

City of San Leandro  
Civic Center, 835 E. 14th Street  
San Leandro, California 94577



**SAN LEANDRO SENIOR CENTER - PHASE 2  
PROJECT NO. 06-210-18-116**

**ADDENDUM NO. 1**

June 24, 2008

TO: All Prospective Bidders

The additions and/or deletions contained in this Addendum shall be made a part of the plans and specifications and contract documents for the above described project, and shall be subject to all applicable requirements there under, as if originally shown and/or specified.

**THE CONTRACT DOCUMENTS SHALL BE REVISED AS FOLLOWS:**

**BIDDER INFORMATION**

**BID OPENING:** The bid opening date for this project has been changed to **Tuesday July 22, 2008 at 3:00 PM**. See Specification Change S-1.

**QUESTIONS:** The deadline for submission of all bid questions shall be 3:00 p.m. Tuesday, July 15, 2008. See Specification Change S-2.

**CLARIFICATIONS**

- C-1. Drawing A0.1 Sheet Index: The two column numbers that precede the Sheet Title refers to drawing numbers and sheet numbers respectively, as indicated on the lower right hand corner of the title block.
- C-2. Drawing A0.2 Abbreviations, General Notes & Legend: On the Symbols Legend, for Exterior Wall Type, see A8.0.
- C-3. Drawing A0.2 Abbreviations, General Notes & Legend: On the abbreviation list S.A.D., S.C.D., S.E.D., S.G.D. S.L.D., S.M.D., S.P.D., S.S.D., the 'D' refers to Documents, including plans and specifications.

Tony Santos, Mayor

City Council:

Surlene G. Grant;  
Diana M. Souza;

Michael J. Gregory;  
Joyce R. Starosciak;

Jim Prola;  
Bill Stephens



### SPECIFICATION CHANGES

S-1. Section 00020 Notice to Bidders Paragraph 1 shall be revised as follows:

1. **BID OPENING:** The bidder shall complete and **submit the blue copy** of the "Proposal to the City of San Leandro" form that is inserted in the Contract Book. No other copy of the Proposal Section will be accepted. Sealed bids containing said blue copies of the completed Proposal Section subject to the conditions named herein and in the specifications for **SAN LEANDRO SENIOR COMMUNITY CENTER, PROJECT 06-210-18-116** addressed to the **City of San Leandro** will be received at **City Hall, 835 East 14<sup>th</sup> Street, 2<sup>nd</sup> Floor San Leandro** at the office of the **City Clerk up to 3:00 p.m. on Tuesday, July 22<sup>nd</sup>, 2008** at which time they will be publicly opened and read.

S-2. Section 00020 Notice to Bidders:

REVISE item 21 Pre-Bid Conference, fifth sentence: "Questions regarding the plans and specifications may be submitted in writing to the project engineer until 3:00 p.m. on Tuesday, July 15, 2008."

S-3. Section 00700 City of San Leandro General Provisions:

REPLACE in Paragraph 2.6.B, reference to "new library" with "new senior community center building".

REPLACE Paragraph 2.5.B Precedent of Contract Documents, note 7 to read as follows:

7. "Contract Book and Specifications (In cases where similar requirements are duplicated, the more stringent provision shall prevail. In the event of a direct conflict between Division 0 and Division 1 specification requirements, Division 0 requirements shall prevail.)"

DELETE paragraph 9.3.U, item 5 entirely.

S-4. Section 01100 Summary:

REVISE paragraph 1.3.A.1 Project Location: "13909 E. 14<sup>th</sup> Street"

REVISE paragraph 1.3.D.2.a LEED-NC v2.2 "Silver Certified Level."

REVISE paragraph 1.4.A Work Phases, to read as follows:

- A. "The Work shall be conducted in one phase."

REVISE paragraph 1.5.B.1 to read "Phase 1 - Site Work."

DELETE paragraph 1.5.C Concurrent Work.

REVISE paragraph 1.6 Use of Premises, items A-C, to read as follows:

- A. "General: Contractor shall have full use of premises within Limit of Work, for construction operations, including use of Project site, during construction period.

Contractor's use of premises is limited only by Owner's right to perform work or to retain other contractors of portions of Project.

- B. General: Limit of Work as indicated on Drawings. Do not disturb surrounding premises that are beyond Limit of Work.
- C. Driveways and Entrances:
  - a. Maintain full access to Hospital site at all times.
  - b. Keep driveways, staging, loading areas and entrances serving premises clear and available to Owner and emergency vehicles at all times.
  - c. Schedule deliveries to minimize use of driveways and entrances.
  - d. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site."

S-5. Section 01290 Payment Procedures:

DELETE paragraph 1.3.B Format and Content, items 5-6.

S-6. Section 01500 Temporary Facilities and Controls:

REVISE paragraph 1.4 Use Charges, items B-C, to read as follows:

- B. "Water Service: Contractor to provide metered water service required for construction operations; provide connections and extensions of services as required for construction operation.
- C. Electric Power Service: Contractor to provide electrical service required for construction operations, with branch wiring and distribution boxes located to allow service and lighting by means of construction-type power cords. PG&E Electric Bill to be paid by Contractor in full."

S-7. Section 01630 Substitutions: REISSUE SECTION, included in attachments.

S-8. Section 02300 Earthwork:

ADD to paragraph 3.2.B.1, items a-c, to read as follows:

- a. "Contractor shall bid for Class 2 soil disposal.
- b. Contractor shall provide soil testing to determine if Class 1 or Class 2.
- c. If soil is tested as Class 1, any savings shall be credited back to City."

S-9. Section 02823 Ornamental Metal Fences: ADD NEW SECTION, included in attachments.

S-10. Section 05400 Cold-Formed Metal Framing:

REVISE paragraph 1.3.A Performance Requirements, items 1-4, to read as follows:

- 1. "Design Loads: Comply with loads as required by California Building Code, including loads on framing from other systems.
- 2. Deflection Limits: Design framing systems to withstand design loads without deflections greater than the following:
  - a. Exterior Non-Load-Bearing Framing: Horizontal deflection of 1/240 of the wall height typical, 1/360 where plaster or tile is indicated.
- 3. Seismic Requirements: Comply with code requirements for seismic bracing.
- 4. Fire Rated Assemblies: Provide framing approved for use in assemblies indicated to be fire rated."

REVISE paragraph 1.3.E Certifications, items 1-2, to read as follows:

1. "Engineer Certification: Provide certification by civil or structural engineer registered in California indicating compliance with Contract Documents and applicable codes.
  - a. Calculations: Where requested, submit calculations directly to enforcing agency.
2. Manufacturer Certification: Provide certification by manufacturer indicating compliance with Contract Documents and applicable codes."

REVISE paragraph 2.1.B.3 Gages, to read as follows:

3. "Gages: As indicated on Drawings and as required to comply with California Building Code and specified design and performance criteria.
  - a. 18 Gage: Minimum 33,000 psi commercial quality steel sheet.
  - b. 16 Gage and Heavier: Minimum 50,000 psi structural quality steel sheet.

S-11. Section 05500 Metal Fabrications:

ADD paragraph 1.2.A. item "6. Miscellaneous aluminum trim."

ADD paragraph 2.5. Fabrication, item E, to read as follows:

- E. "Miscellaneous Aluminum Trim: Fabricate units from aluminum extrusions, plates, and castings of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work."

ADD paragraph 2.6. Finishes, item C, to read as follows:

- C. "Aluminum Finishes: Designations are as established by the Aluminum Association.
  1. Clear Anodic Finish: Class II, AA-M12C22A31 complying with AAMA 611."

ADD paragraph 3.1. Installation, item D, to read as follows:

- D. "Corrosion Protection: Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint."

S-12. Section 05511 Metal Stairs: ADD NEW SECTION, included in attachments.

S-13. Section 06202 Interior Finish Carpentry:

REVISE paragraph 2.2.A.1 Species: "White maple, plan sliced, stained to match Architect's sample."

S-14. Section 06402 Interior Architectural Woodwork:

ADD paragraph 1.2.A.8: "Flush wood paneling"

ADD to paragraph 2.4.E.2: "Basis of Design Manufacturers:

- a. Formica Corporation
- b. Nevamar Company LLC, Decorative Products Div."

ADD paragraph 2.4.G: "Flush Wood Paneling:

1. Lumber Trim and Edges: At fabricator's option, trim and edges indicated as solid wood (except moldings) may be either lumber or veneered construction compatible with grain and color of veneered panels.
2. Matching of Adjacent Veneer Leaves: Book match.
3. Veneer Matching within Panel Face: Center-balance match.
4. Panel-Matching Method: In each separate area, use sequence-matched, uniform-size sets."

ADD paragraph 3.1.H: "Paneling: Anchor paneling to supporting substrate with concealed panel-hanger clips. Do not use face fastening, unless covered by trim."

S-15. Section 07210 Building Insulation: REISSUE SECTION, included in attachments.

S-16. Section 07460 Fiber Cement Wall Panels:

REVISE paragraph 2.2.A.1: "Basis of Design Manufacturer/ Product: Subject to compliance with requirements, provide the following:"

ADD paragraph 2.2.A.2: "Panel Thickness: 15/32 inch"

ADD paragraph 2.2.A.3: "Color: Carat, Onyx 7093"

ADD to paragraph 2.2.A.5: "..., applied to all surfaces including edges."

ADD paragraph 2.2.B "Performance Criteria:

1. UV Resistance: Exposure duration from 2000 to 3000 hours – NTE 1.0 Delta E when tested in accordance with ASTM G-155.
2. Modulus of Rupture: Complies with ASTM C1186, Type A
3. Surface Burning Characteristics: 0/0 (flame/smoke) spread when tested in accordance with ASTM E84
4. Coefficient of thermal conductivity (k): 7.5 BTU/h F ft. when tested in accordance with ASTM C518-98
5. Frost Resistance: 2944 psi when tested in accordance with ASTM C1185-85
6. Heat/Rain exposure: No visible damage or structural alterations when tested in accordance with ASTM C1185-95
7. Resistance to acid rain: No visible damage when tested in accordance with ASTM D1308-87
8. Water Tightness: No visible droplets or surface wetting when tested in accordance with ASTM C1185-C."

ADD paragraph 2.3 Accessories, items B-E:

- B. "Furring: Two layers of hat-shaped rigid furring channels, thickness as required to meet performance requirements; include fasteners and other concealed accessories.
- C. Fasteners: Use stainless steel fasteners

1. Where exposed to view, use prefinished fasteners in color to match items being fastened.
  2. Self-tapping flat head screws, bolts, nuts; self-locking rivets and bolts; end-welded studs; and other suitable fasteners designed to withstand design loads.
- D. Field-Applied Impregnation of Panel Edges: Impregnation material supplied by manufacturer of panels.
- E. Underlayment: Provide breathable membrane underlayment system, as specified in Division 7 Section "Sheet Waterproofing."

ADD paragraph 3.2 "Field Quality Control:

- A. Wall Panel Inspection: Arrange for wall panel system manufacturer's rectory-authorized representative to inspect wall panel upon completion of installation.
1. Notify Architect or Owner 48 hours in advance of date and time of inspection.
  2. Provide written report of inspection results within 7 days of inspection."

S-17. Section 07610 Sheet Metal Roofing:

ADD paragraph 1.3. Performance Requirements, items A-C to read as follows:

- A. "General Performance: Sheet metal roofing system including, but not limited to metal roof panels, cleats, clips, anchors and fasteners, sheet metal flashing integral with sheet metal roofing, fascia panels, trim, underlayment, and accessories shall comply with requirements indicated without failure due to defective manufacture, fabrication, installation, or other defects in construction. Sheet metal roofing shall remain watertight.
- B. Thermal Movements: Provide sheet metal roofing that allows for the thermal movements from ambient and surface temperature changes. Base calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
1. Temperature Change (Range): 120 deg. F, ambient; 180 deg. F, material surfaces.
- C. Roofing System Design: Provide roofing system that is identical to systems that have been successfully tested by a qualified testing and inspecting agency to resist uplift pressure calculated according to ASCE/SEI 7."

ADD paragraph 1.4 Submittals, items G-I, to read as follows:

- G. "Designated Design Certifications: Provide certification signed by California licensed structural engineer indicating roofing assembly complies with applicable codes and Contract Documents.
- H. Portable Roll-Forming Equipment Certificated: Issued by UL for equipment manufacturer's portable roll-forming equipment capable of producing panels that comply with UL requirements. Show expiration date no earlier than two months after scheduled completion of sheet metal roofing.
1. Submit certificates indicating recertification of equipment whose certification has expired during the construction period.

- I. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for each product. Provide test results for the following criteria:
  1. Air Infiltration: ASTM E283
  2. Water Infiltration: ASTM E331
  3. Wind Uplift: UL 90
  4. Clip Test: Minimum 100,000 cycle test
  5. Halter/Clip Fastener Pull-Out Tests and Calculations”

ADD paragraph 1.5 Quality Assurance, item D, to read as follows:

- D. “UL-Certified Portable Roll-Forming Equipment: UL-certified, portable roll-forming equipment capable of producing roofing panels for sheet metal roofing assemblies that comply with UL 580 for Class 90 wind-uplift resistance. Maintain UL certification of portable roll-forming equipment for duration of sheet metal roofing work.”

ADD to paragraph 1.6.B, item 1, to read as follows:

1. “Exposed Panel Finish: Deterioration includes, but is not limited to the following:
  - a. Color fading more than 5 Hunter units when tested according to ASTM D2244.
  - b. Chalking in excess of a No.8 rating when tested according to ASTM D4214.
  - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.”

ADD to paragraph 2.1.A, item 1, to read as follows:

1. “Provide metal roofing system with 2-1/2 inch high standing seams, located 16 inches on center.

ADD to paragraph 2.2 Roofing Sheet Metals, item B, to read as follows:

- C. “Recycled Content of Roofing Products: Provide products with an average recycled content of metal products so postconsumer recycled content plus one-half of pre-consumer recycled content is not less than 25 percent, and is the highest available recycled content.”

ADD to paragraph 3.4.B, items 5-6 to read as follows:

5. “Clips shall be designed to allow the roofing materials free movement in either direction parallel to the standing leg of the panel.
6. Clip attachments that cause direct wear on the panel face shall be removed, and the damaged panel and clips replaced and installed properly.”

S-18. Section 07620 Sheet Metal Flashing and Trim:

ADD to paragraph 2.1 Sheet Metals, item C to read as follows:

- C. “Recycled Content of Sheet Metal Products: Provide products with an average recycled content of metal products so postconsumer recycled content plus one-half of

preconsumer recycled content is not less than 25 percent, and is the highest available recycled content.”

S-19. Section 08111 Standard Steel Doors and Frames:

ADD to paragraph 2.2 Materials, item A to read as follows:

- A. “Recycled Content of Metal Products: Provide products with an average recycled content of metal products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent, and is the highest available recycled content.”

S-20. Section 08125 Interior Aluminum Frames:

REVISE paragraph 2.5 Aluminum Finishes, item C to read as follows:

- C. “High Performance Organic Finish: 3-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in both color coat and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers’ written instructions.
  1. Color and Gloss: As selected by Architect from manufacturer’s full range.”

S-21. Section 08211 Flush Wood Doors:

REVISE paragraph 2.3.A Interior Solid-Core Doors, item 2 to read as follows:

2. “Face Veneers: WI MoM/Premium Grade veneers for stained finish; nominal 1/40 inch thick before sanding, not less than 1/50 inch after sanding.”

S-22. Section 08311 Access Doors and Frames:

ADD paragraph 1.3.C Environmental Information Submittals, item 3 to read as follows:

3. “Product Data for LEED Credits MR4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; included statement indicating costs for each product having recycled content.”

S-23. Section 08411 Aluminum Framed Entrances and Storefronts:

REVISE paragraph 1.2.A.2. to read as follows:

2. “Exterior and interior manually operated sliding doors and door frame units.”

REVISE paragraph 2.1.A.Basis of Design Product to:

“Kawneer North America “Trifab VG 451 T” Series, Isolock Lanced and Debrided Thermal Break.”

ADD paragraph 2.1.B. to read as follows:

- B. “Sliding Mall Front Doors, Basis of Design Product: Subject to compliance with requirements, provide Kawneer North America “1040 Sliding Mall Front” with

egress doors with flush pulls and sliding panels with edge pulls, or comparable product by one of the following:

1. EFCO Corporation.
2. Vistawall Architectural Products; The Vistawall Group; a Bluescope Steel company.
3. Or approved equal.”

B, ADD paragraph 2.5.A. Entrance Doors, items 4-5, to read as follows:

4. “Sliding Door Carrier Assemblies and Overhead Roller Tracks: Manufacturer’s standard carrier assembly that allows vertical adjustment; consisting of nylon- or delrin-covered , ball-bearing-center steel wheels operating on a continuous roller track, or ball-bearing-center steel wheels operating on a nylon- or delrin-covered, continuous roller track. Support doors from carrier assembly by cantilever and pivot assembly.
5. Rollers: Minimum of two ball-bearing roller wheels and two anti-rise rollers for each active leaf.”

S-24. Section 08460 Automatic Entrance Doors:

INSERT paragraph 1.4 Submittals, item F, to read as follows:

F. “Certifications:

1. Structural Engineer Certification: Provide certification by structural engineer registered in California indicating system complies with Project requirements and applicable codes.
2. Manufacturer’s Certification: Provide certification indicating installer is acceptable and entrance system complies with requirements for emergency exits.”

REVISE paragraph 2.2.B.1. Basis of Design Product:

“Horton Automatics, a division of Overhead Door Corporation “HD-Slide Series 2001 Electric Belt Drive Operator with Glazed Aluminum Door Panels; Type 110, Bi-parting O-SX-SX-O.”

REVISE paragraph 2.2.B.2. Configuration, item b, to read as follows:

- b. “Emergency breakaway Capability: Manufacturer’s Standard.”

DELETE paragraph 2.2.B.9 Aluminum Finishes.

S-25. Section 08510 Steel Windows: DELETE SECTION entirely.

S-26. Section 08520 Aluminum Windows:

ADD paragraph 1.4.G to read as follows:

- G. “Certifications: Provide certification by structural engineer registered in California indicating system complies with Contract Documents and applicable codes.”

REVISE paragraph 2.1.A Basis of Design Products:

“Kawneer North America “Trifab VG 451T Series”, Isolock Lanced and Debridged Thermal Break and “6200” Isolock Window.

S-27. Section 08800 Glazing:

ADD paragraph 2.9.B to read as follows:

B. “Translucent Insulating Glass Units:

1. Basis of Design Manufacturer: Subject to compliance with requirements, provide “Viraspan Design” frit pattern glazing as selected by Architect from manufacturer’s standard line or a comparable approved product.
2. Overall Unit Thickness and Thickness of Each Lite: 25 and 6.0 mm.
3. Interspace Content: Air.
4. Outdoor Lite: Class 1 (clear) float glass.
  - a. Frit Pattern: To be selected by Architect from manufacturer’s full range.
  - b. Kind HS (heat strengthened).
5. Indoor Lite: Class 1 ultra-clear (low-iron) float glass.
  - a. Kind HS (heat strengthened).
6. Frit Pattern: On surface no.2.

S-28. Section 08911 Glazed Aluminum Curtain Walls:

INSERT paragraph 1.4 Submittals, item H:

- H. “Certifications: Provide certification by a structural engineer registered in California indicating system complies with Contract Document and applicable codes.”

REVISE paragraph 2.1.A Basis of Design Product: “Kawneer North America 1600 Series.”

S-29. Section 09220 Portland Cement Plaster:

INSERT paragraph 1.3 Submittals, item B:

B. “Environmental Information Submittals:

1. Product Data for LEED Credits MR 4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; include statement indicating costs for each product having recycled content.
2. Certificates for LEED Credits MR5.1 and 5.2, Local/Regional Materials: Manufacture’s certification indicating point of extraction and final point of assembly for products and materials located within 500 miles of Project site. Include manufacturer’s name, address and phone number.”

ADD to paragraph 1.3 Submittals, item C: “Furnish up to five (5) samples of each variant for each type of textured finish.”

ADD to paragraph 2.7.B.1 heading to read: “Base Coat Mixes over...”

ADD paragraph 2.7.B, item 2:

2. Base-Coat Mixes for Use over Concrete: Single base coats for two-coat plasterwork as follows:

- a. Portland Cement Mix: For cementitious material, mix 1 part Portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material (sum of separate volumes of each component material).
- b. Masonry Cement Mix: Use 1 part masonry cement and 2-1/2 to 4 parts aggregate.
- c. Plastic Cement Mix: Use 1 part plastic cement and 2-1/2 to 4 parts aggregate.

S-30. Section 09250 Gypsum Board:

INSERT paragraph 2.2 Gypsum Liner Panels, to read:

“2.2 Gypsum Liner Panels:

A. General: Comply with ASTM C 442/C 442M.

1. Type X: Manufacturer’s proprietary liner panels with moisture-resistant paper faces.
  - a. Core: 1 inch thick.
  - b. Long Edges: Double bevel.”

S-31. Section 09310 Ceramic Tile:

DELETE paragraph 1.2.A.2 Quartz floor tile.

REVISE paragraph 2.2.A Basis of Design Manufacturer/ Product for Ceramic Tile:

1. “Daltille, Natural Hues, Eco-Body.”

DELETE paragraph 2.2.B, items 1-3.

DELETE paragraph 2.2.F, items 1-5.

S-32. Section 09385 Dimension Stone Tile:

INSERT paragraph 1.2 Quality Assurance, item A to read:

A. “Source Limitations for Stone Tile: Obtain each type of stone product through one source from a single producer.

1. Obtain each variety of stone, regardless of product, size, and finish, from same location in a single quarry with resources to provide materials of consistent quality in appearance and physical properties.”

ADD paragraph 1.3 Submittals, item D to read:

D. “Samples for Verification: Prior to mock-up construction, provide the following:

1. Range Samples consisting of at least five full-size units for each type of stone tile, exhibiting extremes of the full range of color and other visual characteristics expected. Range Samples establish the standard by which individual tiles will be judged.”

S-33. Section 09511 Acoustical Panel Ceilings: REISSUE SECTION, included in attachments.

S-34. Section 09548 Suspended Metal Panel Ceilings

ADD to paragraph 1.2.A. items 1-2 to read as follows:

1. "Curved Configurations: Modular concave and convex curved suspended acoustical metal panel system and matching perimeter trim.
2. Flat Configurations: Modular suspended acoustical metal flat panel system with wood veneered finish and matching perimeter trim."

INSERT to paragraph 2.1 Suspended Metal Panels, new item A, to read as follows:

- A. "Recycled Content of Aluminum Products: Provide products with an average recycled content of aluminum products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 70 percent."

Note: adjust the following numbering of items B-F accordingly.

REVISE to paragraph 2.1.B Sheet Metal Characteristics, item 1, to read as follows:

1. "Aluminum Sheet: Roll-formed aluminum sheet, complying with ASTM B209; alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated."

REVISE paragraph 2.2. heading to read "Aluminum Panel Units."

REVISE paragraph 2.2.A. heading to read "Curved Panel Units."

REVISE paragraph 2.2.A.1 Basis of Design Product for Curved Ceilings:  
"Ceilings Plus, Radians, Perforated, Grau Finish, with Acoustical backing."

REVISE paragraph 2.2.B. Flat Panel Units, items 1-2, to read as follows:

1. "Basis of Design Product for Flat Ceiling No.1: Subject to compliance with requirements, provide Ceilings Plus "Illusions, Perforated, Arboreal Maple Wood Veneer with Acoustical Backing" or a comparable product by an approved equal.
2. Basis of Design Product for Flat Ceiling No.2: Subject to compliance with requirements, provide Ceilings Plus "Illusions, Perforated, Arboreal Maple Wood Veneer" or a comparable product by an approved equal."

REVISE paragraph 2.2.G. Finishes, items 1-2, to read as follows:

1. "Curved Panel System: Grau finish.
2. Flat Panel System: Arboreal maple wood veneer."

ADD paragraph 2.4 Aluminum Finishes, to read as follows:

2.4 "Aluminum Finishes:

- A. Mill Finish: AA-M10C10
- B. Lacquered Mill Finish: AA-M10C10R1x with manufacturer's custom tinted, organic coating."

S-35. Section 09640 Wood Flooring:

REVISE paragraph 2.1.A, items 5,7,8,9 to read:

5. "Wear Layer Thickness: 0.10 to 0.14 inches
7. Board Width: 3 Inches.
8. Length: Manufacturer's standard random lengths.

9. Edge Style: Tongue and groove with Square edge.”

S-36. Section 09641 Wood Floating Floor Assemblies:

REVISE paragraph 2.2.A, items 2,3,4,6 to read as follows:

2. “Cut: Manufacturer’s standard.
3. Thickness: 33/32 inches thick.
4. Face Width: 2-1/4 inches.
6. Ends and Edges: Precision tongue and groove ends and edges except where otherwise directed and recommended by MFMA.”

ADD paragraph 2.3, items I-J to read as follows:

- I. “Dividers and Edge Strips: Match wood strip flooring.
- J. Rubber Pads: Type recommended by manufacturer for dance/exercise type wood flooring installed over wood sleepers on cushioned pads.”

S-37. Section 09651 Resilient Flooring: DELETE SECTION entirely.

S-38. Section 09654 Linoleum Floor Coverings

REVISE paragraph 2.1.A Basis of Design Manufacturer/ Products:  
“Forbo Marmoleum 2007, Mineral and Real Authentic,...”

S-39. Section 09671 Resinous Flooring: ADD NEW SECTION, included in attachments.

S-40. Section 09841 Acoustical Wall Panels

REVISE paragraph 2.2.E. Facing Material, to read as follows:  
“Interface Fabric FR701, Style 2100, Color No.750 Cement mix.”

S-41. Section 09911 Exterior Painting

REVISE paragraph 1.3.C, to read as follows:

- C. “Samples for Verification: For each type of paint system and in each color and gloss of topcoat indicated:
  1. Submit Samples on rigid backing, 8 by 10 inches.
  2. Step coats on Samples to show each coat required for system.
  3. Label each coat of each Sample.
  4. Label each Sample for location and application area.”

REVISE paragraph 3.3.E.1.d, to read as follows:

- d. “Color: Match integral color of stucco system.”

S-42. Section 09912 Interior Painting

ADD paragraph 1.3.D, to read as follows:

- D. “Samples for Verification: For each type of paint system and in each color and gloss of topcoat indicated:
  1. Submit Samples on rigid backing, 8 by 10 inches.
  2. Step coats on Samples to show each coat required for system.

3. Label each coat of each Sample.
4. Label each Sample for location and application area.”

REVISE paragraph 2.1.A. Basis of Design Product: “Benjamin Moore & Co., or...”

INSERT paragraph 3.3 Application, item A, to read as follows:

- A. “Provide painting and finishing of exposed items and surfaces.
  1. Specified surface preparation, priming and coats of paint are in addition to shop priming and surface treatment specified under other Sections.
  2. Painting and finishing includes field finishing of interior items not listed as “Surfaces Not to be Painted” unless clearly indicated otherwise.
  3. Painting and finishing includes field finishing of select shop finished items where indicated as required to match adjacent surfaces such as mechanical grilles and registers.

Note: adjust the following numbering of items B-F accordingly.

ADD to paragraph 3.3.F, the following sentence:

“..., including exposed bare and covered pipes, ducts, and hangers, exposed steel and iron work, and primed metal surfaces of equipment installed under mechanical and electrical work in occupied spaces.”

ADD to paragraph 3.3 Application, items G-H, to read as follows:

- G. “Stairs: Paint 2 inch stripes at interior stair nosing, full tread and landing width in accordance with California Code of Regulations, Title 24, Access Compliance; provide at landing and last tread at each stair run.
- H. Ceilings: Provide black painted ceiling where exposed, including roof decking where exposed through and around perimeter of suspended ceiling system.”

S-43. Section 09966 Graffiti Resistant Coatings

ADD to paragraph 3.3 Application, items D-E, to read as follows:

- D. “Exterior Walls: Apply graffiti coating to exterior wall finishes, including but not limited to stucco, slate tiles, and metal siding up to 9 feet high.
- E. Exterior Landscape Furniture: Apply graffiti coating to exterior landscape furniture, including but not limited to benches and bike racks.”

S-44. Section 10101 Visual Display Surfaces:

DELETE paragraph 1.2.A, items 2-3.

DELETE paragraph 2.2.A.1, items a-c.

REVISE paragraph 2.3.A.1, item a. to read as follows:

- a. “Basis of Design manufacturer/Product: Subject to compliance with requirements, provide Polyvision “Contractor Series Whiteboard 110.”

DELETE paragraph 2.3.A.1, item b.

DELETE paragraph 2.4 Visual Display Conference Units.

DELETE paragraph 3.1.D. Visual Display Conference Units .

S-45. Section10155 Toilet Compartments:

DELETE "solid polymer" from paragraph 1.2.A.

REVISE paragraph 2.1.A. Basis of Design Manufacturer/Product:

1. "Bobrick Washroom Equipment, Inc., Sierra Series."

REVISE paragraph 2.1.C. to read as follows:

- C. "Integral Color and Pattern: One color and pattern in each room as selected by Architect from manufacturer's full range of colors and patterns."

S-46. Section10265 Impact-Resistant Wall Protection

ADD paragraph 2.3.A.2, Items c-d, to read as follows:

- c. "Height: Full height.
- d. Quantity: 10, locate per Architect's direction."

S-47. Section10522 Fire Extinguisher Cabinets

ADD paragraph 2.2.A. Cabinet Type, Items 1-3, to read as follows:

1. "Typical Cabinets: Provide cabinets of sufficient depth to house 2A010BC Multi-Purpose Dry Chemical Type Fire Extinguisher.
2. Food Preparation Area Cabinets: Provide cabinets to house K Type Fire Extinguishers at locations indicated on Drawings, or areas designated as food preparation areas with cooking greases and combustible oils.
3. Products: Subject to compliance with requirements, provide products from one of the following:
  - a. J.L. Industries, "Embassy Series"
  - b. Larsen's Mfg., "Occult Series."
  - c. Moder Metal Products, by Muckle Division of Technico "Shamrock Series."
  - d. Or approved equal."

INSERT paragraph 2.2.D., to read as follows:

- D. "Recessed Cabinet: Cabinet box recessed in walls of sufficient depth to suit style of trim indicated.
  1. Trimless with Concealed Flange: Surface of surrounding wall finishes flush with exterior finished surface of cabinet frame and door, without overlapping trim attached to cabinet. Provide recessed flange, of same material as box, attached to box to act as drywall bead."

DELETE paragraph 2.2 Fire Protection Cabinet, items E and F.

REVISE paragraph 2.2.H. to read as follows:

H. "Door Style: Flush opaque panel, frameless, with no exposed hinges."

ADD to paragraph 2.2.J.Hardware, the following sentence:

"Provide continuous type hinge permitting door to open 180 degrees."

ADD to paragraph 2.2.L.Finishes, the following sentence: "brushed finish."

S-48. Section 10651 Operable Panel Partitions

ADD to paragraph 2.1.C. Panel Construction, second sentence, the following:

"..., with panel skin lockformed and welded directly to the frame for unitized construction."

ADD to paragraph 2.1.D. Dimensions, preceding the first sentence, the following:

"Provide nominal 3 inch thick panels in manufacturer's standard 48 inch widths."

ADD to paragraph 2.1.E. STC: "Not less than 50."

REVISE paragraph 2.1.G. Hardware, to read as follows:

G. "Hardware: Provide full leaf butt hinges, attached directly to panel frame with welded hinge anchor plates within panel to further support hinge mounting to frame. Provide lifetime warranty on hinges. Hinges mounted into panel edge or vertical astragal are not acceptable."

REVISE paragraph 2.4.B Fabric Wall Covering, to read as follows:

B. "Fabric Wall Covering: Interface Fabric FR701, Style 2100, Color No.750 Cement Mix, from same dye lot, treated to resist stains."

REVISE paragraph 2.7.A.1 Single Pass Door: Dimension to be "36 by 84 inches".

S-49. Section 10671 Metal Storage Shelving

ADD paragraph 1.4 Submittals, item E, to read as follows:

E. "Shop Drawings: Show fabrication and installation details for metal storage shelving, including upright-to-shelf/arm connections, lateral bracing, and attachments to other work. Include plans, elevations, sections, details, and relationship to other work."

1. Calculations: Include structural analysis data for shelving units, including capacities of shelving sections, compression members (posts), and shelf connectors, with verification of compliance with performance criteria; signed and sealed by the qualified professional engineer registered in the State of California responsible for their preparation."

REVISE paragraph 2.3.A.1. Basis of Design Manufacturer: "Penco Products, inc., RivetRite Shelving Units."

S-50. Section 10801 Toilet and Bath Accessories

INSERT paragraph 1.3.C. Product Schedule, item 3, to read as follows:

3. "Provide quantity per schedule on drawings."

ADD paragraph 2.1. Public and Private Use Washroom Accessories, item J, to read as follows:

J. "Grab Bars:

1. Basis of Design Product: Bobrick Washroom Equipment, Inc.; "Surface Mounted Grab Bar; Product No. B-5806."
2. Mounting: Flanges with concealed fasteners.
3. Length: 36 inches and 48 inches.
4. Material: Stainless Steel, 0.05 inch thick.
  - a. Finish: Smooth, No.4, satin finish on ends and slip resistant texture in grip area.
5. Outside Diameter: 1-1/2 inches."

S-51. Section 12494 Roller Shades:

ADD paragraph 1.3.B Shop Drawings, item 2 to read as follows:

2. "Motorized Shade Operators: Show locations and details for installing operator components, switches, and controls. Indicate motor size, electrical characteristics, drive arrangement, mounting, and grounding provision."

REVISE paragraph 2.1 Roller Shades, "item A: Basis of Design Manufacturer/Product for Solar Shades: Subject to compliance with requirements, MechoShade Systems, Inc., EcoVeil Series or a comparable product by one of the following:

1. Levolor: Levolor-Kirsch Window Fashions; a Newell Rubbermaid Company.
2. Lutron Shading Solutions by VIMCO.
3. Or approved equal."

INSERT paragraph 2.1 Roller Shades, "item B: Basis of Design Manufacturer/Product for Blackout Shades: Subject to compliance with requirements, MechoShade Systems, Inc., Blackout 0700 Series or a comparable product by one of the following:

1. Levolor: Levolor-Kirsch Window Fashions; a Newell Rubbermaid Company.
2. Lutron Shading Solutions by VIMCO.
3. Or approved equal."

INSERT paragraph 2.1 Roller Shades, "item C: Shade Band Material Non-PVC thermoplastic olefin.

1. Standard shades: EcoVeil Series, 1366 Eggshellf
2. Blackout shades: Blackout 0700 Series, 0702 Light Grey"

DELETE paragraph 2.3 Motorized Roller Shade Operators, item 3.

S-52. Section 17960 Access Control and Alarm: REISSUE SECTION, included in attachments.  
Note: section revised to incorporate City's standard Bosch Access Control System interface specifications.

## DRAWING CHANGES

**Note:**

**See attached sketch drawings as noted.**

**Use the scale indicated in the title block of the addendum sketch for the scale of the drawing.**

- D-1. Sheet C4.0 Site Plan/Horizontal Control:  
Sketch AD1-1/C4.0-01 and AD1-1/C4.0-02: ADD Key Notes 2 and 3.
- D-2. Sheet C9.2 City Standard Details:  
Sketch AD1-1/C9.2-01: ADD City Standard Detail 616 “Standard Pavement Delineations”, and note “includes all parking lot striping shall be thermoplastic”.
- D-3. Sheet L1.1. Layout Plan:  
Sketch AD1-1/L1.1-01: ADD note in the plan “Sidewalk concrete color for curb and ramps on E. 14<sup>th</sup> Street to match Phase 1 (existing)”.
- D-4. Sheet L4.3 Construction Details: Detail #1 – Water Feature Fountain Section  
Sketch AD1-1/L4.3-01: ADD “plan view” of the fountain in the detail.
- D-5. Sheet A2.1A Partial First Floor Plan:  
Sketch AD1-1/A2.1A-01: RELOCATE roof access hatch in 117A Storage Room as indicated.
- D-6. Sheet A2.2A Partial Composite Clerestory Plan:  
Sketch AD1-1/A2.2A-01: RELOCATE roof access hatch in 117A Storage Room as indicated.
- D-7. Sheet A2.11B Finish and Material Schedule:  
Sketch AD1-1/A2.11B-01: REVISE schedule for epoxy floor/base, resilient base, wood door and slate tile, as indicated.
- D-8. Sheet S2.2 Flat Low Roof and Mezzanine Framing Plan:  
Sketch AD1-1/S2.2-01: RELOCATE roof penetration and framing previously located directly west of gridline C.8 between 7 and 7.3 to directly east of gridline C.8 between 7.3 and 7.5. Penetration relocation to match architectural drawing revision D-6.  
  
Sketch AD1-1/S2.2-02: DELETE roof penetration and corresponding W10x15 framing beams located between gridlines G.8 and H and between 5 and 6.
- D-9. Sheet M1.01 Legend Symbols General Notes and Drawings List:  
Sketch AD1-1/M0.1-01: ADD “K.E. Kitchen Exhaust” to legend.
- D-10. Sheet M1.1A 1<sup>st</sup> Floor Plan – HVAC Plan A:  
Sketch AD1-1/M1.1A-0.2: REVISED CE-2 diffuser drawn the correct size as per diffuser schedule. Note 9 and 12 modified.

- D-11. Sheet M1.1B 1<sup>st</sup> Floor Plan – HVAC Plan B:  
Sketch AD1-1/M1.1B-03: REVISED Notes 2, 6 and 8.
- D-12. Sheet M1.2 Roof Plan HVAC  
Sketch AD1-1/M1.2-04: REVISED Sound trap shown.
- D-13. Sheet M2.0B Foundation Plan – Plumbing:  
Sketch AD1-1/M2.0B-05: ADD Condensate drains for FCU's.
- D-14. Sheet M2.1B 1<sup>st</sup> Floor Plan – Plumbing:  
Sketch AD1-1/M2.1B-06: ADD Condensate drains for FCU's
- D-15. Sheet M2.2B Roof Plan – Plumbing:  
Sketch AD1-1/M2.2B-07: REVISED Vent size.
- D-16. Sheet M3.1 Partial Enlarged Floor Plans & Sections - HVAC:  
Sketch AD1-1/M3.1B-08: REVISED Sound trap shown.
- D-17. Sheet M4.1 Details – Detail5:  
Sketch AD1-5/M4.1-09: ADD Sheet note 3.
- D-18. Sheet M4.3 Details:  
Sketch AD1-1/M4.3-10: ADD detail 6.
- D-19. Sheet M5.1 Schedules:  
Sketch AD1-1/M5.1-11: REVISED AHU-1 schedule.
- D-20. Sheet M5.1 Schedules:  
Sketch AD1-1/M5.1-12: ADD CE-2 to air distribution schedule.
- D-21. Sheet M5.1 Schedules:  
Sketch AD1-1/M5.1-13: REVISED Pump schedule.
- D-22. Sheet M6.1 Riser Flow Diagrams:  
Sketch AD1-1/M6.1-14: ADD HWP-1 tag to drawing.
- D-23. Sheet M7.2 Control Diagrams:  
Sketch AD1-1/M7.2-15: ADD CO2 Sensor to return ductwork.
- D-24. Sheet E3.3 Mechanical Equipment Plan - Electrical:  
Sketch AD1-1/E3.3-01: Per mechanical revision, HWP-1 is 5hp (instead of 2hp). REVISE electrical feeders to #10 conductors (instead of #12).
- D-25. Sheet E6.1 Schedules:

Sketch AD1-E6.1-01: REVISE HWP-1 circuit breaker at Panel LC-2/4/6 to a 30amp/3pole circuit breaker (instead of 15amp/3pole circuit breaker).

- D-26. Sheet T0.3 Communications & A/V Symbol Schedule:  
Sketch AD1/T0.3-01: REVISE Elevation column for card reader, symbol 'CR', to read "CL @ +42" AFF".
- D-27. Sheet T7.3 Access Control and Intrusion Detection Single Line Diagram:  
Reissued T7.3: REVISE Burglar Alarm Panel ethernet connection to be shown in light pen for clarity. ADD data gathering panel connection interface to City Hall for clarity.
- D-28. Sheet T9.13 Details – Outside Plant:  
Reissued T9.13: REVISE details to reflect City's standard trenching details. ADD Sheet Note 1 referring to City of San Leandro's Trench Backfill Standard Plans

### **BIDDER QUESTIONS**

- Q-1. Slate tiles:  
A3.2 Keynotes lists #8 as slate tile 4"x24". A2.11B Exterior Material Schedule lists slate tile 6"x24". Which is proper size for the exterior slate?  
Response: The 4"x24" dimension is the correct size.
- Q-2. A2.11A Finish Schedule: Finish Schedule fails to list floor finish – are we to follow page A2.12A for floor finish?  
Response: Yes, indicated on Note 1 that for Floor finish, see A2.12A and A2.12B.

### **ATTACHMENTS**

- A-1. Specifications:
1. Section 01630 Substitutions
  2. Section 02823 Ornamental Metal Fences
  3. Section 05511 Metal Stairs
  4. Section 07210 Building Insulation
  5. Section 09511 Acoustical Panel Ceilings
  6. Section 09671 Resinous Flooring
  7. Section 17960 Access Control and Alarm Systems
- A-2. Drawing Changes D-1 through D-28, as referenced accordingly in each item.

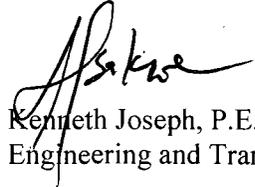
**END OF ADDENDUM NO. 1**

**PLEASE NOTE NEW BID OPENING DATE:**

**TUESDAY, JULY 22, 2008 AT 3:00 P.M.**

In the event of a difference with previous addenda or communications, this addendum shall take precedence. It is the responsibility of the General Contractor to notify all sub-contractors from whom he accepts bids of all changes to the drawings and specifications covering this project. Bidders shall acknowledge the receipt of this Addendum on Page 00300-5 of the Bid Form and attach this signed Addendum to the Bidder's Proposal when submitted. Failure to acknowledge this addendum may be grounds for disqualification. If you have any questions, please call the Project Engineer, Mark Goralka at (510) 577-3329.

Sincerely,



Kenneth Joseph, P.E., City Engineer *for*  
Engineering and Transportation Department

**ACKNOWLEDGEMENT FOR ADDENDUM NO. 1**

I hereby acknowledge receipt of this Addendum for the above noted project.

\_\_\_\_\_  
(Signature) Date: \_\_\_\_\_

\_\_\_\_\_  
(Company Name – Please Print)

cc: M. Goralka, G. Faria, K. Joseph, A. Osakwe, Kiosk  
COSL Current Plan-holders

## SECTION 01630 - SUBSTITUTIONS

### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes product substitution requirements.
- B. Related Sections include the following:
  - 1. Division 1 Section "Product Requirements" for comparable products requirements.

### 1.3 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Storage: Secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces.

### 1.4 PRODUCT SUBSTITUTIONS

- A. Timing: Architect will consider requests for substitution if received within 35 days after commencement of the Work. Requests received after that time may be considered or rejected at discretion of Architect.
- B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  - 1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
  - 2. Requested substitution does not require extensive revisions to the Contract Documents.
  - 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
  - 4. Requested substitution meets or exceeds Project environmental requirements.
  - 5. Substitution request is fully documented and properly submitted, including thorough comparison between basis of design/listed product and proposed substitution.

6. Requested substitution includes effect of substitution on other work, products, or separate contracts.
  - a. Note if acceptance of substitution could require revision of contract.
7. Requested substitution includes accurate cost data comparing proposed substitution with product specified, and amount of net change in contract price.
  - a. Include costs to other contractors and costs for revisions to Drawings, details, or specifications.
8. Requested substitution will not adversely affect Contractor's Construction Schedule.
9. Requested substitution has received necessary approvals of authorities having jurisdiction.
10. Requested substitution is compatible with other portions of the Work.
11. Requested substitution has been coordinated with other portions of the Work.
12. Requested substitution provides specified warranty.
13. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

#### 1.5 LIMITATIONS ON SUBSTITUTIONS

- A. During Bidding period, no substitutions shall be considered.
- B. The burden of proof to support a comparison evaluation by the Architect lies with the Contractor to give supportive evaluation and comparative data.
- C. Substitutions will not be considered when indicated on shop drawings or product data submittals without separate formal request, when requested directly by subcontractor or supplier, or when acceptance will require substantial revision of Contract Documents.
- D. Substitute products shall not be ordered or installed without written acceptance.
- E. Only one request for substitution for each product will be considered. When substitution is not accepted, provide specified product.
- F. Owner and Architect will determine acceptability of proposed substitutions and reserve right to reject proposals due to insufficient information.
- G. Inadequate warranty, vagueness of submittal, failure to meet project requirement, or insufficient data may be cause for disapproval or rejection of request. Architect's decisions for rejection of requested substitution is final.

#### 1.6 SUBSTITUTION SUBMITTAL PROCEDURES

- A. Submit three copies of request for substitution.

- B. Submit each request with sequentially numbered "Substitution Request Transmittal" acceptable to Owner and Architect; submit separate request for each product and support each request with:
  - 1. Product identification with manufacturer's literature and samples where applicable.
  - 2. Name and address of similar project on which product has been used, and data of installation.
- C. After receipt of the Substitution Request, Architect will notify Contractor, in writing, of decision to accept or reject requested substitution within 15 days.
- D. For accepted products, submit shop drawings, environmental information, product data, samples and other specified submittals under provisions of Section 01330.
- E. If the Contractor's substitution proposal is accepted in whole, in part, or denied, such costs for review will be by a contract change order.

1.7 SUBSTITUTIONS AFTER REQUIRED DATE

- A. If a request for substitution occurs after the specified period for substitution requests, the substitution may be reviewed at the discretion of the Architect; and the costs of such review shall be borne by contractor and will be deducted from the contract sum of each progress payment as the cost was incurred.
- B. The Contractor shall pay for the Architect's and Owner's cost of evaluating substitute items submitted by the Contractor as a condition of considering such proposal. By submitting substitute proposal, the Contractor grants full authority to the Owner to deduct amounts payable to the Contractor from any monies due or that may become due to the Contractor under the contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01630

## SECTION 02823 - ORNAMENTAL METAL FENCES

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1: Ornamental metal fences and gates.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated, including finishes.
- B. Shop Drawings: Include plans, elevations, sections, and details of components and their connections. Show anchorage and accessory items.
- C. Samples for Verification: For each type of exposed finish required, prepared on 6-inch-square samples of metal of same thickness and material indicated for the Work.
- D. Maintenance Data: For ornamental metal fencing to include in maintenance manuals.
- E. Environmental Information Submittals:
  - 1. Product Data for LEED Credits MR 4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; include statement indicating costs for each product having recycled content.
  - 2. Certificates for LEED Credit MR 5.1, Local/Regional Materials: Manufacturer's certification indicating final point of assembly for products and materials located within 500 miles of Project site. Include manufacturer's name, address and phone number.

### PART 2 - PRODUCTS

#### 2.1 METALS

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces without blemishes.
  - B. Ferrous Metals:
    - 1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
    - 2. Steel Tubing: ASTM A 500, cold-formed steel tubing.
- 2.2 ORNAMENTAL METAL FENCING, GENERAL
- A. Fence Panel Construction:
    - 1. 1-1/2 inch square top and bottom rails, 14 gage.
    - 2. 3/4 inch square pickets, 16 gage.
    - 3. 4 inch spacing between pickets.
- 2.3 FASTENERS
- A. General: Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.
- 2.4 Cast-in-Place Anchors in Concrete: Threaded or wedge type; galvanized ferrous castings, either ASTM A 47/A 47M malleable iron or ASTM A 27/A 27M cast steel. Provide bolts, washers, and shims as needed, hot-dip galvanized per ASTM A 153/A 153M.
- 2.5 MISCELLANEOUS MATERIALS
- A. Galvanizing Repair Paint: SSPC-Paint 20, high-zinc-dust-content paint for regalvanizing welds in steel.
  - B. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107.
  - C. Concrete Materials and Properties: Comply with requirements in Division 3 Section "Concrete Work" for normal-weight, air-entrained, ready-mix concrete with a minimum 28-day compressive strength of 3000 psi, unless otherwise indicated.
- 2.6 FABRICATION
- A. Ornamental Metal Fencing: Fabricate units from steel shapes, plates, and bars of profiles shown with continuously welded joints and smooth exposed edges. Miter corners and use concealed field splices where possible. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.

## 2.7 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Finish metal fabrications after assembly.
- B. Steel and Iron Finishes:
  - 1. Hot-dip galvanize items as indicated to comply with ASTM A 123/A 123M or ASTM A 153/A 153M as applicable.
- C. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below for environmental exposure conditions of installed metal fabrications:
  - 1. Exteriors (SSPC Zone 1B): SSPC-SP 6/NACE No. 3, "Commercial Blast Cleaning."

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Install ornamental metal fencing to comply with ASTM F 567 and more stringent requirements specified.
- B. Post Excavation: Drill or hand-excavate holes for posts to diameters and spacings indicated, in firm, undisturbed soil.
- C. Post Setting: Set posts in concrete with mechanical anchors at indicated spacing into firm, undisturbed soil.
- D. Concrete Fill: Place concrete around posts to dimensions indicated and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
- E. General: Perform cutting, drilling, and fitting required for installing metal fencing. Set metal fencing accurately in location, with edges and surfaces level, plumb, and true.
  - 1. Fit exposed connections accurately together. Weld connections that are not to be left as exposed joints but cannot be shop welded. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication.
  - 2. Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.
- F. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.2 GATE INSTALLATION

- A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

END OF SECTION 02823

## SECTION 05511 - METAL STAIRS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
1. Preassembled steel stairs with concrete-filled treads.
  2. Steel tube railings attached to metal stairs and to walls adjacent to metal stairs.
- B. See Division 5 Section "Pipe and Tube Railings" for pipe and tube railings.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance of Stairs: Provide metal stairs capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
1. Uniform Load: 100 lbf/sq. ft..
  2. Concentrated Load: 300 lbf applied on an area of 4 sq. in..
  3. Uniform and concentrated loads need not be assumed to act concurrently.
  4. Stair Framing: Capable of withstanding stresses resulting from railing loads in addition to loads specified above.
  5. Limit deflection of treads, platforms, and framing members to L/240 or 1/4 inch, whichever is less.
- B. Structural Performance of Railings: Provide railings capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
1. Handrails:
    - a. Uniform load of 50 lbf/ ft. applied in any direction.
    - b. Concentrated load of 200 lbf applied in any direction.
    - c. Uniform and concentrated loads need not be assumed to act concurrently.
  2. Top Rails of Guards:
    - a. Uniform load of 50 lbf/ ft. applied in any direction.
    - b. Concentrated load of 200 lbf applied in any direction.
    - c. Uniform and concentrated loads need not be assumed to act concurrently.
  3. Infill of Guards:

- a. Concentrated load of 50 lbf applied horizontally on an area of 1 sq. ft..
  - b. Uniform load of 25 lbf/sq. ft. applied horizontally.
  - c. Infill load and other loads need not be assumed to act concurrently.
- C. Seismic Performance: Provide metal stairs capable of withstanding the effects of earthquake motions determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads."

### 1.3 SUBMITTALS

- A. Product Data: For metal stairs.
- B. Environmental Information Submittals:
1. Product Data for LEED Credits MR 4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; include statement indicating costs for each product having recycled content.
  2. Certificates for LEED Credits MR 5.1 and 5.2, Local/Regional Materials: Manufacturer's certification indicating point of extraction and final point of assembly for products and materials located within 500 miles of Project site. Include manufacturer's name, address and phone number.
  3. Product Data for LEED Credit EQ 4.1, Low-Emitting Materials, Adhesives and Sealants: Manufacturers' product data for installation adhesives, including printed statement of VOC content.
- C. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
1. Include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

### 1.4 COORDINATION

- A. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- B. Coordinate locations of hanger rods and struts with other work so that they will not encroach on required stair width and will be within the fire-resistance-rated stair enclosure.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

### 2.2 METALS

- A. Metal Surfaces, General: Provide materials with smooth, flat surfaces without blemishes.
- B. Recycled Content of Steel Products: Provide products with an average recycled content of steel products so postconsumer recycled content plus one-half of preconsumer recycled content is not less than 25 percent.
- C. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.
- D. Steel Tubing: ASTM A 500 (cold formed) or ASTM A 513, Type 5 (mandrel drawn).
- E. Rolled-Steel Floor Plate: ASTM A 786, rolled from plate complying with ASTM A 36 or ASTM A 283, Grade C or D.
- F. Iron Castings: Either gray iron, ASTM A 48, Class 30, or malleable iron, ASTM A 47, unless otherwise indicated.
- G. Uncoated, Cold-Rolled Steel Sheet: ASTM A 1008, either commercial steel, Type B, or structural steel, Grade 25.
- H. Uncoated, Hot-Rolled Steel Sheet: ASTM A 1011, either commercial steel, Type B, or structural steel, Grade 30.
- I. Expanded Metal, Carbon Steel: ASTM F 1267, Class 1 (uncoated).

### 2.3 MISCELLANEOUS MATERIALS

- A. Cast-Metal Abrasive Nosings: Cast gray iron, Class 20, with an integral abrasive finish.
1. Available Manufacturers:
    - a. American Safety Tread Co., Inc.
    - b. Balco Inc.

- c. Barry Pattern & Foundry Co., Inc.
  - d. Or approved equal.
2. Apply bituminous paint to concealed bottoms, sides, and edges of units set into concrete.
- B. Fasteners: Provide zinc-plated fasteners with coating complying with ASTM B 633, Class Fe/Zn 25 for exterior use, and Class Fe/Zn 5 where built into exterior walls.
- C. Universal Shop Primer: Fast-curing, lead- and chromate-free, universal modified-alkyd primer complying with MPI#79.
- D. Concrete Materials and Properties: Comply with requirements in Division 3 Section "Cast-in-Place Concrete" for normal-weight, air-entrained, ready-mix concrete with a minimum 28-day compressive strength of 3000 psi, unless otherwise indicated.

## 2.4 FABRICATION

- A. Available Manufacturers:
- 1. Alfab, Inc.
  - 2. American Stair, Inc.
  - 3. Sharon Companies Ltd. (The).
  - 4. Or approved equal.
- B. Provide complete stair assemblies, including metal framing, hangers, struts, railings, clips, brackets, bearing plates, and other components necessary to support and anchor stairs and platforms on supporting structure.
- 1. Join components by welding, unless otherwise indicated. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals. Obtain fusion without undercut or overlap. Remove welding flux immediately. At exposed connections, finish exposed welds smooth and blended.
  - 2. Use connections that maintain structural value of joined pieces.
  - 3. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges, unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
  - 4. Form bent-metal corners to smallest radius possible without impairing work.
  - 5. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Locate joints where least conspicuous.
- C. Stair Framing: Fabricate stringers of steel plates or channels. Construct platforms of steel plate or channel headers and miscellaneous framing members.
- 1. If using bolts, fabricate and join so bolts are not exposed on finished surfaces.
  - 2. Where stairs are enclosed by gypsum-board assemblies, provide hanger rods or struts to support landings from floor construction above or below.

3. Where masonry walls support metal stairs, provide temporary supporting struts designed for erecting steel stair components before installing masonry.
- D. Metal-Pan Stairs: Form risers, subread pans, and subplatforms to configurations shown from steel sheet of thickness needed to comply with performance requirements but not less than 0.0677 inch.
  1. At Contractor's option, provide stair assemblies with metal-pan subreads filled with reinforced concrete during fabrication.
- E. Steel Tube Railings: Fabricate railings to comply with requirements indicated for design, dimensions, details, finish, and member sizes, including wall thickness of tube, post spacings, and anchorage, but not less than that needed to withstand indicated loads.
  1. Configuration: 1-5/8-inch- diameter top and bottom rails, 1-1/2-inch- square posts, and 1/2-inch- square pickets spaced less than 4 inches clear.
  2. Fabricate railings with welded connections. Cope components at connections to provide close fit, or use fittings designed for this purpose.
  3. Form changes in direction of railings by bending or by inserting prefabricated fittings.
  4. Form curves by bending members in jigs to produce uniform curvature without buckling.
  5. Close exposed ends of railing members with prefabricated end fittings.
  6. Provide wall returns at ends of wall-mounted handrails.
  7. Provide wall brackets, end closures, flanges, miscellaneous fittings, and anchors for interconnecting components and for attaching to other work.
  8. Connect posts to stair framing by direct welding.

## 2.5 FINISHES

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes. Finish metal stairs after assembly.
- B. Hot-dip galvanize items indicated to be galvanized. Comply with ASTM A 123 or ASTM A 153/A 153M as applicable.
- C. Preparation for Shop Priming: Prepare uncoated ferrous-metal surfaces to comply with requirements indicated below for environmental exposure conditions of installed products:
  1. Interior Stairs (SSPC Zone 1A): SSPC-SP 3, "Power Tool Cleaning."
- D. Apply shop primer to uncoated surfaces of metal stair components. Comply with SSPC-PA 1, "Paint Application Specification No. 1: Shop, Field, and Maintenance Painting of Steel," for shop painting.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Perform cutting, drilling, and fitting required for installing metal stairs. Set units accurately in location, alignment, and elevation, measured from established lines and levels and free of rack.
- B. Install metal stairs by welding stair framing to steel structure or to weld plates cast into concrete, unless otherwise indicated.
- C. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.
- D. Place and finish concrete fill for treads and platforms to comply with Division 3 Section "Cast-in-Place Concrete."
  - 1. Install abrasive nosings with anchors fully embedded in concrete.
- E. Attach handrails to wall with wall brackets.
  - 1. Use type of bracket with flange tapped for concealed anchorage to threaded hanger bolt.
- F. Adjusting and Cleaning:
  - 1. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting.
  - 2. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas and repair galvanizing to comply with ASTM A 780.

END OF SECTION 05511

## SECTION 07210 - BUILDING INSULATION

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Concealed building insulation.
  - 2. Sound attenuation insulation.

#### 1.3 PERFORMANCE REQUIREMENTS

- A. Glass-Fiber Blanket Insulation:
  - 1. Provide assemblies with the following R-Value minimums, unless otherwise indicated.
    - a. Walls: R-19.
    - b. Roofs and Ceilings: R-30, typical.

#### 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Environmental Information Submittals:
  - 1. Product Data for LEED Credits MR 4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; include statement indicating costs for each product having recycled content.
  - 2. Certificates for LEED Credits MR 5.1 and 5.2, Local/Regional Materials: Manufacturer's certification indicating point of extraction and final point of assembly for products and materials located within 500 miles of Project site. Include manufacturer's name, address and phone number.

3. Product Data for LEED Credit EQ 4.1, Low-Emitting Materials, Adhesives and Sealants: Manufacturers' product data for installation adhesives, including printed statement of VOC content.
4. Product Data for Low-Emitting Materials, Non-Formaldehyde: Insulation manufacturer's product data for each glass fiber insulation product used indicating that the binder contains no urea formaldehyde.

## 1.5 QUALITY ASSURANCE

- A. Retain ASTM test method below based on product and kind of fire-resistance characteristic specified for each product in Part 2. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated, as determined by testing identical products per ASTM E 84 for surface-burning characteristics and other methods indicated with product, by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
  1. Basis-of-Design Manufacturer: Subject to compliance with requirements, provide product from Johns Manville, or an approved equal.

### ~~2.2 GLASS FIBER BOARD INSULATION~~

- ~~A. Glass Mat Faced, Glass Fiber Board Insulation: ASTM C 612, Type IA or Types IA and IB; faced on 1 side with black glass fiber mat or black polymer finish; maximum flame-spread and smoke developed indexes of 25 and 50, respectively; and with a nominal density and thermal resistivity, respectively, of 2.25 lb/cu. ft. and 4.3 deg F x h x sq. ft./Btu x in. at 75 deg F.~~

### 2.3 GLASS-FIBER BLANKET INSULATION

- A. Basis-of-Design Manufacturer/Product for Un-Faced, Glass-Fiber Insulation: Subject to compliance with requirements, provide the following:
  1. Johns Manville "Unfaced, Formaldehyde Free Fiber Glass Insulation."
  2. Or approved equal.

- B. Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type I (blankets without membrane facing); consisting of fibers; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively; passing ASTM E 136 for combustion characteristics.
- C. Basis-of-Design Manufacturer/Product for Faced, Glass-Fiber Insulation: Subject to compliance with requirements, provide the following:
  - 1. Johns Manville "FSK-25 Faced Batts, Formaldehyde-Free Fiber Glass Insulation."  
"ComfortTherm Formaldehyde Free Fiberglass Insulation."
  - 2. Or approved equal.
- D. Faced, Glass-Fiber Blanket Insulation: ASTM C 665, Type III (blankets with reflective membrane facing), Class A (membrane-faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier), faced with foil-scrim-kraft vapor-retarder membrane on 1 face.
- ~~E. Faced, Glass-Fiber Blanket Insulation: ASTM C 665, Type III (blankets with reflective membrane facing), Class A (membrane-faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier), faced with polyethylene vapor-retarder membrane on 1 face.~~
- F. Provide formaldehyde free insulation material.
- G. Where glass-fiber blanket insulation is indicated, provide blankets in batt or roll form with thermal resistances indicated.

#### 2.4 POLYPROPYLENE FACING

- A. General: Provide where insulation is exposed to interior.
- B. Basis-of-Design Manufacturer/Product for Polypropylene Facing: Subject to compliance with requirements, provide the following:
  - 1. Lamtec Corporation, "WMP-VR Polypropylene/Scrim/Kraft Film."
  - 2. Or approved equal.
- C. Polypropylene Facing: ASTM C-1135, Type IV,
  - 1. Basis Weight: 17 lbs/1000 ft<sup>2</sup>.
  - 2. Permeance: ASTM E-96; 0.09 perm.
  - 3. Bursting Strength: ASTM D-774; 60 psi.
  - 4. Puncture Resistance: ASTM C-1136; 125 beach units.
  - 5. Tensile Strength: ASTM C-1136; 40 lbs/inch with (MD), 30 lbs/width (XD).
  - 6. Caliper/Thickness: Micrometer; 0.008 inch.
  - 7. Low Temperature Resistance: ASTM D-1790, -40° F; Remains flexible, no delamination.
  - 8. High Temperature Resistance: 4 hrs @ 240° F; Remains flexible, no delamination.

9. Water Immersion: 24 hrs @ 73° F; No delamination.
  10. Mold Resistance: ASTM C-665/C-1338; No growth.
  11. Dimensional Stability: ASTM D1204; 0.25%.
  12. Light Reflectance: ASTM C-523; 85%.
- D. Polyethylene Facing Fasteners: Penetration type insulation supports, galvanized or electroplated steel penetration supports with adhesive attachment to substrate and support disc; disc to have matte black painted face on exposed side. Maintain a 24 by 24 inch orthogonal grid spacing for insulation supports.
- E. Tape: Self adhering type, minimum 2 inches wide with black matte fact to match facing.
- F. Single-Component Nonsag Urethane Sealant: ASTM C 920, Type I, Grade NS, Class 25, Use NT related to exposure, and Use O related to vapor-barrier-related substrates.

## 2.5 ~~AUXILIARY INSULATING MATERIALS~~

- A. ~~Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates indicated without damaging insulation and substrates.~~

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice, rain, and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Water-Piping Coordination: If water piping is located within insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.
- E. For preformed insulating units, provide sizes to fit applications indicated and selected from manufacturer's standard thicknesses, widths, and lengths. Apply single layer of insulation units to produce thickness indicated unless multiple layers are otherwise shown or required to make up total thickness.

### 3.2 INSTALLATION OF GENERAL BUILDING INSULATION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.
- ~~B. Seal joints between glass fiber board insulation units by applying adhesive, mastic, or sealant to edges of each unit to form a tight seal as units are shoved into place. Fill voids in completed installation with adhesive, mastic, or sealant as recommended by insulation manufacturer.~~
- C. Install mineral-fiber insulation in cavities formed by framing members according to the following requirements:
  - 1. Use insulation widths and lengths that fill the cavities formed by framing members. If more than one length is required to fill cavity, provide lengths that will produce a snug fit between ends.
  - 2. Place insulation in cavities formed by framing members to produce a friction fit between edges of insulation and adjoining framing members.
  - 3. Maintain 3-inch clearance of insulation around recessed lighting fixtures.
  - 4. Install eave ventilation troughs between roof framing members in insulated attic spaces at vented eaves.
  - 5. For wood-framed construction, install mineral-fiber blankets according to ASTM C 1320 and as follows:
    - a. With faced blankets having stapling flanges, secure insulation by inset, stapling flanges to sides of framing members.
    - b. With faced blankets having stapling flanges, lap blanket flange over flange of adjacent blanket to maintain continuity of vapor retarder once finish material is installed over it.

### 3.3 INSTALLATION OF INSULATION IN CEILINGS FOR SOUND ATTENUATION

- A. Install 3-1/2 inch thick, unfaced glass fiber blanket insulation in floor/ceiling assemblies as indicated.

END OF SECTION 07210

## SECTION 09511 - ACOUSTICAL PANEL CEILINGS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes acoustical panels and exposed suspension systems for ceilings.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Environmental Information Submittals:
  - 1. Product Data for LEED Credits MR 4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; include statement indicating costs for each product having recycled content.
  - 2. Certificates for LEED Credits MR 5.1 and 5.2, Local/Regional Materials: Manufacturer's certification indicating point of extraction and final point of assembly for products and materials located within 500 miles of Project site. Include manufacturer's name, address and phone number.
  - 3. Product Data for LEED Credit EQ 4.1, Low-Emitting Materials, Adhesives and Sealants: For adhesives and sealants, including printed statement of VOC content and chemical components.
- C. Coordination Drawings: Drawn to scale and coordinating acoustical panel ceiling installation with hanger attachment to building structure and ceiling mounted items:
- D. Samples: For each exposed finish.
- E. Maintenance data.

#### 1.4 QUALITY ASSURANCE

- A. Fire-Test-Response Characteristics:

1. Fire-Resistance Characteristics: Where indicated, provide acoustical panel ceilings identical to those of assemblies tested for fire resistance per ASTM E 119 by UL or another testing and inspecting agency acceptable to authorities having jurisdiction.
    - a. Identify materials with appropriate markings of applicable testing and inspecting agency.
  2. Surface-Burning Characteristics: Acoustical panels complying with ASTM E 1264 for Class A materials, when tested per ASTM E 84.
    - a. Smoke-Developed Index: 450 or less.
- B. Seismic Standard: Comply with the following:
1. Standard for Ceiling Suspension Systems Requiring Seismic Restraint: Comply with ASTM E 580.
  2. CISCA's Guidelines for Systems Requiring Seismic Restraint: Comply with CISCA's "Guidelines for Seismic Restraint of Direct-Hung Suspended Ceiling Assemblies-- Seismic Zones 3 & 4."
  3. UBC Standard 25-2, "Metal Suspension Systems for Acoustical Tile and for Lay-in Panel Ceilings."
  4. ASCE 7, "Minimum Design Loads for Buildings and Other Structures": Section 9, "Earthquake Loads."

## PART 2 - PRODUCTS

### 2.1 ACOUSTICAL PANEL CEILINGS, GENERAL

- A. Acoustical Panel Standard: Comply with ASTM E 1264.
- B. Metal Suspension System Standard: Comply with ASTM C 635.
- C. Attachment Devices: Size for five times the design load indicated in ASTM C 635, Table 1, "Direct Hung," unless otherwise indicated. Comply with seismic design requirements.
  1. Anchors in Concrete: Expansion anchors fabricated from corrosion-resistant materials, with holes or loops for attaching hangers of type indicated and with capability to sustain, without failure, a load equal to five times that imposed by ceiling construction, as determined by testing per ASTM E 488 or ASTM E 1512 as applicable, conducted by a qualified testing and inspecting agency.
- D. Wire Hangers, Braces, and Ties: Zinc-coated carbon-steel wire; ASTM A 641/A 641M, Class 1 zinc coating, soft temper.

1. Size: Select wire diameter so its stress at 3 times hanger design load (ASTM C 635, Table 1, "Direct Hung") will be less than yield stress of wire, but provide not less than 0.106-inch- diameter wire.
- E. Seismic perimeter stabilizer bars, seismic struts, and seismic clips.
- F. Metal Edge Moldings and Trim: Type and profile indicated or, if not indicated, manufacturer's standard moldings for edges and penetrations that comply with seismic design requirements; formed from sheet metal of same material, finish, and color as that used for exposed flanges of suspension system runners.

## 2.2 ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING TYPE 1

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong World Industries, Inc. "Ultima, Product No. 1912 HRC (High Recycled Content)" or a comparable product by an approved equal.
- B. Color: White.
- C. LR: Not less than 0.90.
- D. NRC: Not less than 0.70, Type E-400 mounting per ASTM E 795.
- E. CAC: Not less than 35.
- F. Edge/Joint Detail: Beveled tegular.
- G. Thickness: ¾ inch.
- H. Modular Size: 24 by 24 inches.

## 2.3 ACOUSTICAL PANELS FOR ACOUSTICAL PANEL CEILING TYPE 2

- A. Basis-of-Design Product: Subject to compliance with requirements, provide USG "Clean Room ClimaPlus 100" or a comparable product by an approved equal.
- B. Classification: Provide panels complying with ASTM E 1264 for type, form, and pattern as follows:
  1. Type and Pattern: Type X, Pattern G.
- C. Color: White.
- D. LR: Not less than 0.79.
- E. CAC: Not less than 35.

- F. Edge/Joint Detail: Square.
- G. Thickness: 5/8 inch.
- H. Modular Size: 24 by 24 inches.

2.4 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING TYPE 1

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Armstrong World Industries, Inc. "Beveled Tegular with Suprafine XL Grid, Product No. 1912 M" or a comparable product by an approved equal.
- B. Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, prepainted, electrolytically zinc coated, or hot-dip galvanized according to ASTM A 653/A 653M, not less than G30 coating designation, with prefinished 15 mm wide metal caps on flanges.
  - 1. Structural Classification: Intermediate-duty system.
  - 2. Cap Material: Steel cold-rolled sheet.
  - 3. Cap Finish: Painted white.

2.5 METAL SUSPENSION SYSTEM FOR ACOUSTICAL PANEL CEILING TYPE 2

- A. Basis-of-Design Product: Subject to compliance with requirements, provide USG "ClimaPlus Performance Donn DXLA Suspension System" or a comparable product by an approved equal.
- B. Steel Suspension System: Main and cross runners roll formed from cold-rolled steel sheet, prepainted, electrolytically zinc coated, or hot-dip galvanized according to ASTM A 653/A 653M, not less than G30 coating designation, with prefinished metal caps on flanges.
  - 1. Structural Classification: Intermediate-duty system.
  - 2. Cap Material: Steel cold-rolled sheet.
  - 3. Cap Finish: Painted white.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Comply with UBC Standard 25-2, California Building Code, and seismic design requirements indicated, per manufacturer's written instructions and CISCA's "Ceiling Systems Handbook."

- B. Measure each ceiling area and establish layout of acoustical panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders.
- C. Suspend ceiling hangers from building's structural members, plumb and free from contact with insulation or other objects within ceiling plenum. Splay hangers only where required and, if permitted with fire-resistance-rated ceilings, to miss obstructions; offset resulting horizontal forces by bracing, countersplaying, or other equally effective means. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with location of hangers, use trapezes or equivalent devices. When steel framing does not permit installation of hanger wires at spacing required, install carrying channels or other supplemental support for attachment of hanger wires.
- D. Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels. Screw attach moldings to substrate at intervals not more than 16 inches o.c. and not more than 3 inches from ends, leveling with ceiling suspension system to a tolerance of 1/8 inch in 12 feet. Miter corners accurately and connect securely.
- E. Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- F. Install acoustical panels with undamaged edges and fit accurately into suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit.

END OF SECTION 09511

## SECTION 09671 - RESINOUS FLOORING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. This Section includes resinous flooring systems with epoxy body coat(s).
  - 1. Application Method: Self-leveling slurry.
- B. Related Sections include the following:
  - 1. Division 7 Section "Joint Sealants" for sealants installed at joints in resinous flooring systems.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include manufacturer's technical data, application instructions, and recommendations for each resinous flooring component required.
- B. Samples for Initial Selection: For each type of exposed finish required.
- C. Samples for Verification: For each resinous flooring system required, 6 inches square, applied to a rigid backing by Installer for this Project.
- D. Environmental Information Submittals:
  - 1. Product Data for LEED Credits MR 4.1 and 4.2, Recycled Content: Product data indicating percentages by weight of pre-consumer (post-industrial) and post-consumer recycled content for products having recycled content; include statement indicating costs for each product having recycled content.
  - 2. Certificates for LEED Credits MR 5.1 and 5.2, Local/Regional Materials: Manufacturer's certification indicating point of extraction and final point of assembly for products and materials located within 500 miles of Project site. Include manufacturer's name, address and phone number.

3. Product Data for LEED Credit EQ 4.1, Low-Emitting Materials, Adhesives and Sealants: For adhesives and sealants, including printed statement of VOC content and chemical components..
- E. Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.
- F. Material Certificates: For each resinous flooring component, signed by manufacturer.
- G. Maintenance Data: For resinous flooring to include in maintenance manuals.

#### 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer (applicator) who is experienced in applying resinous flooring systems similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance, and who is acceptable to resinous flooring manufacturer.
  1. Engage an installer who is certified in writing by resinous flooring manufacturer as qualified to apply resinous flooring systems indicated.
- B. Source Limitations: Obtain primary resinous flooring materials, including primers, resins, hardening agents, grouting coats, and topcoats, through one source from a single manufacturer. Provide secondary materials, including patching and fill material, joint sealant, and repair materials, of type and from source recommended by manufacturer of primary materials.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturer's labels indicating brand name and directions for storage and mixing with other components.
- B. Store materials to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

#### 1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Comply with resinous flooring manufacturer's written instructions for substrate temperature, ambient temperature, moisture, ventilation, and other conditions affecting resinous flooring application.
- B. Lighting: Provide permanent lighting or, if permanent lighting is not in place, simulate permanent lighting conditions during resinous flooring application.

- C. Close spaces to traffic during resinous flooring application and for not less than 24 hours after application, unless manufacturer recommends a longer period.

## PART 2 - PRODUCTS

### 2.1 RESINOUS FLOORING

- A. Products: Subject to compliance with requirements, provide one of the following:
1. Crossfield Products Corp., Dex-O-Tex; "Cheminert K."
  2. Selby-Ucrete Industrial Flooring, a division of Master Builders, Inc.; "Selbaclad 425."
  3. Stonhard, Inc.; "Stonkote HT4."
  4. Or approved equal.
- B. System Characteristics:
1. Color and Pattern: As selected by Architect from manufacturer's full range.
  2. Wearing Surface: Textured for slip resistance.
  3. Integral Cove Base: 4 inches high.
  4. Overall System Thickness: 3/16 inch.
- C. System Components: Manufacturer's standard components that are compatible with each other and as follows:
1. Body Coat(s):
    - a. Resin: Epoxy.
    - b. Application Method Self-leveling slurry.
      - 1) Thickness of Coats: 1/8 inch.
      - 2) Number of Coats: One.
  2. Waterproofing Membrane: Type recommended by manufacturer for substrate and primer and body coat(s) indicated.
  3. Reinforcing Membrane: Flexible resin formulation that is recommended by manufacturer for substrate and primer and body coat(s) indicated and that prevents substrate cracks from reflecting through resinous flooring.
    - a. Provide fiberglass scrim embedded in reinforcing membrane.
  4. Topcoat: Chemical-resistant sealing or finish coat(s).
    - a. Resin: Epoxy.
    - b. Type: Pigmented.
    - c. Finish: Matte.

- d. Number of Coats: One.
5. System Chemical Resistance: Test specimens of cured resinous flooring system are unaffected when tested according to ASTM D 543, Procedure A, for immersion.

## 2.2 ACCESSORY MATERIALS

- A. Patching and Fill Material: Resinous product of or approved by resinous flooring manufacturer and recommended by manufacturer for application indicated.
- B. Joint Sealant: Type recommended or produced by resinous flooring manufacturer for type of service and joint condition indicated.
  1. Use sealants that have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. General: Prepare and clean substrates according to resinous flooring manufacturer's written instructions for substrate indicated. Provide clean, dry, and neutral Ph substrate for resinous flooring application.
- B. Concrete Substrates: Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.
  1. Roughen concrete substrates as follows:
    - a. Comply with ASTM C 811 requirements, unless manufacturer's written instructions are more stringent.
    2. Repair damaged and deteriorated concrete according to resinous flooring manufacturer's written recommendations.
    3. Verify that concrete substrates are dry.
      - a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with application only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. of slab in 24 hours.
      - b. Perform plastic sheet test, ASTM D 4263. Proceed with application only after testing indicates absence of moisture in substrates.
      - c. Perform additional moisture tests recommended by manufacturer. Proceed with application only after substrates pass testing.

4. Verify that concrete substrates have neutral Ph and that resinous flooring will adhere to them. Perform tests recommended by manufacturer. Proceed with application only after substrates pass testing.
- C. Resinous Materials: Mix components and prepare materials according to resinous flooring manufacturer's written instructions.
- D. Use patching and fill material to fill holes and depressions in substrates according to manufacturer's written instructions.
- E. Treat control joints and other nonmoving substrate cracks to prevent cracks from reflecting through resinous flooring according to manufacturer's written recommendations.

### 3.2 APPLICATION

- A. General: Apply components of resinous flooring system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface of thickness indicated.
  1. Coordinate application of components to provide optimum adhesion of resinous flooring system to substrate, and optimum intercoat adhesion.
  2. Cure resinous flooring components according to manufacturer's written instructions. Prevent contamination during application and curing processes.
  3. Apply joint sealant to comply with manufacturer's written recommendations.
- B. Apply primer over prepared substrate at manufacturer's recommended spreading rate.
- C. Apply waterproofing membrane, where indicated, in manufacturer's recommended thickness.
  1. Apply waterproofing membrane to integral cove base substrates.
- D. Apply reinforcing membrane to entire substrate surface.
- E. Integral Cove Base: Apply cove base mix to wall surfaces before applying flooring. Apply according to manufacturer's written instructions and details including those for taping, mixing, priming, troweling, sanding, and topcoating of cove base. Round internal and external corners.
- F. Apply self-leveling slurry body coat(s) in thickness indicated for flooring system.
- G. Apply grout coat, of type recommended by resinous flooring manufacturer to fill voids in surface of final body coat and to produce wearing surface indicated.
- H. Apply topcoat(s) in number of coats indicated for flooring system and at spreading rates recommended in writing by manufacturer.

3.3 CLEANING AND PROTECTING

- A. Protect resinous flooring from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by resinous flooring manufacturer.

END OF SECTION 09671

## SECTION 17960 - ACCESS CONTROL AND ALARM SYSTEMS

### PART 1 - GENERAL

#### 1.1 SCOPE:

- A. Section includes (but is not necessarily limited to) provision of a complete access control and intrusion detection system, including but not limited to:
1. Access Control and Alarm System.
    - a. Work of this Project provides a sophisticated, easy-to-use, multi-tasking, multi-user Access Control and Alarm System (ACAS) providing Access Control and Alarms Processing for the San Leandro Senior Center. The ACAS shall include all intelligent field advanced processing controllers, communication devices, card readers/keypads, access cards, I/O boards, power supplies, conduit, raceways, enclosures, mounting hardware, and all other equipment as indicated on the contract drawings or as specified herein. All material shall be the manufacturer's standard catalog products.
    2. Input and output points.
      - a. Access Control Devices.
        - i. As indicated on the plans, work of this project installs new Card Readers at selected locations.
        - ii. As indicated on the plans, work of this project interfaces to:
          - (1) Door position switches.
          - (2) Local door alarms
          - (3) Electric locks and electric strikes
          - (4) Request to exit devices
          - (5) Release Buttons
      - b. Intrusion Detection System. As indicated on the plans, work of this project interfaces to:
        - i. Motion detectors and glass break sensors.
        - ii. Door position switches
        - iii. Local Door Alarms
        - iv. Panic/Duress Alarm Switches
        - v. Power Supplies and Uninterruptible Power System for the ACAS system, including field devices and electrical door locks.
  - B. Description of Work
    1. The Access Control and Alarm System interfaces with an existing City of San Leandro Bosch Readykey Access Control network and database servers through a network wide area network connection. Installing the ACAS panels for this site and bringing it to operational status requires the following major steps:
      - a. Determine operational requirements and plan system to implement them.
      - b. Install and integrate Access Control, Alarm Monitoring and related security hardware.
      - c. Connect between the City of San Leandro's host system and the access controllers and related hardware provided under the work of this Section and related Sections.
      - d. Test security system communication and operation.
      - e. Train operators.
  - C. Related Work in Other Sections:
    1. Section 17026 – Grounding and Bonding for Communications Systems

2. Section 17029 – Hangers and Supports for Communications Systems
3. Section 17033 – Conduits and Backboxes for Communications Systems
4. Section 17036 – Cable Trays for Communications Systems
5. Section 17039 – Surface Raceways for Communications Systems
6. Section 17048 – Noise and Vibration Controls for Communications Systems
7. Section 17053 – Identification for Communications Systems
8. Section 17100 – Structured Cabling, Basic Materials and Methods
9. Section 17116 – Communications Cabinets, Racks, Frames and Enclosures
10. Section 17119 – Communications Termination Blocks and Patch Panels
11. Section 17123 – Communications Cable Management
12. Section 17126 – Communications Rack Mounted Power Protection and Power Strips
13. Section 17903 – Conductors and Cables for Electronic Safety and Security
14. Section 17964 – Access Control Systems Remote Devices
15. Section 17973 – Intrusion Detection Remote Devices and Sensors

D. Related Work by Others

1. By City of San Leandro/San Leandro Senior Center
  - a. IBM PC type workstations running Windows 2000, XP or Vista to be used in monitoring and configuring the system installed by the work of this Section.
  - b. Contract with a 3rd party central alarm bureau
  - c. Acquisition of an additional monitoring station license.
2. City of San Leandro's Central Station Alarm Company
  - a. Provides Burglar Alarm with 16 point minimum contact closure interface and dialer to interface with the work of this Section.

1.2 QUALITY ASSURANCE:

A. GENERAL:

1. Conform to Section 17010, Section 17900 Common Work Results For Electronic Safety and Security. and Standards stipulated in the work of the Section from which this Section is referenced.
2. The manufacturers of all hardware and software components employed in the system shall be established vendors to the access control/security monitoring industry for no less than five (5) years.
3. The security system integrator shall have been regularly engaged in the installation and maintenance of integrated access control systems similar in size and scope to that outlined herein for a period of no less than five (5) years.
4. The security system integrator shall supply information attesting to the fact that their firm is an authorized product dealer for the system proposed.
5. The security system integrator shall supply information attesting to the fact that their installation and service technicians are competent factory trained personnel capable of maintaining the system and providing reasonable service time.
6. The security system integrator shall provide a minimum of three (3) references whose systems are of similar complexity and have been installed and maintained by the security system integrator in the last five (5) years.
7. There shall be a local representative and factory authorized local service organization that shall carry a complete stock of parts and provide maintenance for these systems. Local shall be defined as an area in a 25 mile radius of installed location

B. STANDARDS AGENCIES: Additionally, conform to the applicable portions of the following standards agencies:

1. Underwriters Lab.

- a. UL 294 Access Control System Units
  - b. UL 365 The Standard for Police Station Connected Burglar Alarm Units and Systems.
  - c. UL 681 Installation and Classification of Burglar and Holdup Alarm Systems
  - d. UL 1076 Standard for Safety for Proprietary Burglar Alarm Units and Systems
2. Federal Communications Commission (FCC)
    - a. The Code of Federal Regulations, Title 47, Telecommunications, Chapter 1 - FCC Part 68 (1982 issue or latest revision).

### 1.3 DEFINITIONS:

- A. Definitions of Terms: The following definitions and conditions apply to each of the respective parameters and the measurements of those parameters, unless specifically stated otherwise:
  1. Secure Side. With respect to a door, the side on which the assets to be protected lie. At exterior doors, this is generally the interior face. Refer to the architectural plans, including the exiting plan, the door hardware schedules and specifications to confirm which face is the Secure Side.
  2. Unsecure Side. With respect to a door, the exposed side opposite the side on which the assets to be protected lie. At exterior doors, this is generally the exterior face.
  3. Armed. For a given device, failure to operate in a prescribed manner causes an alarm state to be generated at the central alarm monitoring panel or screen, and if a local sounder/door alarm is shown, causes sounder to activate.
  4. ACAS. Access Control and Alarm Systems. The integrated system installed by the work of this Contract comprising the access control system, intrusion detection system and panic/duress alarms, including both central processing hardware and the remote field devices.

### 1.4 SYSTEM PERFORMANCE REQUIREMENTS:

- A. General Description - Access Control and Alarms Processing System
  1. The Access Control and Alarm System provided under the work of this Section to match the existing City of San Leandro Bosch Readykey System and shall provide all functionality with the use of the City's existing software for the installation of a new local workstation and the hardware specified herein.
  2. The Access Control and Alarm System shall be designed to grow as project needs grow.
  3. The Operator workstation (Client) shall be very easy to use. It shall employ icon-based menus and provide a mouse-driven interface for system operation and the creation of color graphic maps.
  4. The Access Control and Alarm System shall be designed to support the manufacturer's full line of distributed processing based controllers.
  5. All objects within the system, i.e., Doors, Readers, Time Intervals, etc., shall be addressed by a unique name. The uses of point numbering or mnemonics shall not be accepted.
  6. Field devices, such as card readers, alarm inputs, control points, etc., shall be connected to fully distributed intelligent field controllers capable of operating without host computer intervention.
  7. The ACAS shall be UL Listed 1076 Proprietary Burglar Alarm Unit.
- B. Zones and Alarm States
  1. Allow for creation of at least six separately armed and monitored intrusion

2. detection zones at each site as directed by the Owner.
  2. Group detectors into zones, including door operation detectors, glass break detectors, motion detectors and video motion detectors.
  3. Provide graphical indicator on master console of state of each zone, including at least the following:
    - a. Disarmed
    - b. Armed - No Events
    - c. Event – one or more than one detector operated
- C. Access Groups and Hierarchy
1. Allow for creation of up to 32 card access hierarchy levels, as well as individual card access rights as directed by Owner.
  2. Hierarchies to include door operations permitted and 7 day a week; 24 hour a day calendar of permitted operations for each member of access group.
  3. Finished data base to permit Owner to directly assign any new system user to any group, or change the group membership of any current system user without having to enter the individual doors and hours permitted.
  4. Individual user records can be customized by Master Controller to add rights as necessary using an existing access group as a starting template.
- D. Door Opening Operations. Assumes doors are in armed condition at all times.
1. Doors with Card Reader on One Side
    - a. Presentation of valid card at unsecure side:
      - i. performs realtime lookup of card against current database to validate card status relative to door opening, day of week and time of day.
      - ii. provides positive success visual feedback - green light or similar - to card holder
      - iii. permits cardholder to operate door.
      - iv. logs entry in access database, including at minimum cardnumber, door number and timestamp
      - v. Where door opening viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
      - vi. shunts alarm generation for door open status for Owner selected variable period (adjustable over a range of at least 10 seconds to 1 minute).
      - vii. If double door opening, permits operation of second leaf during the Owner selected variable period without generating alarm.
    - b. Presentation of invalid or unreadable card at unsecure side of door:
      - i. performs realtime lookup of card against current database to validate card status relative to door opening, day of week and time of day.
      - ii. provides positive failed visual feedback - red light or similar - to card holder and denies operation of door.
      - iii. Where door opening viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
      - iv. logs entry in access database, including at minimum cardnumber (if readable), door number and timestamp
    - c. Approach to door from secure side
      - i. Doors equipped with Request to Exit: If occupant breaks

- approach beam from side farthest from door first, followed by beams closer to door, shunts generation of alarm on door operation for Owner selected variable period as for Card Readers above.
    - ii. Doors equipped with Release Button: On operating Release Button, shunts generation of alarm on door operation for Owner variable period as for Card Readers above.
    - iii. Where door opening viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
    - iv. If double door opening, permits operation of second leaf during the Owner selected variable period without generating alarm.
- 2. Doors with Card Readers on both sides.
  - a. Operation, General
    - i. Unless otherwise indicated, doors with dual card readers have an unsecure and secure side. Neither magnetic locks nor delayed egress systems are to be installed.
    - ii. A valid card is necessary to operate the door from the unsecure side as for doors with single card readers
    - iii. A valid card is necessary to shunt the door alarm when operating the door from the secure side. Failure to present a valid card does not prevent door from operating.
    - iv. Where door opening viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
  - b. Presentation of valid card at unsecure side:
    - i. performs realtime lookup of card against current database to validate card status relative to door opening, day of week and time of day.
    - ii. provides positive success visual feedback - green light or similar - to card holder
    - iii. permits cardholder to operate door.
    - iv. logs entry in access database, including at minimum cardnumber, door number and timestamp
    - v. shunts alarm generation for door open status for Owner selected variable period (adjustable over a range of at least 10 seconds to 1 minute).
    - vi. If double door opening, permits operation of second leaf during the Owner selected variable period without generating alarm.
  - c. Presentation of invalid or unreadable card at either side of door:
    - i. performs realtime lookup of card against current database to validate card status relative to door opening, day of week and time of day.
    - ii. provides positive failed visual feedback - red light or similar - to card holder and, at unsecure side, denies operation of door
    - iii. logs entry in access database, including at minimum cardnumber (if readable), door number and timestamp
  - d. Presentation of valid card at secure side.
    - i. performs realtime lookup of card against current database to validate card status relative to door opening, day of week and time of day.

- ii. provides positive success visual feedback - green light or similar - to card holder
  - iii. logs entry in access database, including at minimum cardnumber, door number and timestamp
  - iv. shunts alarm generation for door open status for Owner selected variable period (adjustable over a range of at least 10 seconds to 1 minute).
  - v. If double door opening, permits operation of second leaf during the Owner selected variable period without generating alarm.
  - vi. Doors left open ("propped open") beyond the designated period generate an alarm at the central control panel indicating door and condition. If a local door alarm is shown in the vicinity of the door, causes the local door alarm to sound. Local door alarm can be cleared either from the access control system control screen or locally using designated key. Where door opening viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
  - vii. Doors operated while armed without presentation of a valid card, valid operation of a Request to Exit Device, operation of a release button or release by central control panel to generate an alarm at the central control panel indicating door and condition. If a local door alarm is shown in the vicinity of the door, causes the local door alarm to sound,. Local door alarm can be cleared either from the access control system control screen or locally using designated key. Where door opening viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
- E. Motion and Glass break detection (MD)(GB):
- 1. Detection of motion in armed zone by any single video motion detector, MD or GB/MD, or detection of Glass Break by GB detector generates Level 1 Alarm.
  - 2. Detection of motion in armed zone by more than one video motion detector, MD or GB/MD, or simultaneous detection motion and detection of Glass Break by GB detector generates Level 2 Alarm.
  - 3. Where zone or device viewable by system camera, signals Surveillance System to present view of door on tactical monitor if system not already in alarmed state or under manual control. Logs event on video recorder.
  - 4. Presentation of valid card at Entry or at Card Reader located in Secure corridor to shunt alarms along path of travel for Owner defined period to period to permit staff to enter and leave operations areas through front office after hours.
- F. Access Control Console:
- 1. Allow for system monitoring, operation and incident response by at least 1 local operators.
  - 2. Graphical user interface. Provide site and building floor plans recalled and displayed upon alarm or by operator action indicating door, window or device location generating alarm.
  - 3. Provide integrated operation of and response to:
    - a. Door Operations & Alarms. Master station can operate all electrified door hardware remotely, can clear and/or suppress all alarms generated, including local door alarms.

- b. Intrusion Alarms
- G. Uninterrupted Power System (UPS):
  - 1. Applies to ACAS systems hardware and supporting field devices installed outside of equipment rack.
    - a. Sustain complete system operation for 10 minutes following loss of building power.
    - b. Applies to:
      - i. Data gathering panels, card readers and keypads installed under the work of this contract.
      - ii. Network switches installed under the work of this contract
      - iii. Electric door locks
      - iv. Field devices, including, but not limited to:
        - (1) Request to exit detectors
        - (2) Motion detectors
        - (3) Local door alarms (sounders)
        - (4) Glass break detectors
        - (5) Closed Circuit Television (CCTV):
  - 2. For CCTV systems installed under the work of Section 17980, receive and process motion detection closures and/or serial interface CCTV digital video recording system. Provide closure (at least 8) and other serial interface to digital video recording to trigger accelerated recording on receipt of alarm by the alarms processing system installed under the work of this contract.
  - 3. References to CCTV related functionality of the specified alarm processing system using the alarm processing manufacturer's video software in Part 2 of this section describe functionality that are the work of future phases – NIC this Project.
- H. Central Alarm Bureau
  - 1. On receipt of alarm as designated by the Owner's Representative, relays alarm to City's Central Alarm Bureau Alarm Panel through closure interface.

#### 1.5 COORDINATION:

- A. Coordinate the work of this contract with the related work of at least the following parties:
  - 1. City's Senior Center Staff
  - 2. City's Central Alarm Bureau Monitoring Company

### PART 2 - PRODUCTS

#### 2.1 ACCESS CONTROL AND INTRUSION DETECTION ALARM PROCESSING:

##### A. Access Control and Alarm Processing System.

- 1. Drawing References:
  - a. DGP (Data Gathering Panel)
- 2. DGP Function/Features
  - a. Operating Modes
    - i. Stand-alone Mode: Manage the door controllers from the front panel. Add up to three extra slave controllers, and control up to 16 doors. Stand-alone mode requires a hard-wired communications link between the master and the slave controllers.
    - ii. Slave Mode: Configure the door controllers to work as slave controllers. Manage the slave controllers from another door controller in stand-alone mode or from a PC-based administration system.

- iii. Local Master Mode: Configure the door controllers as local masters. Manage the local masters from Readykey for Windows. The local masters connect to the PC directly or through a PC Interface Kit. Add up to seven additional slave controllers and control up to 32 doors.
  - iv. Remote Master Mode: This mode is similar to the local master mode; however, the master door controllers connect to the administration PC through Readykey Central Network Controller (CNC). CNC communications occur through hard-wired devices (line drivers or fiber optic transceivers) over RS-232, or through dial-up modems over PSTN or TCP/IP.
  - v. Dial-up Mode: Program the door controller connected to the remote site's modem to dial-back to the CNC during an alarm event or during selected access granted events.
  - vi. Local CNC Mode: Each CNC can connect to 32 door controllers and 128 doors at its local site using a hardwired communications link.
  - b. Door Monitoring: Full door monitoring is built into the door controllers. The door controllers include inputs for Request-to-exit switches and door contacts. The stand-alone door controllers can store up to 32 individual time profiles. The door controllers can store up to 128 individual time profiles with Readykey for Windows. Use these time profiles to control user access, door operation, and alarms.
  - c. Relay Operation: Eight internal output relays. Program up to four relays using stand-alone mode and Readykey for Windows.
  - d. Readers: The door controllers can connect two Readykey readers to each reader channel.
  - e. Alarm Monitoring: Monitor extra inputs and to control outputs. All alarms can immediately pass back to the system's master or central point. If the door controllers are connected remotely over a telephone line or TCP/IP, configure the door controllers to automatically dial up the PC administration system and inform the system of any alarms.
  - f. Serial Output: An RS-232 output is provided. When a printer uses the serial port, the printer can print events from a stand-alone system. In a local or remote master configuration, the serial port is used for communications.
  - g. Physical Features
    - i. Controller
      - (1) Dimensions: 10 in. x 15 in. x 3.5 in.
      - (2) Weight: 6.2 lb
    - ii. Enclosure Dimensions: 16 in. x 16 in. x 3.5 in.
    - iii. Environmental Considerations
      - (1) Relative Humidity: 0% to 90%, non-condensing
      - (2) Temperature (Operating): +32°F to +104°F
    - iv. Power Requirements
      - (1) Voltage (Output): 12 VDC at 2 A switchable to 24 VDC at 1 A for each lock
      - (2) Power Supply: 110 V to 120 V or 220 V to 240 V, 50 Hz or 60 Hz
3. Serial Communications Extender Function/Features
- a. Serial Interface
    - i. Interface: Software-selectable RS232, RS422 or RS485 (2 and 4 wire support)
    - ii. Connectors: 1 DB25F DCE serial port
    - iii. Data Rates: Software-selectable baud rate from 300 to 230

- KBaud
- b. Serial Line Format
  - i. Characters: 7 or 8 data bits
  - ii. Parity: odd, even, none
  - iii. Stop Bits: 1 or 2
- c. Flow Control
  - i. Control Signals: CTS/RTS (Hardware)
  - ii. Flow Control: XON/XOFF (Software)
- d. Network Interface
  - i. Interface: 10Base-T/100Base-TX Ethernet port
  - ii. Connector: RJ45
  - iii. Standards: ARP, UDP, TCP, ICMP, Telnet, TFTP, AutoIP, DHCP, HTTP, SNMP TCP, UDP, and Telnet, TFTP
- e. Indicators
  - i. Power: 10/100 Link/Activity (green)
  - ii. 100/100 Link/Activity (green)
  - iii. Diagnostics (red)
  - iv. Status (green)
- f. Processor
  - i. CPU: 48 MHz clock
  - ii. Memory: 256 KB zero wait state SRAM, 2 MB Flash
- 4. Manufacturer (Selected Item to match City's existing system)
  - a. Access Control and Alarm System Field Hardware
    - i. Bosch K2200 controllers and K2015A alarm monitoring interface w/ required mounting hardware and accessories to meet system function.
    - ii. Lantronix UDS1100 Serial Communications Extender

## 2.2 CARD READERS:

- A. Access Card System
  - 1. Drawing Reference: CR
  - 2. Technology - Cards & Card Reader:
    - a. Passive, proximity.
    - b. Cards suitable for photo lamination
  - 3. Construction - Card Reader:
    - a. UL 294 Listed as Access Control Accessory.
    - b. Reading range of 2" min.
    - c. Potted electronics suitable for installation in an indoor or outdoor environment. Suitable for installation in the environment indicated.
    - d. Provides visual indication through multi-color LED or similar to provide user feedback of card acceptance.
    - e. Requires removal of card from reading range for at least one second to re-accept.
    - f. Weigand signaling conforms to requirements of alarm server and data gathering panels specified above.
    - g. At wall mount locations, mounts over single gang opening and provides tamper resistant, weather-tight seal of same.
    - h. Color options to include white, black, grey or beige for selection by the Architect.
    - i. Dimensions: Not larger than 4.7"Hx3"Wx.1.7"D.
  - 4. Quantity
    - a. Provide quantity 75 cards.
  - 5. Manufacturer:

a. Cards

- i. HID Proxcard II
- ii. Bosch K2010-10
- iii. or equal

6. Manufacturer:

a. CR

- i. Hughes Identification Devices - ThinLine II Reader
- ii. Bosch K2001 Reader
- iii. or equal

2.3 POWER PROTECTION:

A. Rack Mounted Equipment

- 1. As specified in Section 17126

B. Backboard mounted equipment

1. Function:

- a. Power supply with backup battery
- b. Class 1 (115VAC Input)
- c. Individually fused, Power Limited, Class 2 outputs - sized to meet worst case load and runtime while maintaining system operations.
- d. Unless otherwise indicated support operation of ACAS system, door locks and field devices for at least 10 minutes following loss of power.
- e. Battery is lead acid type of common commercial manufacture.
- f. UL Listings: UL 294, UL603, UL 1069, UL1481 for application
- g. Provide timer modules as required to supplement DGP control
- h. Supervised fire alarm disconnect
- i. Power supply and battery fully enclosed in steel NEMA enclosure with cam lock cover and conduit knockouts.
- j. Thermal and short circuit protection with auto reset.

2. Manufacturers:

- a. Altronix AL Series (Design Basis)
- b. Security Door Controls
- c. or equal.

2.4 ACCESS CONTROL SENSORS & FIELD DEVICES

- A. Refer to Section 17900 - Common Work Results for Electronic Safety and Security and Section 17964 Access Control Systems Remote Devices.

2.5 ACCESS CONTROL WIRING

- A. As specified in Section 17903 – Conductors and Cables for Electronic Safety and Security.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor shall install all system components, including Owner furnished equipment, and appurtenances in accordance with the manufacturer's instructions, IEEE C2 and as shown. The contractor shall furnish necessary interconnections, services, and adjustments required for a complete and operable system as specified and shown. Control signal, communications, and data transmission line grounding shall be installed as necessary to preclude ground loops, noise, and surges from adversely affecting system operation.

- B. Provide mounting hardware as necessary to securely fasten ACAS hardware to the supporting structure or racks.
- C. Device Wiring and Communication Circuit Surge Protection
  - 1. All inputs shall be protected against surges induced on device wiring. Outputs shall be protected against surges induced on control and device wiring installed outdoors and as shown. All communications equipment shall be protected against surges induced on any communications circuit. All cables and conductors, except fiber optics, which serve as communications circuits from security console to field equipment, and between field equipment, shall have surge protection circuits installed at each end.
- D. Installation
  - 1. The contractor shall install the system in accordance with the standards for safety, NFPA 70, UL 681, UL 1037 and UL 1076, and the appropriate installation manual for each equipment type. Components within the system shall be configured with appropriate service points to pinpoint system trouble in less than 20 minutes. Flexible cords or cord connections shall not be used to supply power to any components of the system, except where specifically noted. All other electrical work shall be as specified in Division 16 and as shown.
  - 2. Enclosure Penetrations
    - a. Enclosure penetrations shall be from the bottom unless the system design requires penetrations from other directions. Penetrations of interior enclosures involving transitions of conduit from interior to exterior, and penetrations on exterior enclosures shall be sealed with rubber silicone sealant to preclude the entry of water. The conduit riser shall terminate in a hot-dipped galvanized metal cable terminator. The terminator shall be filled with an approved sealant as recommended by the cable manufacturer, and in a manner that does not damage the cable.
  - 3. Cold Galvanizing
    - a. Field welds and/or brazing on factory galvanized boxes, enclosures, conduits, etc., shall be coated with a cold galvanized paint containing at least 95 percent zinc by weight.

### 3.2 CARD READERS

- A. Contractor to coordinate detail construction work in vicinity of card readers with work of other trades to ensure that specified read range of card readers is not compromised by the presence of large metal objects in the immediate vicinity of reader
- B. Securely fasten card reader to structure to prevent its movement during repeated usage.
- C. Contractor to further ensure that power supplies used with the readers meet or exceed card reader manufacturer minimum requirements for current and voltage stability.

### 3.3 PROGRAMMING:

- A. Initial Systems Programming
  - 1. Contractor to meet with Owner and Owner's Representative to confirm functional requirements for surveillance systems defined in Part 1 of this Section, including but not limited to the following:
    - a. Access Classification Tiers
      - i. Establish Authorities, Building Zones and Card groups having access to selected:
        - (1) Door(s).
        - (2) Gates

- ii. Monitoring to be provided at each Alarm point.
  - iii. Always on (24 hour response).
  - iv. On when the system is Master Armed.
  - v. Only on when the system is Perimeter Armed.
  - vi. Displays / Does Not Display at the Access Control Panel when the point is activated.
  - vii. Provides / Does Not Provide entry warning tone.
  - viii. Sounds / Does Not Sound audible alarm indication.
  - ix. Point is bypassable / not bypassable.
  - x. Alarm Verification with programmable verification time.
  - xi. Summary Relay activation by Point.
  - xii. Provides / Does Not Provide "watch point" capability.
  - b. Calendar. System Operations as a function of day-of-the-week and hour-of-the-day and differential access permitted based on these changes.
  - c. Interface to Visual Surveillance Systems provided under 17880.
  - d. Alarm System response to events
    - i. Normal access (validated).
    - ii. System fault
    - iii. Unauthorized access
    - iv. Unauthorized access detected by multiple monitoring points.
  - e. Pass codes according to the authorities and functions defined by the owner.
  - f. In addition to standard door operation arming and alarming as described in Part 1 of this Specification Section, initial system programming to include the following features and functions:
    - i. Arming Zones – at least the following:
      - (1) Staff Area
      - (2) Stacks Area
      - (3) Community Room/EOC
2. Document the Initial Programming Requirements and Submit in accordance with Section 17900 Common Work Results For Electronic Safety and Security..
- B. At minimum, include allowance of post-opening programming time in the following quantities.
1. In addition to providing the programming necessary to meet the functional requirements defined in Part 1 of this Section, Contractor to provide systems customization programming time as defined below in the following quantities:
    - a. 25 hours.
  2. Programming time is time spent by a trained systems programming developing the specific sequence of alarm events and response for this Project.
  3. Programming time does not include installation of or correcting deficient installation of system components, coordination with the contractors, training the programmer in the programming of the system software or meeting with the Owner and/or the Owner's representative(s) to establish the functional requirements of the security system.
  4. Programming time not used in initial systems configuration shall be available to the Owner for supplemental post-opening programming. Contractor to provide such post opening programming in a minimum of 4 hour blocks.
  5. Contractor to provide Owner with daily timesheets of programming time spent in support of this Project on request"
  6. Implement System Programming as defined above.

### 3.4 WIRING PRACTICE:

- A. Comply with requirements of Sections 17116 and 17903

- B. At electric strikes and electric locks, provide end-of-line resistors, diodes or MOV's where device does not already include such components. Document where such devices have been added.

### 3.5 SYSTEM STARTUP

- A. Satisfaction of the requirements below does not relieve the Contractor of responsibility for incorrect installations, defective equipment items, or collateral damage as a result of Contractor work/equipment. The Contractor shall not apply power to the system until after:
  - 1. System equipment items have been set up in accordance with manufacturer's instructions.
  - 2. A visual inspection of the system has been conducted to ensure that defective equipment items have not been installed and that there are no loose connections.
  - 3. System wiring has been tested and verified as correctly connected.
  - 4. System grounding and transient protection systems have been verified as properly installed.
  - 5. Power supplies to be connected to the system have been verified as the correct voltage, phasing, and frequency.

### 3.6 IDS TESTING AND ADJUSTMENT

- A. Test shall ensure that the requisite degree of intrusion detection is provided. Initially, test each sensor and subsystem component individually. When the function of each component within a particular subsystem such as each sensor within a particular zone is verified, certify that subsystem of the entire IDS as satisfactorily meeting required specifications. Test each subsystem similarly until each detection zone has been certified. When subsystem certification is complete, test entire integrated system to ensure that subsystem elements are compatible and function as a complete system. Integrated system test shall be accomplished in linear fashion, end-to-end, and shall verify that each simulated intrusion performed within each detection zone produces an appropriate alarm or signal. Integrated system test shall also verify that alarm is correctly annunciated at the local annunciator unit (where a local annunciator is shown on the plans) and the central alarm reporting and display unit. Provide for approval, not later than 30 days prior to formal inspection and test, a detailed operational test plan of how each component, subsystem, and entire ACAS will be tested. When tests are complete and corrections made, submit a signed and dated certificate with a request for formal inspection and tests

### 3.7 PRE-ACCEPTANCE TESTING

- A. General
  - 1. The contractor shall perform pre-delivery testing, site testing, and adjustment of the completed ACAS. The contractor shall provide all personnel, equipment, instrumentation, and supplies necessary to perform all testing. Written notification of planned testing shall be given to the owner at least fourteen (14) days prior to the test, and in no case shall notice be given until after the contractor has received written approval of the specific test procedures. Test procedures shall explain in detail, step-by-step actions and expected results demonstrating compliance with the requirements of the specification. Test reports shall be used to document results of the tests. Reports shall be delivered to the owner within seven (7) days after completion of each test.
- B. Performance Verification Test
  - 1. The contractor shall demonstrate that the completed ACAS complies with the contract requirements. Using approved test procedures, all physical and

functional requirements of the project shall be demonstrated and shown.

3.8 SYSTEMS PERFORMANCE DEMONSTRATION AND ADJUSTING PROCEDURES:

- A. Demonstrate functionality of each installed device.
- B. Access Control System:
  - 1. Demonstrate operation of each opening.
  - 2. Demonstrate the presentation of a valid card causes the system to operate the associated door and log the entry in accordance with the performance requirements of Section 17900.
    - a. Demonstrate that operation of each monitored door by 1/2" or less from the fully closed position causes the door position switches to change state.
    - b. Demonstrate that the presence of a person approaching to within five feet of REX device from any direction on the secure side causes it to change state.
    - c. Demonstrate that depressing the RB causes receipt of closure at the TB15.
  - 3. Duress Alarm System:
    - a. Activate and reset each Duress Alarm Switch and system Tamper Switch. Demonstrate complete operation.
  - 4. Motion Detection
    - a. Demonstrate functionality of each device
  - 5. Glass Break Detection
    - a. Using glass break simulator, demonstrate functionality of each device.
  - 6. Uninterrupted Power Systems:
    - a. Disconnect normal power service. Demonstrate that the system remains in full operation for the specified time.

3.9 LABELING

- 1. Conform with the requirements of Section 17053 – Identification for Communications Systems.

3.10 TRAINING

- A. General
  - 1. The contractor shall conduct training courses for personnel designated by the owner. Training shall cover the maintenance and operation of the ACAS. The training shall be oriented to the specific system being installed under this contract including central processor.
  - 2. Training manuals shall be delivered for each trainee with two additional copies delivered for archiving at the project site. The manuals shall include an agenda, defined objectives for each lesson, and a detailed description of the subject matter for each lesson.
  - 3. The contractor shall furnish audiovisual equipment and other training materials and supplies as necessary.
  - 4. Where the contractor presents portions of the course by audiovisual material, copies of the audiovisual material shall be delivered to the owner on the same media as that used during the training session.
  - 5. Up to 16 hours of training shall be provided for, to be used as directed by the Owner's Representative.

3.11 WARRANTY, MAINTENANCE AND SERVICE

- A. Warranty
  - 1. The ACAS shall be warranted by the contractor for one (1) year from the date of

final system acceptance.

B. Maintenance and Service

1. The contractor shall provide all services required and equipment necessary to maintain the entire ACAS in an operational state as specified for a period of one (1) year after formal written acceptance of the system, and shall provide all necessary material required for performing scheduled adjustments or other nonscheduled work.

C. Description of Work

1. The adjustment and repair of ACAS includes computer equipment, software updates, signal transmission equipment, access control equipment, facility interfaces, and support equipment. Responsibility shall be limited to contractor installed equipment. Provide the manufacturers required adjustments and other work as necessary.

D. Personnel

1. Service personnel shall be qualified to accomplish all work promptly and satisfactorily. Provide proof that Service personnel have successfully completed the appropriate level of both hardware and software training offered by the system manufacturer. The owner shall be advised in writing of the name of the designated service representative and of any change in personnel.

E. Inspections

1. The contractor shall perform two inspections at six (6) month intervals or more often if required by the manufacturers. This work shall be performed during regular working hours, Monday through Friday, excluding Federal holidays. These inspections shall include:
2. Visual checks and operational tests of the central processor, local processors, monitors, keyboards, system printers, peripheral equipment, ACAS equipment, power supplies, and electrical and mechanical controls.
3. Clean system equipment, including interior and exterior surfaces.
4. Perform diagnostics on all equipment.
5. Check and calibrate each ACAS device.
6. Run system software and correct diagnosed problems.
7. Resolve previous outstanding problems.

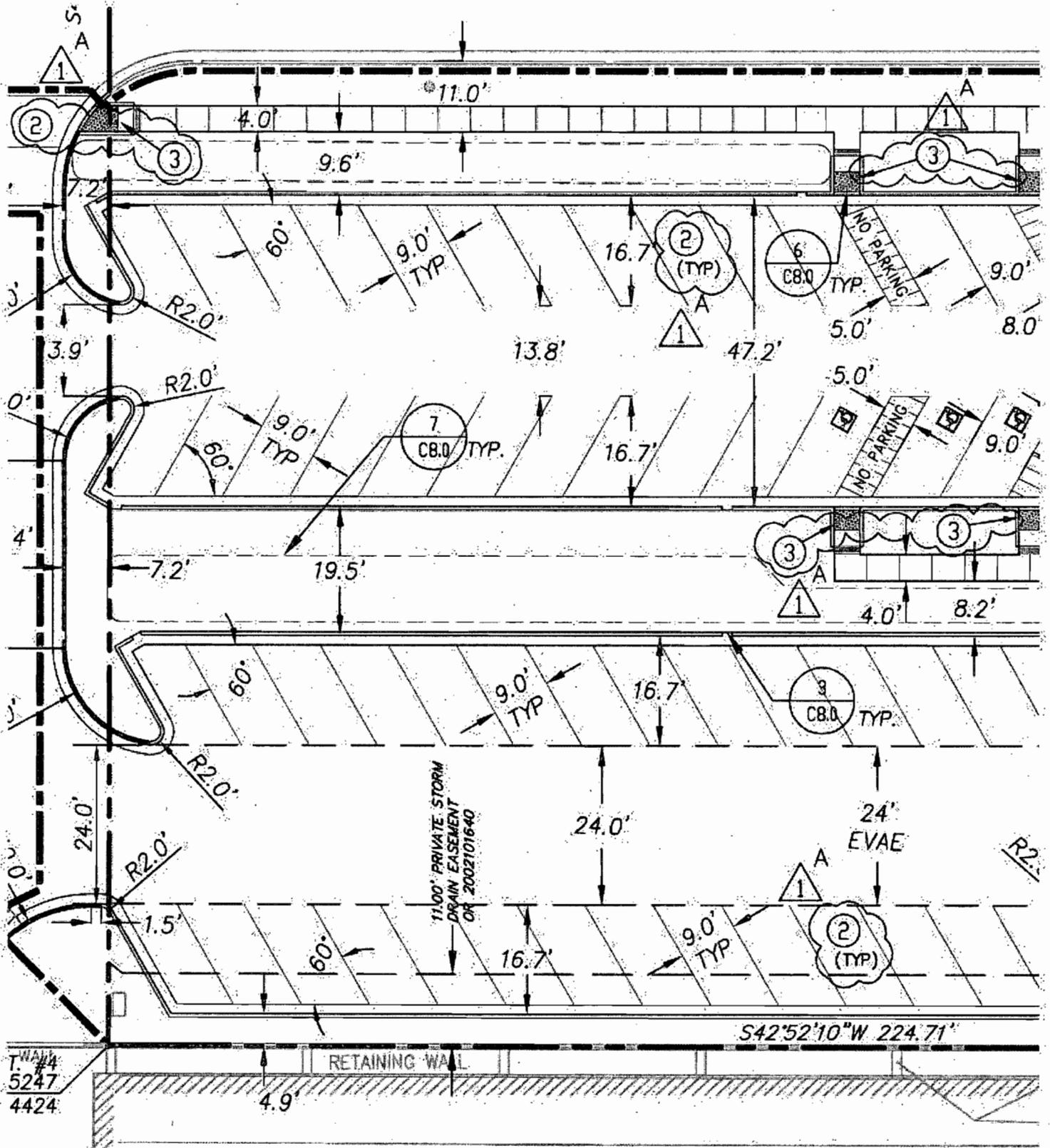
F. Emergency Service

1. The owner shall initiate service calls when the ACAS is not functioning properly. Qualified personnel shall be available to provide service to the complete ACAS. The owner shall be furnished with the telephone number where the contractor's service supervisor can be reached at all times. Service personnel shall be at the site within four (4) hours after receiving a request for service. The ACAS shall be restored to proper operating condition after one (1) calendar day.

G. Software

1. The contractor shall provide free software updates for five (5) years and verify operation in the system as required. These updates shall be accomplished in a timely manner, fully coordinated with the ACAS operators, and shall be incorporated into the operations and maintenance manuals and software documentation.

END OF SECTION 17960



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CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1"=20'

JOB #:06-210-18-116

SITE PLAN/  
HORIZONTAL CONTROL

SHEET TITLE  
06-17-2008  
DATE  
DP (BKF)  
BY

ADD-1  
REVISION  
AD1-1/C4.0-01  
DRAWING

GROUP 4



# PAVEMENT MARKERS, MARKINGS AND STRIPING

Caltrans  
Std. Plan

Lane		
Striping -	Crosswalk and Limit Lines	1' white or yellow line A24E
	Rail Grade Crossing Limit Line	2' white line Detail 2 A20A
	Centerlines (yellow)	Detail 10 A20A
	Lane lines (white)	Detail 16 A20A
	No Passing Zones One Direction (yellow)	Detail 22 A20A
	No Passing Zones Two Direction (yellow)	Detail 25A A20B
	Left Edge line (yellow)	Detail 27B A20B
	Right Edge line (white)	Detail 29 A20B
	Painted Median Islands (yellow)	Detail 25A A20B
	Raised Median Islands (yellow)	Detail 32 A20B
	Two-Way Left Turn Lanes (yellow)	Detail 38 A20D
	Channelizing (white)	Detail 40A A20D
	Lane Line Extensions (white)	Detail 41A A20D
	Center Line Extensions (yellow)	
	Raised Median Island Nose (with Type D or K or L markers R4-7 or R4-7A w/mounting height) (yellow). See Note 4.	
	Bike Lane Line (white)	Detail 39 A20D
	Bike Lane Intersection Line (white)	Detail 39A A20D
Markings -	Left or Right Arrow	Type III (L) or (R) A24B
	Shared Left Through or Through Right Arrow	Type II (L) or (R) A24B
	Shared Left Right Arrow	Type III (B) A24B
	Shared Left Through Right Arrow	Type II (B) A24B
	Bike Lane Arrow (white)	A24A
	Bike Lane Symbol (white) [skid resistant]	A24C
	Railroad Crossing Symbol	A24C
	Pavement Words (Various)	A24D, A24E
	24" Bar/Ladder Crosswalk [skid resistant]	A24C
Special Signs -	Fluorescent Yellow, Green Sign Faces should be used for pedestrian warning, bicycle warning, playground warning, school bus and school warning.	W11A-2, W16-7P, W16-9P, W54A, W64, W65, W65-1, W66, W66A, W80, S1-1, S2-1, S2-1B, S4-3

**NOTES:**

1. All work shall be done in conformance with the 2006 edition of the State of California Department of Transportation Standard Plans and the 2006 edition of the State of California Department of Transportation Standard Specifications Sections 84 and 85.
2. All traffic striping and pavement markings shall be thermoplastic unless otherwise noted.\*
3. Markings noted as [skid resistant] shall be Skid Resistant Thermoplastic or Flint Trading, Inc. "PreMark" ViziGrip. 336-475-6600 www.flinttrading.com
4. Yellow paint two (2) coats per Section 84-3

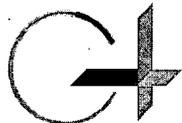
ACAD FILE NO. C31010616.DWG



## CITY OF SAN LEANDRO \* STANDARD PLANS

NO.	REVISIONS	DATE	BY		APPROVED
				<b>STANDARD PAVEMENT DELINEATIONS</b>	 Kenneth Joseph, City Engineer R.C.E. No. 34870 Expires 9/30/09
DRAWN	GF/AMS	CHECKED	KJ/KRC	DATE	October 2007
SCALE	NONE	SHEET	1 OF 1	DWG. NO.	616 CASE. 3101

\* INCLUDES ALL PARKING LOT STRIPING



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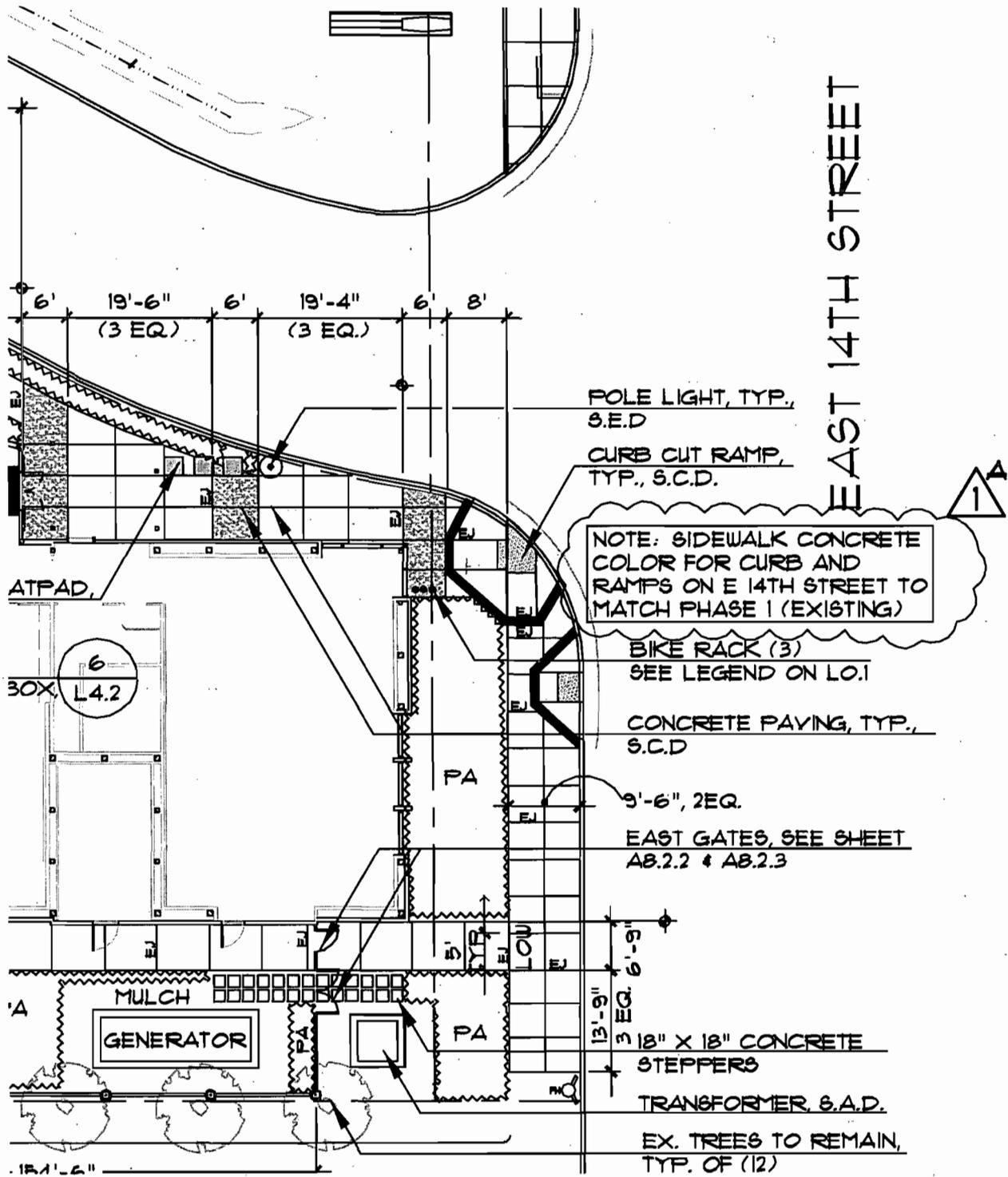
G R O U P 4

CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER CITY STANDARD DETAILS

SCALE: NTS  
JOB #: 06-210-18-116

SHEET TITLE  
**06-17-2008**  
DATE  
**DP (BKF)**  
BY

ADD-1  
REVISION  
**AD1-1/C9.2-01**  
DRAWING



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GROUP 4

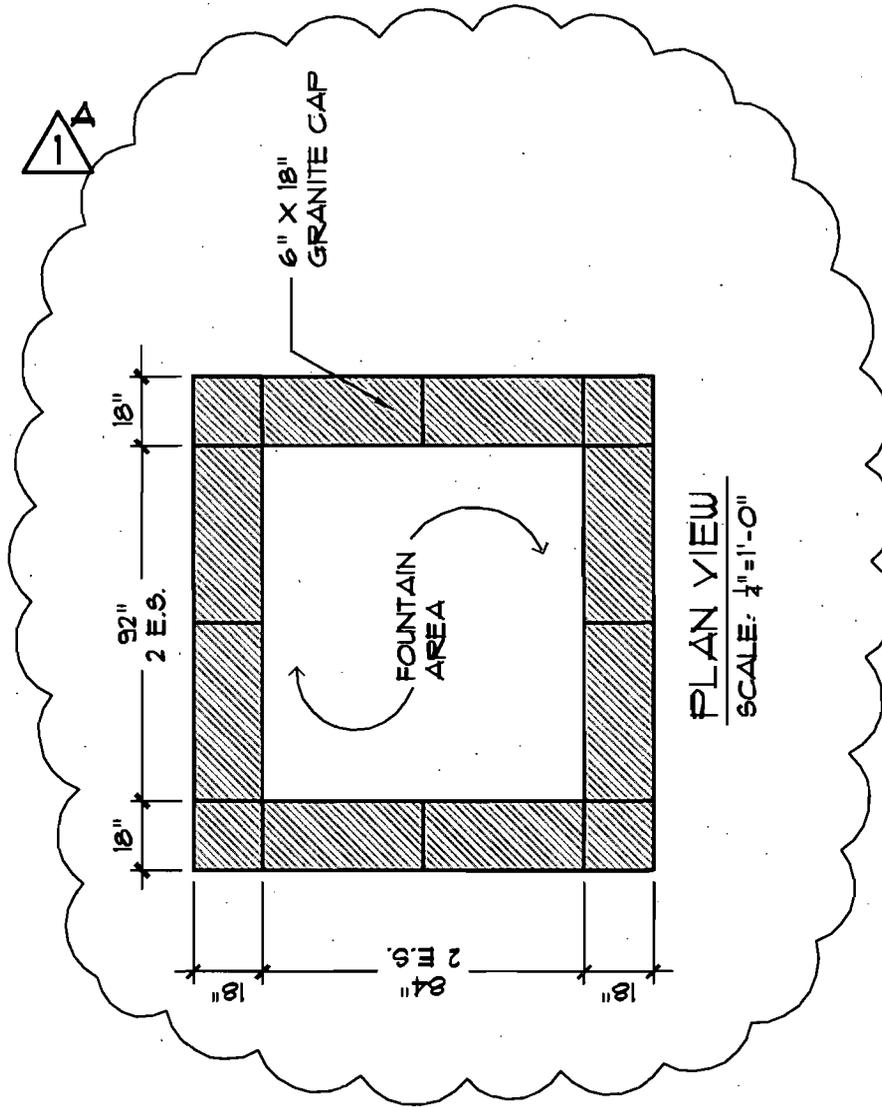
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1"=20'  
JOB #: 06-210-18-116

E 14TH STREET  
L1.1 - LAYOUT PLAN

SHEET TITLE  
DATE 06-17-2008  
DATE  
KC  
BY

ADDENDUM 1  
REVISION  
AD1-1/L1.1-01  
DRAWING



# WATER FEATURE - FOUNTAIN SECTION

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

**1**



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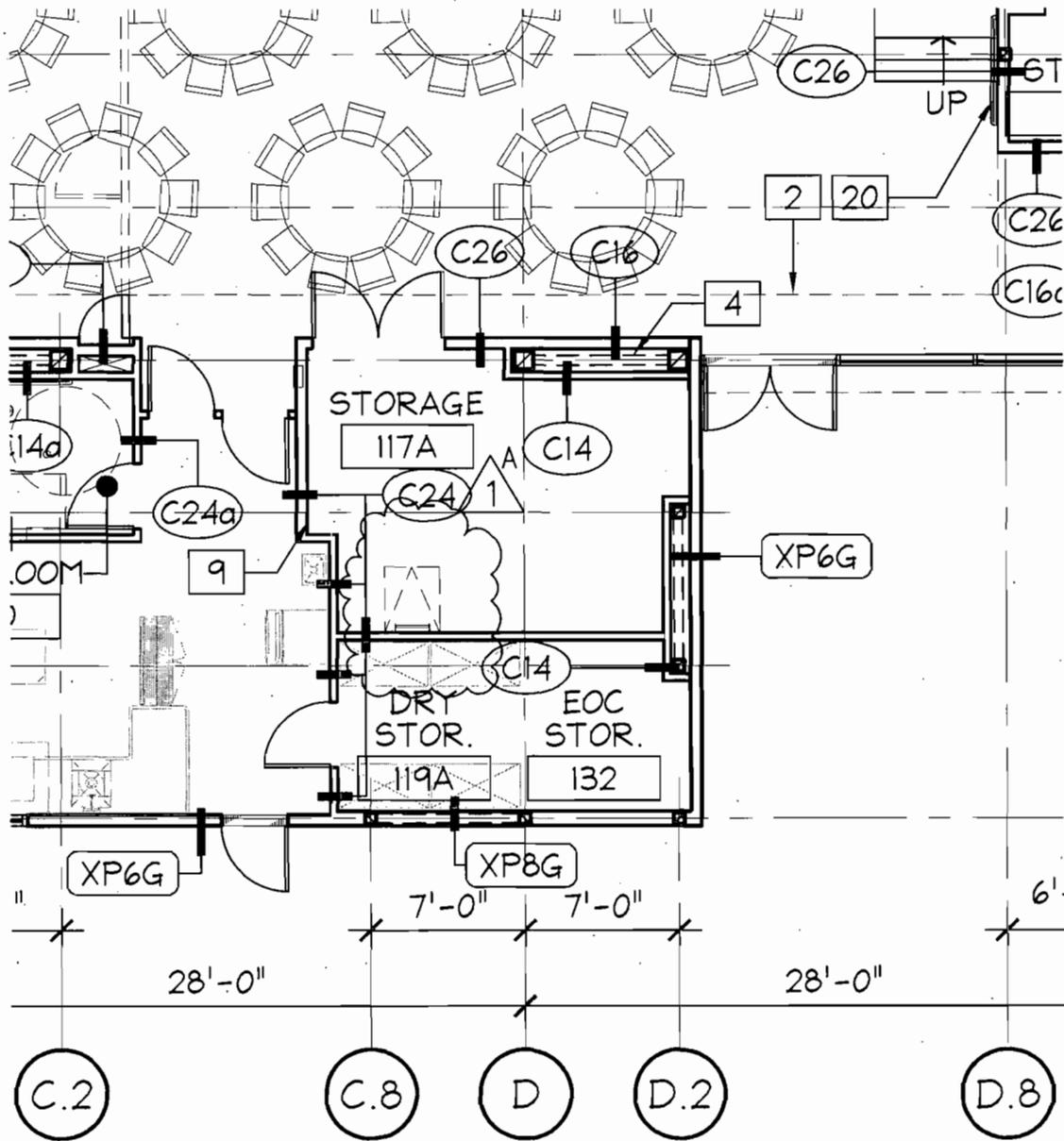
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: AS SHOWN  
JOB #: 06-210-18-116

DETAIL#1: ADD FOUNTAIN PLAN VIEW  
L4.3 - CONSTRUCTION DETAILS

SHEET TITLE  
06-17-2008  
DATE  
KC  
BY

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REVISION  
AD1-1/L4.3-01  
DRAWING



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



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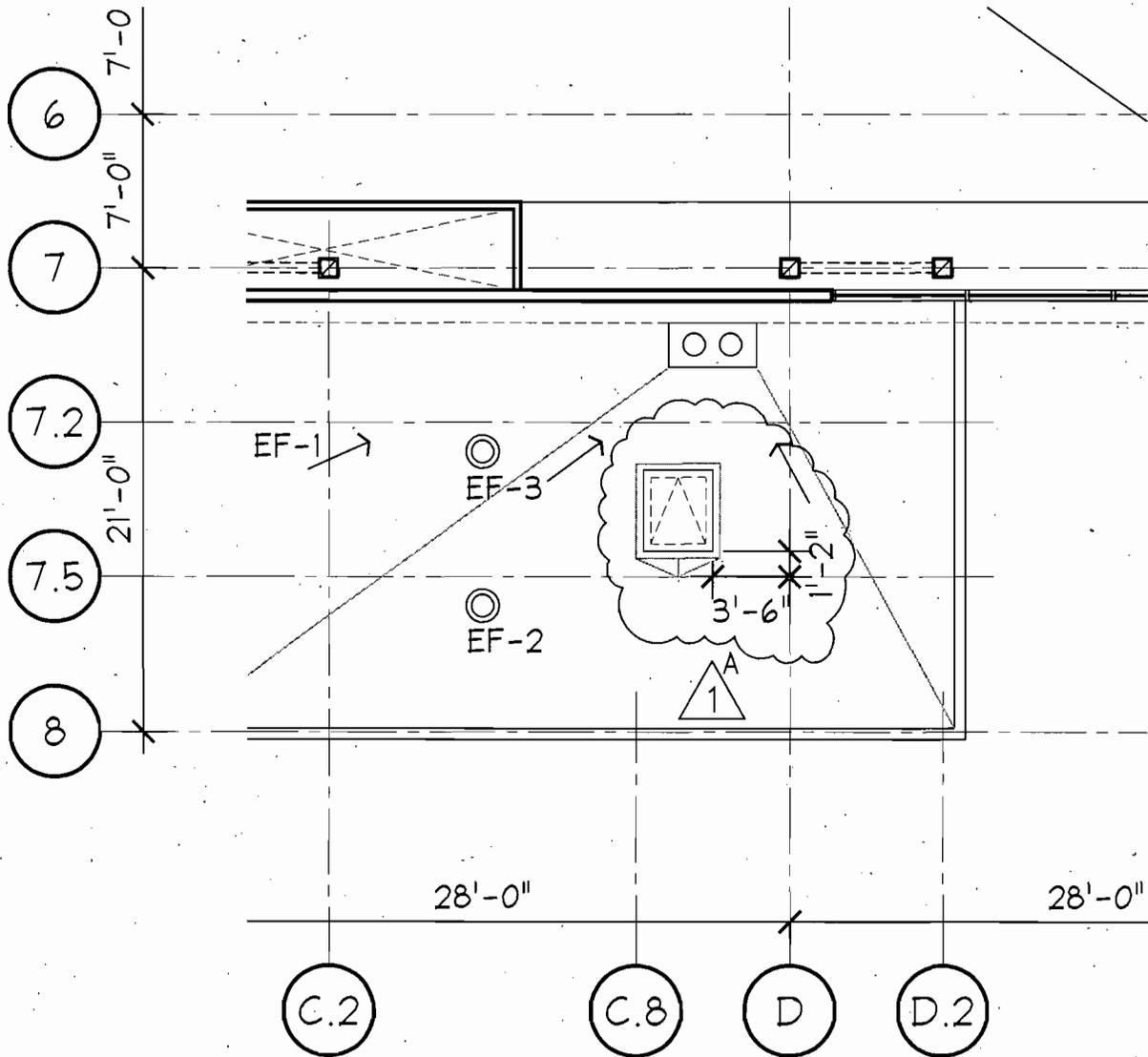
CITY OF SAN LEANDRO  
 SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
 JOB #: 06-210-18-116

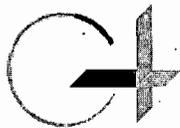
A2.1A PARTIAL FLOOR PLAN  
 ROOF HATCH RELOCATION

SHEET TITLE  
 06-17-2008  
 DATE  
 PA  
 BY

ADDENDUM 1  
 REVISION  
 AD1-1/A2.1A-01  
 DRAWING



1 COMPOSITE CLERESTORY PLAN  
SCALE: 1" = 10'



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SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

A2.2A PARTIAL FLOOR PLAN  
ROOF HATCH RELOCATION

SHEET TITLE  
06-17-2008  
DATE  
PA  
BY

ADDENDUM 1  
REVISION  
AD1-1/A2.2A-01  
DRAWING

## INTERIOR MATERIAL SCHEDULE

	CODE	MATERIAL	MANUFACTURER	DESCRIPTION	REMARKS
FLOOR	CT-1	CARPET TILE ACCENT 1	SHAW, D2K	59488 TAILORED, 81761 MINK	ASHLAR INSTALLATION, TYP.
	CT-2	CARPET TILE ACCENT 2	SHAW, D2K	BLOOM, 81761 MINK FIELD W/ 04750 OUT OF THE BLUE ACCENT, QUARTER TURN	
	CT-3	CARPET TILE ACCENT 3	SHAW, D2K	VIVID BLOOM, 81761 MINK FIELD W/ 04750 OUT OF THE BLUE, QUARTER TURN	
	CT-4	CARPET TILE ACCENT 4	SHAW, D2K	VIVID BLOOM, 81761 MINK FIELD W/ 04516 TOUCH OF GLAMOUR, QUARTER TURN	
	CT-5	CARPET TILE ACCENT 5	SHAW, D2K	VIVID BLOOM, 81750 CHARM W/ 04750 OUT OF THE BLUE, QUARTER TURN	
	G	RECESSED WALK-OFF GRILL	ARDEN ARCH. SPECIALTIES	ENVIRONTREAD II, G-218.	WITH RECYCLED BUFFED RUBBER TREAD GRATE
	T-1	CERAMIC TILE FLOOR	DALTILE	NATURAL HUES, ECO-BODY, 4X4	WITH ABRASIVE, MUSHROOM -QH16
	E	EPOXY FLOOR/ BASE	SELBY UCRETE	SELBACLAD 425	269-M ALUMINUM GRAY
	WD-1	ENGINEERED WOOD FLOOR	PERMA GRAIN	TIMELESS SERIES 5, MAPLE NATURAL	PENNTHANE FINISH, 4" WIDTH
	WD-2	HARDWOOD STRIP FLOOR	-	MAPLE	STAINED AND SEALED TO MATCH WD-1
	SC	SEALED CONCRETE	-	-	-
	M-1	MARMOLEUM FLOOR 1	FORBO	MINERAL	5711 SMOKY QUARTZ
	M-2	MARMOLEUM FLOOR 2	FORBO	MINERAL	5701 SERPENTINE
	M-3	MARMOLEUM FLOOR 3	FORBO	MINERAL	5702 MOONSTONE
M-4	MARMOLEUM FLOOR 4	FORBO	REAL AUTHENTIC	3048 GRAPHITE	
BASE	R	RESILIENT BASE	BURKE MERCER	TYPE TS: BURKE BASE	217 CHARCOAL
	CT	CERAMIC TILE BASE	DALTILE	NATURAL HUES, ECO-BODY	MUSHROOM -QH16
	W	WOOD BASE	PER SPEC.	-	TO MATCH WD-1 STAIN & FINISH
WALL	WDR	WOOD DOOR	PER SPEC.	MAPLE, PLAIN SLICED	STAIN TO MATCH ARCHITECT'S SAMPLE
	FWP-1	FABRIC WRAPPED ACOUST. PANEL	INTERFACE FABRIC	FR701 STYLE 2100	750 CEMENT MIX

## EXTERIOR MATERIAL SCHEDULE

	CODE	MATERIAL	MANUFACTURER	DESCRIPTION	REMARKS
	CW	ALUM. CURTAINWALL	KAWNEER	KYNAR 500	MATCH CENTRIA 9967 PEWTER
	AW	ALUM. STOREFRONT WALL	KAWNEER	KYNAR 500	MATCH CENTRIA 9967 PEWTER
	BM	BRAKE METAL CLADDING	KAWNEER	PAINT TO MATCH PETERSEN ALUM. CORP., MUSKET GRAY	
	HM-2	HOLLOW MET. DOOR/FRAME	PER SPEC.	PAINT TO MATCH UNA-CLAD SLATE GRAY	
	MS-1	METAL SIDING CORRUGATED	CENTRIA	PAINT TO MATCH PETERSEN ALUM. CORP., MUSKET GRAY	
	MS-2	METAL SIDING FLAT LOCK	PER SPEC.	PAINT TO MATCH PETERSEN ALUM. CORP., MUSKET GRAY	
	SS	STANDING SEAM MET. ROOF	BEMO	COOL ROOF	TO BE SELECTED FROM MNF. STANDARD
	PC-1	PORTLAND CEMENT PLASTER	LA HABRA	SBMF 53	-
	PC-2	PORTLAND CEMENT PLASTER	LA HABRA	SBMF 215 MESA VERDE	-
	FCB	FIBER CEMENT BOARD	SWISSPEARL	CARAT, ONYX 7093	LAYOUT AS INDICATED IN EXTERIOR ELEVATIONS
	ST	SLATE TILE	AMERICAN SLATE	SILVERGREY	4'X24" HORIZONTAL RANDOM PATTERN



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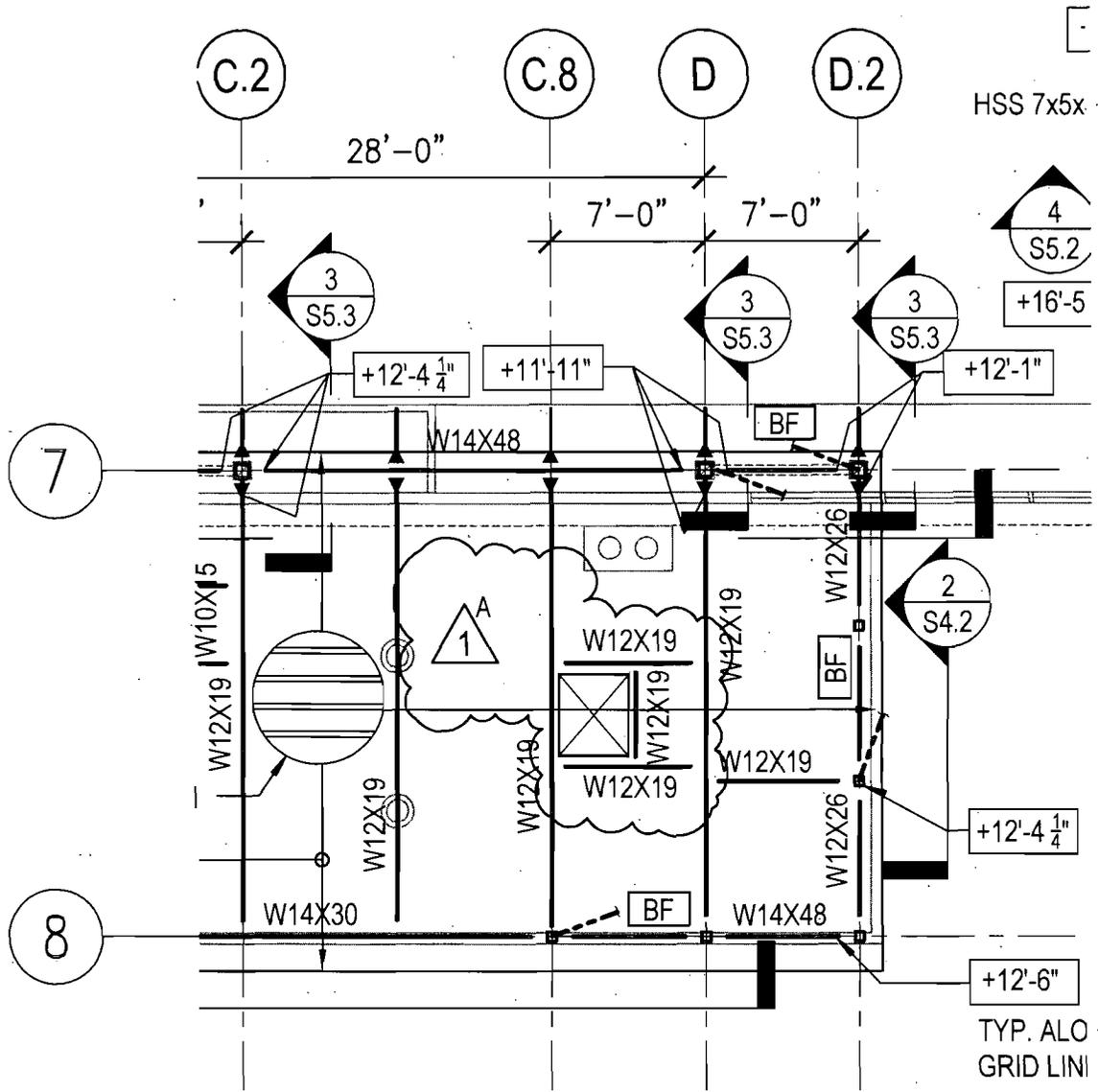
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: N.T.S.  
JOB #: 06-210-18-116

A2.11B FINISH AND MATERIAL SCHEDULE  
SCHEDULE REVISION

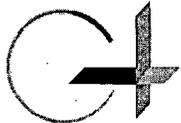
SHEET TITLE  
06-17-2008  
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BY

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REVISION  
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DRAWING



**PARTIAL LOW ROOF FRAMING PLAN**

SCALE: 1/8"=1'-0"



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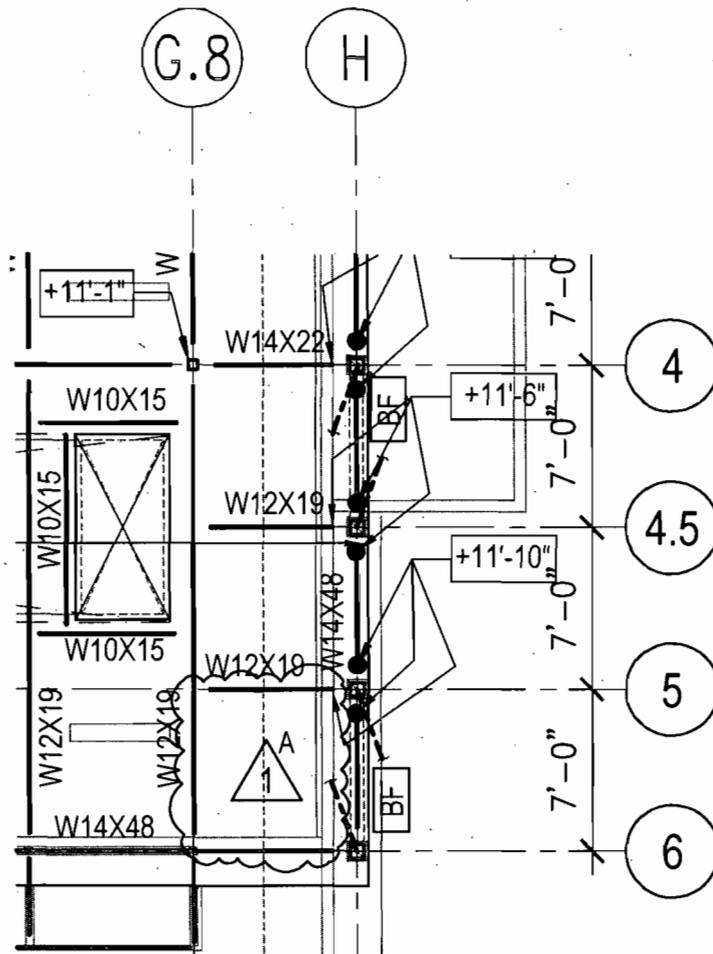
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SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

FLAT ROOF AND  
MEZZANINE FRAMING PLAN

SHEET TITLE  
06-17-2008  
DATE  
HRH  
BY

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AD1-1/S2.2-01  
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**PARTIAL LOW ROOF FRAMING PLAN**

SCALE: 1/8"=1'-0"



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CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

FLAT ROOF AND  
MEZZANINE FRAMING PLAN

SHEET TITLE  
06-17-2008  
DATE  
HRH  
BY

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REVISION  
AD1-1/S2.2-02  
DRAWING

ED)	DR	DRAIN	GV	GATE VALVE	MPDT
	DSP	DRY STANDPIPE	H(*)	DOMESTIC HOT WATER (*TEMP. WHERE	MPR
	DT	DRIP TRAP	HB	HOSE BIBB	
	DWG	DRAWING	HC	HEATING COIL	REQUIRED) MPS
	(E)	EXISTING	HPDT	HIGH PRESSURE DRIP TRAP	(N)
	EA	EXHAUST AIR	HPR	HIGH PRESSURE CONDENSATE RETURN	NC
	EAT	ENTERING AIR TEMPERATURE	HPS	HIGH PRESSURE STEAM	NFPA
	EF	EXHAUST FAN	HR	HEATING HOT WATER RETURN	NO
	EJ	EXPANSION JOINT	HS	HEATING HOT WATER SUPPLY	NTS
	EL	ELEVATION	HTG	HEATING	OA
	ENT	ENTERING	HV	HEATING AND VENTILATING	OD
	ESP	ETERNAL STATIC PRESSURE	HVAC	HEATING VENTILATING AND	OF
	EWT	ENTERING WATER PRESSURE		AIR CONDITIONING	OSY
	EXH	EXHAUST	HWR	DOMESTIC HOT WATER RETURN	OV
	FA	FACE AREA	HZ	HERTZ	PD
	FC	FLEXIBLE CONNECTION	ID	INSIDE DIAMETER	PFF
	FCO	FLOOR CLEANOUT	IE	INVERT ELEVATION	PG
	FD	FLOOR DRAIN	IFS	IN FURRED SPACE	PLBG
	FDC	FIRE DEPARTMENT CONNECTION	IPS	IRON PIPE SIZE	PR
	FDR	FIRE DAMPER	IW	INDIRECT WASTE	PRV
	FE	FIRE EXTINGUISHER	K.E.D.	KITCHEN EXHAUST DUCT	PSI
	FEC	FIRE EXTINGUISHER CABINET	K.E.	KITCHEN EXHAUST	PSIG
	FH	FIRE HYDRANT	L	RAINWATER	RA
	FHC	FIRE HOSE CABINET	LAT	LEAVING AIR TEMPERATURE/LATENT	PW
	FIN	FINISHED	LP	LOW PRESSURE	RD
	FLR	FLOOR	LPDT	LOW PRESSURE DRIP TRAP	RF
	FM	FLOW METER	LPG	LIQUID PETROLEUM GAS	RPM
	FPM	FEET PER MINUTE	LPR	LOW PRESSURE CONDENSATE RETURN	RV
ATE	FS	FLOW SWITCH	LPS	LOW PRESSURE STEAM	RVV
	FSK	FLOOR SINK	LV	LAVATORY	SA
	FSDR	COMBINATION FIRE AND SMOKE DAMPER	LVG	LEAVING	SD
	G	NATURAL GAS	LWT	LEAVING WATER TEMPERATURE	SDR
	GA	GAUGE	MBH	THOUSAND BRITISH THERMAL UNITS	SF
	GCO	GRADE CLEANOUT		PER HOUR	SK
	GI	GALVANIZED IRON	MCC	MOTOR CONTROL CENTER	SM
	GLV	GLOBE VALVE	MD	MOTORIZED DAMPER	SP
	GPH	GALLONS PER HOUR	MFR	MANUFACTURER	



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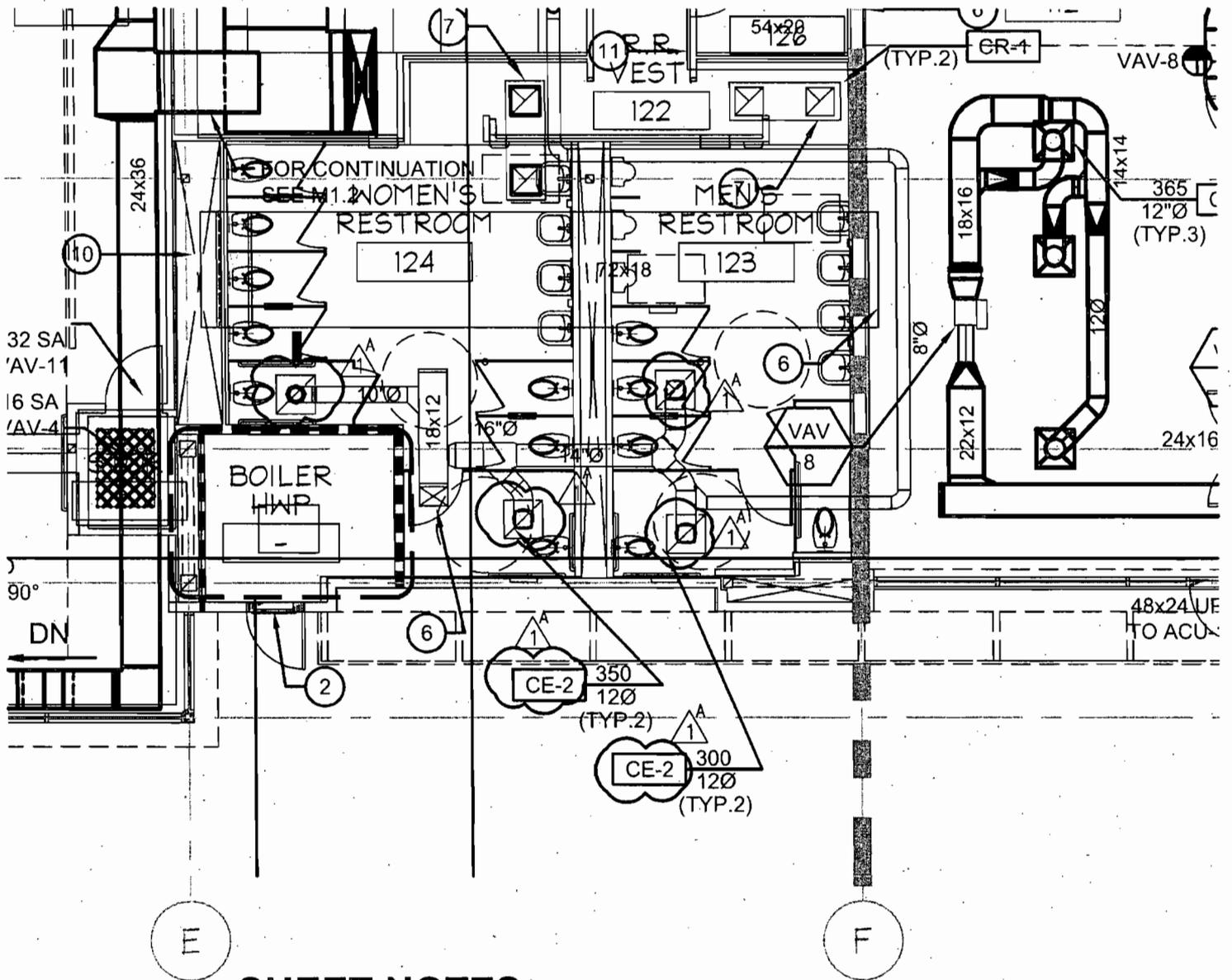
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: NO SCALE  
JOB #: 06-210-18-116

LEGEND SYMBOLS GENERAL NOTES  
AND DRAWING LIST

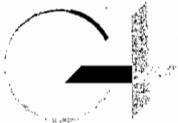
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DRAWING



**SHEET NOTES:**

- 8 24x24 TRANSFER DUCT AT HIGH LEVEL ABOVE PARTITION IN CEILING GRID.
- 9 RETURN GRILLES IN TOP OF THE SOFFIT.
- 10 SEE DETAIL # 1/ A3.28.
- 11 OPEN END INTO CEILING VOID WITH INSECT SCREEN.
- 12 PROVIDE MOTORIZED DAMPER WITH TIP AND EDGE SEALS AND END POSITION SWITCHES.
- 13 4"Ø FLUE TO ABOVE.



GROUP 4

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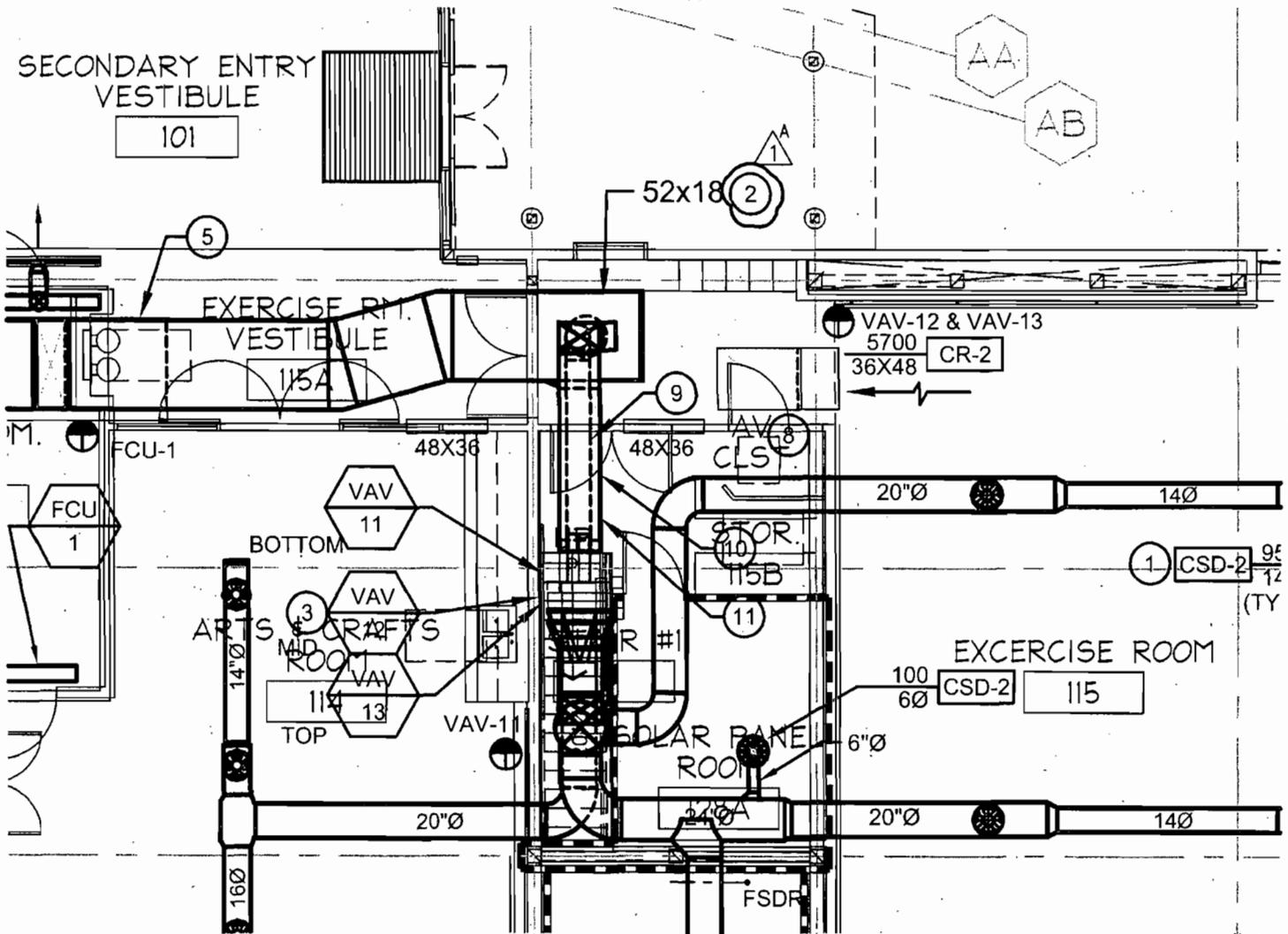
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

1ST FLOOR PLAN - HVAC PLAN A

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M1.1A-02  
DRAWING



**SHEET NOTES:**

- ① INSTALL DIFFUSER AT 10'-0" AFF.
- ② 38X18 SA DUCT OF VAV-12 & VAV-13 COMBINE INTO 52X18 DUCT.
- ③ INSTALL VAV-13 2'-0" ABOVE VAV-12.
- ④ 96X48 RA OPENING ABOVE.
- ⑤ 60"X36" TRANSFER DUCT.
- ⑥ 54X20 TRANSFER DUCT.
- ⑦ DUCT DROP 3FT. ON SHORT LENGTH.
- ⑧ 48X36 TRANSFER DUCT.
- ⑨ 16"Ø SUPPLY TO VAV-12 BOTTOM DUCT.



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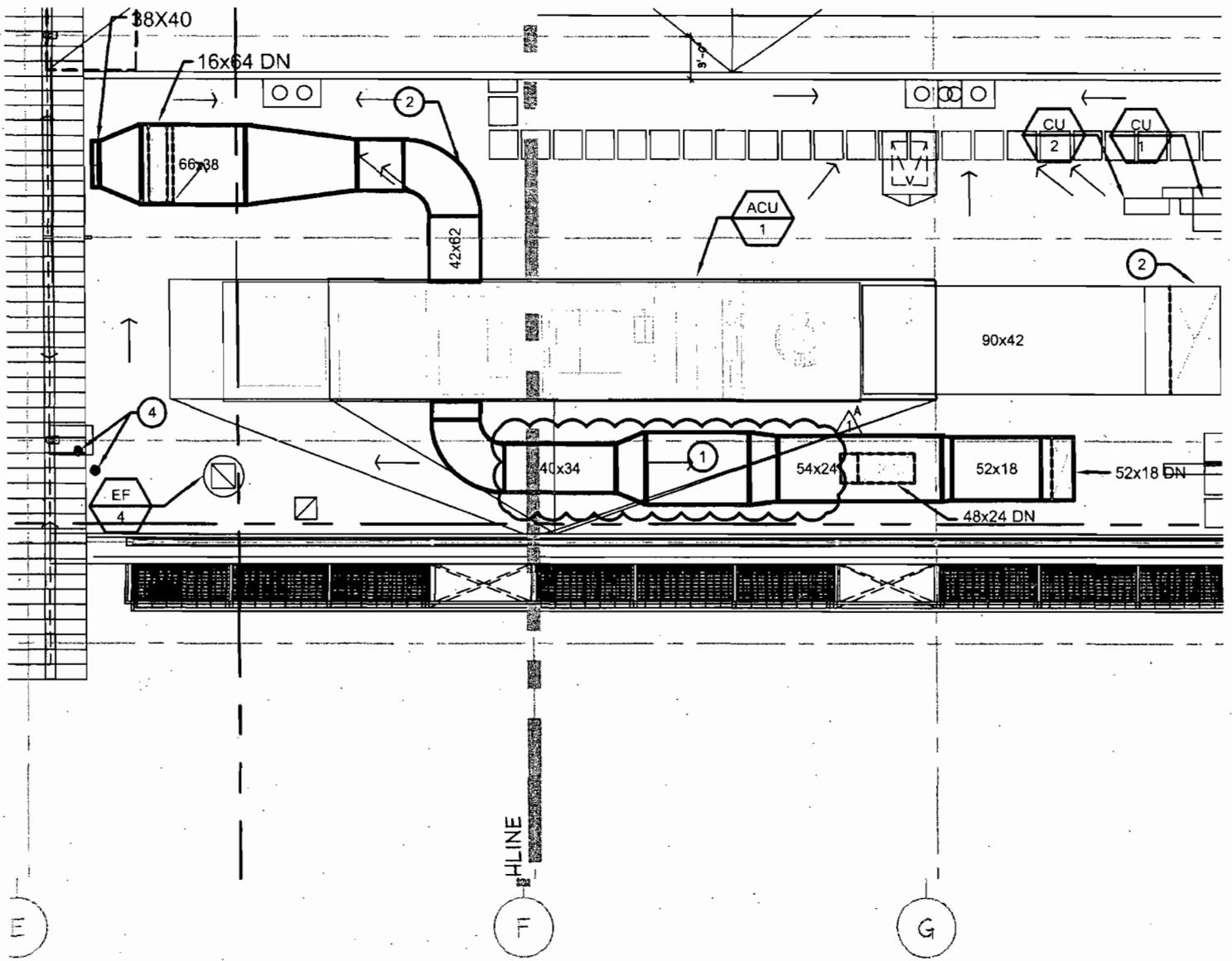
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1/8"=1'-0"  
JOB #: 06-210-18-116

1ST FLOOR PLAN - HVAC PLAN B

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M1.1B-03  
DRAWING



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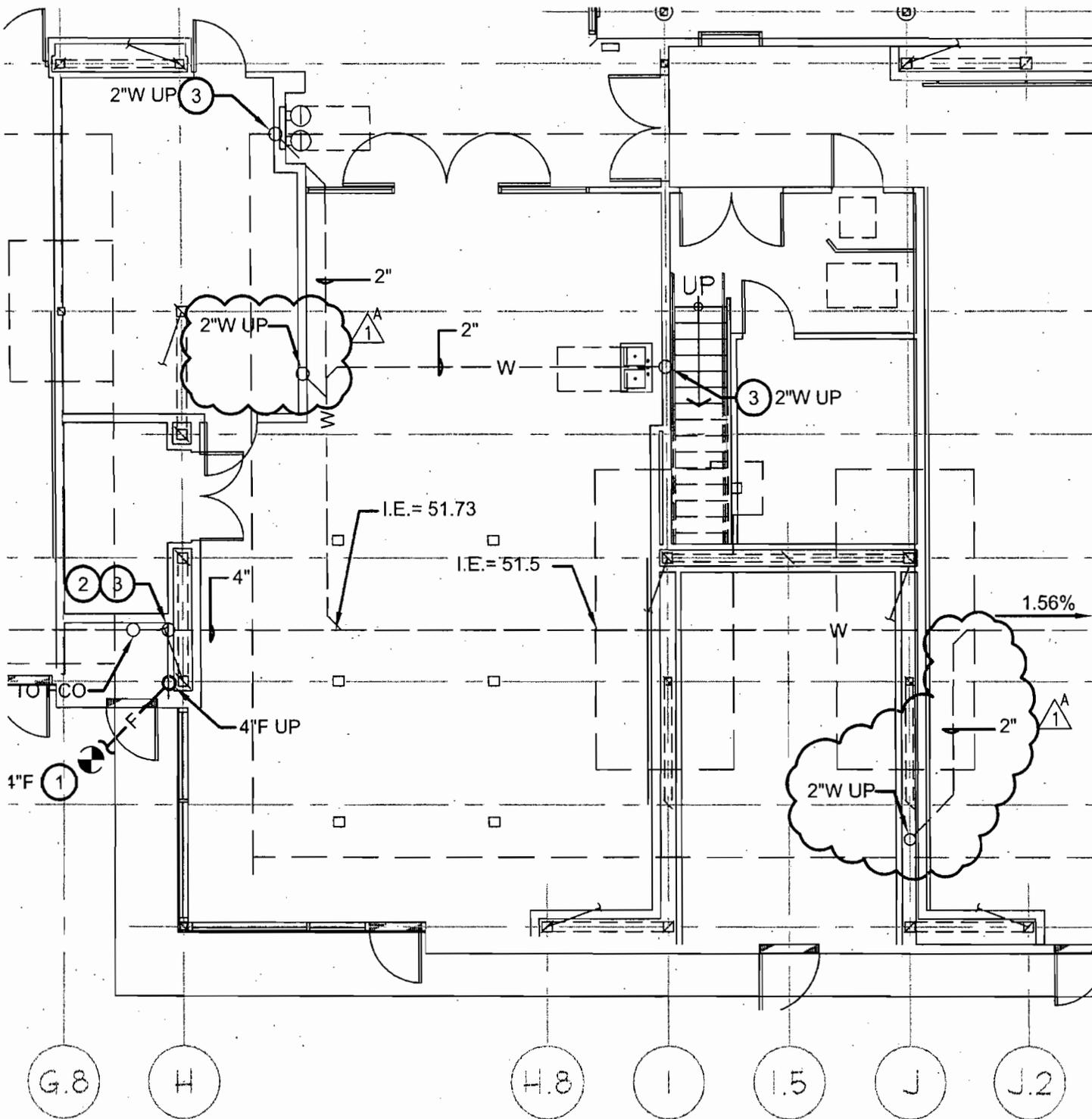
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 3/32"=1'-0"  
JOB #: 06-210-18-116

- ROOF PLAN - HVAC

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M1.2-04  
DRAWING



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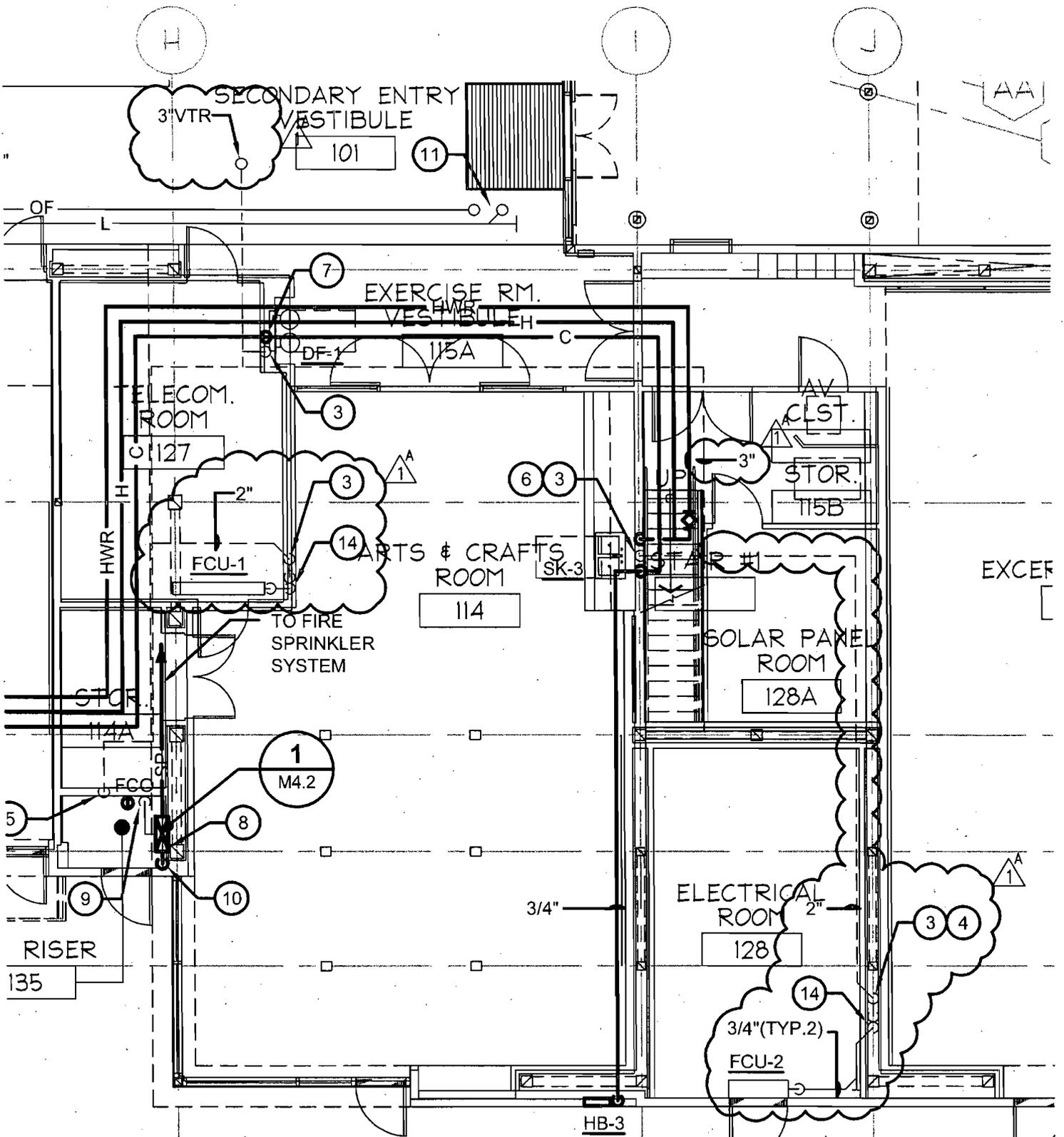
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

- FOUNDATION PLAN - PLUMBING  
- AREA B

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M2.0B-05  
DRAWING



14 PROVIDE AIR GAP FITTING J.R. SMITH 3955, P-TRAP AND TRAP PRIMER IN ACCESS PANEL.



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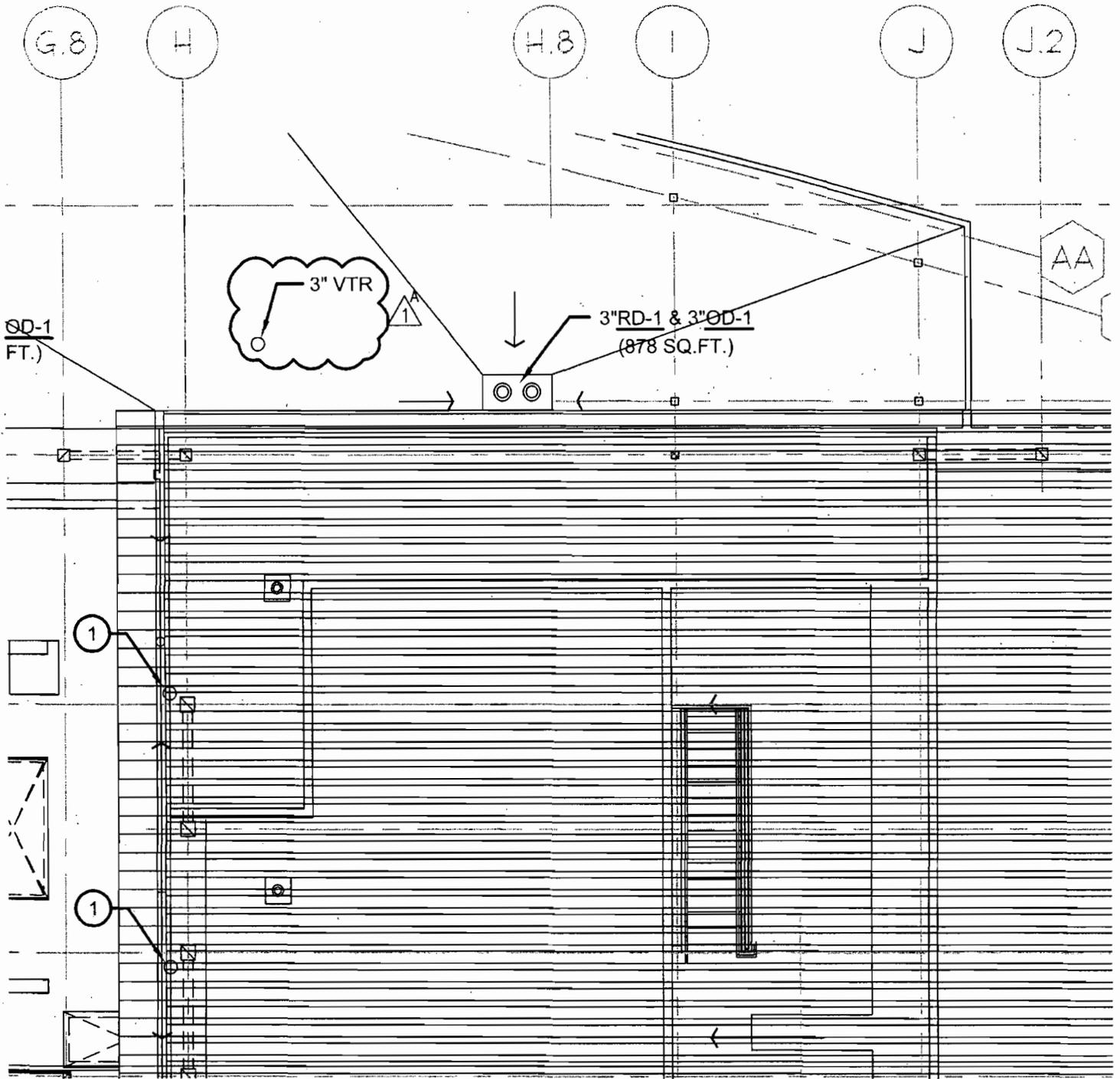
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

- 1ST FLOOR PLAN - PLUMBING  
- AREA B

SHEET TITLE  
06-17-2008  
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ADDENDUM 1  
REVISION  
AD1-1/M2.1B-06  
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SCALE: 1/8" = 1'-0"  
JOB #: 06-210-18-116

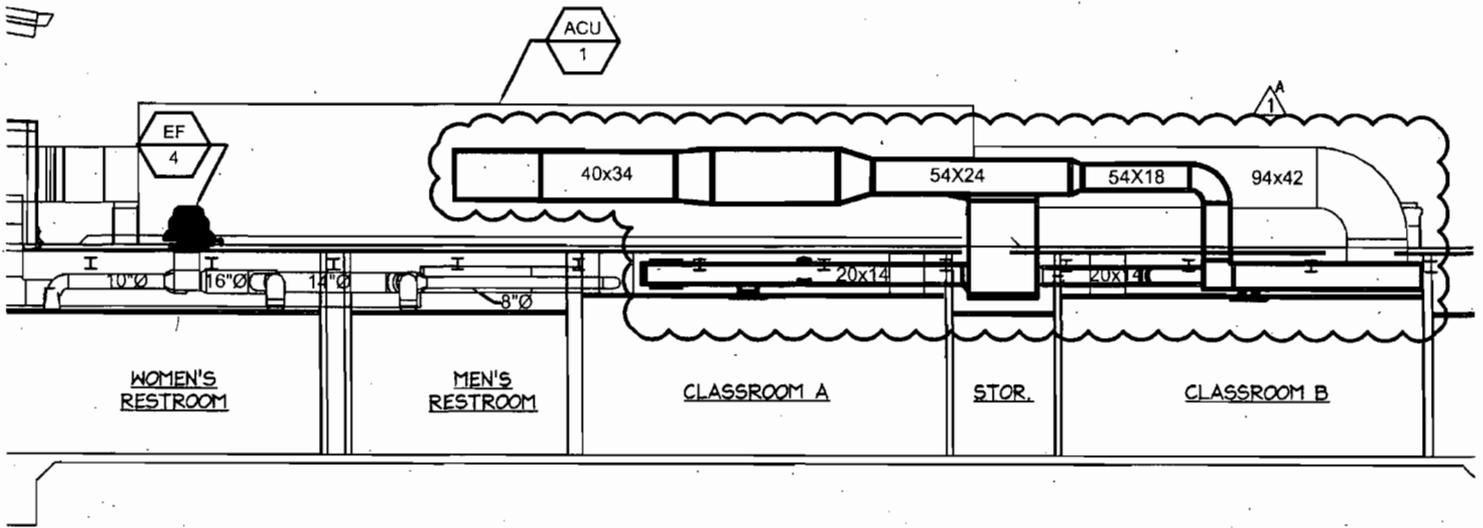
- ROOF PLAN - PLUMBING  
- AREA B

SHEET TITLE  
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GS  
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ADDENDUM 1  
REVISION  
AD1-1/M2.2B-07  
DRAWING

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G



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

JOB #: 06-210-18-116

- PARTIAL ENLARGED FLOOR PLANS &  
SECTIONS - HVAC

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M3.1-08  
DRAWING

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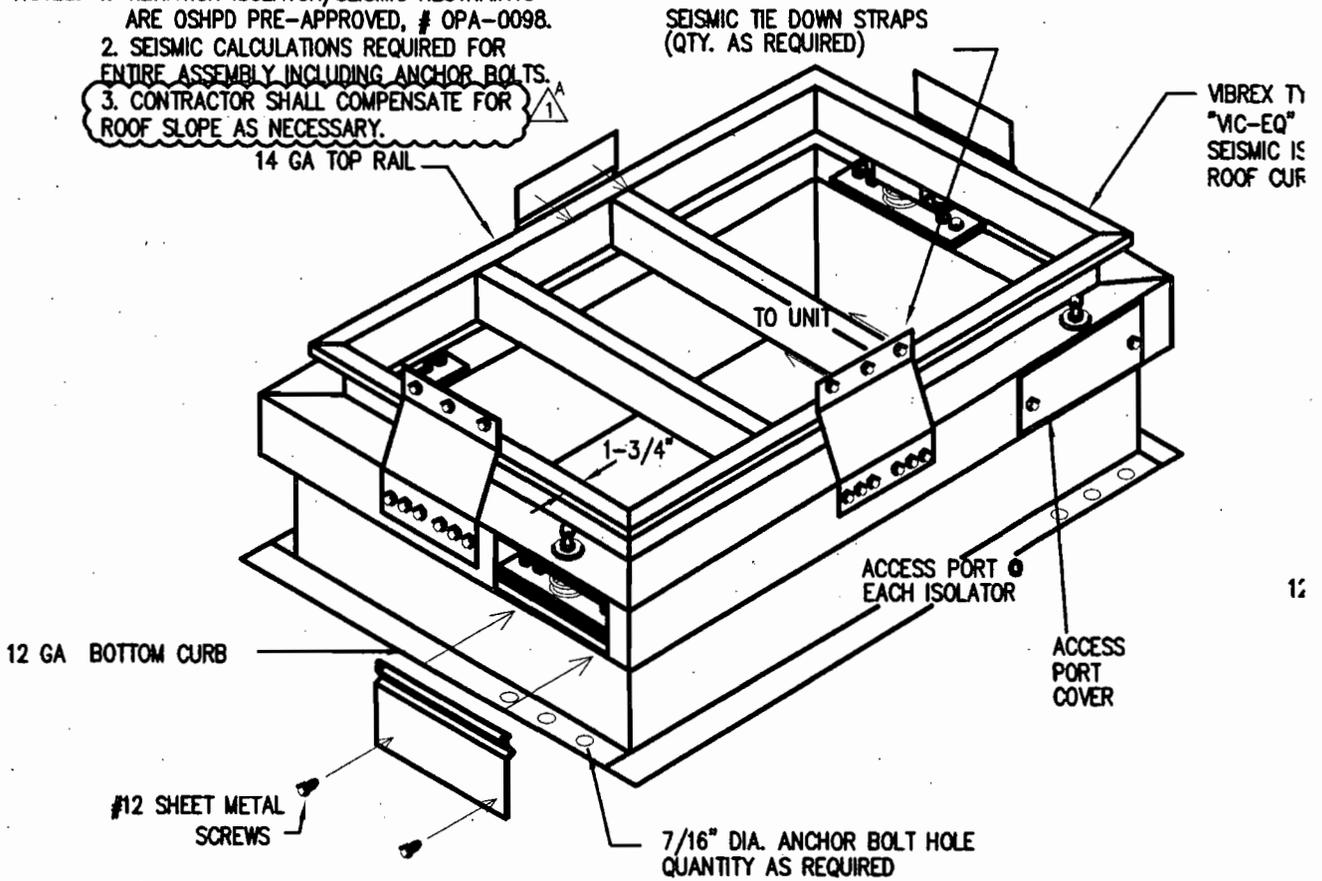
6

# TYPICAL STANCHION DETAIL FOR ROOF TOP MECHANICAL EQUIPMENT- CD-1

4

NO SCALE

- NOTES: 1. VIBRATION ISOLATOR/SEISMIC RESTRAINTS ARE OSHPD PRE-APPROVED, # OPA-0098.  
 2. SEISMIC CALCULATIONS REQUIRED FOR ENTIRE ASSEMBLY INCLUDING ANCHOR BOLTS.  
 3. CONTRACTOR SHALL COMPENSATE FOR ROOF SLOPE AS NECESSARY.



5

# ACU-1 UNIT MOUNTING DETAIL

NO SCALE



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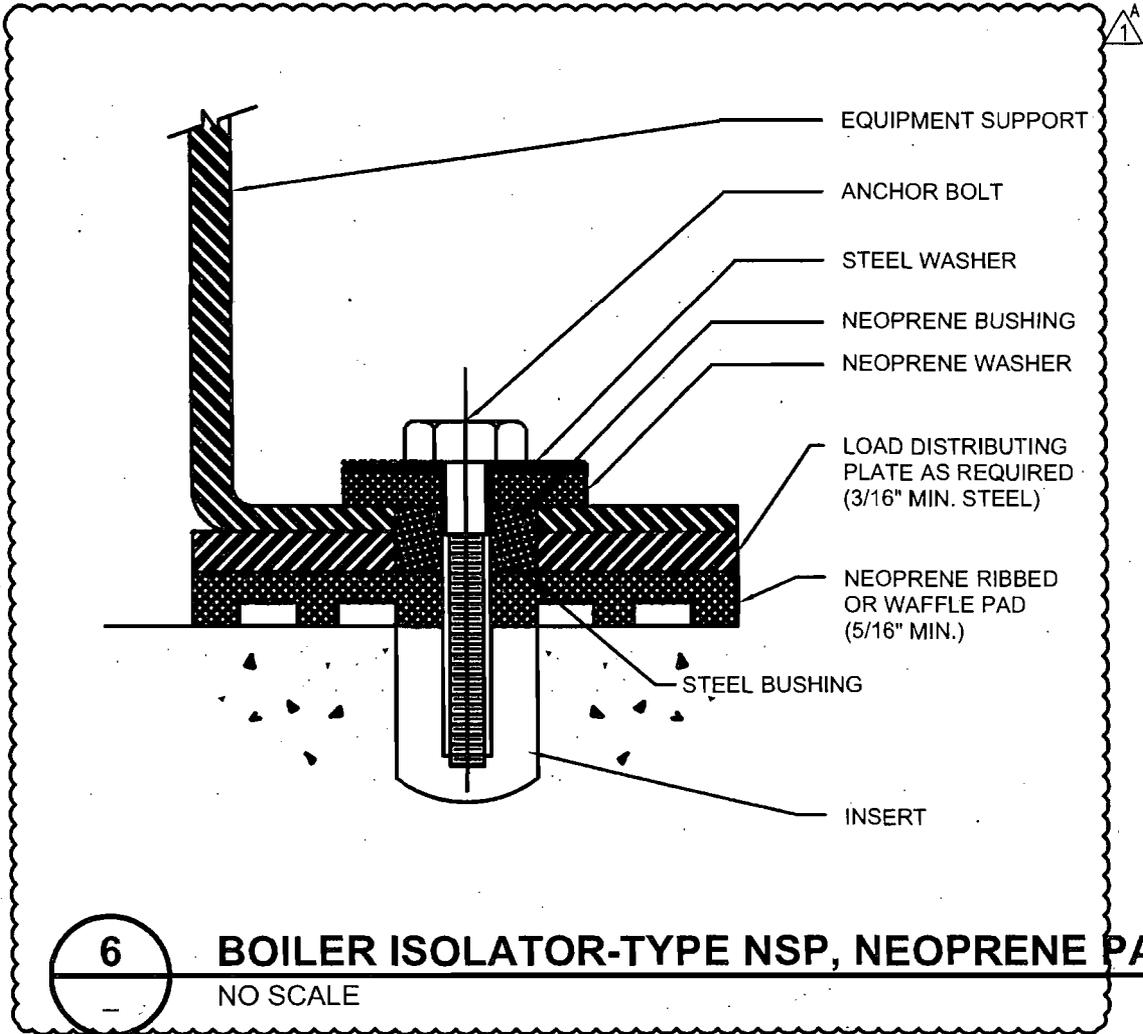
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: NO SCALE  
JOB #: 06-210-18-116

- DETAILS

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-5/M4.1-09  
DRAWING



EQUIPMENT SUPPORT

ANCHOR BOLT

STEEL WASHER

NEOPRENE BUSHING

NEOPRENE WASHER

LOAD DISTRIBUTING  
PLATE AS REQUIRED  
(3/16" MIN. STEEL)

NEOPRENE RIBBED  
OR WAFFLE PAD  
(5/16" MIN.)

STEEL BUSHING

INSERT



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SCALE: NO SCALE  
JOB #: 06-210-18-116

DETAILS

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M4.3-10  
DRAWING

# AIR CONDITIONING UNIT SCHEDULE

				RETURN/ EXHAUST FAN						COOLING COIL			
RPM	HP	BHP	AMPS	CFM	ESP IN. H2O	RPM	HP	BHP	AMPS	ROWS FPI	CAPACITY (MBH) TOTAL	CAPACITY (MBH) TOTAL	WATER FLOW R/ (GPM)
1238	50.0	43.5	137	23,700	1.15	719	20.0	13.9	57	5 12	941	916	58.3

SECTIONS. DIVISION 16 SHALL PROVIDE SEPERATE ELECTRICAL SUPPLY TO  
 \_ WIRING BETWEEN THE AHU AND REMOTE CONDENSER SECTION SHALL BE  
 S REQUIRED BY THE ACU MANUFACTURER.

II MANUFACTURER SHALL BE FURNISHED BY THE CONTROLS CONTRACTOR

- ④ UNITS SHALL BE PROVIDE WITH VFD'S.
- ⑤ SINGLE ZONE BLOW THROUGH UNIT.
- ⑥ UNITS SHALL BE PROVIDED WITH ECONOL

## T SCHEDULE (EVAPORATIVE TYPE)

HEATING COIL							CONDENSER						SPRAY P	
CAPACITY (MBH) TOTAL	WATER FLOW RATE (GPM)	ROWS	EAT °F		LAT °F	EWT °F	LWT °F	QTY	CIRCUITS	HP	AMP	KW	HP	A
		FPI	DB	DB		ROWS								
916	58.3	1 9	55.0	81.2	180.0	148.6	1	2 14	4X1.5	4X5.5	4.3	1.5		

PROVIDE WITH VFD'S.  
 THROUGH UNIT.

- ⑧ FOR HEATING MODE AMBIENT OUTDOOR TEMPERATURE SHALL BE 27°F, HEATING HOT WATER SUPPLY SHALL 180°F WITH A T OF 40°F EITHER TO THE COIL OR INJECTION CIRCUIT AS APPROPRIATE.
- ⑨ FOR HEATING MODE THE MIXED AIR TEMPERATURE ENTERING THE HEATING COIL SHALL BE

①													
		SPRAY PUMP			COMPRESSOR		ACU ELECTRICAL				PHYSICAL DATA		
HP	AMP	KW	HP	AMP	HP	AMP	MCA	VOLT	PH	HZ	WEIGHT LBS.		
4X1.5	4X5.5	4.3	1.5	5.3	2X30	2X88	431.5	208	3	60	30,000		

JRE SHALL BE 27°F, HEATING HOT WATER  
 TO THE COIL OR INJECTION CIRCUIT AS

- ⑩ ACU-1 SHALL BE FITTED WITH A INJECTION CIRCUIT FOR THE HEATING COIL. FLOW RATE SHOWN IS FOR INJECTION CIRCUIT ACTUAL FLOW THROUGH COIL SHALL BE AS REQUIRED BY ACU



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SCALE: NO SCALE  
 JOB #: 06-210-18-116

SCHEDULES

AIR CONDITIONING UNIT SCHEDULE

SHEET TITLE

06-17-2008

DATE

GS

BY

ADDENDUM 1

REVISION

AD1-1/M5.1-11

DRAWING

## AIR DISTRIBUTION GRILLE SCHEDULE

TAG	DESCRIPTION	REMARKS
LS-1	LINEAR BAR SUPPLY, MODEL FL-20-JT 2" SLOT WIDTH, 2" SLOT, 12" INLET, 5' LONG	①
LS-2	LINEAR BAR SUPPLY, MODEL FL-25-JT 2.5" SLOT WIDTH, 1 SLOT, 12" INLET, 5' LONG	①
CS-1	SQUARE CEILING SUPPLY GRILLE, PERFERATED FACE, MODEL PDS WITH TYPE 3 BORDER, 24"x24" FACE NECK SIZE AS INDICATED ON PLANS.	①②
CR-1	SQUARE CEILING RETURN GRILLE, PERFERATED FACE, MODEL PDR WITH TYPE 3 BORDER, 24"x24" FACE UNLESS OTHERWISE NOTED, NECK SIZE SHALL BE 22"x22"	①②
CR-2	36"x48" EGGCRATE GRILLE, MODEL 50F, 1/2"x1/2"x1 CORE, WITH BOARDER TYPE ONE, COUNTER SUNK SCREW HOLES AND OBD.	①②
CE-1	SQUARE CEILING EXHAUST GRILLE, PERFERATED FACE, MODEL PDR WITH TYPE 3 BORDER, 12"x12" FACE NECK SIZE AS INDICATED ON PLANS	①②
CE-2	SQUARE CEILING EXHAUST GRILLE, PERFERATED FACE, MODEL PDR WITH TYPE 3 BORDER, 24"x24" FACE NECK SIZE AS INDICATED ON PLANS	①②
CSD-1	VERTICAL LAMINAR FLOW SUPPLY DIFFUSER MODEL TLF, WITH TYPE 3 BORDER, 48"x24" NECK SIZE AS INDICATED ON PLANS	①
CSD-2	ROUND CEILING SUPPLY DIFFUSER, MODEL TMRA NECK SIZE AS INDICATED ON PLANS	①
WR-1	WALL RETURN REGISTER, 1/2" BLADE SPACING, 30° FIXED DEFLECTION, TITUS MODEL 25RL STEEL CONSTRUCTION, WHITE FINISHED	①

**NOTES:**



SELECTION BASED ON TITUS.



WHERE GRILLE IS USED FOR TRANSFER AIR, NECK SHALL BE LARGE AS POSSIBLE FOR DIFFUSER



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SCALE: NO SCALE  
JOB #: 06-210-18-116

- SCHEDULES  
- AIR DISTRIBUTION GRILLE SCHEDULE

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M5.1-12  
DRAWING

# PUMP SCHEDULE

MARK 	MFR	MODEL	TYPE	MOTOR (PREM. EFF.)			
				NOL BHP	NON-OVERLOADING HP	VOLT-Ø	RPM
HWP-1	BELL & GOSSETT	80 1-1/2X 1-1/2X9-1/2	IN-LINE	3.2	5	208/3/60	1750

**NOTES:**

1 WITH VFD.  
 2 PREMIUM EFFICIENT MOTOR.  
 3 OPEN DRIP PROOF MOTORS.  
 4 RUN & STAND BY.

## PUMP SCHEDULE

MOTOR (PREM. EFF.)			PERFORMANCE		OPERATING WEIGHT (LBS)	PUMP EFF. (%)	REMARKS
NON-OVERLOADING HP	VOLT-Ø	RPM	GPM	HEAD FT			
5	208/3/60	1750	70	75	190	-	<span style="border: 1px solid black; padding: 2px;">1</span> <span style="border: 1px solid black; padding: 2px;">2</span> <span style="border: 1px solid black; padding: 2px;">3</span> <span style="border: 1px solid black; padding: 2px;">4</span> <span style="border: 1px solid black; padding: 2px;">1</span>

MOTORS. 4 RUN & STAND BY.



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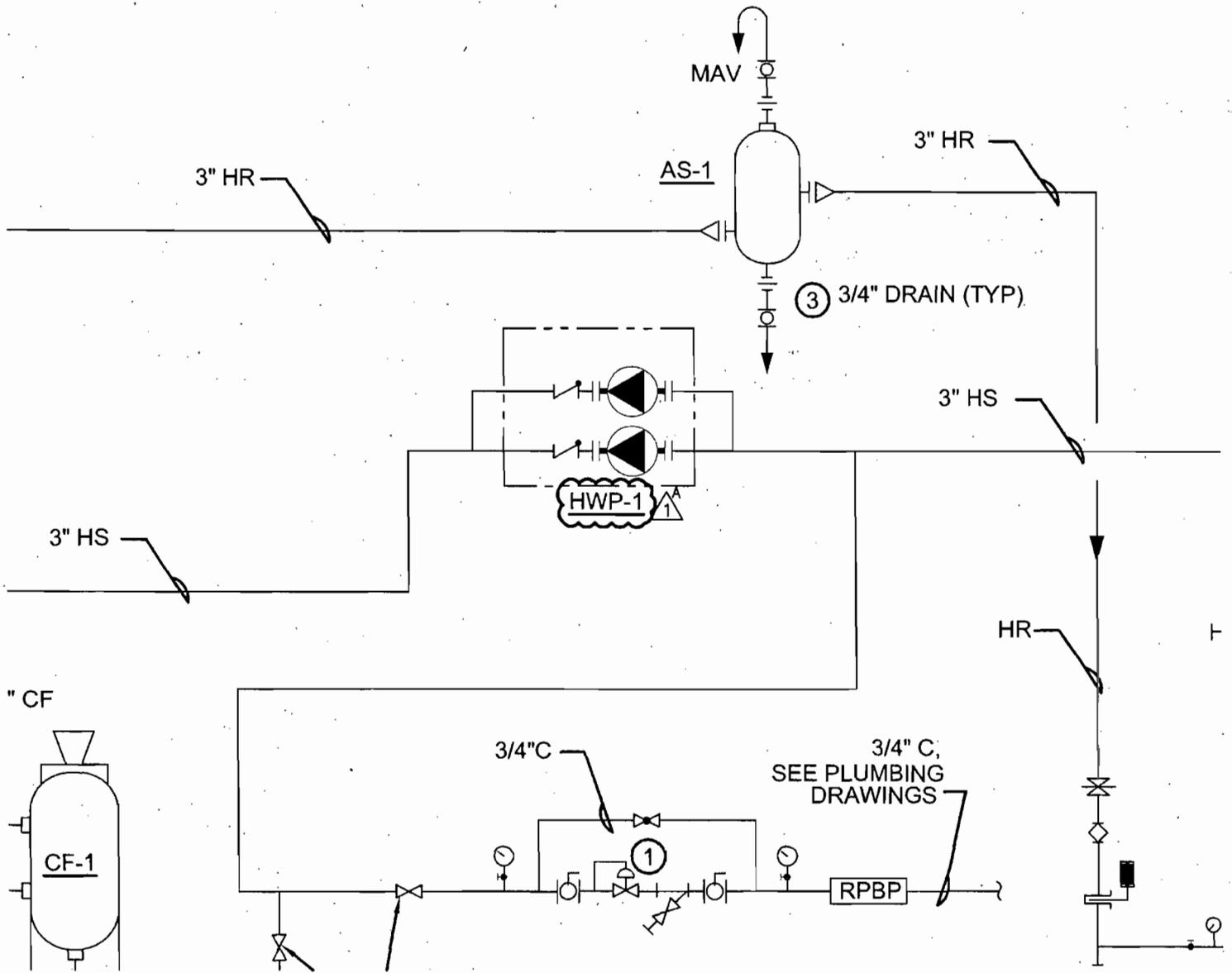
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: NO SCALE  
JOB #: 06-210-18-116

SCHEDULES  
PUMP SCHEDULE

SHEET TITLE  
06-17-2008  
DATE  
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ADDENDUM 1  
REVISION  
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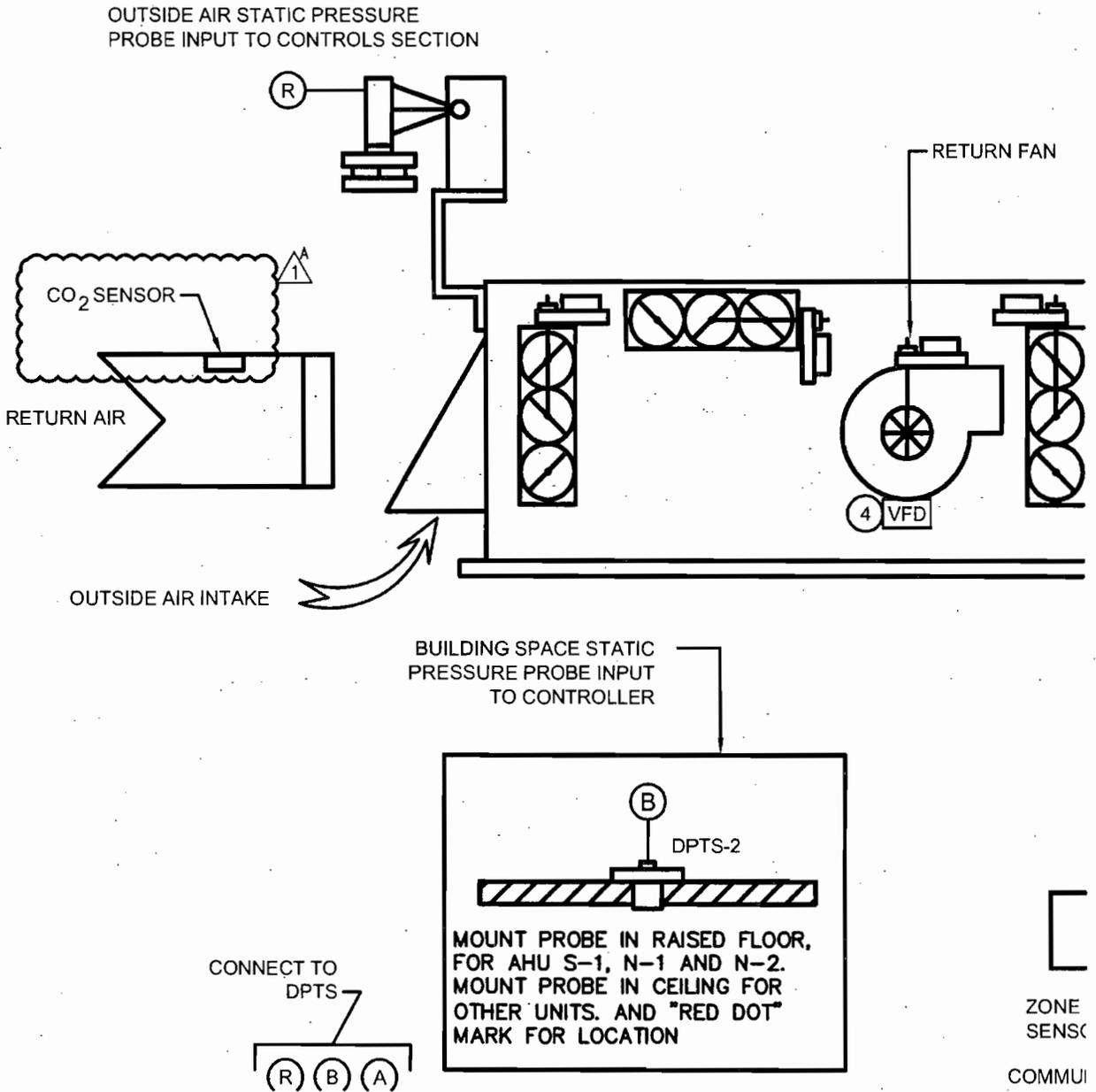
CITY OF SAN LEANDRO  
SENIOR COMMUNITY CENTER

SCALE: NO SCALE  
JOB #: 06-210-18-116

- RISER FLOW DIAGRAMS

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M6.1-14  
DRAWING



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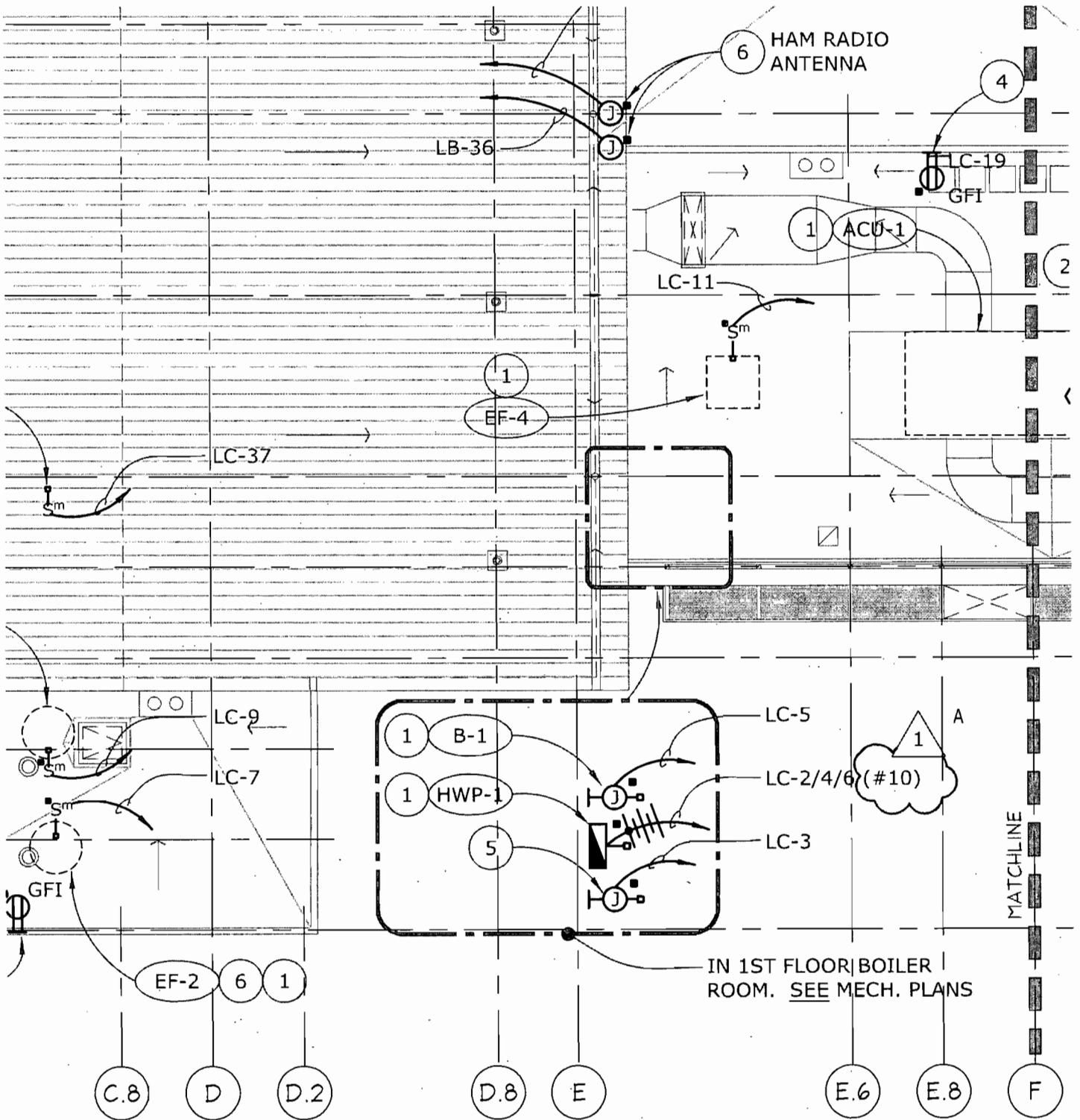
CITY OF SAN LEANDRO  
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SCALE: NO SCALE  
JOB #: 06-210-18-116

- CONTROL DIAGRAMS

SHEET TITLE  
06-17-2008  
DATE  
GS  
BY

ADDENDUM 1  
REVISION  
AD1-1/M7.2-15  
DRAWING



# MECHANICAL EQUIPMENT PLAN - ELECTRICAL

1  
E3.3

SCALE: 3/32" = 1'-0"  
FILE: ... 19XFP02 + 19XFP03 (05-07-08)



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SAN LEANDRO  
SENIOR  
COMMUNITY  
CENTER

SCALE: 3/32" = 1'-0"  
JOB #: 06-210-18-116



MECHANICAL EQUIPMENT PLAN -  
ELECTRICAL

SHEET TITLE  
06-17-08  
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ME/LN  
BY

ADD 1  
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DRAWING



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SENIOR  
COMMUNITY  
CENTER  
SCALE: NONE  
JOB #: 06-210-18-116



SCHEDULES

SHEET TITLE  
06-17-08  
DATE  
ME/LN  
BY

ADD 1  
REVISION  
ADD1-E6.1  
DRAWING

# PANEL LC

VOLTS: 120 / 208 V  
PHASE: 3  
WIRE: 4 W  
BUSSING: 225A  
POLES: 42P

MAIN BRKR: MLO  
FEEDER: SEE SINGLE LINE  
CONDUIT: SEE SINGLE LINE  
MOUNTED: SURFACE  
AIC RATING: 42,000

LOAD DESCRIPTION	TYPE	A	B	C	BRKR.	CKT.	BRKR.	CKT.	A	B	C	TYPE	LOAD DESCRIPTION
HVAC-1ST FLR WHI, RP1, RP2	H	0.50			20/1	1	20/1	1				H	
HVAC-1ST FLR EMS PANEL	H		0.10		20/1	3	30/3	4	2.11	2.11		H	HVAC-1ST FLR HWP1
HVAC-1ST FLR BOILER B1	H			0.10	20/1	5		6		2.11		H	
HVAC-ROOF EF2	H	0.87			20/1	7		8	1.33	1.33		H	
HVAC-ROOF EF3	H		0.53		20/1	9		10				H	HVAC-ROOF EF1
HVAC-ROOF EF4	H			1.18	20/1	11		12			1.33	H	
HVAC-ROOF EF5	H	0.70			20/1	13		14	0.10	0.10		H	
HVAC-ROOF EF6	H		0.70		20/1	15		16			0.10	H	HVAC-FCU1
SPARE					20/1	17		18			2.60	H	
ROOF RECEP'TS	R	0.72			20/1	19		20	2.60	2.60		H	HVAC-CU1
HVAC-FSD'S	H		0.30		20/1	21		22		0.10		H	
SPARE					20/1	23		24			0.10	H	HVAC-FCU2
SPARE					20/1	25		26	1.77	1.77		H	
SPARE					20/1	27		28			1.77	H	HVAC-CU2
SPARE					20/1	29		30				H	S P A C E
SPARE					20/1	31		32				M	S P A C E
IRRIGATION CONTROLS	M		0.20		20/1	33		34		0.20		M	ACU-CONTROLS
FIRE BELL (LOCK ON)	M			0.10	20/1	35		36			0.20	M	GENERATOR FUEL ALARM PANEL
HVAC-1ST FLR VAV'S	H	1.00			20/1	37		38	0.60	0.60		M	GENERATOR BATTERY CHARGER
HVAC-1ST FLR VAV'S	H		1.00		20/1	39		40		1.00		M	GENERATOR JACKET WATER HEATER
HVAC-1ST FLR VAV'S	H			1.00	20/1	41		42			1.00	M	
<b>TOTALS:</b>		<b>3.79</b>	<b>2.83</b>	<b>2.38</b>					<b>8.51</b>	<b>6.61</b>	<b>7.34</b>		

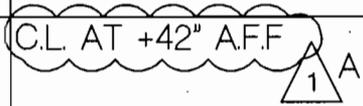
DEMAND LOAD SUMMARY	CONN. KVA	DEMAND FACTOR	DEMAND KVA
TYPE "M": NON-CONTINUOUS / MISC. LOADS	3.30	100%	3.30
TYPE "L": LIGHTING / CONTINUOUS LOADS	0.00	125%	0.00
TYPE "R": RECEPTACLES (FIRST 10KVA)	0.72	100%	0.72
TYPE "R": RECEPTACLES (OVER 10KVA)	0.00	50%	0.00
TYPE "H": HVAC / MECHANICAL LOADS	27.44	100%	27.44
<b>TOTALS:</b>	<b>31.46</b>		<b>31.46</b>

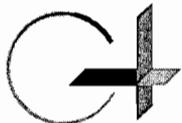
PHASE A: 12.30 KVA  
PHASE B: 9.44 KVA  
PHASE C: 9.72 KVA  
102.50 MAX AMPS / PHASE

SYM BOL	DEVICE
------------	--------

RACE WAY	ELEVATION
-------------	-----------

(A)	ANTENNA, AV TRANSMIT
CPMBW	CONTROL PANEL, WALL MOUNTED, WIRED, WITH TOUCHPANEL AND 10 CONTROL BUTTONS MIN.
CPBSW	CONTROL PANEL, WALL MTD., WIRED, AND 12 CONTROL BUTTONS MIN.
CR	CARD READER, PROXIMITY
DC	DURESS ALARM, CASEWORK MTD.
DS	DOOR POSITION SWITCH
EL	ELECTRIC LOCK
FC4	FLOOR BOX, CONCRETE SLAB, AT LEAST 1-4 GANG, 1-2 GANG AND 1-1 GANG OPENING, EACH AT LEAST 2-1/8" DEEP. 6" MIN. DEPTH OVERALL. LID ACCEPTS CARPET INSERTS.

R5	ABOVE CEILING
R5	+42" AFF
R5	+42" AFF
R4	C.L. AT +42" AFF 
R1	PER OWNER'S REPRESENTATIVE
R4	AS DETAILED
R4	WIRE TO MIDDLE HINGE OF DOOR OPPOSITE LOCK
R10	FLUSH IN FLOOR



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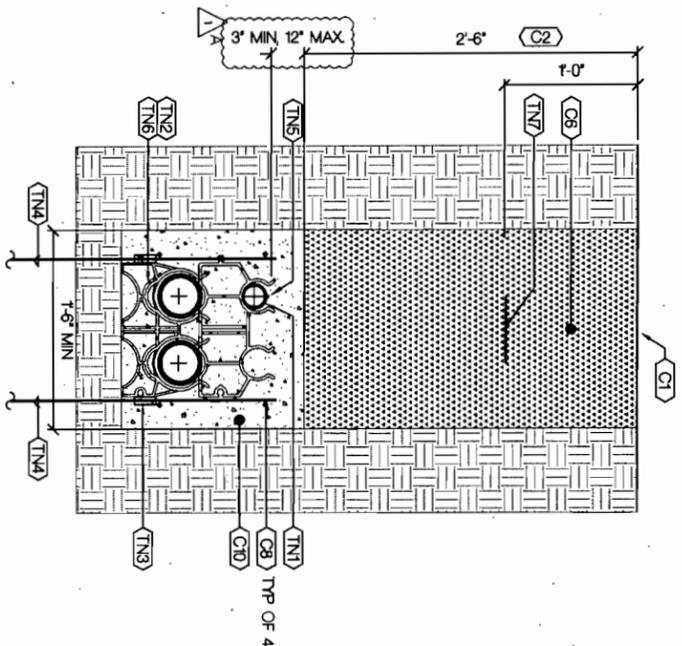
SCALE: NTS  
JOB #: 04340-01

COMMUNICATIONS & AV  
SYMBOL SCHEDULE

SHEET TITLE  
06-17-2008  
DATE  
DB  
BY

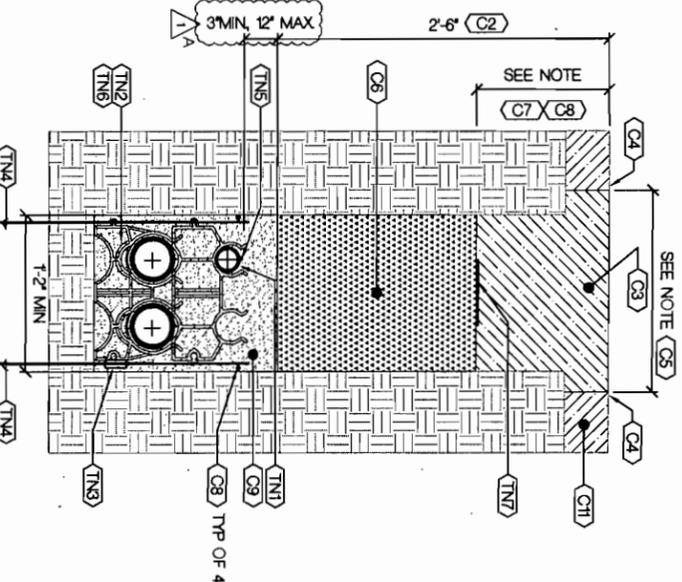
ADDENDUM 1  
REVISION  
AD1/T.03-01  
DRAWING





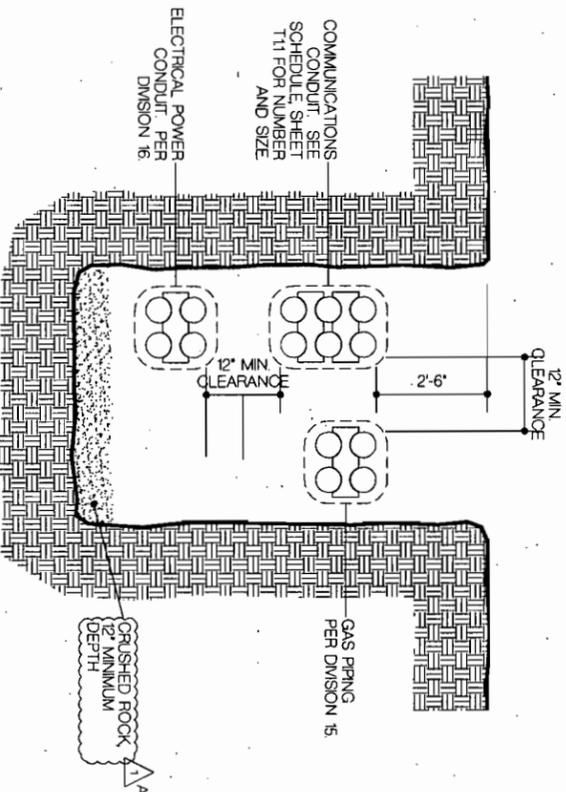
1 2x4" AND 1x2" PVC  
TRENCH IN EARTH SECTION

NTS



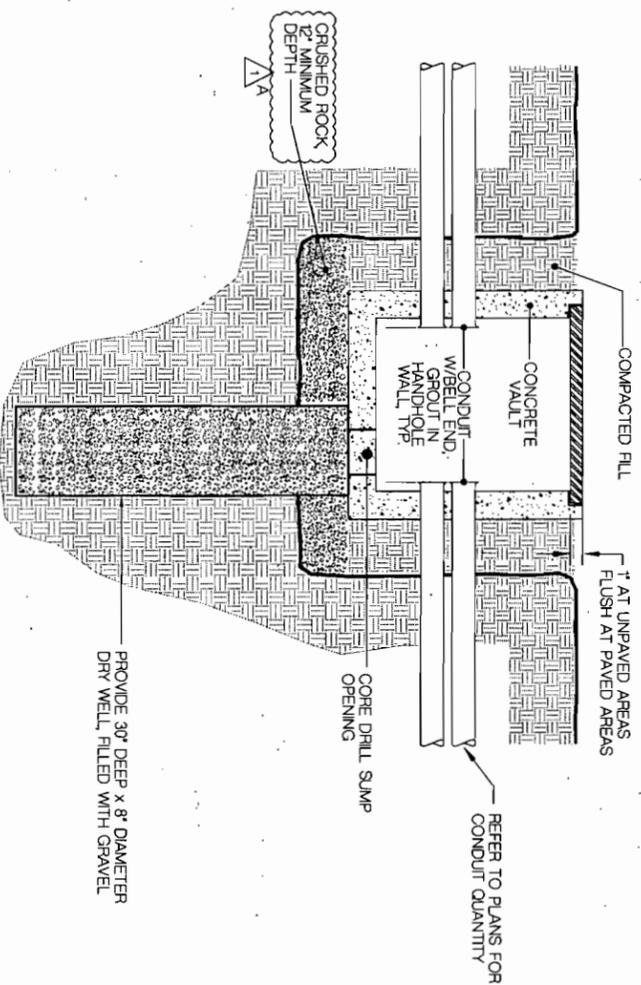
2 TRENCH IN ASPHALT PAVEMENT SECTION

NTS



3 TRENCH SECTION - MIN. CLEARANCE

NTS



4 TYPICAL PULLBOX SECTION

NTS

**KEYNOTES**

- C OWL - COMPLY WITH DIVISION 2
- C1 SURFACE
- C2 MINIMUM COVER UNLESS OTHERWISE NOTED
- C3 ASPHALT CONCRETE COMPLY WITH SECTION 0273-ASPHALT CONCRETE PAVEMENT.
- C4 USE PAVEMENT CUTTING TOOL TO OBTAIN A NEAT LINE
- C5 EXCAVATIONS 12" OR LESS IN WIDTH PAVING SHALL BE CUT 12" GREATER THAN THE LENGTH AND WIDTH OF THE EXCAVATION MEASURED 6" FROM EACH SIDE OF THE EXCAVATION EXCAVATIONS WIDER THAN 12" IN WIDTH PAVING SHALL BE CUT 24" GREATER THAN THE LENGTH AND WIDTH OF THE EXCAVATION MEASURED 12" FROM EACH SIDE OF THE SIDE OF THE EXCAVATION
- A ON-SITE MATERIAL (NATIVE BACKFILL) COMPACT TO 90% OF MAXIMUM DRY DENSITY.
- C7 ASPHALT CONCRETE TYPICAL 4" THICKNESS FOR STREETS TYPICAL 3" THICKNESS FOR BIKES PATH AC SIDEWALKS AND PARKING LOTS COMPLY WITH SECTION 0273- ASPHALT CONCRETE PAVEMENT.
- C8 NUMBER 4 REINFORCEMENT BAR (RE-BAR)
- C9 SAND COMPACTED TO 90% COMPACTION PER ASTM D1557.
- C10 STRUCTURAL CONCRETE WITH ORANGE DYE AT TOP.
- TN COMMUNICATIONS SYSTEMS WORK OF DIV. 7
- TN1 PVC CONDUIT, SCHEDULE 40. SEE PLANS FOR SIZE AND QUANTITY.
- TN2 DUCT SPACER SIZE TO MATCH CONDUIT.
- TN3 RE-BAR HOLDER
- TN4 NO.4 BAR APPROXIMATELY 3 FEET LONG.
- TN5 1/2" SOLID CORE COPPER TRACER WIRE
- TN6 SPACE AT APPROXIMATELY 3 SPACERS PER 20 FEET OF DUCT RUN
- TN7 MARKER TAPE PROVIDE 1 MARKER TAPE PER 12 INCH WIDTH OF EXCAVATION OR FRACTION THEREOF

**SHEET NOTES**

- 1 OUTSIDE PLANT TRENCHING DETAILS TO COMPLY WITH CITY OF SAN LEANDRO TRENCH BACKFILL STANDARD PLANS.

**CITY OF SAN LEANDRO**

SAN LEANDRO SENIOR COMMUNITY CENTER  
 DETAILS - OUTSIDE PLANT

19.13

SHEET 310

JOB NO. 06-210-18-116

SCALE NONE

DWG. CASE 901

**Smith, Fause & McDonald, Inc.**  
 Communications Engineering Group  
 381 8th Street  
 San Francisco, California 94103  
 (415) 255-9140 Fax: (415) 255-9180



GROUP 4  
 ARCHITECTURE  
 RESEARCH +  
 PLANNING, INC.  
 211 LINDEN AVENUE  
 S.O. SAN FRANCISCO  
 CA 94108 U.S.A.  
 650-871-0709

REGISTERED ARCHITECT  
 DAWN E. MERRICKS  
 NO. C-24206  
 REG. 10-31-09  
 ARCHITECT  
 STATE OF CALIFORNIA



BEFORE YOU DIG, CALL THE CITY OF SAN LEANDRO AT 925-437-2200. THE CITY ENGINEER'S OFFICE SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL NECESSARY PERMITS AND TO OBTAIN ALL NECESSARY INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND TO OBTAIN ALL NECESSARY INFORMATION AVAILABLE TO THE CITY OF SAN LEANDRO.

NO.	DATE	REVISION	DESIGNED BY	DATE
1	06/19/08	BID SET	IRVING MOHR	DATE
2	06/17/08	ADDENDUM 1	IRVING MOHR	DATE
3	-	-	SENIOR ENGR.	DATE
4	-	-	APPROVED BY:	DATE
5	-	-	CITY ENGINEER, P.C.E. No. 34870	DATE