
CITY OF SAN ANTONIO

Project Name: Alamodome Home Team Locker Room
2011
ID NO.:

Date Issued: May 10,
Page 1 of 1

020

BID FORM

The estimated construction budget for this contract is \$990,000

I. BASE BID

Total Amount of Base Bid (Insert Amount in Words and Numbers):

_____ \$ _____

II. ALTERNATES

Amount of each Alternates (if applicable) insert in Numbers:

Substitutive Alternate #1 - _____ Provide solid wood lockers in lieu of plastic laminate over plywood. Base bid is all lockers in rooms 204 and 239 finished with plastic laminate and stainless steel trim over 3/4 inch thick plywood. Alternate substitute is to provide solid Alder wood lockers in rooms 204 and 239 in a dark stain in lieu of base bid lockers of plastic laminate and stainless steel trim over 3/4 inch thick plywood. Dark stain and clear coat finish as approved by Architect. All other aspects of the locker design shall remain as depicted in the drawings. Refer also to specification section 06 4100- Architectural Wood Casework.

Total Amount of Bid for Additive Alternate #1 (Insert Amount in Words and Numbers):

_____ \$ _____

Official Name of Company (legal)

Telephone No.

Address

Fax No.

City, State and Zip Code

E-mail Address

**CITY OF SAN ANTONIO
DEPARTMENT OF CAPITAL IMPROVEMENTS MANAGEMENT SERVICES
CONTRACT SERVICES DIVISION**

RECEIPT OF ADDENDUM NUMBER(S) 2 IS HEREBY ACKNOWLEDGED FOR
PLANS AND SPECIFICATIONS FOR CONSTRUCTION OF: **Alamodome Home
Team Locker Room**

FOR WHICH BIDS WILL BE OPENED ON **Tuesday, May 31, 2011 at 2:00 PM**

THIS ACKNOWLEDGEMENT MUST BE SIGNED AND RETURNED
WITH THE BID PACKAGE.

Company Name: _____

Address: _____

City/State/Zip Code: _____

Date: _____

Signature

Print Name/Title



ADDENDUM NO. 02

PROJECT NAME: Alamodome Field Level Locker Room Renovation
PROJECT NO.: 11010
DATE: May 20, 2011

TO: All Prime Contract Bidders and all others to whom Drawings and Specifications have been issued by the Architect/Engineer.

This Addendum forms a part of the Contract Documents. This addendum modifies and supplements the Contract Documents as follows for the above-mentioned project and includes three (3) pages and twenty (20) attachments. All other provisions of the Documents remain the same.

CLARIFICATIONS AND CHANGES TO THE SPECIFICATIONS

ITEM NO. 1 SPECIFICATION SECTION 030, CONTRACTOR'S QUESTIONNAIRE:

- A. Add the attached new Specification Section 030, Contractor's Questionnaire (four pages).
- B. Add "030 - Contractor's Questionnaire" to the Table of Contents (TOC) in the proper numerical order.

ITEM NO. 2 SPECIFICATION SECTION 00751, SPECIAL CONDITIONS:

- A. Add the attached new Specification Section 00751, Special Conditions (four pages).
- B. Add the Contractor Site Rules (five pages).
- C. Add the Alamodome Information Calendar (two pages).
- D. Add "00751 - Special Conditions" to the Table of Contents (TOC) in the proper numerical order.

ITEM NO. 3 SPECIFICATION SECTION 01 2300, ALTERNATES - Locker Alternate:

- A. Add the attached new Specification Section 01 2300, Alternates (one page).
- B. Add "01 2300 - Alternates" to the Table of Contents (TOC) in the proper numerical order.

ITEM NO. 4 SPECIFICATION SECTION 03 3000, CAST-IN-PLACE CONCRETE:

- A. Add the attached new Specification Section 03 3000, Cast-In-Place Concrete six pages).
- B. Add "03 3000 - Cast-In-Place Concrete" to the Table of Contents (TOC) in the proper numerical order.
- C. Delete the phrase "Not Used" following the title DIVISION 03 - CONCRETE in the TOC.

ITEM NO. 5 SPECIFICATION SECTION 05 7511, ORNAMENTAL METAL MESH PANELS:

- A. Add the attached new Specification Section 05 7511, Ornamental Metal Mesh Panels two pages).
- B. Add "05 7511 - Ornamental Metal Mesh Panels" to the Table of Contents (TOC) in the proper numerical order.

ITEM NO. 6 SPECIFICATION SECTION 06 4100, ARCHITECTURAL WOOD CASEWORK:

- A. At Article 1.2, Related Requirements, add the following reference:
 - 1) Section 05 7511 - Ornamental Metal Mesh Panels; Stainless steel mesh for Locker doors.

- ITEM NO. 7 SPECIFICATION SECTION 09 2116, GYPSUM BOARD ASSEMBLIES:**
- A. Add the attached new Specification Section 09 2116, Gypsum Board Assemblies.
 - B. Add "09 2116 – Gypsum Board Assemblies" to the Table of Contents (TOC) in the proper numerical order.
- ITEM NO. 8 SPECIFICATION SECTION 09 5100, ACOUSTICAL CEILINGS:**
- A. Delete the existing Section 09 5100, Acoustical Ceilings, and substitute in lieu thereof the attached new specification Section 09 5100, Acoustical Ceilings (three pages).
- ITEM NO. 9 SPECIFICATION SECTION 09 5800, INTEGRATED CEILING ASSEMBLIES:**
- A. Add the attached new Specification Section 09 5800, Integrated Ceiling Assemblies (four pages).
 - B. Add "Section 09 5800 - Integrated Ceiling Assemblies" to the Table of Contents (TOC) in the proper numerical order.
- ITEM NO. 10 SPECIFICATION SECTION 09 9000, PAINTING AND COATING:**
- A. Delete the existing Section 09 9000, Painting and Coating, and substitute in lieu thereof the attached new specification Section 09 9000, Painting and Coating.
- ITEM NO. 11 SPECIFICATION SECTION 10, 2800, TOILET AND BATH ACCESSORIES:**
- A. Delete the existing Section 10 2800, Toilet and Bath Accessories, and substitute in lieu thereof the attached new specification Section 10 2800, Toilet and Bath Accessories (three pages).

CHANGES TO THE DRAWINGS

- ITEM NO. 12 DRAWING SHEET A101, FLOOR PLAN:**
- A. Replace existing Drawing A101 with attached revised Drawing A101, Demo and Construction Floor Plans.
- ITEM NO. 13 DRAWING SHEET A201, SCHEDULES AND DETAILS:**
- A. Replace existing Drawing A201 with attached revised Drawing A201, Schedules and Details.
- ITEM NO. 14 DRAWING SHEET A301, REFLECTED CEILING/EQUIPMENT PLANS:**
- A. Replace existing Drawing A301 with attached revised Drawing A301, Reflected Ceiling/ Equipment Plans.
- ITEM NO. 15 DRAWING SHEET A401, ENLARGED FLOOR PLANS:**
- A. At Detail C1, revise the dimensions as shown on Attachment No A-1.
 - B. Clarification: At Detail C3 Enlarged Floor Plan, the intent of Toilet 235 is that it be adaptable for accessible use at a later date. All fixtures (toilet, sink, shower) are to be constructed per Detail E1 Accessible Fixtures & Accessories Mounting Heights. However, no grab bars or shower seat are to be installed.
 - C. Toilet Accessory Schedule:
 - 1) Add to the description of item TA-3 the following: "install at 32 inches AFF to mounting bracket screw for all units, except for one unit in Grooming 203 which shall be installed at 38 inches AFF."
 - 2) Add to the description of Item TA-6H the following: "Assembly to consist of two (2) 24-inch-long grab bars and one (1) 48-inch grab bar."
- ITEM NO. 16 DRAWING SHEET A402, INTERIOR ELEVATIONS:**
- A. Add Detail E5 Grooming & Shower East Elevation, as shown on Attachment No. A-2.

- B. At Details A1, A3, B1, B3, C1, and C2, revise the section detail and callout sheet references to read "A501".
- C. At Detail A1, Locker Room North Elevation, remove the reference to "PT-1". Burnished block is not to be painted (typical).
- D. At Detail E3 Entry South Elevation, remove the narrow lites from the double doors. These doors are Type 'AA' as per the door schedule.

ITEM NO. 17 DRAWING SHEET A403, INTERIOR ELEVATIONS:

- A. At Details A4, A5, B6, and C2, revise the section detail and callout sheet references to read "A501".

ITEM NO. 18 DRAWING SHEET A501, MILLWORK DETAILS:

- A. Replace existing Drawing A501 with attached revised Drawing A501, Millwork Details.

ITEM NO. 19 DRAWING SHEET M101, MECHANICAL FLOOR PLAN:

- A. Replace existing Drawing M101 with attached revised Drawing M101, Mechanical Floor Plan.

ITEM NO. 20 DRAWING SHEET M301, MECHANICAL SCHEDULES:

- A. Replace existing Drawing M301 with attached revised Drawing M301, Mechanical Schedules.

ITEM NO. 21 DRAWING SHEET E101, LIGHTING FLOOR PLAN:

- A. Replace existing Drawing E101 with attached revised Drawing E101, Lighting Floor Plan.

ITEM NO. 22 DRAWING SHEET E201, POWER FLOOR PLAN:

- A. Replace existing Drawing E201 with attached revised Drawing E201, Power Floor Plan.

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Section 030

CONTRACTOR'S QUESTIONNAIRE

1. **Respondent Information:** Provide the following information regarding the Respondent.

(NOTE: Co-Respondents are two or more entities proposing submitting as a team or joint venture with each signing the contract, if awarded. Sub-contractors are not Co-Respondents and should not be identified here. If this proposal includes Co-Respondents, provide the required information in this Item #1 for each Co-Respondent by copying and inserting an additional block(s) before Item #1.2. If Joint Venture or Partnership, attach Joint Venture or Partnership Agreement.)

Respondent Name: _____

(NOTE: Give exact legal name as it will appear on the contract, if awarded.)

Principal Address: _____

City: _____ State: _____ Zip Code: _____

Telephone No. _____ Fax No: _____

E-mail address: _____

Contact Name: _____

List here, any other names under which Respondent has operated within the last ten (10) years. (add space as needed)

1.2 **Business Structure:** Check the box that indicates the business structure of the Respondent.

Individual or Sole Proprietorship If checked, list Assumed Name, if any: _____

Partnership

Corporation If checked, check one: For-Profit Nonprofit

Also, check one: Domestic Foreign

Other If checked, list business structure: _____

1.3 **Ownership:** Does Respondent anticipate any mergers, transfer of organization ownership, management reorganization, or departure of key personnel within the next twelve (12) months?

Yes No

1.4 Is Respondent authorized and/or licensed to do business in Texas?

Yes No If "Yes", list authorizations/licenses:

1.5 Where is the Respondent's corporate headquarters located? _____ List the total number of employees employed by Respondent: _____

1.6 **Local Operation:** Does the Respondent have an office located in San Antonio, Texas?

Yes No If "Yes", respond to a. and b. below:

a. How long has the Respondent conducted business from out of its San Antonio office?

Years _____ Months _____

b. State the number of full-time employees at the San Antonio office. _____

1.7 **County Operation:** If the Respondent does not have a San Antonio office, does the Respondent have an office located in Bexar County, Texas?

Yes No If "Yes", respond to a. and b. below:

a. How long has the Respondent conducted business from out of its Bexar County office?

Years _____ Months _____

b. State the number of full-time employees at the Bexar County office. _____

1.8 **Debarment/Suspension Information:** Has the Respondent or any of its principals been debarred or suspended from contracting with any public entity?

Yes No If "Yes", identify the public entity and the name and current phone number of a representative of the public entity familiar with the debarment or suspension, and state the reason for or circumstances surrounding the debarment or suspension, including but not limited to the period of time for such debarment or suspension.

1.9 **Surety Information:** Has the Respondent ever had a bond or surety canceled or forfeited?

Yes No If "Yes", state the name of the bonding company, date, amount of bond and reason for such cancellation or forfeiture.

1.10 **Bankruptcy Information:** Has the Respondent ever been declared bankrupt or filed for protection from creditors under state or federal proceedings?

Yes No If "Yes", state the date, court, jurisdiction, cause number, amount of liabilities and amount of assets.

1.11 LITIGATION DISCLOSURE - Failure to fully and truthfully disclose the information required by this Litigation Disclosure may result in the disqualification of your bid/proposal from consideration or termination of the contract, once awarded.

- A. Have you or any member of your Firm or Team to be assigned to this engagement ever been indicted or convicted of a felony or misdemeanor greater than a Class C in the last five (5) years?
Yes No
- B. Have you or any member of your Firm or Team been terminated (for cause or otherwise) from any work being performed for the City of San Antonio or any other Federal, State or Local Government, or Private Entity? Yes No
- C. Have you or any member of your Firm or Team been involved in any claim or litigation with the City of San Antonio or any other Federal, State or Local Government, or Private Entity during the last ten (10) years? Yes No
- D. Have you or any other member of your Firm or Team paid liquidated damages in the last three (3) years? Yes No

If you have answered "Yes" to any of the above questions, please indicate the name(s) of the person(s), the nature, and the status and/or outcome of the information, indictment, conviction, termination, claim or litigation, as applicable. Any such information should be provided on a separate page and submitted with your bid as Attachment 1.11.

2. EXPERIENCE AND QUALIFICATIONS

2.1 Prospective bidders must document that they are responsible, qualified, capable, bondable, etc., to fulfill and abide by the specifications listed herein, and prospective bidders must have the capability and capacity, in all respects, fully to satisfy all of the contractual requirements described in this solicitation. Prospective bidders must not have been terminated by the City for any prior projects or must not have or had any litigation with City for any construction project.

2.2 All bidders' facilities, personnel and equipment may be subject to inspection before contract award.

2.3 Bids only will be considered from responsive businesses with a minimum of five (5) years experience working in similar interior commercial building construction in public occupied spaces.

2.4 List the number of years your organization has been doing business as a construction general contractor. ___ years. If less than three (3) years, on a separate page submitted with your bid and labeled as Attachment 2.4, kindly explain your organization's construction general contractor history.

2.5 RELEVANT (SIMILAR) EXPERIENCE PROJECT SHEETS: Bidder shall include a project sheet for, at minimum, three (3) previously completed similar or equivalent projects, meeting the requirements of section 2.3 herein, completed in the last five (5) years. Each project sheet shall include:

- The Project name;
- Project scope, location;
- References (owner name with a phone number and email address);
- Original and final contract amount;
- Date of final completion
- Names of project manager, superintendent, estimator and project engineer.

Bids submitted without required experience or equivalent experience, as stated herein, and documentation of similar projects may be disqualified.

2.6 **Organizational Chart:** Attach a one-page business organizational chart for the portion of your business which will be involved with this project, complete with names and titles, identified as Attachment 2.7.

2.7 **PROJECT MANAGER:**

- 2.7.1 Name of the proposed Project Manager _____
- 2.7.2 Number of years of similar Project Management experience (including previous employment) _____
- 2.7.3 Total number of years of Project Management experience (including previous employment) _____
- 2.7.4 Number of years employed with this organization _____
- 2.7.5 Names of similar projects of this organization where employed as Project Manager and name of Owner (add space as necessary) List no more than 5 relevant projects.
-

2.8 **SITE SUPERINTENDENT:**

- 2.8.1 Name of the proposed Site Superintendent: _____
- 2.8.2 Number of years of Superintendent's experience on similar projects (including previous employment) _____
- 2.8.3 Total number of years of Superintendent's project experience _____
- 2.8.4 Number of years employed with this organization _____
- 2.8.5 Names of similar projects of this organization where employed as Superintendent and name of Owner (add space as necessary) List no more than 5 relevant projects.
-

3. **FINANCIAL**

- 3.1 Please indicate the current limit of your Bonding Capacity: _____ **This Bonding Capacity limit indicates your ability to acquire the necessary bond.** Properly informing the City of your current capacity for Bonded work allows the determination of awards in cases where a Contractor has the low bids for multiple projects and that total project amount exceeds the capacity for bonding. If this section is left blank, Contractor fully agrees to be responsible for all active bid submissions to the limit of their respective bid bonds.
- 3.2 How much work is your firm currently contracted to provide? (i.e. current total amount of work in dollars from all sources of current contracts.)

\$ _____

4. **SCHEDULE**

- 4.1 Bidder shall include a schedule outlining milestones for each of the following:
- Locker Space and Restrooms with Substantial Completion date of November 23, 2011 and a Final Completion date of December 23, 2011.
 - Administrative Support Area with Substantial Completion date of January 20, 2012 and a Final Completion date of February 19, 2012.

Section 00751

SPECIAL CONDITIONS

1. SUPERVISION OF CONSTRUCTION

1.1 General: In accordance with the provisions of the Construction Contract, this Contract is to be executed under the direction of the office of Capital Improvements Management Services.

1.2 Architect/Engineer (A/E): The design of this project was performed by Marmon Mok Architecture, referred to in the Project Manual and plans as the "Consultant", "Architect" or "Engineer", who will exercise the authority and functions of the Architect/Engineer in the following respects:

1.2.a Review shop and work drawings furnished by the Contractor.

1.2.b Consultation and advice during construction and rendering those decisions requiring interpretation of the Project Manual, plans and specifications.

1.2.c Periodic visits to the project for consultation with the Inspector.

1.2.d Assist the City in the final inspection.

1.2.e Assist the City in the preparation of the monthly and final estimates.

1.3 Inspector: Unless otherwise provided or ordered, all resident supervision and inspection will be performed by authorized representatives of the City, referred to in these specification as the "Inspector", who will exercise the authority and functions of the City of San Antonio in the following respects:

1.3.a Review laboratory, mill and shop tests of materials and equipment for compliance with the Project Manual, plans and specifications.

1.3.b General supervision and administration of the authorized construction and review of all work performed for compliance with the Project Manual and plans.

1.3.c Conduct the final inspection(s).

1.3.d Accept the completed work.

1.3.e The Inspector shall have authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the Contract. He shall also have the authority to reject all work and materials which do not conform to the Contract, and to decide questions which arise in the execution of the work. The Contractor shall give the Inspector timely notice of the readiness for inspection of any work requiring inspection. If any underground work is performed without approval or consent of the Inspector, it shall be uncovered for inspection and properly restored at the Contractor's expense.

1.4 Testing (when applicable for a specific project): Sampling and testing of materials, laboratory inspection of materials and execution processes shall be performed at the expense of the City in a commercial testing laboratory selected by the City and/or selected by the Consultant and approved by the City. The Contractor shall furnish all assistance required by the Inspector in obtaining samples. All testing, if any, required in the Mechanical and Electrical Divisions of the Specifications (Division 15 and 16) shall be performed by the Contractor. Payment to the City for initial building inspection fees by the Contractor is not required. The Contractor is subject to payment for re-inspections of noncompliant and unacceptable work. Contractor shall request specific testing requirements from Owner/City Project Manager.

1.5 Superintendent: The Contractor shall provide a job superintendent who is experienced and competent during the progress of the work and any necessary assistants, all satisfactory to Capital Improvements Management Services. The Superintendent shall represent the Contractor in his absence and all directions given to him shall be binding as if given to the Contractor. Important directions shall be immediately confirmed in writing to the Contractor. Other directions shall be confirmed on written request in each case. The Contractor shall give sufficient supervision to the work, using his best skill and attention.

1.6 If the Contractor, in course of the work, finds any discrepancies between the Project Manual and/or plans and the physical conditions of the locality, or any errors or omissions in the documents as given by survey points and instructions, he shall immediately inform the project Architect or Engineer, in writing, and the Architect/Engineer shall promptly verify the same. Any work done after such discovery, until authorized, will be done at the Contractor's risk.

2. SEQUENCE OF WORK

Stages of Construction: The Contractor shall perform the work as outlined in the approved Project Schedule provided by the Contractor.

3. LAYING OUT OF BUILDING

The Contractor shall employ an experienced and competent instrument man to lay out the framing.

4. MATERIALS

4.1 Quality: Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

4.2 Faulty Materials: The Contractor shall promptly remove from the premises all materials condemned by the Inspector as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the City and shall bear the expense of making good the work of other contractors destroyed or damaged by such removal or replacement.

4.3 Salvageable Material: All salvageable materials, if any, as identified in the Contract Documents shall remain the property of the City and the Contractor shall remove, store and deliver as indicated in the Contract Documents.

5. PAYMENTS

6.1 Cost Breakdown: Upon notification of the award of the Contract and before the first application for payment, the General Contractor shall prepare and submit two (2) copies of the schedule of values (an accurate cost breakdown of the various items and total of the work) and submit to the Consultant for review and approval. One copy of the final approved breakdown shall go to the Owner/City Project Manager. This cost breakdown shall be used only as a basis to establish the Contractor's application for payment.

6.2 Partial Payment: The Architect once each month will review Contractor's application for payment to confirm claimed value of the materials in place and amount of work performed and the value thereof at the contract prices. In addition to the above and upon presentation of copies of invoices and freight bills, Contractor's invoice shall be reviewed and, if approved, be included for the invoice cost of acceptable reinforcing steel, structural steel, precast concrete members, stone, gravel, sand or any other nonperishable materials delivered on the work site or in acceptable storage places and which have not been used in the work prior to such estimate. Partial payments for materials on hand or in acceptable storage shall not exceed the proposal price. From the total of the amounts so ascertained will be deducted a retainage amount as per the Construction Contract. No invoice other than a final estimate will be made when the value of the work performed since the last preceding invoice will require confirmation of values less than \$1,000.00.

6. SHOP DRAWINGS AND SCHEDULES

6.1 The Contractor will furnish the Architect/Engineer, for approval, six (6) copies of shop drawings and equipment data of all trades to be built in this Contract. When approved, four (4) copies will be returned to the Contractor so marked. The Contractor will be required to make all changes indicated by the Engineer.

6.2 The Contractor shall review, stamp with his approval and submit, with reasonable promptness and in orderly sequence so as to cause no delay in the work or in the work of any other Contractor, all shop drawings and samples required by the Contract Documents or subsequently by the Architect as covered by Modification. Shop drawings and samples shall properly be identified as specified, or as the Architect may require. At the time of submission the Contractor shall inform the Architect in writing of any deviation in the shop drawings and samples from the requirements of the Contract Documents. Shop drawings and samples submitted to the Architect without the Contractor's signed stamp thereon will be returned unchecked.

7. WORKING HOURS

Contractor will have access to the work area 24 hours per day except on the event days called out in the attached Alamodome Information Calendar dated May 17, 2011. On event days, Contractor must stop work and leave access area clean starting 2 hours prior to the scheduled event "doors" time.

8. SANITARY PROVISIONS

See attached "Contractor Site Rules".

9. WATER

The responsibility shall be upon the Contractor to provide and maintain at his own expense an adequate temporary connection to existing building water for its use during construction and domestic consumption, unless otherwise noted in the Construction Documents. Any connections and piping that the Contractor deems necessary shall be installed at its expense and at locations approved by the Inspector. Before final acceptance, all temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Inspector.

10. ELECTRICITY

The responsibility shall be upon the Contractor to provide and maintain at his own expense an adequate temporary connection to existing building electricity for its use during construction and domestic consumption, unless otherwise noted in the Construction Documents. All necessary meters, switches, connections and wiring shall be installed at Contractors expense and at locations approved by the Inspector. Before final acceptance, all temporary connections and piping installed by the Contractor shall be removed in a manner satisfactory to the Inspector.

11. ACCIDENTS

The Contractor shall provide, at the site, such equipment and medical facilities as are necessary to supply first aid service to anyone who may be injured in connection with the work. The Contractor must promptly report in writing to Capital Improvements Management Services all accidents whatsoever arising out of or in connection with the performance of the work, whether on or adjacent to the site, which caused death, personal injury or property damage, giving full details and statements of witnesses. In addition, if death, serious injury or serious damaged is caused, the accident then shall be reported immediately by telephone or messenger.

12. OTHER CONTRACTS

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

13. MATERIALS

The Contractor agrees that, in the performance of the work under this Contract, the Contractor, Subcontractors and suppliers shall use only such unmanufactured articles, materials (except bar reinforcing steel) and supplies as have been mined or produced in the United States; and only such manufactured articles, materials and supplies as have been manufactured in the United States. Reinforcing bar steel, if meeting the requirements of the Project Manual, plans and specifications, is acceptable if produced or manufactured outside the United States.

14. OWNER'S OCCUPANCY

The Owner shall have the right to take possession of and use any completed or partially completed portion of the structure or work, notwithstanding the time for the completion of the

entire work or such portions may not have expired. Such possession and use shall not be an acceptance of the work taken or used.

15. CLEANUP

15.1 The Contractor shall ensure that all construction trash and debris shall be removed as often as necessary to prevent accumulation of such matter during construction.

15.2 Upon completion of all construction work, all construction and adjoining areas affected by the construction shall be thoroughly cleaned. All surfaces of the shelters, including metal and/or concrete finishes, shall be cleaned and neat and in mint condition. Remove construction debris from sites.

16. ARRANGEMENT

The organization of the Project Manual into divisions, sections and articles and the arrangements of drawings shall not control the Contractor in dividing the work among Subcontractors or in establishing the extent of work to be performed by any trade. No responsibility either direct or implied is assumed by the Architect or the Owner for omissions or duplications by the Contractor or by his Subcontractors due to real or alleged error in the arrangement of the Project Manual.

17. DISCREPANCIES

The Contractor shall, in writing, call to the attention of the Architect any discrepancies between the Project Manual, specifications, plans, details or schedules. The Architect will then inform the Contractor, in writing, which document takes precedence.

18. WARRANTY

The Contractor warrants to the Owner and the Architect that all materials and equipment furnished under the Contract will be new unless otherwise specified, and that all work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not so confirming to these standards may be considered defective. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. The Contractor shall submit to the Owner with his request for final payment, copies of all manufacturer's guarantees, service contracts and all other guarantees specified to extend beyond the one-year period of his own guarantee. All roofing requires a two-year minimum guarantee for labor and materials, including accessories, from the Prime Contractor and a multiyear manufacturer's guarantee as specified in the roofing specification.

19. CONSTRUCTION PROGRESS SCHEDULE

The Contractor shall submit to the Architect, within ten (10) calendar days after the issuance of the fully executed Contract and before submittal of first pay application, whichever is first, a Construction Progress Schedule showing the projected stages of completion for each week of work within the contract time period of construction. The progress chart shall show clearly, in numerical percentages, the estimated percentage of work to be completed for each week and the estimated beginning and completion date of each construction trade.

20. SITE INSPECTION

20.1 Each Contractor shall carefully examine the sites and the Contract Documents, and shall satisfy themselves as to the existing conditions under which they must operate in order to perform the work under this Contract. No additional compensation will be made on behalf of the Contractor for any error or negligence on his part, nor for discrepancies on Drawings pertaining to grades, slopes and elevations.

20.2 Discrepancies between requirements of the Contract Documents and actual site conditions shall be brought to the attention of the Architect, in writing, no later than five (5) calendar days prior to scheduled Proposal Opening date, and the Architect will issue the necessary instruction to all Contractors.

21. TEMPORARY OFFICE

The Contractor shall provide or erect within the building, at a location directed by the Owner, a temporary work space. This area shall be maintained in a professional manner and taken down and removed promptly at completion of construction. The Contractor will have access to building phone service for an office phone in the agreed upon location.

22. MATERIAL STORAGE

The Contractor shall provide or erect within the building, at a location directed by the Owner, a suitable storage space in which to store all construction materials. This area shall be maintained in a professional manner and taken down and removed promptly at completion of construction.

23. TELEPHONE SERVICE

The Contractor will have access to building phone service for an office phone in the agreed upon location.

24. PROJECT RECORDS DOCUMENTS

The Contractor shall furnish and maintain at the site one (1) copy of the Project Manual, plans, specifications, addenda, approved shop drawings, inspection and testing forms, change orders, field alterations and other modification documents, schedules, and rain day, employee and other work logs in good order and marked to record all changes made during construction. These shall be available to the Architect. At the completion of the project, the Contractor shall furnish and mark up one (1) new set of complete project prints of the Contract Drawings showing all "as-built" conditions. This set shall be submitted to the Architect for review and delivery to the City of San Antonio.

25. MEDIA RELEASES, STATEMENTS AND INQUIRIES

The Capital Improvements Management Services Department is the official spokesperson for the City of San Antonio on all matters of policy and external relations. Contractors are required to advise and encourage media to direct initial inquiries through the Capital Improvements Management Services office, which has procedures in place to access and speed up effective and efficient responses. For safety and security-related reasons, unauthorized persons are prohibited from visiting construction sites without Capital Improvements Management Services approval.



CONTRACTOR SITE RULES

Contractor Parking

Parking is available for company vehicles in designated parking areas upon availability. Contractors arriving on site must have prior approval and parking permits. Temporary parking Passes may be requested from the Department Facility Coordinator. Parking in fire lanes and other areas marked "No Parking" may result in vehicles being towed.

Deliveries

All deliveries, including those likely to cause an obstruction, must be discussed with the Department Facility Coordinator. Designated times and locations may be assigned.

Diesel and Fossil Fueled Powered Vehicles and Equipment

Infiltration of diesel fumes into the building environment is a health and safety concern for staff, and visitors. Contractors must not operate diesel and fossil-fueled powered equipment and vehicles where fumes may be drawn into HVAC systems or naturally penetrate indoor spaces. Security will actively respond to these concerns and has the authority to shut down offending equipment.

Elevators

Service and or passenger elevators may be made available at certain times for transferring of materials with the agreement of the Department Facility Coordinator. Should fire occur or fire alarm sound, do not use the elevator.

Fire Alarm

Contractors shall be familiar with the ALAMODOME emergency procedures, especially the Fire Alarm procedure.

Remove persons from immediate danger and notify staff in immediate area.

Sound alarm as necessary at alarm pull station.

Extinguish fire if this can be done without jeopardizing personal safety.

First Aid

Contractors shall provide first aid services on the work site for their workers and sub trades.

Contractors must have a person trained in first aid available at all times the Contractor is performing work and maintain a first aid station or stations, as per the Occupational Health and Safety Act and regulations for Construction Projects.

Harassment/ Inappropriate Language/Horseplay

Contractors are advised that offensive language (e.g. swearing) and offensive behavior including harassment and horseplay are not acceptable. Contractor staff must perform their roles in a manner consistent with the ALAMODOME Mission, Vision, and Values.

Hazardous and Controlled Products

Contractors or their sub trades will not bring any hazardous and/or controlled products to project site without providing, in advance for the approval by the Department Facility Coordinator, Material Safety Data Sheets for the products. Hazardous and controlled products must be stored in accordance with good practice and as may be required under the COSA Fire Code. All Contractor staff must be trained in Hazardous Waste Operations on Emergency Response and be able to produce a record of training, upon request by the Department Facility Coordinator.

Housekeeping and Waste Management

At all times, the work site shall be kept clean from dust, debris, and trash. The Contractor is responsible for removal of construction debris and trash generated by Contractor work and sub trades from the worksite. ALAMODOME debris containers may not be used unless specified otherwise by the Department Facility Coordinator. All wastes generated by the contractor and sub trades must be handled and disposed of in accordance with provincial and municipal regulations. Recycling of materials is strongly encouraged.

Hygiene Facilities

Only facilities located at the southwest field level tunnel are permissible. Public facilities are not to be used at any time.

Identification

All Contractors will have an identity badge or company logo work shirts whenever on premises.

Meals and Breaks

Contractors shall advise their employees and sub trades the location for breaks and eating meals. Breaks are not are not allowed in public areas.

Noise and Vibration

Contractors and sub trades shall ensure that noise and vibration is kept to a minimum at all times. Equipment that generates high levels of noise or excessive vibration should be adequately damped, and/or silenced and/or soundproofed. Any activities that are expected to produce significant noise and/or vibration shall be approved by the Department Facility Coordinator and conducted during the times and locations specified.

Penetration of Walls, Floors, and Ceilings There is to be no access to, or alteration of the facility's infrastructure without appropriate approval from a designated authorizing department. Contractors and/or sub trades that require approval must obtain this from the Project Leader.

Personal Protective Equipment

Contractors are responsible for assessing all work activities and supplying their personnel and sub trades with the appropriate personal protective equipment (PPE), required to perform the work safely. PPE includes safety boots, safety glasses, hard hats, work gloves, outer clothing, respiratory protection equipment, fall arrest equipment, and any other PPE required by regulation or best practice. Contractor's employees and sub trades required to use PPE will be instructed in the proper care, use, and records of training available for review by the Department Facility Coordinator, as may be required.

Site Access and Egress (external)

Access routes into the ALAMODOME will either be specified (with a site plan) or agreed at the preliminary site meeting with the Department Facility Coordinator. Fire lanes are not to be blocked.

Site Access and Egress (internal)

Access sites within buildings at the ALAMODOME will be specified or agreed at the preliminary site meeting with the Department Facility Coordinator.

Smoking

ALAMODOME has Designated Smoking Areas (DSA) that must be used by all persons wishing to smoke. This policy is enforced by security. Contractors should ensure that cigarette disposal containers are used to keep grounds, parking lots, and roadways free of cigarette butts.

Tools and Equipment

Equipment and tools are not to be left unsupervised. The term equipment includes items such as scaffolding, ladders, guardrails, and barricades. All tools and equipment used on ALAMODOME facilities must be in good working order and be suitable for the intended use. Electrical equipment must be OSHA approved and all cords and connection cables inspected before and during use. Any equipment with damaged cords or plugs must not be used. Ladders and equipment used for working at heights must not be placed in any area where there is a potential for impact with other persons or equipment. Tools and equipment may not be borrowed from the ALAMODOME.

Unloading and Storage Areas (Temporary Hoarding)

Unloading areas may be allocated in certain locations in agreement with the Department Facility Coordinator. Storage areas will be designated in a similar way.

Warning Signs, Barricades, and Lighting

Contractors are responsible for the procurement and maintenance of all warning signs, barricades, and temporary lighting, as is appropriate for the nature of the job, and as may be required/requested by the Department Facility Coordinator. Warning signs shall be compliant with "Signs and Symbols for the Workplace", OSHA regulations, or as may be approved by the Project Leader

1. Contractors must stay within authorised areas, and must not enter any other areas without permission and/or being accompanied by authorised ALAMODOME Maintenance staff.
2. Men at Work and other applicable warning signage must be displayed at all times.
3. It is the Contractor's responsibility to provide adequate barriers to prevent entry into work areas by Dome Staff, attendees and visitors. Work in circulation areas must be adequately cordoned off. This is to be agreed with ALAMODOME Maintenance Management.
4. Contractors must ensure that all work areas are fully cleaned on completion, within the allotted timescale. Failure to do so will result in the deduction of expenses incurred by the ALAMODOME from the use of internal/external resources.

Fire fighting extinguishers located around the Dome premises may be used by contractor's and supplier's employees or other persons for emergencies only. Such equipment must not be used for any other purposes.

1. IN CASE OF FIRE

Fire alarm systems throughout the ALAMODOME are operated by pull station method; please ensure your employees understand this. The alarms will be a distinctive audible warning.

The alarm will automatically, result in the Fire Brigade arriving at the scene of the alarm, together with a Security Officer.

The Security Officer should be informed of the exact location and type of fire as soon after sounding the alarm as possible.

At the sound of the alarm, as described above, the building and workplace should be evacuated immediately without question and all Contractor's or Supplier's employees should assemble at the nearest assembly point. No one should re-enter the building until permission has been given from the Department Facility Coordinator.

2. BEFORE COMMENCEMENT OF WORK

The ALAMODOME must give permission before you commence working on site. When first coming on site the Contractor or supplier should establish contact with the ALAMODOME representative in charge of the work or project.

Ensure that the Dome representative is informed in advance of any materials or goods, which may be delivered to our premises prior to your employees commencing work. Such goods and materials are accepted and stored at your own risk and should be clearly marked as being for (the name of the firm and its representative)

3. DRAINS AND SEWERS

No chemical substances, oils, solvents or other obnoxious substances are to be poured into, or allowed to enter the Dome drains and sewers.

Accidental discharge should be reported to Dome Maintenance.

4. EQUIPMENT BROUGHT ON SITE

All equipment used by a Contractor or Supplier must comply with appropriate safety and electrical legislation.

Equipment left on site shall be kept in a safe and secure manner and at the risk of the Contractor or Supplier

All electrical equipment shall be of 110V or less.

5. ACCIDENTS

Accidents which occur on Dome premises and result in an employee of the Contractor or Supplier being away from work for more than three days must be reported as required by existing regulations and additionally to the Dome representative in charge of the work or project who will arrange for the reporting of such accidents to CSEF Security.

The reserves the right to investigate all accidents or serious incidents that occur on its premises and expects full co-operation from the Contractor or Supplier and their employees in the investigation of causes of such occurrences and in the interest of preventing similar occurrences.

6. ACCESS EQUIPMENT

All contractors should bring any access equipment with them that they require for the work. Suitable risk assessments should be available as required by the Work at Height regulations 2005. No contractor should use stepladders or steppladders found on site.

7. GENERAL

These rules imply that ALAMODOME all Contractor's or Supplier's employees or other persons on Dome premises must be adequately qualified or trained to perform their work in safety to themselves and others.

The rules are not to be taken as a complete list in compliance with any or all statutory regulations or requirements and you are reminded that you have a responsibility under the OSHA Act to ensure your operations are at all times carried out in accordance with the latest legislation and current codes of practice.

Your employees must understand that it is a breach of law to remove, deface, paint over, or otherwise interfere with any equipment; instructions or warning notices provided by the ALAMODOME for the protection of other persons and any accidental incident of such a nature should be reported to the Representative.

Contact telephone numbers:

Building Maintenance 207-3671 or 323-7442

Security 207-3680

Declaration

I declare that I have fully read and understand this document. I agree to comply with the Rules and acquaint all persons employed by the Company (including sub-contracted staff) with these Safety Rules

<i>Signed</i>	
<i>Date</i>	
<i>Name (Block Capitals)</i>	
<i>Position (Block Capitals)</i>	
<i>Company Name (Block Capitals)</i>	

- No pets
- No drugs
- No radios
- No alcohol
- No children
- No smoking
- Hard hats required
- Work boots required
- No shorts or tank tops
- Trash to be cleaned up daily
- No wives (or significant others)
- Subcontractor to provide dumpster for personal use
- Subcontractor to have binders with safety program and MSDS paperwork at jobsite
- Subcontractor to provide storage on project for material
- Subcontractor to have representative present at jobsite for entire length of project
- Subcontractor to provide insurance for material stored at jobsite
- Report to Building Representative when arriving at job and when leaving job

Alamodome Information Calendar

As of May 17, 2011

DATE	EVENT NAME	EVENT COOR	EST.	DOORS	SHOW	End Time	Parking Lots
5/18/2011	Avenge Sevenfold, Three Days Grace, & Bullet for My Valentine	Perla	5,000	6:00 PM	7:00 PM	11:00 PM	Charging for Parking
5/27/2011	Sugarland The Incredible Machine Tour w/Little Big Town & Co.	Perla	10,000	6:30 PM	8:00 PM	11:00 PM	Charging for Parking
5/28/2011	Southside High School Graduation SISD	Brenda	1,000	4:00 PM	5:00 PM	7:30 PM	Charging for Parking
5/31/2011	Wagner HS Graduation JISD	Brenda	8,200	6:00 PM	7:00 PM	9:30 PM	Charging for Parking
6/1/2011	Judson HS Graduation JISD	Perla	7,600	6:00 PM	7:00 PM	9:30 PM	Charging for Parking
6/2/2011	Somerset HS Graduation SCISD	Brenda	3,000	6:30 PM	7:30 PM	10:00 PM	Charging for Parking
6/3/2011	Southwest HS Graduation SWISD	Perla	9,500	6:00 PM	7:00 PM	9:30 PM	Charging for Parking
6/4/2011	Brandeis HS Graduation NISD	Brenda	4,300	3:00 PM	4:00 PM	6:30 PM	Charging for Parking
6/4/2011	Holmes/Business Careers HS Graduation NISD	Brenda	4,900	6:30 PM	7:30 PM	10:00 PM	Charging for Parking
6/5/2011	Warren HS Graduation NISD	Brenda	7,200	3:00 PM	4:00 PM	6:30 PM	Charging for Parking
6/5/2011	Marshall HS Graduation NISD	Brenda	7,100	6:30 PM	7:30 PM	10:00 PM	Charging for Parking
6/6/2011	Jay/SEA HS Graduation NISD	Brenda	5,600	3:00 PM	4:00 PM	6:30 PM	Charging for Parking
6/6/2011	Clark HS Graduation NISD	Brenda	5,000	6:30 PM	7:30 PM	10:00 PM	Charging for Parking
6/7/2011	Stevens HS Graduation NISD	Brenda	6,100	3:00 PM	4:00 PM	6:30 PM	Charging for Parking
6/7/2011	O'Connor HS Graduation NISD	Brenda	5,200	6:30 PM	7:30 PM	10:00 PM	Charging for Parking
6/8/2011	Taft/CA HS Graduation NISD	Brenda	7,200	3:00 PM	4:00 PM	6:30 PM	Charging for Parking
6/11/2011	Highlands HS Graduation SAISD	Perla	5,100	8:30 AM	9:30 AM	12:00 PM	Charging for Parking
6/11/2011	Lanier HS Graduation SAISD	Perla	4,900	12:30 PM	1:30 PM	4:00 PM	Charging for Parking
6/11/2011	Jefferson HS Graduation SAISD	Perla	5,900	4:30 PM	5:30 PM	8:00 PM	Charging for Parking
6/12/2011	Edison HS Graduation SAISD	Perla	3,600	8:30 AM	9:30 AM	12:00 PM	Charging for Parking
6/12/2011	Houston HS Graduation SAISD	Perla	1,500	12:30 PM	1:30 PM	4:00 PM	Charging for Parking
6/12/2011	Fox Tech HS Graduation SAISD	Perla	3,200	4:30 PM	5:30 PM	8:00 PM	Charging for Parking
6/13/2011	Burbank HS Graduation SAISD	Perla	4,000	3:00 PM	4:00 PM	6:30 PM	Charging for Parking
6/13/2011	Brackenridge HS Graduation SAISD	Perla	5,400	7:00 PM	8:00 PM	10:30 PM	Charging for Parking
6/29/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	5,500	6:30 PM	7:30 PM	9:15 PM	Charging for Parking
6/30/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	5,000	6:30 PM	7:30 PM	9:15 PM	Charging for Parking
7/1/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	5,000	6:30 PM	7:30 PM	9:15 PM	Charging for Parking
7/2/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	5,000	6:30 PM	7:30 PM	9:15 PM	Charging for Parking
7/2/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	6,000	2:30 PM	3:30 PM	5:15 PM	Charging for Parking
7/3/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	7,000	6:30 PM	7:30 PM	9:15 PM	Charging for Parking
7/3/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	6,000	1:00 PM	2:00 PM	3:45 PM	Charging for Parking
7/4/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	7,000	5:00 PM	6:00 PM	7:45 PM	Charging for Parking
7/4/2011	Ringling Bros Barnum's Funundrum Circus Blue Tour	Brenda	5,000	3:00 PM	4:00 PM	5:45 PM	Charging for Parking
7/15/2011	Texas Trophy Hunters Association	Perla	1,000	3:00 PM	3:00 PM	9:00 PM	Charging for Parking
7/16/2011	Texas Trophy Hunters Association	Perla	4,000	9:00 AM	9:00 AM	7:00 PM	Charging for Parking
7/17/2011	Texas Trophy Hunters Association	Perla	2,000	10:00 AM	10:00 AM	5:00 PM	Charging for Parking
7/21-8/14/11	Dallas Cowboys Camp Date Holds (Dates Subject to Change)	Perla	175,600				Charging for Parking
7/21/2011	UTSA Sophomore & Junior Camp	Perla	1,000				Charging for Parking
7/22/2011	UTSA Senior Camp	Perla	1,000				Charging for Parking
7/23/2011	Drum Corps International	Brenda	8,800	1:30 PM	2:30 PM	11:30 PM	Charging for Parking
7/24/2011	Bay Bay's Camp	Self Sufficient	1,000	8:00 AM	8:00 AM	1:00 PM	Charging for Parking
8/24/2011	Pigskin Preview	Brenda	700	11:00 AM	11:00 AM	1:30 PM	Parking Waived
9/3/2011	UTSA vs. Northeastern Oklahoma Football		30,000				Charging for Parking

Alamodome Information Calendar

As of May 17, 2011

DATE	EVENT NAME	EVENT COOR	EST.	DOORS	SHOW	End Time	Parking Lots
9/10/2011	UTSA vs. McMurry Football		15,000				Charging for Parking
9/18/2011	Fiestas Patrias Festival	Brenda	11,800				Charging for Parking
9/20/2011	Employment Guide Job Fair		1,000	10:00 AM	10:00 AM	2:00 PM	Parking Waived
9/24/2011	UTSA vs. Bacone College Football		15,000				Charging for Parking
9/30/2011	Fall Home & Garden Show Presented by GSABA	Perla	1,200	2:00 PM	2:00 PM	8:00 PM	Charging for Parking
10/1/2011	Fall Home & Garden Show Presented by GSABA	Perla	5,000	10:00 AM	10:00 AM	8:00 PM	Charging for Parking
10/2/2011	Fall Home & Garden Show Presented by GSABA	Perla	3,000	11:00 AM	11:00 AM	6:00 PM	Charging for Parking
10/8/2011	UTSA vs. South Alabama Football		15,000				Charging for Parking
10/22/2011	Women of Faith - Over the Top Tour	Perla	6,000	9:00 AM	10:00 AM	3:30 PM	Charging for Parking
10/21/2011	Women of Faith - Over the Top Tour	perla	6,000	5:30 PM	7:00 PM	10:00 PM	Charging for Parking
10/22/2011	Women of Faith - Over the Top Tour	Perla	7,000	8:00 AM	9:00 AM	5:00 PM	Charging for Parking
10/23/2011	Juvenile Diabetes Walk	Brenda	6,000				Parking Waived
10/29/2011	UTSA vs. Georgia State Football		15,000				Charging for Parking
11/4/2011	Bands of America Music For All	Perla	1,600	12:45 PM	1:15 PM	9:00 PM	Charging for Parking
11/5/2011	Bands of America Music For All	Perla	3,500	7:00 AM	7:30 AM	4:30 PM	Charging for Parking
11/7/2011	UIL State Marching Band Finals	Brenda	4,000	8:00 AM	8:00 AM	10:00 PM	Charging for Parking
11/8/2011	UIL State Marching Band Finals	Brenda	7,000	6:30 AM	6:30 AM	11:15 PM	Charging for Parking
11/11/2011	Rock N Roll Marathon Expo	Perla	13,000				Charging for Parking
11/12/2011	Rock N Roll Marathon Expo	Perla	13,000				Charging for Parking
11/13/2011	Rock N Roll Marathon Finish Line	Perla	27,000				Charging for Parking
11/17/2011	State of Texas Coaches Clinic	Brenda	600	4:00 PM	4:00 PM	10:00 PM	Charging for Parking
11/18/2011	State of Texas Coaches Clinic	Brenda	600	8:00 AM	8:00 AM	1:00 PM	Charging for Parking
11/19/2011	UTSA vs. Minot State Football		15,000				Charging for Parking
11/25-26/11	HS Football Playoff Games 6 games (T)		36,000				Charging for Parking
12/3/2011	USAA Holiday Party (T)		17,000				Parking Soldout
12/10/2011	HSFB Playoff Games (T)		13,000				Charging for Parking
12/15-17/11	NCAA Division I Womens Volleyball Championship Games		13,000				Charging for Parking
12/29/2011	Valero Alamo Bowl Game		65,000	6:00 PM	8:00 PM	11:00 PM	Parking Soldout

SECTION 01 2300

ALTERNATES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Description of alternates.
- B. Alternate submission procedures.
- C. Documentation of changes to Contract Sum and Contract Time.

1.2 RELATED REQUIREMENTS

- A. CoSA "010 Formal invitation for Bids (IFB) and Contract - Alamodome Home Team Locker Room Project"
- B. CoSA "020 Bid Form"

1.3 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at CoSA's option. Accepted alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each alternate.

1.4 SCHEDULE OF ALTERNATES

- A. **ALTERNATE NO. 1** - Provide solid wood lockers in lieu of plastic laminate over plywood.
 - 1. Base Bid Item: Football Team Lockers and Coaches Lockers finished with plastic laminate and stainless steel trim over 3/4 inch thick plywood.
 - 2. Alternate Item: Provide solid Alder wood locker in a dark stain in lieu of base bid lockers of plastic laminate and stainless steel trim over 3/4 inch thick plywood.
 - a. Dark stain and clear coat finish as approved by Architect.
 - b. All other aspect of the locker design shall remain as depicted in the drawings.
 - c. Refer also to specification Section 06 4100 - Architectural Wood Casework.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION

SECTION 03 3000**CAST-IN-PLACE CONCRETE****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Concrete formwork.
- B. Floors and slabs on grade. New concrete patching of cut-out concrete.
- C. Concrete reinforcement.
- D. Joint devices associated with concrete work.
- E. Miscellaneous concrete elements, including equipment pads.
- F. Concrete curing.

1.2 RELATED REQUIREMENTS

- A. Section 07 9005 - Joint Sealers.

1.3 REFERENCE STANDARDS

- A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).
- B. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2005.
- C. ACI 302.1R - Guide for Concrete Floor and Slab Construction; American Concrete Institute International; 2004 (errata 2007).
- D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
- E. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 2010.
- F. ACI 306R - Cold Weather Concreting; American Concrete Institute International; 1988 (Reapproved 2002).
- G. ACI 308R - Guide to Curing Concrete; American Concrete Institute International; 2001 (Reapproved 2008).
- H. ACI 318 - Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute International; 2008.
- I. ASTM A 185/A 185M - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete; 2007.
- J. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2009b.
- K. ASTM C 33 - Standard Specification for Concrete Aggregates; 2008.
- L. ASTM C 39/C 39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2009a.
- M. ASTM C 143/C 143M - Standard Test Method for Slump of Hydraulic-Cement Concrete; 2009.
- N. ASTM C 150 - Standard Specification for Portland Cement; 2007.
- O. ASTM C 173/C 173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method; 2009.
- P. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete; 2006.
- Q. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2008a.
- R. ASTM C 685/C 685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing; 2007.
- S. ASTM C 1107/C 1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2008.
- T. ASTM D 1709-03 - Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method.
- U. ASTM E 154-99 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth

- Under Concrete Slabs, on Walls, or as Ground Cover.
- V. ASTM E 1643-98 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill Under Concrete Slabs.
 - W. ASTM E 1745-97 - Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Submit manufacturers' data on manufactured products showing compliance with specified requirements.
- C. Project Record Documents: Accurately record actual locations of embedded utilities and components that will be concealed from view upon completion of concrete work.

1.5 QUALITY ASSURANCE

- A. Perform work of this section in accordance with ACI 301 and ACI 318.
- B. Follow recommendations of ACI 305R when concreting during hot weather.
- C. Follow recommendations of ACI 306R when concreting during cold weather.

PART 2 PRODUCTS

2.1 FORMWORK

- A. Form Materials: Contractor's choice of standard products with sufficient strength to withstand hydrostatic head without distortion in excess of permitted tolerances.
 - 1. Form Facing for Exposed Finish Concrete: Contractor's choice of materials that will provide smooth, stain-free final appearance.
 - 2. Form Coating: Release agent that will not adversely affect concrete or interfere with application of coatings.
 - 3. Form Ties: Cone snap type that will leave no metal within 1-1/2 inches of concrete surface.

2.2 REINFORCEMENT

- A. Reinforcing Steel: ASTM A 615/A 615M Grade 60 (420).
 - 1. Type: Deformed billet-steel bars.
 - 2. Finish: Unfinished, unless otherwise indicated.
- B. Steel Welded Wire Reinforcement: ASTM A 185/A 185M, plain type.
 - 1. Form: Coiled Rolls.
 - 2. Mesh Size: 6 x 6.
 - 3. Wire Gage: W 4 x W 4.
- C. Reinforcement Accessories:
 - 1. Tie Wire: Annealed, minimum 16 gage.
 - 2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
 - 3. Provide stainless steel, galvanized, plastic, or plastic coated steel components for placement within 1-1/2 inches of weathering surfaces.

2.3 CONCRETE MATERIALS

- A. Cement: ASTM C 150, Type I - Normal Portland type.
- B. Fine and Coarse Aggregates: ASTM C 33.
- C. Fly Ash: ASTM C 618, Class F.
- D. Water: Clean and not detrimental to concrete.

2.4 CHEMICAL ADMIXTURES

- A. Do not use chemicals that will result in soluble chloride ions in excess of 0.1 percent by weight of cement.
- B. Air Entrainment Admixture: ASTM C 260.

2.5 ACCESSORY MATERIALS

- A. Vapor Retarder: 5.78 psf thick 2-3/8 inches, ASTM E 1745, Class A material, type recommended for below grade application.
1. Manufacturers:
 - a. W.R. Meadows, Inc., Hampshire, IL, Tel. (847) 214-2100, Toll Free (800) 342-5976, Fax (847) 683-4544; www.wrmeadows.com.
 - b. Raven Industries, Sioux Falls, SD 57117-5107, Toll-free (800) 635-3456, Tel. (605) 335-0174, Fax (605) 331-0333.
 - c. Stego Industries, L.L.C., Mercer Island, WA, tel. (206) 232-8457, toll free (877) 223-4333.
 2. Product - 15 Mil Thickness, Class A:
 - a. Vapor-Mat (tm) 15 Mil, by W.R. Meadows.
 - b. Vapor Block 15 (tm) , by Raven Industries.
 - c. Stego Wrap Vapor Barrier, 15 Mil by Stego Wrap.
 3. Vapor Barrier Material:
 - a. Extruded 15 mil polyolefin membrane.
 - b. Material manufactured with ISO certified virgin resins.
 4. Source Quality Control and Tests - Reference Standards:
 - a. Water Vapor Retarders Used in Contact with Earth under Concrete Slabs: Exceeds Class A according to ASTM E 1745.
 - b. Water Vapor Transmission Rates: 0.011 gr./sq.ft/ hr. according to ASTM E 154.
 - c. Puncture Resistance Result: 1970 grams according to ASTM D 1709.
 - d. Tensile Strength Result: 48 lbs. force/in. according to ASTM E154, section 9.
 5. Substitutions: See Section 01 6000 - Product Requirements
 - a. Sheet polyethylene is not an acceptable substitution.
 - b. Material less than 15 mils is not acceptable.
 6. Accessories:
 - a. Tape - High Density Polyethylene Tape with pressure sensitive adhesive. Minimum width 4".
 - b. Pipe Boot / Penetrations Boot - Construct boots from vapor barrier material and pressure sensitive tape per manufacturer's instructions.
- B. Non-Shrink Grout: ASTM C 1107/C 1107M; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
1. Minimum Compressive Strength at 48 Hours: 2,400 psi.
- C. Liquid Curing Compound: ASTM C 309, Type 1, clear or translucent.

2.6 BONDING AND JOINTING PRODUCTS

- A. Joint Filler: Nonextruding, resilient asphalt impregnated fiberboard or felt, 1/4 inch thick and 4 inches deep; tongue and groove profile.

2.7 CONCRETE MIX DESIGN

- A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.
- B. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.
- C. Normal Weight Concrete:
1. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: 3500 psi.
 2. Fly Ash Content: Maximum 15 percent of cementitious materials by weight.
 3. Water-Cement Ratio: Maximum 40 percent by weight.
 4. Total Air Content: 4 percent, determined in accordance with ASTM C 173/C 173M.
 5. Maximum Slump: 3 inches.
 6. Maximum Aggregate Size: 5/8 inch.

2.8 MIXING

- A. On Project Site: Mix in drum type batch mixer, complying with ASTM C 685. Mix each batch not less than 1-1/2 minutes and not more than 5 minutes.

PART 3 EXECUTION**3.1 EXAMINATION**

- A. Verify lines, levels, and dimensions before proceeding with work of this section.

3.2 PREPARATION

- A. Formwork: Comply with requirements of ACI 301. Design and fabricate forms to support all applied loads until concrete is cured, and for easy removal without damage to concrete.
- B. Verify that forms are clean and free of rust before applying release agent.
- C. Coordinate placement of embedded items with erection of concrete formwork and placement of form accessories.
- D. Ensure that subsoil is approved by Structural Engineer.
- E. Install vapor barrier per manufacturer's instructions, illustrations and ASTM E 1643-98 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs.
 - 1. Coordinate work of all other trades related to the slab base and utility services.
 - 2. Level and tamp or roll granular base.
 - 3. Place Vapor Barrier with the longest dimension parallel with the direction of the pour.
 - 4. Lap Vapor Barrier into beam trench wall a minimum of 2 feet. Seal to trench walls. Do NOT cover the bottom of the beam trench if it is more than 1 foot below slab soffit. Seal all penetrations.
 - 5. Lap joints 6 inches and seal with the recommended pressure sensitive tape.
 - 6. Seal pipe penetrations with pipe boot made from Vapor Barrier and tape.
 - 7. Protect Vapor Barrier from damage during installation of reinforcing steel and utilities.
 - 8. Repair damaged areas by cutting patches of vapor barrier, overlapping damaged area 6 inches and taping all four sides with pressure sensitive tape.
 - 9. Clean all contaminants from surface.
 - 10. Protect installed vapor barrier from subsequent damaging construction operations.
 - 11. Do not permit vehicular/heavy equipment traffic over unprotected vapor barrier.

3.3 INSTALLING REINFORCEMENT

- A. Comply with requirements of ACI 301. Clean reinforcement of loose rust and mill scale, and accurately position, support, and secure in place to achieve not less than minimum concrete coverage required for protection.
- B. Install welded wire reinforcement in maximum possible lengths, and offset end laps in both directions. Splice laps with tie wire.

3.4 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Place concrete for floor slabs in accordance with ACI 302.1R.
- C. Notify Architect not less than 24 hours prior to commencement of placement operations.
- D. Ensure reinforcement, inserts, waterstops, embedded parts, and formed construction joint devices will not be disturbed during concrete placement.
- E. Repair underslab vapor retarder damaged during placement of concrete reinforcing. Repair with vapor retarder material; lap over damaged areas minimum 6 inches and seal watertight.
- F. Separate slabs on grade from vertical surfaces with joint filler.
- G. Place joint filler in floor slab pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.
- H. Extend joint filler from bottom of slab to within 1/2 inch of finished slab surface. Conform to Section 07 9005 for finish joint sealer requirements.
- I. Install joint devices in accordance with manufacturer's instructions.
- J. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- K. Place concrete continuously between predetermined expansion, control, and construction joints.
- L. Do not interrupt successive placement; do not permit cold joints to occur.

- M. Saw cut joints within 24 hours after placing. Use 3/16 inch thick blade, cut into 1/4 depth of slab thickness.
- N. Screed floors level, maintaining surface flatness of maximum 1/4 inch in 10 ft.

3.5 CONCRETE FINISHING

- A. Repair surface defects, including tie holes, immediately after removing formwork.
- B. Unexposed Form Finish: Rub down or chip off fins or other raised areas 1/4 inch or more in height.
- C. Concrete Slabs: Finish to requirements of ACI 302.1R, and as follows:
 - 1. Surfaces to Receive Thin Floor Coverings: "Steel trowel" as described in ACI 301.1R; thin floor coverings include carpeting, resilient flooring, seamless flooring, thin set quarry tile, and thin set ceramic tile.
 - 2. Other Surfaces to be Left Exposed: "Steel trowel" as described in ACI 302.1R, minimizing burnish marks and other appearance defects.
- D. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1:100 nominal.
- E. In gang shower areas with trench drains at perimeter walls, maintain floor elevation at walls; slope surfaces uniformly up to ridge at 1:100 nominal.

3.6 CURING AND PROTECTION

- A. Comply with requirements of ACI 308R. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
 - 1. Normal concrete: Not less than 7 days.
- C. Surfaces Not in Contact with Forms:
 - 1. Slabs and Floors To Receive Adhesive-Applied Flooring: Curing compounds and other surface coatings are usually considered unacceptable by flooring and adhesive manufacturers. If such materials must be used, either obtain the approval of the flooring and adhesive manufacturers prior to use or remove the surface coating after curing to flooring manufacturer's satisfaction.
 - 2. Initial Curing: Start as soon as free water has disappeared and before surface is dry. Keep continuously moist for not less than three days by water ponding, water-saturated sand, water-fog spray, or saturated burlap.
 - 3. Final Curing: Begin after initial curing but before surface is dry.
 - a. Curing Compound: Apply in two coats at right angles, using application rate recommended by manufacturer.

3.7 FIELD QUALITY CONTROL

- A. An independent testing agency will perform field quality control tests, as specified in Section 01 4000.
- B. Provide free access to concrete operations at project site and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to inspection and testing firm for review prior to commencement of concrete operations.
- D. Tests of concrete and concrete materials may be performed at any time to ensure conformance with specified requirements.
- E. Compressive Strength Tests: ASTM C 39/C 39M. For each test, mold and cure three concrete test cylinders. Obtain test samples for every 100 cu yd or less of each class of concrete placed.
- F. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
- G. Perform one slump test for each set of test cylinders taken, following procedures of ASTM C 143/C 143M.

3.8 DEFECTIVE CONCRETE

- A. Test Results: The testing agency shall report test results in writing to Architect and Contractor

- within 24 hours of test.
- B. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
 - C. Repair or replacement of defective concrete will be determined by the Architect. The cost of additional testing shall be borne by Contractor when defective concrete is identified.
 - D. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Architect for each individual area.

END OF SECTION

SECTION 05 7511**ORNAMENTAL METAL MESH PANELS****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Ornamental metal mesh panels for Locker doors.
 - 1. Referred to as "Stainless Steel Vent Insert" in the drawings.

1.2 RELATED SECTIONS

- A. Section 06 4100 - Architectural Wood Casework: Football team and Coaches Lockers.

1.3 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published literature, indicating materials, finishes, and sizes.
- C. Shop Drawings: Fabrication drawings, showing frames and supports.
- D. Selection Samples: Color photographs showing design and finish options.
- E. Verification Samples: Actual metal samples of the style and material specified.

PART 2 PRODUCTS**2.1 MANUFACTURERS**

- A. McNichols Co., T: (800) 237-3820; www.mcnichols.com.
 - 1. Basis of Design: McNICHOLS Quality Shire™ 8141 PLUS, Designer Series, Stainless Steel Type 304, 38% Open Area, Long Way of Opening Parallel to Width, Sheet, 48.0" Width x 96.0" Length
- B. Cambridge, Inc; 105 Goodwill Road, P.O. Box 399, Cambridge, MD 21613, USA. ASD. Tel: (410) 228-3000; Fax: (410) 288-6752; www.cambridge-inc.com.
- C. Substitutions: See Section 01 6000 - Product Requirements.

2.2 MATERIALS

- A. Ornamental Metal Mesh: Stainless steel - McNICHOLS Quality Decorative Mesh, Designer Series, Stainless Steel, Shire™ 8141 PLUS, 48.0" x 96.0".
 - 1. HS Item Number 3881410048
 - 2. Product Line: Wire Mesh
 - 3. Product Type: Decorative Mesh
 - 4. Weight: 1.22 #/SF
 - 5. Class: Designer Series
 - 6. Trade Name: McNICHOLS
 - 7. Category: Shire™
 - 8. Major Material: Stainless Steel
 - 9. Pattern Name: Shire™
 - 10. Pattern Number - 88016: 8141 PLUS
 - 11. Percent Open Area: 38
 - 12. Width: 48.0 inches
 - 13. Length (Span for Grating): 96.0 inches
 - 14. SKU Type: Sheet
 - 15. Full Material Type: SS-304
- B. Panel Frames: Stainless steel U-edging cut and welded to form a frame around the edge of the material.
 - 1. Finish: Brushed.

2.3 FABRICATION

- A. Cut mesh panels to fit within frames at locker doors.

- B. Fabricate panel u-edging frame such that it is not visible in elevation view of the lockers.
 - 1. Provide mechanically jointed mitered corners.
 - 2. Attach metal mesh using adhesive.
- C. Install metal mesh in frames with wires parallel to frames in both directions; make mesh square prior to installation in accordance with manufacturer's instructions.
- D. After fabrication, touch up finishes or re-polish as required to restore original finish.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that substrates to receive panels are ready for installation.

3.2 INSTALLATION

- A. Install panels as indicated.
- B. Whenever mesh panels are installed prior to completion of rough work, provide protective covers until the project is ready for occupancy.

END OF SECTION

SECTION 09 2116**GYPSUM BOARD ASSEMBLIES****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Metal stud wall framing.
- B. Metal channel ceiling framing.
- C. Gypsum wallboard.
- D. Glass mat faced gypsum board.
- E. Joint treatment and accessories.
- F. Textured finish system.

1.2 RELATED REQUIREMENTS

- A. Section 06 2000 - Finish Carpentry
- B. Section 06 4100 - Architectural Wood Casework.
- C. Section 07 9005 - Joint Sealers: Acoustic sealant.

1.3 REFERENCE STANDARDS

- A. ASTM C 475/C 475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 2002 (Reapproved 2007).
- B. ASTM C 645 - Standard Specification for Nonstructural Steel Framing Members; 2009a.
- C. ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2009a.
- D. ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board; 2008.
- E. ASTM C 954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness; 2007.
- F. ASTM C 1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2007.
- G. ASTM C 1047 - Standard Specification for Accessories for Gypsum Wallboard and Gypsum Veneer Base; 2009.
- H. ASTM D 3273 - Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber; 2000 (Reapproved 2005).
- I. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction; 2005.
- J. CFR - Code of Federal Regulations - 40 CFR Part 59, Subpart D-2001: National Volatile Organic Compound Emission Standards for Architectural Coatings.
- K. GA-214 - Recommended Levels of Gypsum Board Finish; Gypsum Association; 2007.
- L. GA-216 - Application and Finishing of Gypsum Board; Gypsum Association; 2010.
- M. IBC - International Building Code; Current edition for the jurisdiction of the project.
- N. TAS - Texas Accessibility Standards: Required compliance for handicapped accessibility in Texas.
- O. UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Shop Drawings: Indicate special details associated with fireproofing and acoustic seals.
- C. Product Data: Provide data on metal framing, gypsum board, accessories, and joint finishing system.
- D. Product Data: Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- E. Test Reports: For all stud framing products that do not comply with ASTM C 645 or C 754,

provide independent laboratory reports showing maximum stud heights at required spacings and deflections.

- F. Samples: Submit two samples of gypsum board finished with proposed texture application, 12 by 12 inches in size, illustrating finish color and texture.
 - 1. Wall finish and Ceiling finish shall match.
 - 2. Finish(es) shall match approved sample(s).
- G. Submit design, drawings, and calculations sealed and signed by a registered Structural Engineer where required. Engineer shall be registered in the jurisdiction of the project.

1.5 QUALITY ASSURANCE

- A. Perform in accordance with ASTM C 840. Comply with requirements of GA-600 for fire-rated assemblies.
 - 1. Maintain one copy of standards at project site.
- B. Installer Qualifications: Company specializing in performing gypsum board application and finishing, with minimum 5 (five) years of documented experience.

1.6 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire rated assemblies.

PART 2 PRODUCTS

2.1 GYPSUM BOARD ASSEMBLIES

- A. Provide completed assemblies complying with ASTM C 840 and GA-216.

2.2 METAL FRAMING MATERIALS

- A. Manufacturers - Metal Framing, Connectors, and Accessories:
 - 1. Clark Western Building Systems: www.clarkwestern.com.
 - 2. Dietrich Metal Framing: www.dietrichindustries.com.
 - 3. MarinoWare: www.marinoware.com.
 - 4. The Steel Network, Inc: www.SteelNetwork.com.
 - 5. Telling Industries: www.tellingindustries.com.
 - 6. Easy-Arch, Inc., 26900 Jefferson Avenue, Murrieta, California 92562. T: (800) 854-2461; F: (951) 677-2476; Web site: www.easy-arch.com.
 - 7. Substitutions: See Section 01 6000 - Product Requirements.
- B. Non-Loadbearing Framing System Components: ASTM C 645; galvanized sheet steel, of size and properties necessary to comply with ASTM C 754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 7.5 psf.
 - 1. Exception: The minimum metal thickness and section properties requirements of ASTM C 645 are waived provided steel of 40 ksi minimum yield strength is used, the metal is continuously dimpled, the effective thickness is at least twice the base metal thickness, and maximum stud heights are determined by testing in accordance with ASTM E 72 using assemblies specified by ASTM C 754.
 - a. Acceptable Products:
 - 1) Dietrich Metal Framing; UltraSteel (tm): www.dietrichindustries.com.
 - 2) Clark Western Building Systems; UltraSteel (tm): www.clarkwestern.com.
 - 2. Studs: "C" shaped with flat or formed webs with knurled faces.
 - 3. Runners: U shaped, sized to match studs.
 - 4. Ceiling Channels: C shaped.
 - 5. Furring: Hat-shaped sections, minimum depth of 7/8 inch.
 - 6. Metal Studs at ceramic tile walls and other "wet walls" (walls with water pipe or drain pipe penetrations) shall be galvanized and a minimum of 20 gage (33 mil) thick, unless required to be heavier. Galvanized in accordance with ASTM A 653/A 653M G90/Z275 coating.
 - 7. Zee Furring at exterior where indicated on the drawings shall be galvanized and a minimum of 20 gage (33 mil) thick, unless required to be heavier. Galvanized in accordance with ASTM A 653/A 653M G90/Z275 coating.

8. Refer to Section 06 1000 - Rough Carpentry for sill gasket (sealer) at framed perimeter walls.
- C. Ceiling Hangers: Type and size as specified in ASTM C 754 for spacing required.
- D. Partition Head To Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs cut short and screwed to secondary deflection channel set inside but unattached to top track.
- E. Framing systems which are not covered by or are outside the parameters of ASTM C 645 and ASTM C 754 shall be submitted with design, drawings, and calculations signed and sealed by a Structural Engineer registered to practice in the jurisdiction where the project is located.

2.3 NON-LOAN-BEARING STEEL FRAMING, GENERAL LEED REQUIREMENTS

- A. Recycled Content of Steel Products: Provide products with average recycled content of steel products such that postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent.

2.4 BOARD MATERIALS

- A. Manufacturers - Gypsum-Based Board:
 1. CertainTeed Corporation: www.certainteed.com.
 2. Georgia-Pacific Gypsum LLC: www.gp.com/gypsum.
 3. National Gypsum Company: www.nationalgypsum.com.
 4. Temple-Inland Inc: www.templeinland.com.
 5. USG Corporation: www.usg.com.
 6. Substitutions: See Section 01 6000 - Product Requirements.
- B. Gypsum Wallboard: ASTM C 1396/C 1396M. Sizes to minimize joints in place; ends square cut.
 1. Regular Type is NOT allowed. Use only Type X. Refer to Fire Resistant Type.
 2. Fire Resistant Type: Complying with Type X requirements; UL or WH rated.
 - a. At Assemblies Indicated with or without Fire-Rating: Use type required by indicated tested assembly; if no tested assembly is indicated, use Type X.
 - b. Other Applications: Use at all vertical surfaces and all horizontal surfaces, unless otherwise indicated.
 - c. Thickness: 5/8 inch.
 - d. Edges: Tapered.
 3. Not for use at any part of exterior walls (building perimeter walls) including retaining walls. Refer to Fiberglass Reinforced Board Materials: Glass Mat Board - Interior Panel.
- C. Paper faced Water-Resistant Gypsum Backing Board NOT ALLOWED. Refer to Fiberglass Reinforced Board Materials - Coated Glass Mat Backer Board.
- D. Paper-faced Gypsum Sheathing Board is NOT ALLOWED. Refer to Fiberglass Reinforced Board Materials - Glass Mat Gypsum Sheathing Board.

2.5 FIBERGLASS REINFORCED BOARD MATERIALS

- A. Cementitious Backer Board: NOT ALLOWED. Refer to Fiberglass Reinforced Board Materials - Coated Glass Mat Backer Board.
- B. Glass Mat Gypsum Board: Gypsum panels with moisture-resistant core and coated inorganic fiberglass mat back surface designed to resist growth of mold and mildew, per ASTM D 3273.
 1. Glass Mat Board - Interior Panel: For use at interior side of perimeter walls and retaining walls. Comply with performance requirements of ASTM C 1396/C 1396M for water-resistant gypsum backing board and ASTM C 1177/C 1177M for sheathing; tapered long edges.
 - a. Product: DensArmor Plus Fireguard Interior Panel manufactured by G-P Gypsum.
 - b. Product: GreenGlass Interior Gypsum Board manufactured by Temple-Inland.
 - c. Fire-Resistant Type: Type X core, thickness 5/8 inch.
 2. Coated Glass Mat Backer Board (Tile Backer Board): ASTM C 1178/C 1178M, with coated inorganic fiberglass mat on both surfaces and integral acrylic coating vapor retarder.
 - a. Product: Dens-Shield Tile Backer Board manufactured by G-P Gypsum.
 - b. Fire-Resistant Type: Type X core, thickness 5/8 inch.
 - c. Also for use in same tiled room at ceilings and walls without tiling.

- 1) Tape joints as recommended by manufacturer.
- 2) Trowel manufacturer recommended joint compound over entire panel to produce a smooth surface.
- 3) Prime and paint as scheduled.

2.6 ACCESSORIES

- A. Acoustic Sealant: As specified in Section 07 9005.
- B. Finishing Accessories: ASTM C 1047, galvanized steel or rigid plastic, unless otherwise indicated.
 1. Types: As detailed or required for finished appearance.
- C. Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.
 1. Tape: 2 inch wide, coated glass fiber tape for joints and corners.
 2. Tape: 2 inch wide, creased paper tape for joints and corners, except as otherwise indicated.
 3. Ready-mixed vinyl-based joint compound.
 4. Chemical hardening type compound.
 5. Elastomeric vertical joint sealer at fiberglass mat faced sheathing board at exterior wall:
 - a. Polyether base, moisture curing, elastomeric, vertical sealer.
 - 1) Elongation: 200% per ASTM D 412 /C 1135.
 - 2) VOC's: 0%.
 - 3) Solids: 100%.
 - 4) No Solvents.
 - 5) Exposure: Six months.
 - b. Compatible with asphaltic materials.
 - c. Compatible with through wall copper flashing.
 - d. Product: GreatSeal LT-100 Liquid Tape.
 6. Tape at fiberglass mat faced sheathing board at exterior wall:
 - a. Regular duty 2 inch wide x 25 mil thick minimum, non-reinforced; Acceptable products:
 - 1) Wall Guardian Universal Tape.
 - 2) StopAQ EZ Wrap Tape.
 - b. Alternate material for use only at locations where air/water barrier & vapor retarder is used: Four (4) inch wide fiberglass mesh tape embedded in air/water barrier & vapor retarder material and top-coated with another coat of the same barrier/retarder material.
 - 1) Refer to Alternate Transition Membrane at Section 07 2726.01 Air/Water Barrier and Vapor Retarder.
 7. Tape for use at interior paperless drywall:
 - a. mesh tape with antimicrobial coating.
 - b. 2 inch wide with adhesive backing which eliminates need for pre-bedding coat.
 - c. Product: FibaTape Mold-X10 manufactured by Saint-Gobain Technical Fabrics.
- D. Textured Finish Materials: Latex-based compound; smooth finish.
- E. Screws for Attachment to Steel Members Less Than 0.03 inch In Thickness, to Wood Members, and to Gypsum Board: ASTM C 1002; self-piercing tapping type; cadmium-plated for exterior locations.
- F. Screws for Attachment to Steel Members From 0.033 to 0.112 Inch in Thickness: ASTM C 954; steel drill screws for application of gypsum board to loadbearing steel studs.
- G. Metal Moldings: Reveals, reglets, screeds, corner pieces and other molding & trim pieces as identified in the drawings.
 1. Extruded Aluminum Alloy 6063 T5, with clear anodized finish or chemical conversion coating per manufacturer.
 2. Products by Fry Reglet Corp., Architectural Metals; Toll-free: (800) 237-9773; F: (800) 200-4379; Web site: www.fryreglet.com/.
 3. Substitutions: See Section 01 6000 - Product Requirements.
- H. Screws: ASTM C 1002; self-piercing tapping type; cadmium-plated for exterior locations.

- I. Anchorage to Substrate: Tie wire, nails, screws, and other metal supports, of type and size to suit application; to rigidly secure materials in place.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that project conditions are appropriate for work of this section to commence.

3.2 FRAMING INSTALLATION

- A. Metal Framing: Install in accordance with ASTM C 754 and manufacturer's instructions.
- B. Suspended Ceilings and Soffits: Space framing and furring members as indicated.
 1. Level ceiling system to a tolerance of 1/1200.
 2. Laterally brace entire suspension system.
 3. Install bracing as required at exterior locations to resist wind uplift.
- C. Studs: Space studs at 16 inches on center, unless noted or required to be closer.
 1. Extend partition framing to structure where indicated and to ceiling in other locations.
 2. Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.
 3. Partitions Terminating at Structure: Attach top runner to structure, maintain clearance between top of studs and structure, and connect studs to track using specified mechanical devices in accordance with manufacturer's instructions; verify free movement of top of stud connections; do not leave studs unattached to track.
- D. Bracing, Furring, Bridging: Provide as determined for conditions encountered; finish to match framing components.
- E. Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.
- F. Standard Wall Furring: Install at concrete walls scheduled to receive gypsum board, not more than 4 inches from floor and ceiling lines and abutting walls. Secure in place on alternate channel flanges at maximum 16 inches on center.
- G. Blocking: Install blocking for support of wall mounted door stops, handrails, bulletin boards, marker boards, shelving, plumbing fixtures, toilet partitions, wall cabinets, wood frame openings, toilet accessories, hardware, and other wall mounted items and accessories. Comply with Section 06 1000 for wood blocking.
 1. Maintain fire rating of rated walls.
 2. Coordinate blocking location with applicable accessibility standards.
 - a. TAS - Texas Accessibility Standards.

3.3 BOARD AND GLASS MAT FACED BOARD INSTALLATION

- A. Comply with ASTM C 840 and manufacturer's instructions. Install to minimize butt end joints, especially in highly visible locations.
- B. Do not install interior gypsum board until the required environmental conditions can be maintained.
 1. Comply with ASTM C 840 for temperature and other requirements.
 2. Air humidity must not exceed 65%.
 3. Roof must be complete and fully functional. Must not leak.
 4. Roof penetrations must be complete and made weathertight. Must not leak.
 5. Exterior walls must be complete at all levels of the building, except for gypsum board on interior.
 6. Spaces within building shall be controlled and kept conditioned and ventilated to maintain the required environmental parameters for the gypsum board at interior walls and partitions.
 7. Water shall not be permitted to enter and remain in the building at floors, walls, ceilings and areas not exposed to view.
- C. Mold, mildew, and any other fungus is not allowed. Remove and replace all gypsum board infected with mold, mildew, and/or other fungus. Use appropriate fungicidal to thoroughly clean

and disinfect and dry area where mold, mildew, and/or fungus infected gypsum board was removed. Remove infected gypsum board immediately from the interior of the building. Remove and properly discard the infected gypsum board off the site.

- D. Cleaning the mold, mildew, and/or fungus off of infected gypsum board is not acceptable. Replace the gypsum board.
- E. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
 - 1. Exception: Tapered edges to receive joint treatment at right angles to framing.
- F. Fire-Rated Construction: Install gypsum board in strict compliance with requirements of assembly listing.
- G. Glass Mat Faced Gypsum Board: Install in strict accordance with manufacturer's instructions.
- H. Installation on Metal Framing: Use screws for attachment of all gypsum board.
- I. Moisture Protection: Treat cut edges and holes in moisture resistant gypsum board with sealant.

3.4 INSTALLATION OF TRIM AND ACCESSORIES

- A. Install according to manufacturers written recommendations.
- B. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
 - 1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
- C. Corner Beads: Install at external corners, using longest practical lengths.
- D. Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.

3.5 JOINT TREATMENT

- A. Glass Mat Faced Gypsum Board: Use fiberglass joint tape, bedded and finished with chemical hardening type joint compound. Verify with Glass Mat Faced Gypsum Board manufacturer recommendations.
- B. Paper Faced Gypsum Board: Use paper joint tape, bedded with ready-mixed vinyl-based joint compound and finished with ready-mixed vinyl-based joint compound.
- C. Finish gypsum board in accordance with levels defined in ASTM C 840, as follows:
 - 1. Level 4: Walls and ceilings to receive paint finish or wall coverings, unless otherwise indicated.
 - 2. Level 2: In utility areas, behind cabinetry, and on backing board to receive tile finish.
 - 3. Level 1: Fire rated wall areas above finished ceilings, whether or not accessible in the completed construction.
 - 4. Paper faced tape is not allowed at intersection with fiberglass mat faced boards. Use coated glass fiber tape.
- D. Gypsum board at above ceiling spaces:
 - 1. Non-fire rated locations shall have Level 1 finish.
 - 2. Fire rated locations shall have a Level of finish acceptable for a fire-rated partition. Provide a minimum Level 2 finish unless regulation requires a better finish level.
- E. Finish all exposed to view gypsum board in accordance with ASTM C 840 Level 4.
- F. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.
 - 1. Feather coats of joint compound so that camber is maximum 1/32 inch.

3.6 TEXTURE FINISH

- A. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions and to match approved sample.

3.7 TOLERANCES

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

END OF SECTION

SECTION 09 5100**ACOUSTICAL CEILINGS****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Suspended metal grid ceiling system.
- B. Acoustical units.

1.2 RELATED REQUIREMENTS

- A. Section 07 9005 - Joint Sealers: Acoustical sealant.
- B. Section 09 5800 - Integrated Ceilings.
- C. Section 21 1313 - Fire-Suppression Sprinkler Systems: Sprinkler heads in ceiling system.
- D. Section 23 3713 - Diffusers, Registers and Grills: Air diffusion devices in ceiling.

1.3 REFERENCE STANDARDS

- A. ASTM C 635 - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2009b.
- B. ASTM E 1264 - Standard Classification for Acoustical Ceiling Products; 2008.
- C. UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements for submittal procedures.
- B. Shop Drawings: Indicate grid layout and related dimensioning.
- C. Product Data: Provide data on suspension system components.
- D. Samples: Submit two samples 12 x 12 inch in size illustrating material and finish of acoustical units.
- E. Provide signed letter from the responsible subcontractor/installer certifying that they will install material/product/assembly according to manufacturers written recommendations and requirements.
- F. Maintenance Materials: Furnish the following for CoSA's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.
 - 2. Extra Acoustical Units: Quantity equal to 5 percent of total installed.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Do not install acoustical units until after interior wet work is dry.

1.6 QUALITY ASSURANCE

- A. Fire-Resistive Assemblies: Complete assembly listed and classified by UL for the fire resistance indicated.
- B. Suspension System Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.
- C. Acoustical Unit Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years documented experience.

1.7 FIELD CONDITIONS

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

1.8 PROJECT CONDITIONS

- A. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.

- B. Install acoustical units after interior wet work is dry.

1.9 EXTRA MATERIALS

- A. Provide Five (5) percent of total acoustical unit area of each type of acoustical unit for CoSA's use in maintenance of project.

PART 2 PRODUCTS

2.1 ACOUSTICAL UNITS

- A. Manufacturers:
 - 1. Armstrong World Industries, Inc.; Product Optima Open Plan: www.armstrong.com.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.
- B. Acoustical Units - General: ASTM E 1264, Class A.
 - 1. Units for Installation in Fire-Rated Suspension System: Listed and classified for the fire-resistive assembly the suspension system is a part of.
- C. Acoustical Tile Type SAT-2: Painted mineral fiber, ASTM E 1264 Type III, with to the following characteristics:
 - 1. Size: 24 x 24 inches
 - 2. Thickness: 1 inches.
 - 3. Composition: Fiberglass.
 - 4. Density: 6.84 lb/cu ft.
 - 5. Light Reflectance: 90 percent, determined as specified in ASTM E 1264.
 - 6. NRC: 0.90, determined as specified in ASTM E 1264.
 - 7. Articulation Class (AC): 200, determined as specified in ASTM E 1264.
 - 8. Ceiling Attenuation Class (CAC): 26, determined as specified in ASTM E 1264.
 - 9. Edge: Square Tegular.
 - 10. Surface Color: White.
 - 11. Surface Pattern: Fine Textured.
 - 12. Product: Optima Open Plan item No. 3355 by Armstrong.
 - 13. Suspension System: Exposed grid.
 - 14. Recycle content: 25%

2.2 METAL SUSPENSION SYSTEM

- A. Manufacturers:
 - 1. Same as for acoustical units.
 - 2. Substitutions: See Section 01 6000 - Product Requirements.
- B. Suspension Systems - General: ASTM C 635; die cut and interlocking components, with stabilizer bars, clips, splices, perimeter moldings, and hold down clips as required.
- C. Exposed Steel Suspension System: Formed steel, commercial quality cold rolled; Intermediate-duty.
 - 1. Profile: Tee; 9/16 inch wide face.
 - 2. Construction: Double web.
 - 3. Finish: White painted.
 - 4. Product: Suprafine XL by Armstrong.

2.3 ACCESSORIES

- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Extra hanging wires: Provide four hanging wires at all locations of light fixtures within grid for hanging of light fixtures by light fixture installer. Locate one wire at each corner of each light fixture. Required by code.
- C. Perimeter Moldings: Same material and finish as grid.
 - 1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.
- D. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION**3.1 EXAMINATION**

- A. Verify existing conditions before starting work.
- B. Verify that layout of hangers will not interfere with other work.

3.2 INSTALLATION - SUSPENSION SYSTEM

- A. Install suspension system in accordance with ASTM C 636, ASTM E 580, and manufacturer's instructions and as supplemented in this section.
- B. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- C. Install after major above-ceiling work is complete. Coordinate the location of hangers with other work.
- D. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- E. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers and related carrying channels to span the extra distance.
- F. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.
- G. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- H. Do not eccentrically load system or induce rotation of runners.
- I. Perimeter Molding: Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 - 1. Use longest practical lengths.
 - 2. Overlap and rivet corners.
- J. Install extra hanging wires for light fixtures. One wire for each corner of each light fixture. Four wires typically for each fixture. Provide more wires where necessary.

3.3 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Fit border trim neatly against abutting surfaces.
- D. Install units after above-ceiling work is complete.
- E. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- F. Cutting Acoustical Units:
 - 1. Make field cut edges of same profile as factory edges.
- G. Install hold-down clips on each panel to retain panels tight to grid system; comply with fire rating requirements.

3.4 TOLERANCES

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

END OF SECTION

SECTION 09 5800**INTEGRATED CEILING ASSEMBLIES****PART 1 - GENERAL****1.1 SECTION INCLUDES**

- A. TechZone acoustical ceiling panels.
- B. Exposed grid suspension system.
- C. Wire hangers, fasteners, main runners, cross tees, and wall angle moldings.

1.2 RELATED SECTIONS:

- A. Drawings and general conditions of Contract, including General and Supplementary Conditions and Divisions 01 Specification sections apply to work of this section.
- B. Section 09 5100 - Acoustical Ceilings.
- C. Section 09 2000 - Plaster and Gypsum Board
- D. Section 21 1313 - Fire-Suppression Sprinkler Systems: Sprinkler heads in ceiling system.
- E. Section 23 3713 - Diffusers, Registers and Grills: Air diffusion devices in ceiling.
- F. Division 26 (16) Sections - Electrical Work

1.3 REFERENCES

- A. ASTM A 1008 Standard Specification for Steel, Sheet, Cold Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
- B. ASTM A 641 Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- C. ASTM A 653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
- D. ASTM C 423 Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- E. ASTM C 635 Standard Specification for Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
- F. ASTM C 636 Recommended Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
- G. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials.
- H. ASTM E 1414 Standard Test Method for Airborne Sound Attenuation Between Rooms Sharing a Common Ceiling Plenum.
- I. ASTM E 1111 Standard Test Method for Measuring the Interzone Attenuation of Ceilings Systems.
- J. ASTM E 1264 Classification for Acoustical Ceiling Products.
- K. ASTM E 1477 Standard Test Method for Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers.
- L. ASTM D 3273 Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber.

1.4 SUBMITTALS

- A. Product Data: Submit manufacturer's technical data for each type of acoustical ceiling unit and suspension system required.
- B. Samples: Minimum 6 inch x 6 inch samples of specified acoustical panel; 8 inch long samples of exposed wall molding and suspension system, including main runner and 4 foot cross tees.
- C. Shop Drawings: Layout and details of acoustical ceilings. Show locations of items which are to be coordinated with, or supported by the ceilings.
- D. Prequalification: Compatibility of HVAC, lighting and sprinkler components that are to be integrated into the system.
- E. Certifications: Manufacturer's certifications that products comply with specified requirements, including laboratory reports showing compliance with specified tests and standards. For acoustical performance, each carton of material must carry an approved independent laboratory

classification of NRC, CAC, and AC.

- F. If the material supplied by the acoustical subcontractor does not have an Underwriter's Laboratory classification of acoustical performance on every carton, subcontractor shall be required to send material from every production run appearing on the job to an independent or NVLAP approved laboratory for testing, at the architect's or owner's discretion. All products not conforming to manufacturer's current published values must be removed, disposed of and replaced with complying product at the expense of the Contractor performing the work.

1.5 QUALITY ASSURANCE

- A. Single-Source Responsibility: Provide acoustical panel units, technical panel units, and grid components by a single manufacturer.
- B. Fire Performance Characteristics: Identify acoustical ceiling components with appropriate markings of applicable testing and inspecting organization.
1. Surface Burning Characteristics: As follows, tested per ASTM E 84 and complying with ASTM E 1264 for Class A products.
 - a. Flame Spread: 25 or less
 - b. Smoke Developed: 50 or less
- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical ceiling units to project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- B. Before installing acoustical ceiling units, permit them to reach room temperature and a stabilized moisture content.
- C. Handle acoustical ceiling units carefully to avoid chipping edges or damaged units in any way.

1.7 PROJECT CONDITIONS

- A. Space Enclosure:
1. HumiGuard Plus Ceilings: Building areas to receive ceilings shall be free of construction dust and debris. Products with HumiGuard Plus performance and hot dipped galvanized steel, aluminum, or stainless steel suspension systems can be installed up to 120 F (49 C) and in spaces before the building is enclosed, where HVAC systems are cycled or not operating. Cannot be used in exterior applications where standing water is present or where moisture will come in direct contact with the ceiling.

1.8 WARRANTY

- A. Acoustical Panel: Submit a written warranty executed by the manufacturer, agreeing to repair or replace acoustical panels that fail within the warranty period. Failures include, but are not limited to:
1. Acoustical Panels: Sagging and warping
 2. Grid System: Rusting and manufacturer's defects
- B. Warranty Period:
1. Optima acoustical technical and field panels: Ten (10) years from date of substantial completion.
 2. Grid: Ten (10) years from date of substantial completion.
 3. Optima acoustical field panels, metal or Optima technical panels, and Armstrong grid systems is thirty (30) years from date of substantial completion.
- C. The Warranty shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and will be in addition to and run concurrent with other warranties made by the Contractor under the requirements of the Contract Documents.

1.9 MAINTENANCE

- A. Extra Materials: Deliver extra materials to Owner. Furnish extra materials described below that match products installed. Packaged with protective covering for storage and identified with appropriate labels.

1. Acoustical Ceiling Units: Furnish quality of full-size units equal to 5.0 percent of amount installed.
2. Exposed Suspension System Components: Furnish quantity of each exposed suspension component equal to 2.0 percent of amount installed.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design: TechZone Ceiling System:
 1. Armstrong World Industries, Inc.
- B. Substitutions: See Section 01 6000 - Product Requirements.

2.2 ACOUSTICAL CEILING UNITS

- A. Acoustical Panels Type SAT-1 (Ceiling Module 4', On-Center Spacing 6'-6", Field Panel 24" x 72"; 6" x 48" TechZone):
 1. Surface Texture: Fine
 2. Composition: Fiberglass, 1" thickness.
 3. Color: White
 4. Sizes for fiberglass (Optima) field panels 6" technical zone configurations:
 - a. 6'-6" Configurations 24 inch x 72 inch
 5. Edge Profile: Square Tederal for interface with Suprafine XL 9/16" Exposed Tee.
 6. Noise Reduction Coefficient (NRC): ASTM C 423; Classified with UL label on product carton, 0.95.
 7. Articulation Class (AC)(Optima only): ASTM E 1111; Classified with UL label on product carton, 190.
 8. Flame Spread: ASTM E 1264; Class A (UL)
 9. Light Reflectance (LR): ASTM E 1477; White Panel: Light Reflectance: 0.90.
 10. Dimensional Stability: HumiGuard Plus - temperatures up to 120 degrees F and high humidity excluding only exterior use,
 11. use over standing water, and direct contact with moisture.
 12. Acceptable Product: To match Optima Open Plan, Item # 3261, as manufactured by Armstrong World Industries.
- B. TechZone Ceiling System
 1. Technical Panels: The Technical Zone accommodates recessed fixtures, linear air diffusers, sprinkler heads, and other components.
 - a. Optima Technical Panels, 1" thickness
 2. Size: 6 inch x 48 inch.
 3. Color: White
 4. Edge detail:
 - a. Optima Square Tederal
 5. Compatible grid systems: Suprafine XL 9/16" Exposed Tee.

2.3 SUSPENSION SYSTEMS

- A. Components: All main beams and cross tees shall be commercial quality hot-dipped galvanized steel as per ASTM A 653. Main beams and cross tees are double-web steel construction with 9/16 inch type exposed flange design. Exposed surfaces chemically cleansed, capping pre-finished galvanized steel in baked polyester paint. Main beams and cross tees shall have rotary stitching.
 1. Structural Classification: ASTM C 635, Heavy Duty.
 2. Color: White and match the actual color of the selected ceiling tile, unless noted otherwise.
 3. Acceptable Product: Suprafine XL 9/16" Exposed Tee as manufactured by Armstrong World Industries, Inc.
- B. Attachment Devices: Size for five times design load indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.

- C. Wire for Hangers and Ties: ASTM A 641, Class 1 zinc coating, soft temper, pre-stretched, with a yield stress load of at least three design load, but not less than 12 gauge.
- D. Edge Moldings and Trim: Metal or extruded aluminum of types and profiles indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations, including light fixtures, that fit type of edge detail and suspension system indicated. Provide moldings with exposed flange of the same width as exposed runner.
- E. Accessories (for 6" wide technical zone configurations for continuous lighting)
 - 1. TechZone Yoke (TZYK) – required to connect parallel main beams without cross tee; install 4' on-center along continuous linear light technical zone
 - 2. TechZone Bracing Clip (TZBC) – required to connect cross tees to the main beam of the continuous technical zone when no yoke is present

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Do not proceed with installation until all wet work such as concrete, terrazzo, plastering and painting has been completed and thoroughly dried out, unless expressly permitted by manufacturer's printed recommendations. (Exception: HumiGuard Max Ceilings)

3.2 PREPARATION

- A. Measure each ceiling area and establish layout of acoustical units to balance border widths at opposite edges of each ceiling. Avoid use of less than half width units at borders, and comply with reflected ceiling plans. Coordinate panel layout with mechanical and electrical fixtures.
- B. Coordination: Furnish layouts for preset inserts, clips, and other ceiling anchors whose installation is specified in other sections.
 - 1. Furnish concrete inserts and similar devices to other trades for installation well in advance of time needed for coordination of other work.

3.3 INSTALLATION

- A. Install suspension system and panels in accordance with the manufacturer's working drawings, and in compliance with ASTM C 636 and with the authorities having jurisdiction.
- B. Suspend main beam from overhead construction with hanger wires spaced 4-0 on center along the length of the main runner. Install hanger wires plumb and straight.
- C. Install main beams perpendicular to the 6 inch wide Technical Panels.
- D. Install wall moldings at intersection of suspended ceiling and vertical surfaces. Miter corners where wall moldings intersect or install corner caps.
- E. For reveal edge panels: Cut and reveal or rabbet edges of ceiling panels at border areas and vertical surfaces.
- F. Install acoustical panels in coordination with suspended system, with edges resting on flanges of main runner and cross tees. Cut and fit panels neatly against abutting surfaces. Support edges by wall moldings.

3.4 ADJUSTING AND CLEANING

- A. Replace damaged and broken panels.
- B. Clean exposed surfaces of acoustical ceilings, including trim, edge moldings, and suspension members. Comply with manufacturer's instructions for cleaning and touch up of minor finish damage. Remove and replace work that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.

END OF SECTION

SECTION 09 9000**PAINTING AND COATING****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Surface preparation.
- B. Field application of paints and other coatings.
- C. Scope: Finish all interior and exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:
- D. Do Not Paint or Finish the Following Items:
 - 1. Items fully factory-finished unless specifically so indicated; materials and products having factory-applied primers are not considered factory finished.
 - 2. Items indicated to receive other finishes.
 - 3. Items indicated to remain unfinished.
 - 4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
 - 5. Floors, unless specifically so indicated.
 - 6. Glass.
 - 7. Concealed pipes, ducts, and conduits.
- E. See Schedule - Surfaces to be Finished, at end of Section.

1.2 RELATED REQUIREMENTS

- A. Section 06 4100 - Architectural Wood Casework: Shop primed metal support brackets.

1.3 REFERENCE STANDARDS

- A. ASTM D 16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications; 2008.
- B. GreenSeal GS-11 - Paints; 1993.

1.4 DEFINITIONS

- A. Conform to ASTM D 16 for interpretation of terms used in this section.

1.5 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on all finishing products, including VOC content.
- C. Certification: By manufacturer that all paints and coatings comply with VOC limits specified.
- D. Certification: By manufacturer that all paints and coatings do not contain any of the prohibited chemicals specified; GreenSeal GS-11 certification is not required but if provided shall constitute acceptable certification.
- E. Manufacturer's Instructions: Indicate special surface preparation procedures.
- F. Maintenance Data: Submit data on cleaning, touch-up, and repair of painted and coated surfaces.
- G. Maintenance Materials: Furnish the following for CoSA's use in maintenance of project.
 - 1. See Section 01 6000 - Product Requirements, for additional provisions.
 - 2. Extra Paint and Coatings: 1 gallon of each color; store where directed.
 - 3. Label each container with color in addition to the manufacturer's label.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified, with minimum five years documented experience.
- B. Applicator Qualifications: Company specializing in performing the type of work specified with minimum five years experience.

1.7 REGULATORY REQUIREMENTS

- A. Conform to applicable code for flame and smoke rating requirements for products and finishes.

1.8 MOCK-UP

- A. See Section 01 4000 - Quality Requirements, for general requirements for mock-up.
- B. Provide door and frame assembly illustrating paint coating color, texture, and finish.

1.9 DELIVERY, STORAGE, AND HANDLING

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

1.10 FIELD CONDITIONS

- A. Do not apply materials when surface and ambient temperatures are outside the temperature ranges required by the paint product manufacturer.
- B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.
- C. Minimum Application Temperatures for Latex Paints: 45 degrees F for interiors; 50 degrees F for exterior; unless required otherwise by manufacturer's instructions.
- D. Minimum Application Temperature for Varnish Finishes: 65 degrees F for interior or exterior, unless required otherwise by manufacturer's instructions.
- E. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

1.11 EXTRA MATERIALS

- A. See Section 01 6000 - Product Requirements, for additional provisions.
- B. Supply 1 gallon of each color; store where directed.
- C. Label each container with color in addition to the manufacturer's label.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Provide all paint and coating products used in any individual system from the same manufacturer; except as noted.
- B. Paints:
 - 1. Base Manufacturer: Sherwin-Williams. (S-W or SW)
 - 2. Benjamin Moore & Co. (Benj. Moore or BM)
 - 3. Devoe. (DeVoe)
 - 4. Pittsburgh Paint. (PPG)
 - 5. Coronado Paint Company. (Coronado)
 - 6. ICI Paints North America. (ICI or Dulux)
 - 7. Kelly-Moore Paint Co. (KM)
 - 8. Kwal Paints. (KP)
- C. Primer Sealers:
 - 1. Base Manufacturer: Sherwin-Williams. (S-W or SW)
 - 2. Benjamin Moore & Co.. (Benj. Moore or BM)
 - 3. Coronado Paint Company. (Coronado)
 - 4. Devoe. (DeVoe)
 - 5. Pittsburgh Paint. (PPG)
 - 6. Kelly-Moore Paint Co. (KM)
 - 7. Kwal Paints. (KP)
- D. Concrete Sealers:
 - 1. Euclid Chemical Company.
 - 2. L. M. Scofield Co.

3. L & M Construction Chemicals Inc.
 4. Dayton Superior Chemical & Concrete Products.
 5. UNITEX.
- E. Substitutions: See Section 01 6000 - Product Requirements.

2.2 PAINTS AND COATINGS - GENERAL

- A. Paints and Coatings: Ready mixed, unless intended to be a field-catalyzed coating.
1. Provide paints and coatings of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.
 2. Supply each coating material in quantity required to complete entire project's work from a single production run.
 3. Do not reduce, thin, or dilute coatings or add materials to coatings unless such procedure is specifically described in manufacturer's product instructions.
- B. Primers: Where the manufacturer offers options on primers for a particular substrate, use primer categorized as "best" by the manufacturer.
- C. Flammability: Comply with applicable code for surface burning characteristics.

2.3 CONCRETE CURE AND SEALER

- A. Verify that all products and procedures are compatible.
1. Coordinate and verify treatment of concrete slab curing and sealing with respective trade(s). Cure and seal procedures and products shall be compatible with flooring products used throughout this project. All affected trades shall make coordinated plans, preparations, product selection, and properly execute curing and sealing to be compatible for satisfactory flooring applications including areas that may need different types of preparation, product, and execution.
 2. Products listed below shall be verified by all parties involved in the construction to be compatible with all other products, procedures, and finishes used for this project.
- B. Cure and Sealers for all locations:
1. Euclid Chemical Company:
 - a. Super Aqua-Cure VOX.
 2. L. M. Scofield Company:
 - a. Clear finish coat over new concrete, waterborne sealer: Semi-gloss Scofield Clearcoat.
 3. Dayton Superior Safe Cure and Seal (J-18).
 4. L & M Dress & Seal WB.
 5. UNITEX 12-34.
 6. Substitutions: See Section 01600 - Product Requirements.

2.4 PAINT SYSTEMS - INTERIOR

- A. Paint CI-OP-3E - Concrete/Masonry including CMU, single-component pre-catalyzed waterbased acrylic epoxy, Opaque, Epoxy, Gloss, 3 Coat:
1. Prepare existing surfaces as recommended in writing by coating manufacturer.
 2. Heavy Duty Block Filler as recommended by manufacturer.
 3. One coat of latex primer sealer; S-W PrepRite Masonry Primer.
 - a. Minimum Thickness: 7 mils wet; 3 mils dry per coat.
 - b. Minimum 36% Volume Solids.
 - c. VOC (less exempt solvents): 90 g/L; 0.75 lb/gal.
 4. Semi-gloss at Concrete and CMU at Toilet Rooms: Two coats of waterbased epoxy; S-W Pro-Industrial Pre-catalyzed Waterbased Epoxy Semi-Gloss, K46W00051 series.
 - a. Minimum Thickness: 4.0 mils wet; 1.5 mils dry per coat.
 - b. Minimum 35% Volume Solids.
 - c. VOC (less exempt solvents): 174 g/L; 1.45 lb/gal.
 5. Eggshell at Concrete and CMU all Locker areas, Coaches areas, and other Non-Shower and Non-Toilet Room area locations: Two coats of waterbased epoxy; S-W Pro-Industrial Pre-catalyzed Waterbased Epoxy Eg-Shel, K45W00051 series.

- a. Minimum Thickness: 4.0 mils wet; 1.5 mils dry per coat.
- b. Minimum 35% Volume Solids.
- c. VOC (less exempt solvents): 155 g/L; 1.29 lb/gal.
- B. Paint GI-OP-3L - Gypsum Board/Plaster, at Locker areas and Coaches offices, Latex, 3 Coat:
 - 1. One coat of latex primer sealer; S-W Harmony Low Odor Interior Latex Primer, B11W900..
 - a. Minimum Thickness: 4 mils wet; 1.3 mils dry per coat.
 - b. Minimum 31% Volume Solids.
 - c. VOC (EPA Method #24): 0 g/L; 0 lb/gal.
 - 2. Eggshell: Two Coats of latex; S-W Harmony Low Odor Interior Latex Eg-Shel, B9 Series.
 - a. Minimum Thickness: 4 mils wet; 1.6 mils dry per coat.
 - b. Minimum 37% Volume Solids.
 - c. VOC (EPA Method #24): 0 g/L; 0.0 lb/gal.
- C. Paint GID-OP-3E - Interior Paint on Gyp Board & Tile Backer Board (at TR surfaces not receiving tile), Toilet Rooms (TR), single-component pre-catalyzed waterbased acrylic epoxy, Semi-Gloss, 3 Coat:
 - 1. One coat of latex primer sealer; S-W PrepRite Interior Latex Primer.
 - a. Minimum Thickness: 4 mils wet; 1.1 mils dry per coat.
 - b. Minimum 26% Volume Solids.
 - c. VOC: 87 g/L; 0.73 lb/gal.
 - 2. Semi-gloss at Toilets Rooms: Two coats of waterbased epoxy; S-W Pro-Industrial Pre-catalyzed Waterbased Epoxy Semi-Gloss, K46W00051 series.
 - a. Minimum Thickness: 4.0 mils wet; 1.5 mils dry per coat.
 - b. Minimum 35% Volume Solids.
 - c. VOC (less exempt solvents): 174 g/L; 1.45 lb/gal.
- D. Paint GIW-OP-3E - Interior Paint on Tile Backer Board ceilings at Shower Areas, two-component pre-catalyzed waterbased acrylic epoxy, Semi-Gloss, 3 Coat:
 - 1. One coat of latex primer sealer; S-W ProGreen Interior Latex Primer, B28W600 series.
 - a. Minimum Thickness: 4 mils wet; 1.5 mils dry per coat.
 - b. Minimum 37% Volume Solids.
 - c. VOC (less exempt solvents): 43 g/L; 0.37 lb/gal.
 - 2. Gloss at Shower area ceilings: Two coats of waterbased epoxy; S-W Waterbased Tile-Clad Epoxy, Gloss, B73 series.
 - a. Minimum Thickness: 4.5 mils wet; 2.0 mils dry per coat.
 - b. Minimum 42% Volume Solids, mixed.
 - c. VOC (EPA Method 24): <200 g/L; 1.67 lb/gal, mixed.

2.5 COATING FOR DISSIMILAR MATERIALS

- A. Bituminous coating.

2.6 ACCESSORY MATERIALS

- A. Accessory Materials: Provide all primers, sealers, cleaning agents, cleaning cloths, sanding materials, and clean-up materials required to achieve the finishes specified whether specifically indicated or not; commercial quality.
- B. Patching Material: Latex filler.
- C. Fastener Head Cover Material: Latex filler.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin application of coatings until substrates have been properly prepared.
- B. Verify that surfaces are ready to receive work as instructed by the product manufacturer.
- C. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.
- D. Test shop-applied primer for compatibility with subsequent cover materials.

- E. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:
 - 1. Masonry, Concrete, and Concrete Unit Masonry: 12 percent.

3.2 PREPARATION

- A. Clean surfaces thoroughly and correct defects prior to coating application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Coordinate and verify treatment of concrete slab curing and sealing with respective trade(s). Cure and seal procedures and products shall be compatible with flooring products used throughout this project. All affected trades shall make coordinated plans, preparations, product selection, and properly execute curing and sealing to be compatible for satisfactory flooring applications including areas that may need different types of preparation, product, and execution.
- D. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces or finishing.
- E. Surfaces: Correct defects and clean surfaces which affect work of this section. Remove or repair existing coatings that exhibit surface defects.
- F. Seal surfaces that might cause bleed through or staining of topcoat.
- G. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.
- H. Concrete and Unit Masonry Surfaces to be Painted: Remove dirt, loose mortar, scale, salt or alkali powder, and other foreign matter. Remove oil and grease with a solution of tri-sodium phosphate; rinse well and allow to dry. Remove stains caused by weathering of corroding metals with a solution of sodium metasilicate after thoroughly wetting with water. Allow to dry.

3.3 APPLICATION

- A. Apply products in accordance with manufacturer's instructions.
- B. Where adjacent sealant is to be painted, do not apply finish coats until sealant is applied.
- C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.
- D. Apply each coat to uniform appearance.
- E. Sand wood and metal surfaces lightly between coats to achieve required finish.
- F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.
- G. Apply 1 coat of bituminous coating to concealed aluminum and steel surfaces in contact with dissimilar materials. Coating shall not be visible at items exposed to view.
- H. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

3.4 FIELD QUALITY CONTROL

- A. See Section 01 4000 - Quality Requirements, for general requirements for field inspection.

3.5 CLEANING

- A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

3.6 SCHEDULE - SURFACES TO BE FINISHED

- A. Do Not Paint or Finish the Following Items:
 - 1. Items fully factory-finished unless specifically noted.
 - 2. Fire rating labels, equipment serial number and capacity labels.
 - 3. Clear Anodized Aluminum items.
 - 4. Stainless steel items.
- B. Paint the surfaces described below under Schedule - Paint Systems.

3.7 SCHEDULE - PAINT SYSTEMS

- A. Concrete Block Masonry: Finish all surfaces at designated locations exposed to view, refer to

the drawings.

1. Interior: CI-OP-3E, Gloss.
- B. Aluminum: Under counter brackets - finish all surfaces exposed to view.
 1. Interior: MaI-OP-3E, Gloss.

3.8 SCHEDULE - CONCRETE SEALING

- A. Concrete floor sealing, clear coat(s), final finish: Low sheen.

END OF SECTION

SECTION 10 2800**TOILET AND BATH ACCESSORIES****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Accessories for toilet rooms and showers.
- B. Grab bars.

1.2 RELATED REQUIREMENTS

- A. Section 08 8300 - Mirrors: Other mirrors.
- B. Section 08 8755 - Graffiti Resistant Glazing Films.
- C. Section 10 2113.19 - Plastic Toilet Compartments.

1.3 REFERENCE STANDARDS

- A. ASTM A 269 - Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service; 2008.
- B. ASTM A 666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2003.
- C. ASTM C 1036 - Standard Specification for Flat Glass; 2006.
- D. GSA CID A-A-3002 - Mirrors, Glass; U.S. General Services Administration; 1996.
- E. TAS - Texas Accessibility Standards: Required compliance for handicapped accessibility in Texas.

1.4 SUBMITTALS

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide data on accessories describing size, finish, details of function, attachment methods.
- C. Manufacturer's Installation Instructions: Indicate special procedures and conditions requiring special attention.

1.5 COORDINATION

- A. Coordinate the work with the placement of internal wall reinforcement, concealed ceiling supports, and reinforcement of toilet partitions to receive anchor attachments.

PART 2 PRODUCTS**2.1 MANUFACTURERS**

- A. Products listed are made by Bobrick Washroom Equipment, Inc. and Dyson.
- B. Other Acceptable Manufacturers:
 - 1. American Specialties, Inc: www.americanspecialties.com.
 - 2. Bobrick Washroom Equipment, Inc.
 - 3. Bradley Corporation: www.bradleycorp.com.
 - 4. Substitutions: Section 01 6000 - Product Requirements.
- C. All items of each type to be made by the same manufacturer.

2.2 MATERIALS

- A. Accessories - General: Shop assembled, free of dents and scratches and packaged complete with anchors and fittings, steel anchor plates, adapters, and anchor components for installation.
 - 1. Grind welded joints smooth.
- B. Keys: Provide 5 keys for each accessory to CoSA; master key all lockable accessories.
- C. Stainless Steel Sheet: ASTM A 666, Type 304.
- D. Stainless Steel Tubing: ASTM A 269, Type 304 or 316.
- E. Mirror Glass: Float glass, ASTM C 1036 Type I, Class 1, Quality Q2, with silvering, copper coating, and suitable protective organic coating to copper backing in accordance with GSA CID

A-A-3002.

- F. Adhesive: Two component epoxy type, waterproof.
- G. Fasteners, Screws, and Bolts: Hot dip galvanized, tamper-proof, security type.

2.3 FINISHES

- A. Stainless Steel: No. 4 satin brushed finish, unless otherwise noted.
- B. Back paint components where contact is made with building finishes to prevent electrolysis.

2.4 TOILET ROOM ACCESSORIES

- A. Toilet Paper Dispenser **TA-1**: Double roll, Surface-mounted multi-roll toilet tissue dispenser with satin-finish stainless steel unit with stainless steel dispensing mechanism. Door has flat face with protruding tumbler lock. Holds two rolls up to 5 1/4" (135mm) diameter (1800 sheets). Extra roll automatically drops in place when bottom roll is depleted. Theft-resistant, heavy-duty spindles. Unit 6 1/16" W, 11" H, 5 15/16" D (155 x 280 x 150mm).
- B. Waste Receptacle **TA-2**: Satin-finish stainless steel. Seamless beveled flange. Removable, 12-gal. (45.4-L) receptacle locks into cabinet. Hooks hold optional vinyl liner. Rough Wall Opening: 16" W, 29 1/4" H, 4" min. depth (405 x 745 x 100mm).
- C. Electric Hand Dryer **TA-3**: Die-cast aluminum casing with anti-microbial scuff resistant lacquer coating on exterior surfaces; Anti-microbially integrated external plastics and seals, Pressed anti-rust steel backplate, Tamper-proof T30 type exterior screws, Water ingress protection; Touch-free infra-red activation.
 1. Electrical supply: 110-120 V AC, 60 Hz
 2. Rated power: 1400 W
 3. Motor type: Dyson digital motor. Switched reluctance brushless
 4. Motor speed: 81,000 rpm
 5. Heater type: None
 6. Standby power consumption: 1 W
 7. Energy consumption per dry: 0.00468 kwh
 8. Airspeed at apertures: 400 mph
 9. Operating airflow: 66 CFM
 10. Rated operating noise power: 84 db(A)
- D. Coat Hook And Bumper **TA-4**: Solid aluminum casting, matte finish. Rubber bumper protects wall or partition surfaces.
- E. Double Robe Hook **TA-5**: Satin-finish stainless steel. Contoured 4" (100mm) wide bar forms hook at each end. Flange is 2" x 2" (50 x 50mm). Projects 2 5/16" (60mm) from wall.
- F. Grab Bars: Stainless steel, 1-1/2 inches outside diameter, minimum 0.05 inch wall thickness, nonslip grasping surface finish, concealed flange mounting; 1-1/2 inches clearance between wall and inside of grab bar.
 1. **TA-6A** Length: 36 inches. Refer to the Toilet Accessory Schedule in the drawings.
 2. **TA-6B** Length: 42 inches. Refer to the Toilet Accessory Schedule in the drawings.
 3. Two-Wall Shower Bar **TA-6G**: Length and configuration: As indicated on drawings.
 4. Roll-In Shower Bar **TA-6H**: Length and configuration: As indicated on drawings.
- G. Liquid Soap Dispenser **TA-7**: Owner Furnished, Contractor Installed (OFCl).
- H. Mirrors **TA-8**: Welded -Frame Mirrors, One-piece, roll-formed 3/4" x 3/4" (19 x 19mm) angle-frame, Type 304 stainless steel angle with satin finish o Corners heliarc welded, ground and polished smooth, Beveled frame edge at mirror for improved appearance, No. 1 quality, 1/4" (6mm) glass mirror; warranted against silver spoilage for 15 years, Galvanized steel back, Secured to concealed wall hanger with theft-resistant mounting.
 1. Size: Refer to the drawings.
 2. Refer also to Section 08 8755 - Graffiti Resistant Glazing Film.
- I. Shower Seat **TA-10**: Reversible Folding Shower Seat Complies with ADA Barrier-Free Accessibility Guidelines. Seat is constructed of durable, water-resistant, ivory-colored 1/2" (13mm) thick solid phenolic. Reversible for left- or right-hand field installation. Frame and mounting brackets are type 304 stainless steel with self-locking mechanism. Supports up to

- 360 lbs (163 kg) when properly installed. Seat 33" (840mm) wide, projects 22 5/16" (565mm) from wall. Universal/Barrier-Free Mtg. Ht.:17-19" (430-485mm) from top of seat to floor.
- J. SHOWER AND TUB ACCESSORIES
- K. Shower Curtain & Rod **TA-11**:
1. Extra Heavy Duty Shower Curtain Rod:Stainless steel tube, 1-1/4 inch outside diameter, 0.05 inch wall thickness, satin-finished, with 2-1/2 inch square, minimum 0.04 inch thick satin-finished stainless steel flanges, for installation with exposed fasteners.
 - a. Product: B-6047 manufactured by Bobrick.
 - b. Size: 36 inches (915 mm), field verify.
 2. Shower Curtain:
 - a. Vinyl Shower Curtain - Opaque, matte white vinyl, 0.008" (0.2mm) thick, contains antibacterial and flame-retardant agents. Nickel-plated brass grommets along top, one every 6" (150mm). Bottom and sides are hemmed. Hooks are not included. Curtain 42" W, 72" H (1065 x 1830mm). Requires 7 hooks.
 - 1) Shower curtain Hook: Type 304 stainless steel for use on 1-1/4 inch (32 mm) diameter shower curtain rods.
 - b. Shower Curtain Product: 204-2 manufactured by Bobrick.
 - c. Shower Curtain Hook Product: 204-1 manufactured by Bobrick
- L. Wall-Mounted Soap Dish **TA-17**: Heavy duty, seamless stainless steel, surface-mounted with drain holes, without grab bar, satin finish; with concealed mechanical fastening suitable for substrate and backplate. Unit 4" W x 2" H (110 x 50mm); projects 3 3/8" (85mm) from wall.
1. Product: B-680 manufactured by Bobrick.

2.5 GRAFFITI RESISTANT FILM

- A. Provide graffiti resistant film over mirrors.
- B. Refer to Section 08 8755 - Graffiti Resistant Glazing Films.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify exact location of accessories for installation.
- C. Verify that field measurements are as indicated on drawings.

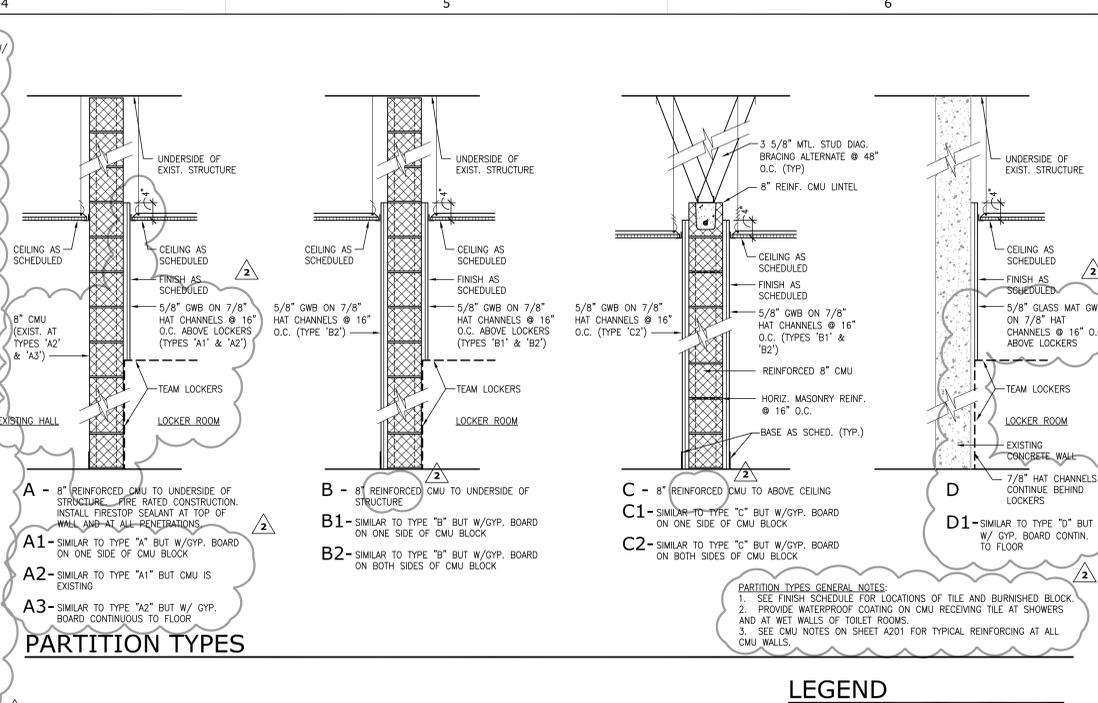
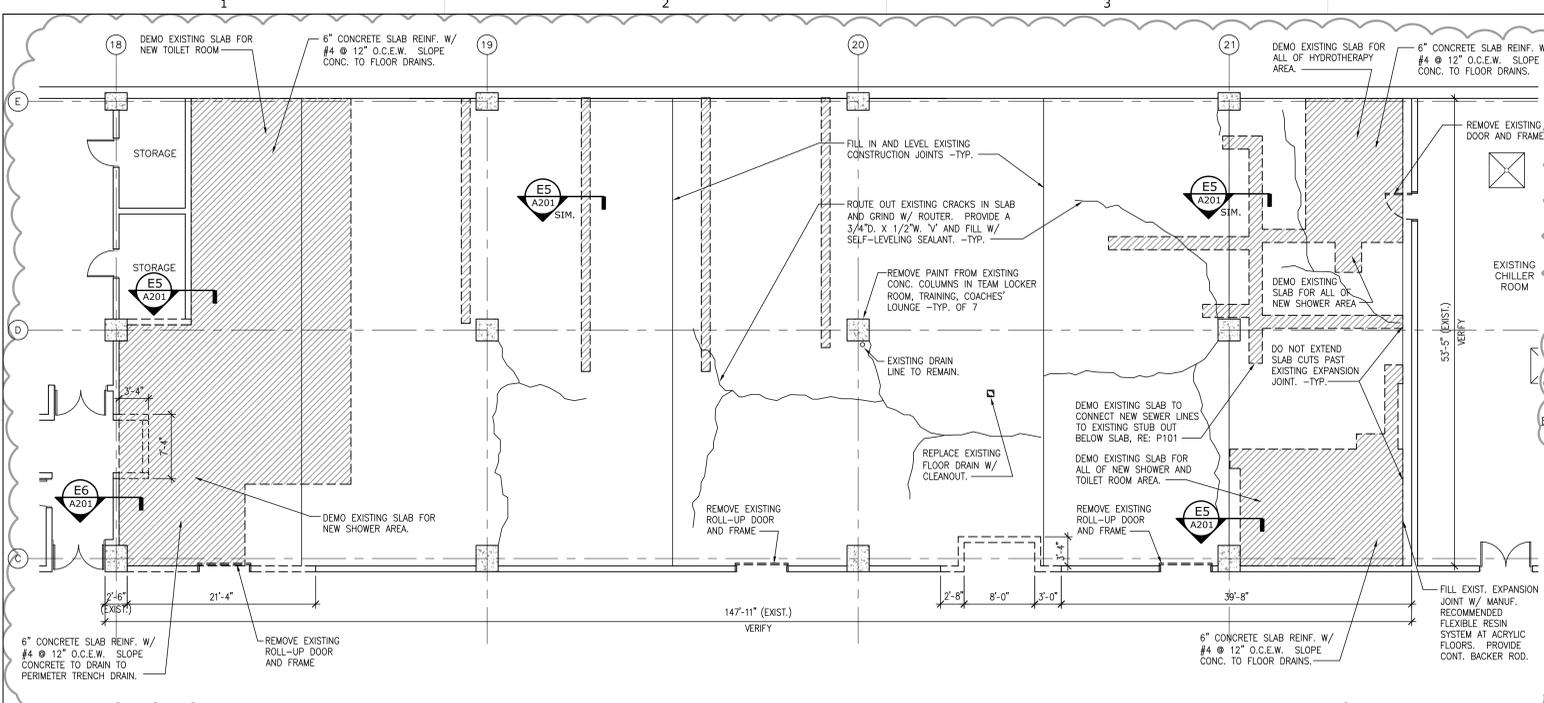
3.2 PREPARATION

- A. Deliver inserts and rough-in frames to site for timely installation.
- B. Provide templates and rough-in measurements as required.

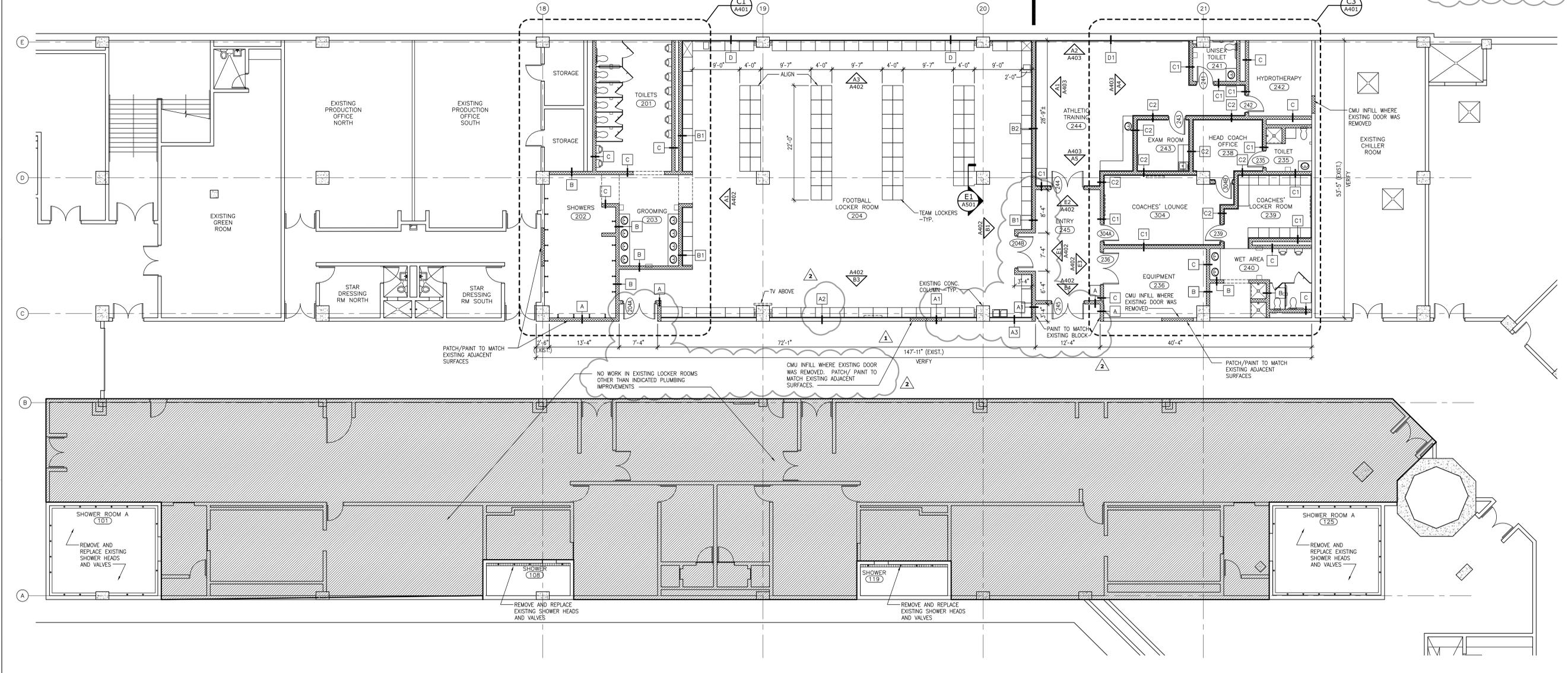
3.3 INSTALLATION

- A. Install accessories in accordance with manufacturers' instructions.
- B. Install plumb and level, securely and rigidly anchored to substrate.
- C. Mounting heights and clearances must comply with TAS (Texas Accessibility Standards). Refer to Section 01 0070 - Provisions for Accessibility.

END OF SECTION



B1 LOCKER ROOM DEMOLITION AND SLAB REPAIR PLAN
 A101 SCALE: 1/8" = 1'-0"



E1 LOCKER ROOM FLOOR PLAN
 A101 SCALE: 1/8" = 1'-0"



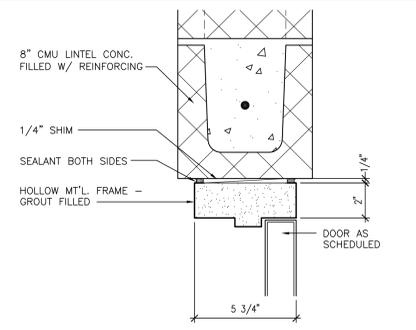
**ALAMODOME - FIELD LEVEL
 LOCKER ROOM RENOVATION**
 100 Montana St. San Antonio, Texas 78203-1025

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 Drawn
 Checked
 Date MAY 10, 2011
 Project No. 11010
 Revisions
 ADDENDUM NO. 02
 MAY 18, 2011

SHEET TITLE
DEMO AND CONSTRUCTION FLOOR PLANS
 SHEET NO.

RM. NO.	ROOM NAME	FLOOR	BASE	WALLS				WAINSCOT	CEILING	REMARKS
				NORTH	EAST	SOUTH	WEST			
201	TOILETS	MRA-1	AB-1	CTW-3,4*	CTW-3,4*	CTW-3,4*	BB-1	-	GYP,EP	*BAND OF 50/50 MIX. REFERENCE D4/A201
202	SHOWERS	MRA-1	AB-1	CTW-3,4*	CTW-3,4*	CTW-3,4*	BB-1	-	GYP,EP	*BAND OF 50/50 MIX. REFERENCE D4/A201
203	GROOMING	MRA-1	AB-1	CTW-3,4*	CTW-3,4*	CTW-3,4*	BB-1	-	GYP,EP	*BAND OF 50/50 MIX. REFERENCE D4/A201
204	FOOTBALL LOCKER ROOM	CPT-1	WB-1	PT-1,2/BB-1*	PT-1	PT-1,2/BB-1*	PT-1	-	SAT-1	*BURNISHED BLOCK IN SELECT AREAS ONLY. REFERENCE INTERIOR ELEV. & D1/A301.
235	TOILET	CTF-1	CTB-1	PT-1, EP	CTW-3,4*	PT-1, EP	PT-1, EP	-	GYP,EP	*BAND OF 50/50 MIX. REFERENCE D4/A201. CTW-3,4 W/ BAND AT SHOWER.
236	EQUIPMENT	SC	RB-1	PT-1	PT-1	PT-1	PT-1	-	GYP,PT	-
238	HEAD COACH OFFICE	CPT-4	WB-1	PT-1	PT-1	PT-1	PT-1	-	GYP,PT	-
239	COACHES' LOCKER ROOM	CPT-1	RB-1	PT-1	PT-1,2	PT-1	PT-1,2	-	GYP,PT	-
240	WET AREA	MRA-1	AB-1	CTW-3,4*	CTW-3,4*	CTW-3,4*	CTW-3,4*	-	GYP,EP	*BAND OF 50/50 MIX. REFERENCE D4/A201.
241	UNISEX TOILET	MRA-1	AB-1	CTW-3,4*	CTW-3,4*	CTW-3,4*	CTW-3,4*	-	GYP,EP	*BAND OF 50/50 MIX. REFERENCE D4/A201.
242	HYDROTHERAPY	MRA-1	AB-1	PT-1, EP	PT-1, EP	PT-1, EP	PT-1, EP	-	GYP,EP	-
243	EXAM ROOM	MRA-1	RB-1	PT-1	PT-1	PT-1	PT-1	-	SAT-2	-
244	ATHLETIC TRAINING	RT-1	RB-1	PT-1	PT-1	PT-1	PT-1	-	SAT-2	-
245	ENTRY	CPT-1	-	BB-1	BB-1	BB-1	BB-1	-	SAT-2	-
304	COACHES' LOUNGE	CPT-1	WB-1	GYP, PT-1	GYP, PT-1	GYP, PT-1	GYP, PT-1	-	SAT-2	-

DR. NO.	DOOR										HW SET	FIRE RATING	REMARKS		
	NOM. OPNG.					FRAME								DETAILS	
	WD	HGT	THK	TYPE	MATL	FINISH	TYPE	MATL	FINISH	HEAD					JAMB
204A	6'-0"	7'-2"	1 3/4"	CC	HM	PT-3	II	HM	PT-3	A6/A201	B6/A201	-	1	20 MIN.	SOUND RATED
204B	6'-0"	7'-2"	1 3/4"	CC	HM	PT-3	II	HM	PT-3	A6/A201	B6/A201	-	2	-	SOUND RATED
235	3'-0"	7'-0"	1 3/4"	A	WE	ST	I	HM	PT-3	A6/A201 SIM.	C6/A201	-	6	-	-
236	6'-0"	7'-2"	1 3/4"	AA	HM	PT-3	II	HM	PT-3	A6/A201	B6/A201	-	4	-	-
239	3'-0"	7'-2"	1 3/4"	A	WD	ST	I	HM	PT-3	A6/A201 SIM.	C6/A201 SIM.	-	7	-	-
241	3'-0"	7'-2"	1 3/4"	A	HM	PT-3	I	HM	PT-3	A6/A201 SIM.	C6/A201	-	6	-	-
242	3'-0"	7'-2"	1 3/4"	A	HM	PT-3	II	HM	PT-3	A6/A201 SIM.	C6/A201	-	5	-	-
243	3'-0"	7'-2"	1 3/4"	A	HM	PT-3	I	HM	PT-3	A6/A201 SIM.	C6/A201 SIM.	-	5	-	-
244	6'-0"	7'-2"	1 3/4"	CC	HM	PT-3	II	HM	PT-3	A6/A201 SIM.	C6/A201	-	3	-	-
245	6'-0"	7'-2"	1 3/4"	CC	HM	PT-3	II	HM	PT-3	A6/A201	B6/A201	-	1	20 MIN.	-
304A	3'-0"	7'-2"	1 3/4"	B	WD	ST	I	HM	PT-3	A6/A201 SIM.	C6/A201	-	5	-	-
304B	3'-0"	7'-2"	1 3/4"	B	WD	ST	I	HM	PT-3	A6/A201 SIM.	C6/A201 SIM.	-	5	-	-



A6 INTERIOR HM DOOR HEAD
A201 SCALE: 3" = 1'-0"

FINISH LEGEND

- FLOORING** NOTE: PROVIDE APPROPRIATE FLOOR TRANSITIONS BETWEEN DIFFERENT MATERIALS.
- RUBBER TILE**
RT-1 JOHNSONITE- REPLAY COMMOTION COLLECTION, 24" X 24" EDGE TILES; COLOR- 517 CLOUD 9.
- CERAMIC TILE FLOORS***
*NOTE: INCLUDE BUILT-UP COVE BASE, OUTCORNERS AND INCORNERS, AND STRETCHERS AS NEEDED.
CTF-1 DALTILE- KEYSTONE MOSAIC COLORBODY PORCELAIN; SIZE- 1" X 1"; COLOR- DESERT GRAY D014- EPOXY GROUT- LATICRETE; COLOR- 42 PLATINUM. (NOTE: PROVIDE ALL IN CORNER, OUT CORNER, AND OTHER COVE TRIM AS NEEDED). LOCATION: COACH SHOWERS.
- CARPET**
CPT-1 LEES - GT011 MODULAR SHIRT, 24" X 24" TILE; COLOR- 408 PLEAT. INSTALLATION METHOD: QUARTER-TURNED. LOCATION: TEAM LOCKERS, COACHES LOUNGE, COACHES LOCKERS.
CPT-2 TEAM LOGO RUG-LARGE; DURKAN ROYAL SPIKEPROOF; LOGO/COLOR- CUSTOM TO BE SELECTED. LOCATION: HEAD COACH LOUNGE. NOTE: FLUSH TRANSITION BETWEEN CPT-1 AND LOGO RUG.
CPT-3 TEAM LOGO RUG-SMALL; DURKAN ROYAL SPIKEPROOF; LOGO/COLOR- CUSTOM TO BE SELECTED. LOCATION: HEAD COACH LOUNGE. NOTE: FLUSH TRANSITION BETWEEN CPT-1 AND LOGO RUG.
CPT-4 MASLAND- MODERNS COLLECTION, PARALLEL SHIFT 7242; COLOR- 42207 ANODIZED ALUMINUM. LOCATION- HEAD COACH OFFICE.

- ACRYLIC FLOORING**
MRA-1 METHACRYLATE REACTIVE ACRYLIC; BASE: SRS DECADUR WITH DECORATIVE FLAKE BLEND AND GLASS BEAD SLIP RESISTANCE ADDITIVE; COLOR- GRANITE #1027372.

- FLOORING TRANSITIONS ACCESSORIES**
TR-1 ROPPE. FROM MRA TO CARPET. COLOR- BLACK.
TR-2 ROPPE. FROM CARPET TO RUBBER TILE. COLOR- BLACK.
TR-3 ROPPE. FROM RUBBER TILE TO MRA. COLOR- BLACK.

- SEALED CONCRETE**
SC
- WALLS**
PAINT
PT-1 SHERWIN WILLIAMS, HARMONY. COLOR: SW7005 PURE WHITE (FIELD WHITE).
PT-2 SHERWIN WILLIAMS, HARMONY. COLOR: SW6656 HUSKY ORANGE. (RED ACCENT)
PT-3 SHERWIN WILLIAMS, HARMONY. COLOR: SW7020 BLACK FOX. LOCATION - DOORS AND FRAMES.

- CERAMIC TILE***
*NOTE: INCLUDE STRETCHERS, OUTCORNERS, AND INCORNERS AS NEEDED.
CTW-1 NOT USED.
CTW-2 NOT USED.
CTW-3 DALTILE- MODERN DIMENSIONS WALL TILE; SIZE- 4 1/4" X 12 7/8"; COLOR: DESERT GRAY X114 (1) - EPOXY GROUT- LATICRETE; COLOR- 88 SILVER SHADOW (NOTE: PROVIDE ALL IN CORNER, OUT CORNER, AND OTHER COVE TRIM AS NEEDED). LOCATION: TOILET ROOMS/GROOMING (FIELD).
CTW-4 DALTILE- MODERN DIMENSIONS WALL TILE; SIZE- 4 1/4" X 12 7/8"; COLOR: MATTE BISCUIT K775 (1) - EPOXY GROUT- LATICRETE; COLOR- 88 SILVER SHADOW (NOTE: PROVIDE ALL IN CORNER, OUT CORNER, AND OTHER COVE TRIM AS NEEDED). LOCATION: TOILET ROOMS/GROOMING (ACCENT).
CTW-5 DALTILE- MODERN DIMENSIONS WALL TILE; BULLNOSE S44CS; SIZE- 4 1/4" X 12 7/8"; COLOR: DESERT GRAY X114 (1) - EPOXY GROUT- LATICRETE; COLOR- 88 SILVER SHADOW. INSTALL SURFACE BULLNOSE EDGE DOWN. LOCATION: TOILET ROOMS/GROOMING (1ST COURSE).

- CORNER GUARDS**
CG-1 BELLAGUARD- STAINLESS STEEL
- BURNISHED BLOCK**
BB-1 SOUTHWEST CONCRETE PRODUCTS. TERRAZZO POLISHED CONCRETE MASONRY UNITS. COLOR: 704 SCP WHITE TERRAZZO.

- MILLWORK**
SOLID SURFACING
SS-1 CORIAN; COLOR- GRAYLITE. LOCATION- COUNTERTOPS.
- PLASTIC LAMINATE**
PL-1 WILSONART; COLOR: 7040K-78 FIGURED MAHOGANY. LOCATION: LOCKERS.
PL-2 WILSONART; BRITE BRUSHED NATURAL #6256 (419). LOCATION: LOCKER TRIM.

- PERFORATED METAL**
PM-1 MC NICHOLS; SHIRE 8141, STAINLESS STEEL 304. 38% OPEN AREA. LOCATION- LOCKER VENTS.
- TOILET PARTITIONS**
TP-1 BRADLEY. SOLID PLASTIC. COLOR: BRADLEY CHARCOAL GRAY 5215.
- WOOD DOORS**
ST VI INDUSTRIES; SPECIES-MAHOGANY VENEER; COLOR- TIMBER FINISH T107.

- BASE** NOTE: NO BASE TO BE INSTALLED AT SEALED CONC. COLUMNS OR AT BURNISHED BLOCK
RUBBER BASE
RB-1 ROPPE 4" COVE; COLOR: 123 CHARCOAL.
- WOOD BASE**
WB-1 ALLEN & ALLEN, 4" STRAIGHT BASE. STAINED TO MATCH PL-1.

- CERAMIC TILE BASE**
CTB-1 DALTILE- KEYSTONE MOSAIC COLORBODY PORCELAIN; SIZE- 1" X 1" MB-5 UNIVERSAL TRIM; COLOR: DESERT GRAY D014. EPOXY GROUT- LATICRETE; COLOR- 42 PLATINUM. (NOTE: PROVIDE ALL IN CORNER, OUT CORNER, AND OTHER COVE TRIM AS NEEDED). LOCATION: COACH SHOWERS.

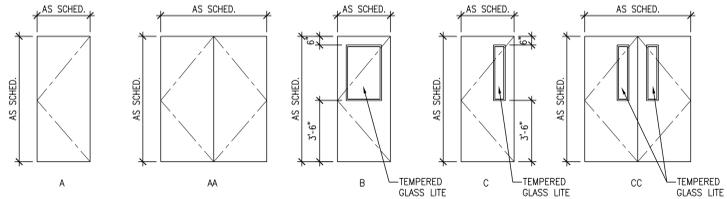
- ACRYLIC BASE**
AB-1 METHACRYLATE REACTIVE ACRYLIC; BASE: 4" COVE, SRS DECADUR WITH DECORATIVE FLAKE BLEND AND GLASS BEAD SLIP RESISTANCE ADDITIVE; COLOR- GRANITE #1027372. PROVIDE SILICONE SEALANT JOINT BETWEEN BASE AND CERAMIC TILE.

- CEILING**
SUSPENDED ACOUSTICAL TILE
SAT-1 ARMSTRONG; TECHZONE. OPTIMA 24" X 48" AND 6" X 48".
SAT-2 ARMSTRONG; OPTIMA 24" X 24" ONLY.

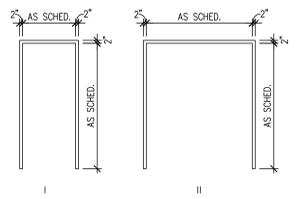
- EXPOSED STRUCTURE**
EXP. STR.
- PAINTED STRUCTURE**
PT/STR

- PAINTED GYPSUM**
GYP,PT

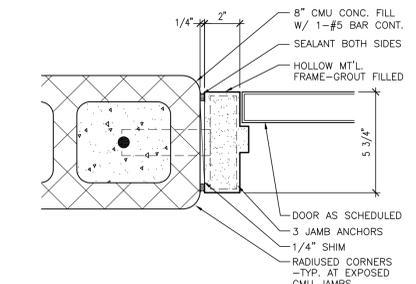
- EPOXY PAINTED GYPSUM**
GYP,EP SHERWIN WILLIAMS; COLOR: SW7005 PURE WHITE.



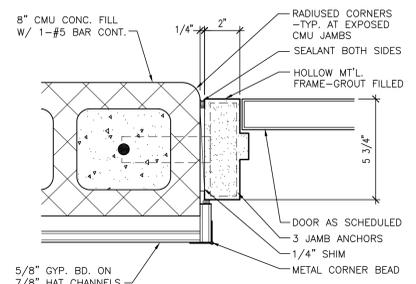
DOOR TYPES



FRAME TYPES



B6 INTERIOR HM DOOR JAMB
A201 SCALE: 3" = 1'-0"

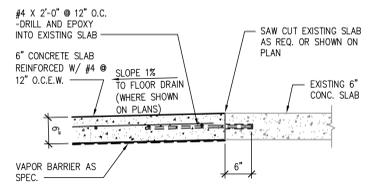
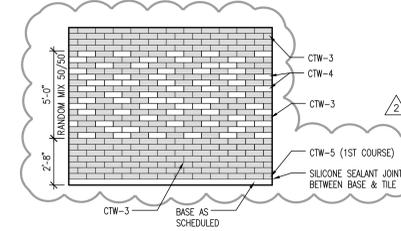


C6 INTERIOR HM DOOR JAMB
A201 SCALE: 3" = 1'-0"

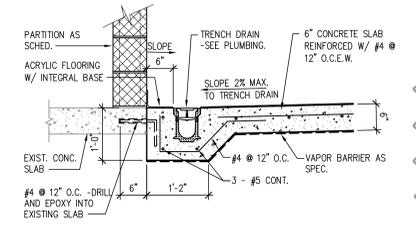
CMU NOTES

- CMU LINTELS:**
CLEAR OPENING TO 4'-0"
CLEAR OPENING TO 6'-6"
- WALL REINFORCING:**
- PROVIDE 1-#4 BAR (CONTINUOUS) VERTICAL REINFORCING IN GROUTED CELLS AT EACH SIDE OF OPENINGS, WALL ENDS, AND CORNERS. EXTEND TO TOP OF WALL AND THROUGH BOND BEAM.
 - PROVIDE HORIZONTAL BOND BEAMS AT TOP OF WALL. BOND BEAM SHALL BE CONTINUOUS GROUTED AND REINFORCED LINTEL. REINFORCING SHALL BE 2-#4 BARS (CONTINUOUS).
 - PROVIDE GALVANIZED LADDER TYPE HORIZONTAL JOINT REINFORCING AT 16" O.C.
 - PROVIDE CONTROL JOINTS AT 20'-0" U.O. PROVIDE #5 BAR (CONTINUOUS) REINFORCING IN GROUTED CELLS EACH SIDE OF CONTROL JOINT. PROVIDE SEALANT AT JOINTS.
 - BASE OF WALLS SHALL BE ANCHORED TO EXISTING CONCRETE SLAB WITH VERTICAL REINFORCING. PROVIDE #4 DOWELS @ 24" O.C. IN GROUTED CELLS. DRILL AND EPOXY INTO EXISTING SLAB.
 - BRACE ALL WALLS TO EXISTING STRUCTURE.

D4 TYP. 4" X 12" TILE PATTERN
A201 SCALE: 1/4" = 1'-0"



E5 TYP. DETAIL AT CONC. SLAB TO EXIST. SLAB
A201 SCALE: 3/4" = 1'-0"



E6 CONC. SLAB AT TRENCH DRAIN
A201 SCALE: 3/4" = 1'-0"

Marmion Mok
ARCHITECTURE 210.223.9492 210.223.2582 F
700 N. St. Mary's Suite 1600 San Antonio, TX 78205

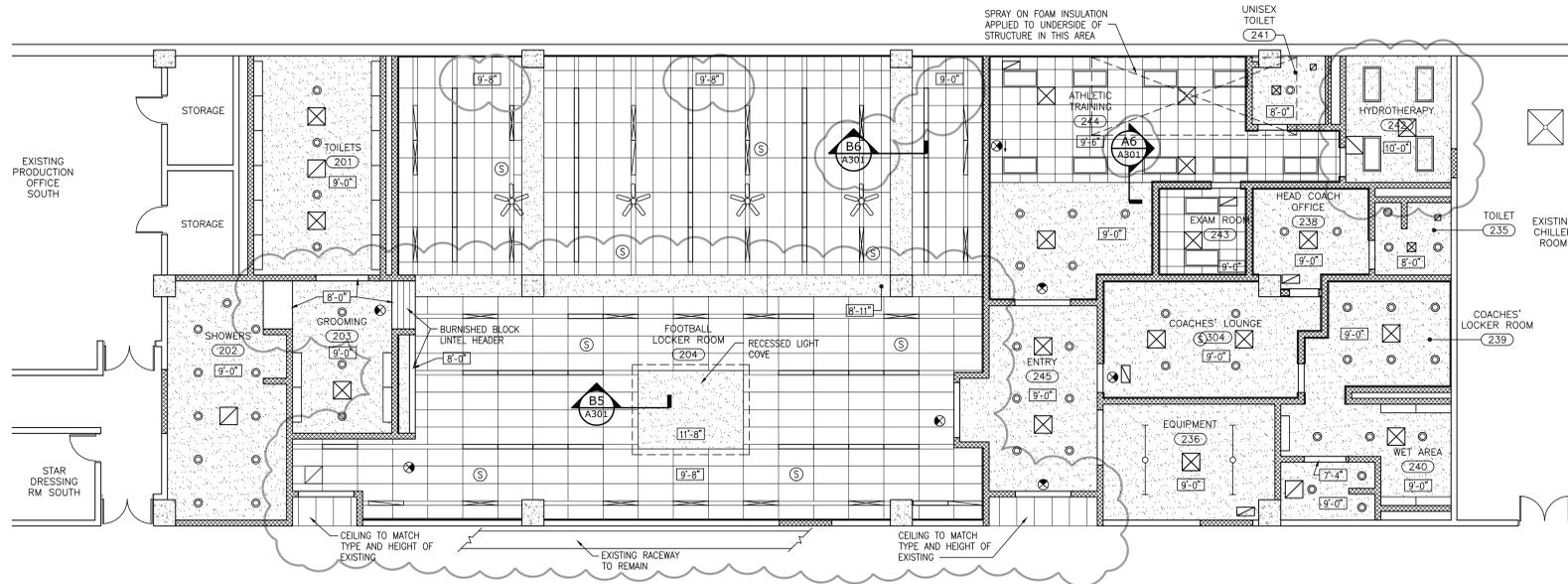


**ALAMODOME - FIELD LEVEL
LOCKER ROOM RENOVATION**
San Antonio, Texas 78203-1025
100 Montana St.

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Date MAY 10, 2011
Project No. 11010
Revisions
ADDENDUM NO. 02
MAY 18, 2011

SHEET TITLE
SCHEDULES AND DETAILS

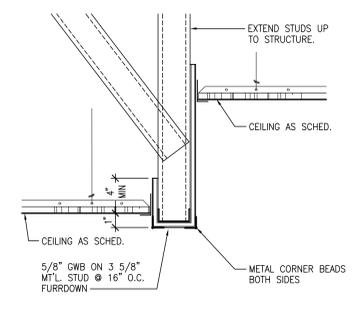
SHEET NO.
A201



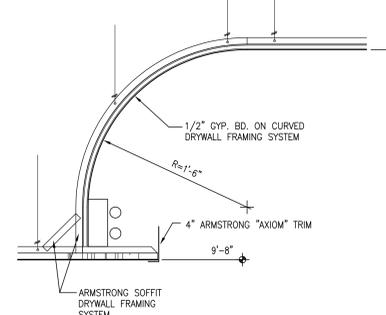
B1 LOCKER ROOM REFLECTED CEILING PLAN
A501 SCALE: 1/8" = 1'-0"

CEILING LEGEND

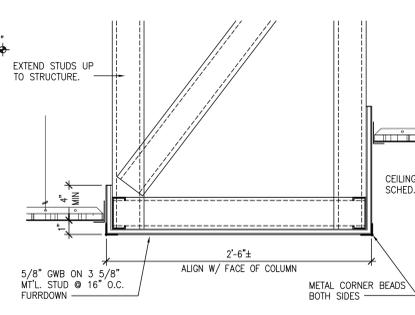
- GYPSUM DRYWALL - PAINT AS SCHEDULED
- 2X2 SUSPENDED ACOUSTICAL PANELS
- EXPOSED TO UNDERSIDE STRUCTURE ABOVE
- SUPPLY AIR DIFFUSER - REF. MECHANICAL
- RETURN AIR DEVICE - REF. MECHANICAL
- LIGHT FIXTURE - REF. ELECTRICAL
- CEILING FAN



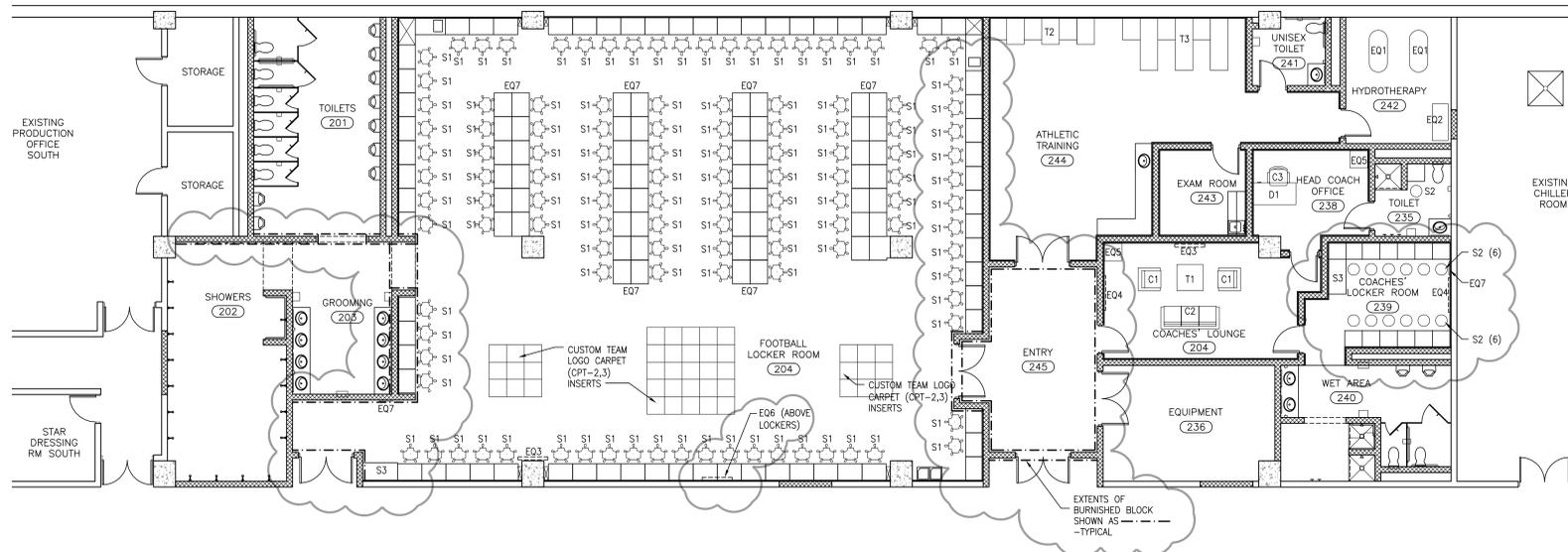
A6 FURR-DOWN DETAIL
A301 SCALE: 1-1/2"=1'-0"



B5 CEILING COVE DETAIL
A301 SCALE: 1-1/2"=1'-0"



B6 FURR-DOWN DETAIL
A301 SCALE: 1-1/2"=1'-0"



D1 LOCKER ROOM EQUIPMENT PLAN
A501 SCALE: 1/8" = 1'-0"

FURNITURE & EQUIPMENT SCHEDULE

MARK	DESCRIPTION	QUANT.	REMARKS
C1	LOUNGE CHAIR	2	KI, SELA CHAIR & A HALF, 38"W X 38.25"D X 31"H; UPHOLSTERY- SAVOY, BLACK.
C2	SOFA	1	KI, SELA SOFA, 78"W X 33.5"D X 28.25"H; UPHOLSTERY- SAVOY, BLACK.
C3	COACH'S TASK CHAIR	1	KNOLL, GENERATION, 11-1/4"HP-4-S-L-HC-DK-D1-USF-GENJOS
D1	COACH'S DESK	1	KI, WORKZONE DESKING, SURFACE-BRIGHTON WALNUT, LIGHT TONE, SILVER METALLIC
S1	PLAYER'S STOOL	120	HAG, CAPISCO, SADDLE SEAT, UPHOLSTERY- MOMENTUM-FORAY, ROYAL.
S2	COACH'S STOOL	13	KI LAB STOOL, PNEUMATIC HANG, LIFT, CARPET CASTERS, BLACK VINYL.
S3	ACCESSIBLE BENCH	2	24"W X 48"L X 18"H WOOD BENCH; MAHOGANY VENEER; STAINED TO MATCH LOCKERS; (4) STAINLESS STEEL FIXED PEDESTALS ANCHORED TO FLOOR
T1	COFFEE TABLE	1	20" SFLA SQUARE, 36"W X 36"D X 15.5"H SURFACE-BRIGHTON WALNUT, BASE-COTTONWOOD
T2	TAPING STATION	1	HAUSMAN PROTEAM, A954X
T3	TREATMENT TABLE	5	HAUSMAN PROTEAM, A9087
EQ1	HYDROTHERAPY TUB	2	WHITEHALL, S-110-SL; STATIONARY WHIRLPOOL W/ LEGS
EQ2	ICE MACHINE	1	HOSHIZAKI, B700
EQ3	TELEVISION	2	SONY, FWD-S42HI; 42" LCD FLAT PANEL DISPLAY; 1080P W/ CHEETAH MOUNT ALAMBLE LCD TV WALL MOUNT BRACKET
EQ4	DRY-ERASE BOARD	2	EGAN PRESENTATION CABINET, 48"x48"
EQ5	COUNTER-HEIGHT REFRIG.	2	NEVCO, MODEL 9515
EQ6	PLAYLOCK	1	
EQ7	FULL-HEIGHT MIRROR	8	18"W X 54"H FRAMED GLASS MIRROR



A401

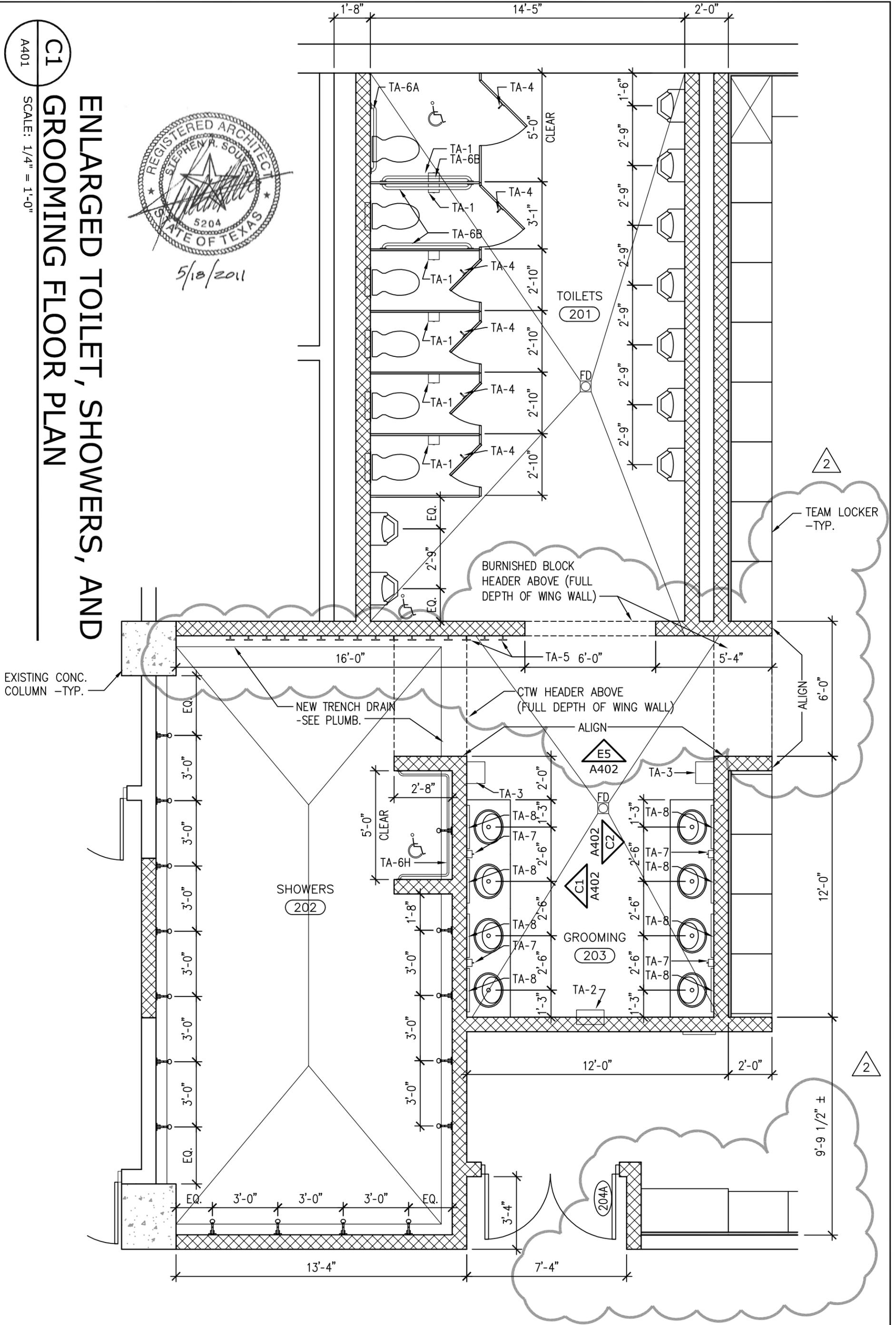
C1

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

ENLARGED TOILET, SHOWERS, AND GROOMING FLOOR PLAN



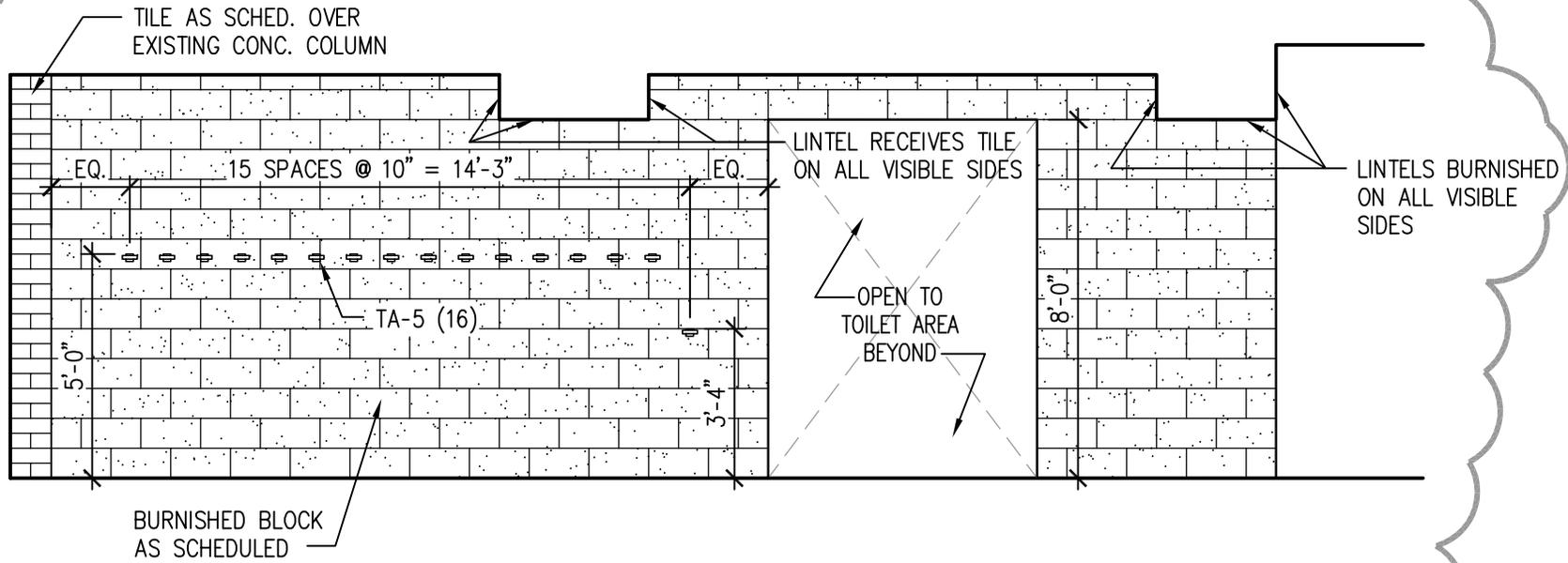
5/18/2011





5/18/2011

2



E5

A402

GROOMING & SHOWER EAST ELEVATION

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

MarmonMok

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San Antonio, TX 78205

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ALAMODOME - FIELD LEVEL LOCKER ROOM RENOVATION

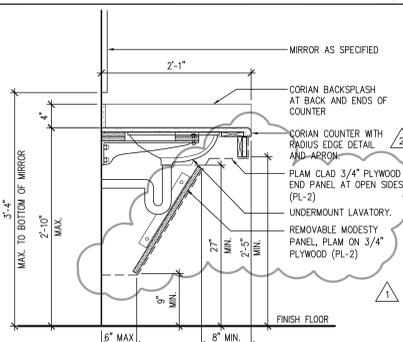
100 Montana St. San Antonio, Texas 78203-1025

Project No. 11010

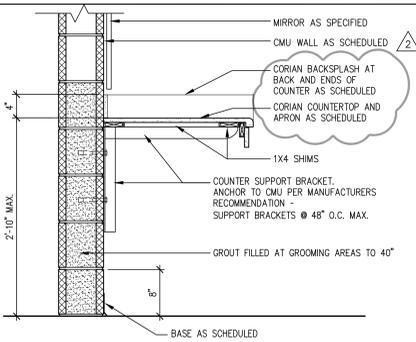
Date MAY 18, 2011

ADDENDUM NO. 02

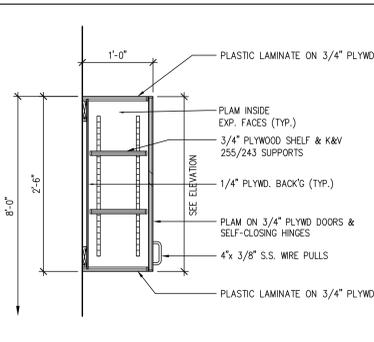
Attachment: **A-2**



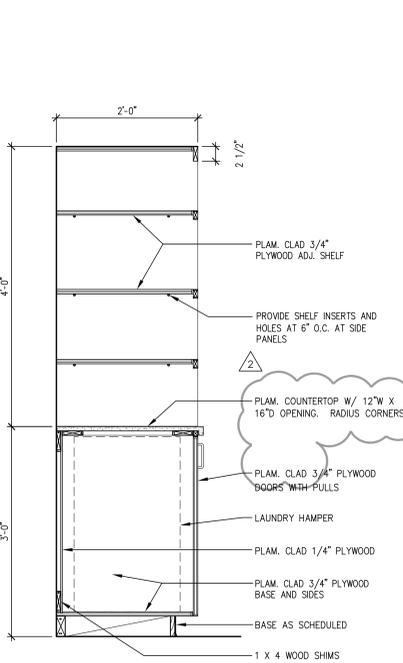
A1 TYP. LAVATORY DETAIL
AS01 SCALE: 1" = 1'-0"



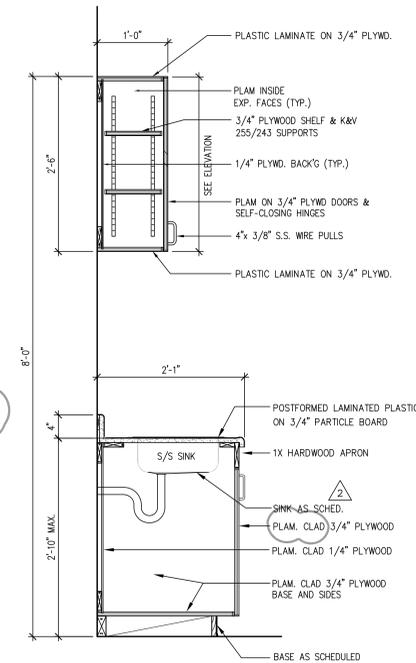
A2 COUNTERTOP DETAIL
AS01 SCALE: 1" = 1'-0"



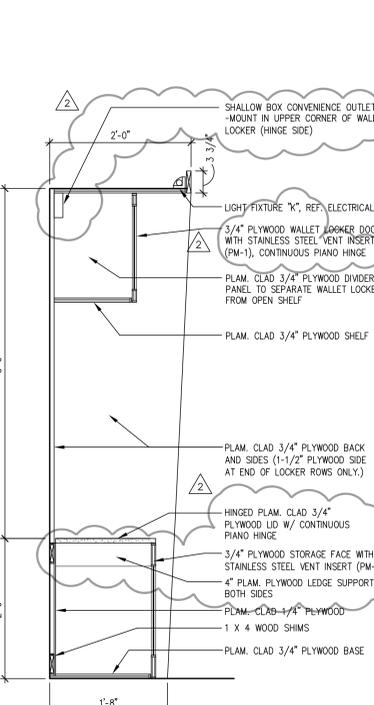
A3 UPPER CABINET DETAIL
AS01 SCALE: 1" = 1'-0"



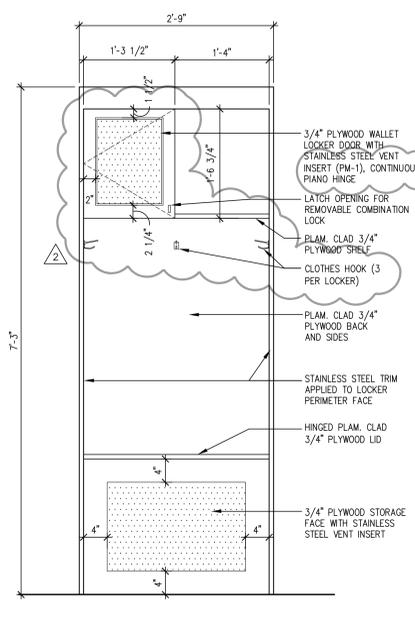
C1 DETAIL - GROOMING
AS01 SCALE: 1" = 1'-0"



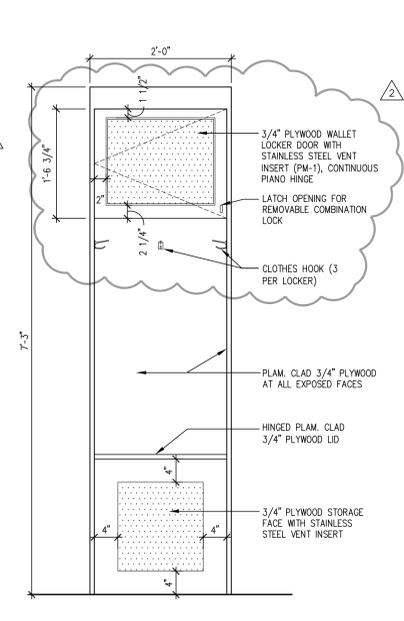
C2 SINK DETAIL WITH CABINETS
AS01 SCALE: 1" = 1'-0"



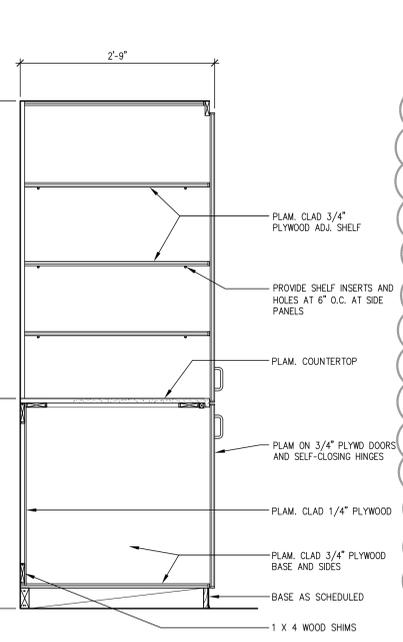
C3 DETAIL - PLAYERS LOCKER
AS01 SCALE: 1" = 1'-0"



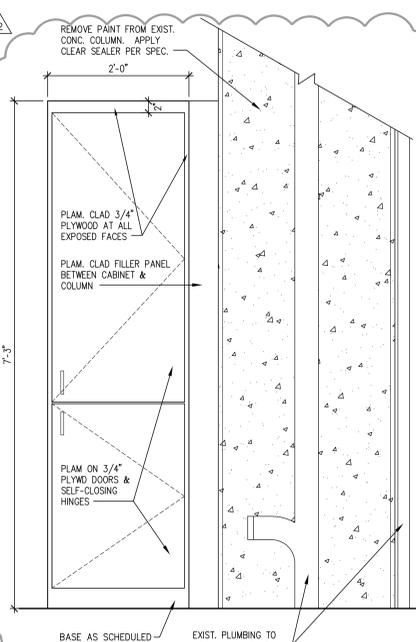
C4 PLAYERS LOCKER ELEVATION
AS01 SCALE: 1" = 1'-0"



C5 COACHES LOCKER ELEVATION
AS01 SCALE: 1" = 1'-0"



E1 DETAIL - A/V CABINET
AS01 SCALE: 1" = 1'-0"



E2 A/V CABINET ELEVATION
AS01 SCALE: 1" = 1'-0"

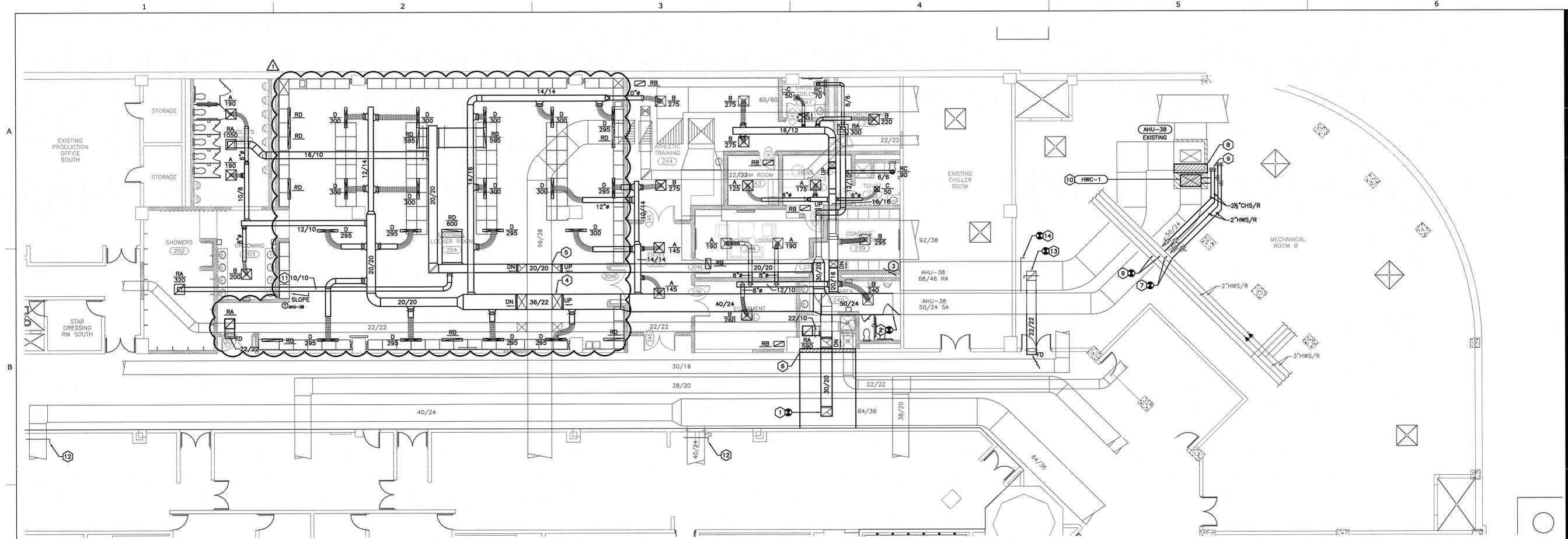


**ALAMODOME - FIELD LEVEL
LOCKER ROOM RENOVATION**
San Antonio, Texas 78203-1025
100 Montana St.

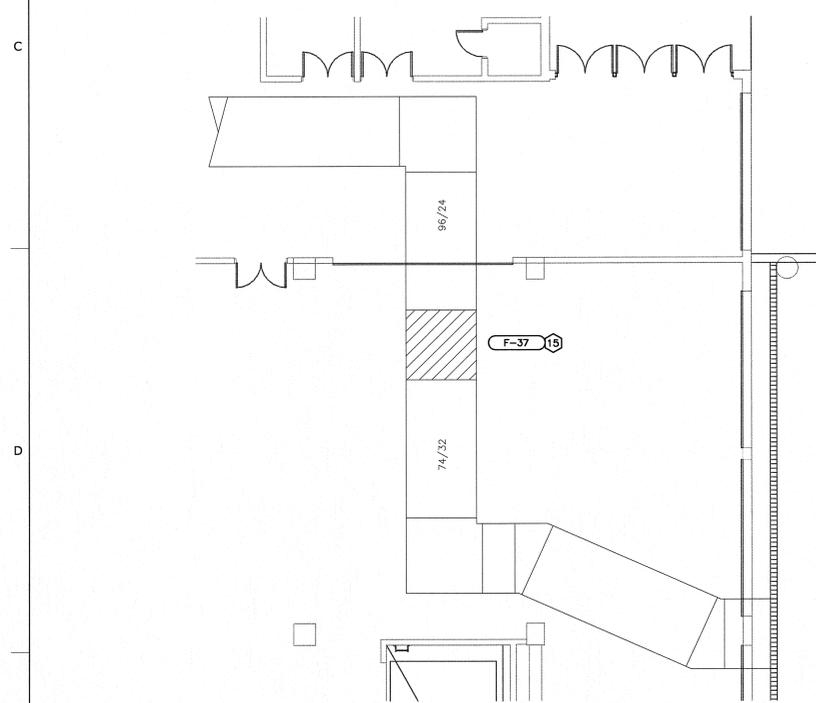
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Checked
Date MAY 10, 2011
Project No. 11010
Revisions
ADDENDUM NO. 02
MAY 18, 2011

SHEET TITLE
**MILLWORK
DETAILS**

SHEET NO.
A501



1 MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



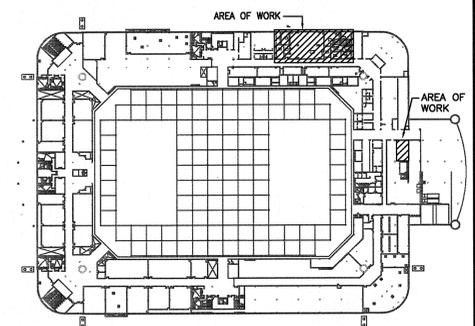
2 MECHANICAL FLOOR PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. THE "EXISTING" HVAC LAYOUTS INDICATED ON THESE DOCUMENTS ARE BASED ON THE INFORMATION AVAILABLE AND MAY BE INCOMPLETE AND INACCURATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ACTUAL CONDITIONS AND MAKE SUITABLE ADJUSTMENTS AS NECESSARY, TO ACCOMMODATE NEW WORK. AT NO EXTRA COST TO THE OWNER. CONDITIONS DIFFERENT TO THOSE INDICATED SHALL BE INCORPORATED INTO THE CONSTRUCTION DOCUMENTS. NOTE THAT ANY UNCOVERED SYSTEMS MUST BE CAREFULLY IDENTIFIED PRIOR TO MODIFICATIONS.
2. CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER TRADES AND INCLUDE ANY MODIFICATIONS NEEDED TO ACCOMMODATE THEIR WORK.
3. THE EXISTING AIR HANDLING UNIT (AHU-38) SERVING THIS AREA SHALL BE INSPECTED AND SERVICED PRIOR TO START-UP. THIS INCLUDES, BUT IS NOT LIMITED TO: RE-GREASING ALL BEARINGS, COMPLETELY FLUSHING AND CLEANING COILS, INSPECTING THE FAN SHAFT FOR ANY IRREGULARITIES, PROVIDE NEW FILTERS, ENSURE PROPER DAMPER OPERATION, AND VACUUM ALL EXISTING SUPPLY AND RETURN AIR DUCTWORK.
4. PROVIDE NEW BELT, RE-SHEAVE, AND BALANCE AHU-38 TO 9,050 CFM.

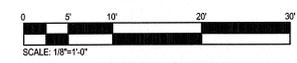
KEYED NOTES

- 1 TIE INTO EXISTING EXHAUST DUCTWORK SERVED BY F-37. ROUTE NEW EXHAUST DUCT INTO LOCKER ROOM AS SHOWN. CONTRACTOR TO COMPLETE ALL CONSTRUCTION THROUGH OPENING IN WALL ABOVE EXISTING DUCTWORK AND CONDUIT IN HALLWAY. CONSTRUCT TEMPORARY PLATFORM AS REQUIRED TO COMPLETE WORK. MEASURE FAN FLOW PRIOR TO TIE IN, REBALANCE TO INCLUDE EXHAUST AIR QUANTITIES INDICATED.
- 2 EXTEND EXISTING SUPPLY AIR DUCTWORK INTO LOCKER ROOM AS SHOWN.
- 3 EXISTING RETURN AIR DUCTWORK AND GRILLE TO REMAIN.
- 4 ROUTE SUPPLY AIR DUCTWORK UP AND INTO JOIST SPACE OVER EXISTING SUPPLY AIR DUCTWORK. DROP DOWN TIGHT TO STRUCTURE ON OPPOSITE SIDE OF EXISTING DUCTWORK.
- 5 ROUTE EXHAUST DUCTWORK UP AND INTO JOIST SPACE OVER EXISTING SUPPLY AIR DUCTWORK. DROP DOWN BELOW NEW SUPPLY AIR DUCTWORK ON OPPOSITE SIDE OF EXISTING DUCT.
- 6 UPON COMPLETION OF EXHAUST DUCT INSTALLATION, REMOVE ANY TEMPORARY PLATFORMS ERECTED AND REPAIR WALL OPENING TO MATCH EXISTING.
- 7 HOT TAP EXISTING HOT WATER PIPING, INSTALL NEW SHUT-OFF VALVES AND EXTEND 2" HWS/HWR LINES TO NEW DUCT MOUNTED REHEAT COIL.
- 8 INSTALL NEW COOLING COIL IN EXISTING AHU-38 AS SCHEDULED. ENSURE ALL COVERS/PLATES ARE PROPERLY INSTALLED AND SEALED.
- 9 EXTEND NEW 2 1/2" CHS/CHR LINES FROM EXISTING MAIN AND RECONNECT NEW CHILLED WATER LINES UPON INSTALLATION OF NEW COOLING COIL. RE: 8/M501
- 10 NEW DUCT MOUNTED HOT WATER REHEAT COIL AS SCHEDULED. INSTALL IN VERTICAL POSITION AT UNIT OUTLET. TRANSITION AS REQUIRED FROM UNIT OPENING TO DUCT HEATER TO EXISTING DUCT SIZE. RE: 7/M501 FOR TRANSITION DETAILS.
- 11 CONSTRUCT 10/10 EXHAUST DUCT OF 316 STAINLESS STEEL FROM TAP TO GRILLE. COMPLETELY WELD ALL JOINTS AND ENSURE MIN. 1% SLOPE TOWARD EXHAUST GRILLE.
- 12 INSTALL NEW VOLUME DAMPERS AND REBALANCE INCLUDING NEW EXHAUST AIR QUANTITIES INDICATED.
- 13 CONNECT TO EXISTING RETURN AIR DUCTWORK IN MECHANICAL ROOM. EXTEND TO COORDINATOR AND TERMINATE WITH BIRDSCREEN. BALANCE TO 3205 CFM.
- 14 INSTALL NEW VOLUME DAMPER IN EXISTING DUCTWORK AS INDICATED. BALANCE TO 4805 CFM.
- 15 PROVIDE AND INSTALL NEW 10HP MOTOR, AND DRIVE KIT ON EXISTING LOREN COOK IN-LINE EXHAUST FAN (MODEL 33050B). RE-SHEAVE AND BALANCE FAN TO EXHAUST EXISTING AIR QUANTITY RECORDED IN TRAVERSE PLUS AND ADDITIONAL 4,310 CFM FROM THE NEW LOCKER ROOM. RECONNECT TO EXISTING ELECTRICAL WIRING.



BUILDING KEY PLAN
NOT TO SCALE

CLEARY ZIMMERMANN ENGINEERS



**ALAMODOME - FIELD LEVEL
LOCKER ROOM RENOVATION**
100 Montana St. San Antonio, Texas 78203-1025

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Date MAY 18, 2011
Project No. 11027 cz
Revisions
1 ADDENDUM #2
05/18/11

SHEET TITLE
MECHANICAL FLOOR PLAN
SHEET NO.

M101

Texas Registration # F-9357
1344 S. Flores, Suite 101
San Antonio, Texas 78204
T 210.447.6102 / F 210.447.6101
ClearyZimmermann.com

FLEX DUCT SCHEDULE

CFM RANGE	SIZE (DIAMETER) *
< 50	5
51 - 100	6
101 - 250	8
251 - 400	10
451 - 650	12
651 - 900	14
901 - 1300	16
1301 - 1800	18
1801 - 2300	20

* ALL FLEX DUCT SHALL BE SIZED IN ACCORDANCE W/ FLEX DUCT SCHEDULE. PROVIDE RIGID REDUCER AT NECK OF AIR DEVICE, VAV INLET DUCT, ETC. TO TRANSITION FROM FLEX DUCT SIZE TO DIFFUSER INLET AND/OR EQUIPMENT CONNECTION SIZE. FLEX DUCT NOT TO EXCEED 6ft.

REHEAT COIL SCHEDULE

MARK	MIN. MBH	CFM	MAX. APD ("W)	ENT. AIR (°F)	GPM 160 °F	WATER DELTA T (°F)	WATER P.D. (°F)	SIZE (W" X L")	REFERENCE
HWC-1	210	9115	0.22	60	20	20	4.2	50"x36"	USA COIL & AIR

NOTES:
 1. PROVIDE 1 ROW / 10FPI ALUMINUM COIL. MAX 750 FPM FACE VELOCITY
 2. PROVIDE WITH GALVANIZED STEEL CASING WITH FLANGED CONNECTIONS.

AIR DEVICE SCHEDULE

MARK	MODEL	SIZE	THROW (@ 100 FPM)	CFM RANGE	INLET	# SLOTS	O.B.D. REQ'D. ?	P.D. ("WG) *	MAX. NC	REFERENCE	NOTES
A	TMS-AA	24x24"	4-FT	100-199	8"	N/A	NO	0.10	25	TITUS	1
B	TMS-AA	24x24"	7-FT	200-349	8"	N/A	NO	0.10	26	TITUS	1
C	TMS-AA	12x12"	4-FT	0-99	8"	N/A	NO	0.10	25	TITUS	1
D	TBDI-30	48x6"	15-FT	0-300	12"	3	NO	0.05	25	TITUS	4
RA	50F-NT	24x24"	-	0-2700	-	-	-	0.1	25	TITUS	2
RB	50F-NT	24x12"	-	0-1450	-	-	-	0.14	25	TITUS	3
RC	50F	8x8"	-	0-300	-	-	-	0.14	25	TITUS	2
RD	TBR-30	48"x6"	-	0-720	-	3	NO	0.09	25	TITUS	2

KEYED NOTES (AIR DEVICE SCHEDULE):
 1. FIELD INSULATE PLENUM BOX OR BACKSIDE OF DIFFUSER.
 2. O.B.D. REQUIRED AT DUCTED EXHAUST LOCATION ONLY.
 3. 24x24" MODULE SIZE FOR LAY-IN CEILING INSTALLATION.
 4. PROVIDE WITH 1" SLOTS AND INSULATED PLENUM BOX

GENERAL NOTES (AIR DEVICE SCHEDULE):
 1. ALL AIR DEVICES TO BE ALUMINUM, WHITE FINISH UNLESS NOTED OTHERWISE.
 2. REFER TO REFLECTED CEILING PLANS FOR CEILING TYPES. ALL AIR DEVICES MOUNTED IN A DRYWALL CEILING SHALL HAVE A MOUNTING FRAME.
 3. FOR 2-WAY DISCHARGE, THROWS LISTED REFLECT AIRFLOW IN A SINGLE DIRECTION.
 4. P.D. ("WG) REFLECTS "TOTAL" PRESSURE (STATIC AND DYNAMIC).

AIR HANDLING UNIT SCHEDULE

MARK	AHU-38
DESCRIPTION	HDT
TOTAL CFM	9115
O.A. CFM	1600
AREA SERVED	LOCKER RM
EXT. S.P. *	1.1

FAN (EXISTING)	
TYPE	EXISTING
DRIVE	EXISTING
DIAMETER (IN)	EXISTING
MAX RPM	EXISTING
AIR MODULATION	EXISTING
MAX FAN BHP	EXISTING
FAN MOTOR (MIN. HP/V/PH)	EXISTING

COOLING COIL	
TYPE	CW
CFM	9115
ENT AIR (DB/WB)	79.4 / 65.0
LEAVING AIR (DB/WB)	53 / 52
MAX FACE VEL (FPM)	500
MAX AIR S.P.D. (IN. WATER)	0.45
GPM 45 F/12 TEMP. RISE	66
MAX WATER PD (FT)	4.0
ROWS/FINS (PER FT)	6 / 120
TOTAL OUTPUT (MIN. MBH)	324.1
SENS. OUTPUT (MIN. MBH)	230.7

ACCESS SECTION (EXISTING)	
SIZE	EXISTING
DOOR REQUIRED	EXISTING

PRE-HEAT COIL (EXISTING)	
TYPE	EXISTING
CFM	EXISTING
ENT. AIR (F)	EXISTING
MAX FACE VEL (FPM)	EXISTING
MAX AIR S.P.D. (IN. WATER)	EXISTING
GPM 160 F/20 TEMP. DROP	EXISTING
MAX WATER PD (FT)	EXISTING
OUTPUT (MIN. MBH)	EXISTING

FILTER MIXING BOX (EXISTING)	
FILTER TYPE	EXISTING
ASHRAE EFFIC.	EXISTING
MAX. INIT. SP	EXISTING
OPERATING WEIGHT (lbs.)	EXISTING
REFERENCE	TRANE
NOTES	EXISTING

* EXTERNAL STATIC PRESSURE INCLUDES SYSTEM LOSSES ONLY AND EXCLUDES LOSSES DUE TO ITEMS IN UNIT ITSELF (COILS, CASING, DAMPERS, CLEAN FILTERS, ETC.)

NOTES:
 1. EXISTING AHU FOR REFERENCE AND TAB ONLY. UNIT TO RECEIVE NEW CHILLED WATER COIL. REBALANCE FAN TO CFM SHOWN.
 2. PROVIDE REPLACEMENT COIL FOR EXISTING SIZE 21 TRANE AHU.
 3. MANUFACTURER TO RE-COMMISSION AIR HANDLING UNIT.



2009 IECC

Section 1: Project Information

Project Type: New Construction
Project Title: Alamo Dome Locker Room Renovation
Construction Site: 100 S. Montana St. San Antonio, TX 78203
Owner/Agent: Carlos Alvarez
Designer/Contractor: Cleary Zimmermann Eng. 1344 S. Flores St. San Antonio, TX 78204 (210)447-6100

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (sq ft)	C Allowed Watts / ft ²	D Allowed Watts (B x C)
UTSA Locker Rooms (Exercise Center)	7558	1	7558
		Total Allowed Watts =	7558

Section 3: Interior Lighting Fixture Schedule

Fixture ID / Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixtures	C # of Fixtures	D Fixture Watt	E (C x D)
UTSA Locker Rooms 1: Exercise Center (7558 sq. ft.)				
Linear Fluorescent 1: A2 & A2E: 2'x4' LAYOUT / 48" T8 28W (Super TB) / Electronic	2	14	66	794
Linear Fluorescent 2: B2: 2'x2' LAYOUT / 24" T8 17W / Electronic	2	1	34	34
Linear Fluorescent 3: C2 & C2E: 4'x4' STRIP / 48" T8 28W (Super TB) / Electronic	4	2	112	224
Linear Fluorescent 4: D: 4'x4' COVE / 48" T8 28W (Super TB) / Electronic	1	21	38	688
Compact Fluorescent 1: F & FE: 6" DOWNLIGHT / Triple 4-pin 32W / Electronic	1	50	32	1600
Compact Fluorescent 2: F2: 6" DOWNLIGHT / Triple 4-pin 32W / Electronic	2	19	45	855
Linear Fluorescent 5: G2: 4'x4' RECESSED / 48" T8 28W (Super TB) / Electronic	2	49	56	2744
Linear Fluorescent 6: H4: 4' COVE / 48" T8 28W (Super TB) / Electronic	1	6	28	168
Linear Fluorescent 7: H3: 3' COVE / 36" T8 28W / Electronic	1	4	25	100
LED 1: K: LED COVE LINEAR / Other	1	175	2	350
		Total Proposed Watts =		7447

Section 4: Requirements Checklist

- Lighting Wattage:**
- Total proposed watts must be less than or equal to total allowed watts.
- | Allowed Watts | Proposed Watts | Complies |
|---------------|----------------|----------|
| 7558 | 7447 | YES |
- Controls, Switching, and Wiring:**
- Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.
 - Daylight zones have individual lighting controls independent from that of the general area lighting.

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Date: 05/10/2011
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- Exceptions:**
- Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.
 - Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.
 - Independent controls for each space (switch/occupancy sensor).
 - Areas designated as security or emergency areas that must be continuously illuminated.
 - Lighting in stairways or corridors that are elements of the means of egress.
 - Master switch at entry to hotel/motel guest room.
 - Individual dwelling units separately metered.
 - Medical task lighting or orthodontic display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.
 - Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.
 - Only one luminaire in space.
 - An occupant-sensing device controls the area.
 - The area is a corridor, storeroom, restroom, public lobby or sleeping unit.
 - Areas that use less than 0.6 Watts/sq.ft.
 - Automatic lighting shut-off control in buildings larger than 5,000 sq.ft.
 - Sleeping units, patient care areas, and spaces where automatic shut-off would endanger safety or security.
 - Photocell/astrometric time switch on exterior lights.
 - Lighting intended for 24 hour use.
 - Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).
 - Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

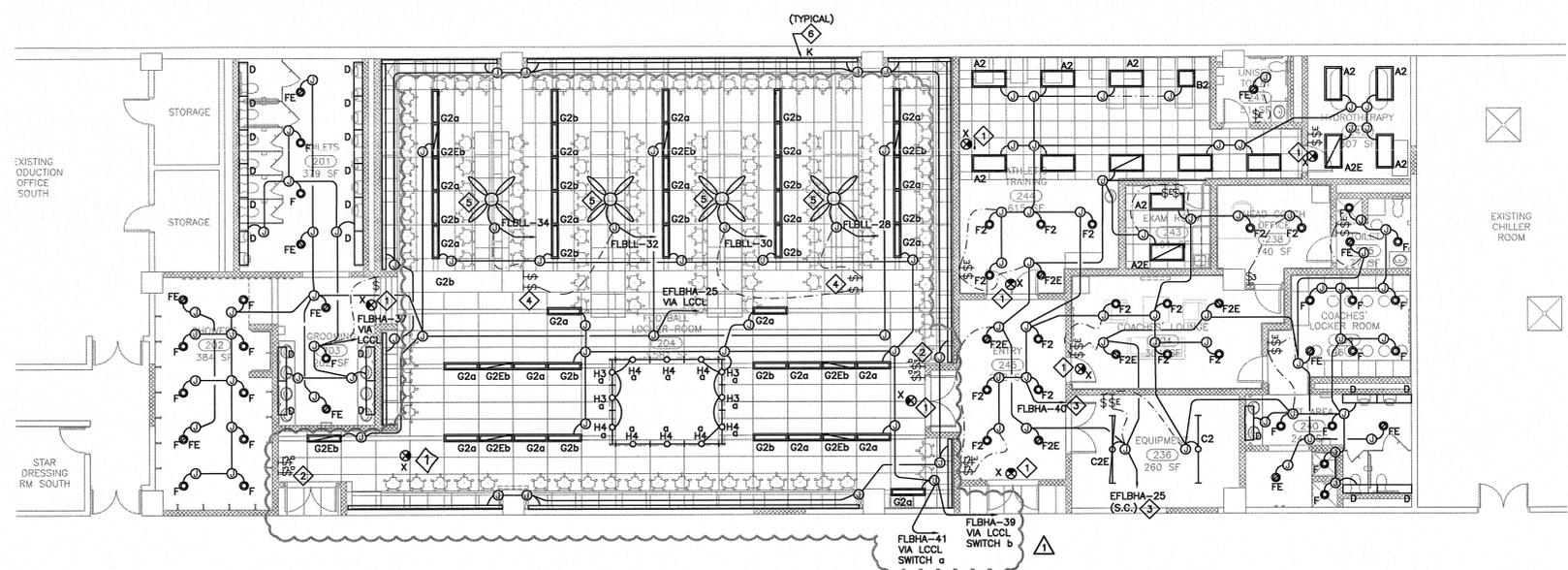
Interior Lighting PASSSES: Design 1% better than code

Section 5: Compliance Statement

The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COMcheck Version 3.8.0 and to comply with the mandatory requirements in the Requirements Checklist.

Carlos Alvarez - Designer
Carlos Alvarez - Designer
05/10/2011

Project Title: Alamo Dome Locker Room Renovation
Date: 05/10/2011
Report date: Page 2 of 2

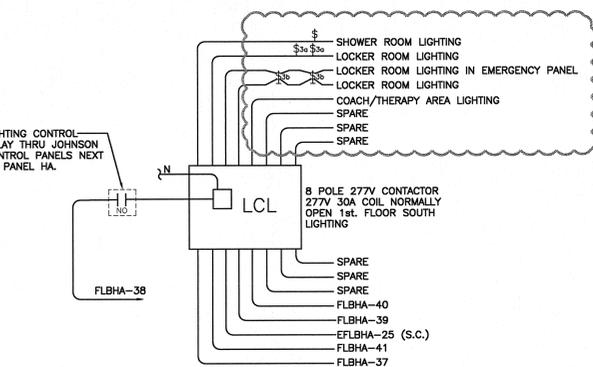


- KEYED NOTES:**
- CONNECT EXIT SIGN TO UNSWITCHED LEG CIRCUIT ELFBHA-25.
 - THREE WAY SWITCH FOR LOCKER ROOM TO CONTROL a/b LIGHTING. SWITCH a TO BE SPST. SWITCH b TO BE DPST.
 - RUN HOMERUN VIA JOHNSON CONTROL PANEL NEXT TO HA.
 - PROVIDE MANUFACTURER 3 SPEED FAN CONTROL SWITCH.
 - CEILING FAN, WESTINGHOUSE LIGHTING, 78614.3 BLADE BRUSHED NICKEL WITH WIREGUARD.
 - FIXTURE TYPE "K", COORDINATE MOUNTING WITH ARCHITECTURAL DETAIL. COORDINATE LENGTH/POWER SUPPLY QUANTITIES PRIOR TO ORDER. CONNECTED VIA SWITCH "b".

GENERAL NOTES LIGHTING SHEETS: (APPLIES TO ALL LIGHTING SHEETS)

- WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF. COORDINATE SWITCH LOCATIONS IN ROOMS WITH ARCHITECT AND OTHER DEVICES (THERMOSTATS, FIRE ALARM, AND CALL BUTTONS).
- MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 1/2" CONDUIT. MAXIMUM FIXTURE WHIP LENGTH FROM ANY J-BOX 6 FEET. LIGHTING CIRCUITS JOINTS SHALL BE MADE UP IN OVERHEAD J-BOXES SECURED TO STRUCTURE WITH LIGHTING WHIPS FROM THE J-BOXES. FIXTURES DESIGNED TO BE QUICK-CLIPPED TOGETHER SHALL BE CONNECTED AS PER MANUFACTURER.
- COORDINATE LIGHT LOCATIONS WITH OTHER CEILING ITEMS OR JOIST ITEMS PRIOR TO INSTALLATION. LIGHT LOCATIONS TAKE PRECEDENCE OVER AIR DEVICES.
- PROVIDE SECONDARY SUPPORT WIRES FROM ALL FOUR (4) CORNERS OF THE LAY-IN FIXTURES TO THE STRUCTURE ABOVE. DO NOT SUPPORT FIXTURES FROM CEILING GRID WIRE SUPPORTS, PIPING, CONDUIT, SIDE WALLS, OR MECHANICAL EQUIPMENT. CEILING SPECIFICATIONS DO NOT SUPERCEDE THIS REQUIREMENT.
- HATCHED FIXTURES ARE UNSWITCHED.
- FIXTURES WITH "E" SUFFIX TO BE CONNECT TO EMERGENCY POWER.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR. PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.

1 LIGHTING FLOOR PLAN
SCALE: 1/8" = 1'-0"

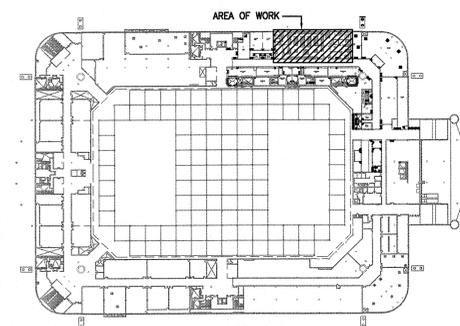


- GENERAL NOTES:**
- PROVIDE NEMA 1 TYPE SURFACE WALL MOUNTED ENCLOSURE ABOVE CEILING FOR CONTACTOR, AND COIL FUSE PROTECTION FOR EACH CONTACTOR (U.O.N.).
 - CONTACTOR SHALL BE SILVER-CADIUM OXIDE DOUBLE BREAK TYPE. CONTACT RATINGS OF 20 OR 30 AMPS AS SPECIFIED.

2 LIGHTING CONTROL PANEL DIAGRAM LCCL
NOT TO SCALE

MARK	MANUFACTURER/MODEL	DIMENSION	# LAMPS	MOUNTING	FIXTURE VA	#BALLASTS/FLAMPS	VOLTAGE	LAMP	DESCRIPTION	NOTES
A2	LITHONIA #2SPB G 2 28 A12125 MVOLT BILP	24" X 48"	2	GRID	56	1/2	120/277	28W TB	LENSED TROFFER	"E" DENOTES CONNECTION TO EMERGENCY PANEL
B2	LITHONIA #2SPB G 2 17 A12125 MVOLT BILP	24" X 24"	2	GRID	34	1/2	120/277	17W TB	LENSED TROFFER	
C	LITHONIA # L 2 28 MVOLT BILP	6" X 48"	2	PENDANT	56	1/2	120/277	28W TB	OPEN INDUSTRIAL	"E" DENOTES CONNECTION TO EMERGENCY PANEL
D	LITHONIA #CNAT F 1 28 LD MVOLT BILP	6" X 48"	1	RECESSED	28	1/1	120/277	28W TB	RECESSED COVE	"E" DENOTES CONNECTION TO EMERGENCY PANEL
F	GOTHAM # LGPLP 1/32 6RW 173 MVOLT	6" ROUND	1	RECESSED	32	1/1	120/277	32W TRT	RECESSED DOWNLIGHT	"E" DENOTES CONNECTION TO EMERGENCY PANEL
G2	MARK #SLGF 4 ARMSTRONG 2 28TB BALLAST 277 FA	4" X 48"	2	RECESSED	56	1/2	277	28W TB	RECESSED FLUORESCENT	"E" DENOTES CONNECTION TO EMERGENCY PANEL
F2	GOTHAM # AF-2/32-SAR-1MVOLT	6" ROUND	2	RECESSED	32	1/2	120/277	32W TRT	RECESSED DOWNLIGHT	"E" DENOTES CONNECTION TO EMERGENCY PANEL
H3	FINELITE # (1) S11 3' 1-25W18 SC 96W 277	3' LINEAR	1	COVE	25	1/1	120/277	32W TB	3 FT COVE	
H4	FINELITE # (1) S11 4' 1-25W18 SC 96W 277	4' LINEAR	1	COVE	28	1/1	120/277	32W TB	4 FT COVE	
K	STRIP LED	COVE	1	COVE	1.5VA/FT		277V	LED	TAPE INSORR LED	
X	LITHONIA LE S B (SEE FP FOR FACES) R 120/277	9" X 16"	3	LED SURFACE	3	LED	120/277	LED	DIE CAST AL EXIT	CONNECT TO EMERGENCY PANEL

- NOTES:**
- ALL FIXTURES SHALL BE SPEC GRADE UNLESS OTHERWISE NOTED.
 - ALL TOGGLE SWITCHES TO BE MOUNTED AT HEIGHTS TO COMPLY WITH ADA GUIDELINES UNLESS OTHERWISE NOTED.
 - LIGHTING FIXTURES SHALL BE COORDINATED WITH THE CEILING TYPE PRIOR TO ORDERING. ALL FIXTURES SHALL BE SUPPLIED WITH APPROVED MOUNTING DEVICES, HANGERS, MOUNTING FRAMES, AND TRIM FOR PROPER INSTALLATION IN THE CEILING OR SOFFIT SYSTEM BEING PROVIDED ON THIS PROJECT REGARDLESS OF THE CATALOG NUMBER. REFER TO ARCHITECTURAL REFLECTIVE CEILING PLAN/ELEVATIONS FOR ADDITIONAL MOUNTING INFORMATION.
 - ALL FIXTURES THAT HAVE A "E" SUFFIX ARE CONNECTED TO EMERGENCY PANEL. (EXAMPLE "C1E").
 - ALL FIXTURES THAT HAVE A "D" SUFFIX ARE DIMMABLE AND REQUIRE DIMMING BALLAST. SEE FIXTURE SCHEDULE FOR LAMP TYPE.
 - COORDINATE LENGT COLOR AND QUANTITY OF POWER SUPPLY WITH DRAWINGS PRIOR TO ROUGH-IN.



BUILDING KEY PLAN
NOT TO SCALE

CLEARY ZIMMERMANN ENGINEERS

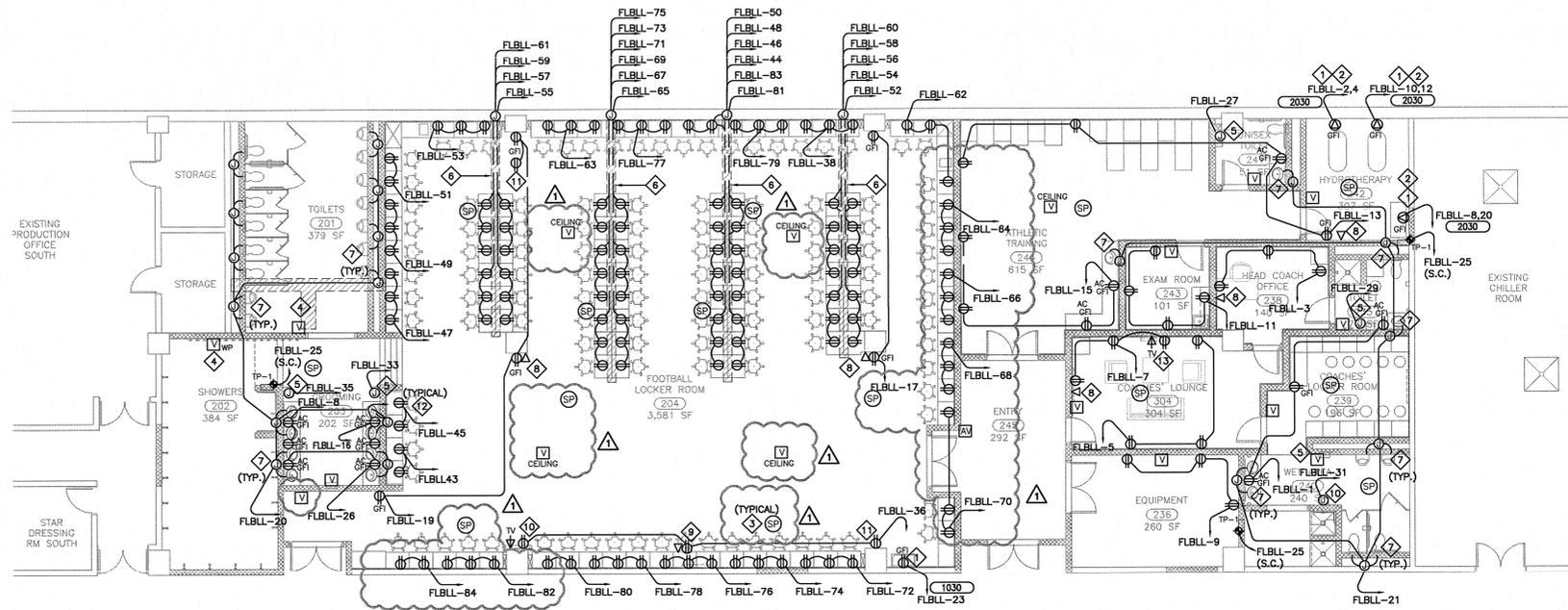


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Drawn: C.A.
Checked: M.S.
Project No: 11027 cz
Revisions: 1 ADDENDUM #2 05/18/11

SHEET TITLE
LIGHTING FLOOR PLAN
SHEET NO.



1 POWER FLOOR PLAN
SCALE: 1/8" = 1'-0"

GENERAL NOTES POWER SHEETS: (APPLIES TO ALL POWER SHEETS)

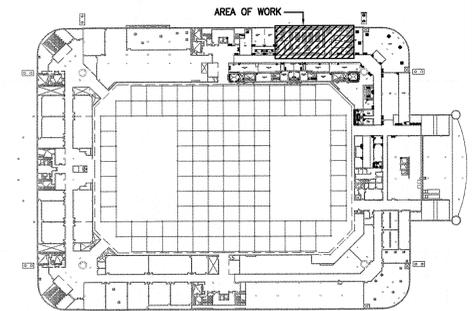
- SEE ALL OTHER PLANS FOR ADDITIONAL DEVICES. SOME POWER CIRCUITING MAY BE ON OTHER PLANS. COORDINATE THE LOCATIONS OF DATA/CATV JACKS WITH THE RECEPTACLES. MOUNT ADJACENT TO EACH OTHER.
- WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF.
- MINIMUM CIRCUIT SIZE IS 2 #12 AND 1 #12 GROUND IN 3/4" CONDUIT FOR INDIVIDUAL CIRCUITS, 3 / 4" CONDUIT FOR MULTIPLE CIRCUITS. ALL CONDUCTORS SHALL BE 75 DEGREE (MINIMUM) COPPER THIN, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TWIST-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SKIRT, WIRE CONNECTORS WITH SWEPT WINGS.
- COORDINATE RECEPTACLE LOCATIONS WITH MILLWORK AND COUNTERS. DO NOT LOCATE RECEPTACLES BEHIND DRAWERS OR HIDDEN IN MILLWORK UNLESS SPECIFICALLY DIRECTED BY OWNER/ARCHITECT. REVIEW ARCHITECTURAL ELEVATIONS PRIOR TO RECEPTACLE ROUGH-INS. SEE ARCH. ELEVATIONS IN BREAKROOMS FOR APPLIANCES AND RECEPTACLE MOUNTING LOCATIONS.
- MOUNT RECEPTACLES 18" AFF, 6" ABOVE BACKSPLASH AT COUNTERS, 48" IN TOILET ROOMS, AT EQUIPMENT ROUGH-IN LOCATIONS FOR APPLIANCES. PROVIDE GFI RECEPTACLES AT ALL SINKS, EXTERIOR RECEPTACLES, AND UNDERCOUNTER EQUIPMENT.
- ALL EQUIPMENT SHALL HAVE A LOCAL DISCONNECTING MEANS, EITHER CORDED PLUG AND RECEPTACLE OR SWITCHED DISCONNECT. VERIFY FROM EQUIPMENT SUBMITTED OR RELOCATED IF DIRECT CONNECT OR RECEPTACLE. IF DIRECT CONNECT, PROVIDE SWITCH AS PER NEC OTHERWISE, PROVIDE RECEPTACLE, CORD PLUG AS REQUIRED BY EQUIPMENT SUBMITTAL.
- ON CIRCUITS GREATER THAN 20A, FEEDING MULTIPLE PIECES OF EQUIPMENT, PROVIDE FUSED DISCONNECTS (SIZED FOR EQUIPMENT PROTECTING).
- PROVIDE INDIVIDUAL DISCONNECTS FOR ALL SMOKE FIRE DAMPERS AND VAV'S. NO EXCEPTIONS.
- CONTRACTOR IS RESPONSIBLE FOR RE-LABELING ELECTRICAL PANELS, HVAC CONTROLS, INTERCOM SWITCH BANKS, DATA/VOICE/VIDEO CABLING, AND ANY OTHER EXISTING SYSTEM INDICATING THE FINAL ROOM NUMBERING. CONTRACTOR SHALL UPDATE PANEL SCHEDULES AND DIRECTORIES WITH FINAL ROOM NUMBERING FOR ALL CIRCUITS THAT WERE AFFECTED BY THE DESIGN.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.
- PROVIDE FIRE RATED SLEEVES IN ALL FLOOR PENETRATIONS.
- CONNECT NO MORE THAN 5 RECEPTACLES TO ANY CIRCUIT. VERIFY AND TRACE RECEPTACLE COUNT PRIOR TO CONNECTING TO EXISTING CIRCUITS.
- PROVIDE GFI RECEPTACLES FOR ALL TOILET ROOMS AND LOCKER ROOMS.

GENERAL NOTES SPECIAL SYSTEMS: (APPLIES TO ALL SPECIAL SYSTEMS SHEETS)

- SEE ALL OTHER PLANS FOR ADDITIONAL DEVICES.
- WHEN LOCATING SYSTEMS NEXT TO DOORS, LOCATE 8 INCHES OFF DOOR JAMB TO CENTER OF DEVICE. WHEN MULTIPLE DEVICES ARE TOGETHER, STACK BUT NO MORE THAN 72 INCHES AFF.
- ALL CABLING SHALL BE IN CONDUIT IN EXPOSED SPACES REGARDLESS IF ALLOWED NOT TO BE IN CONDUIT BY OTHER SPECIFICATIONS UNLESS DIRECTED OTHERWISE BY THE ENGINEER. ALL CABLING TO BE SUPPORTED BY J-HOOKS WHEN NOT IN CONDUIT OR CABLE TRAY. DO NOT STRAP TO STRUCTURE. SEPARATE CABLING AND PROVIDE SEPARATE J-HOOKS FOR DATA, CONTROLS, PA, SECURITY, AND FIRE ALARM IF NOT IN CONDUIT. TIE WRAP CABLING TOGETHER EVERY 4-8 FEET. PROVIDE SERVICE LOOPS IN CABLING, TIE WRAPPED TOGETHER. SERVICE LOOP SHALL BE 24" MINIMUM.
- PROVIDE CONDUIT SLEEVES THROUGH WALLS. ALL CONDUITS SHALL HAVE NYLON BUSHINGS ON THE ENDS. PROVIDE PULL STRINGS IN ALL EMPTY CONDUITS UNDER TWO (2) INCHES. PROVIDE MULE TAPE IN ALL EMPTY CONDUITS TWO (2) INCHES AND LARGER OR ANY CONDUIT RUNS LONGER THAN 100 FEET WITHOUT INTERMEDIATE PULL BOXES. SLEEVES LESS THAN 36 INCHES DO NOT REQUIRE PULL STRINGS.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. PROVIDE INTUMESCENT FILL IN WALL CONDUIT SLEEVES IN RATED WALLS. SEE ARCHITECTURAL FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.
- PROVIDE TUBE TYPE DUCT SMOKE DETECTORS FOR ALL SMOKE FIRE DAMPERS. PROVIDE TUBE TYPE DUCT SMOKE DETECTORS IN EACH AIR HANDLING UNIT IN THE SUPPLY AND RETURN. ALL DUCT SMOKE DETECTORS SHALL HAVE THE FOLLOWING CHARACTERISTICS: MOUNTED IN THE DIRECTION OF AIR FLOW, ADDRESSABLE WITH SELF SENSITIVITY, RATED FOR THE AIR SPEED, AND HAVE REMOTE INDICATOR LIGHT TEST STATIONS. FIRE ALARM CONTRACTOR SHALL PROVIDE INTERFACE OF DUCT SMOKE DETECTORS AND FIRE ALARM PANEL. PROVIDE 24V POWER FROM FIRE ALARM PANEL.
- SEE SPECIFICATIONS FOR ADDITIONAL FIRE ALARM DEVICES AND MOUNTING HEIGHTS. MOUNT DEVICES IN ACCORDANCE WITH NFPA 72.
- ALL CABLING SHALL BE PLENUM RATED. NO EXCEPTIONS.
- ALL SMOKE AND HEAT DETECTORS SHALL BE POWERED BY THE FIRE ALARM PANEL.
- THE FIRE ALARM CONTROL PANEL SHALL SHUNT ALL AIR HANDLERS IN THE EVENT OF A FIRE ALARM. PROVIDE RELAYS FOR ALL AIR HANDLERS AND CONNECT TO FIRE ALARM SYSTEM.

KEYED NOTES:

- DEDICATED CIRCUIT.
- COORDINATE WITH EQUIPMENT FOR RECEPTACLE TYPE.
- CONNECT TO PA SYSTEM.
- WEATHERPROOF FIRE ALARM DEVICE.
- COORDINATE LOCATION/MOUNTING HEIGHT OF HAND DRYER WITH ARCHITECTURAL ELEVATION PRIOR TO ROUGH-IN.
- SAW CUT AND PATCH EXISTING CONCRETE FLOOR TO SUBFEED NEW LOCKER RECEPTACLES.
- PROVIDE HARD WIRE CONNECTION TO AUTO FLUSH VALVE/SINK. SEE PLUMBING.
- 1" CONDUIT TO CORRIDOR CABLE TRAY.
- POWER AND DATA ABOVE LOCKERS FOR PLAYCLOCK. COORDINATE LOCATION/MOUNTING HEIGHT/REQUIREMENTS WITH ARCHITECT.
- POWER AND TV. ABOVE CEILING FOR COLUMN MOUNTED TELEVISION. COORDINATE EXACT REQUIREMENTS/LOCATION/MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
- POWER RECEPTACLE MOUNTED BELOW CEILING FOR CLOCK MOUNTED ON COLUMN. COORDINATE EXACT REQUIREMENTS/LOCATION/MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.
- POWER RECEPTACLE TO BE MOUNTED IN EACH INDIVIDUAL LOCKER AT 5'-5" COORDINATE EXACT REQUIREMENTS/LOCATION/MOUNTING WITH ARCHITECT PRIOR TO ROUGH-IN. (TYPICAL).
- POWER AND TV. FOR WALL MOUNTED TELEVISION. COORDINATE EXACT REQUIREMENTS/LOCATION/MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.



BUILDING KEY PLAN
NOT TO SCALE

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**ALAMODOME - FIELD LEVEL
LOCKER ROOM RENOVATION**
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Drawn C.A.
Checked M.S.
Date MAY 18, 2011
Project No. 11027 cz
Revisions

1 ADDENDUM #2
05/18/11

SHEET TITLE
POWER FLOOR PLAN
SHEET NO.

E201