



Engineering Department

**REQUEST FOR PROPOSALS**

**(C3) RFP E21-163**

**DESIGN and CONSTRUCTION ADMINISTRATION  
for the  
TREADWELL ICE ARENA, CONSOLIDATED PUBLIC WORKS  
& DOUGLAS FIRE STATION/LIBRARY  
- HVAC CONTROLS UPGRADES**

Issued by:  Date: 1/21/2021  
Greg Smith, Contract Administrator

**DESIGN and CONSTRUCTION ADMINISTRATION**  
for the  
**TREADWELL ICE ARENA, CONSOLIDATED PUBLIC WORKS & DOUGLAS FIRE**  
**STATION/LIBRARY - HVAC CONTROLS UPGRADES**  
**(C3) RFP E21-163**

**SCOPE OF SERVICES:** The City and Borough of Juneau (CBJ) is requesting proposals from qualified consultants to provide design and construction administration services for the Treadwell Ice Arena, Consolidated Public Works & Douglas Fire Station/Library- HVAC Controls Upgrades.

**PRE-PROPOSAL MEETING:** A non-mandatory pre-proposal conference call will be held at **10:00 a.m., Alaska time on February 2, 2021.** Persons interested in submitting proposals are encouraged to attend. Proposers intending to participate shall request the call-in information from the CBJ Engineering Contracts Division, by emailing [caleb.comas@juneau.org](mailto:caleb.comas@juneau.org) by 4:30 p.m., on February 1, 2021.

**QUESTIONS REGARDING THIS RFP:** Greg Smith, Contract Administrator, phone 907-586-0873, fax 907-586-4530, [greg.smith@juneau.org](mailto:greg.smith@juneau.org) is the sole point of contact for all issues pertaining to this procurement.

**DEADLINE FOR PROPOSALS:** Electronic proposals are to be uploaded to Public Purchase **prior to 2:00 p.m. Alaska Time on February 12, 2021,** or such later time as the Contract Administrator may announce by addendum to planholders at any time prior to the submittal date. It is the responsibility of the Proposer to submit all solicitation documents, by the advertised deadline. Submitting any response to a solicitation shall be solely at the Proposers risk. The Purchasing Division will attempt to keep all office equipment used in methods of document receipt, in working order but is **NOT** responsible for communications or documents that are late, **regardless of cause.** No Proposer documentation will be accepted as proof of receipt. Prior to any deadline, Proposers are strongly encouraged to confirm receipt of any submitted documents with the Purchasing Division. All electronic submittals must be uploaded as an Adobe Portable Document Format (PDF). Proposers will not secure, password protect or lock uploaded files; the City must be able to open and view the contents of the file. Proposers will not disable or restrict the ability of the City to print the contents of an uploaded file. Scanned documents or images must be of sufficient quality, no less than 150 dpi, to allow for reading or interpreting the words, drawings, images or sketches. The City may disqualify any Submittal Response that does not meet the criteria stated in this paragraph.

Disadvantaged Business Enterprises are encouraged to respond.

**CONTACT INFORMATION REGARDING ELECTRONIC SUBMITTALS**

City and Borough of Juneau, Purchasing Division  
155 South Seward Street  
Juneau, AK 99801

The CBJ Purchasing Division's phone number is 907-586-5258, and fax number 907-586-4561.

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## **1.0 GENERAL INFORMATION**

This Class 3 Request for Proposals (RFP) defines the scope of the project, explains the procedures for selecting a firm to provide the requested services, and defines the documents required to respond to the RFP.

### **1.1 Purpose**

The purpose of this document is to solicit proposals from qualified consultants to provide design and construction administration services for the Treadwell Ice Arena, Consolidated Public Works & Douglas Fire Station/Library -HVAC Controls Upgrades.. The City of Juneau reserves the right to amend this agreement to include control replacement projects at additional CBJ facilities.

The Class 3 process is used for acquisition of professional service contracts estimated to be more than \$50,000.

### **1.2 Scope of Services**

The Consultant shall perform all necessary professional design and construction administration services for upgrades to the HVAC controls systems at the Treadwell Ice Arena, Consolidated Public Works & Douglas Fire Station/Library.

Key services to be provided by the Consultant are:

- Meet with CBJ Maintenance staff and perform site visit to assess existing facilities, HVAC equipment, and HVAC control system and provide preliminary survey and scoping report of project options. Report to include construction cost estimates of options.
- Provide 95% design documents to include drawings, specifications, and construction cost estimate.
- Provide 100% bid ready design documents to include drawings in AutoCad format and specifications in both MS-Word and .Pdf formats.
- Attend Pre-Bid Meeting and craft addendum response as required by bidder questions.
- Provide conformed construction documents incorporating all addenda.
- Review and respond to Contractor submittals.
- Review and respond to Contractor RFIs.
- Participate in weekly progress meetings as required.
- Prepare Contractor RFPs as required.
- Evaluate change order cost proposals as required.
- Provide periodic site observations of work to ensure compliance with the Contract Documents.
- Generate Notice of Deficient Work reports when Contractor work deviates from Contract Documents.
- Evaluate Contractor Applications for Payment.
- Substantial completion inspection and final completion inspection reports.
- Review and respond to Contractor closeout submittals including O&M manuals, warranties, as-built drawings and testing and balancing reports.

## **Design Requirements**

### **Treadwell Ice Arena:**

Replace existing Barber Coleman controls and provide a Building Automation System (BAS) incorporating Direct Digital Control (DDC), equipment monitoring, and control consisting of: A PC based Operator Work Station with color graphic data displays and local embedded webserver that is accessible via the City's Intranet/Internet, Microcomputer based Building Controllers (BCs) and Microcomputer based Advanced Application Controllers (AACs) and Application Specific Controllers (ASCs) interfacing directly with sensors, controllers actuators and environmental delivery systems (i.e., HVAC units, boilers, chillers, etc.); electric controls and mechanical devices for all items. This also will include integration of the CIMCO Ice Plant control system for monitoring only.

### **Consolidated Public Works Buildings:**

Replace existing Barber Coleman controls and provide a Building Automation System (BAS) incorporating Direct Digital Control (DDC), equipment monitoring, and control consisting of: A PC based Operator Work Station with color graphic data displays and local embedded webserver that is accessible via the City's Intranet/Internet, Microcomputer based Building Controllers (BCs) and Microcomputer based Advanced Application Controllers (AACs) and Application Specific Controllers (ASCs) interfacing directly with sensors, controllers actuators and environmental delivery systems (i.e., HVAC units, boilers, chillers, etc.); electric controls and mechanical devices for all items.

### **Douglas Fire Station and Library:**

Replace existing pneumatic controls and provide a Building Automation System (BAS) incorporating Direct Digital Control (DDC), equipment monitoring, and control consisting of: A PC based Operator Work Station with color graphic data displays and local embedded webserver that is accessible via the City's Intranet/Internet, Microcomputer based Building Controllers (BCs) and Microcomputer based Advanced Application Controllers (AACs) and Application Specific Controllers (ASCs) interfacing directly with sensors, controllers actuators and environmental delivery systems (i.e., HVAC units, boilers, etc.); electric controls and mechanical devices for all items. All Building Control Systems shall be based on native BACnet protocols.

## **1.3 Completion**

The Owner requires bid ready documents within **120** days from Notice to Proceed.

## **1.4 Background**

Juneau is Alaska's Capital City. The CBJ municipal offices are located at 155 South Seward Street, Juneau, Alaska 99801. The Engineering Department is located on the 3rd Floor of the Marine View Center, 230 South Franklin Street, Juneau, Alaska.

## 1.5 Questions

Questions regarding this proposal should be directed to:

Greg Smith, Contract Administrator  
City and Borough of Juneau  
ENGINEERING DEPARTMENT  
Marine View Center – 3<sup>rd</sup> Floor  
230 South Franklin Street  
Juneau, Alaska 99801

**email:** [Greg.Smith@juneau.org](mailto:Greg.Smith@juneau.org)  
**Telephone:** (907) 586-0873  
**Fax:** (907) 586-4530

Office hours are 8:00 a.m. to 4:30 p.m. local time, Monday through Friday.

## 1.6 Standard Contract Language

Attached to this RFP is the CBJ's standard contract (Attachment 1) which should be carefully reviewed by proposers, as it is the form of agreement that the CBJ intends that the selected Consultant sign in the event of acceptance of its proposal.

## 2.0 Rules Governing Competition

### 2.1 Pre-Proposal

Proposers should carefully examine the entire RFP and any addenda thereto, and all related materials and data referenced in the RFP. Proposers should become fully aware of the nature of the services requested and the conditions likely to be encountered in performing the services.

### 2.2 Proposal Development

The content of proposals will be kept confidential until the selection of the Consultant is publicly announced. All materials submitted in response to this RFP will become the property of the CBJ. Proposals shall be retained for the official files of the Engineering Department and will become public record after announcement of the successful Proposer. The CBJ reserves the right to reject any or all proposals. Proposals are to be prepared in such a way as to provide a straightforward, concise delineation of the Proposer's capabilities to satisfy the requirements of this RFP. Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to the RFP requirements, and on completeness and clarity of content.

This solicitation does not commit CBJ to select any Consultant(s) for the requested services. All costs associated with the respondents' preparations, submission and oral presentations (if applicable) shall be the responsibility of the Proposer.

Submission of a proposal indicates acceptance by the proposer of all the terms, conditions and specifications contained within the RFP. Proposals must be received no later than the date and time specified in the cover letter. Proposals not received by the date and time specified in the cover letter will not be considered.

## 2.3 Disclosure of Proposal Contents.

The City and Borough of Juneau, a municipal corporation and political subdivision of the State of Alaska, is subject to the Alaska Public Records Act codified at AS 40.25.100-220, and the public records provisions in the CBJ Charter, section 15.7. The contents of proposals submitted in response to this RFP will be kept confidential until the top ranked proposer is announced. Immediately following announcement, all proposals become public information. Trade secrets and other proprietary data contained in a proposal may be held confidential, to the extent allowed by law, by the Purchasing Officer, upon request in writing by a proposer. Material considered confidential by the proposer must be clearly identified and marked (page, section, etc) by the proposer, and the proposer must include a brief statement that sets out the reasons for confidentiality. Marking the entire proposal confidential is not acceptable and may be cause for the City to reject your proposal as non-responsive.

## 3.0 PROPOSAL CONTENT REQUIREMENTS

Proposals are limited to a maximum of 12 pages excluding personal resumes and licenses. Professional licenses and resumes are to be attached to proposal and are also limited to 12 pages. To achieve a uniform review process and obtain the maximum degree of comparability for the Selection Committee, proposals should be organized in the manner specified below:

### 3.1 Title Page

Show the RFP subject, the name of the firm, address, telephone numbers, and name of contact person and date of submission.

### 3.2 Table of Contents

Clearly identify the materials by selection and page number.

### 3.3 Letter of Transmittal

Limit to one or two printed pages.

- 3.3.1 Briefly state the firm's understanding of the proposal requirements and summarize your capability to meet same.
- 3.3.2 Give names of the person(s) who will be authorized to represent the firm, their title(s), address(es) and telephone number(s).
- 3.3.3 The transmittal letter must be signed by a representative who has authority to bind the firm. Name and title of the individual signing the proposal must be printed below or adjacent to the signature.
- 3.3.4 ***Acknowledge receipt of all addenda.*** Failure of to acknowledge addenda may result in the proposal being considered non-responsive and subject to rejection.

### **3.4 Scope of Services an Work Plan**

- 3.4.1 Discuss the Scope of Services and how the firm will provide the desired services. Include a statement of approach and methodology for accomplishing the requested services.
- 3.4.2 Provide a work plan which includes a proposed project schedule. This schedule should identify major tasks and critical components of the project. If the Consultant's team anticipates delays or problems with the design schedule, describe these issues in detail.
- 3.4.3 Discuss the incorporation of this project into the firm's current workload and the ability of the Consultant's team to meet the project schedule. Provide a staff schedule, identifying primary personnel and sub-consultants and their proposed work schedule during different phases of the project. How much priority can/will this project be given?

### **3.5 History and Experience**

- 3.5.1 Provide company names, individual contacts, and telephone numbers of references for at least two similar projects which are of the same general concept requested in this RFP.
- 3.5.2 Provide general background information on the firm including specialized experience, capabilities, and unique qualifications in the field. This should include information outlining the firm's experience in the specific professional services requested.

### **3.6 Proposer's organization and Personnel Qualifications**

- 3.6.1 Describe the organizational structure of the Consultant team for this project with an organizational chart or other diagrammatic explanation. Describe how this project fits into the firm's over-all organization.
- 3.6.2 Specify the project manager and other personnel who will be directly providing services for the CBJ in various areas of the described project and state their position. The names, titles and resumes of listed personnel should be provided. Please indicate the experience of each member specifically as it applies to this type of project.

### **3.7 Firm's Hourly Rates**

Evaluation will include the hourly rates of pay for personnel to be used on this project. Include a list of reimbursable expenses typical for this type of project. Hourly rates shall include all markups and multipliers. Hourly rates shall remain in effect for the life of the contract with no increases.

### **3.8 Licenses**

Professional registration (Engineer/Architect/Land Surveyor/Landscape Architect) in the State of Alaska at the time of proposal submission is required (Alaska Statute 08-48-281).



If a corporate license is held, the professional licensed in the State of Alaska (in order to obtain a corporate license) must be in responsible charge of the project, as well as the professional stamping the work.

All survey work involving property or boundary surveys must be stamped by a Professional Land Surveyor licensed in the State of Alaska.

All reports prepared by a registered professional licensed in the State of Alaska must be stamped by the registered professional.

The proposal must include a statement indicating that all required corporate, all required professional occupational licenses and all other necessary licenses/certifications are currently held. License/certification numbers must be provided.

## **4.0 EVALUATION OF PROPOSALS**

### **4.1 Criteria**

Proposals will be evaluated and scored, using the criteria on the EVALUATION/RANKING page, found at the end of this document, in order to ascertain which proposal best meets the needs of the CBJ. The items to be considered during the evaluation and the associated point values are located on the EVALUATION/RANKING sheet at the end of this RFP.

### **4.2 Evaluation Data**

The evaluation Data discussed below is presented in an effort to delineate what criteria will be used to score proposals. Please do not include a separate section in your proposal for Evaluation Data. Much of the information discussed and requested below should be included in the proposal as part of the Proposal Content Requirements discussed in SECTION 3.0 of this RFP.

#### **4.2.1 Proposed Method to Accomplish the Project**

- a. Work schedule and methodology will be evaluated according to budget sensitivity, efficiency, completeness and pertinence of the tasks submitted by the Proposer, as well as the creativity and logic of the overall approach. The proposal should show interest and insight about this project.

#### **4.2.2 Organization, Capacity of Firm and Personnel Qualifications**

- a. Evaluation will be made of the Proposer's organization and the ability to perform the desired services within the established schedule.
- b. Evaluation will be made based on proposed personnel, their relevant qualifications and experience, and their proposed scale of involvement.

#### **4.2.3 Relevant Experience and Past Record of Performance**

Evaluation will be made of the Proposer's experience with projects of similar scope and scale, as well as other projects with the CBJ, other government agencies and private industry.

#### 4.2.4 Firm's Hourly Rates

Evaluation will be made on the proposed hourly rates of pay for personnel to be used on this project.

#### 4.2.5 Quality of the Proposal

Is proposal clear and concise? Is proposal responsive to the needs of the project? Evaluation will include the clarity and professional quality of the document(s) submitted.

#### 4.2.6 Juneau Proposer according to SECTION 7.0

Prime Consultant meets Juneau Proposer requirements as stipulated in Section 7.0 – Juneau Proposer Points.

### 4.3 Evaluation Process

Evaluation of the proposals will be performed by a committee selected by the City and Borough of Juneau. The intent of the CBJ is to make award based on written proposals.

## 5.0 **SELECTION AND AWARD**

An evaluation committee will review, evaluate, score and rank proposals, in accordance with criteria identified below and the Evaluation/Ranking sheet located at the end of this RFP. Clarification of submitted material may be requested during the evaluation process. Interviews by telephone with top ranked Proposers may also be conducted at the discretion of the evaluation committee. If necessary, in-person interviews will be conducted. Finalists will be notified and informed of interview requirements. In the event of a tie in the ranking totals, only the raw scores of the Proposers who are tied will be totaled to determine the appropriate ranking. The successful Proposer will be invited to enter into contract negotiations with CBJ. Upon conclusion of successful negotiations and compliance with any pre-award obligations, award will be made in the form of a contract and a purchase order, if appropriate, will be sent to the Consultant. If an agreement cannot be reached during the negotiation process, the City will notify the Proposer and terminate the negotiations. Negotiations may then be conducted with the next Proposer in the order of its respective ranking.

## 6.0 **INSURANCE REQUIREMENTS**

The insurance requirements for this project are specified in Attachment 1 – Sample Contract, under Appendix C.

## 7.0 **JUNEAU PROPOSER POINTS**

Juneau proposer points shall be awarded if the Proposer is determined to be a “Juneau proposer” meeting the criteria of CBJ’s Purchasing Ordinance 53.50, Section 53.50.010. CBJ Ordinance 53.50 can be viewed electronically at the following internet address: [www.juneau.org/law](http://www.juneau.org/law). **Note:** *The criteria for meeting Juneau Proposer requirements have changed. Please review the new requirements and contact the CBJ Engineering Department or Purchasing Division with any questions.*

A paper copy of the CBJ Purchasing Ordinance is available upon request from the CBJ Engineering Department or Purchasing Division.

## 8.0 PROTESTS

The protest period begins with the posting of a notice of apparent successful proposer, in the CBJ Purchasing Division.

Protests shall be executed in accordance with CBJ Ordinance 53.50.062 PROTESTS and 53.50.080 ADMINISTRATION OF PROTEST. Copies of the ordinances describing protest procedures are available from the CBJ Purchasing Division, 155 South Seward Street, Juneau, Alaska. Questions concerning protests or protest procedures should be directed to the CBJ Purchasing Officer at 907-586-5258. CBJ Ordinance 53.50 can be viewed electronically at the following internet address: [www.juneau.org/law](http://www.juneau.org/law).

## 9.0 CONSULTANT'S GOOD STANDING WITH CBJ FINANCE DEPARTMENT

Consultants must be in good standing with the CBJ prior to award, and prior to any contract renewals, and in any event no later than **seven business days** following notification by the CBJ of intent to award. **Good standing** means: all amounts owed to the CBJ are current and the Consultant is not delinquent with respect to any taxes, fees, assessment, or other monies due and owed the CBJ, or a Confession of Judgment has been executed and the Consultant is in compliance with the terms of any stipulation associated with the Confession of Judgment, including being current as to any installment payments due; and Consultant is current in all CBJ reporting obligations (such as sales tax registration and reporting and business personal property declarations). Failure to meet these requirements may be cause for rejection of your proposal. To determine if your business is in good standing, or for further information, contact the CBJ Finance Department's Sales Tax Division at (907) 586-5265 for sales tax issues, Assessor's Office at (907)586-0930 for business personal property issues, or Collections Division at (907) 586-5268 for all other accounts.

***Note: Juneau Proposer preference (7.0) has requirements regarding a firm's good standing with the City at the time a proposal is submitted. Please review the Purchasing Code cited.***

Section	Criteria - Per SECTION 4.2 of RFP	Weight (%)	Outstanding (10 points)	Adequate To Good (6 or 8 points)	Marginally Acceptable (3 or 4 points)	Unacceptable (0 or 1 point)	Sub Total
4.2.1	Proposed Method to Accomplish the Project.	25					
4.2.2	Organization, Capacity of Firm and Personnel Qualifications						
a.	Organization and ability to perform services within desired schedule	20					
b.	Experience of proposed personnel and scale of involvement.	20					
4.2.3	Relevant Experience and Past Record of Performance	20					
4.2.4	Proposed Hourly Rates	5					
4.2.5	Quality of Proposal	5					
4.2.6	Juneau Proposer (per Section 7.0)	5					
<b>GRAND TOTAL</b>							

Scoring

No scores using 2, 5, 7, 9

Outstanding = 10

Adequate to Good = 6 or 8

Marginally Acceptable = 3 or 4

Unacceptable or Poor = 0 or 1

Juneau Proposer Points Awarded by Contracts Division = 10 or 0 points

Maximum Score Achievable = 1,000

Evaluator \_\_\_\_\_ Rank \_\_\_\_\_ Date \_\_\_\_\_



## ATTACHMENT 1

**PROFESSIONAL SERVICES CONTRACT  
DESIGN and CONSTRUCTION ADMINISTRATION for the  
TREADWELL ICE ARENA, CONSOLIDATED PUBLIC WORKS & DOUGLAS FIRE  
STATION/LIBRARY - HVAC CONTROLS UPGRADES  
Contract No. RFP E21-163**

**This Agreement** is entered into by and between the City and Borough of Juneau, Alaska ("City"), and \_\_\_\_\_ company name \_\_\_\_\_ whose address is \_\_\_\_\_ phone and fax \_\_\_\_\_ ("Consultant").

**Witnesseth:**

**Whereas,** the City desires to engage the Consultant for the purpose of rendering certain professional services, and

**Whereas,** the Consultant represents that it is in all respects licensed and qualified to perform such services;

**Now, Therefore,** the parties agree as follows:

**1. CONTRACTUAL RELATIONSHIP.** The parties intend that an independent Consultant/City relationship will be created by this Contract. City is interested only in the results to be achieved, and the conduct and control of the work will lie solely with the Consultant. Consultant is not considered to be an agent or employee of City for any purpose, and the employees of Consultant are not entitled to any benefits that City provides for City's employees. It is understood that the City does not agree to use the Consultant exclusively. It is further understood that the Consultant is free to contract for similar services to be performed for others while it is under contract with the City.

**2. SCOPE OF SERVICE.** The Consultant shall carry out in a professional and prudent manner all of the services required by the Contract. These services include all of the services described in Appendix A. Consultant will diligently proceed with the Scope of Services, and will provide such services in a timely manner.

**3. PERSONNEL, EQUIPMENT, SUPPLIES, AND LICENSES.**

(A) Except as noted in Appendix A, the Consultant represents that it has or will secure at its own expense all personnel, equipment, and supplies required in performing the services under this Contract.

(B) All of the services required hereunder will be performed by the Consultant or under its supervision.

(C) None of the work or services covered by this Contract shall be subcontracted without prior written approval of the Contract Administrator.

(D) Consultant warrants that it is fully licensed under all applicable local, state, and federal laws to perform the services to be provided hereunder.

**4. TIME OF PERFORMANCE.** The services of the Consultant are to commence after the execution of the Contract and issuance of Notice to Proceed and Purchase Order. All work shall be completed no later than the time specified in Appendix A. Amendment to this Contract may be made upon mutual, written agreement prior to the contract expiration date.

**5. REPORTING.** Except as authorized within Appendix A, the City's primary representative for this Contract shall be Steve Tada. The City Manager shall be an alternate representative. The City shall not be liable for Consultant's expenses incurred in reliance on directions received from any other municipal officer or employee. The Consultant's representative shall be \_\_\_\_\_.

**6. COMPENSATION.** The City agrees to pay the Consultant according to the schedule attached as Appendix B. The Consultant's estimated fee schedule is attached to Appendix B.

**7. TERMINATION OF CONTRACT FOR CAUSE.** If, through any cause, except causes beyond the control of the Consultant, the Consultant shall fail to fulfill in a timely and proper manner its obligations under this Contract; or if the Consultant shall violate any of the covenants, agreements, or stipulations of this Contract, the City shall have the right to terminate this Contract by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least ten days before the effective date of such termination. In that event, all finished or unfinished documents, or other data, in whatever form, prepared by the Consultant under this Contract shall, at the option of the City, become its property, and the Consultant shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and materials, not to exceed the Contract amount.

**8. TERMINATION FOR CONVENIENCE OF CITY.** The City may terminate this Contract at any time by giving written notice to the Consultant of such termination and specifying the effective date thereof, at least thirty days before the effective day of such termination. In that event, all finished or unfinished documents and other materials as described in paragraph 7 above shall, at the option of the City become its property, and the Consultant will be paid an amount not to exceed the sum set forth in Appendix B for work satisfactorily completed on or before the date of termination, less payments of compensation previously made.

**9. CONTRACT AGREEMENT.** All parties mutually agreed to the terms of this Contract. The Contract should not be construed in favor of or against any party. This Contract contains the entire agreement between the parties; there are no other promises, terms, conditions, or obligations other than those contained herein; and this Contract shall supersede all previous communications, representations or agreements, either oral or written, between the parties.

**10. CHANGES.** The City may, from time to time, require changes in the scope of services to be performed under this Contract. Such changes, including any increase or decrease in the amount of the Consultant's compensation, must be mutually agreed upon in writing before they will be regarded as part of this Contract.

**11. EQUAL EMPLOYMENT OPPORTUNITY.** The Consultant will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin.

**12. CONFLICTS OF INTEREST.** Consultant agrees that no employee of the City who has exercised or will exercise any authority over the specifications, procurement, supervision or payment for this Contract, and no member of the employee's immediate family, has had or will have any direct or indirect financial interest in this Contract. If the Consultant learns of any such

interest, the Consultant shall without delay inform the City Attorney or one of the officers specified in Paragraph 5.

**13. ETHICS.** Consultant shall discharge its duties fairly, impartially and maintain a standard of conduct that competently serves the City and the interests of the City. Consultant shall at all times exercise unbiased judgment when performing its duties under this contract.

**14. PUBLIC RELATIONS.** Consultant shall issue press releases, respond to press inquiries, make public speeches, appear on broadcast media or otherwise engage in public relations regarding the project only with the specific approval of the CBJ Project Manager.

**15. ELECTED OFFICIALS.** The Consultant shall respond to project-related inquiries from elected officials by providing impartial, factual information, but shall not initiate contact or attempt to persuade an elected official to agree with any viewpoint or to take any official action. The Consultant will promptly notify the Project manager of any request by an elected official for project-related information.

**16. ASSIGNABILITY.** The Consultant shall not assign any interest in this Contract and shall not transfer any interest in the same without the prior written consent of the City; however, claims for money due or to become due to the Consultant from the City under this Contract may be assigned to a bank, trust company, or other financial institution without approval. Notice of any such assignment or transfer shall be furnished promptly to the City.

**17. FINDINGS CONFIDENTIAL.** Any information given to or prepared by the Consultant under this Contract which the City requests to be kept as confidential shall not be made available to any individual or organization by the Consultant without the prior written approval of the City.

**18. IDENTIFICATION OF DOCUMENTS.** All reports, maps, and other documents completed as a part of this Contract, other than documents exclusively for internal use within the City, shall carry a City notation or logo as directed by the City.

**19. PUBLICATION, REPRODUCTION, AND USE OF MATERIALS.** No services, information, computer program elements, reports or other deliverables which may have a potential patent or copyright value produced in whole or in part under this Contract shall be subject to copyright in the United States or any other country.

If a copyright applies by law to the work produced under this Contract, that copyright will either be signed over to the City or the City will be given unrestricted license to the copyright. The City shall have unrestricted license to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data, or other materials prepared under this Contract. If this Contract includes architectural and/or engineering design services, any use of the design features or details produced under this Contract on other City facilities will be at the City's risk.

**20. RECORDS.** During performance and after termination of this Contract, each party shall make available to the other party for inspection and copying, all records, whether external or internal, having any relevance to this Contract.

**21. INSURANCE REQUIREMENTS.** Consultant has secured and agrees to keep and maintain in full force and effect, at its own expense, the insurance approved by CBJ Risk Management as outlined in Appendix C. At least 30 days prior to the cancellation, non-renewal

or reduction in the amount of coverage, Consultant shall provide written notice to the CBJ's Risk Management. The Consultant's insurance shall be primary and any insurance maintained by the CBJ shall be non-contributory. If the Consultant maintains higher limits than shown below, the CBJ shall be entitled to coverage for the higher limits maintained by the Consultant.

**22. INDEMNIFICATION AND HOLD HARMLESS.** The Consultant agrees to defend, indemnify, and hold harmless CBJ, its employees, and authorized representatives, with respect to any action, claim, or lawsuit arising out of or related to the Consultant's negligent performance of this contract without limitation as to the amount of fees, and without limitation as to any damages, cost or expense resulting from settlement, judgment, or verdict, and includes the award of any attorney's fees even if in excess of Alaska Civil Rule 82. This indemnification agreement applies to the fullest extent permitted by law, meaning that if there is a claim of, or liability for, a joint act, error, or omission of the consultant and the CBJ, the indemnification, defense, and hold harmless obligation of this provision shall be apportioned on a comparative fault basis. This agreement is in full force and effect whenever and wherever any action, claim, or lawsuit is initiated, filed, or otherwise brought against CBJ relating to this contract. The obligations of Consultant arise immediately upon actual or constructive notice of any action, claim, or lawsuit. CBJ shall notify Consultant in a timely manner of the need for indemnification, but such notice is not a condition precedent to Consultant's obligations and may be waived where the Consultant has actual notice.

**23. CHOICE OF LAW; JURISDICTION.** This Contract shall be governed by the laws of the State of Alaska. Jurisdiction shall be in the State of Alaska, First Judicial District.

**24. SUCCESSORS.** This Contract shall be binding upon the successors and assigns of the parties.

**25. PRECEDENCE OF DOCUMENTS.** In the event of a conflict between the provisions of this document and its appendices, the order of precedence shall be this document, Appendix A, Appendix B and Appendix C.

---

In Witness Whereof the parties have affixed their signatures the date first above set out:

**CITY AND BOROUGH OF JUNEAU**

_____	Date
Duncan Rorie Watt	
City and Borough Manager	

**Company name**

_____	Date
Name	
Rank	
email	

Approved as to content:

_____	Date
Greg Smith	
Contract Administrator	

406900101-440891420-5390



**APPENDIX A: SCOPE OF SERVICES  
DESIGN and CONSTRUCTION ADMINISTRATION for the  
TREADWELL ICE ARENA, CONSOLIDATED PUBLIC WORKS & DOUGLAS FIRE  
STATION/LIBRARY - HVAC CONTROLS UPGRADES  
Contract No. RFP E21-163**

The City and Borough of Juneau (CBJ) is requesting proposals from qualified consultants to provide design and construction administration services for the Treadwell Ice Arena, Consolidated Public Works & Douglas Fire Station/Library- HVAC Controls Upgrades.

**PERSONNEL:** The Consultant's primary personnel for this work will be:

**Bid-ready documents shall be submitted within 120 days from Notice to Proceed.**

**This contract expires on December 31, 2021, unless an amendment changing this date is fully executed prior to December 31, 2021.**

STANDARD CONTRACT

**APPENDIX B: COMPENSATION  
DESIGN and CONSTRUCTION ADMINISTRATION for the  
TREADWELL ICE ARENA, CONSOLIDATED PUBLIC WORKS & DOUGLAS FIRE  
STATION/LIBRARY - HVAC CONTROLS UPGRADES  
Contract No. RFP E21-163**

***Amount of Payment***

**Lump Sum**

Consultant shall be compensated a lump sum amount of \$\_\_\_\_\_ for satisfactory performance of all [or specific services] services described in this contract.

**Time and Materials**

Consultant shall be compensated based on time and materials, a not-to-exceed amount of \$\_\_\_\_\_ for satisfactory performance of \_\_\_\_\_ services described in this contract.

Hourly rates shall remain the same for the life of this contract including all amendments, unless the Consultant requests a rate increase. Hourly rate increases may be negotiated on a yearly basis and shall not exceed the percentage increase of the Anchorage Consumer Price Index.

The total Contract amount shall be \$

***Method of Payment***

**Monthly** Payable within 30 days of receipt of an invoice approved by the project manager and progress report stating the amount of services completed.

***Consultant Invoice Requirements***

- Itemized invoices must be submitted that indicate the services performed.
- Invoices for this contract must be submitted separately from invoices for services performed under any other contract(s).
- Invoices must include the CBJ Contract Number and Purchase Order numbers.

***Compensation Based on Time and Materials***

If compensation is based on time and materials, the following shall apply:

Compensation shall be computed based on the hourly billing rates, approved by the CBJ Project Manager, times the actual number of hours spent in the performance of services. The hourly billing rate for each employee is the amount to be paid to the Consultant, and is full compensation for all salary, benefits, taxes, overhead and profit. There shall be no additional compensation for overtime, weekend, or holiday work.

Compensation for subconsultants shall be equal to the amounts actually paid to sub-consultants hereunder plus a negotiated mark-up percentage.

Compensation for expenses shall be an amount equal to reimbursable expenses approved in advance by the CBJ Project Manager, necessary and reasonably incurred and actually paid by the Consultant in the performance of the services hereunder. No markup allowance is allowed. Reimbursable expenses are expenses that are unique to the performance of the services under the Contract and generally contemplate the purchase of outside ancillary services, such as mailing and delivery charges for submittal of drawings, specifications and reports, long distance telephone calls, rentals of equipment, travel and local transportation, meals and lodging on overnight trips.

Reimbursable expenses do not include expenses that are usually and customarily included as part of the Consultant's overhead. For the purposes of this Agreement reimbursable expenses do not include amounts for typing, utilization of computer systems, computer aided design and drafting (CADD), cameras, recording or measuring devices, flashlights and other small, portable equipment, safety supplies, phones, telephone calls, electronic messaging including FAX, Telex and telegrams, or expendable office supplies. Unless otherwise indicated, required insurance is not a reimbursable expense.

The Consultant shall obtain the CBJ Project Manager's written approval prior to making expenditures for reimbursable expenses in excess of \$500 per specific expenditure and for all overnight trips which are reimbursable expenditures as set forth above. The Consultant shall substantiate all billings for reimbursable expenses in excess of \$25 with receipted bills and provide said receipts with the appropriate billing.

The Consultant shall keep, and cause any sub-consultants to keep, daily records of the time spent in the performance of services hereunder by all persons whose billing rates will be the basis for compensation as well as records and receipts of reimbursable expenditures hereunder. Failure to do so shall be a conclusive waiver of any right to compensation for such services or expenses as are otherwise compensable hereunder.

The CBJ shall have the right to inspect all records of the Consultant, and of any sub-consultants, pertaining to this project. Records shall be maintained by the Consultant and sub-consultants for a period of three years after completion of services.

When travel is necessary as part of the professional services to be provided, the following shall be followed:

- ◆ Airline tickets should be purchased at the 14 day advanced purchase price. The CBJ will not pay for First Class travel. Any deviation shall be approved in writing in advance by the CBJ Project Manager.
- ◆ Per diem meal allowance shall be: \$60.00 (\$12.00 for breakfast, \$16.00 for lunch and \$32.00 for dinner).
- ◆ The Consultant shall stay at the hotel with a daily rate not to exceed \$150.00.
- ◆ Travel agent fees, tips, alcohol or bar tabs shall not be paid by the CBJ.
- ◆ Car rental, parking, and taxi fees shall be reasonable and not excessive. This reimbursement is for services in Juneau only. Parking fees, etc. outside of Juneau will not be reimbursed.

**APPENDIX C: INSURANCE REQUIREMENTS**  
**DESIGN and CONSTRUCTION ADMINISTRATION for the**  
**TREADWELL ICE ARENA, CONSOLIDATED PUBLIC WORKS & DOUGLAS FIRE**  
**STATION/LIBRARY - HVAC CONTROLS UPGRADES**  
**Contract No. RFP E21-163**

The Consultant must provide certification of proper insurance coverage and amendatory endorsements or copies of the applicable policy language affecting coverage required in this agreement to the City and Borough of Juneau. Failure of the City to demand such certificate or other evidence of full compliance with these insurance requirements or failure of the City to identify a deficiency from evidence that is provided shall not be construed as a waiver of the obligation of the Consultant to maintain the insurance required by this contract.

Consultant agrees to maintain insurance as follows at all times while the contract is in effect, including during any periods of renewal.

**Commercial General Liability Insurance.** The Consultant must maintain Commercial General Liability Insurance in an amount it deems reasonably sufficient to cover any suit that may be brought against the Consultant. This amount must be at least one million dollars (\$1,000,000.00) per occurrence, and two million dollars (\$2,000,000.00) aggregate.

**This insurance policy is to contain, or be endorsed to contain, additional insured status for the CBJ, its officers, officials, employees, and volunteers.** If Additional insured status is provided in the form of an endorsement to the Contractor's insurance, the endorsement shall be at least as broad as ISO Form CG 20 10 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used).

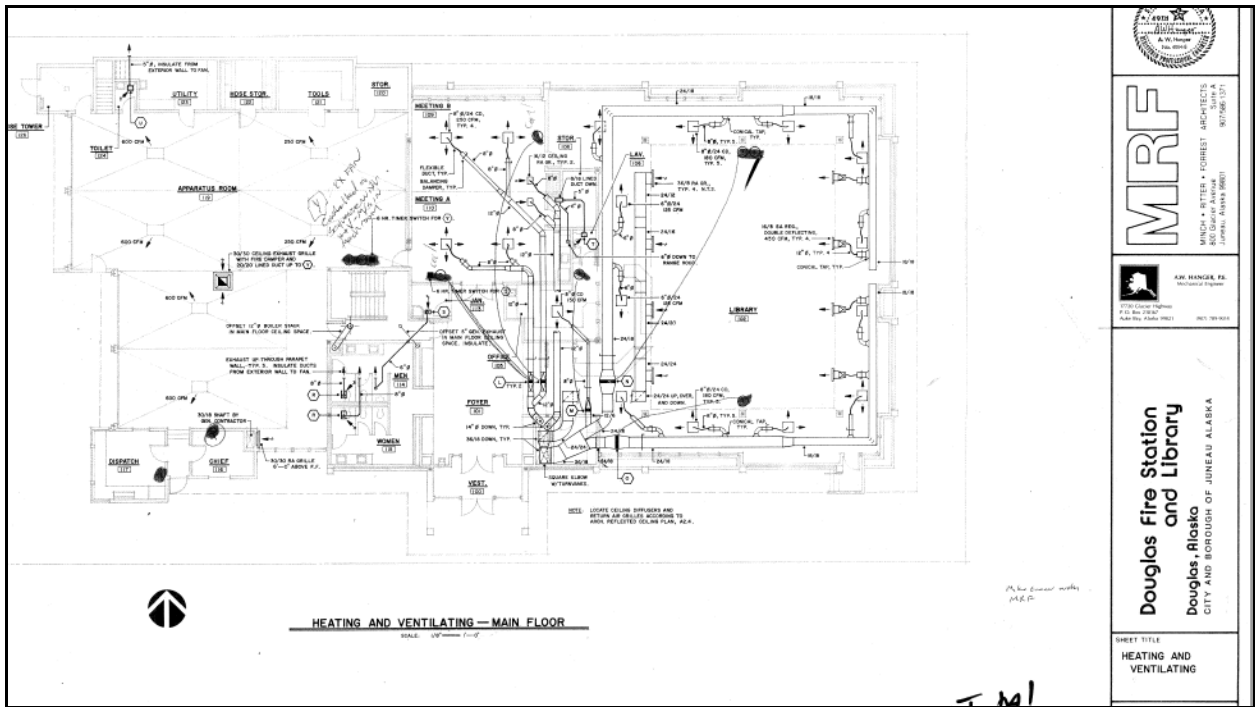
**Professional Liability Insurance.** The Consultant must maintain Professional Liability Insurance in an amount not less than one million dollars (\$1,000,000.00) aggregate to protect the Consultant from any claims or damages for any error, omission, or negligent act of the Consultant, the Consultant's firm and employees. This requirement applies to the Consultant's firm, the Consultant's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract.

**Workers Compensation Insurance.** The Consultant must maintain Workers Compensation Insurance to protect the Consultant from any claims or damages for any personal injury or death which may arise from services performed under this contract. This requirement applies to the Consultant's firm, the Consultant's subcontractors and assignees, and anyone directly or indirectly employed to perform work under this contract. The Consultant must notify the City as well as the State Division of Workers Compensation immediately when changes in the Consultant's business operation affect the Consultant's insurance status. Statutory limits apply to Workers Compensation Insurance. The policy must include employer's liability coverage of one hundred thousand dollars (\$100,000.00) per injury, and five hundred thousand dollars (\$500,000.00) policy limits. **If the Consultant is exempt from Alaska Statutory Requirements, the Consultant will provide written confirmation of this status in order for the City to waive this requirement. The policy shall be endorsed to waive subrogation rights against the City.**

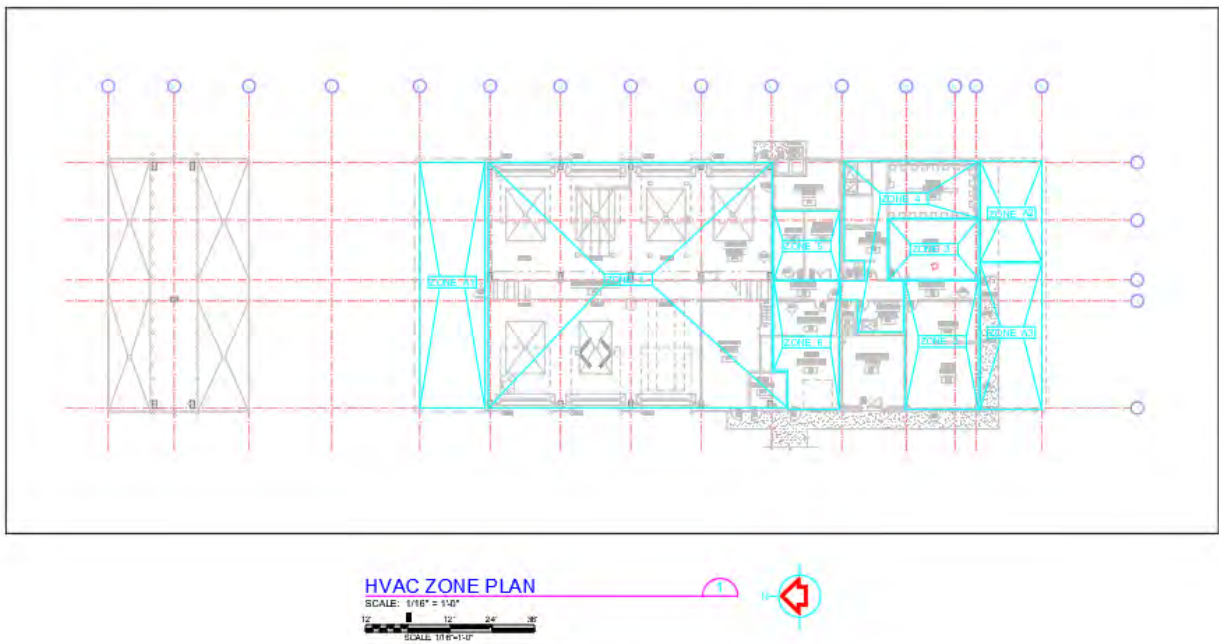
**Comprehensive Automobile Liability Insurance.** The coverage shall include all owned, hired, and non-owned vehicles to a one million dollar (\$1,000,000.00) combined single limit coverage.

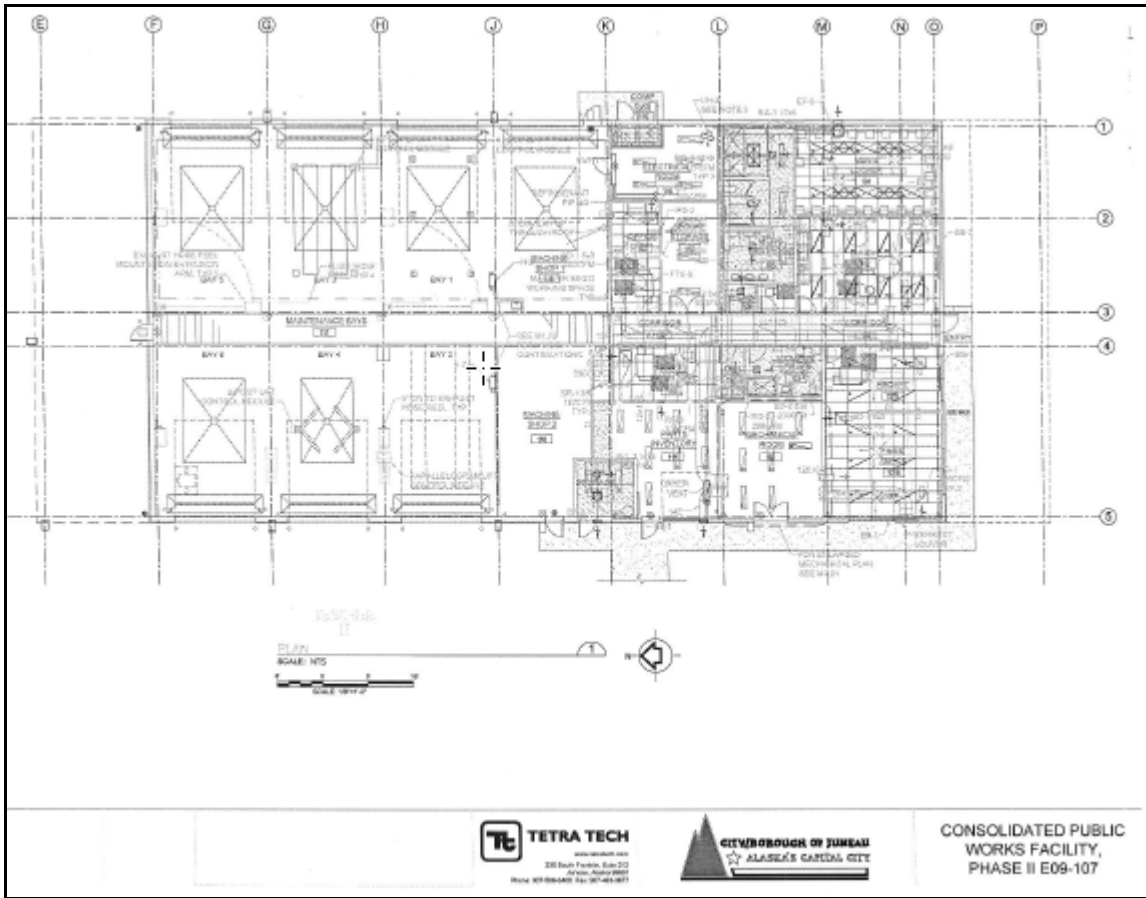
# ATTACHMENT 2 - Floor Plans

## 1. Floor Plan: Douglas Fire Station & Library 1016 3<sup>rd</sup> Street Douglas, Alaska



## 2. Floor Plans: Consolidated Public Works-Maint. & Admin Wing 7100 Glacier Ave. Juneau





**Tt TETRA TECH**  
 225 South Franklin, Suite 210  
 Anchorage, Alaska 99501  
 Phone: 907.562.4444 Fax: 907.562.4447

**CITY/BOROUGH OF JUNEAU**  
 ALASKA'S GARDEN CITY

**CONSOLIDATED PUBLIC WORKS FACILITY, PHASE II E09-107**

# ATTACHMENT 3

E04-171 - Treadwell Arena Locker Room Expansion Drawings

# City & Borough of Juneau Treadwell Arena Locker Room Expansion

Contract No. E04-171

June, 2004



Savikko Park  
Douglas, Alaska

**APPROVED BY**

DIRECTOR OF PARKS & RECREATION

SIGNATURE

DATE

C.J.P. CHIEF ENGINEER

SIGNATURE

DATE

**ARCHITECT**  
**JENSEN YORBA LOTT, INC**

522 WEST 10TH STREET  
JUNEAU, ALASKA 99801  
(907) 586-1070  
FAX (907) 586-3959

- A000 COVER, CODE ANALYSIS
- A001 SCHEDULES/LEGEND/ ABBREV/SYMBOLS
- A002 SITE PLAN
- A101 FLOOR PLAN
- A201 ENLARGED FLOOR PLANS
- A202 MEZZANINE PLAN
- A301 EXTERIOR ELEVATION SECTION
- A302 EXTERIOR ELEVATION SECTION
- A501 INTERIOR ELEVATIONS
- A502 INTERIOR ELEVATIONS
- A701 VERTICAL CIRCULATION
- A801 DETAILS
- A802 DETAILS

**CIVIL / STRUCTURAL ENGINEER**  
**PND INCORPORATED**

3220 HOSPITAL DRIVE, SUITE 200  
JUNEAU, ALASKA 99801  
(907) 586-2093  
FAX (907) 586-2099

- S001 GENERAL NOTES
- S002 SECTIONS
- S100 MEZZANINE FRAMING FLOOR PLAN
- S200 MEZZANINE FRAMING PLAN & DETAILS
- S300 ROOF FRAMING PLAN & DETAILS

**MECHANICAL ENGINEER**  
**MURRAY & ASSOCIATES, P.C.**

1800 ANKA STREET (P.O. BOX 021081)  
JUNEAU, ALASKA 99802  
(907) 780-6151  
FAX (907) 780-6182

- M001 SYMBOLS, SCHEDULES
- M002 SCHEDULES
- M101 FLOOR PLAN - DEMOLITION
- M201 FLOOR PLAN
- M202 ENLARGED FOUNDATION PLAN
- M203 ENLARGED FLOOR PLAN
- M204 ENLARGED MEZZANINE PLAN SECTION
- M301
- M401 PIPING DIAGRAM
- M501 DETAILS
- M502 DETAILS
- M601 CONTROLS

**ELECTRICAL ENGINEER**  
**HAIGHT & ASSOCIATES, INC.**

526 MAIN STREET  
JUNEAU, ALASKA 99801  
(907) 586-9788  
FAX (907) 586-5774

- E100 ELECTRICAL SPECIFICATIONS
- E201 POWER/SIGNAL
- E202 MEZZANINE PLAN - POWER/SIGNAL
- E301 LIGHTING
- E302 MEZZANINE PLAN - LIGHTING
- E303 LUMINAIRE CONTROL DIAGRAM
- E304 FLOOR PLAN - ICE RINK LIGHTING

**TREADWELL ARENA CODE ANALYSIS:**

CODE ANALYSIS:	IBC 2000
OCCUPANCY CLASSIFICATION:	A-4
TYPE OF CONSTRUCTION:	V-B SPRINKLERED
STRUCTURAL FRAME:	NR
INTERIOR BEARING WALLS:	NR
INTERIOR NON-BEARING WALL:	NR
FLOOR/ CEILING ASSEMBLIES:	NR
ROOF/ CEILING ASSEMBLIES:	NR
SEPARATIONS:	
MECHANICAL ROOM	SPRINKLERED IN LIEU OF 1-HOUR
REFRIGERATION ROOM	SPRINKLERED IN LIEU OF 1-HOUR
STORAGE OVER 100 sf	1-HOUR
LOCATION ON PROPERTY:	
NORTH	60' + TO PROPERTY LINE
EAST	60' + TO PROPERTY LINE
SOUTH	60' + TO PROPERTY LINE
WEST	60' + TO PROPERTY LINE
ALLOWABLE FLOOR AREA:	UNLIMITED 5072 EX 2
ACTUAL FLOOR AREA:	
GROUND FLOOR	EXISTING 28,875 sf
MEZZANINE	NEW 3,035 sf
TOTAL	31,910 sf
ALLOWABLE HEIGHT:	40 / 3 STORY
ACTUAL HEIGHT:	33 / 3 STORY



**Jensen  
Yorba  
Lott  
Inc.**

522 West 10th Street  
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fax 907-586-3959  
jensenyorbalott.com

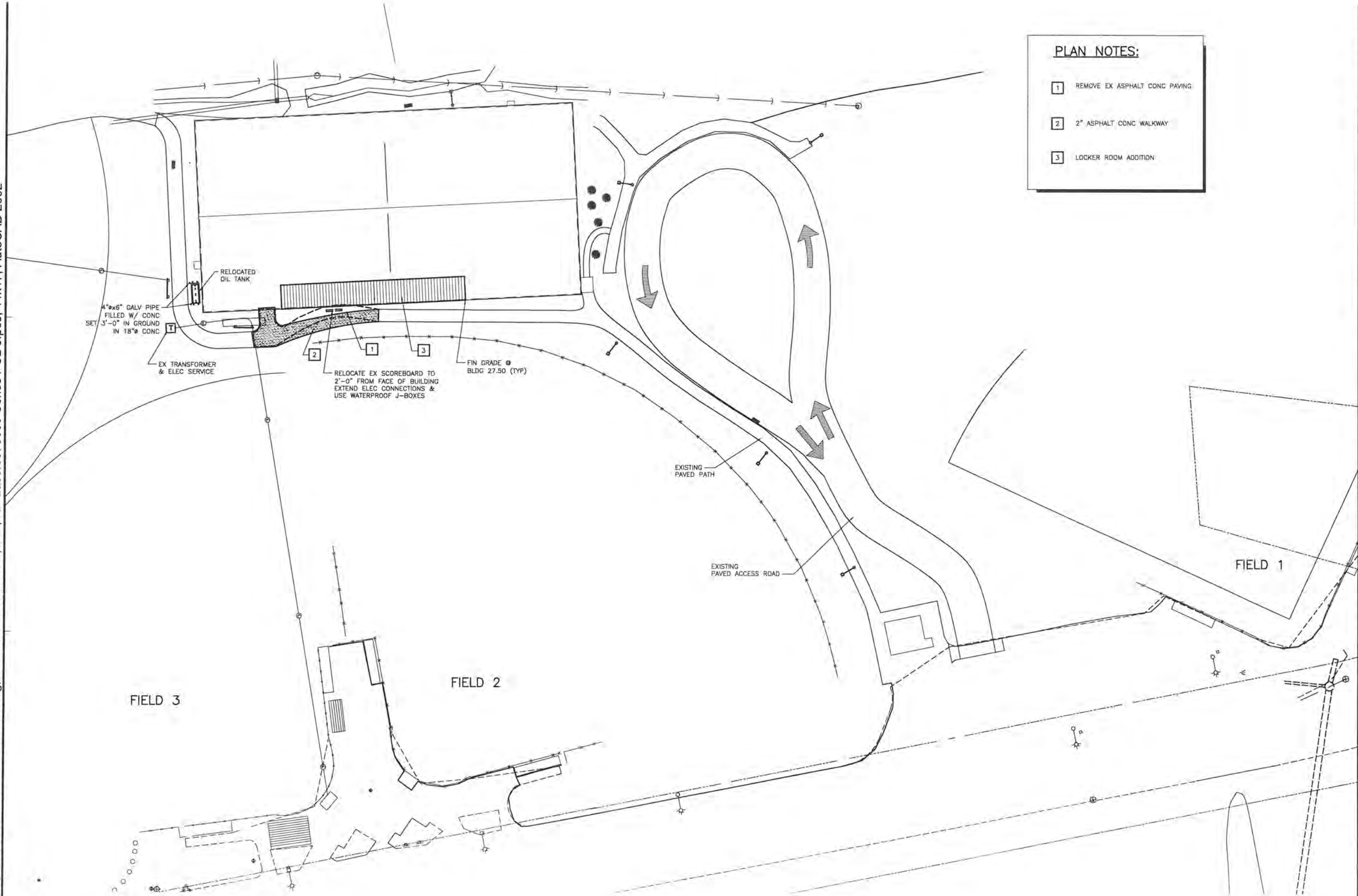


**A000**





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- PLAN NOTES:**
- 1 REMOVE EX ASPHALT CONC PAVING
  - 2 2" ASPHALT CONC WALKWAY
  - 3 LOCKER ROOM ADDITION

**Jensen Yorba Lott Inc.**  
 522 West 10th Street  
 Juneau, Alaska 99801  
 phone 907-586-1070  
 fax 907-586-3959  
 jensenyorbaltott.com



City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
 105 Savikko Road  
 Contract No. E04-171

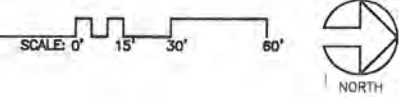
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SHEET TITLE  
 SITE PLAN

DATE: JUNE, 2004  
 FILE: 0361

**A002**

1 SITE PLAN



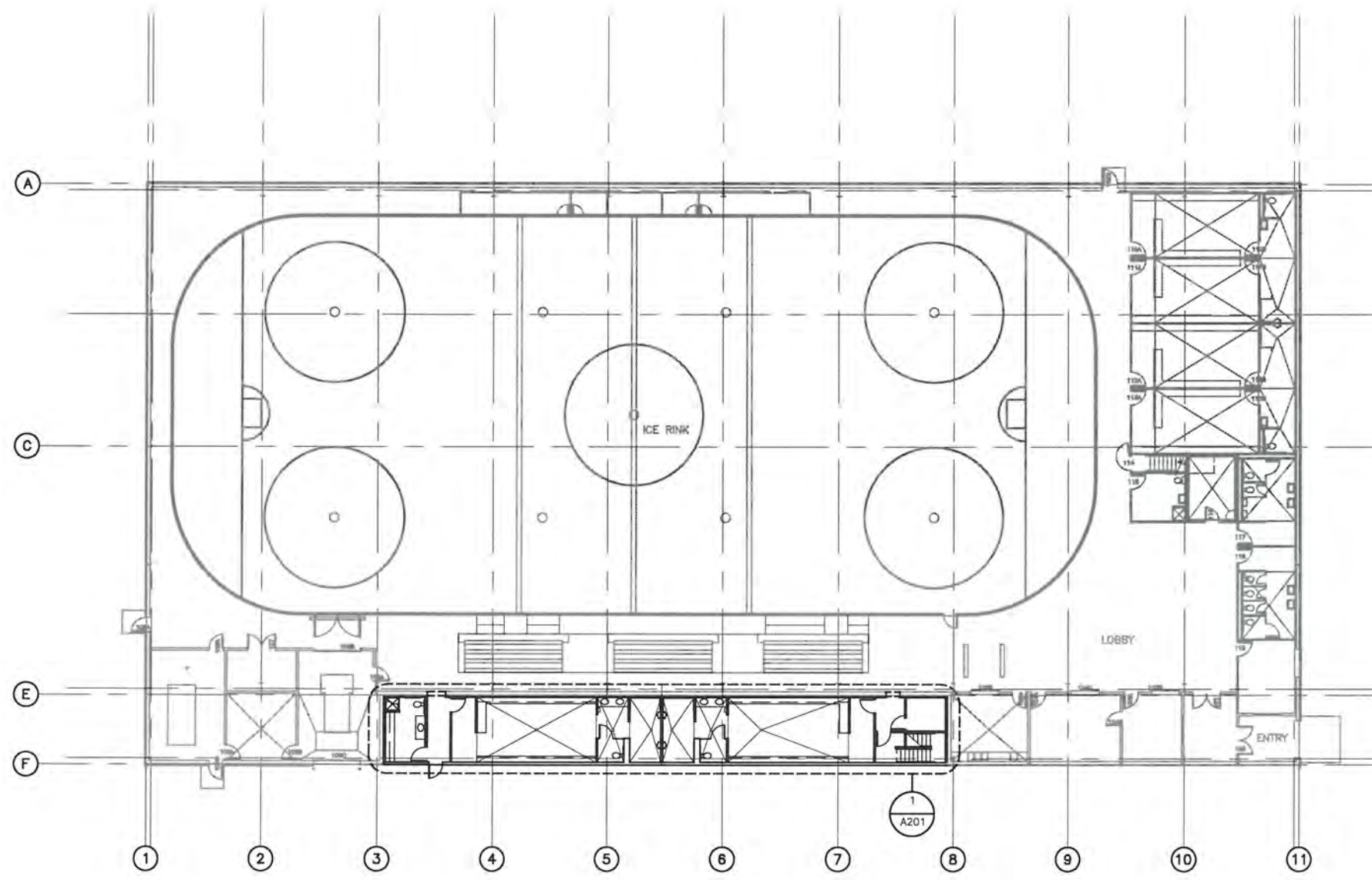


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City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171



1 FLOOR PLAN

SCALE: 0 8' 16' 32'



NORTH

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SHEET TITLE  
 FLOOR PLAN  
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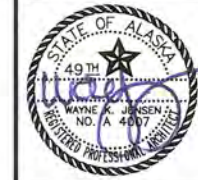
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**A101**

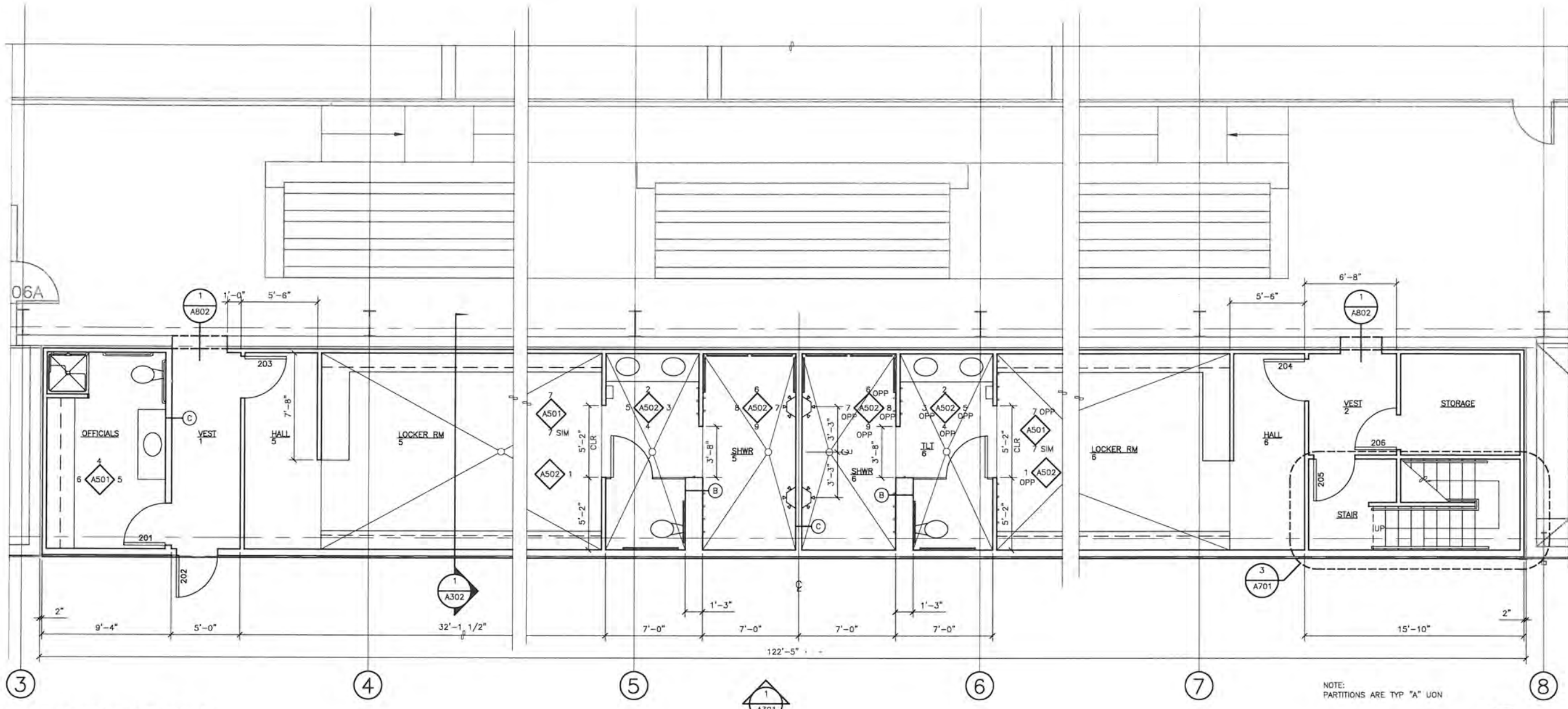


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City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171



1 ENLARGED FLOOR PLAN

NOTE:  
PARTITIONS ARE TYP "A" UON

SCALE: 0 2' 4' 8'

NORTH

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SHEET TITLE  
ENLARGED  
FLOOR PLANS

DATE: JUNE, 2004  
FILE: 0361

**A201**

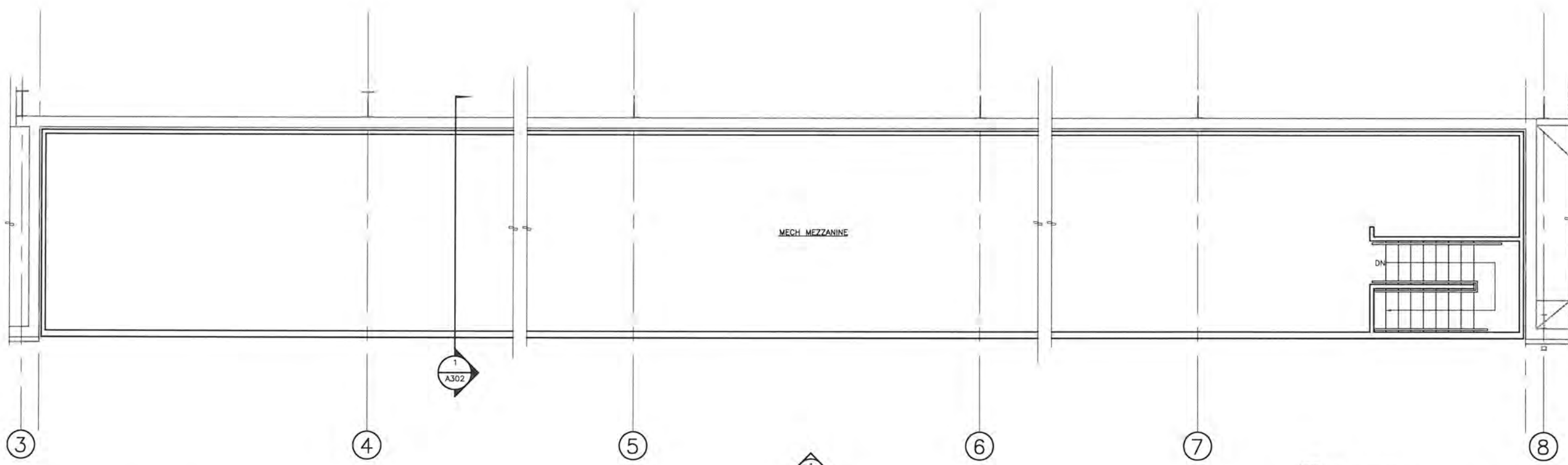


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City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171



1 MEZZANINE FLOOR PLAN

NOTE:  
PARTITIONS ARE TYP "A" UON

SCALE: 0 2' 4' 8'



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SHEET TITLE  
MEZZANINE PLAN

DATE: JUNE, 2004  
FILE: 0561

**A202**



**Jensen  
Yorba  
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Inc.**

522 West 10th Street  
Juneau, Alaska 99801  
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fax 907-586-3959  
jensenyorbalott.com



City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

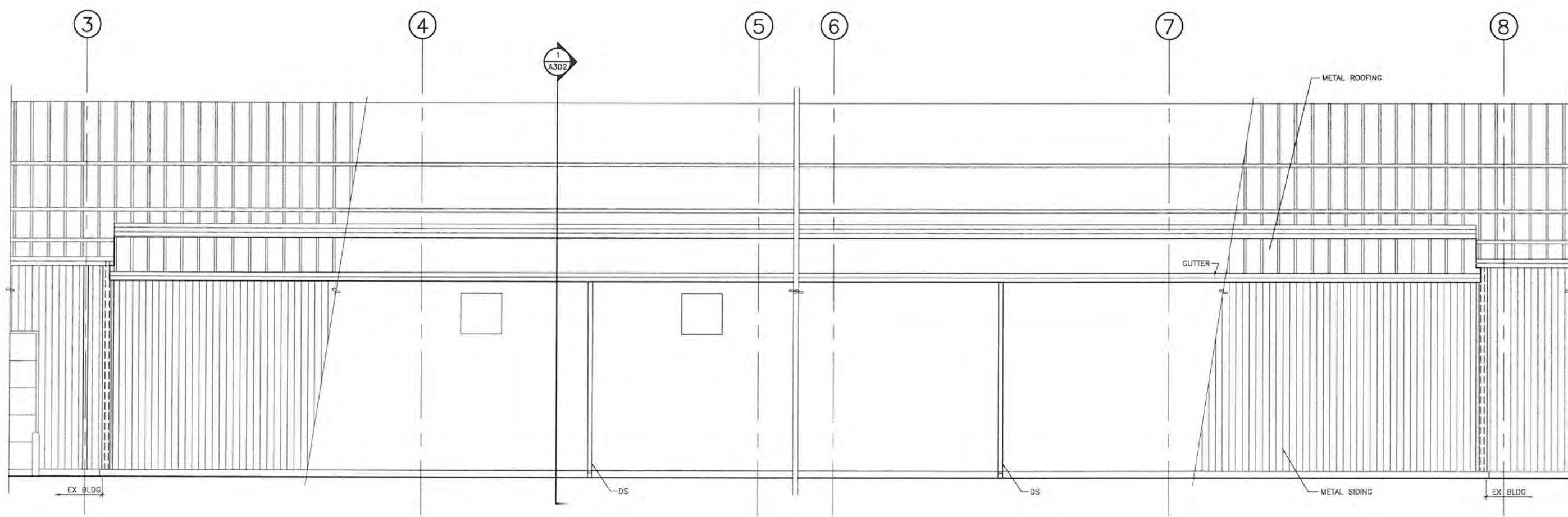
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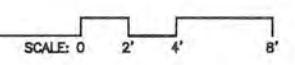
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EXTERIOR  
ELEVATION

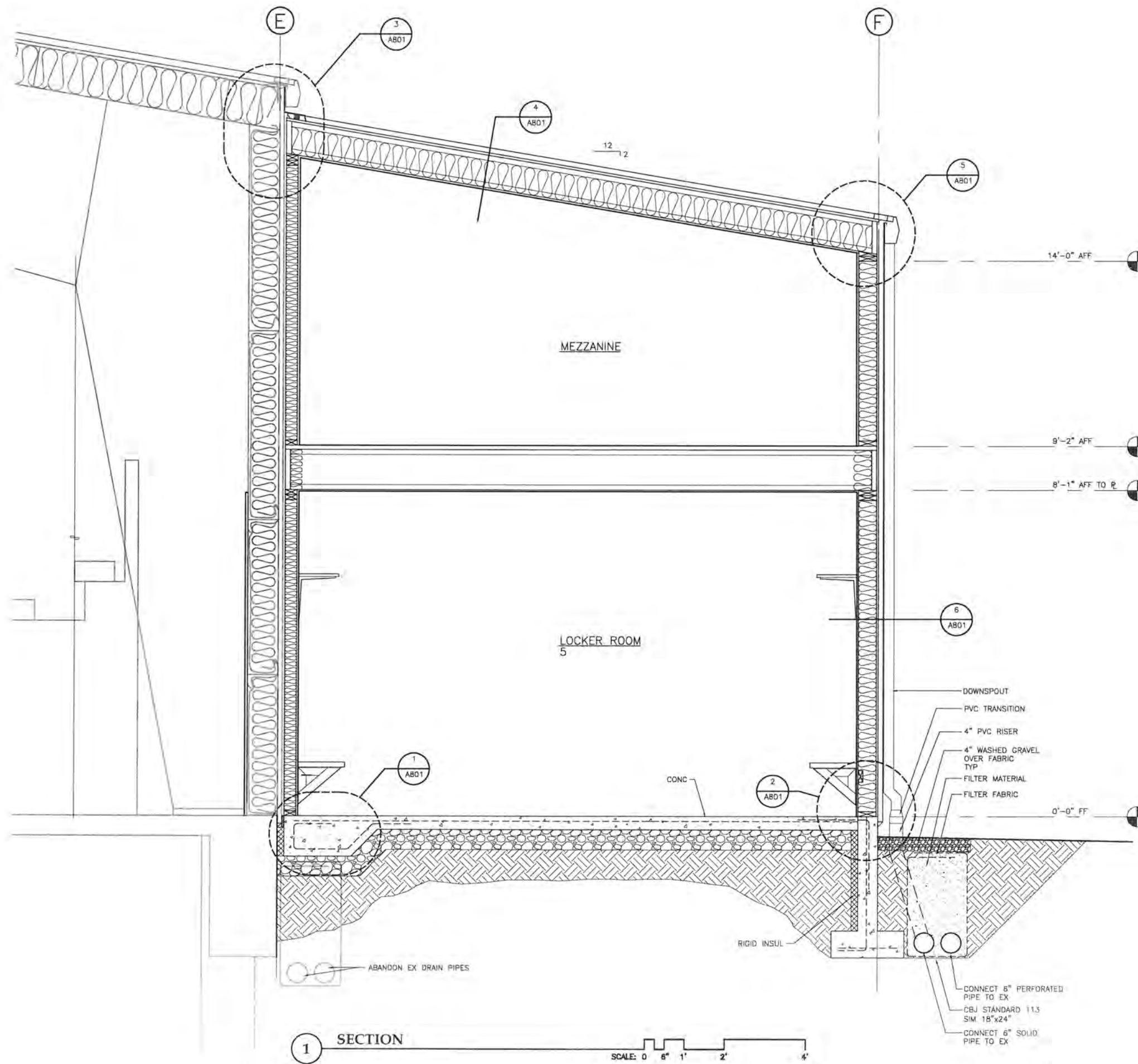
DATE: JUNE, 2004  
FILE: 0361

**A301**



**1 EAST ELEVATION**





1 SECTION  
 SCALE: 0 6" 1' 2' 4'

**Jensen Yorba Lott Inc.**  
 522 West 10th Street  
 Juneau, Alaska 99801  
 phone 907-586-1070  
 fax 907-586-3959  
 jensenyorbalott.com



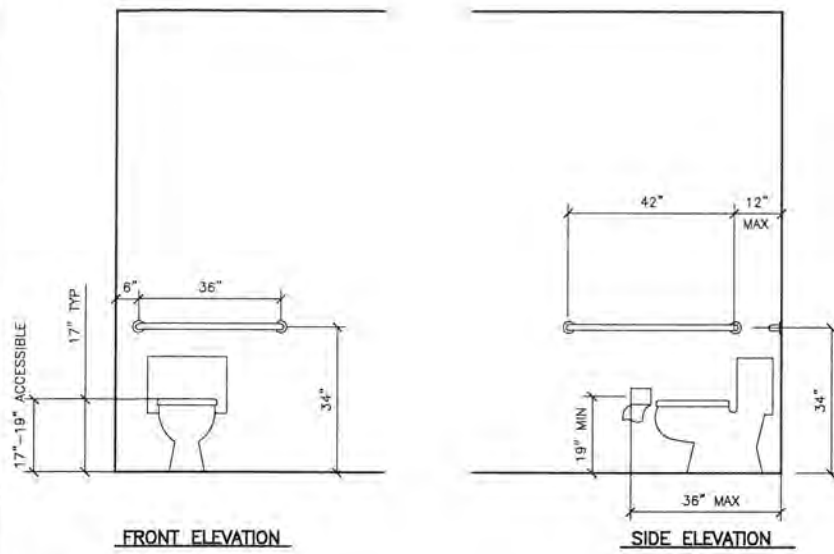
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
 105 Savikko Road  
 Contract No. E04-171

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SHEET TITLE  
 SECTION

DATE: JUNE 2003  
 FILE: 0361

**A302**



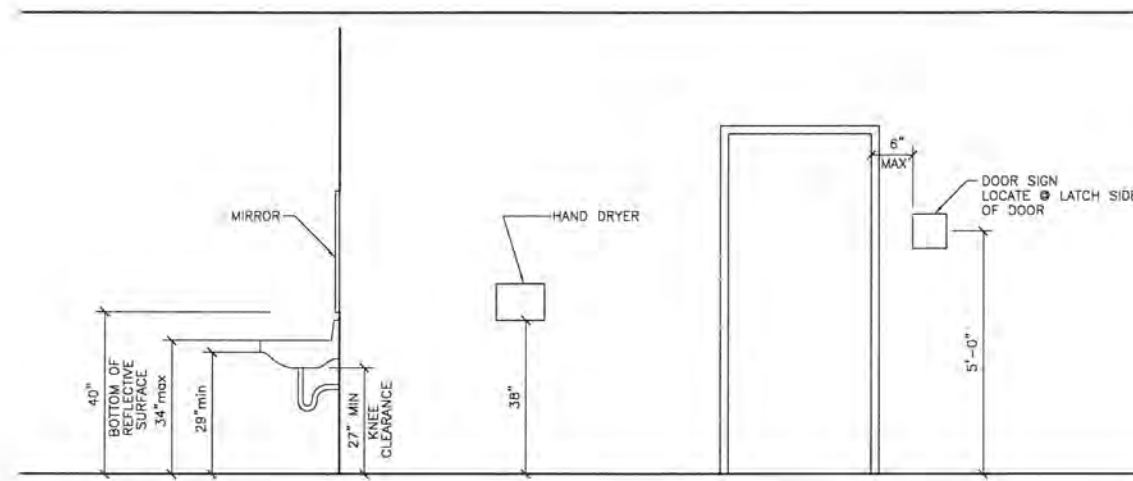
FRONT ELEVATION

SIDE ELEVATION

1 FIXTURES & SPECIALTIES MOUNTING HEIGHTS

DIMENSIONS SHOWN ARE TYPICAL, UNO  
MOUNTING HEIGHT OF ANY DISPENSER  
SHOULD BE 48" TO THE HIGHEST OPERABLE PART

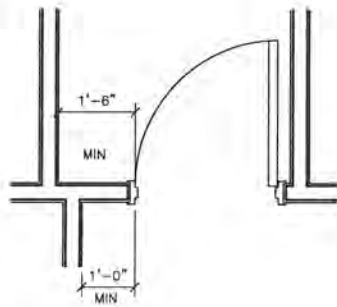
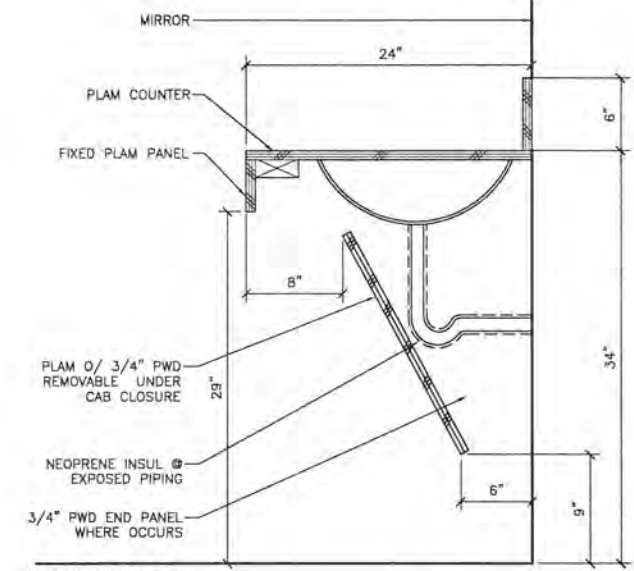
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2 ACCESSIBLE COUNTER DETAIL

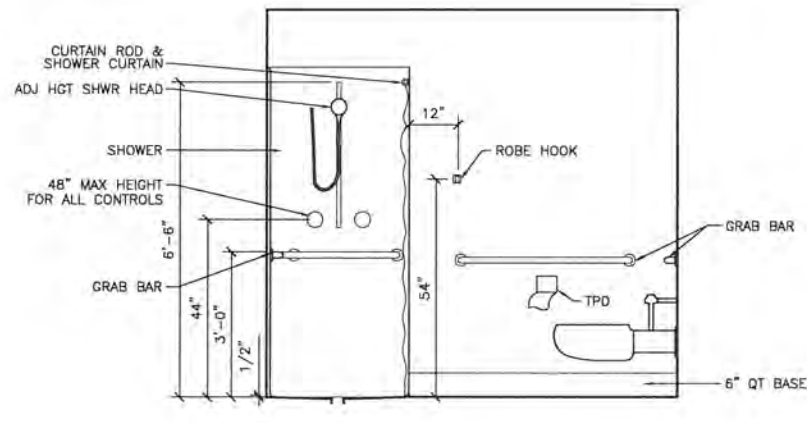
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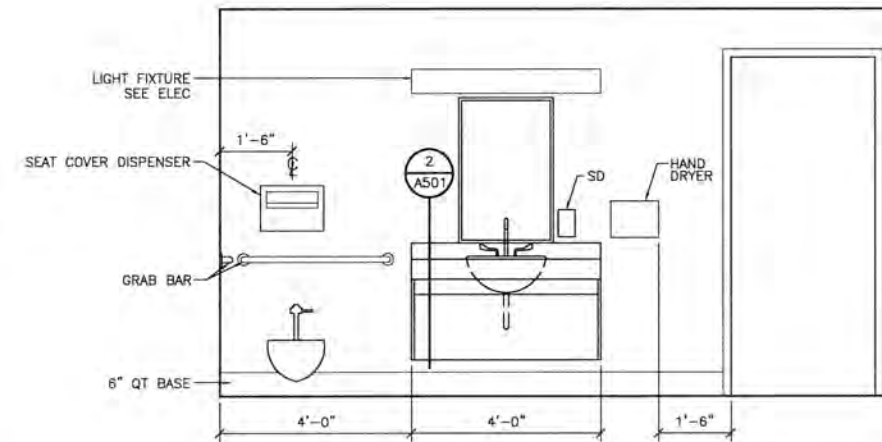
3 TYPICAL DOOR CLEARANCE

SCALE: 0 1' 2' 4'



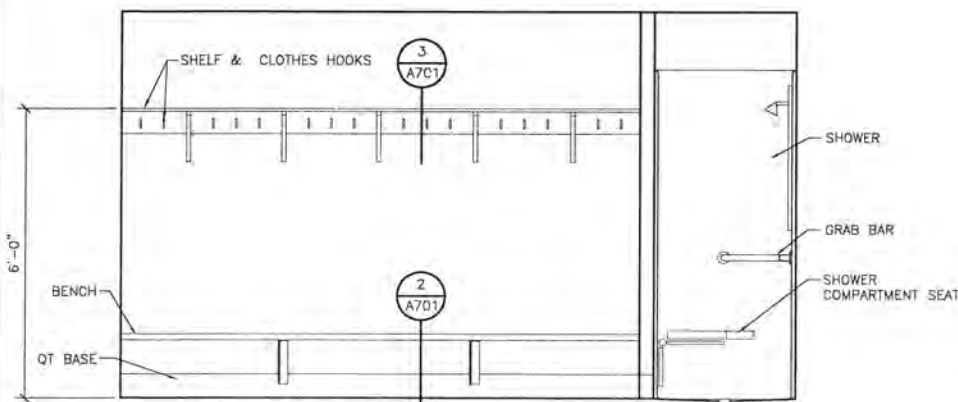
4 ELEVATION

SCALE: 0 1' 2' 4'



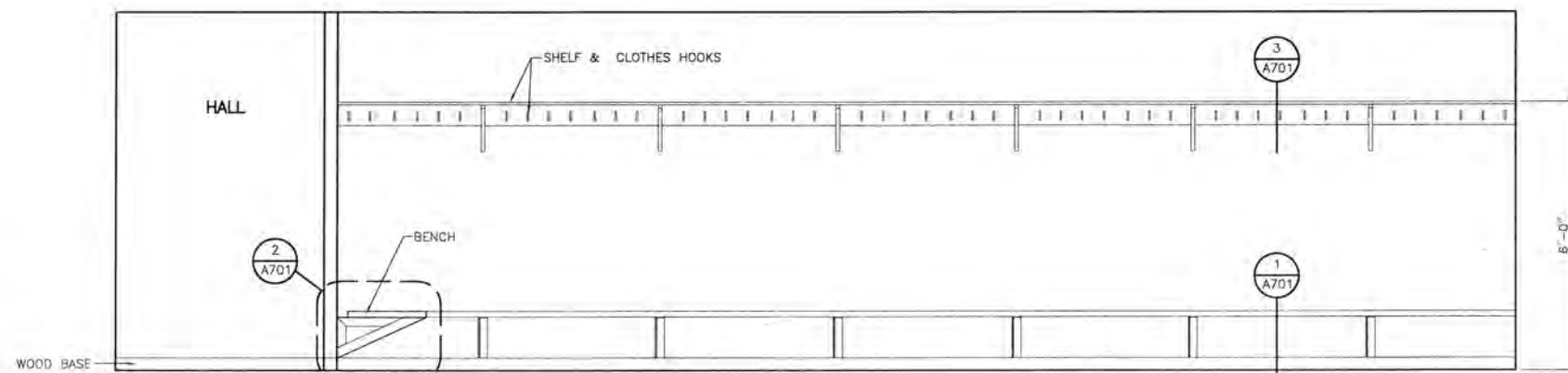
5 ELEVATION

SCALE: 0 1' 2' 4'



6 ELEVATION

SCALE: 0 1' 2' 4'



7 ELEVATION

SCALE: 0 1' 2' 4'



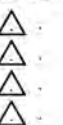
**Jensen  
Yorba  
Lott  
Inc.**

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Juneau, Alaska 99801  
phone 907-586-1070  
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jensenyorbaltott.com



City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

REVISIONS

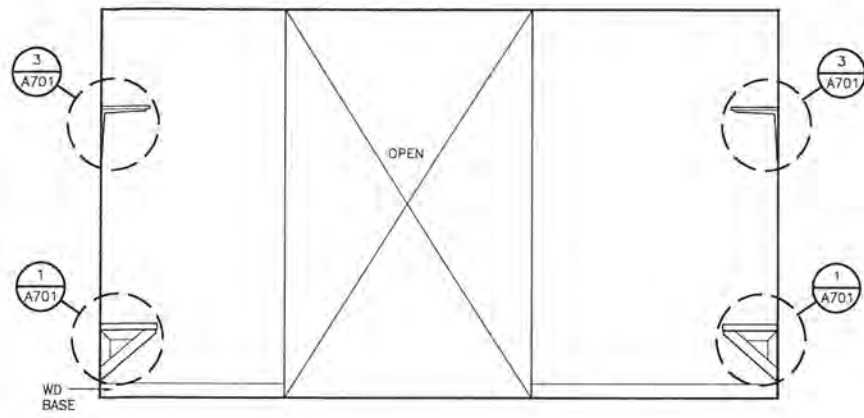


SHEET TITLE  
INTERIOR  
ELEVATIONS

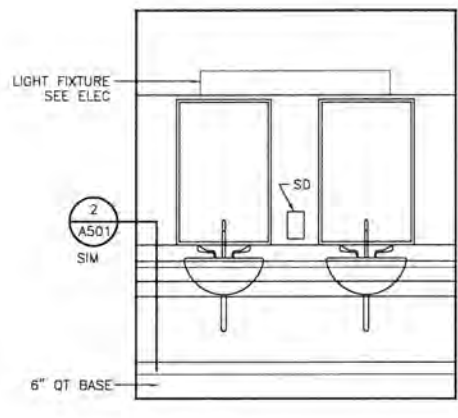
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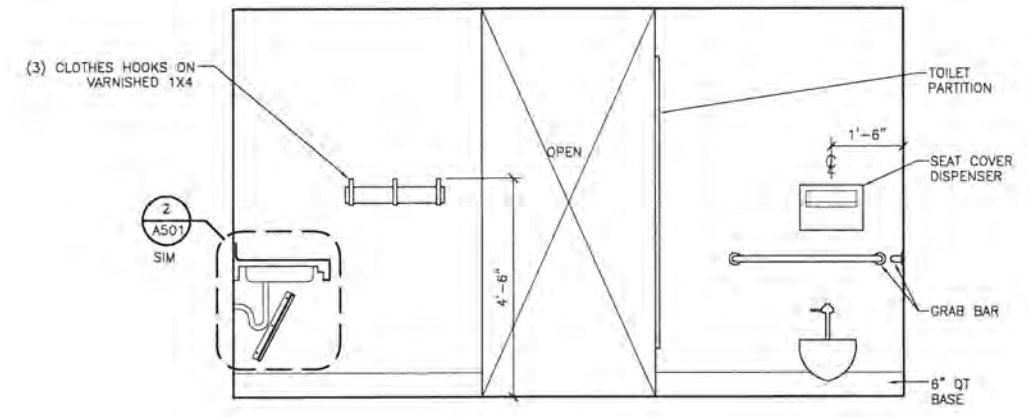




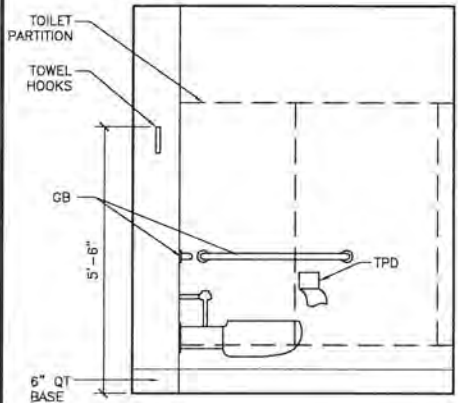
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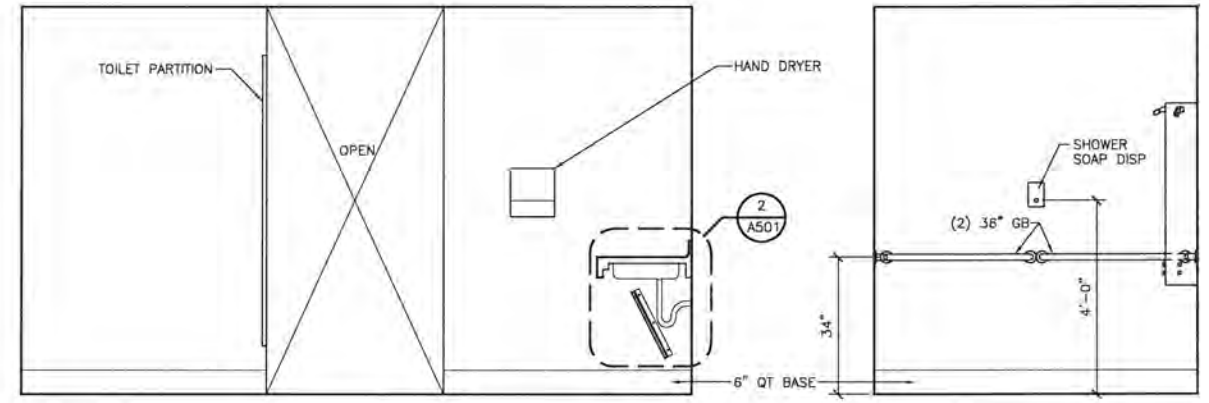
2 ELEVATION SCALE: 0 1' 2' 4'



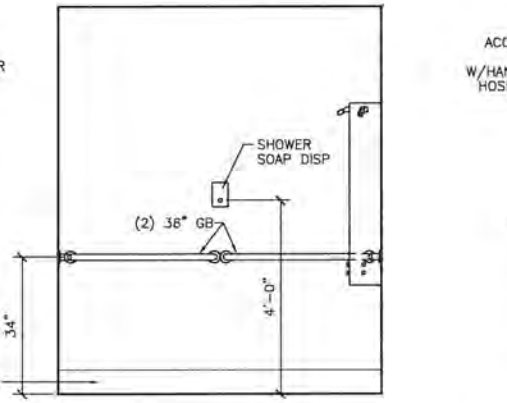
3 ELEVATION SCALE: 0 1' 2' 4'



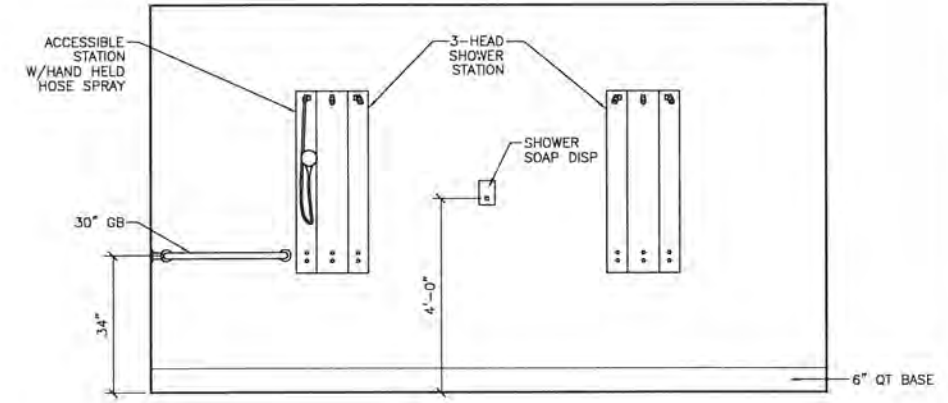
4 ELEVATION SCALE: 0 1' 2' 4'



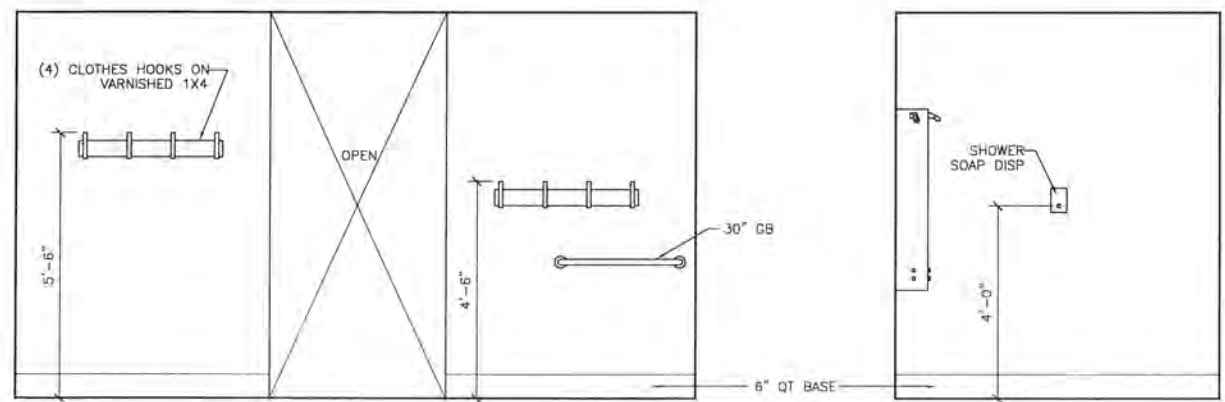
5 ELEVATION SCALE: 0 1' 2' 4'



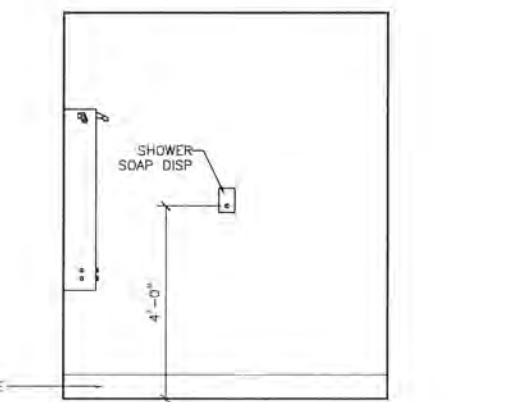
6 ELEVATION SCALE: 0 1' 2' 4'



7 ELEVATION SCALE: 0 1' 2' 4'



8 ELEVATION SCALE: 0 1' 2' 4'



9 ELEVATION SCALE: 0 1' 2' 4'

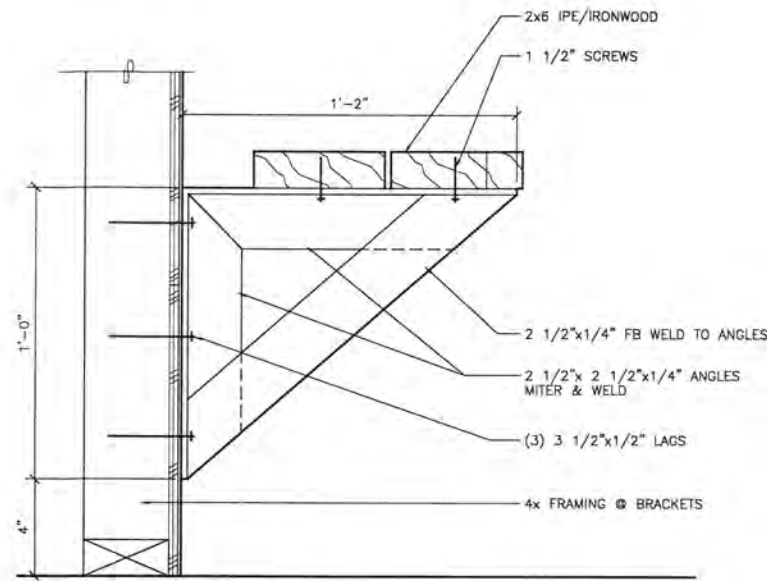
**Jensen Yorba Lott Inc.**  
 522 West 10th Street  
 Juneau, Alaska 99801  
 phone 907-586-1070  
 fax 907-586-3959  
 jensenyorbaltot.com



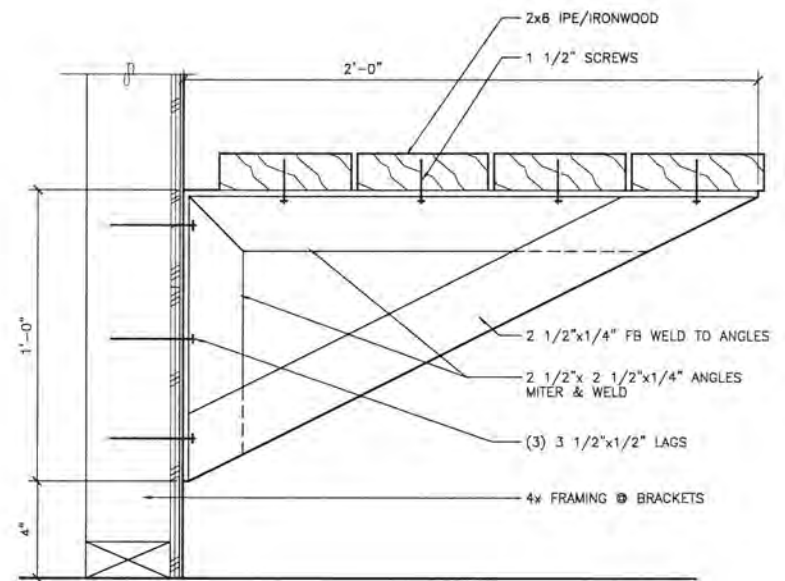
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
 105 Savikko Road  
 Contract No. E04-171

REVISIONS  
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 SHEET TITLE  
 INTERIOR  
 ELEVATIONS  
 DATE: JUNE 2004  
 FILE: 0361

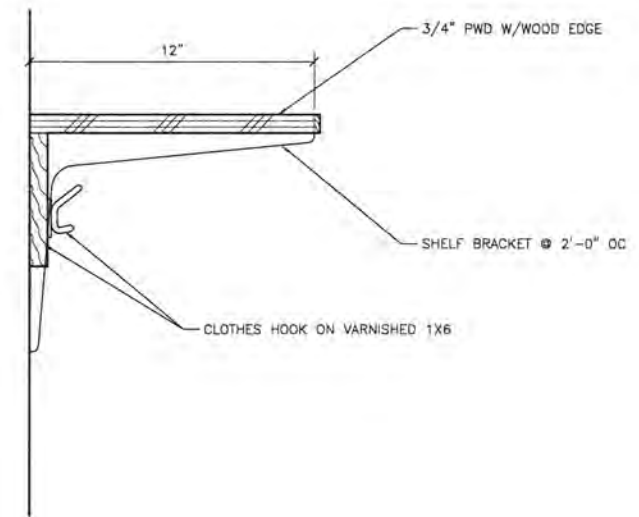
**A502**



NOTE:  
BENCH BRACKET @ ±4'-0" OC  
WALL CONSTRUCTION VARIES SEE PLAN



NOTE:  
BENCH BRACKET @ ±4'-0" OC  
WALL CONSTRUCTION VARIES SEE PLAN



1 TYP BENCH @ LOCKER

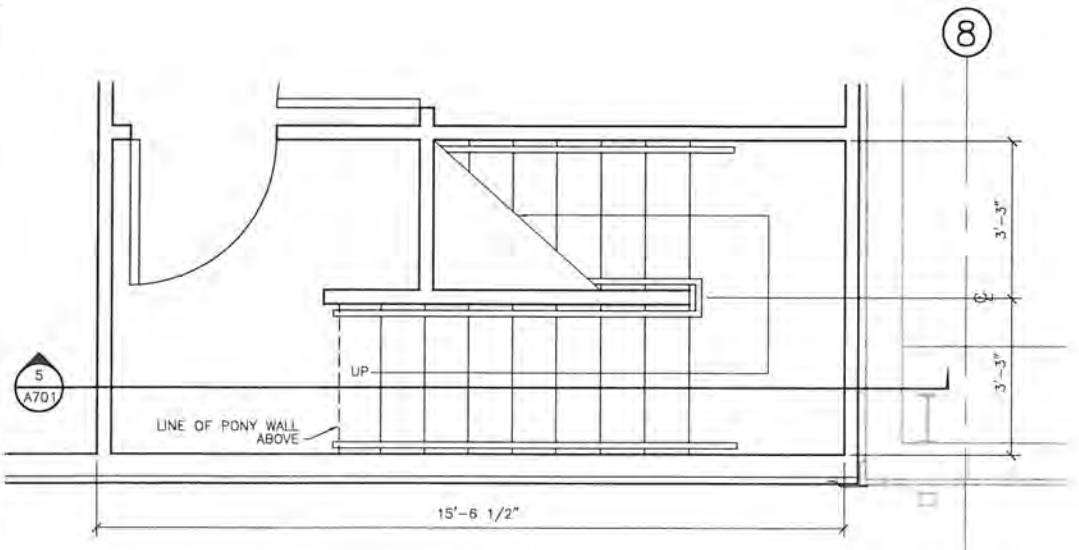
SCALE: 0 3" 6" 1'

2 BENCH

SCALE: 0 3" 6" 1'

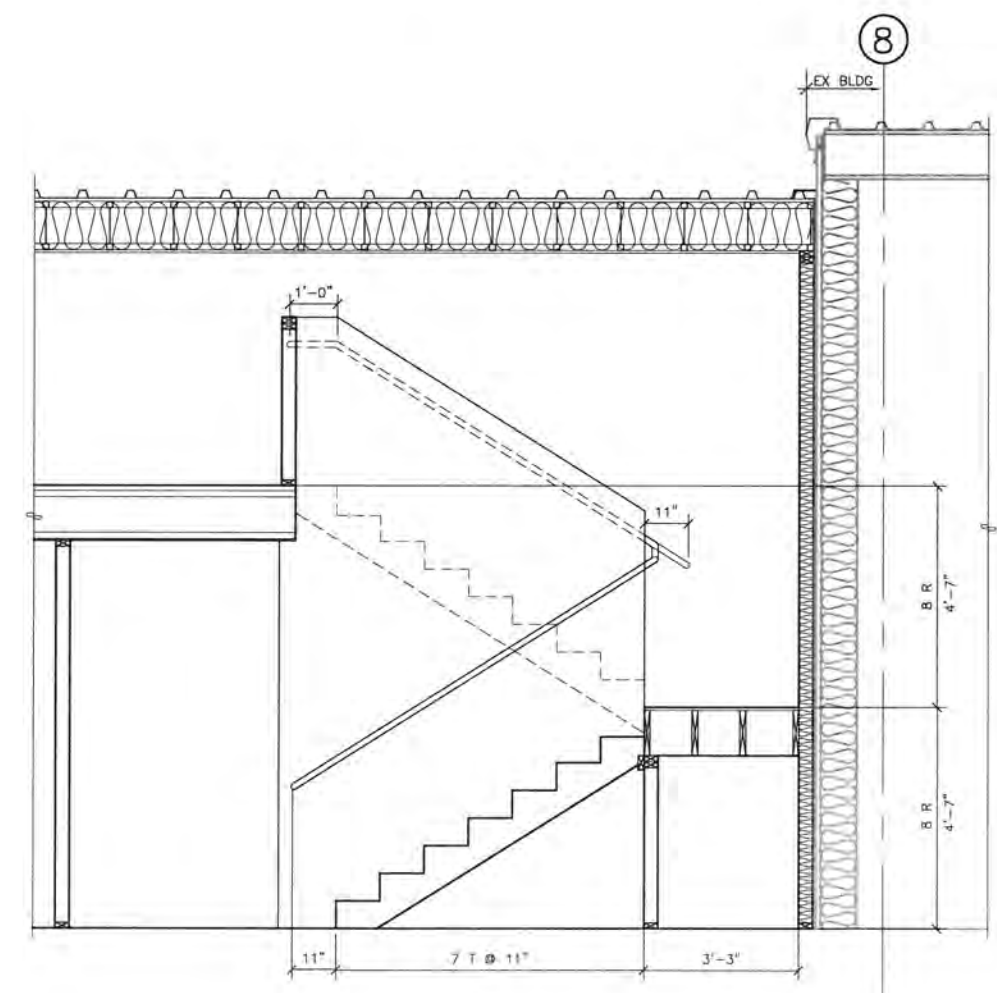
3 SHELF

SCALE: 0 3" 6" 1'



4 ENLARGED STAIR PLAN

SCALE: 0 1' 2' 4'



5 SECTION @ STAIR

SCALE: 0 1' 2' 4'



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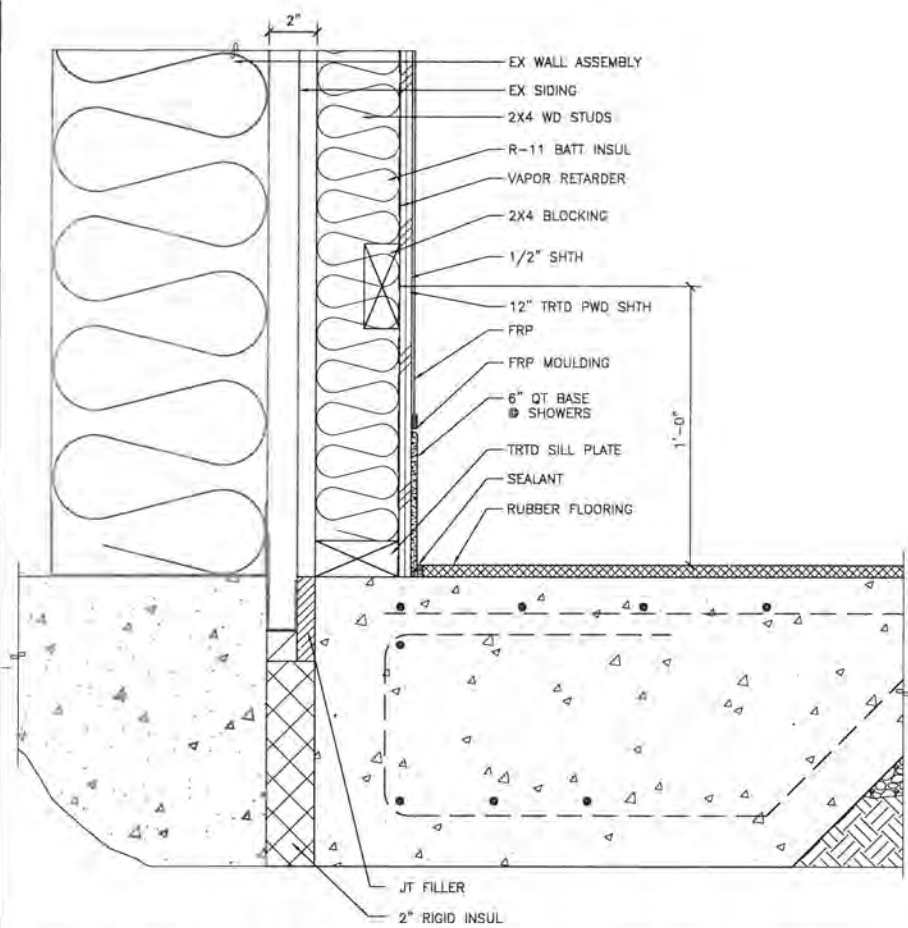
REVISIONS

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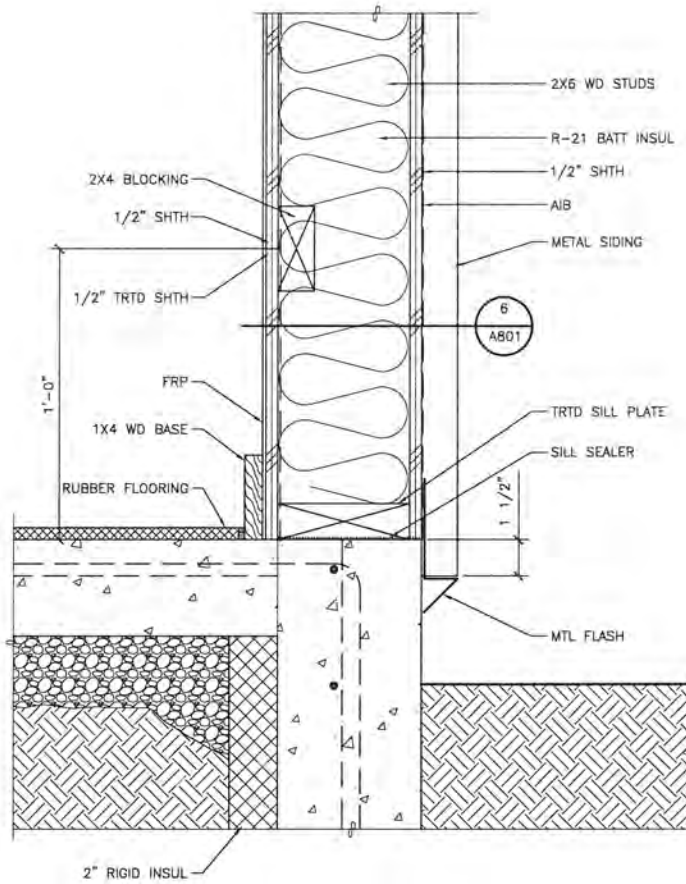
SHEET TITLE  
**VERTICAL  
CIRCULATION**

DATE: JUNE 2004  
FILE: 0361

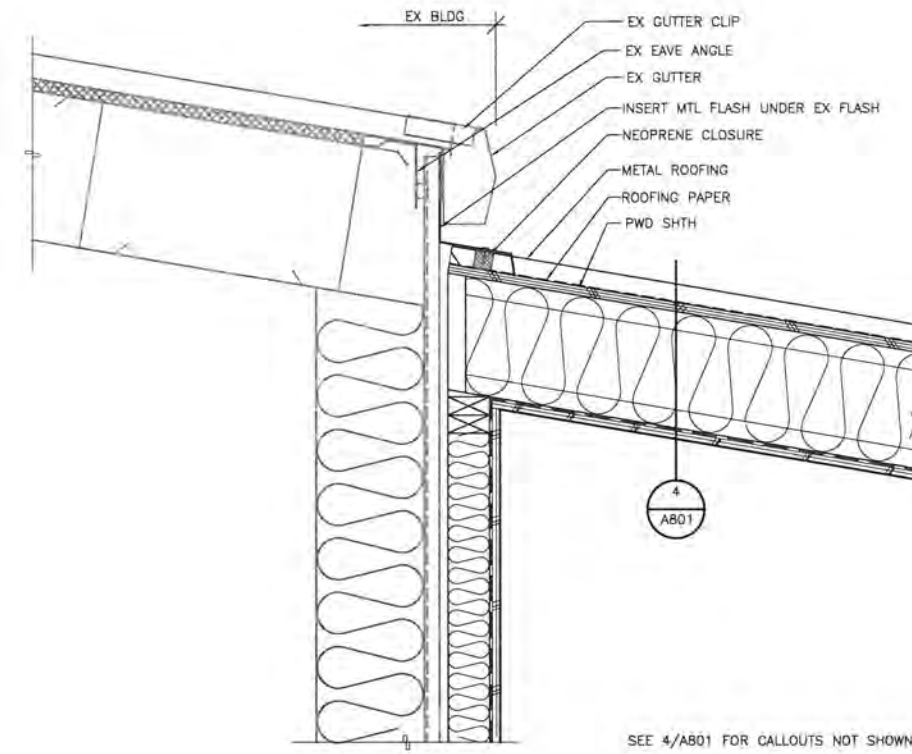
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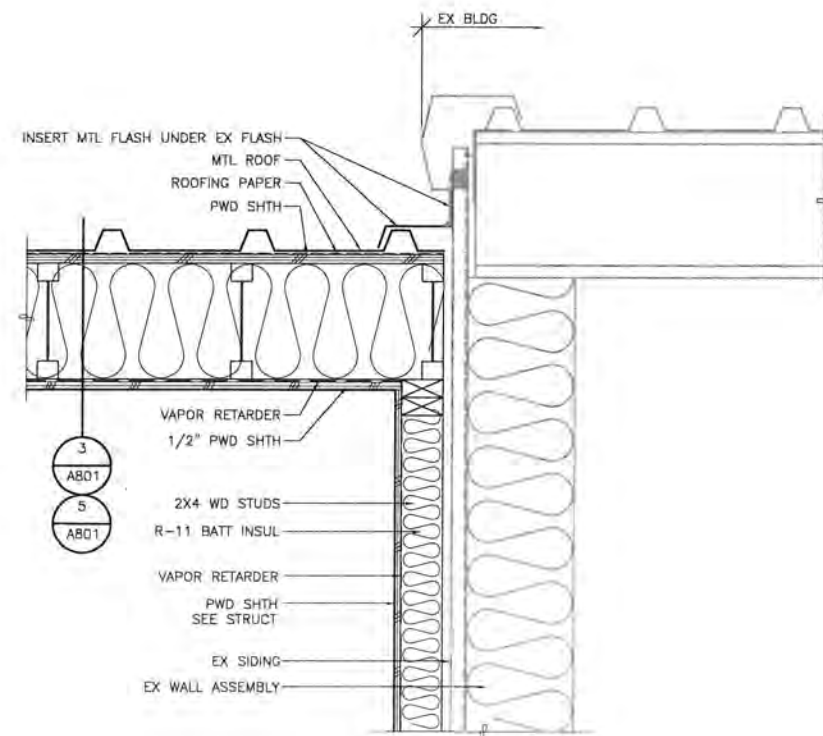
1 BASE @ EX BLDG  
0361/AB01-1 SCALE: 0 3" 6" 1'



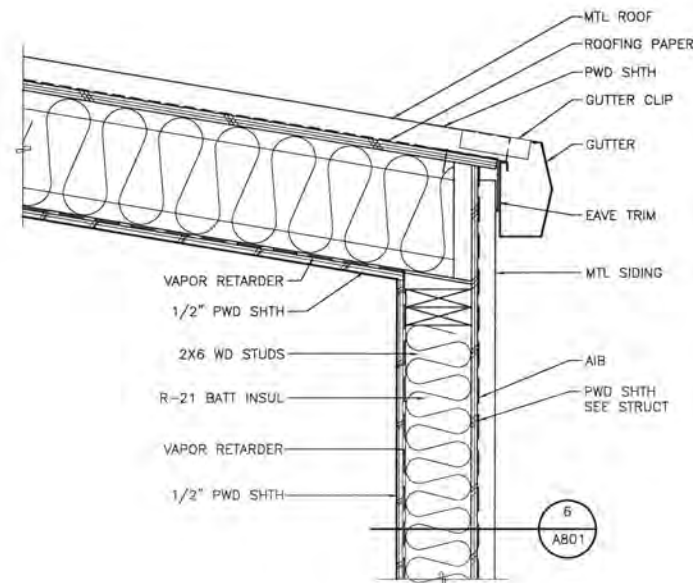
2 BASE @ EXT WALL  
0361/AB01-1 SCALE: 0 3" 6" 1'



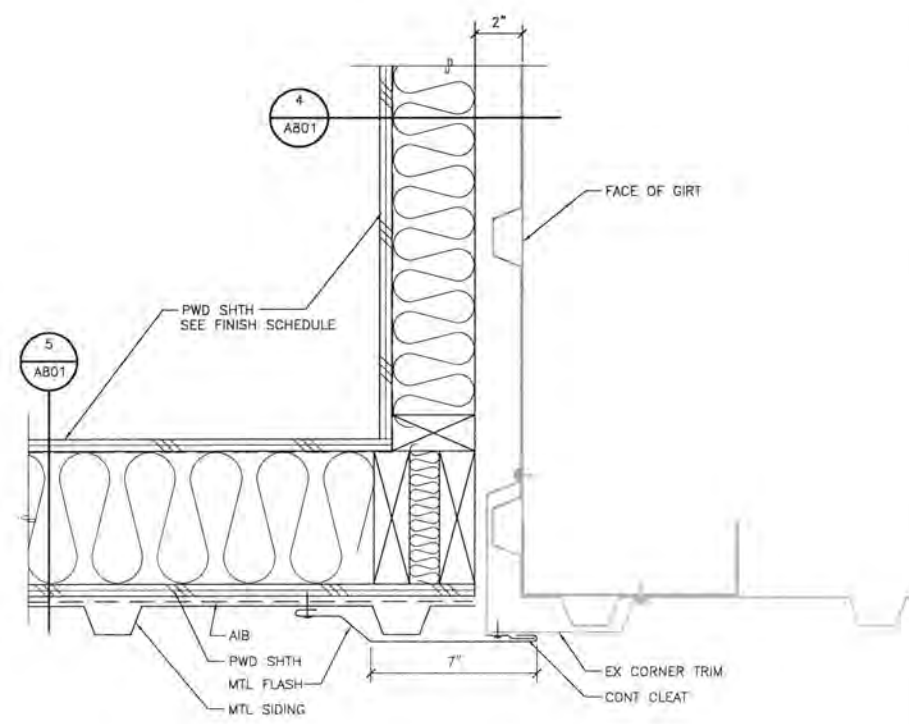
3 ROOF @ EX EAVE  
0361/AB01-3 SCALE: 0 6" 1' 2'



4 ROOF @ EX RAKE  
0361/AB01-3 SCALE: 0 6" 1' 2'



5 EAVE  
0361/AB01-3 SCALE: 0 6" 1' 2'



6 TRIM @ EX BLDG  
0361/AB01-1 SCALE: 0 3" 6" 1'



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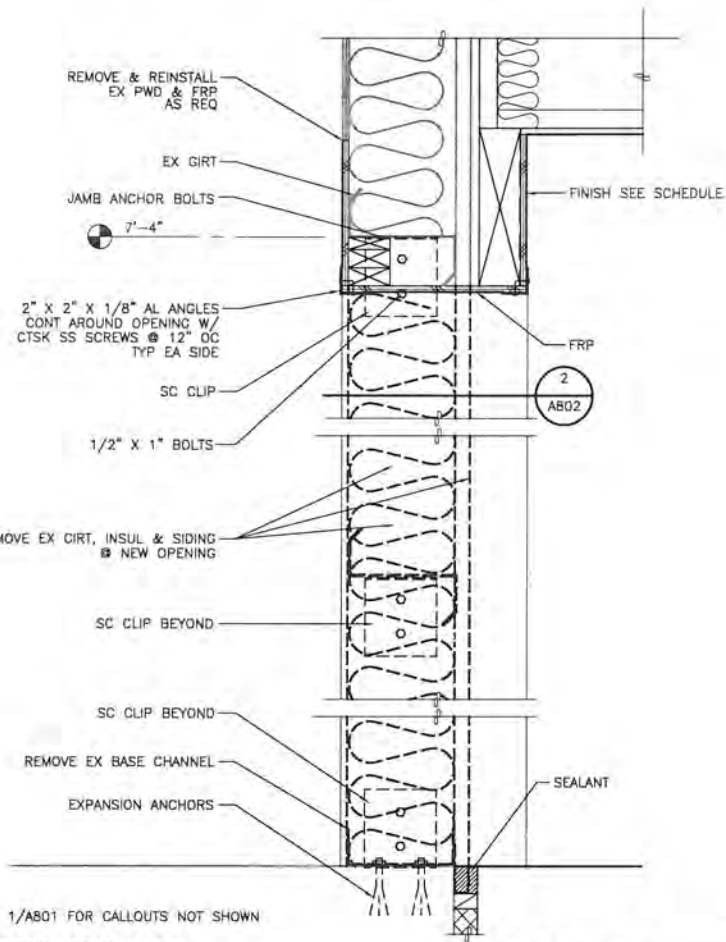
522 West 10th Street  
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jensenyorbалott.com



City & Borough of Juneau  
**TREADWELL ARENA  
LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

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 SHEET TITLE  
**DETAILS**  
 DATE: JUNE 2004  
 FILE: 0361

**A801**

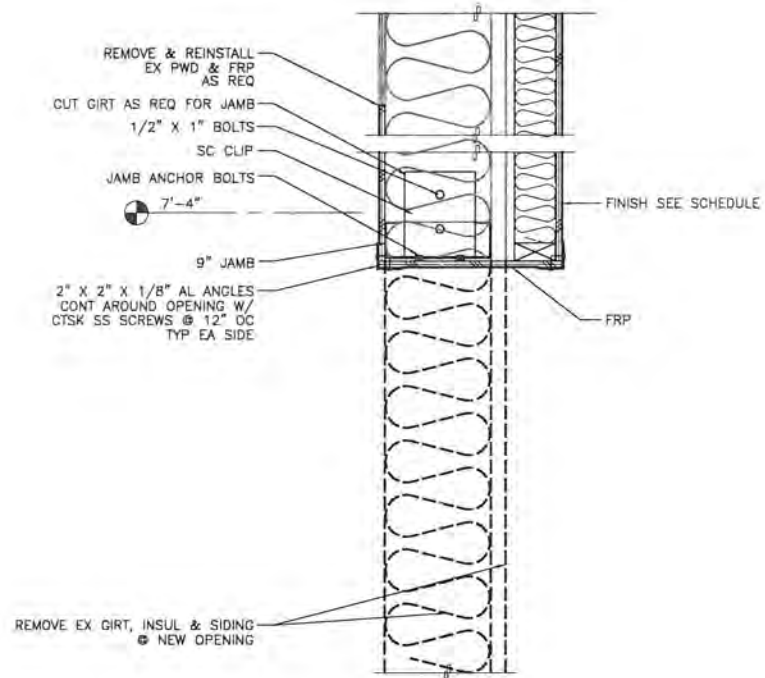


SEE 1/A801 FOR CALLOUTS NOT SHOWN

**1 HEAD @ EX WALL**

0361/A802-1

SCALE: 0 6" 1' 2'



SEE 1/A801 FOR CALLOUTS NOT SHOWN

**2 JAMB @ EX WALL**

0361/A802-1

SCALE: 0 6" 1' 2'



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105 Savikko Road  
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SHEET TITLE  
**DETAILS**

DATE: JUNE, 2004  
FILE: 0361

**A802**

## STRUCTURAL GENERAL NOTES

### CODE

CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2000 EDITION AS AMENDED BY THE CITY AND BOROUGH OF JUNEAU.

### LOAD CRITERIA

ROOF SNOW LOAD	50 PSF
MEZZANINE LIVE LOAD	150 PSF
WIND LOAD	120 MPH, EXPOSURE C, $i_w=1.0$
SEISMIC LOAD	SITE CLASS D, $S_{ds}=0.50g$ , $S_{d1}=0.33g$ , $i=1.0$ , $R=6$

### FOUNDATION

FOUNDATION DESIGN IS BASED UPON THE SOILS ANTICIPATED TO BE ENCOUNTERED AT THE SITE. CONTRACTOR SHALL NOTIFY ENGINEER WHEN EXCAVATIONS ARE COMPLETE. VERIFY THAT TYPE 4 SOILS, TABLE 1804.2 IN IBC, ARE PRESENT. COMPACT EXISTING SOILS WITH 8 PASSES WITH WALK-BEHIND VIBRATORY PLATE COMPACTOR. PLACE BASE COURSE IN LIFTS NOT TO EXCEED 6 INCHES ON COMPACTED SOILS AND COMPACT WITH 8 PASSES WITH WALK-BEHIND VIBRATORY PLATE COMPACTOR.

### CONCRETE

MIXING AND PLACING OF CONCRETE AND SELECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH THE IBC. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH TO PROVIDE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT EXCESS FREE SURFACE WATER. REFER TO SPECIFICATIONS FOR AGGREGATE, PROPORTIONS, AND ADMIXTURES. MIX DESIGN SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO USE. CONCRETE SHALL BE ENTRAINED WITH AIR, 4 TO 6% MAXIMUM SLUMP AND MINIMUM CEMENT CONTENT SHALL BE AS FOLLOWS FOR VARIOUS CONCRETE STRENGTHS ( $f'_c$ ), BASED ON STANDARD 28-DAY CYLINDER TESTS.

LOCATION	$f'_c$ (psi)	MIN. SACKS OF CEMENT PER C.Y. OF CONCRETE	MAX. W/C	MAX. SLUMP
ALL	3,000	5.5	0.5	4"

### REINFORCING STEEL

ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60. LAP REINFORCING A MINIMUM OF 40 DIAMETERS AT SPLICES OR AS INDICATED ON THE PLANS. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL PRIOR TO STARTING FABRICATION.

### PLYWOOD

ALL PLYWOOD SHALL BE STANDARD SHEATHING AS GRADED BY THE AMERICAN PLYWOOD ASSOCIATION AND BEAR THAT QUALITY MARK. ALL PLYWOOD SHALL BE MADE WITH EXTERIOR TYPE GLUE. FLAT BLOCKING SHALL BE USED AT ALL PLYWOOD EDGES AS NOTED ON THE TYPICAL DETAILS OR SHOWN IN THE PLANS. ALL PLYWOOD IN CONTACT WITH OR WITHIN 6 INCHES OF SOIL SHALL BE PRESSURE TREATED.

### LUMBER, MANUFACTURED WOOD ROOF AND FLOOR JOISTS

ALL WORKMANSHIP AND CONSTRUCTION SHALL CONFORM TO IBC, CHAPTER 23. ALL SAWN LUMBER SHALL BE VISUALLY GRADED IN ACCORDANCE WITH THE W.W.P.A. GRADING RULES. ALL DIMENSIONED LUMBER SMALLER THAN, OR EQUAL TO 6x SHOWN ON THE PLANS, SHALL BE SEASONED S4S NO. 2 GRADE HEM FIR OR BETTER, WITH MOISTURE CONTENT BELOW 19%. TIMBERSTRAND LUMBER SHALL BE AS MANUFACTURED BY TRUS JOIST CORPORATION AND HAVE THE FOLLOWING PROPERTIES:

$$E = 1,500,000\text{psi}, F_b = 2250\text{psi}, F_v = 400\text{psi}, F_c = 1950\text{psi}, F_{c\perp} = 475\text{psi}.$$

PLYWOOD JOISTS SHALL BE AS MANUFACTURED BY THE TRUS JOIST CORPORATION OR APPROVED EQUAL. ANY SUBSTITUTION SHALL CONTAIN IBC APPROVED EVALUATION REPORT DEMONSTRATING EQUAL OR BETTER PERFORMANCE.

### WOOD CONNECTIONS AND FRAMING

ALL FRAMING NAILING SHALL CONFORM TO TABLE 2304.9.1 OF THE IBC. STANDARD WASHERS SHALL BE UNDER ALL BOLT HEADS AND NUTS CONTACTING WOOD. PROVIDE STEEL STRAPS AT PIPES IN STUD WALLS AS REQUIRED BY IBC. BOLTS SHALL BE STANDARD ASTM A307. ALL NAILS SHALL BE GALVANIZED COMMON WIRE NAILS. IF PNEUMATIC NAILERS ARE TO BE USED, CONTRACTOR SHALL SUBMIT SCHEDULE OF NAILS DESIRED FOR SUBSTITUTION TO ENGINEER PRIOR TO CONSTRUCTION. ALL METAL CONNECTORS SHALL BE FULLY BOLTED OR NAILED UNLESS NOTED OTHERWISE ON THE PLANS. METAL HANGERS AND CONNECTORS SHOWN ON THE DRAWINGS ARE MANUFACTURED BY THE SIMPSON COMPANY. METAL HANGERS OR CONNECTORS BY OTHER MANUFACTURERS MAY BE CONSIDERED WHERE LOAD CAPACITY AND DIMENSIONS ARE EQUAL OR BETTER. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. SUBMITTALS MUST INCLUDE AN ICBO EVALUATION REPORT.

### PRESSURE TREATMENT

ALL WOOD IN CONTACT WITH CONCRETE OR EARTH OR WITHIN 6 INCHES OF EARTH, OR AS DESIGNATED ON THE PLANS AS SUCH SHALL BE PRESSURE TREATED IN ACCORDANCE WITH THE AWPB-FDN AND BEAR THAT QUALITY MARK.

### MISCELLANEOUS

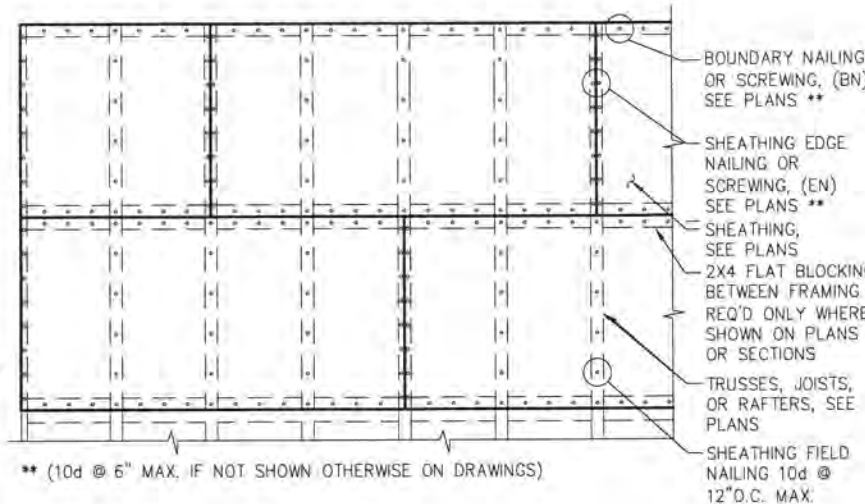
REFER TO ARCHITECTURAL PLANS FOR WALL OPENINGS, ARCHITECTURAL TREATMENT AND DIMENSIONS NOT SHOWN. CONSULT MECHANICAL PLANS FOR SIZE AND LOCATION OF ALL OPENINGS FOR DUCTS, PIPING, ETC. NOT SHOWN. COORDINATE WITH ARCHITECTURAL FOR DETAILED INFORMATION. PROVIDE AND INSTALL BLOCKING BETWEEN STUDS AT MECHANICAL EQUIPMENT AND SEISMIC RESTRAINT PER MECHANICAL.

### SHOP DRAWING

THE CONTRACTOR SHALL REVIEW, STAMP WITH HIS APPROVAL, DATE AND SIGN ALL SHOP DRAWINGS REQUIRED BY THE CONTRACT DOCUMENTS PRIOR TO SUBMITTAL TO THE ENGINEER. AT THE TIME OF SUBMISSION, THE CONTRACTOR SHALL INFORM THE ENGINEER IN WRITING OF ANY DEVIATION IN THE SHOP DRAWINGS FROM THE REQUIREMENTS OF THE CONTRACT DRAWINGS.

## ABBREVIATIONS

AITC	AMERICAN INSTITUTE FOR TIMBER CONSTRUCTION	ELEV	ELEVATION
ARCH	ARCHITECT	EQ	EQUIVALENT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	EW	EACH WAY
AWPA	AMERICAN WOOD PRESERVER'S ASSOCIATION	GALV	GALVANIZED
BLDG	BUILDING	MAX	MAXIMUM
BLKG	BLOCKING	MIN	MINIMUM
BM	BEAM	NO.	NUMBER
BN	BOUNDARY NAILING	O.C.	ON CENTER
BTWN	BETWEEN	P	PLATE
CJ	CONTROL JOINT	P/T	PRESSURE TREATED
CL	CENTERLINE	PHD	SIMPSON HOLD DOWN
CLR	CLEAR	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	REINF	REINFORCING
CP	COMPLETE PENETRATION	REQ'D	REQUIRED
CRSI	CONCRETE REINFORCING STEEL INSTITUTE	SHED	SCHEDULE
CY	CUBIC YARD	SIM	SIMILAR
DBL	DOUBLE	STD	STANDARD
EA	EACH	T&G	TONGUE AND GROOVE
EMBED	EMBEDMENT	T.O.S.	TOP OF SLAB
EN	EDGE NAILING	TYP.	TYPICAL
		W/C	WATER/CEMENT
		W.P.	WORK POINT
		U.N.O.	UNLESS NOTED OTHERWISE

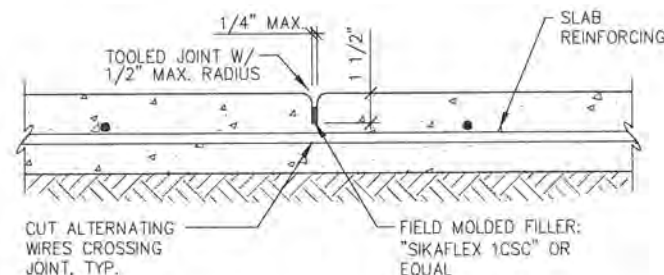


PLAN

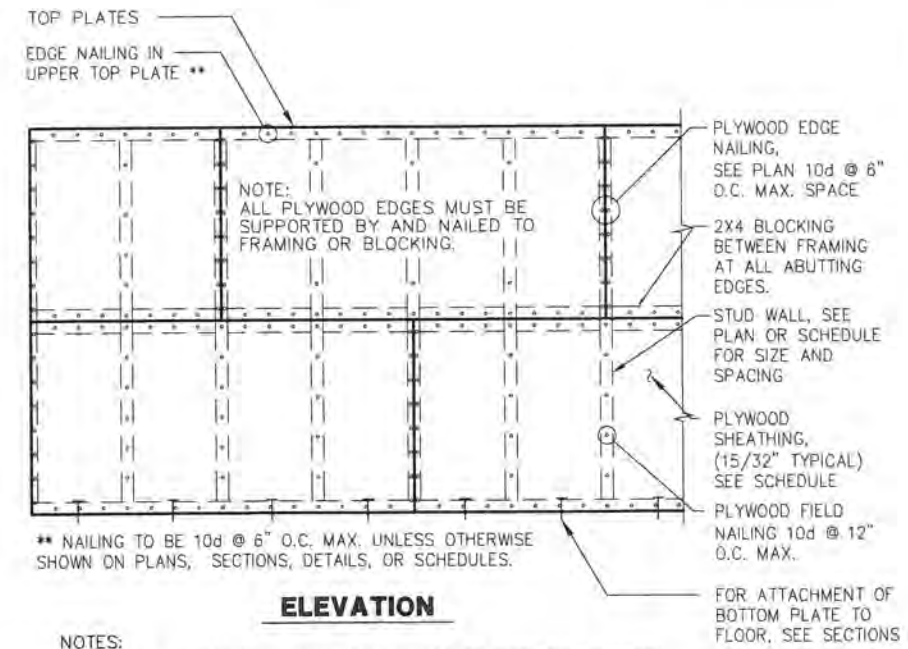
### NOTES:

1. STAGGER SHEATHING JOINTS A MINIMUM OF TWO JOIST SPACES
2. NAILS AT ABUTTING SHEATHING EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.

A TYPICAL PLYWOOD DIAPHRAGM FOR FLOOR OR ROOF DETAIL



A TYPICAL CONTROL JOINT (CJ)

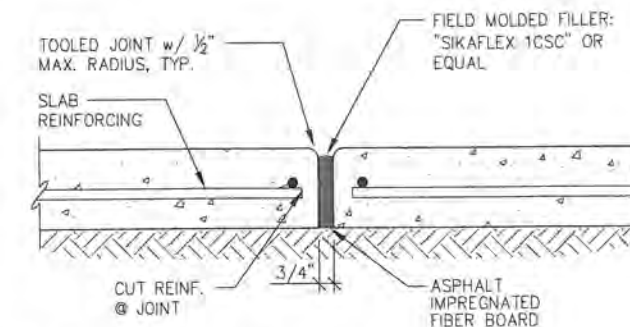


ELEVATION

### NOTES:

1. PLYWOOD IS SHOWN HORIZONTAL, IT MAY ALSO BE POSITIONED VERTICAL.
2. STAGGER PLYWOOD JOINTS A MINIMUM OF TWO STUD SPACES.
3. NAILS AT ABUTTING PLYWOOD EDGES MUST PENETRATE THE SAME PIECE OF FRAMING OR BLOCKING.
4. SEE TYPICAL WALL ELEVATIONS AND PLANS FOR HOLD DOWNS, STRAPS AND ADDITIONAL BLOCKING.

B TYPICAL SHEAR WALL DETAIL



B TYPICAL ISOLATION OR EXPANSION JOINT SECTION

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Fax: 907.586.2099

**TREADWELL ARENA  
LOCKER ROOMS**  
SAVIKO PARK - DOUGLAS, ALASKA

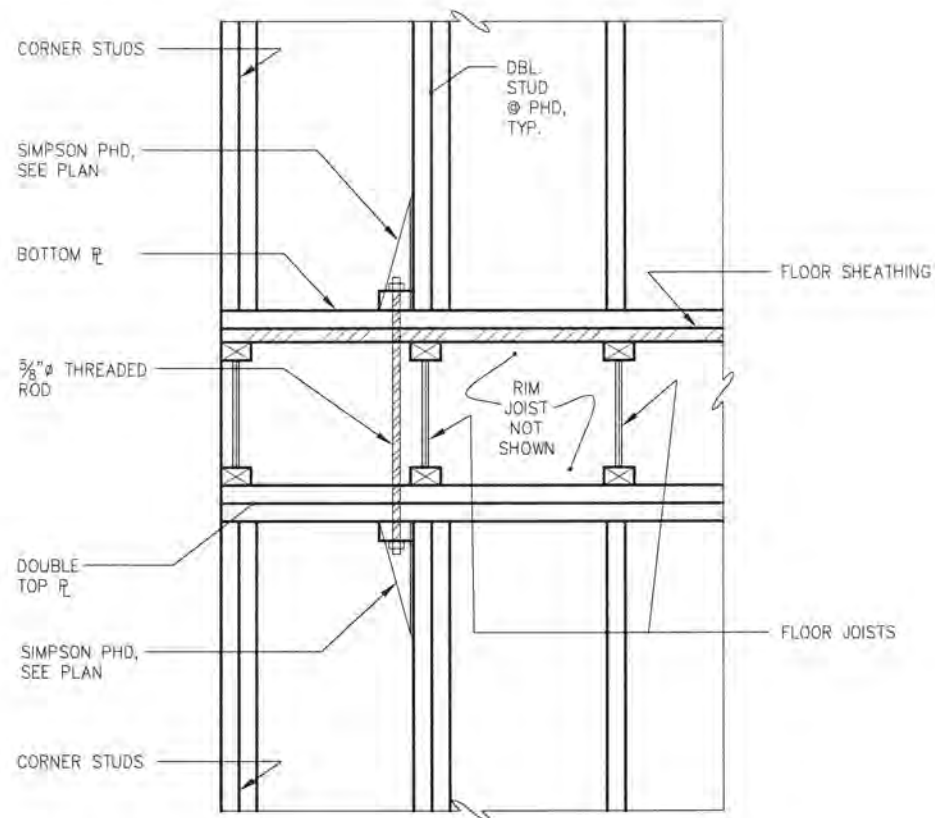
### REVISIONS



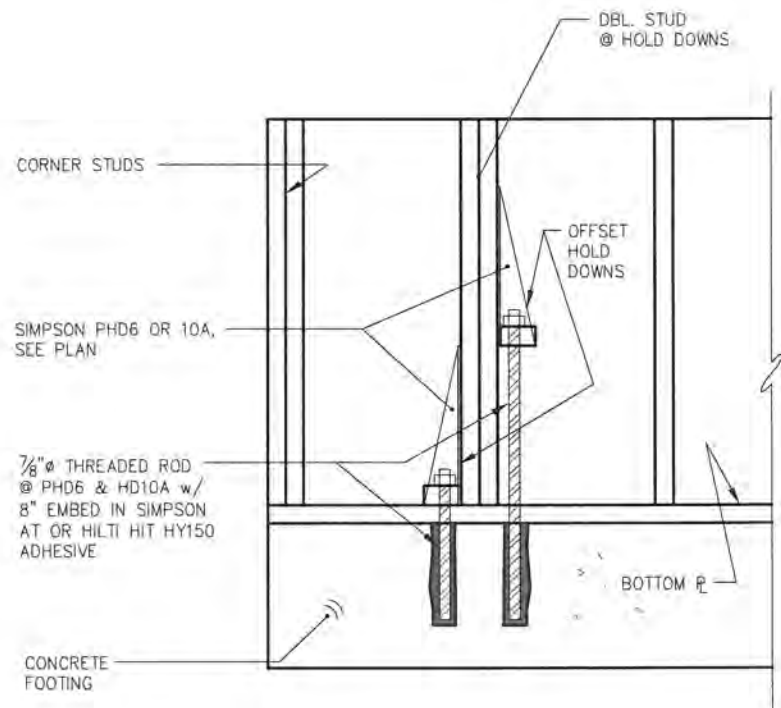
SHEET TITLE  
**GENERAL NOTES**

DATE: JULY 12, 2004  
FILE: 032060.01

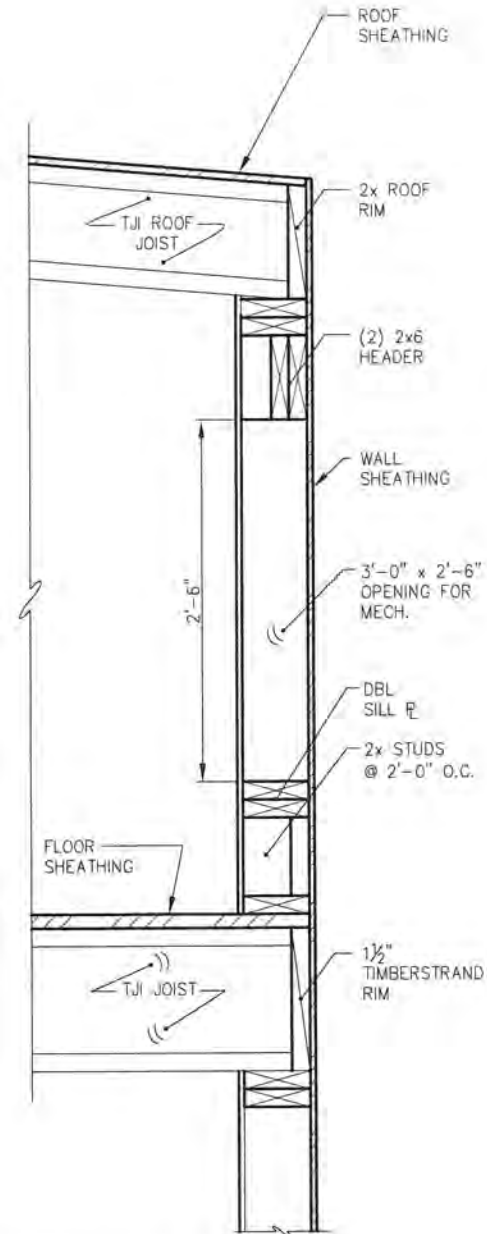
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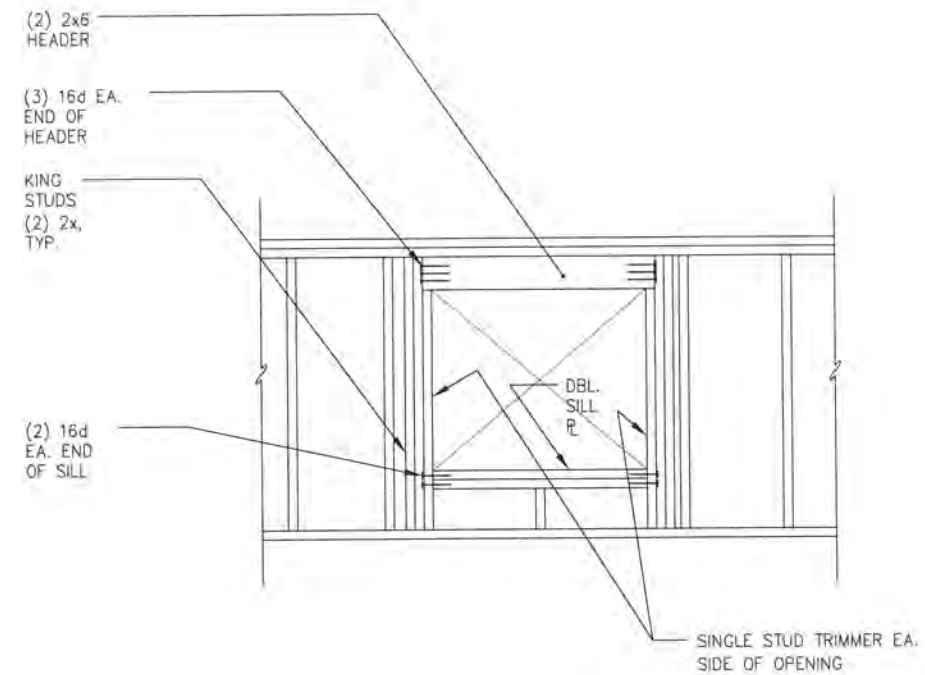
**A** TYPICAL DETAIL  
2ND FLOOR HOLD DOWN



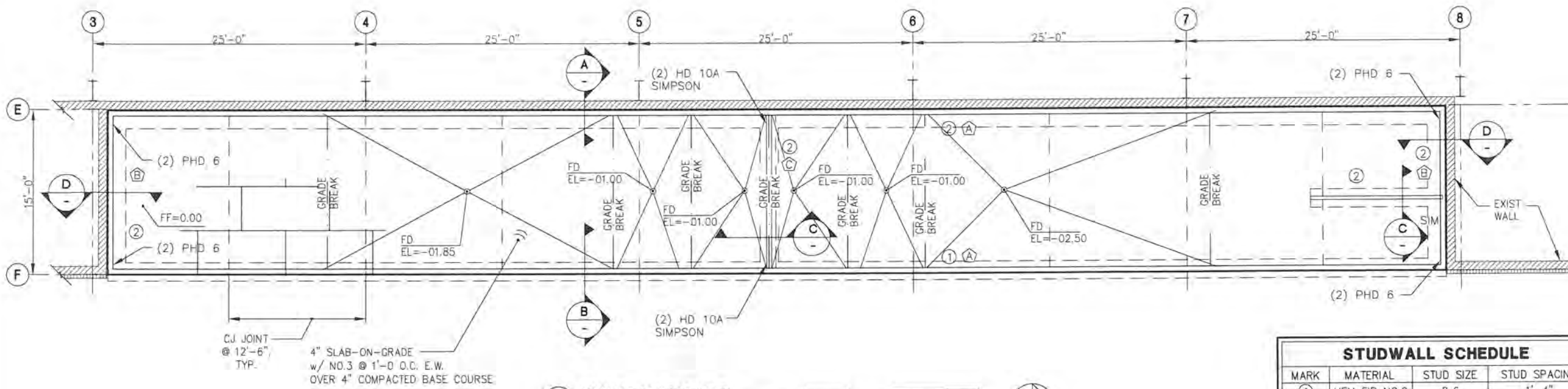
**B** TYPICAL DETAIL  
GROUND LEVEL HOLD DOWN



**C** TYPICAL DETAIL  
MECH. DUCT OPENING HEADER



**D** TYPICAL HEADER DETAIL

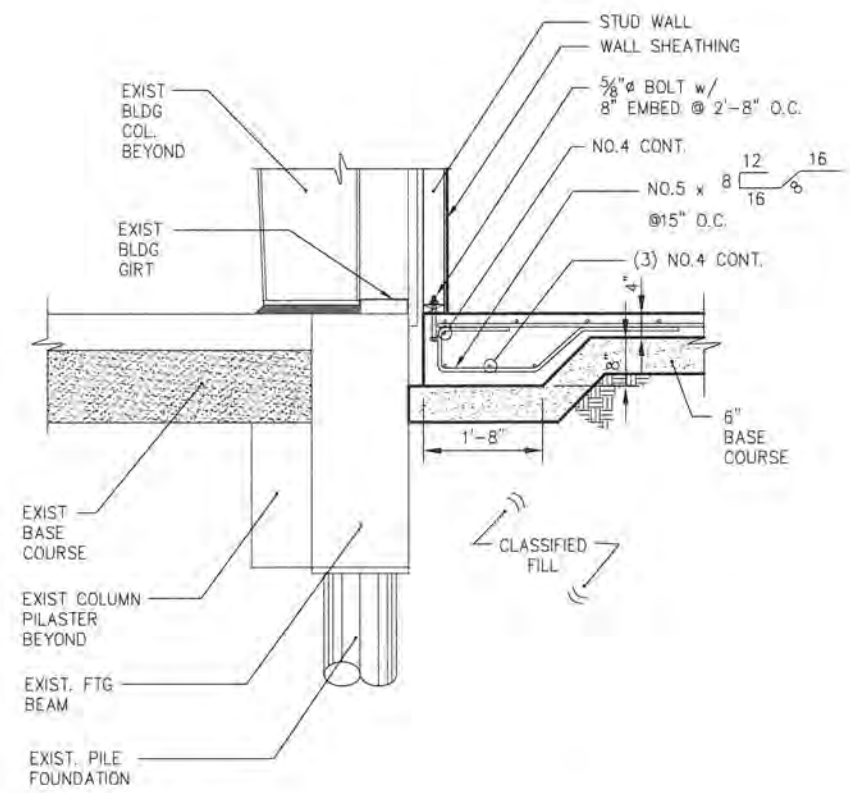


**1 FOUNDATION AND GROUND FLOOR PLAN** SCALE: 0 4' 8' 16' PROJECT

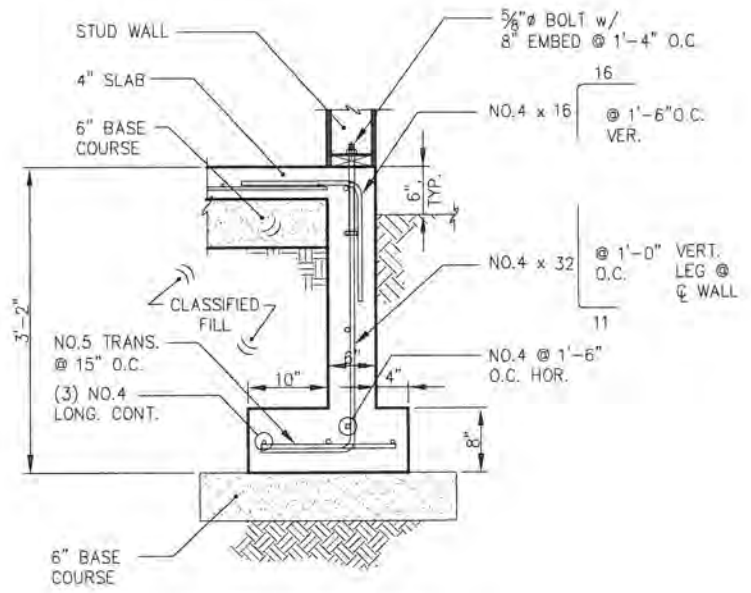
STUDWALL SCHEDULE			
MARK	MATERIAL	STUD SIZE	STUD SPACING
①	HEM FIR NO.2	2x6	1'-4"
②	HEM FIR NO.2	2x4	1'-4"

SHEAR WALL SCHEDULE		
MARK	SHEATHING	PANEL EDGE NAILING
A	1 5/32" CDX ONE SIDE	10d @ 6" O.C.
B	1 5/32" CDX ONE SIDE	10d @ 4" O.C.
C	1 5/32" CDX EACH SIDE	10d @ 4" O.C.

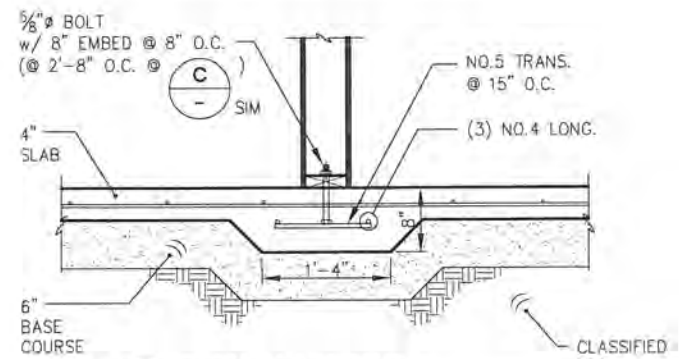
- NOTES:  
 1. ② INDICATES BEARING WALL TYPE, SEE SCHEDULE  
 2. A INDICATES SHEAR WALL TYPE, SEE SCHEDULE  
 3. PHD6 AND HD10A ARE HOLD DOWNS, SEE TYPICAL DETAIL



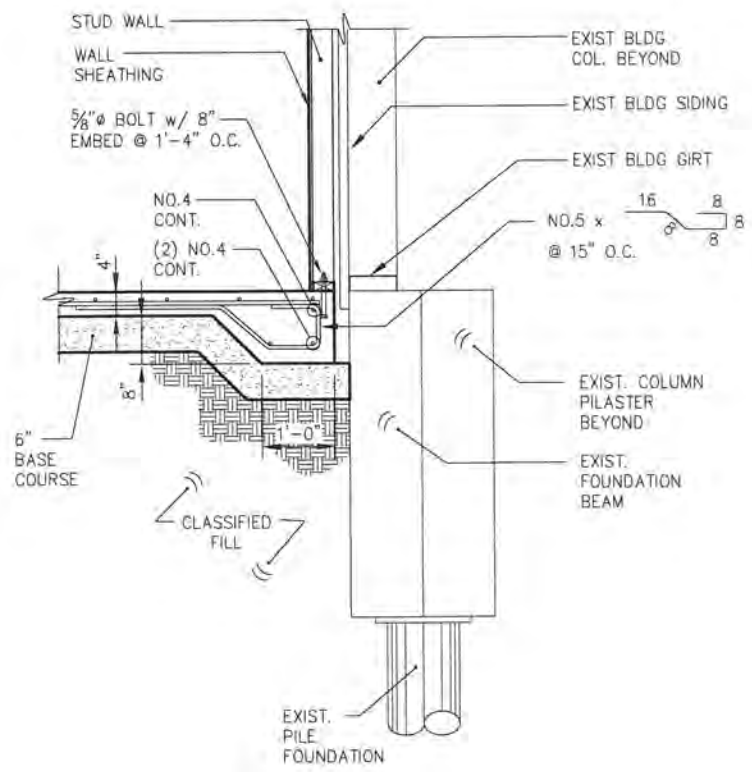
**A TYPICAL FOUNDATION SECTION AT INTERIOR BEARING WALL**



**B TYPICAL SECTION EXTERIOR FOUNDATION**



**C TYPICAL SECTION AT INTERIOR SHEAR WALL**



**D TYPICAL FOUNDATION SECTION AT END SHEAR WALL**



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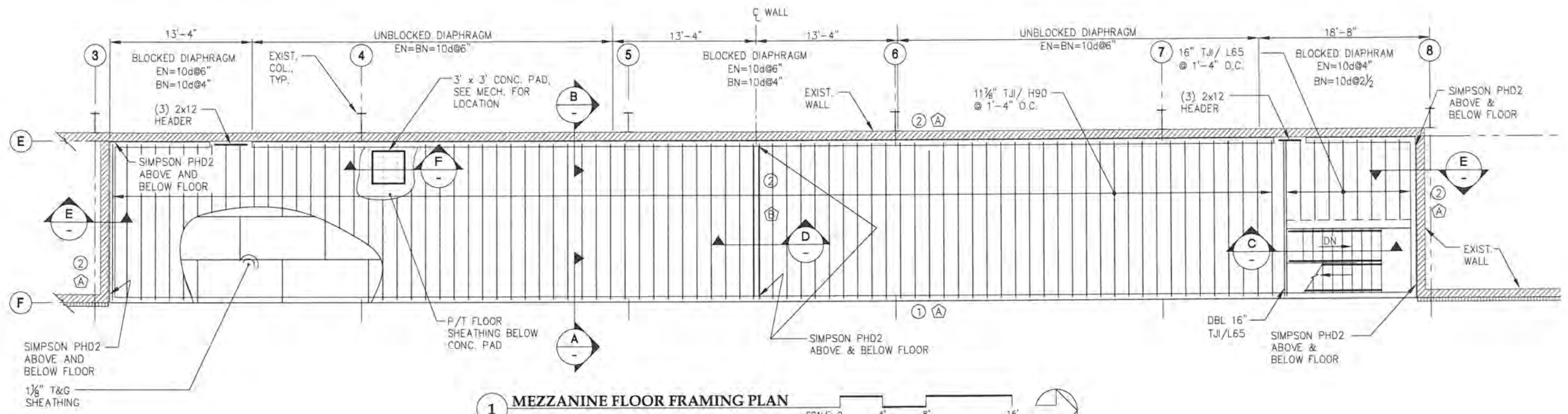
**TREADWELL ARENA  
 LOCKER ROOMS**  
 SAVIKO PARK - DOUGLAS, ALASKA

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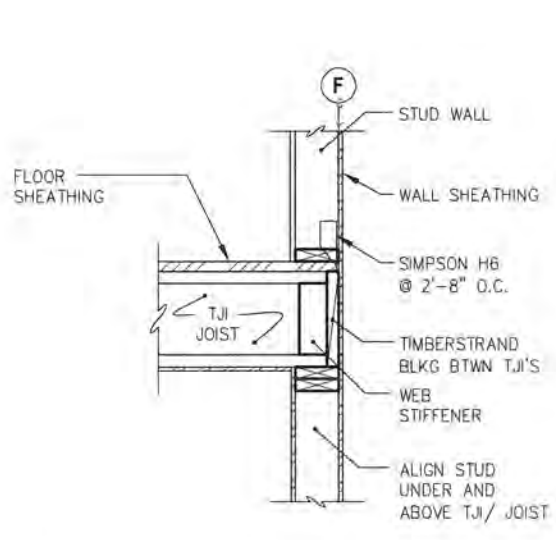
SHEET TITLE  
**MEZZANINE  
 FRAMING  
 FLOOR PLAN**

DATE: JULY 12, 2004  
 FILE: 032060.01

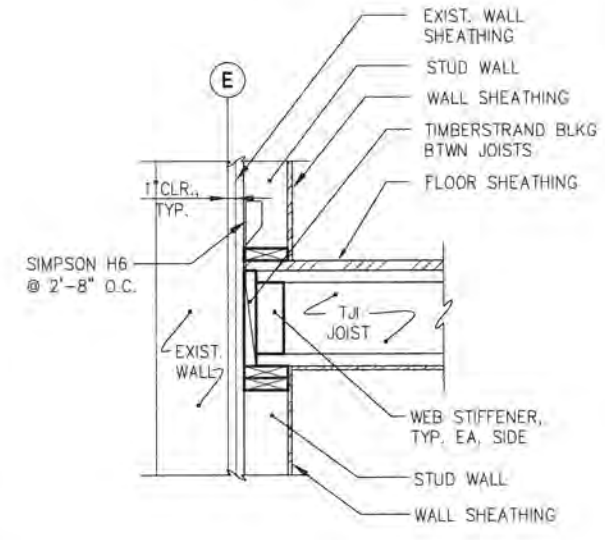
**S100**



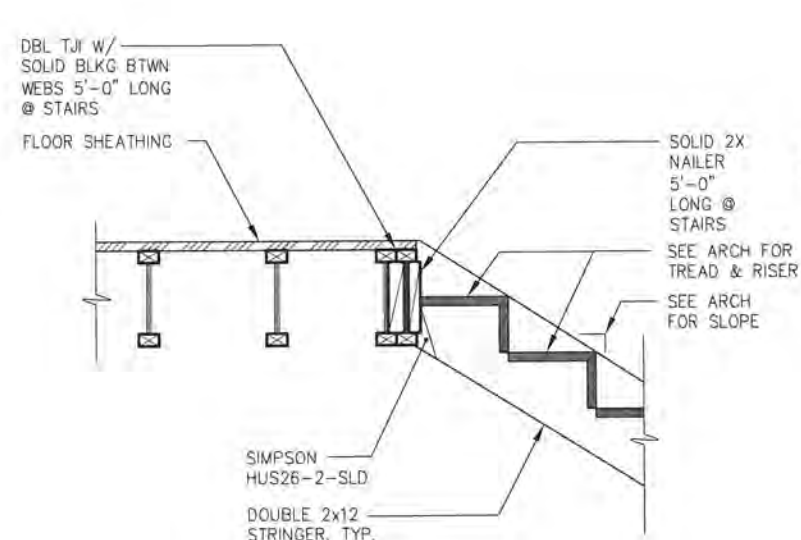
**1 MEZZANINE FLOOR FRAMING PLAN**  
 NOTES:  
 1. (1) INDICATES BEARING WALL TYPE, SEE SCHEDULE  
 2. (A) INDICATES SHEAR WALL TYPE, SEE SCHEDULE  
 3. PHD6 AND HD10A ARE HOLD DOWNS, SEE TYPICAL DETAIL



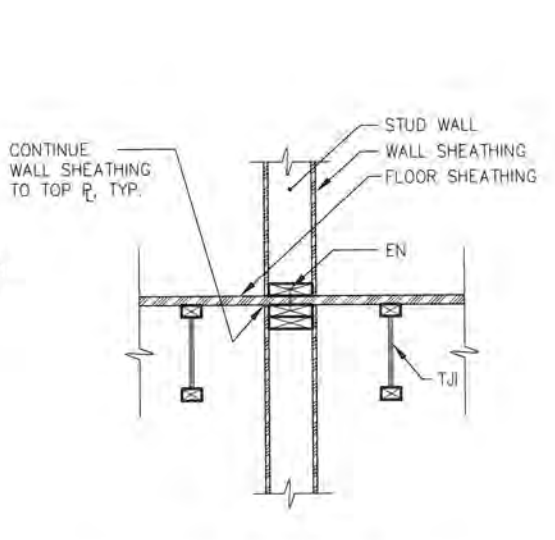
**A TYPICAL SECTION INTERIOR MEZZANINE FRAMING**



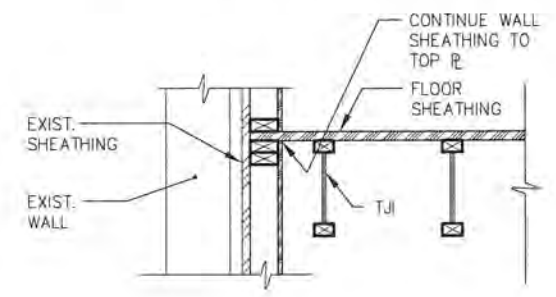
**B TYPICAL SECTION EXTERIOR MEZZANINE FRAMING**



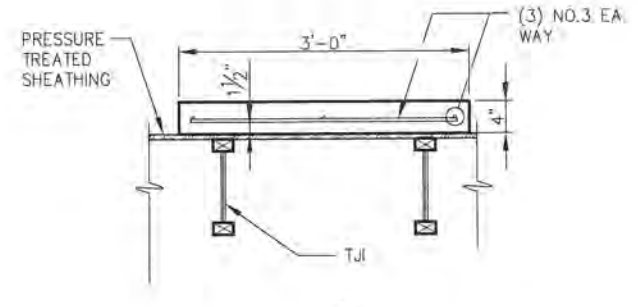
**C TYPICAL SECTION TOP OF STAIR CONNECTION**



**D TYPICAL SECTION INTERIOR SHEARWALL**



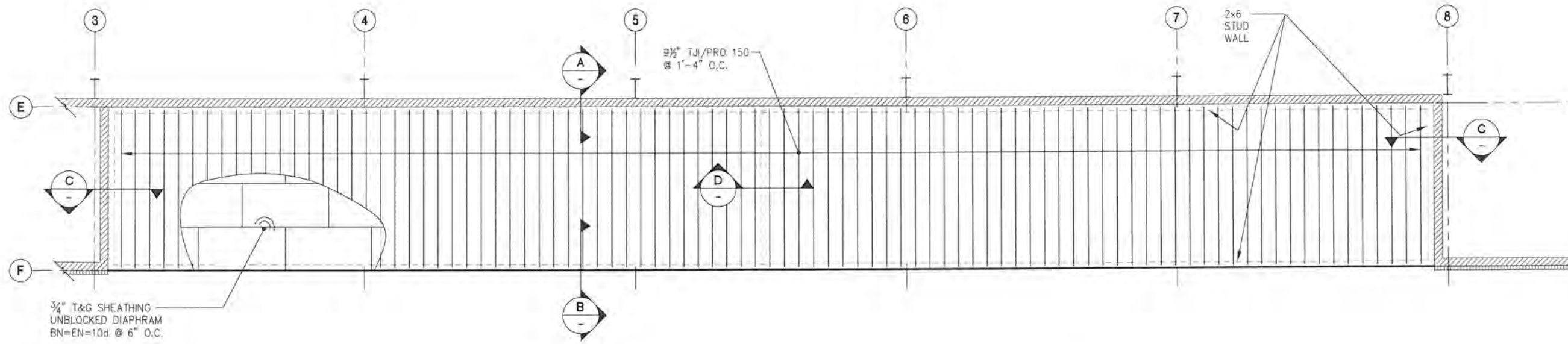
**E TYPICAL SECTION END OF SHEAR WALL**



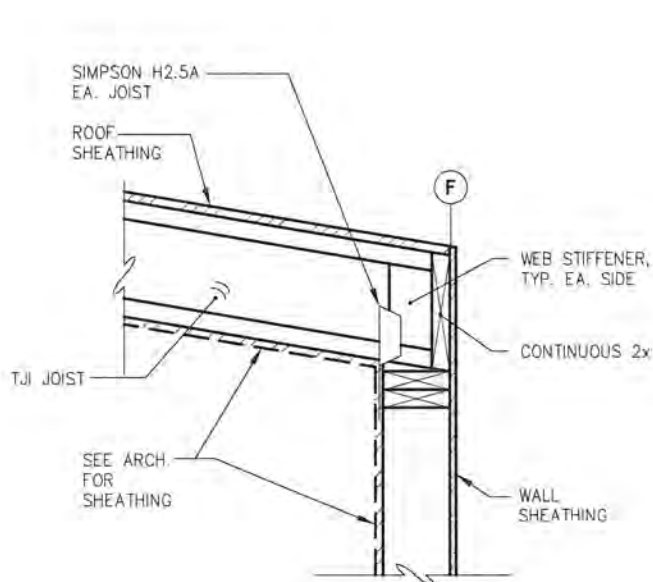
**F TYPICAL SECTION CONCRETE HOUSEKEEPING PAD**



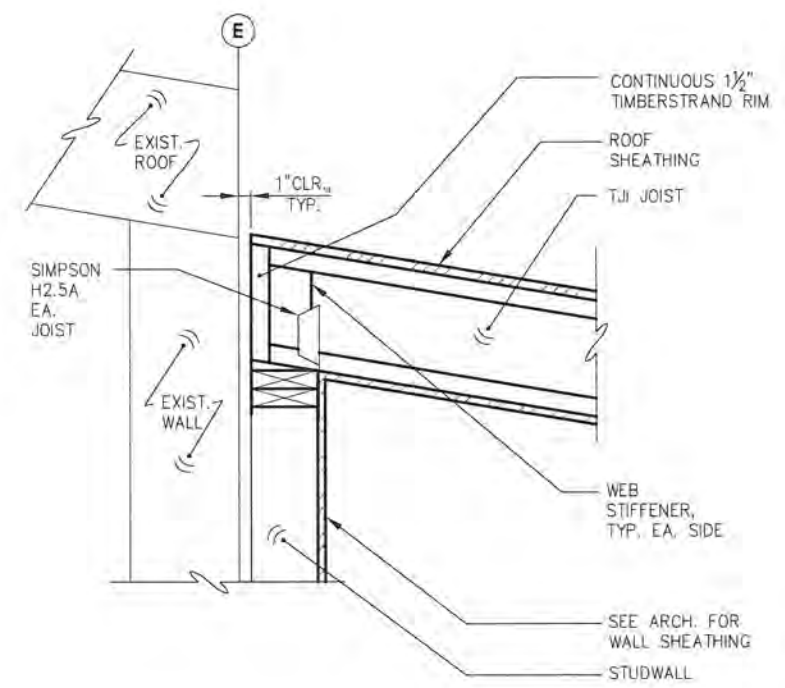




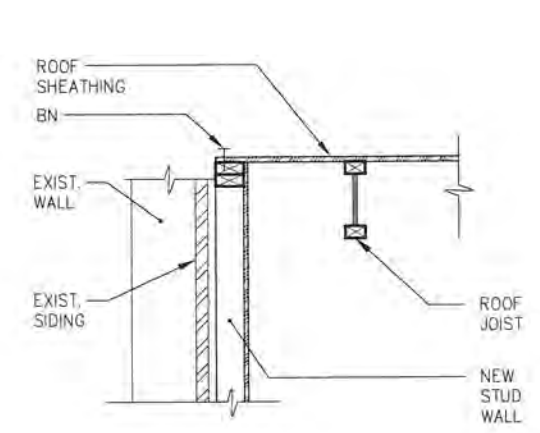
**1 ROOF FRAMING PLAN** SCALE: 0 4' 8' 16' PROJECT



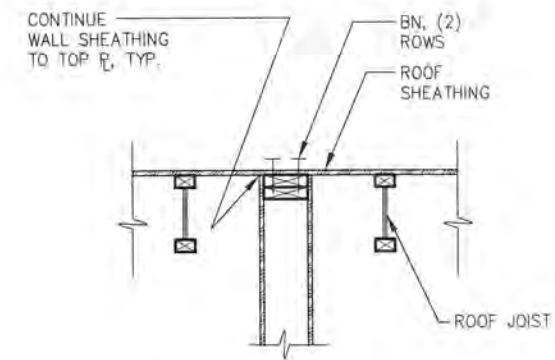
**A TYPICAL ROOF FRAMING SECTION AT EAVE**



**B TYPICAL ROOF FRAMING SECTION AT EXISTING WALL**



**C TYPICAL ROOF FRAMING SECTION AT END SHEAR WALL**



**D TYPICAL ROOF FRAMING SECTION AT SHEAR WALL**



REVISIONS

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SHEET TITLE  
**ROOF FRAMING PLAN & DETAILS**

DATE: JULY 12, 2004  
FILE: 032060.01



REVISIONS

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SHEET TITLE  
**SYMBOLS, SCHEDULES**

DATE: JULY, 2004  
FILE: 10-15.1

**MECH. SHEET INDEX**

SHEET #	SHEET NAME
M001	SYMBOLS, SCHEDULES
M002	SCHEDULES
M101	FLOOR PLAN-DEMOLITION
M201	FLOOR PLAN
M202	ENLARGED FLOOR PLAN
M203	ENLARGED FLOOR PLAN
M204	ENLARGED MEZZANINE PLAN
M301	SECTIONS
M401	PIPING DIAGRAMS
M501	DETAILS
M502	DETAILS
M601	CONTROLS

**SYMBOLS**

	G GAS
	HS HEATING SUPPLY
	HR HEATING RETURN
	CW COLD WATER
	HW HOT WATER
	HWR HOT WATER RECIRCULATING
	V VENT
	W WASTE
	OS OIL SUCTION
	OR OIL RETURN
	WSPR WET SPRINKLER
	AV AUTOMATIC VALVE
	CO CLEANOUT
	DV DRAIN VALVE
	UNION
	PITCHED DOWN
	REDUCER
	CAPPED OR PLUGGED
	GATE VALVE OR BALL VALVE
	ISOLATING VALVE WITH TAMPER SWITCH
	STRAINER
	5 FLOW SETTER W/NO
	TEST PORT/PLUG
	FCO FLOOR CLEANOUT
	CHECK VALVE
	GLOBE VALVE OR ISOLATING BALL VALVE
	PUMP
	PIPING, DUCTWORK: EXISTING, TO BE REMOVED, NEW

	SAFETY OR RELIEF VALVE
	THERMOSTAT OR THERMOSTATIC SENSOR - IMMERSION, ROOM
	THERMOMETER
	PRESSURE GAGE
	CONSTRUCTION NOTE
	CONTROL SWITCH
	DIAMETER
	CENTER LINE
	ACCESS DOOR
	BELOW GRADE
	EXISTING
	IN JOIST SPACE
	RELOCATE
	POINT OF CONNECTION
	INSULATED DUCT
	MANUAL BUTTERFLY DAMPER
	AIR VOLUME DIFFUSER/GRILLE SIZE DIFFUSER INLET SIZE GRILLE TYPE
	CEILING RETURN/EXHAUST GRILLE
	CEILING SUPPLY DIFFUSER
	SQUARE TO ROUND DUCT TRANSITION
	RETURN/EXHAUST DUCT UP, DOWN
	SUPPLY DUCT UP, DOWN

AVV	AUTOMATIC AIR VENT	MAV	MANUAL AIR VENT
AFF	ABOVE FINISHED FLOOR	MBH	1,000 BTU PER HOUR
AS	AIR SEPARATOR	NC	NORMALLY CLOSED
AV	AUTOMATIC VALVE	NIC	NOT IN CONTRACT
B	BUTTERFLY DAMPER	NIM	NOT IN MECHANICAL
C	COMMON	NO	NORMALLY OPEN
CA-1	COMBUSTION AIR LOUVER	OSA	OUTSIDE AIR
CFM	CUBIC FEET PER MINUTE	OSA-1	OUTSIDE AIR LOUVER
CO	CLEANOUT	OSV	OIL SAFETY VALVE
CUH	CABINET UNIT HEATER	P	PUMP
DDC	DIRECT DIGITAL CONTROL	PSI	POUNDS PER SQUARE INCH
DI	DUCTILE IRON	RCA	REACTIVATION AIR
DV	DIELECTRIC UNION	RD	ROOF DRAIN
EA	EXHAUST AIR	RSP	REDUCED PRESSURE BACKFLOW PREVENTER
EA-1	EXHAUST AIR LOUVER	S	SINK
EAT	ENTERING AIR TEMPERATURE	SA	SUPPLY AIR TEMPERATURE
EF	EXHAUST FAN	SD	SHOWER DRAIN
EG	EXHAUST GRILLE	SH	SHOWER
ESP	EXTERNAL STATIC PRESSURE	SG	SUPPLY GRILLE
ET	EXPANSION TANK	SS	SERVICE SINK
F&B	FACE & BYPASS	SST	STAINLESS STEEL
FA	FIRE ALARM	SPR	SPRINKLER PIPING
FCO	FLOOR CLEANOUT	T&P	TEMPERATURE AND PRESSURE RELIEF VALVE
FD	FLOOR DRAIN	TP	TRAP PRIMER
FS	FLOOR SINK	TSP	TOTAL STATIC PRESSURE
HC	HEATING COIL	TYP	TYPICAL
HRV	HEAT RECOVERY VENTILATOR	U	URINAL
HWM	HOT WATER MAKER	UH	UNIT HEATER
HWRP	HOT WATER RECIRCULATING PUMP	VTR	VENT THROUGH ROOF
IAW	IN ARCHITECTURAL WORK	WC	WATER CLOSET
IEW	IN ELECTRICAL WORK	WCO	WALL CLEAN OUT
ICW	IN CIVIL WORK	WHA	WATER HAMMER ARRESTOR
IN. EL.	INVERT ELEVATION	WSPR	WET SPRINKLER
IPS	IRON PIPE SIZE	YCO	YARD CLEANOUT
L	LAVATORY		
LAT	LEAVING AIR TEMPERATURE		
LL	LOW LIMIT		
LWCO	LOW WATER CUT OFF		
LWT	LEAVING WATER TEMPERATURE		

**SHEET NOTES:**

- SEE SPECIFICATIONS FOR ADDITIONAL DATA AND EQUIPMENT. DATA REQUIRED FOR APPROVAL OF ALL EQUIPMENT AND APPURTENANCES LISTED IN EACH SCHEDULE.
- SEE CONTROL LEGEND ON M601 FOR ADDITIONAL SYMBOLS.

**CODE NOTES:**

- THE DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2000 INTERNATIONAL MECHANICAL CODE (IMC), THE 2000 INTERNATIONAL FIRE CODE (IFC), THE CURRENT ISSUE OF NFPA, AND THE CITY AND BOROUGH OF JUNEAU TITLE 19 MODIFICATIONS.
- THE VENTILATION SYSTEM DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH CHAPTER 4 OF THE 2000 IMC.
- THE DESIGN AND INSTALLATION OF THE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH THE 2000 UNIFORM PLUMBING CODE (UPC).

**HOOD SCHEDULE**

NAME	SIZE
OSA-1	36x30
EA-1	36x30
CA-1	12x10

**FLOWSETTER AND AUTOMATIC VALVE SCHEDULE**

NUMBER	UNIT SERVED	LOCATION	DESIGN GPM	SETTER SIZE (INCHES)	AUTOMATIC VALVE TYPE	AUTOMATIC VALVE OPERATION	AUTOMATIC VALVE NORMAL POSITION	CONTROL
14	HWM-5	MEZZANINE	7.0	1-1/4"	2-WAY	MODULATING	NC	LOCAL
15	HC	MEZZANINE	3.4	1"	2-WAY	MODULATING	NO	DDC
16	UH	MEZZANINE	0.6	1/2"	2-WAY	MODULATING	NO	DDC
17	CUH	ARENA SEATING	1.1	1/2"	2-WAY	MODULATING	NO	DDC
18	CUH	ARENA SEATING	1.1	1/2"	2-WAY	MODULATING	NO	DDC
19	CUH	ARENA SEATING	1.1	1/2"	2-WAY	MODULATING	NO	DDC

**PUMP SCHEDULE**

EQUIPMENT	FUNCTION	GPM	HEAD, FT	DESIGN MANUFACTURER AND MODEL	MINIMUM HORSEPOWER ELECTRICAL CHARACTERISTICS	FEATURES
P-1	HW CIRCULATING	67	40	TACO 1919	1-1/2HP, 460V, THREE PHASE	EXISTING CUSTOM CLOSE COUPLED PIPE MOUNTED PUMP TRIMMED IMPELLER. CONTRACTOR IS TO PROVIDE AND REPLACE IMPELLER WITH NEW 7.5" DIAMETER CUSTOM IMPELLER.

**FAN/HRV SCHEDULE**

FAN NUMBER	AREA SERVED	AIR VOLUME, CFM		TOTAL STATIC PRESSURE INCHES OF WATER		DESIGN MANUFACTURE AND MODEL	HEATING COIL SIZE-BTU/HR	ELECTRICAL CHARACTERISTICS	FEATURES
		SA	EA	SA	EA				
HRV-3	LOCKER ROOM ADDITION	2,330	2,260	1.5	1.0	HEATEX 5,000A	55,000 MINIMUM 2 ROW	(2) 2HP, 460V THREE PHASE	AIR TO AIR HEAT EXCHANGER, 2" PLEATED FILTERS ON BOTH SUPPLY AND EXHAUST, DWD FANS, SINGLE POINT POWER CONNECTION, CROSS FLOW CORE WITH FACE & BYPASS DAMPER, HC, OSA BYPASS AND EA DAMPER, PROVIDE 5 COMPLETE SPARE SETS OF FILTERS.
DEHUMIDIFIER-2	LOCKER ROOM ADDITION	3,000	1,000	1.0	0.5	CIMCO DH-130	GAS CAPACITY 235 MBH	5HP/1.5HP 460V THREE PHASE	DESICCANT DEHUMIDIFICATION AIR HANDLING UNIT, GAS REACTIVATION, 3/4" GAS CONNECTION, GAS PRESSURE REQUIRED 7"-15" WC. INTEGRATE CONTROLS WITH EXISTING CIMCO DEHUMIDIFIER. PROVIDE MANUFACTURERS REPRESENTATIVE STARTUP SERVICE.

**HEATING UNIT SCHEDULE**

EQUIPMENT	FEATURES/CONTROLS/OPTIONS
CABINET UNIT HEATER, CUH-1	MINIMUM 10.9 MBH @ LOW SPEED WITH 20°F AT, 60°F EAT, 200°F EWT. 2 ROW COIL. 185 CFM @ LOW SPEED. WALL MOUNTED. 1/10 HP.
UNIT HEATER, UH-1	MINIMUM 6.9 MBH WITH 20°F AT, 60°F EAT, 200°F EWT. 4-WAY ADJUSTABLE LOUVER FACE. 1/4 HP. 120V/1Φ. LINE VOLTAGE THERMOSTAT.

**HEATING COIL SCHEDULE**

COIL	UNIT SERVED	CAPACITY (MBH)	WATER TEMPERATURES ENTERING LEAVING	AIR TEMPERATURES ENTERING LEAVING	DESIGN MANUFACTURER	FEATURES AND ACCESSORIES
HC-1	HRV-3	55	190°F 180°F	50°F 85°F	COLMAC	TWO ROW, MAX 8 FPI, MAX. 0.20 INCHES AIR PRESSURE DROP, NONFERROUS MATERIAL AND CONNECTIONS. MAXIMUM 550 FPM AIR VELOCITY.



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**PLUMBING FIXTURE SCHEDULE**

FIXTURE	HOT WATER	COLD WATER	WASTE	VENT
WATER CLOSET, WC-1	-	1-1/4	4	2
WATER CLOSET, WC-2	-	1-1/4	4	2
LAVATORY, L-1	1/2	1/2	1-1/2	1-1/4
SHOWER HEAD, SINGLE, SH-1	1/2	1/2	-	-
SHOWER HEAD, SH-2	1/2	1/2	-	-
SHOWER DRAIN, SD-1	-	-	2	1-1/2
FLOOR DRAIN, FD-1	-	-	2	2
FLOOR SINKS, FS-1	-	-	2	1-1/2
TRAP PRIMER	-	1/2	-	-

**EQUIPMENT SCHEDULE**

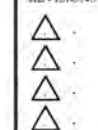
SYMBOL	EQUIPMENT	DESIGN MANUFACTURER	MODEL	FEATURES/CONTROLS/OPTIONS
-	TEST PLUGS	PETE'S PLUG		BRASS, 1/2-INCH NPT PLUG WITH SELF-SEALING PORT. SUITABLE FOR 250F AND 150 PSI. WITH SCREW TYPE SEALING CAP. IN PIPING TEE WHERE SHOWN. INSTALLED ACCESSIBLE.
-	TEMPERING VALVE	POWERS 430 SERIES LEONARD	430	ROUGH CHROME TEMPERATURE MIXING VALVES. TEMPERATURE LIMITING AND PRESSURE BALANCING WITH COMBINATION STRAINER CHECK STOPS. 3/4" INLET AND OUTLET SIZE. SET AT DISCHARGE TEMPERATURE OF 115°F AND RECORDED FOR O&M. DATA REQUIRED.
WHA	WATER HAMMER ARRESTORS	AMTROL, ZURN		SIZE PER MANUFACTURERS RECOMMENDATIONS FOR FIXTURES SERVED
-	FLOWSETTERS	BELL & GOSSETT	CIRCUIT SETTER	SEE SCHEDULE FOR SIZES.
AAV	AUTOMATIC AIR VENT	HONEYWELL HOFFMAN	NO. EA79 79	INSTALLED AT ALL HIGH POINTS IN HEATING SYSTEM WITH 3/4" SHUT OFF VALVE. PROVIDE FITTINGS FOR DRAIN CONNECTIONS.
MAV	MANUAL AIR	HONEYWELL HOFFMAN	15 500	MANUAL/AUTOMATIC TYPE, ALL BRASS BODY. SCREWDRIWER ADJUSTMENT.
SG-1	SUPPLY DIFFUSER	TITUS	TOCA	STEEL. RECTANGULAR, WITH REMOVABLE CORE AND ADJUSTABLE VANES FROM HORIZONTAL TO VERTICAL THROW. 1-1/4-INCH BORDERS. SURFACE MOUNT INSTALLATION WITH DROPPED FACE.
SG-2	WALL SUPPLY GRILLE	TITUS	300RL	STEEL. SURFACE MOUNT. ADJUSTABLE DISCHARGE WITH HORIZONTAL AND VERTICAL BARS. COORDINATE THROW PATTERNS WITH PLANS.
EG-1	EXHAUST GRILLE	TITUS	350ZRL	STEEL. RECTANGULAR, WITH BLADES PARALLEL TO LONG DIMENSION. 3/4-INCH BLADE SPACING. 1-1/4-INCH BORDERS. 35° DEFLECTION. SURFACE MOUNT. OPPOSED BLADE DAMPER BEHIND EACH GRILLE.
HWM	HOT WATER MAKER HWM-5	AMTROL	WHS-120ZC-DW	COMMERCIAL TYPE. 120 GALLON WATER HEATER. 1-1/2" LOW DENSITY POLYURETHANE INSULATION. DOUBLE WALL HEAT EXCHANGER. MINIMUM CAPACITY TO BE 265 GPH RECOVERY @ 120 MBH BOILER OUTPUT. WITH 40F EWT AND 140F LWT. IMMERSION TYPE ADJUSTAT TO CONTROL PUMP THROUGH INTEGRAL CONTROL. SEE PIPING DIAGRAM FOR CONFIGURATION. WITH ASME RATED RELIEF VALVE. MAXIMUM OF 6' HEAD PRESSURE DROP THROUGH COIL AT 7 GPM FLOW RATE. DATA REQUIRED.
ET-3	EXPANSION TANK	AMTROL THERM-X-TROL	ET-12	THERMAL DIAPHRAM TYPE, EXPANSION TANK. TANK VOLUME MINIMUM 4.0 GALLONS. WORKING PRESSURE, 150 PSI MAXIMUM. WORKING TEMPERATURE 200°F.

**PLUMBING EQUIPMENT SCHEDULE**

FIXTURE	DESIGN MANUFACTURER	FEATURES/OPTIONS
WATER CLOSET, WC-1	KOHLER, KINGSTON	WALL HUNG, SIPHON JET VITREOUS CHINA CLOSET BOWL, WITH ELONGATED RIM, 1-1/2 INCH TOP SPUD, CHINA BOLT CAPS. EXPOSED MANUAL FLUSH VALVE. ASME A112.18.1; EXPOSED POLISHED CHROME, DIAPHRAGM TYPE, WITH SCREWDRIWER STOP AND VACUUM BREAKER; MAXIMUM 1.6 GALLON FLUSH VOLUME. ADA COMPLIANT, SIMILAR TO ZURN Z-6000 SERIES. SEAT: SOLID PLASTIC, ELONGATED, OPEN FRONT, EXTENDED BACK, SELF-SUSTAINING HINGE, BRASS BOLTS, WITHOUT COVER. WALL MOUNTED CARRIER; ASME A112.6.1; ADJUSTABLE CAST IRON FRAME, INTEGRAL DRAIN HUB AND VENT, ADJUSTABLE SPUD, LUGS FOR FLOOR AND WALL ATTACHMENT, THREADED FIXTURE STUDS WITH NUTS AND WASHERS, SUITABLE FOR SPACE PROVIDED. BELL AND SPIGOT TYPE USED ON VERTICAL UNITS AT SLAB-ON-GRADE LOCATIONS. VERTICAL UNITS MAY BE NON-ADJUSTABLE. MOUNT AT ADA HEIGHT.
WATER CLOSET, WC-2	KOHLER, HIGH CREST	FLOOR MOUNTED, SIPHON JET VITREOUS CHINA CLOSET BOWL, WITH ELONGATED RIM, 1-1/2 INCH TOP SPUD, CHINA BOLT CAPS. EXPOSED FLUSH VALVE; ASME A112.18.1; EXPOSED CHROME PLATED, DIAPHRAGM TYPE WITH OSCILLATING HANDLE, ESCUTCHEON, SEAT BUMPER, INTEGRAL SCREWDRIWER STOP AND VACUUM BREAKER, MAXIMUM 1.6 GALLON FLUSH VOLUME. SEAT: SOLID WHITE PLASTIC, OPEN FRONT, EXTENDED BACK, SELF-SUSTAINING HINGE, BRASS BOLTS, WITHOUT COVER. FULL ADA COMPLIANCE.
LAVATORY, L-1	KOHLER, PENNINGTON	VITREOUS CHINA COUNTER MOUNTED BASIN: ASME A112.19.2; VITREOUS CHINA OVAL LAVATORY 20 x 18 INCH MINIMUM, WITH 4 INCH HIGH BACK, DRILLINGS ON 4 INCH CENTERS, WITH SPLASH LIP, AND FRONT OVERFLOW INSULATION SHIELDS ON PLUMBING PIPING FOR ADA COMPLIANCE. SUPPLY FITTING AND FAUCET; ASME A112.18.1; CHROME PLATED SUPPLY FITTING, CHROME PLATED SHORT GOOSENECK FAUCET AND WATER ECONOMY AERATOR WITH MAXIMUM 2.0 GPM FLOW, 4 INCH INDEXED WRIST BLADE HANDLES. ADA COMPLIANT. ACCESSORIES: CHROME PLATED 17-GAGE BRASS P-TRAP WITH CLEAN-OUT PLUG AND ARM WITH ESCUTCHEON. OFFSET WASTE WITH PERFORATED OPEN GRID STRAINER. WHEEL HANDLE STOPS. RIGID SUPPLIES.
SHOWER, SH-1	LASCO AQUABATH MODEL C 4136 BF	ADA COMPLIANT SHOWER ENCLOSURE AND TRIM. REINFORCED GLASS FIBER ENCLOSURE CONSTRUCTION WITH 36" x 36" x 82-3/4" INSIDE DIMENSIONS. INCLUDE RECEPTOR, DRAIN, SOAP DISH, FOLD-UP SEAT, REMOVABLE CHROME PLATED STRAINER, TAIL PIECE, AND BRUSHED STAINLESS STEEL GRAB BARS. INCLUDE OPTIONAL 3/4" THRESHOLD FOR 3/4" PIT. COORDINATE SEAT LOCATION. SHOWER VALVE TO BE TEMPERATURE LIMITING, PRESSURE BALANCED, INTEGRAL STOPS, AND HEAVY DUTY CONTROL LEVER. EQUAL TO POWERS HYDROGUARD 420 SERIES. INCLUDE HAND HELD SLIDE BAR WITH FLOW CONTROL AND ADJUSTABLE SPRAY, MAXIMUM 2.5 GPM. PROVIDE MILDEW RESISTANT SHOWER CURTAIN AND CURTAIN ROD.
SHOWER, SH-2	BRADLEY ECONO-WALL 3W-HN 600 BARRIER-FREE	FOR HEAVY DUTY USE. EXPOSED STAINLESS STEEL WALL MOUNTED COLUMN SUPPLY WITH CONCEALED PRESSURE BALANCED AND TEMPERATURE LIMITING MIXING VALVES, INTEGRAL SERVICE STOPS, WITH TOUCH-N-FLO MECHANICAL METERING VALVE, STAINLESS STEEL SOAP TRAY, STAINLESS STEEL GRAB BARS, AND HAND HELD SHOWER SPRAY WITH BRACKET OR SLIDING ROD (ONE STATION). 1/2" STAINLESS STEEL HOSE MINIMUM 60 INCHES LONG WITH VACUUM BREAKER AND QUICK DISCONNECT. CONCEALED HEAVY DUTY CONTROL LEVER/KNGB IN STAINLESS STEEL SHROUD WITH THREE SHOWER HEADS. EXPOSED CUSTOM STAINLESS STEEL SHROUD. CHROME PLATED ADJUSTABLE SHOWER HEADS. VANDAL-PROOF INSTITUTIONAL HEAD WITH LOCKABLE BALL JOINT INTEGRAL WITH STAINLESS STEEL SHROUD, BUILT-IN 2.5 GPM FLOW CONTROL.
FLOOR DRAIN, FD-1 AND FD-2	ZURN, Z-415	GALVANIZED CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, REVERSIBLE CLAMPING COLLAR, AND ROUND, ADJUSTABLE NICKEL-BRONZE 6 INCH DIAMETER STRAINER WITH SQUARE HOLES. WITH PRIMING LINE CONNECTION. FD-1 2" WASTE CONNECTION, FD-2 3" WASTE CONNECTION.
FLOOR SINK, FS-1	ZURN, Z-1540	NOMINAL DIMENSIONS: 12" x 6" x 8" DEEP. WHITE ACID-RESISTING PORCELAIN ENAMEL INTERIOR GALVANIZED CAST IRON BODY WITH ALUMINUM INTERIOR DOME STRAINER AND SEEPAGE FLANGE. 1/2 LOOSE SET GRATE WITH SQUARE OPENINGS UNLESS OTHERWISE SHOWN. 3-INCH DRAIN WITH PRIMING LINE CONNECTIONS.
SHOWER DRAIN, SD-1	ZURN, 415 WITH TYPE SH STRAINER	ANSI A112.1; GALVANIZED CAST IRON TWO PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEEP HOLES, REVERSIBLE CLAMPING COLLAR, AND ADJUSTABLE SQUARE 6 x 8 INCH NICKEL-BRONZE STRAINER WITH SQUARE HOLES AND SECURED HINGED TOP. ENTIRE STRAINER TOP SECURED TO DRAIN WITH REMOVABLE CORROSION-RESISTANT FASTENERS; 3-INCH OUTLET. ONE ADDITIONAL SD STRAINER TOP FURNISHED TO OWNER.

City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

REVISIONS:



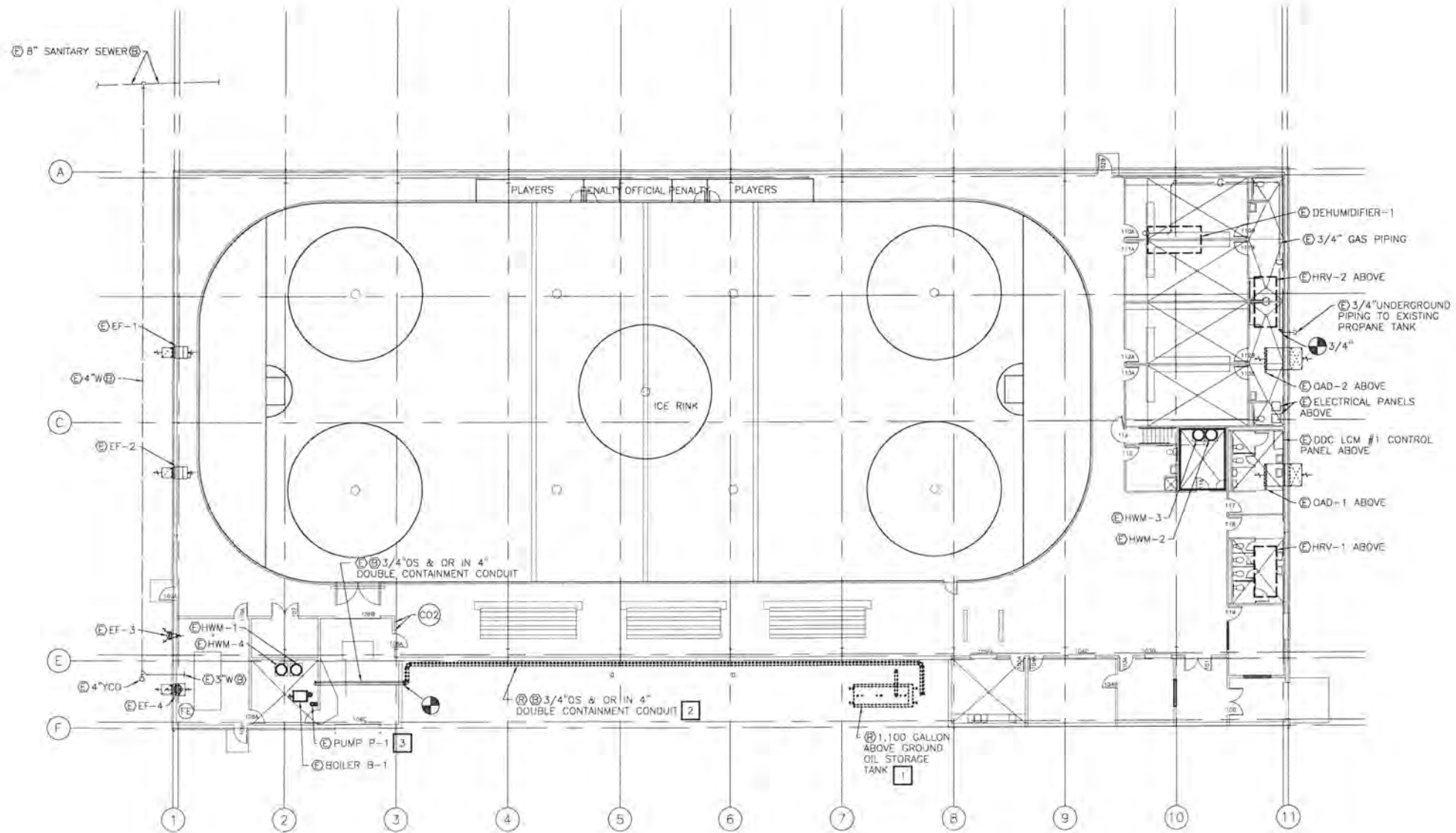
SHEET TITLE  
**SCHEDULES**

DATE: JULY, 2004  
FILE: 10-145.1

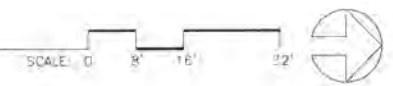
**M002**

**DEMOLITION NOTES:**

- 1 RELOCATE 1,100 GALLON ABOVEGROUND OIL TANK. COORDINATE WITH SHEET M201 FOR LOCATION. INVENTORY TANK VOLUME AND SUBMIT TO OWNER. REMOVE FUEL AND REFILL WITH SAME AMOUNT AFTER RELOCATION.
- 2 EXCAVATE AND RELOCATE 4" DIRECT BURY DOUBLE CONTAINMENT OIL PIPING CONDUIT AND OIL PIPING. COORDINATE ROUTING OF OIL PIPING AND DIRECT BURY DOUBLE CONTAINMENT PIPING CONDUIT WITH SHEET M201. PROVIDE NEW 4" CONTAINMENT PIPING, FITTINGS, AND ACCESSORIES AS REQUIRED. REUSE 3/4" OS & OR DOUBLE CONTAINMENT PIPING, MODIFY AS REQUIRED.
- 3 PUMP P-1 TO HAVE IMPELLER AND SEALS REPLACED. SEE SCHEDULE ON M001 FOR SIZE OF NEW IMPELLER.



**1 FLOOR PLAN - DEMOLITION**



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City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

- REVISIONS:
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SHEET TITLE  
**FLOOR PLAN - DEMOLITION**

DATE: JULY, 2004  
FILE: 10-145.1

**M101**

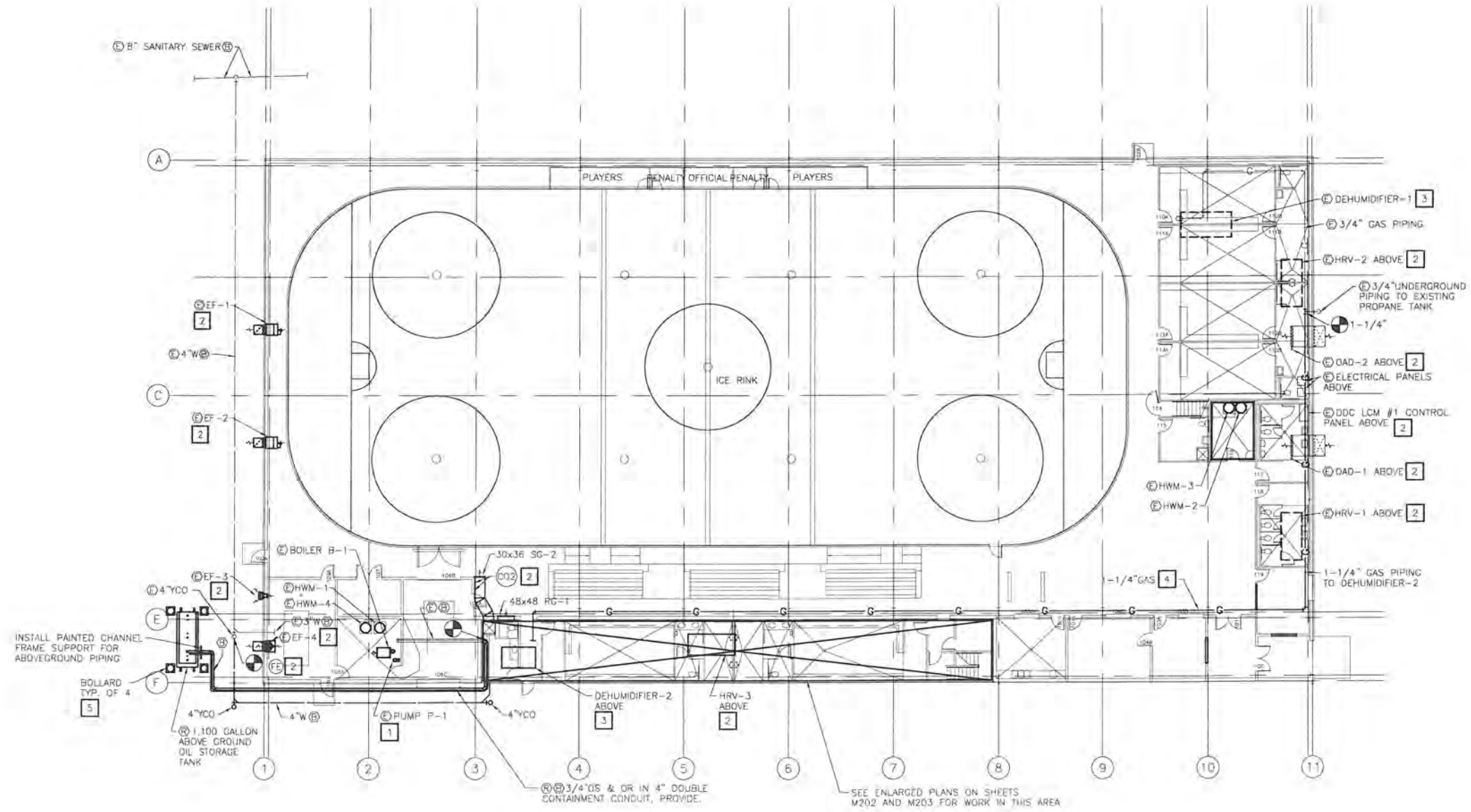
**CONSTRUCTION NOTES:**

- 1 PUMP P-1 INSTALL NEW IMPELLER AND SEALS. SEE SCHEDULE ON M001 FOR SIZE OF NEW IMPELLER.
- 2 INTEGRATE EXISTING DDC CONTROLS INTO NEW DDC CONTROLS (GCM) AND GRAPHICS SOFTWARE PACKAGE AT CBJ MAINTENANCE OFFICES. PROVIDE ALL HARDWARE AND SOFTWARE AS REQUIRED. SEE SHEET M601 FOR SEQUENCE OF OPERATIONS AND CONTROL DIAGRAMS. COORDINATE WORK WITH CONTROL CONTRACTOR.

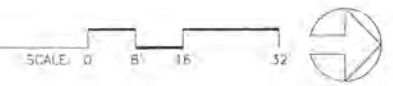
- 3 DEHUMIDIFIER-2 CONTROLS TO BE PROGRAMMED INTO THE EXISTING CIMCO 400DE OPERATING SYSTEM FOR EXISTING DEHUMIDIFIER-1. TO OPERATE IN A LEAD/LAG SEQUENCE. FACTORY TRAINED MANUFACTURERS REPRESENTATIVE SHALL PERFORM FINAL CONNECTIONS AND START UP OF NEW DEHUMIDIFIER. REPRESENTATIVE SHALL ALSO INSPECT EXISTING DEHUMIDIFIER, CHECK AND CALIBRATE SEQUENCE OF OPERATIONS, AND PROVIDE FIELD REPORT TO OWNER.
- 4 INSTALL PIPING ON SUPPORTS ABOVE EXISTING PIPING. ISOLATE PIPING FROM SUPPORTS. PRIME AND PAINT ALL EXPOSED METAL TWO COATS RUST PREVENTIVE PAINT, COLOR BLACK.
- 5 INSTALL BOLLARDS. SEE INSTALLATION DETAIL ON ARCHITECTURAL DOCUMENTS. TYPICAL OF FOUR, ONE AT EACH CORNER OF TANK.

**SHEET NOTES:**

- 1 NEW ADDITION SPACE IS TO BE SPRINKLERED FROM EXISTING DRY SYSTEM. CONNECT TO EXISTING DSPR SYSTEM AS REQUIRED FOR ADDITIONAL COVERAGE OF NEW SPACE.



1 FLOOR PLAN



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**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

REVISIONS:  
△  
△  
△  
△

SHEET TITLE  
FLOOR PLAN  
DATE: JULY, 2004  
FILE: 10-1451

**M201**



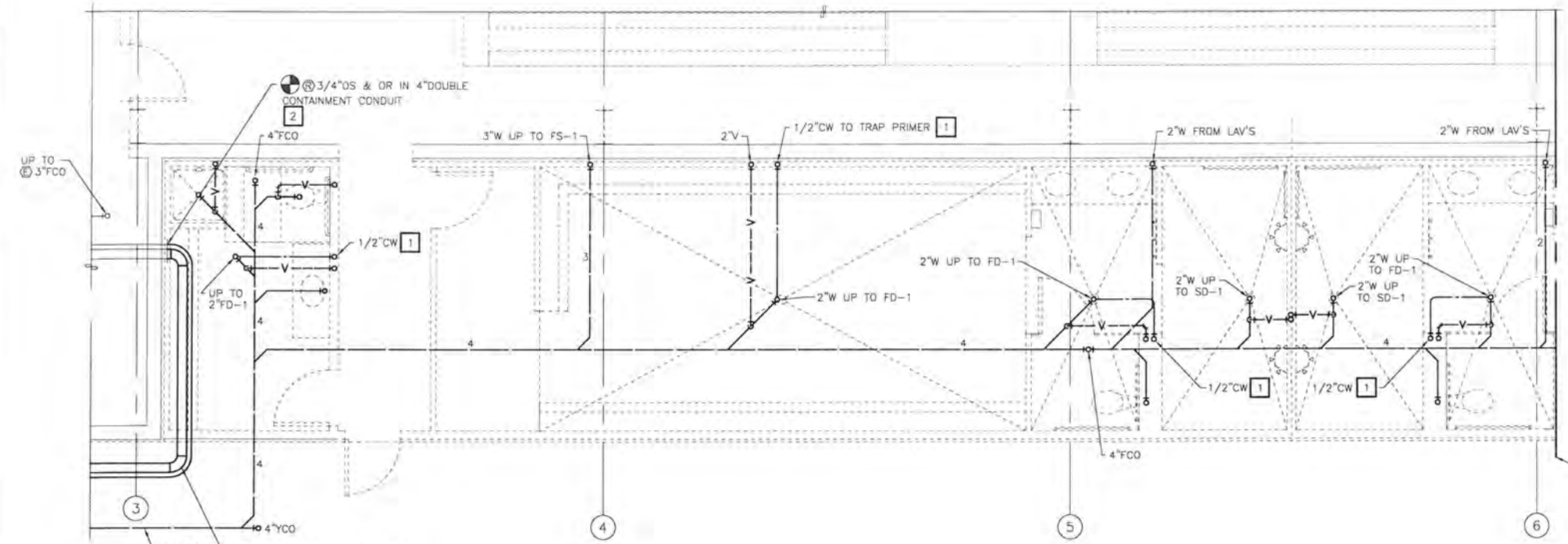
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

**CONSTRUCTION NOTES:**

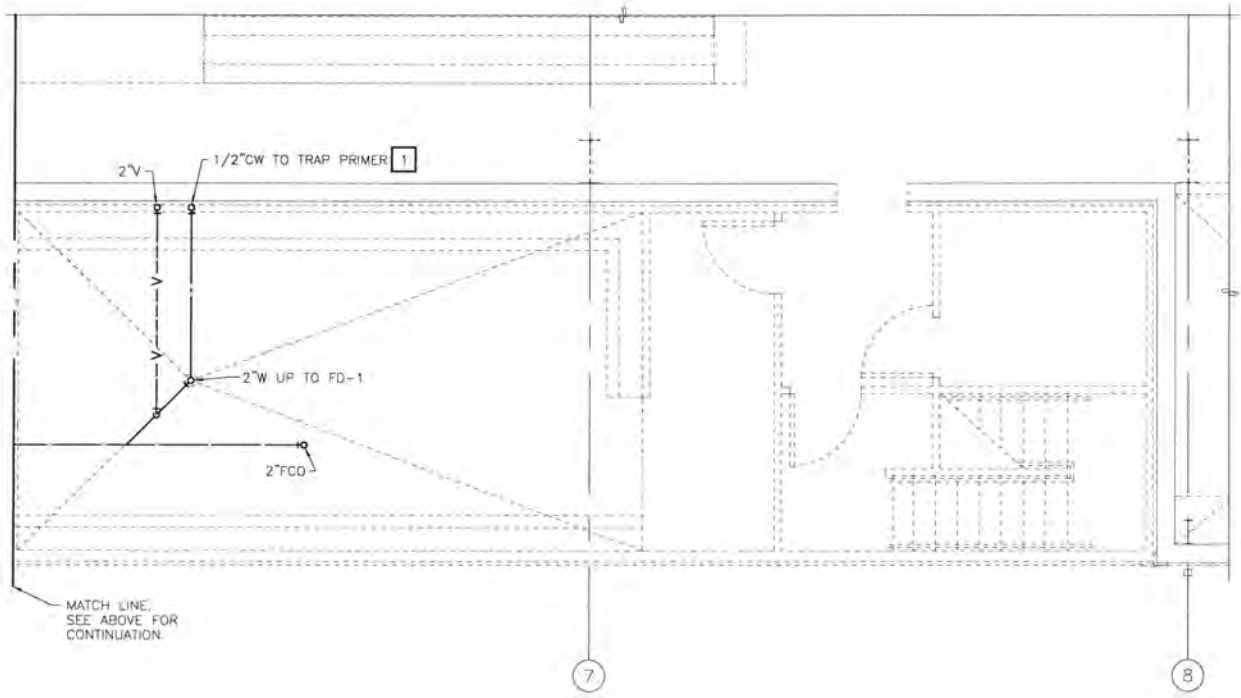
- 1 1/2" CW TO TRAP PRIMER. TRAP PRIMER LOCATED AT 18" AFF. BEHIND ACCESS DOOR.
- 2 REUSE AND MODIFY EXISTING 4" SECONDARY CONTAINMENT PIPING AS REQUIRED. PROVIDE NEW 4-INCH OUTER CONTAINMENT AND ANY TRANSITIONS REQUIRED. FOR A COMPLETE SYSTEM.

**SHEET NOTES:**

- 1 SEE PLUMBING DIAGRAM ON SHEET M401 FOR CONFIGURATION OF PLUMBING SYSTEM FOR THIS AREA. PIPING, SIZES, VALVES, AND APPURTENANCES. SEE PLUMBING FIXTURE SCHEDULE ON M002 FOR INDIVIDUAL FIXTURE CONNECTION SIZES.

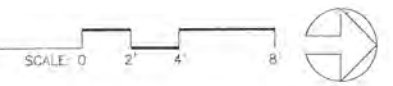


MATCH LINE.  
SEE BELOW FOR  
CONTINUATION.



MATCH LINE.  
SEE ABOVE FOR  
CONTINUATION.

1 ENLARGED FOUNDATION PLAN

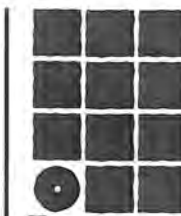


REVISIONS

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- △
- △
- △

SHEET TITLE  
ENLARGED  
FOUNDATION  
PLAN

DATE: JULY, 2004  
FILE: 10-145.1



**Jensen  
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Lott  
Inc.**

522 West 10th Street  
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phone 907-586-1070  
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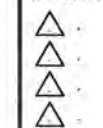
**MURRAY &  
ASSOCIATES, P.C.**  
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JUNEAU, ALASKA 99802  
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City and Borough of Juneau  
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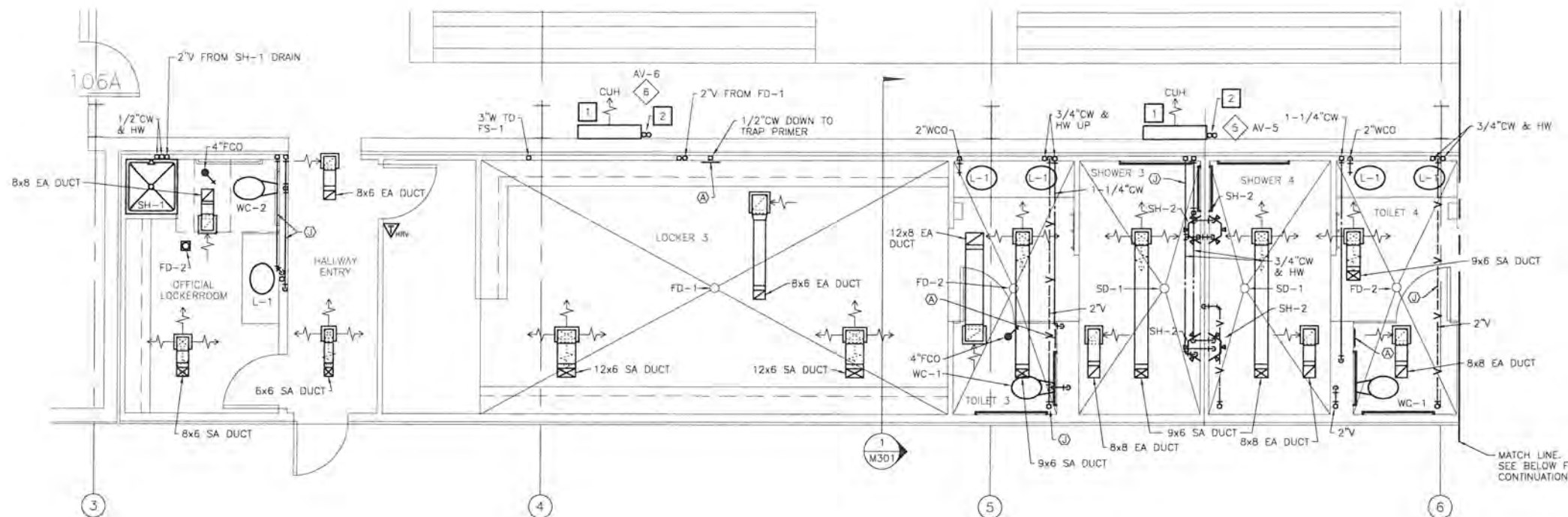
REVISIONS



SHEET TITLE  
ENLARGED  
FLOOR PLAN

DATE JULY, 2004  
FILE: 10-145.1

**M203**



**CONSTRUCTION NOTES:**

- 1 CUH MOUNTED 6" AFF. BEHIND BLEACHER SEATING TO PAINTED PLYWOOD BACKING.
- 2 INSULATED HS & HR PIPING DOWN TO CUH TO BE INSTALLED WITH METAL INSULATION SHIELD.

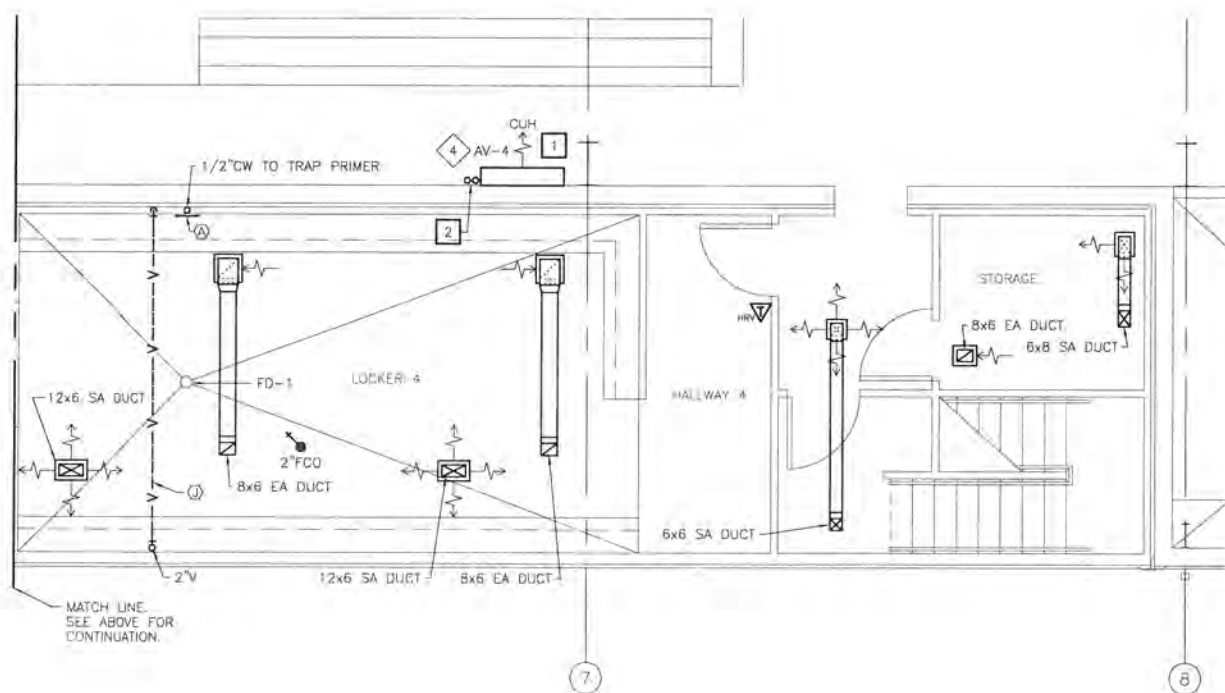
**SHEET NOTES:**

1. DUCTWORK AND PIPING TO BE CONCEALED IN JOIST SPACE. COORDINATE ROUTING WITH ON-SITE CONDITIONS. FIELD ADJUST AS REQUIRED. COORDINATE WITH STRUCTURE.
2. INSULATE ALL SUPPLY AIR DUCTWORK, COORDINATE INSULATING WITH DUCTWORK IN JOIST SPACE.
3. HS & HR PIPING CONNECTION TO CABINET UNIT HEATERS IS TO BE 3/4" UNLESS OTHERWISE NOTED.

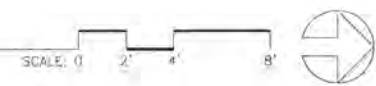
**DIFFUSER AND GRILLE SCHEDULE**

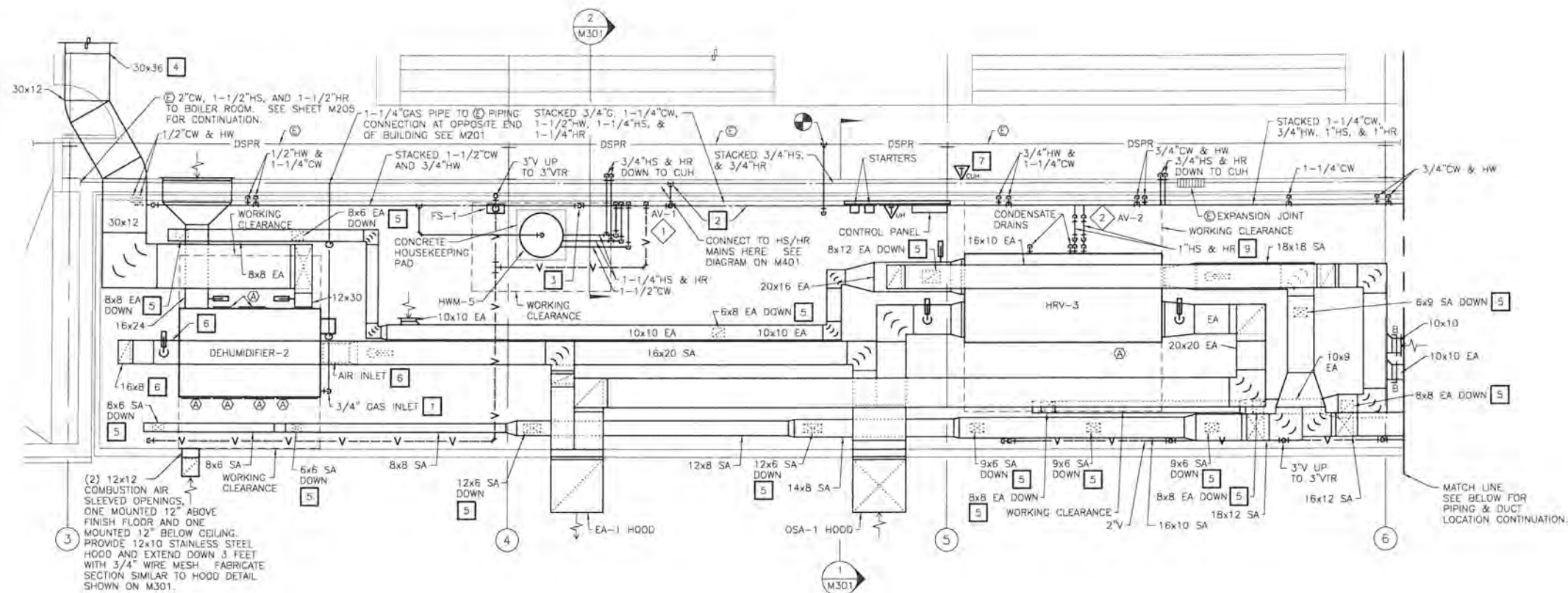
SUPPLY CEILING DIFFUSER OR WALL GRILLE						EXHAUST GRILLE				
ROOM	MARK	NUMBER	SUPPLY CFM	FACE SIZE	NECK SIZE	MARK	NUMBER	EXHAUST CFM	FACE SIZE	NECK SIZE
OFFICIAL LOCKER ROOM	SG-1	1	180	12x6	12x6	EG-1	1	190	12x8	12x8
HALLWAY/ENTRY	SG-1	1	100	6x6	6x6	EG-1	1	90	8x6	8x6
LOCKER 3	SG-1	2	115	9x6	9x6	EG-1	1	200	10x10	10x10
TOILET 3	SG-1	1	100	6x6	6x6	EG-1	1	100	8x6	8x6
SHOWER 3	SG-1	1	270	12x9	12x9	EG-1	1	300	12x12	12x12
LOCKER 4	SG-1	2	150	12x6	12x6	EG-1	2	130	8x8	8x8
TOILET 4	SG-1	1	100	6x6	6x6	EG-1	1	100	8x6	8x6
SHOWER 4	SG-1	1	270	12x9	12x9	EG-1	1	300	12x12	12x12
HALLWAY 4	SG-1	1	70	6x6	6x6	EG-1	1	70	6x6	6x6
STORAGE	SG-1	1	80	6x6	6x6	EG-1	1	80	8x6	8x6
MEZZANINE	SG-2	2	315	10x10	10x10	EG-1	2	285	10x10	10x10
ICE RINK	SG-2	1	3,000	30x36	30x36	RG-1	1	3,000	48x48	48x48

NOTE: 1.) ALL SG-1'S ARE TO BE 4-WAY BLOW EXCEPT IN STORAGE (2-WAY CORNER STYLE AS SHOWN).  
2.) ALL EG'S SHALL HAVE OPPOSED BLADE DAMPERS.



**1 ENLARGED FLOOR PLAN**



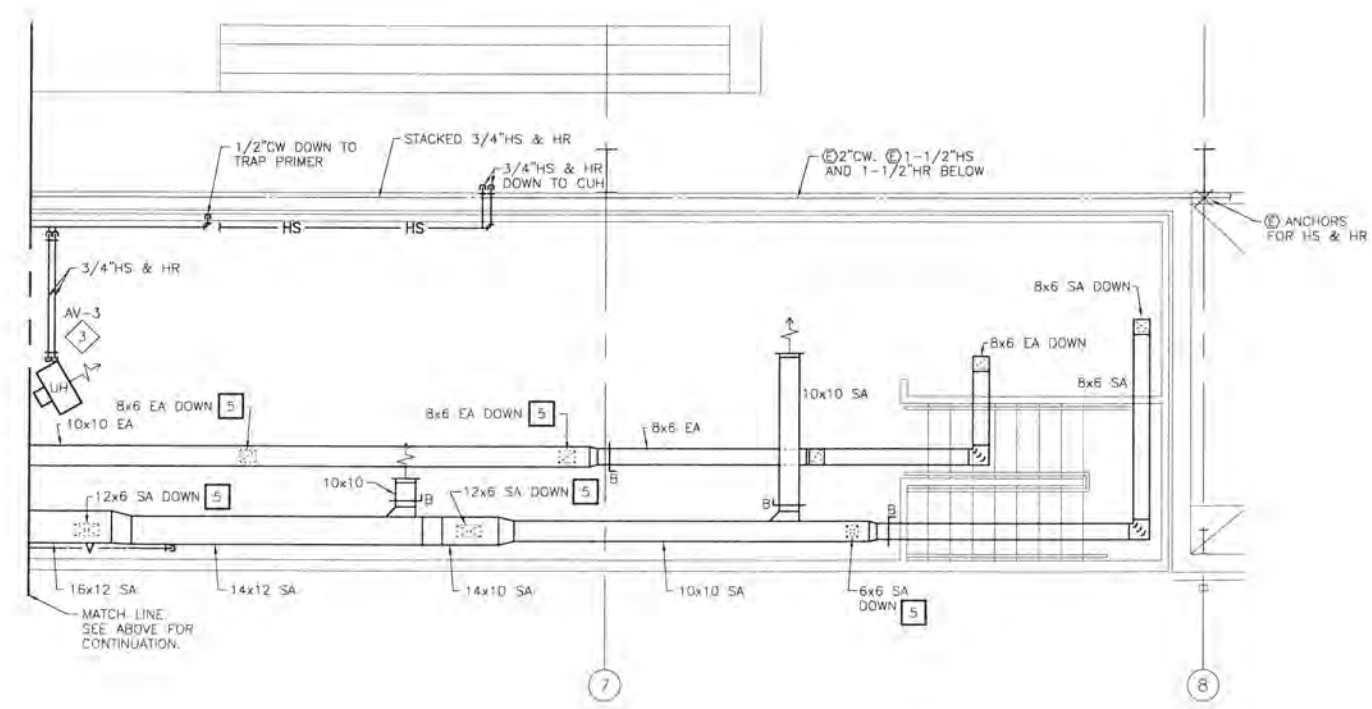


**CONSTRUCTION NOTES:**

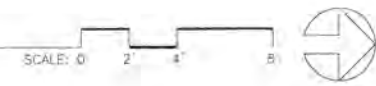
1. INSTALL ISOLATION VALVE AT UNIT. PROVIDE PIPING TRANSITION AS REQUIRED.
2. INSULATE ALL CW PIPING. CONNECTIONS TO CW MAIN. MAINTAIN INTEGRITY OF HEAT TRACE ON EXISTING MAIN. RE-INSULATE CW MAIN AND CONNECTION POINT WHERE MODIFIED.
3. ROUTE HW & CW MAINS FROM THIS POINT TOWARDS DEHUMIDIFIER-2 AS CLOSE TO CEILING AS POSSIBLE TO AVOID DEHUMIDIFIER-2 DUCT PENETRATIONS. COORDINATE ON-SITE.
4. ROUTE 30"x36" DUCT TO 30"x36" SG-2 AT CORNER. SEE SHEET M201 FOR DUCT CONTINUATION.
5. INSTALL BUTTERFLY MANUAL DAMPER IN VERTICAL DUCT AND ADJACENT TO MAIN.
6. TRANSITION TO DUCT CONNECTION.
7. ONE WALL MOUNTED THERMOSTAT SHALL CONTROL THREE CUH'S.
8. INSTALL TWO 3/4" CONDENSATE DRAINS WITH CLEANABLE TRAPS. COMBINE AND TRANSITION TO 1" ROUTE TO FS-1 ALONG WALL AND OUT OF PATH WAY. INSTALL SHEET METAL SHIELD OVER PIPING THAT CROSSES FLOOR AND PATH WAY TO EQUIPMENT.
9. ROUTE PIPING AS HIGH AS POSSIBLE FOR MAINTENANCE PATH. INSTALL AAV'S AT TOP.

**SHEET NOTES:**

1. INSULATE ALL SUPPLY AIR, OUTSIDE AIR, DUCTWORK. INSULATE EXHAUST AIR DUCTWORK FROM HRV-3 AND DEHUMIDIFIER-2 TO EXHAUST AIR LOUVER. INSULATE OSA AND EA PLENUMS.
2. INSTALL DUCTWORK AND PIPING AS HIGH AS POSSIBLE TO MAXIMIZE WORKING CLEARANCES.
3. SEE PIPING DIAGRAM ON M401 FOR PIPING CONTINUATION.



1 ENLARGED MEZZANINE PLAN



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City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
 105 Savikko Road  
 Contract No. E04-171

REVISIONS:


SHEET TITLE  
ENLARGED  
MEZZANINE  
PLAN

DATE: JULY, 2004  
FILE: 10-143.1

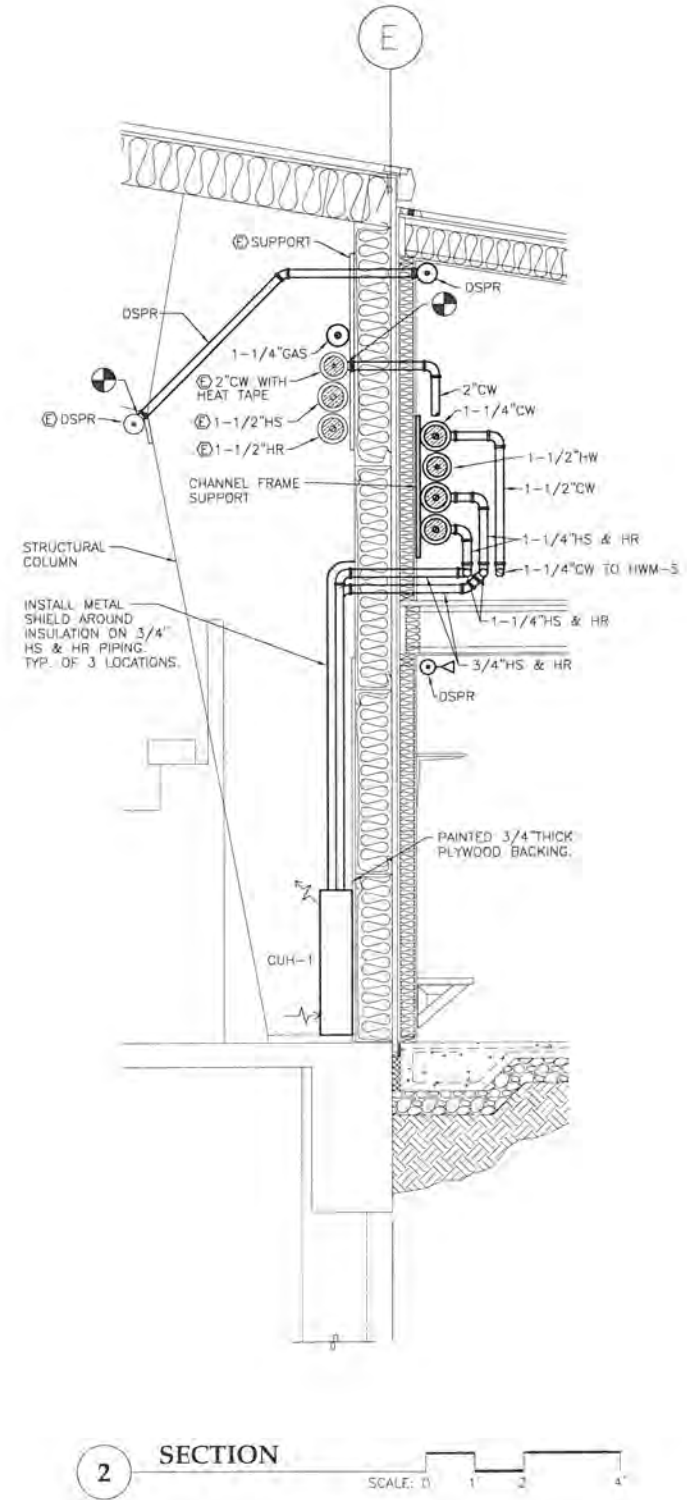
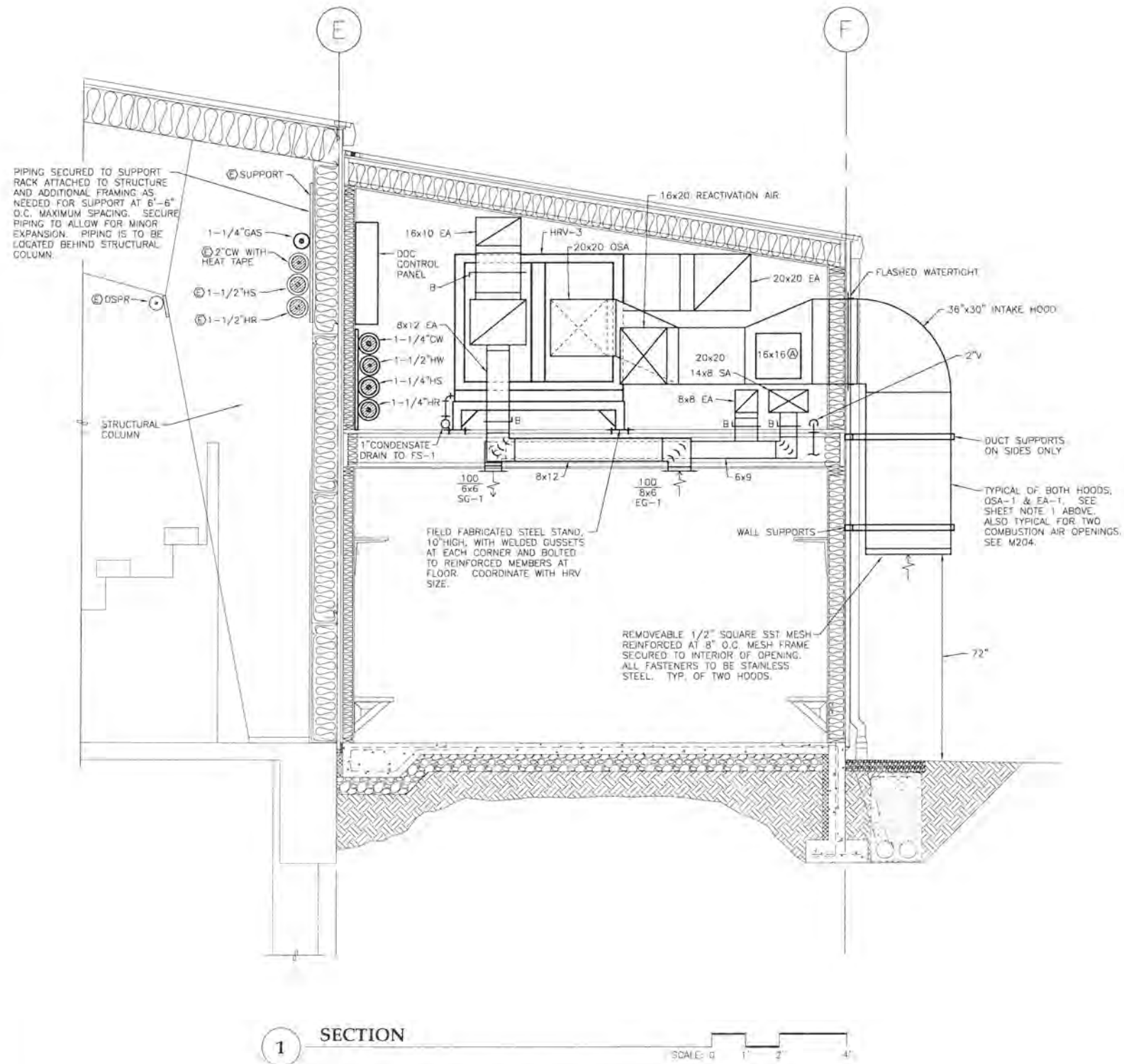
**M204**





**SHEET NOTES:**

- EXTERIOR HOODS AND DUCTWORK ARE TO BE CONSTRUCTED OF 20 GAGE STAINLESS STEEL TYPE 316 WITH CONTINUOUS WELDED JOINTS. ALL JOINTS GROUND SMOOTH. INSTALL INTERNAL STIFFENERS FOR EACH 4 FOOT SECTION COMPRISED OF MINIMUM 1/2" CONDUIT OR EQUAL, DIAGONALLY BRACED.



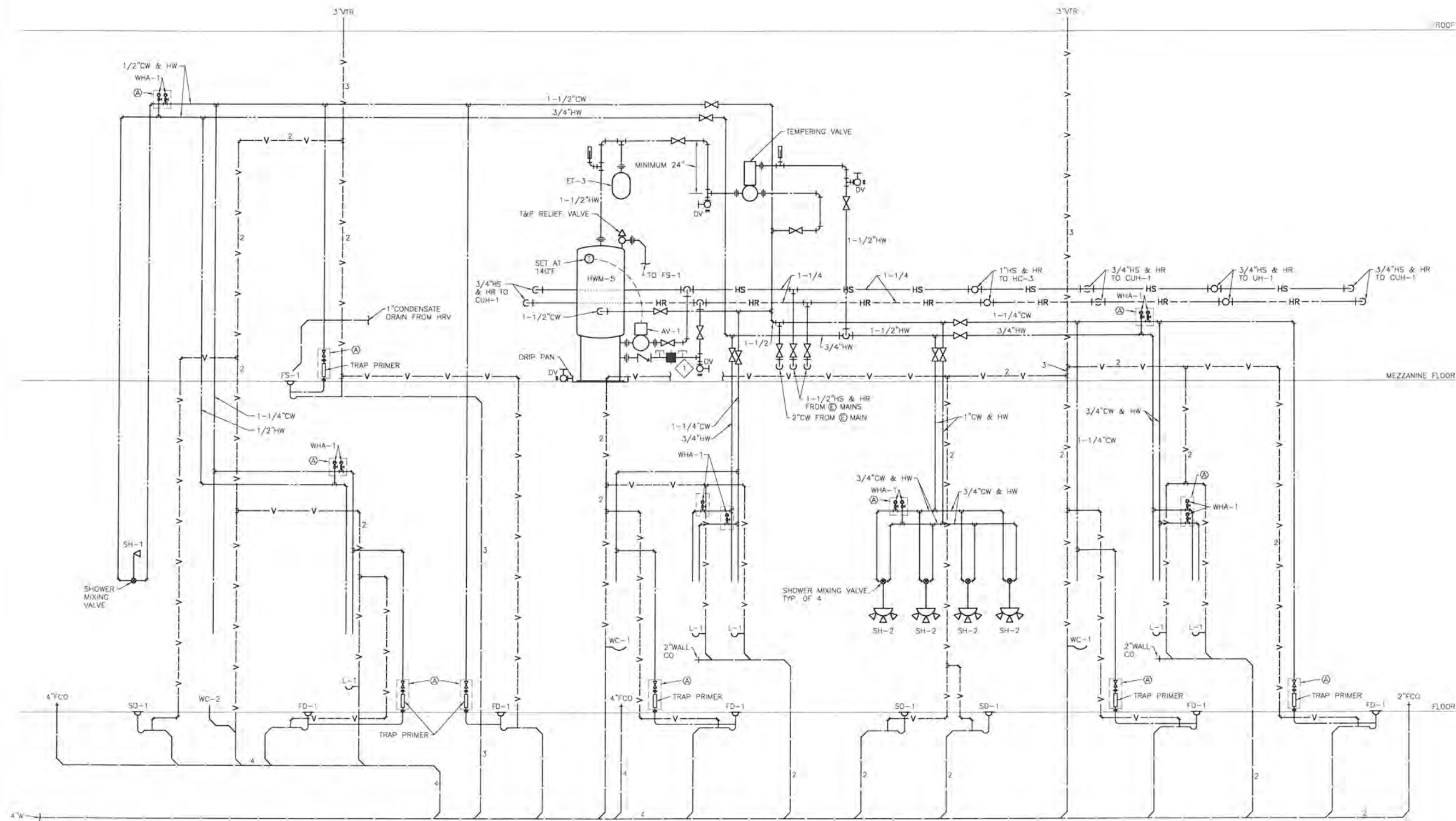
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

- REVISIONS:
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SHEET TITLE  
SECTION

DATE: JULY, 2004  
FILE: 10-143.1

**M301**



1 PIPING DIAGRAM NO SCALE



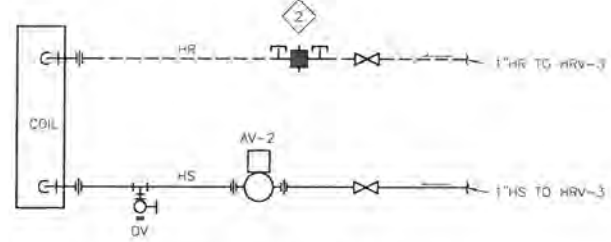
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
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- REVISIONS:
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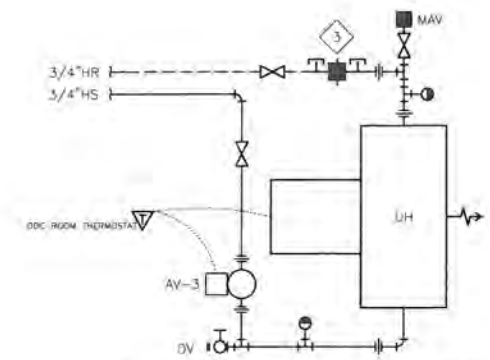
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PIPING  
DIAGRAM

DATE: JULY, 2004  
FILE: 10-145.1

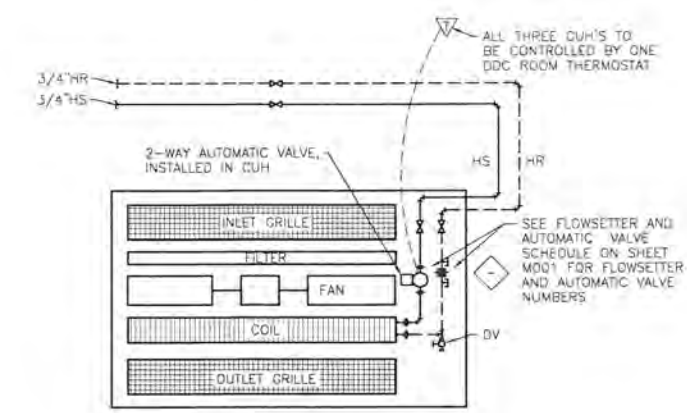
**M401**



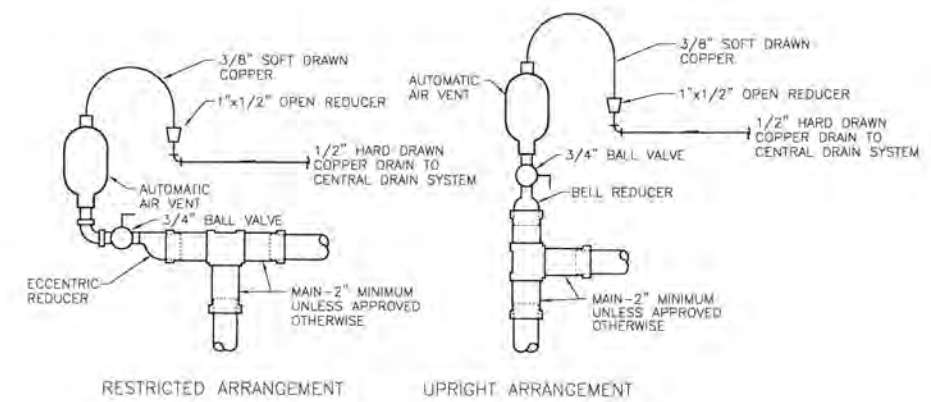
**1 HEATING COIL DETAIL**  
NO SCALE



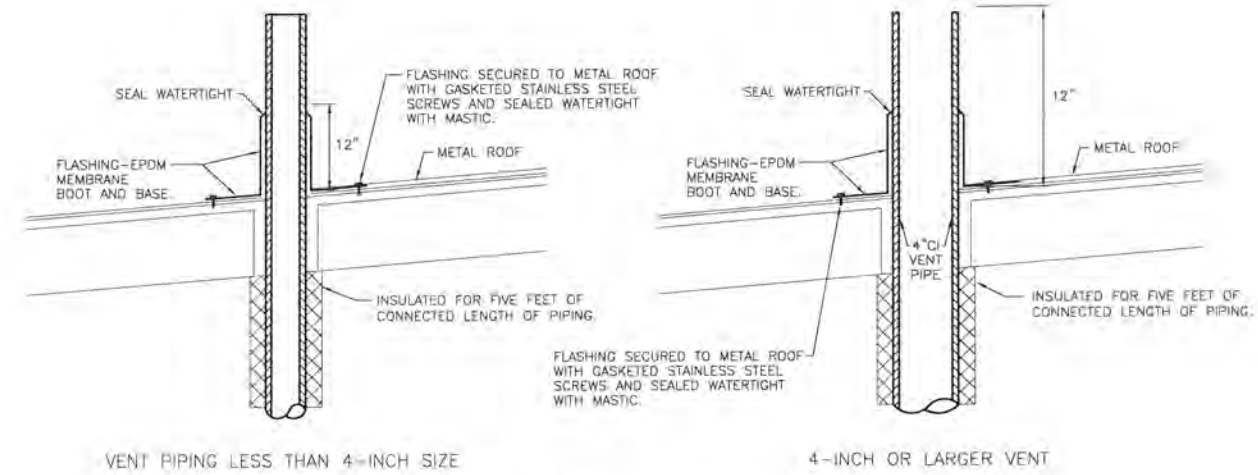
**2 UNIT HEATER DETAIL**  
NO SCALE



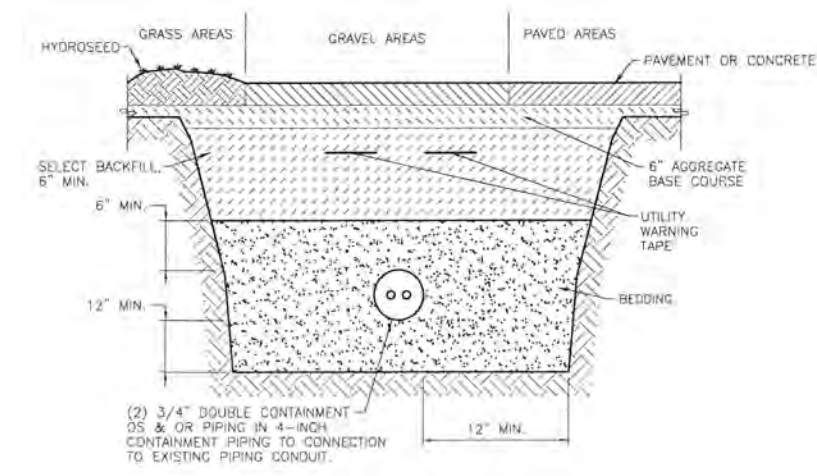
**3 CUH DETAIL**  
NO SCALE



**4 AUTOMATIC AIR VENT DETAILS**  
NO SCALE



**5 VENT THROUGH ROOF DETAILS**  
NO SCALE



**6 DIRECT BURIED PIPE TRENCH DETAIL**  
NO SCALE

**Jensen Yorba Lott Inc.**

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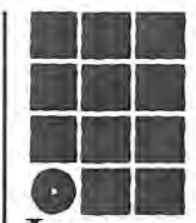
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
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REVISIONS  
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▲  
▲  
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SHEET TITLE  
**DETAILS**

DATE: JULY, 2004  
FILE: 10-145.1

**M501**



**Jensen  
Yorba  
Lott  
Inc.**

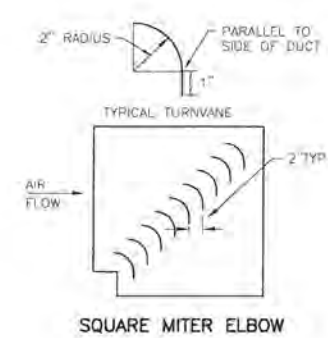
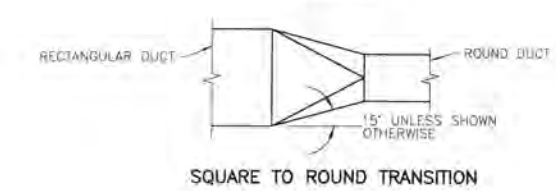
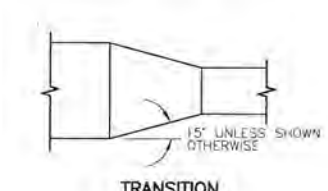
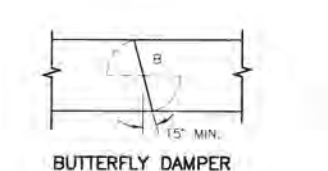
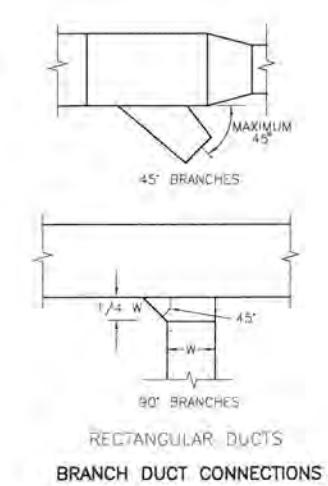
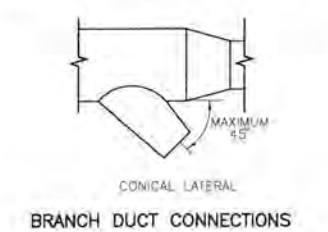
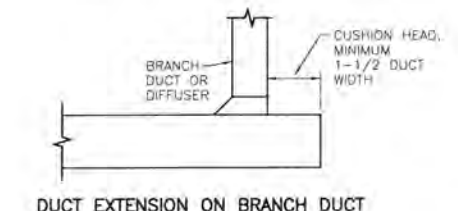
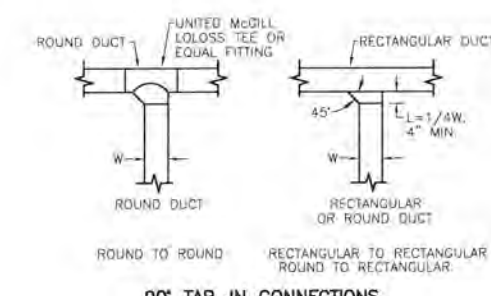
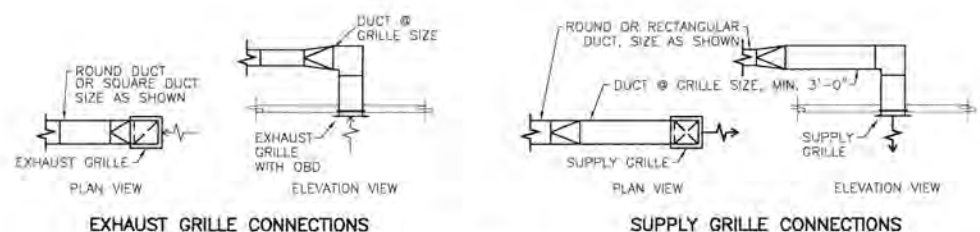
522 West 10th Street  
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**MURRAY &  
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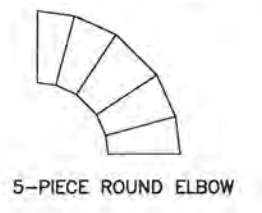
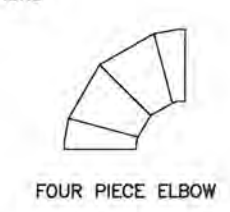
P O BOX 21081  
JUNEAU, ALASKA 99802  
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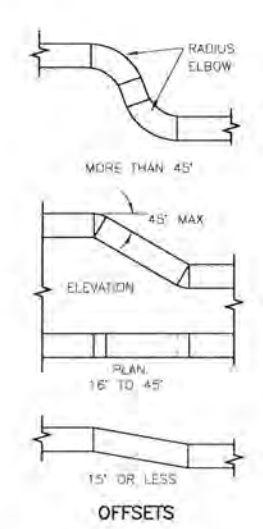
City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
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**RECTANGULAR DUCTS**



**RECTANGULAR AND ROUND DUCTS**



**RECTANGULAR AND ROUND DUCTS**

**ROUND DUCTS**

NOTE: ALL DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE DETAILS AND THE SPECIFICATIONS.

**1 DUCT CONSTRUCTION DETAILS**

NO SCALE

REVISIONS:  
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 SHEET TITLE  
 DETAILS  
 DATE: JULY, 2004  
 FILE: 10-145.1

**M502**

**LEGEND**

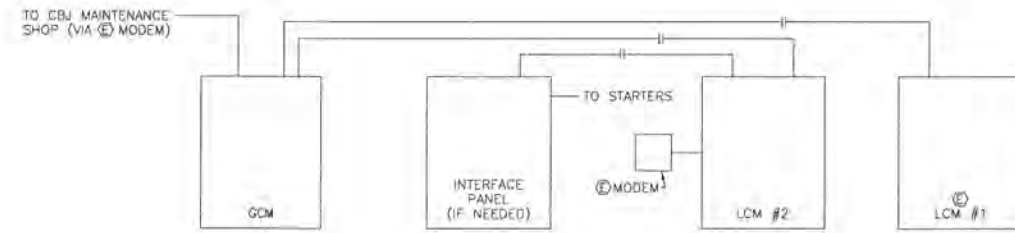
ⓐ	CONTROLLER	ⓐ	COMMON
ⓑ	SMOKE SENSOR	ⓑ	HEAT RECOVERY VENTILATOR
ⓒ	THERMOSTAT OR THERMOSTATIC SENSOR	ⓒ	LOW LIMIT CONTROL
ⓓ	VALVE ACTUATOR	ⓓ	NORMALLY OPEN
ⓔ	DAMPER ACTUATOR	ⓔ	NORMALLY CLOSED
ⓕ	FLOW SENSOR	ⓕ	OUTSIDE AIR DAMPER
ⓖ	DIFFERENTIAL PRESSURE GAGE	ⓖ	OUTSIDE AIR
ⓗ	CARBON DIOXIDE SENSOR		
ⓘ	CURRENT SENSOR		
ⓙ	PUMP		
ⓚ	ROOM SUPPLY AIR TEMPERATURE CONTROL		
ⓛ	ROOM TEMPERATURE CONTROL		
ⓜ	OUTSIDE AIR TEMPERATURE		
ⓝ	IMMERSION THERMOSTAT		
ⓞ	AIR DIRECTION		
ⓟ	THERMOMETER		
ⓠ	CARBON DIOXIDE SENSOR		
ⓡ	FREON SENSOR		
ⓢ	BYPASS TIMER		

**SHEET NOTES:**

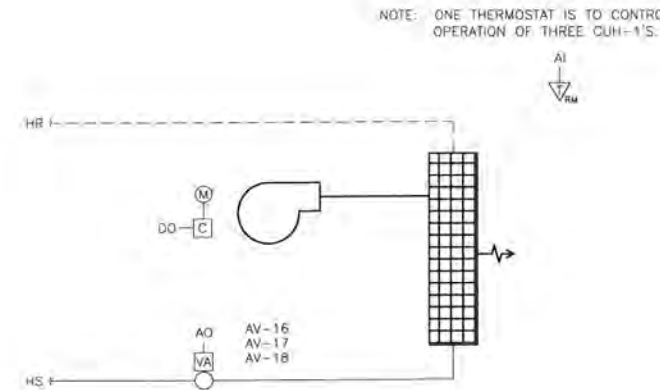
- THE DIAGRAMS AND POINTS SHOWN HERE ARE SCHEMATIC ONLY. REFER TO SEQUENCE OF OPERATIONS AND SECTION 15915 OF THE SPECIFICATIONS FOR COMPLETE CONFIGURATION OF THE SYSTEMS. IT IS INTENDED THAT OTHER THAN THE HRV INTERNAL CONTROLS, ALL CONTROLS SHALL BE SIEBE NETWORK 8000 DDC CONTROLS AND EQUIPMENT FOR COMPATIBILITY WITH THE EXISTING SYSTEM.
- SEE PLANS FOR RESPECTIVE ROOM THERMOSTAT LOCATIONS. SEE PLANS FOR OTHER EQUIPMENT LOCATIONS.
- ALL SYSTEMS ABBREVIATIONS, FUNCTIONS, AND EQUIPMENT NAMES SHALL BE UTILIZED AS SHOWN HEREUNDER. ALL SWITCHES AND CONTROL EQUIPMENT SHALL BE PERMANENTLY LABELED AS INDICATED HEREUNDER AND AS COORDINATED WITH ENGINEER. HAND WRITING WITH MARKERS IS NOT ACCEPTABLE.
- COORDINATE CONTROL RESPONSIBILITY WITH HRV MANUFACTURER FOR A COMPLETE SYSTEM AS INTENDED.
- CONNECT DDC CONTROLS SYSTEM INTO EXISTING DDC BUILDING AUTOMATION SYSTEM (BAS). COORDINATE WITH EXISTING CONTROLS, NEW EQUIPMENT, AND APPURTENANCES.
- CONTROL CONTRACTOR SHALL PROVIDE GRAPHIC SOFTWARE FOR EXISTING AND NEW DDC CONTROLS SHOWING EACH PIECE OF MECHANICAL EQUIPMENT, ALL CONTROL/MONITORING POINTS, AND ALL ADJUSTABLE SETTINGS. CONTRACTOR SHALL INSTALL SOFTWARE ON OWNERS EXISTING COMPUTER AT CBJ MAINTENANCE OFFICES AND PROVIDE CONNECTIONS TO EXISTING AND NEW DDC CONTROLS AT TREADWELL ARENA. CONTROL CONTRACTOR SHALL PROVIDE 4 HOURS OF TRAINING AFTER CONTROLS HAVE BEEN APPROVED AND OPERATING CORRECTLY FOR MINIMUM OF SEVEN DAYS.

**SEQUENCE OF OPERATIONS**

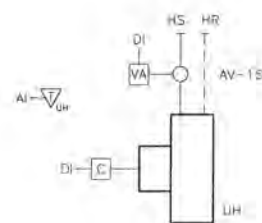
- CABINET UNIT HEATER (CUH-1) AND UNIT HEATER (UH). DDC room thermostat set at 50°F and 65°F respectively maintains constant space temperature by cycling unit fan motor and opening respective automatic valve.
- HEAT RECOVERY VENTILATION (HRV-3)
  - Magnetic Starter with a HAND-OFF-AUTO switch on the HRV. In the AUTO position, the HRV supply fan and HRV exhaust fan operate when activated by the occupied schedule of the time clock or one of two room thermostats is activated on night setback. In the Hand position, the fan operates at the command of the low-limit thermostat. Outside air damper (OAD) and two-way automatic valve (AV-7 & AV-8) to operate when fans operate. Fan unit operation delay until OAD is fully open.
    - Heat Exchanger: Frost Control with exhaust air sensor, set at 36°F, to bypass air around heat exchanger. Similar control when exhaust air sensor is above 60°F for summer bypass. Coordinate with manufacturer for wiring diagrams. Controls to be provided by HRV manufacturer.
    - Supply Air: Averaging bulb duct thermostat in the supply air discharge to modulate automatic valve and face and bypass dampers to maintain an adjustable 60°F supply air. Two room thermostats, set at 65°F, shall modulate respective automatic valve of HRV heating coil to maintain setpoint. Respective automatic valve to close on an outside air temperature above an adjustable 55°F. Duct thermostat to be provided by HRV manufacturer. All other controls to be provided by DDC contractor.
    - Night Setback Control: Upon reaching setpoint of 45°F at either room thermostat respective HRV shall operate, OSA and EA dampers shall close and bypass damper shall open, and supply air heating control shall operate. DDC contractor shall interface with HRV controls as necessary for correct sequence.
    - Provide Low-Limit Control, set at an adjustable 40°F, to stop HRV supply fan upon activation below setpoint and open respective automatic valve to heating. Controls to be provided by HRV manufacturer.
    - Operating Status: Current sensor on the motors for supply fan and exhaust fan in HRV-3, to send operating status of fans to BAS system.
- AUTOMATIC VALVE (AV-14): Immersion thermostat in hot water maker (HWM-5), set at an adjustable 140°F, shall close AV-14 above set point.
- DEHUMIDIFIER: Provide spare point capacity in DDC panels to pick up 6 points in future from the two dehumidifiers.



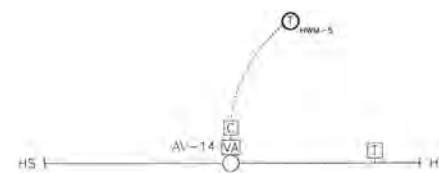
**1 DDC HIERARCHY** NO SCALE



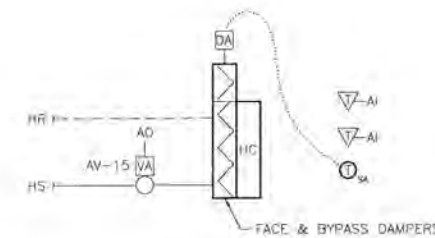
**2 CUH DDC CONTROL DIAGRAM** NO SCALE



**3 UH DDC CONTROL DIAGRAM** NO SCALE



**5 DOMESTIC HOT WATER AUTOMATIC VALVE LOCAL CONTROL SCHEMATIC** NO SCALE



**4 HRV HC CONTROL SCHEMATIC** NO SCALE



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City & Borough of Juneau  
**TREADWELL ARENA**  
**LOCKER ROOM EXPANSION**  
105 Savikko Road  
Contract No. E04-171

REVISIONS:  
△  
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SHEET TITLE  
**CONTROLS**

DATE: JULY, 2004  
FILE: 10-145.1

**M601**

# ELECTRICAL SPECIFICATIONS

## 16010 GENERAL

- A. The electrical drawings are diagrammatic in nature. The plans show the general locations of electrical devices, unless dimensioned thereon. Make minor relocations as required to provide a symmetrical appearance, or to avoid conflict with other structural, architectural, or mechanical features.
- B. Comply with the latest editions of the NEC, and NFPA codes and standards, as well as the applicable Federal, State, and local codes.
- C. Mount devices at heights above the finished floor as follows, unless otherwise noted. Measure heights to the centerline of the boxes.

1. Switches	48 inches
2. Interior Receptacles	18 inches
3. F.A. Manual Pull Stations	48 inches
4. Bells and Signal Devices	80 inches
- D. Unless otherwise noted, provide new, high-quality equipment and materials which are standard and current within the industry, and approved by Underwriters' Laboratory.
- E. All products shall be delivered and stored in original containers. Protect all items from dirt, water, chemical, and/or mechanical damage.

## 16110 RACEWAYS

- A. All rigid steel conduit, electrical metallic tubing, and fittings shall meet ANSI requirements.
- B. Install conduit mechanically and electrically continuous from termination to termination. Connect securely to cabinets, junction boxes, and device boxes.

## 16120 WIRE AND CABLE

- A. Utilize 600 volt rated wire insulation where the impressed voltage is less than 600 volts and greater than 100 volts.
- B. Utilize minimum wire sizes as follows, unless otherwise noted:

1. No. 12 AWG for branch circuit wiring.
2. No. 16 AWG for control circuit wiring.
3. No. 16 AWG for lighting fixture wiring.
- C. Size all conductors according to American Wire Gauge (AWG).
- D. Provide conductors with THW, THWN, THHN, or XHHW insulation, unless otherwise noted.
- E. Provide solderless type connectors for conductors. Utilize preinsulated 'twist-on' type for conductors No. 10 AWG or less in size, or bolt or compression set type with a preformed cover, heat shrink tubing, or tape for insulation.

## 16130 OUTLET AND JUNCTION BOXES

- A. Provide zinc coated, pressed steel outlet and junction boxes as required. Provide plaster rings as required.
- B. Install junction boxes in permanently accessible locations only.

## 16140 SWITCHES AND RECEPTACLES

- A. Provide specification grade, enclosed, lumbar type switches, approved by U.L., rated 20 amperes at 277 volts.
- B. Provide specification grade, NEMA 5-20R, phenolic receptacles, approved by U.L.
- C. Devices shall be ivory colored with stainless steel plates.

## 16170 DISCONNECTS

- A. Provide heavy duty type disconnects, rated for 600 volt service. Each shall be horsepower rated with quick-make, quick-break switching.

## 16180 CIRCUIT BREAKERS

- A. Provide 10,000 ampere symmetrical interrupting capacity minimum, unless otherwise noted. All circuit breakers shall be a bolt-in type.
- B. The schedules in the drawings indicate the number of poles and ampere ratings for branch circuits to electrical devices. Provide the ratings as required with changes in equipment or circuit requirements.
- C. Circuit all feeder and branch circuits as shown in the drawings.

## 16190 SUPPORTING DEVICES

- A. Conduit: Utilize galvanized conduit straps where surface mounted and spring cups or hangers where suspended.
- B. Boxes: Utilize purpose made hangers as required where flush mounted.
- C. Allow for a minimum safety factor of five to one to support equipment loads. Plumbers tape and wire are not approved.

## 16450 GROUNDING

- A. Connect all non-current carrying electrical equipment, raceways, and enclosures to the service entrance ground bar.



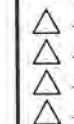
**HAIGHT  
& ASSOCIATES**  
CONSULTING  
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(907) 586-8788



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### REVISIONS



SHEET TITLE  
**ELECTRICAL  
SPECIFICATIONS**

DATE: JULY 2004  
FILE: 0361

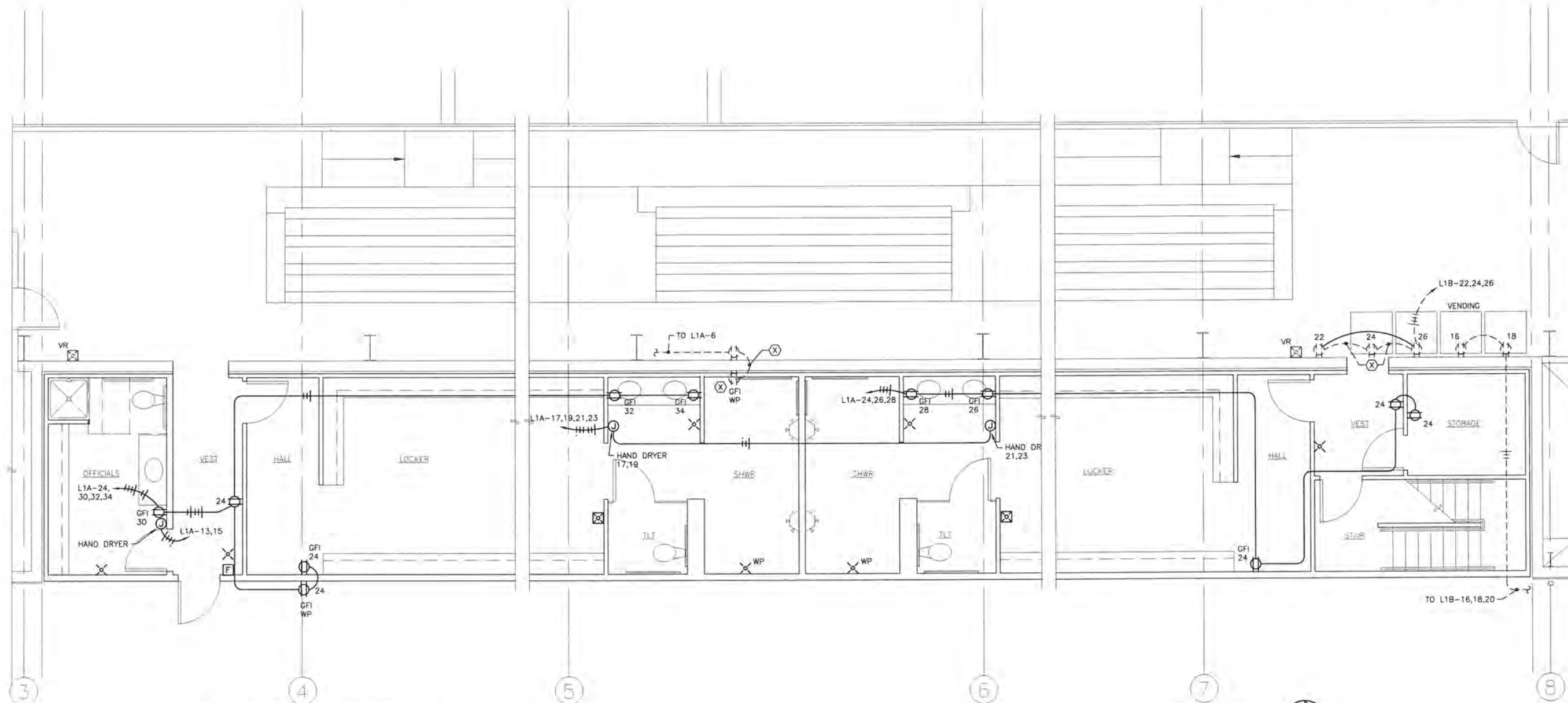
# E100

PANEL L1A		SIZE	VOLTS/PHASE			MAIN	LOCATION	MOUNT		
(EXISTING)		100 AMPS	208/120V, 3 PH			100A MCB	MECHANICAL ROOM	SURFACE		
C K T N O	DESCRIPTION	BREAKER AMP/ POLE	KVA			BREAKER AMP/ POLE	DESCRIPTION	C K T N O		
			CKT	AØ	BØ				CØ	
1	SPARE	20/1	0.0	0.7		0.7	20/1	EXTERIOR S., MAIN RINK S.	2	
3	SPARE	20/1	0.0		0.4	0.4	20/1	REFRIGERATION, STORAGE	4	
5	SPARE	20/1	0.0			0.7	20/1	ZAMBONI, SEATING AREA	6	
7	SPARE	20/1	0.0	0.4		0.4	20/1	MECHANICAL ROOM	8	
9	SPARE	20/1	0.0		0.7	0.7	15/1	CUH	10	
11	SPARE	20/1	0.0			0.7	15/1	CUH	12	
13	HAND DRYER	30/2	1.0	1.7		0.7	15/1	CUH	14	
15	----	----	1.0		1.7		15/1	UNIT HEATER (MECH MEZZ)	16	
17	HAND DRYER	30/2	1.0			1.5	0.5	20/1	MECH MEZZANINE	18
19	----	----	1.0		1.1		0.1	20/1	CONTROL PANEL (MECH MEZZ)	20
21	HAND DRYER	30/2	1.0		1.5		0.5	15/1	HWM-4 (MECH MEZZ, 1/8 HP)	22
23	----	----	1.0			2.1	1.1	20/1	VEST, HALL, STORAGE	24
25	SPACE	----	----		1.2		1.2	20/1	LOCKER ROOM	26
27	SPACE	----	----		1.2		1.2	20/1	LOCKER ROOM	28
29	SPACE	----	----			1.2	1.2	20/1	OFFICIALS LOCKER	30
31	SPACE	----	----		1.2		1.2	20/1	LOCKER ROOM	32
33	SPACE	----	----		1.2		1.2	20/1	LOCKER ROOM	34
35	SPACE	----	----		----	----	----	----	SPACE	36
37	SPACE	----	----		----	----	----	----	SPACE	38
39	SPACE	----	----		----	----	----	----	SPACE	40
41	SPACE	----	----		----	0.5	0.5	20/1	FIRE ALARM CONTROL PANEL (FACP)	42
BALANCED CONNECTED LOAD = 19.7 KVA / 55 AMPS			6.3	6.7	6.7	BALANCED DEMAND LOAD = KVA / AMPS				
MAXIMUM CONNECTED LOAD = 19.7 KVA / 56 AMPS						MAXIMUM DEMAND LOAD = KVA / AMPS				

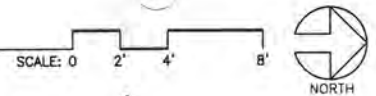
**LEGEND**

- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- GFI GROUND FAULT INTERRUPTER
- UON UNLESS OTHERWISE NOTED
- WP WEATHERPROOF
- (X) REMOVE
- S SINGLE POLE SWITCH
- So SUBSCRIPT DENOTES LUMINAIRE SWITCHED
- (//) FLUORESCENT LUMINAIRE, EQUIP W/ SINGLE EMERGENCY BALLAST WHERE SHOWN. BODINE B50 F-48 OR APPROVED EQUAL.
- (□) FLUORESCENT LUMINAIRE
- (□) EXTERIOR WALL MOUNTED LUMINAIRE
- (X) WALL MOUNTED EXIT LUMINAIRE
- (□) DUPLEX RECEPTACLE
- (□) JUNCTION BOX
- (□) PANELBOARD
- (□) DISCONNECT
- (□) MANUAL PULL STATION
- (X) FIRE ALARM HORN/STROBE
- (X) FIRE ALARM STROBE ONLY
- (X) HOMERUN
- (---) CONDUIT: 1/2" UON
- (---) UNGROUNDED CONDUCTORS
- (---) NEUTRAL: #10 WITH DOT, #12 OTHERWISE
- (---) GROUND CONDUCTOR
- (---) CONDUCTORS NOT SHOWN WHERE ONLY #12 NEUTRAL AND UNGROUNDED CONDUCTOR ARE REQUIRED
- (---) CONDUIT IN FLOOR
- (---) FLEXIBLE CONDUIT

NOTES:  
1. PROVIDE A STROBE-ONLY UNIT ON THE SOUTH WALL OF THE CONCESSION SPACE. REFER TO E304 FOR SPACE LOCATION.



1 FLOOR PLAN - POWER/SIGNAL



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SHEET TITLE  
POWER/SIGNAL

DATE: JULY 2004  
FILE: 0362

**E201**



**Jensen  
Yorba  
Lott  
Inc.**



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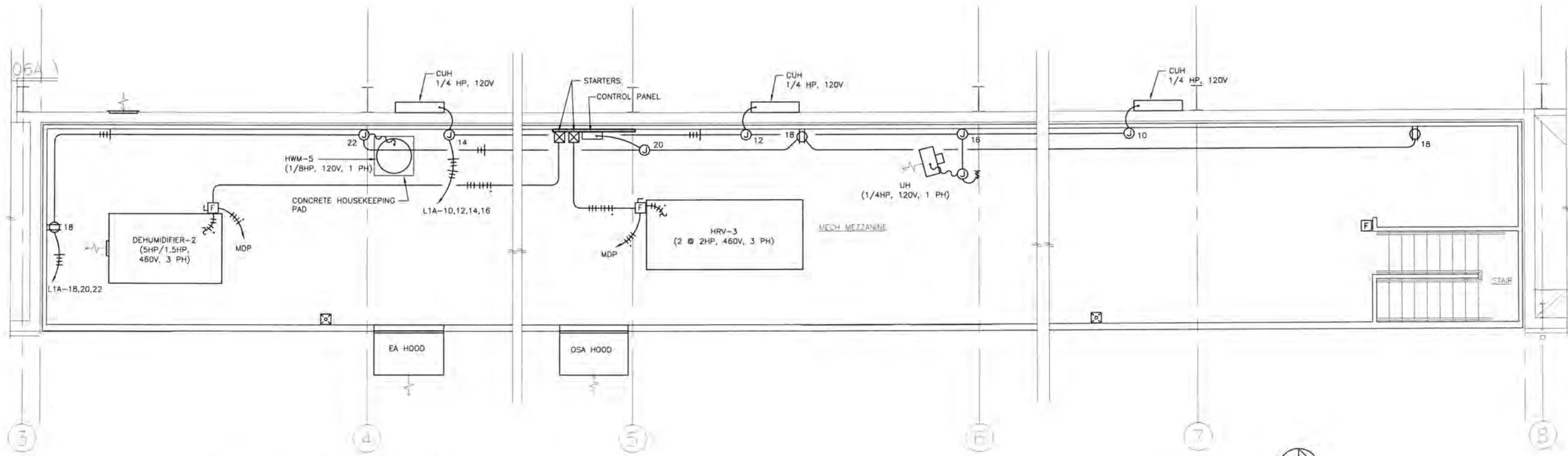


### MECHANICAL EQUIPMENT SCHEDULE

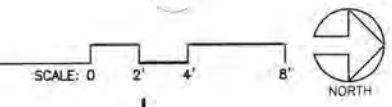
ITEM	DESCRIPTION	HP	KW	AMPS	VOLTS	PHASE	TOTAL KVA	FEEDER	DISCONNECT AT UNIT		STARTER SIZE	NOTES
									SWITCH	FUSE		
HRV-3	HEAT RECOVERY VENTILATOR	2			460	3 PH		1/2" C, 3 NO. 12, 1 NO. 12 GND	30/3	18	0	DISC. BY DIV. 15
DEHUMIDIFIER-2	DEHUMIDIFIER	5			460	3 PH		1/2" C, 3 NO. 12, 1 NO. 12 GND	30/3	18	0	DISC. BY DIV. 15
		1.5			460	3 PH						
HWM-5	HOT WATER MAKER	1/8			120	1 PH	0.4	1/2" C, 2 NO. 12, 1 NO. 12 GND				
CUH	CABINET UNIT HEATER (3 EA)	1/10			120	1 PH	0.7	1/2" C, 2 NO. 12, 1 NO. 12 GND	30/1			DISC. BY DIV. 15
UH	UNIT HEATER	1/4			120	1 PH	0.7	1/2" C, 2 NO. 12, 1 NO. 12 GND				

**NOTES:**

1. DEHUMIDIFIER AND HRV-3: PROVIDE 20A3P CIRCUIT BREAKER IN MDP FOR EACH UNIT. VERIFY OVERCURRENT PROTECTION AND FEEDER SIZE WITH THE MANUFACTURERS SHOP DRAWINGS.



1 MEZZANINE FLOOR PLAN - POWER/SIGNAL



City & Borough of Juneau  
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SHEET TITLE  
**MEZZANINE PLAN  
POWER/SIGNAL**

DATE: JULY 2004  
FILE: 0361

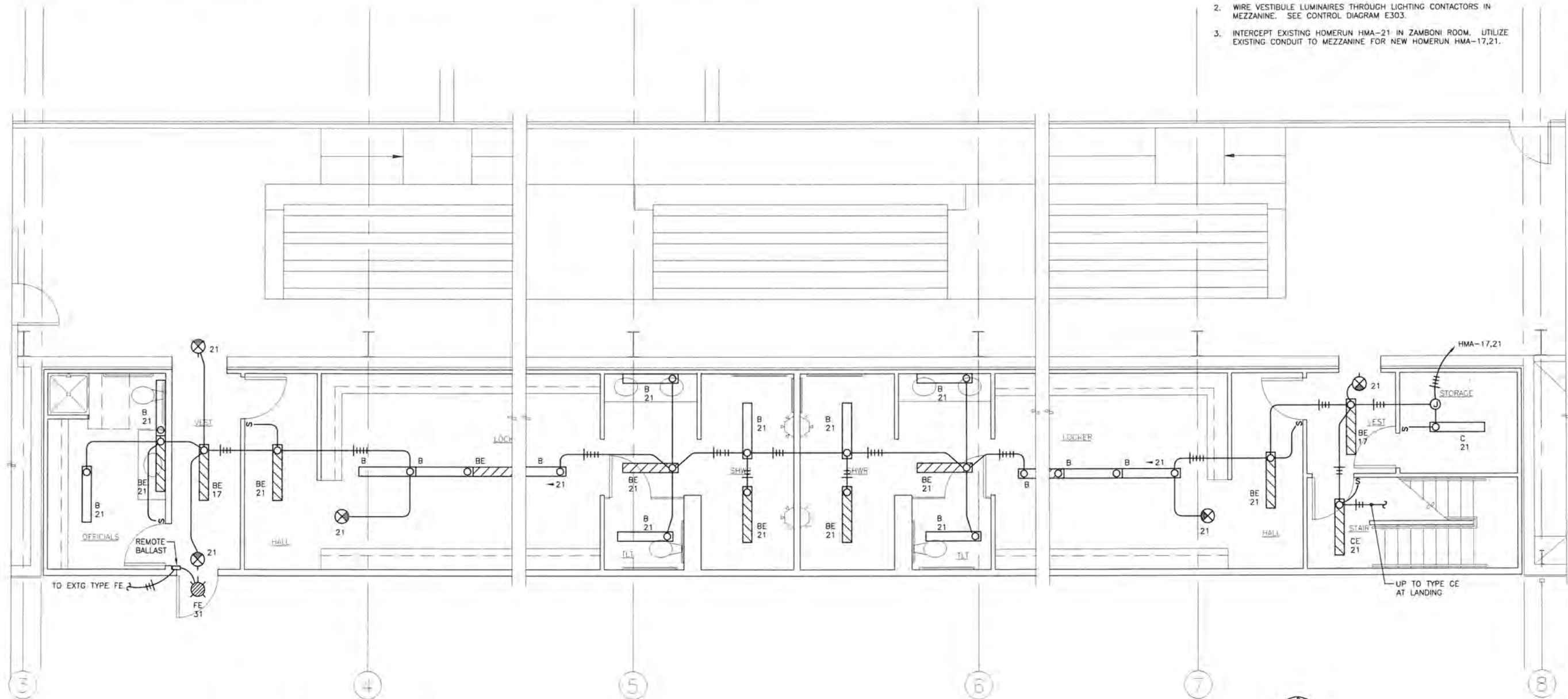
**E202**



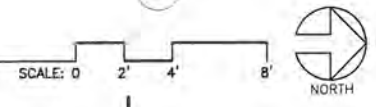
PANEL HMA		SIZE	VOLTS/PHASE				MAIN	LOCATION	MOUNT
(EXISTING)		225 AMPS	480/277V, 3 PH				225A MCB	MEZZANINE	SURFACE
C.K.T. NO	DESCRIPTION	BREAKER AMP/POLE	KVA				BREAKER AMP/POLE	DESCRIPTION	C.K.T. NO
			CKT	AØ	BØ	CØ			
1	ARENA	20/2	4.0	4.0		0.0	20/1	SPARE	2
3	---	---	4.0		4.0		0.0	20/1	SPARE
5	ARENA	20/2	4.0			4.0	0.0	20/1	SPARE
7	---	---	4.0	4.0			0.0	20/1	SPARE
9	ARENA	20/2	4.0		4.0		0.0	20/1	SPARE
11	---	---	4.0			4.0	0.0	20/1	SPARE
13	ARENA	20/2	4.0	4.0			---	---	SPACE
15	---	---	4.0		4.0		---	---	SPACE
17	ARENA - EGRESS	20/1	0.9			0.9	---	---	SPACE
19	MEZZANINE	20/1	1.2	1.2			---	---	SPACE
21	REFRIGERATION, STOR, MECHANICAL, ZAMBONI	20/1	1.2		1.2		---	---	SPACE
23	TICKET, RENTAL, CONCESSION	20/1	1.2			1.2	---	---	SPACE
25	ENTRY, VEST, MANAGER, RESTRMS, JAN., OFFICAL	20/1	1.6	1.6			---	---	SPACE
27	LOCKER ROOMS 3 & 4	20/1	1.0		1.0		---	---	SPACE
29	LOCKER ROOMS 1 & 2	20/1	1.0			1.0	---	---	SPACE
31	EXTERIOR BUILDING - EGRESS	20/1	0.5	0.5			---	---	SPACE
33	NEW LOCKERS, OFFICIALS, STORAGE, MECH MEZZ	20/1	2.5		2.5		---	---	SPACE
35	SPARE	20/1	0.0			0.0	---	---	SPACE
37	SPARE	20/1	0.0	5.0			5.0	70/3	PANEL LMA
39	SPARE	20/1	0.0		5.0		---	---	---
41	SPARE	20/1	0.0			5.0	---	---	---
BALANCED CONNECTED LOAD = 58.1 KVA / 67 AMPS			20.3	21.7	16.1	BALANCED DEMAND LOAD = KVA / AMPS			
MAXIMUM CONNECTED LOAD = 20.2 KVA / 73 AMPS			MAXIMUM DEMAND LOAD = KVA / AMPS						

LUMINAIRE SCHEDULE				
TYPE	DESCRIPTION	MANUFACTURER	LAMPS	REMARKS
A	NOT USED THIS PROJECT	---	---	
B	50" LONG SURFACE ENCLOSED FLUORESCENT INDUSTRIAL w/ FIBERGLASS HOUSING, HIGH-IMPACT ACRYLIC DIFFUSER, 2 LAMP	LITHONIA VRI 232 277 GEB10IS	(2) 32W T8 3500K, CRI 85	
BE	SAME AS TYPE B, w/ EMERGENCY BALLAST	LITHONIA VRI 232 277 GEB10IS EL6	(2) 32W T8 3500K, CRI 85	
C	4' SURFACE/PENDANT PARABOLIC FLUORESCENT INDUSTRIAL w/ END CAPS, & WIRE GUARD, 2 LAMP	LITHONIA PV 232 277 PCEP GEB10IS WGAFFV	(2) 32W T8 3500K, CRI 85	
CE	SAME AS TYPE C, w/ EMERGENCY BALLAST	LITHONIA PV 232 277 EL PCEP GEB10IS WGAFFV	(2) 32W T8 3500K, CRI 85	
D	NOT USED THIS PROJECT	---	---	
F	NOT USED THIS PROJECT	---	---	
FE	EXTERIOR WALL MOUNTED COMPACT FLUORESCENT CUT-OFF, w/ REMOTE EMERGENCY BALLAST RATED TO 0', 2 LAMP	GUTH SND-122-F26-PL-2/RB-BEF	(2) 26W QUAD 3500K, CRI 85	MOUNT @ 10'-0" AFG
⊗	EMERGENCY EXIT SIGNS, VANDAL-RESISTANT	LITHONIA LVS AB 1 G 277 ELN	LED	

- NOTES:
- PROVIDE A TOTAL OF 5 EACH LUMINAIRES IN LOCKER ROOMS, (4 EA) TYPE B AND (1 EA) TYPE BE.
  - WIRE VESTIBULE LUMINAIRES THROUGH LIGHTING CONTACTORS IN MEZZANINE. SEE CONTROL DIAGRAM E303.
  - INTERCEPT EXISTING HOMERUN HMA-21 IN ZAMBONI ROOM. UTILIZE EXISTING CONDUIT TO MEZZANINE FOR NEW HOMERUN HMA-17,21.



1 FLOOR PLAN - LIGHTING



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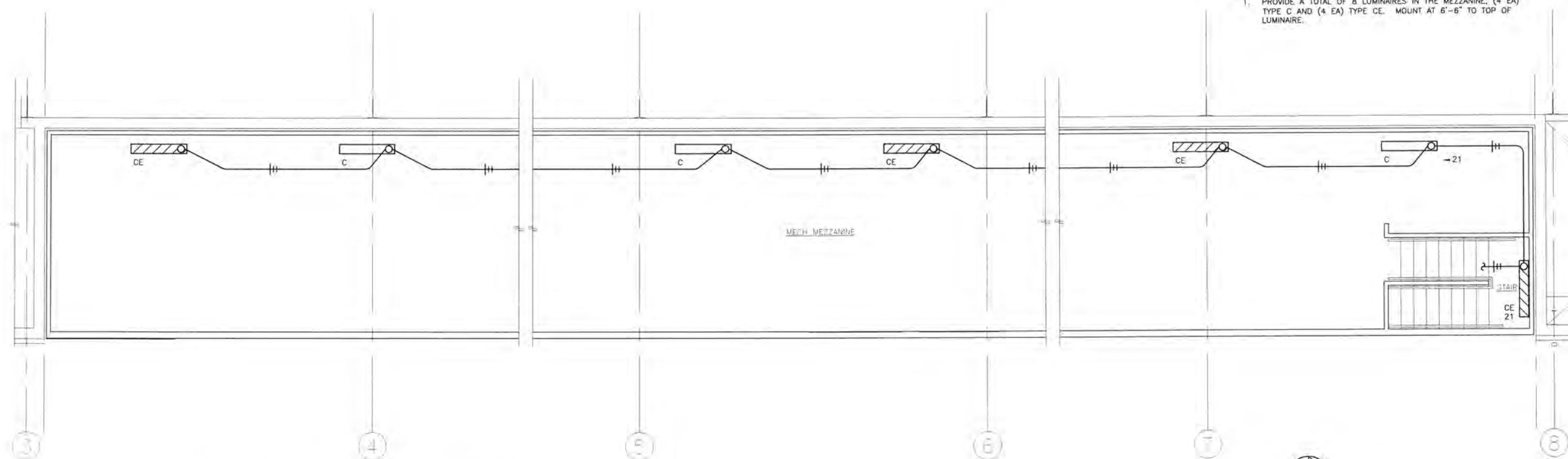
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SHEET TITLE  
LIGHTING

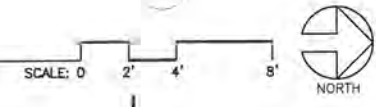
DATE: JULY 2004  
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**E301**



NOTES:  
1. PROVIDE A TOTAL OF 8 LUMINAIRES IN THE MEZZANINE, (4 EA) TYPE C AND (4 EA) TYPE CE. MOUNT AT 6'-6" TO TOP OF LUMINAIRE.

**1 MEZZANINE FLOOR PLAN - LIGHTING**



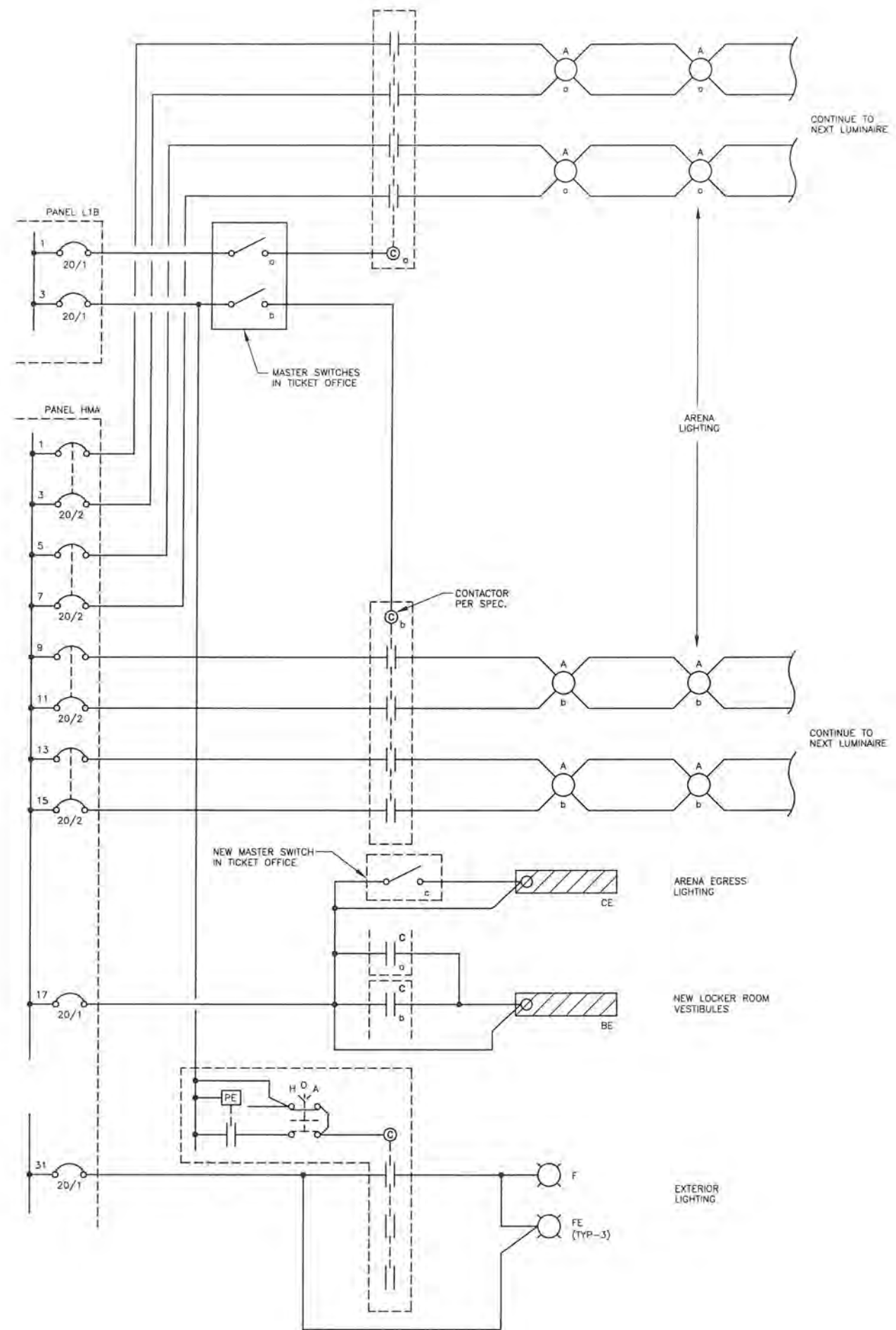
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SHEET TITLE  
**MEZZANINE PLAN  
LIGHTING**

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**E302**



**WIRING DIAGRAM - LIGHTING CONTROLS**  
NO SCALE

- NOTES:
- EQUIPMENT THIS SHEET IS EXISTING, UNO.
  - CONNECT NEW LOCKER ROOM VESTIBULE LIGHTING TO EXISTING ARENA EGRESS LIGHTING CIRCUIT HMA-17. WIRE THROUGH EXISTING CONTACTORS 'a' AND 'b'.
  - REWIRE EXISTING ARENA EGRESS LIGHTING THROUGH NEW MASTER SWITCH IN TICKET OFFICE. THE FIXTURES ARE CURRENTLY CONTROLLED THROUGH CONTACTORS 'a' AND 'b'.
  - LOCATE MASTER SWITCH (Sc) NEXT TO EXISTING SWITCHES Sa, Sb IN TICKET OFFICE. SEE SHEET E304.



**Jensen  
Yorba  
Lott**  
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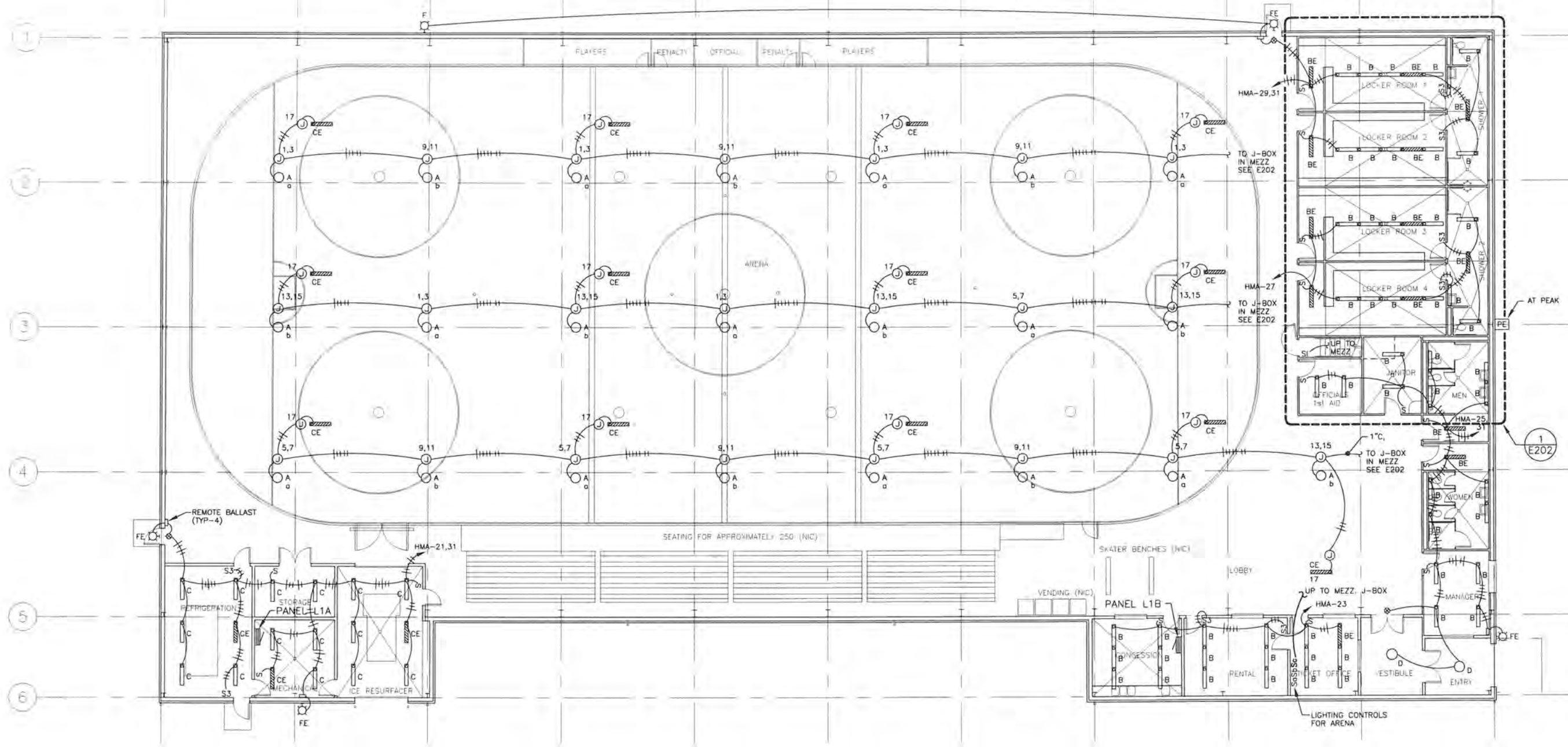


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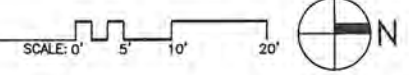
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**1 FLOOR PLAN - ICE RINK**



- NOTES:
1. ALL CIRCUITING FOR ARENA LIGHTING SHALL UTILIZE NO. 10 CONDUCTORS AND 3/4" C. UON. (REF. CKT HMA 1 THRU 17)
  2. DISCONNECT TYPE CE LUMINAIRES IN ARENA FROM CONTACTOR AND PULL NEW SWITCH LEG FROM SWITCH "SC" IN TICKET OFFICE.

REVISIONS

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SHEET TITLE  
FLOOR PLAN  
ICE RINK  
LIGHTING

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**E304**

**FOR REFERENCE ONLY**