORTH	0.7A				120	1	MC	EC	MC	
GRH 2-1	GAS RADIANT HEATER	BLDG 1 WEST	0.7A				120	1	МС	EC	МС	
GRH 2-2 GRH 2-3	GAS RADIANT HEATER	BLDG 1 WEST BLDG 1 WEST	0.7A 0.7A				120 120	1	MC MC	EC	MC MC	
GRH 2-3	GAS RADIANT HEATER	BLDG 1 WEST	0.7A 0.7A				120	1	MC	EC	MC	
GRH 2-5	GAS RADIANT HEATER	BLDG 1 WEST	0.7A				120	1	МС	EC	мс	
GRH 3-1	GAS RADIANT HEATER	BLDG 1 EAST	0.7A				120	1	MC	EC	MC	_
GRH 3-2 GRH 3-3	GAS RADIANT HEATER	BLDG 1 EAST BLDG 1 EAST	0.7A 0.7A				120 120	1	MC MC	EC	MC MC	
GRH 3-4	GAS RADIANT HEATER	BLDG 1 EAST	0.7A				120	1	MC	EC	MC	
GRH 4–1	GAS RADIANT HEATER	BLDG 1 SOUTH	0.7A				120	1	МС	EC	мс	
GRH 4-2	GAS RADIANT HEATER	BLDG 1 SOUTH	0.7A				120	1	MC	EC	MC	
GRH 4-3 GRH 4-4	GAS RADIANT HEATER	BLDG 1 SOUTH BLDG 1 SOUTH	0.7A 0.7A				120 120	1	MC MC	EC	MC MC	

2. INTERLOCK WITH LIGHTS BY E.C.

3. EXISTING UNIT BEING RELOCATED.

4. E.C. TO PROVIDE 120V POWER TO GFI OUTLET WITH UNIT.

5. SEE DRAWINGS FOR QUANTITIES AND LOCATIONS.



ELECTRICAL SCHEDULES

SHEET TITLE

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

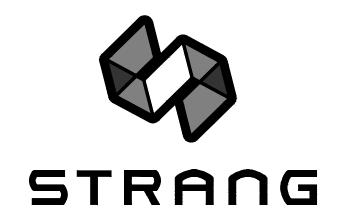
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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REVISIONS	CONST. SET 01-08-14

STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

ARCHITECTURE ENGINEERING INTERIOR DESIGN



Panelboard:	LEM	[-B				Panel So	ource:				
us Ampacity	100		Volts	120/208		Feed (Top					
Franch Brkr Space	18		Phase	3		Feed-Thru					
ILO Amps			Wires	4			Load Fed				
ICB A/P	50		Surface	YES		Sub-Feed					
nl Mfr			Recessed				Load Fed				
nl Type			AIC	22K		Sub-Feed					
nl Height							Load Fed				
nl Width			Pnl MCA			Sub-Feed					
nl Depth							Load Fed				
Load to be	Cct	Brkr		Left Phases		F	Right Phase	S	Brkr	Cet	Load to be
Fed	No	A/P	Α	B	С	A	B	C	A/P	No	Fed
	1	142			Ū			-		2	
	3									4	
	5		1			-				6	
	7			1 1			1 1			8	
	9									10	
	11		-							12	
	13			1 1			1			14	
	15									16	
	17		1			-				18	
				1 1			1 1				
			1			-					
				1 1			1 1				
			1			-					
				1 1			1				
			1			-					
				1			1				
			1			-					
otal Lights											
otal Recpts											
otal HVAC Blwrs											
otal HVAC A/C											
otal HVAC Htg			1			1			1		
otal HVAC			1						1		
otal MIsc			1			1					
			1			1					
otal Phases											
otal Panel			1			+			-		

Panel Source: Feed (Top/Bottom)

Feed-Thru Lugs Load Fed

Load Fed

Load Fed

 10

 18

 25/3
 20

 22

Sub-Feed Lugs

Sub-Feed Brkr #1

 Load to be
 Cct
 Brkr
 Left Phases
 Right Phases
 Brkr
 Cct
 Load to be

 Fed
 No
 A/P
 A
 B
 C
 A
 B
 C
 A/P
 No
 Fed

100 18 50		Volts Phase	120/208		Panel So Feed (Top			-		
18					Treed (10)	Bottom)				
		1 nase	3		Feed-Thru					
50		Wires	4		_	Load Fed				
		Surface	YES		Sub-Feed	Lugs				
		Recessed				Load Fed				
		AIC	22K		Sub-Feed					
		1				Load Fed				
		Pnl MCA	6.9 A		Sub-Feed					
<u> </u>			T (* D)		-				<u>a</u> .	
										Load to be
			В	C	A	В	C	A/P		Fed
		1,500	500							
		-	500	500	-					
	20/1		4 -	500			ļ			
			╡────┤							
		4	├────╂		-					
			4 -							
								 		
		4	┝─────							
17			4 -						18	
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+ +			4 -							
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+ +		4	╞─────							
			4 -							
+										
+		4	├────╂		-				-	
		╁────	┝────┤							
		1								
		1,500	500	500		2,500				
		1								
					1					
					1					
		[
		1 500	500	500		2 500				
		1,500	500	200		2,500		1		
	Cct No 1 3 5 7 9 11 13 15 17 17 10 10 10 10 10 10 10 10 10 10 10 10 10	No A/P 1 20/1 3 20/1 5 20/1 7 9 11 13 15 15	Cct Brkr No A/P A 1 20/1 1,500 3 20/1 1,500 3 20/1 1,500 5 20/1 1 7 - - 9 - - 11 - - 7 - - 9 - - 11 - - 13 - - 15 - - 17 - - 10 - - 11 - - 12 - - 13 - - 15 - - 17 - - 10 - - 11 - - 12 - - 13 - - 14 - - 15 - - 16 - - 17 - <td>Cct Brkr Left Phases No A/P A B 1 $20/1$ $1,500$ 500 3 $20/1$ 500 500 5 $20/1$ 500 500 7 <math> <math> 9 $$</math></math></td> <td>Cct Brkr Left Phases No A/P A B C 1 20/1 1,500 500 3 20/1 500 500 5 20/1 500 500 7 9 9 9 11 9 9 9 13 9 9 9 17 9 9 9 18 9 9 9 19 9 9 9 11 9 9 9 9 111 9 9 9 9 113 9 9 9 9 117 9 9 9 9 9 101 9 9 9 9 9 9 111 9 9 9 9 9 9 9 117 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9</td> <td>Cct Brkr Left Phases F No A/P A B C A 1 20/1 1,500 </td> <td>Image: constraint of the sector of the se</td> <td>Cct Brkr Left Phases Right Phases No A/P A B C A B C 1 20/1 1,500 500 $$</td> <td>CctBrkrLeft PhasesRight PhasesBrkrNoA/PABCABCA/P120/11,500500</td> <td>Cct Brkr Left Phases Right Phases Brkr Cct No A/P A B C A B C A/P No 1 20/1 500 </td>	Cct Brkr Left Phases No A/P A B 1 $20/1$ $1,500$ 500 3 $20/1$ 500 500 5 $20/1$ 500 500 7 $ 9 $	Cct Brkr Left Phases No A/P A B C 1 20/1 1,500 500 3 20/1 500 500 5 20/1 500 500 7 9 9 9 11 9 9 9 13 9 9 9 17 9 9 9 18 9 9 9 19 9 9 9 11 9 9 9 9 111 9 9 9 9 113 9 9 9 9 117 9 9 9 9 9 101 9 9 9 9 9 9 111 9 9 9 9 9 9 9 117 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Cct Brkr Left Phases F No A/P A B C A 1 20/1 1,500	Image: constraint of the sector of the se	Cct Brkr Left Phases Right Phases No A/P A B C A B C 1 20/1 1,500 500 $$	CctBrkrLeft PhasesRight PhasesBrkrNo A/P ABCABC A/P 120/11,500500	Cct Brkr Left Phases Right Phases Brkr Cct No A/P A B C A B C A/P No 1 20/1 500

Pan	elboard:
	Ampacity
	ch Brkr Space
	Amps
MCB	
Pnl N	
Pnl T	
	Ieight
Pnl V	
Pnl D	Depth
	Taaddaha
	Load to be Fed
SF-1:	
	<i>.</i>
MUA	A-2A
1	
Tota ¹	Lights
Total	Lights
Total	Recpts
Total	HVAC Blwrs
Total	HVAC A/C HVAC Htg
	HVAC Htg
	MIsc
Total	141190
Total	Phases
	Panel

Panelboard:	HD	2				Panel So	urce:				
Bus Ampacity	400		Volts	277/480		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed					
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	35K		Sub-Feed					
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed					
Pnl Depth							Load Fed				
Largest Motor FLA											
X-Ray Adj 3-Ph Equiv	KVA										
Load to be	Cet	Brkr		Left Phases		F	Right Phases	\$	Brkr	Cct	Load to be
Fed	No	A/P	A	B	С	A	B	C	A/P	No	Fed
SF-36	1	25/3			-			_	25/3	2	SF-37
	3									4	
	5		1			1				6	
SF-38	7	25/3		1 1		1	1 1		25/3	8	SF-39
	9									10	
	11		1							12	
SF-40	13	25/3		1 1					25/3	14	SF-41
	15									16	
	17		1							18	
SF-42	19	25/3		1 1			1 1		25/3	20	SF-43
	21									22	
	23	Í	1							24	
SF-44	25	25/3		1 1			1 1		25/3	26	SF-45
	27									28	
	29	i	1						1 i	30	
SF-46	31	25/3		1 [[25/3	32	SF-47
	33									34	
	35]							36	
SF-48	37	25/3		<u> </u>					25/3	38	SF-49
	39									40	
	41									42	
Fotal Lights											
Total Recpts											
Fotal HVAC Blwrs											
Total HVAC A/C											
Fotal HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases											
Total Panel											

Panelboard:
Bus Ampacity
Branch Brkr Space
MLO Amps
MCB A/P
Pnl Mfr
Pnl Type
Pnl Height
Pnl Width
Pnl Depth
Largest Motor FLA
X-Ray Adj 3-Ph Equiv
Load to be
Fed
SF-50
AF CA
SF-52
SE 54
SF-54
Total Lights
Total Recpts
Total HVAC Blwrs
Total HVAC A/C
Total HVAC Htg
Total HVAC Ing
Total MIsc
1.0441 141100
Total Phases
Total Panel

Panelboar

Bus Ampacity

Bus AmpacityBranch Brkr SpaceMLO AmpsMCB A/PPnl MfrPnl TypePnl HeightPnl WidthPnl Depth

Total Lights Total Recpts Total HVAC Blwrs

Total HVAC A/C Total HVAC Htg Total HVAC

Total MIsc

Total Phases Total Panel

400

42

 3
 |

 5
 |

 7
 25/3

 9
 |

 11
 |

 13
 25/3

15

 13

 17

 19
 25/3

 21

400 Wires

AIC

Volts

Phase

Surface

Recessed

7/480

Pnl MCA Sub-Feed Brkr #2 Load Fed

HB2-	-2				Panel So	urce:				
400		Volts	277/480		Feed (Top	/Bottom)				
42		Phase	3		Feed-Thru					
400		Wires	4			Load Fed				
		Surface	YES		Sub-Feed					
		Recessed				Load Fed				
		AIC	35K		Sub-Feed	Brkr #1				
						Load Fed				
		Pnl MCA			Sub-Feed	Brkr #2				
						Load Fed				
Cct	Brkr		Left Phases			light Phase		Brkr	Cct	
No	A/P	Α	В	С	Α	В	С	A/P	No	Fed
1	25/3							25/3	2	SF-16
3									4	
5									6	
7	60/3							60/3	8	MUA-2B
9									10	
11									12	
13									14	
15									16	
17			↓ ⊢						18	
19									20	
21									22	
23			4 F						24	
25 27									26 28	
27									28 30	
31			-						30	
33									34	
35									36	
37			1 -						38	
39									40	
41		1							42	

HD2-2 Panel Source: 400 Volts 277/480 42 Phase 3 400 Wires 4	
42 Phase 3 Feed-Thru Lugs	
400 Wires 4 Lord Ead	
Surface YES Sub-Feed Lugs	
Recessed Load Fed	
AIC 35K Sub-Feed Brkr #1	
Load Fed	
Pnl MCA Sub-Feed Brkr #2	
Load Fed	
KVA	
Cct Brkr Left Phases Right Phases Brkr Cct	Load to be
No A/P A B C A B C A/P No	Fed
	SF-51
	56-31
	. <u></u>
	GT 52
	SF-53
9 10	<u> </u>
11 12	
13 25/3 14	
15 16	
17 18	
19 20	
21 22	
23 24	
25 26	
27 28	
29 30	
33 34	
35 36	
37 38	
39 40	

Panelboard:		M-D				Panel So	ource:				
Bus Ampacity	100		Volts	120/208			o/Bottom)				
Branch Brkr Space	18		Phase	3		Feed-Thru					
MLO Amps			Wires	4			Load Fed				
MCB A/P	50		Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth			_				Load Fed				
Load to be	Cet	Brkr		Left Phases		F	Right Phase	es	Brkr	Cct	Load to be
Fed	No	A/P	Α	В	С	Α	B	С	A/P	No	Fed
	1									2	
	3									4	
	5									6	
	7									8	
	9									10	
	11									12	
	13									14	
	15									16	
	17									18	
						_					
						4					
Total Lights			1								
Total Recpts			I			1					
Total HVAC Blwrs			I			1					
Total HVAC A/C											
Total HVAC Htg											
Total HVAC			Ī								
Total MIsc											
Total Phases						ļ					
Total Panel									I		

Panelboard:	HC	2				Panel Source:					
Bus Ampacity	400		Volts	277/480		Feed (Top					
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P	100		Surface	YES		Sub-Feed					
Pnl Mfr			Recessed	120		540 1004	Load Fed				
Pnl Type			AIC	35K		Sub-Feed					
Pnl Height			¹ IIC	0011		540 1004	Load Fed				
Pnl Width			Pnl MCA			Sub-Feed					
Pnl Depth			1 m men			Suo recu	Load Fed				
i ii 2 opui							2000100				
Load to be	Cct	Brkr		Left Phases		F	Right Phase		Brkr	Cct	Load to be
Fed	No	A/P	Α	B	С	Α	В	С	A/P	No	Fed
SF-17	1	25/3							25/3		SF-18
	3		4			4				4	
	5									6	
SF-19	7	25/3							25/3		SF-20
	9		1							10	
	11			4 4						12	
SF-21	13	25/3							25/3		SF-22
	15		1							16	
	17			1 1						18	
SF-23	19	25/3							25/3		SF-24
	21									22	
	23									24	
SF-25	25	25/3							25/3		SF-26
	27									28	
	29			1 [30	
SF-27	31	25/3							25/3		SF-28
	33		1							34	
	35			1 [36	
SF-29	37	25/3							25/3		SF-30
	39		1			1				40	
	41									42	
Total Lights											
Total Lights											
Total Recpts				├							
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg Total HVAC											
Total HVAC Total MIsc				├							
Total Phases											
Total Phases			ļ	┨────┤							

Panelboard:	EM	MD				Panel So	urce:	EM GEN	ERAT	OR	
Bus Ampacity	100		Volts	277/480		Feed (Top	/Bottom)				
Branch Brkr Space	18		Phase	3		Feed-Thru					
MLO Amps	100		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	22K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth							Load Fed				
Load to be	Cet	Brkr		Left Phases		р	light Phase		Brkr	Cet	Load to be
Fed	No	A/P	A	B	С	A	B	C	A/P	No	Fed
ATS - AB	1	50/3	А	D	C	А	<u></u>	C	50/3	2	ATS-C
	3	50/5							50/5	4	
	5	I				-				6	
ATS - D	7	50/3							20/1		SPARE
	9	0,5							20/1		SPARE
1	11								20/1		SPARE
SPACE	13								20/1		SPACE
SPACE	15										SPACE
SPACE	17					1					SPACE
STREE	1,									10	511102
						1					
Total Lights											
Total Recpts											
Total HVAC Blwrs											
Total HVAC A/C											
Total HVAC Htg											
Total HVAC											
Total MIsc											
Total Phases											
Total Panel											

Panelboard:	HC	2-2				Panel So	urce:				
Bus Ampacity	400		Volts	277/480		Feed (Top	/Bottom)				
Branch Brkr Space	42		Phase	3		Feed-Thru					
MLO Amps	400		Wires	4			Load Fed				
MCB A/P			Surface	YES		Sub-Feed	Lugs				
Pnl Mfr			Recessed				Load Fed				
Pnl Type			AIC	35K		Sub-Feed	Brkr #1				
Pnl Height							Load Fed				
Pnl Width			Pnl MCA			Sub-Feed	Brkr #2				
Pnl Depth			_				Load Fed				
Largest Motor FLA											
X-Ray Adj 3-Ph Equiv	KVA										
Load to be	Cct	Brkr		Left Phases		F	Right Phase	es	Brk	r Cci	Load to be
Fed	No	A/P	Α	В	С	A	B	С	A/F		
SF-31	1	25/3			_				25/3		SF-32
	3									4	
	5		1			1				6	
SF-33	7	25/3		1					25/3		SF-34
	9									10	
	11	<u> </u>	1			1				12	
SF-35	13	25/3								14	
	15	25/5							-	16	
	17		-			-				18	
	17			-						20	
	21									20	
	23		-			-				24	
	25			-						24	
	23									28	
	27		-			-				30	
	31			-						32	
	33									34	
	35		-			-				36	
	37									38	
	37								<u> </u>	40	
	41		4			4				40	
1	71										
Total Lights											
Total Recpts											
Total HVAC Blwrs											
Total HVAC BIWIS						<u> </u>					
Total HVAC A/C											
Total HVAC Htg											
Total MIsc											
T-4-1 D1											
Total Phases											
Total Panel											



SHEET TITLE

PANELBOARD SCHEDULES

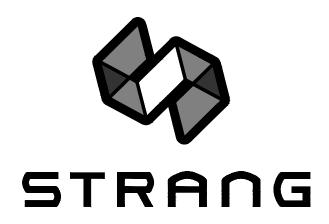
1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

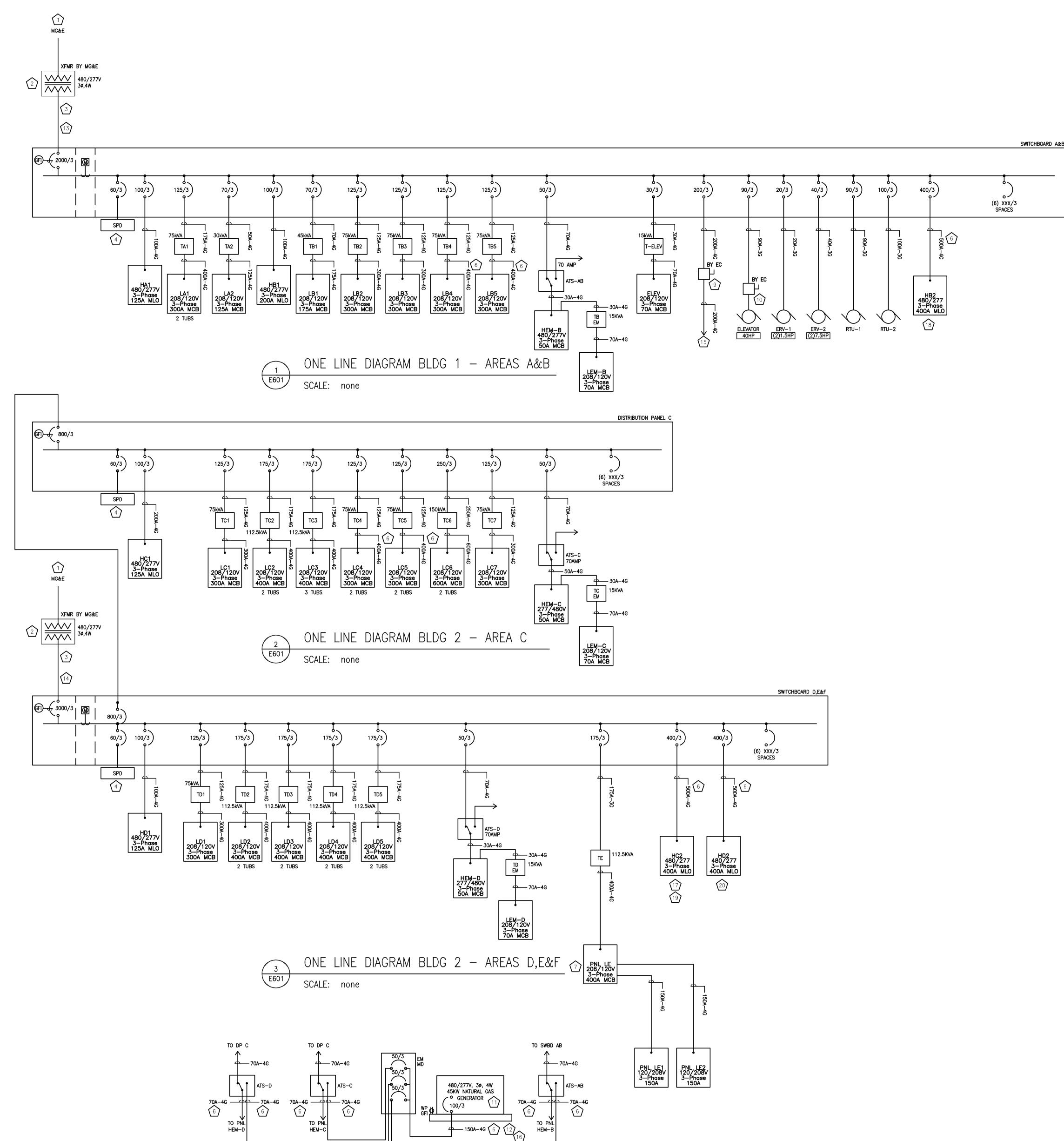
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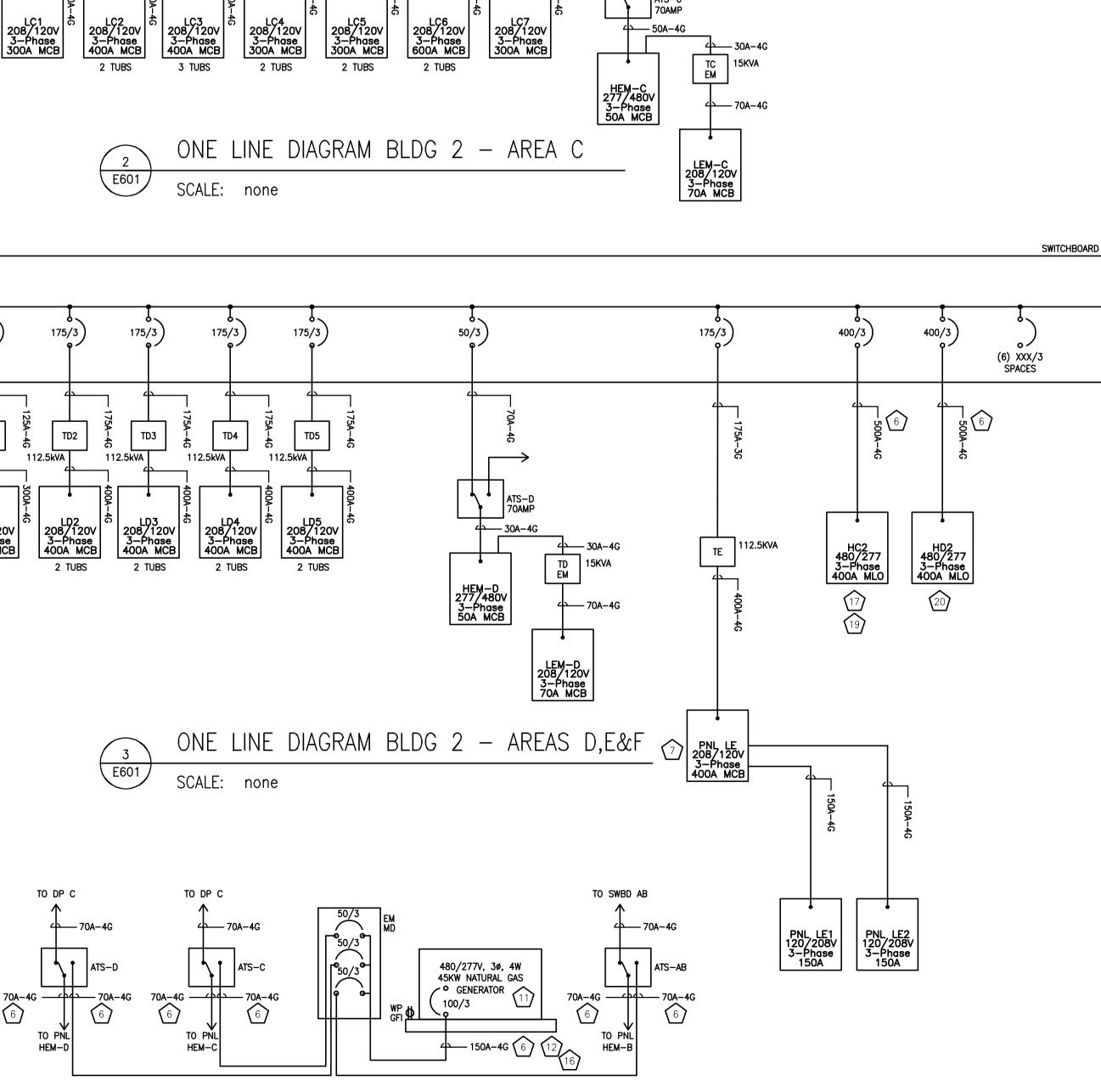
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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204











PARTIAL EMERGENCY ONE LINE DIAGRAM SCALE: none



		R SCHEDULE	(600 V)	
FEEDER	CONDUCTOR S	IZE (kcmil)	CONDU	IT SIZE
AMPACITY	ø & N	GRD	3ø & GRD.	3ø & N & GRD.
20	# 12	# 12	3/4"	3/4"
30	# 10	# 10	3/4"	3/4"
40	#8	# 10	3/4"	1"
50	#6	# 10	1"	1"
70	#4	# 8	1-1/4"	1-1/4"
80	#3	# 8	1-1/4"	1-1/4"
100	# 1	# 8	1-1/2"	2"
110	# 2	# 6	1-1/4"	1-1/2"
125	# 1	# 6	1-1/2"	2"
150	# 1/0	# 6	1-1/2"	2"
175	# 2/0	# 6	2"	2"
200	# 3/0	# 6	2"	2-1/2"
225	#4/0	#4	2"	2-1/2"
250	# 250	#4	2-1/2"	3"
300	# 350	#4	3"	3"
350	# 500	# 3	3"	3-1/2"
400	(2) # 3/0	(2) # 3	(2) 2"	(2) 2-1/2"
450	(2) # 4/0	(2) # 2	(2) 2"	(2) 2-1/2"
500	(2) # 250	(2) # 2	(2) 2-1/2"	(2) 3"
600	(2) # 350	(2) # 1	(2) 3"	(2) 3"
700	(2) # 500	(2) # 1/0	(2) 3"	(2) 3-1/2"
800	(2) # 600	(2) # 1/0	(2) 3-1/2"	(2) 4"
1000	(3) # 400	(3) # 2/0	(3) 3"	(3) 3–1/2"
1200	(3) # 600	(3) # 3/0	(3) 3-1/2"	(3) 4"
1600	(4) # 600	(4) # 4/0	(4) 3-1/2"	(4) 4"
2000	(5) # 600	(5) # 250	(5) 3–1/2''	(5) 4"
GENERAL 1				

GENERAL NOTES: 1. THE ABOVE FEEDER SCHEDULE IS A SCHEDULE OF TYPICAL

FEEDERS AND SOME SIZES MAY NOT BE UTILIZED. 2. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 310-16 OF

THE NEC FOR COPPER CONDUCTOR TYPE THW/THWN. 3. FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR THE

DERATION FACTORS REQUIRED BY CODE AND/OR ARE OVERSIZED FOR VOLTAGE DROP. WHERE MULTIPLE CONDUITS ARE INDICATED FOR A SINGLE FEEDER EACH CONDUIT SHALL CONTAIN AN AØ, BØ, CØ, GROUND CONDUCTOR, AND NEUTRAL CONDUCTOR.

200 – 3G FEEDER DESIGNATION

SYSTEM DESCRIPTION (3G) 3ø, 3W + GRD (3G) 3ø, 4W + GRD
CONDUCTOR AMPACITY (SEE FEEDER SCHEDULE)

(#)	PLAN – SPECIFIC NOTES
1	UNDERGROUND PRIMARY ELECTRICAL SERVICE PROVIDED BY MG&E. COORDINATE INSTALLATION WITH UTILITY AND PROVIDE ALL WORK AND COORDINATION REQUIRED BY UTILITY TO INSTALL SERVICE.
2	PAD MOUNT TRANSFORMER BY MG&E.
3	UNDERGROUND SECONDARY SERVICE CONDUCTORS BY MG&E.
4	SPD MOUNTED ON SWITCHBOARD OR AS CLOSE AS POSSIBLE TO MAIN CIRCUIT BREAKER.
5	COMBINATION CIRCUIT BREAKER AUTOTRANSFORMER REDUCED VOLTAGE STARTERS INSTALLED IN MOTOR CONTROL CENTER. MOTOR CONTROL CENTER ENCLOSURE TO BE NEMA 3R. ADD INCOMING 20" SECTION TO ACCOMMODATE FEEDER.
6	FEEDER SIZE INCREASED TO COMPENSATE FOR VOLTAGE DROP.
7	PROVIDE A C-H POW-R-LINE 3A PANEL OR EQUAL.
8	MOUNT TRANSFORMER ON WALL ABOVE PANEL WITH STEEL CHANNEL SUPPORT RACK.
9	200AMP DISCONNECT LOCATED IN ROOM 115 TO SERVE POWER FOR CAMPING AREA.
10	PROVIDE BUSSMAN TYPE PS1T48R1KGN1BF3 POWER MODULE SWITCH.
11	GENERATOR LOCATED OUTSIDE BLDG 2 AREA C. SEE CIVIL DRAWINGS FOR EXACT LOCATION.
12	FEEDER FROM GENERATOR TO PANEL EM MD TO BE HEAVY WALL GALVANIZED STEEL CONDUIT.
13	PROVIDE (5) 4" HEAVY WALL GALVANIZED STEEL CONDUITS FROM SWITCHBOARD TO A POINT OUTSIDE BUILDING AS DIRECTED BY MG&E.
14	PROVIDE (8) 4" HEAVY WALL GALVANIZED STEEL CONDUITS FROM SWITCHBOARD TO A POINT OUTSIDE BUILDING AS DIRECTED BY MG&E.
15	FEEDER TO CAMPGROUND RISER POLE. RUN UP POLE AND PROVIDE SERVICE HEAD. INSTALL POLE, RISER CONDUIT AND SERVICE SO IT CAN BE CONNECTED TO A TEMPORARY UTILITY SERVICE INTENDED TO SERVE TEMPORARY TENT PAVILIONS. PROVIDE TEMPORARY SERVICE FROM MG&E AS DESCRIBED ON SHEET E002 AND IN SPECIFICATIONS.
16	PROVIDE (3) ² %, 120V CIRCUITS FROM PANEL LEM-C TO SERVE GENERATOR HEATER, BATTERY CHARGER, CONVIENCE OUTLET, ETC.
17	PROVIDE ENGRAVED PLASTIC WARNING SIGN "PANEL FED FROM SWITCHBOARD D,E,&F" RED BACKGROUND WITH 1" WHITE LETTERS.
18	PANEL SERVES SF-1 THRU SF-16 AND MAU-2A&2B, SEE PANEL SCHEDULE.
19	PANEL SERVES SF-17 THRU SF-35.
20	PANEL SERVES SF-36 THRU SF-54.

SHEET NO. E601

SHEET TITLE ELECTRICAL ONE-LINE DIAGRAM

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

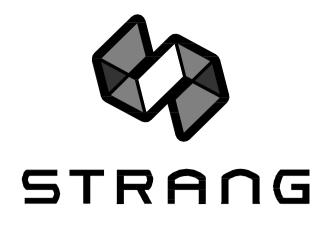
ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

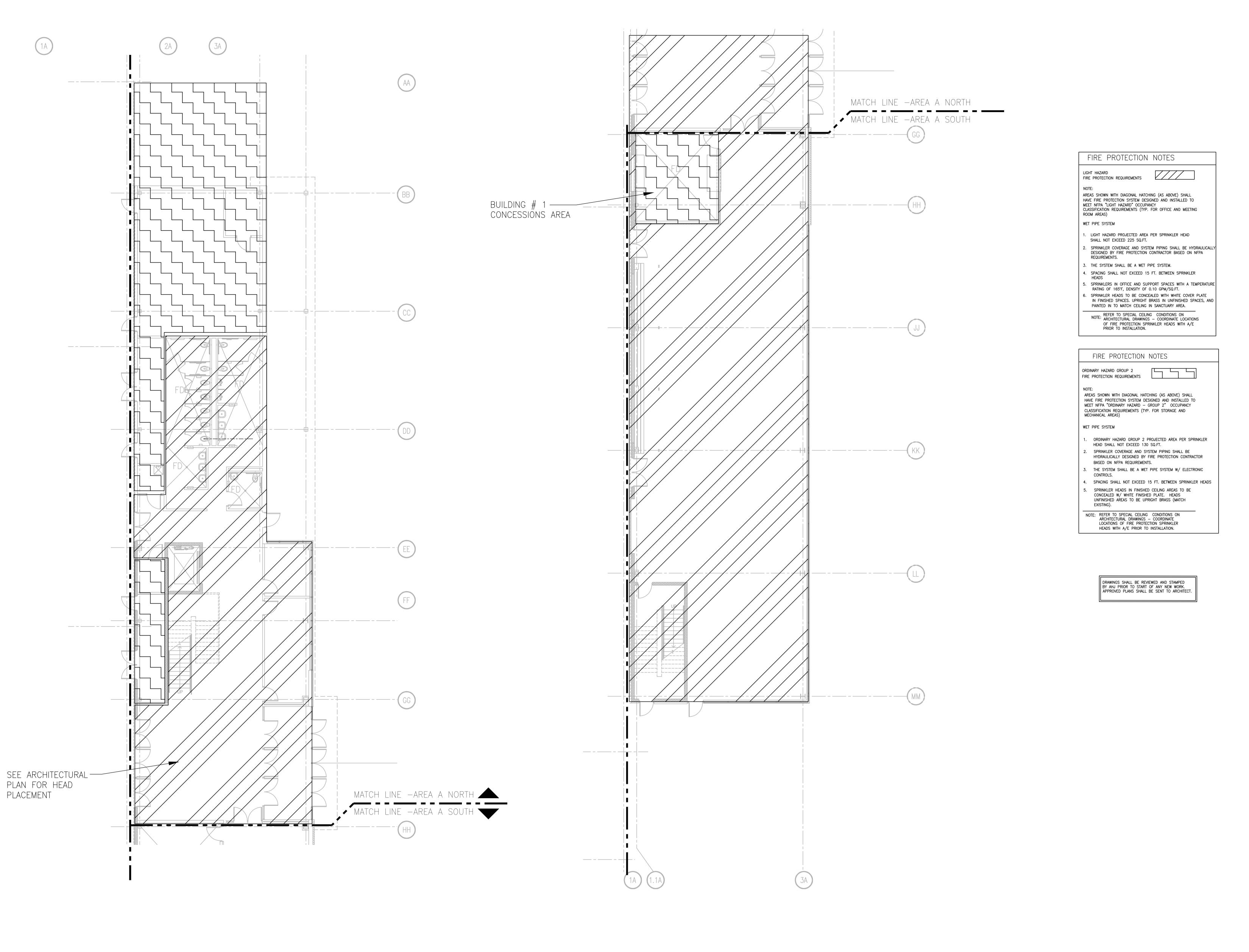
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STRANG INC. 6411 MINERAL POINT ROAD MADISON, WI 53705-4395 T/ 608 276 9200 F/ 608 276 9204

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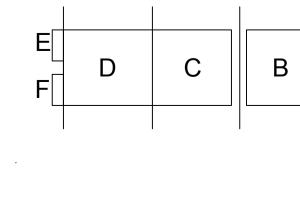






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KEY PLAN

SHEET NO. FP201A

SHEET TITLE FIRST FLOOR FIRE PROTECTION PLAN AREA A - BLD 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

REVISIONS	ADDENDUM # 3 11-18-13 CONST. SET 01-08-14
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DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITLE	

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REVISIONS	ADDENDUM # 3 11-18-13 CONST. SET 01-08-14

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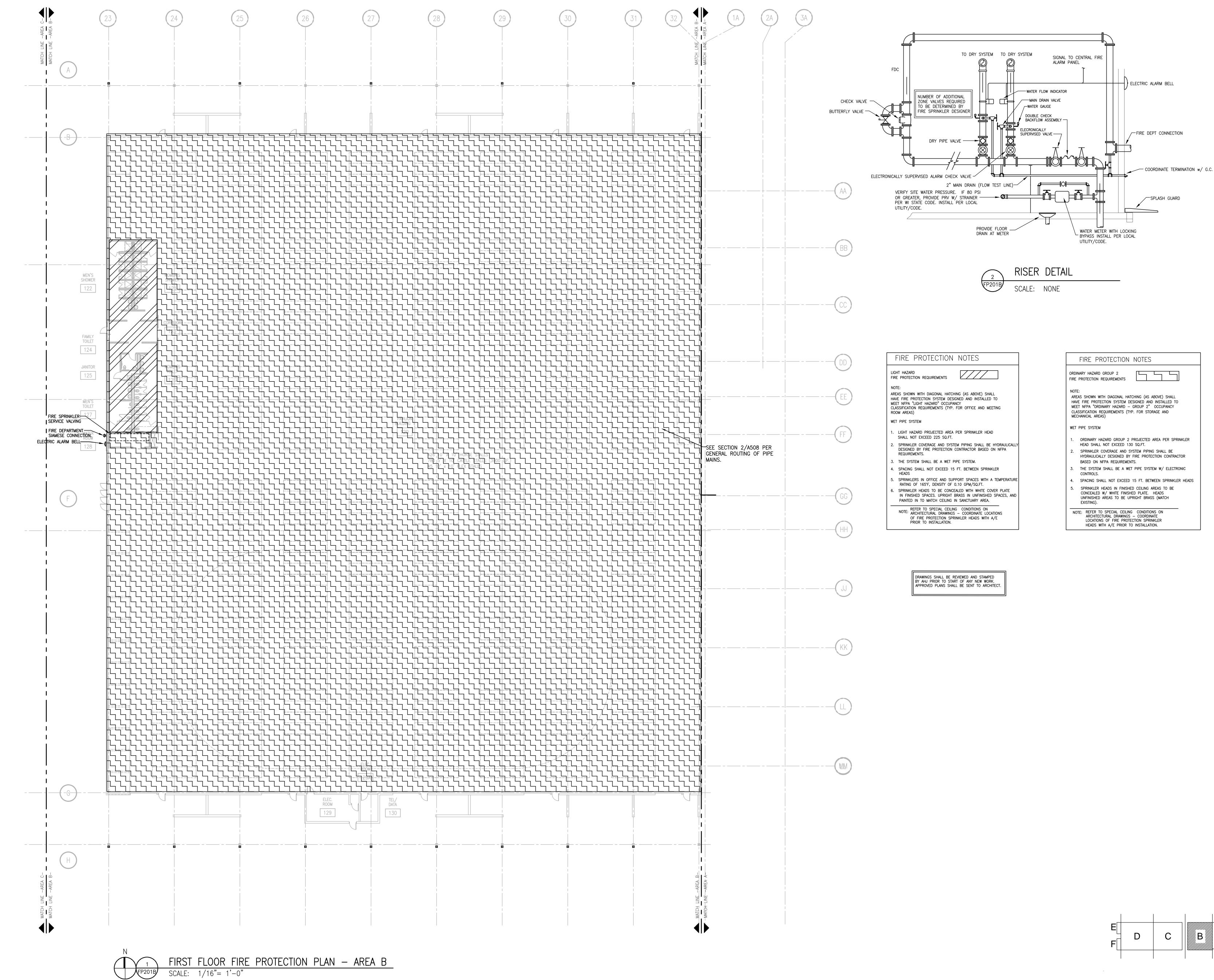
ARCHITECTURE

ENGINEERING INTERIOR DESIGN











KEY PLAN





SHEET TITLE A FIRST FLOOR FIRE PROTECTION PLAN AREA B - BLD 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

REVISIONS	ADDENDUM # 3 11-18-13 CONST. SET 01-08-14
DRAWN	DF
CHECKED	RG
DATE	10-29-13
PROJECT NO.	2013027_02
PROJECT TITL	E

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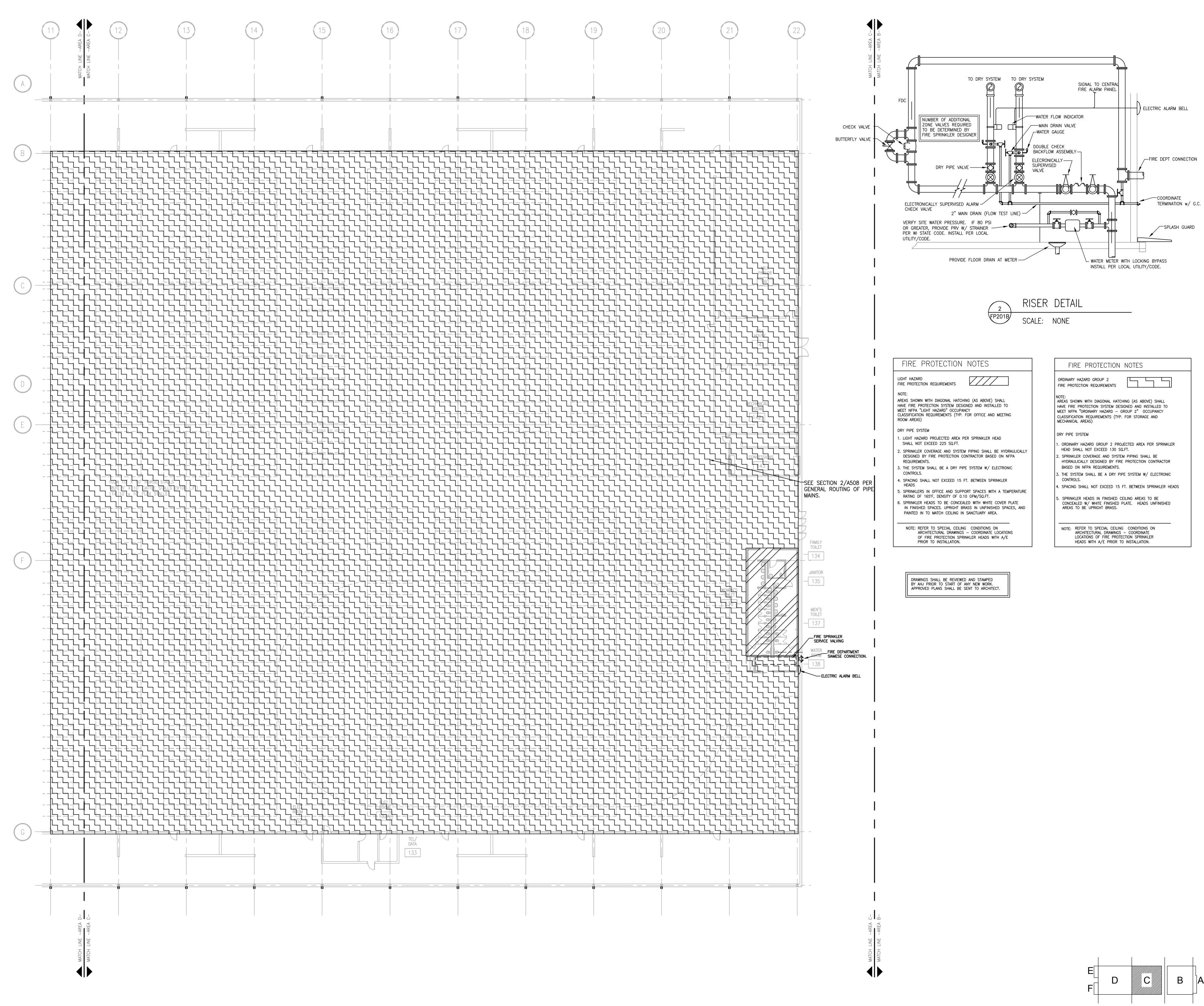
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ARCHITECTURE

ENGINEERING INTERIOR DESIGN







N

KEY PLAN



SHEET TITLE FIRST FLOOR FIRE PROTECTION PLAN AREA C - BLD 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

REVISIONS	ADDENDUM # 3 11-18-13 CONST. SET 01-08-14
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DATE	10-29-13
PROJECT NO	. 2013027_02
PROJECT TIT	LE

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FILE NAME	2013027_02-FP201C.DWG
REVISIONS	ADDENDUM # 3 11-18-13 CONST. SET 01-08-14

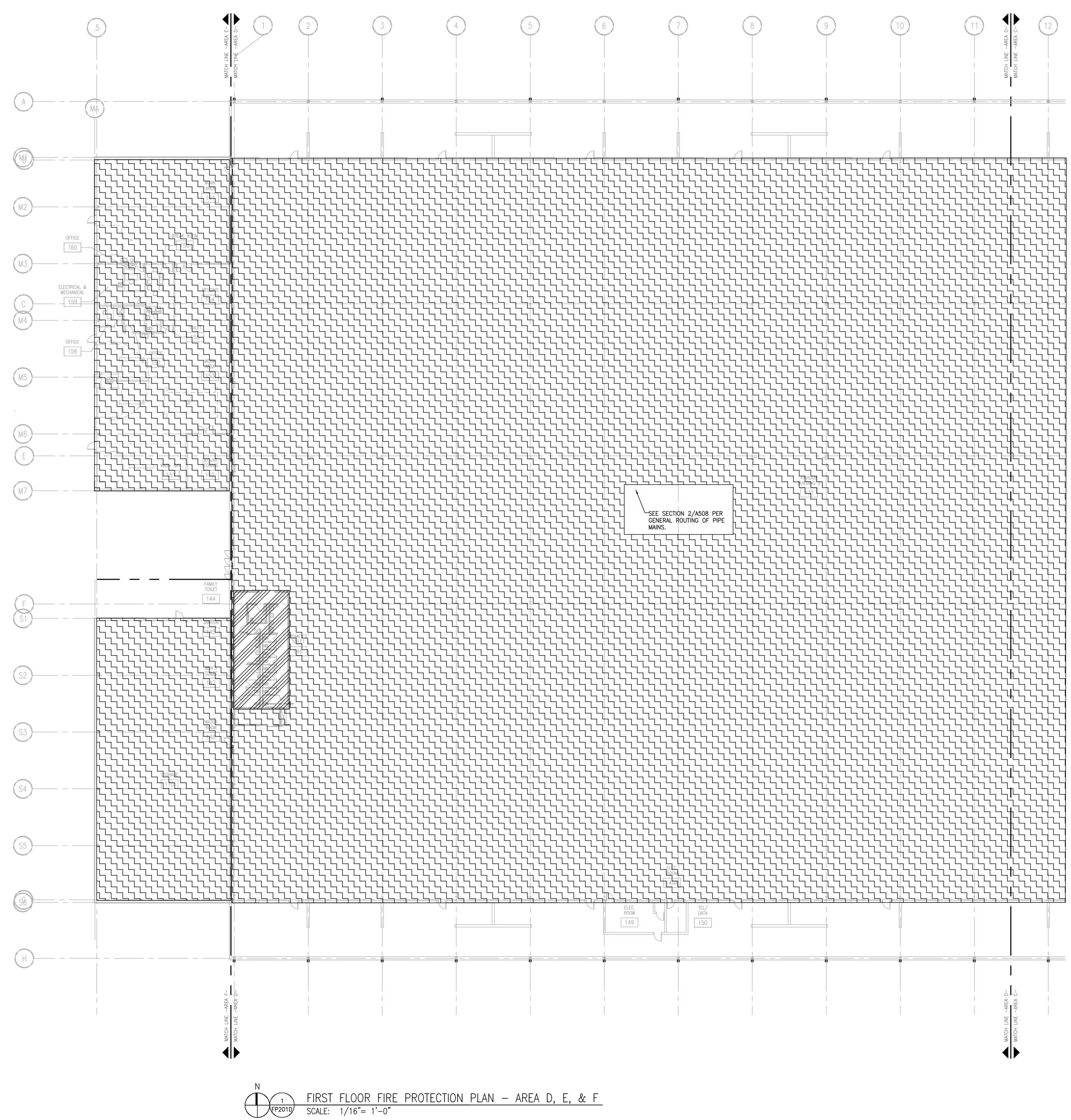
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ARCHITECTURE

INTERIOR DESIGN

ENGINEERING

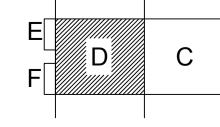
STRANG



F	IRE PROTECTION NOTES
	Y HAZARD GROUP 2
HAVE FIF MEET NF CLASSIFF	HOWN WITH DIAGONAL HATCHING (AS ABOVE) SHALL RE PROTECTION SYSTEM DESIGNED AND INSTALLED TO PA "ORDINARY HAZARD – GROUP 2" OCCUPANCY CATION REQUIREMENTS (TYP. FOR STORAGE AND CAL AREAS)
DRY PIPI	E SYSTEM
	ARY HAZARD GROUP 2 PROJECTED AREA PER SPRINKLER SHALL NOT EXCEED 130 SQ.FT.
HYDRA	KLER COVERAGE AND SYSTEM PIPING SHALL BE NULICALLY DESIGNED BY FIRE PROTECTION CONTRACTOR O ON NFPA REQUIREMENTS.
3. THE S	YSTEM SHALL BE A DRY PIPE SYSTEM W/ ELECTRONIC ROLS.
	NG SHALL NOT EXCEED 15 FT. BETWEEN SPRINKLER HEADS
CONC	IKLER HEADS IN FINISHED CEILING AREAS TO BE EALED W/ WHITE FINISHED PLATE. HEADS UNFINISHED S TO BE UPRIGHT BRASS.
NOTE:	REFER TO SPECIAL CEILING CONDITIONS ON ARCHITECTURAL DRAWINGS – COORDINATE LOCATIONS OF FIRE PROTECTION SPRINKLER HEADS WITH A/E PRIOR TO INSTALLATION.
FIR	E PROTECTION NOTES
LIGHT H	
	ESYSTEM
HAVE FIF	SHOWN WITH DIAGONAL HATCHING (AS ABOVE) SHALL RE PROTECTION SYSTEM DESIGNED AND INSTALLED TO "PA "LIGHT HAZARD" OCCUPANCY CATION REQUIREMENTS (TYP. FOR OFFICE AND MEETING REAS)
	e system

- 1. LIGHT HAZARD PROJECTED AREA PER SPRINKLER HEAD SHALL NOT EXCEED 225 SQ.FT.
- 2. SPRINKLER COVERAGE AND SYSTEM PIPING SHALL BE HYDRAULICALLY DESIGNED BY FIRE PROTECTION CONTRACTOR BASED ON NFPA REQUIREMENTS.
- 3. THE SYSTEM SHALL BE A DRY PIPE SYSTEM W/ ELECTRONIC CONTROLS.
- 4. SPACING SHALL NOT EXCEED 15 FT. BETWEEN SPRINKLER HEADS
- SPRINKLERS IN OFFICE AND SUPPORT SPACES WITH A TEMPERATURE RATING OF 165°F, DENSITY OF 0.10 GPM/SQ.FT. 6. SPRINKLER HEADS TO BE CONCEALED WITH WHITE COVER PLATE IN FINISHED SPACES. UPRIGHT BRASS IN UNFINISHED SPACES, AND PAINTED IN TO MATCH CEILING IN SANCTUARY AREA.
- NOTE: REFER TO SPECIAL CEILING CONDITIONS ON ARCHITECTURAL DRAWINGS COORDINATE LOCATIONS OF FIRE PROTECTION SPRINKLER HEADS WITH A/E PRIOR TO INSTALLATION.

DRAWINGS SHALL BE REVIEWED AND STAMPED BY AHJ PRIOR TO START OF ANY NEW WORK. APPROVED PLANS SHALL BE SENT TO ARCHITECT.







В



SHEET TITLE FIRST FLOOR FIRE PROTECTION PLAN AREA D,E,F-BLD 2

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

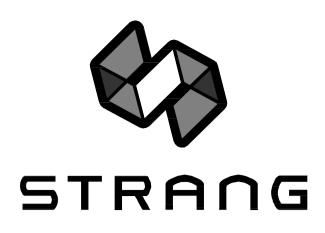
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PROJECT NO.	2013027_02
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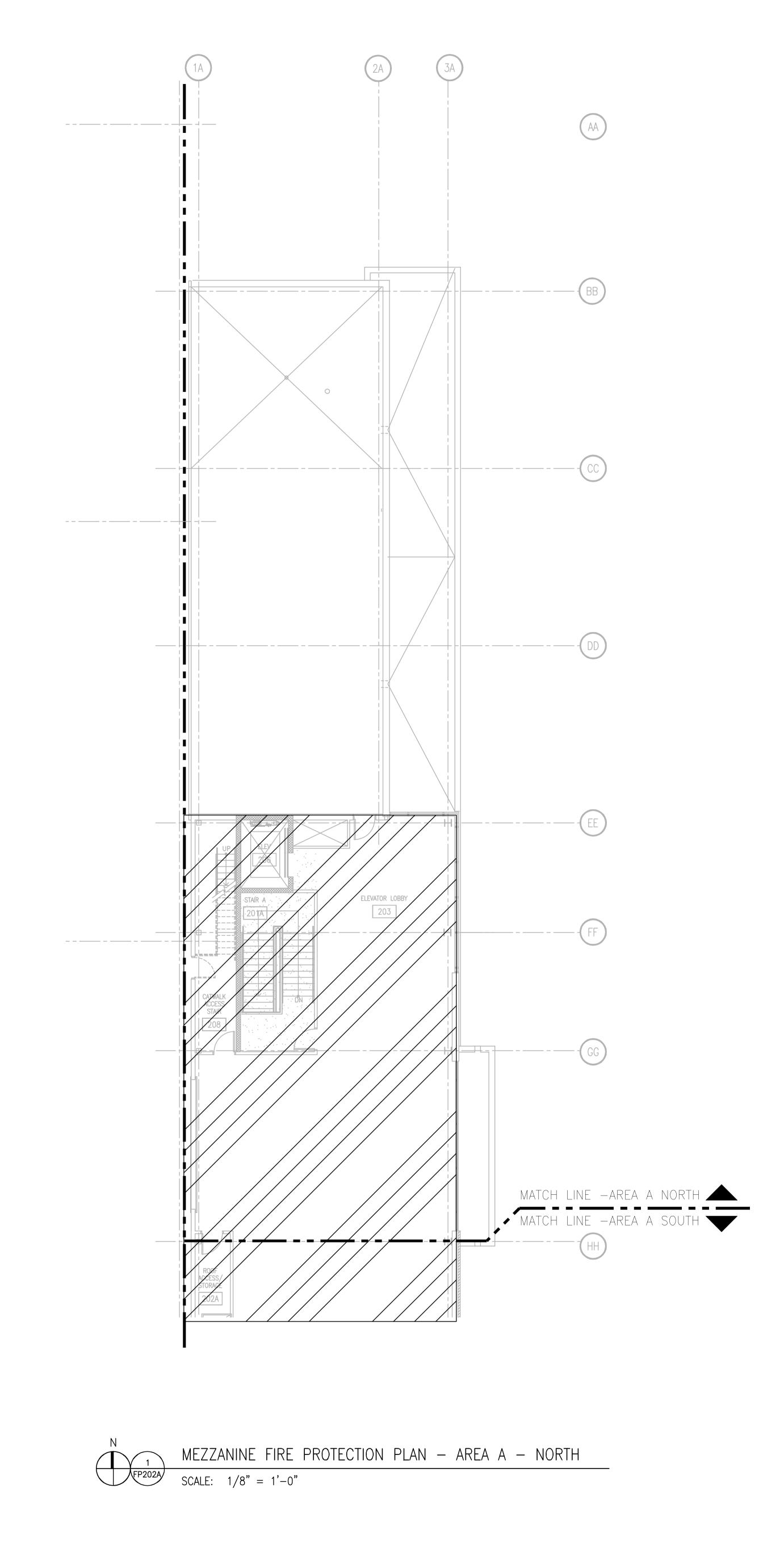
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REVISIONS	ADDENDUM # 3 11-18-13 CONST. SET 01-08-14

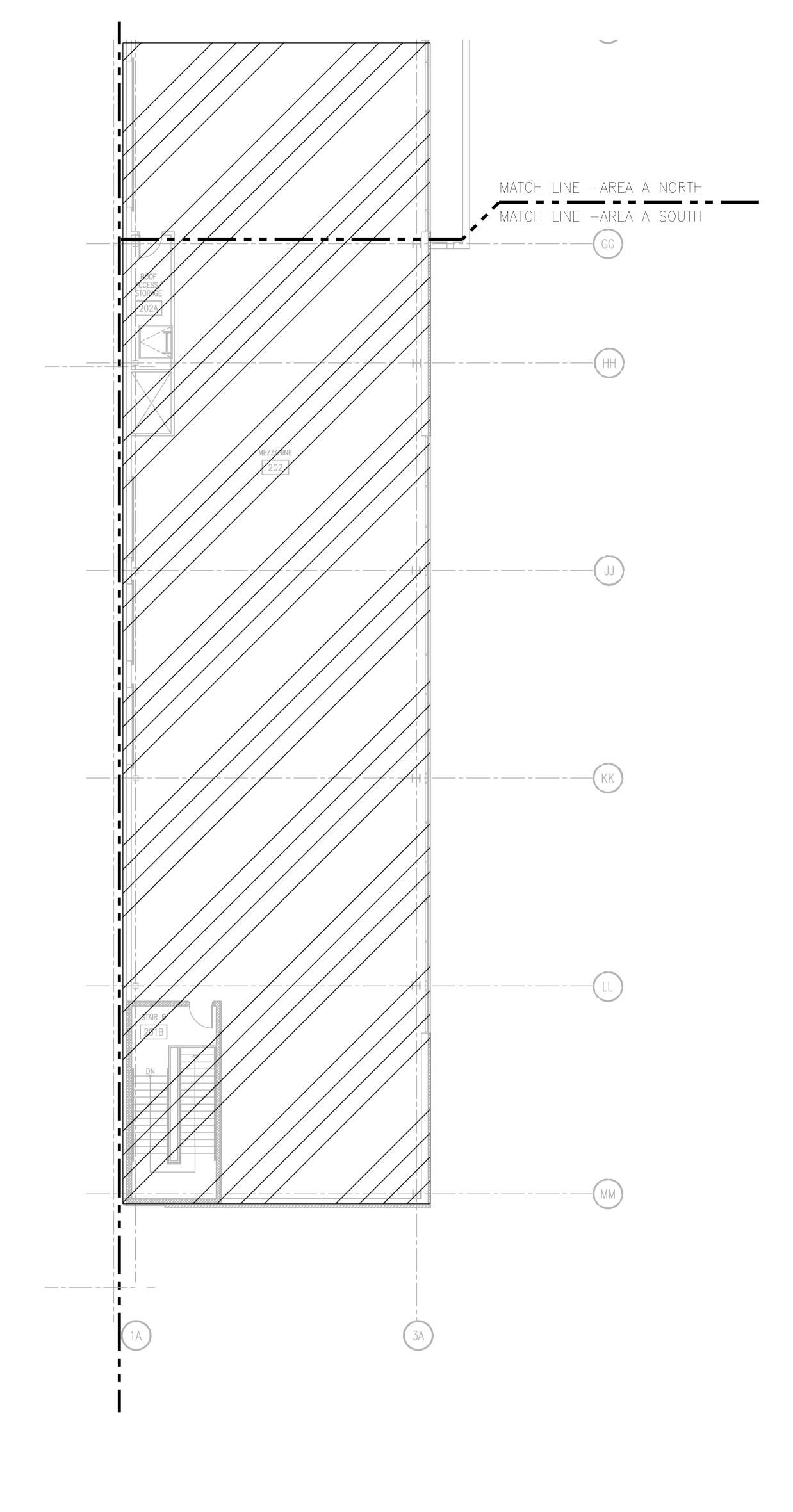
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ARCHITECTURE

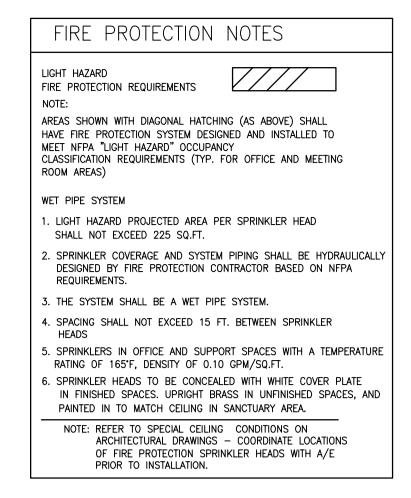
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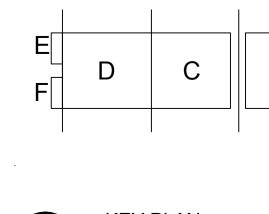








DRAWINGS SHALL BE REVIEWED AND STAMPED BY AHJ PRIOR TO START OF ANY NEW WORK. APPROVED PLANS SHALL BE SENT TO ARCHITECT.





KEY PLAN

SHEET NO. FP202A

B A

SHEET TITLE MEZZANINE FIRE PROTECTION PLAN AREA A - BLD 1

1919 ALLIANT ENERGY CENTER WAY MADISON, WISCONSIN 53713

ALLIANT ENERGY **CENTER PAVILIONS** BID # 313072

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PROJECT TITLE	

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