



Denver Public Schools
Purchasing Department
1617 S. Acoma St.
Denver, Colorado 80223

**INVITATION TO BID 14-MC-2240
ADDENDUM NUMBER TWO
August 18, 2014**

THIS ADDENDUM MUST BE ACKNOWLEDGED.

THIS ADDENDUM SHALL BECOME A PART OF THIS SOLICITATION.

Amend Invitation to Bid 14-MC-2240 as follows:

Contractor question: Where is parking available during construction?

Answer: Parking for contractors will be available at a lot on the southwest side of the intersection of 7th & Canosa.

See attached below signature block:
12035.02AD-02_addendum 2-complete.pdf

If your proposal has been submitted and you wish to amend it, please modify your proposal on company letterhead. The amended proposal must be received prior to or included at the time and date set for the proposal opening. Each modification submitted to the District's Purchasing Office located at 1617 S. Acoma St. Denver, CO 80223. **It must have Vendor's name and return address and the applicable RFP number and title of the RFP clearly marked on the face of the envelope.**

If more than one modification is submitted, the modification bearing the latest date of receipt by the District's Strategic Sourcing Office will be considered the valid modification.

******This addendum must be acknowledged, whether or not you amend your proposal.******

This Addendum must be included in your submittal or proposal, providing you do not need to amend your proposal.

PRINT OR TYPE YOUR INFORMATION

Name of Company: _____		Fax: _____
Address: _____	City/State: _____	Zip: _____
Contact Person: _____	Title: _____	Phone: _____
Authorized Representative's Signature: _____		Phone: _____
Printed Name: _____	Title: _____	Date: _____
	Approved by: _____	Date: _____
	Reviewed by: _____	Date: _____



ADDENDUM

PROJECT: Hilltop Service Center
Archives Renovation
2800 West 7th Avenue
Denver, CO 80204

Addendum Instruction No: 02

DATE OF ISSUANCE: 08/18/2014

ARCHITECT PROJECT NO: 12035.02

OWNER: Denver Public Schools No. 1
Renee Verspoor – Project Manager
1617 S Acoma Street
Denver, Co 80223

ARCHITECT:
R.T.A., Inc.
19 South Tejon Street, Suite 300
Colorado Springs, Co 80903

The following shall become as fully a part of the above-referenced Drawings and Specifications, as if herein written and shall take full and complete precedence over anything therein contained to the contrary.

Each Contractor shall acknowledge the receipt of this Addendum on the Bid Form and in so doing, shall also acknowledge his understanding of the impact on his work and that of his material suppliers.

Each Contractor shall be responsible for reading each and every item in this Addendum to ascertain to what extent and in what manner it affects the work in which he and his material suppliers are involved.

Please make the following changes and/or modifications to the documents:

Description:

Project Manual:

Product Substitutions

The following product substitutions have been submitted and reviewed for compliance with the construction documents and owner requirements. See below for list of products and status

102113 Toilet and Shower Compartments

Hadrian Solid Plastic Toilet Partitions - DENIED, DPS requirements are for metal partitions only.

Item AD02-PM1

Section 01127- ALLOWANCES

1. Replace with attached specification section dated August 18, 2014.

Item AD02-PM2

Section 087100 DOOR HARDWARE

1. Page 4 of 15, section 1.7Warranty Period, revise to read:
 - a) Two years from date of Substantial Completion, except as follows:
 - b) II Hardware items: Ten years guarantee from date of Substantial Completion for all parts.
 - c) Closers: Ten year replacement guarantee against mechanical failure from date of Substantial Completion.

- d) All locksets shall have a lifetime warranty.
2. Page 7 of 15, Section 1.112 lock cylinders, items G, revise to read: "1. BEST cores only. No substitutions."
 3. Page 14 of 15, Lock set 500, change function to "Intruder".
 4. Page 14 of 15 & 15 of 15, ALL Lock sets, shall include tail pieces for the permanent cores with the lever set.
 5. Page 14 of 15 & 15 of 15, ALL hardware groups sets, shall include 16 ga. Stainless steel kickplates, 12" high, door width less 2", mounted 1/2" above bottom of door.
 - 6.

Item AD02-PM3

Section 093100 Ceramic Tile

7. Page 4 of 9, Section 2.3 Tile Products, items B & D revise as following:

B. Glazed Wall Tile: Flat tile as follows:

1. Module Size: 4 1/4 by 4 1/4 inches, Matte Finish
2. Thickness: 5/16 inch.
3. *Field 80% - Matte Price Group 1 or 2*
4. *Accent #1 solid color 10% - Semi-gloss group 1 or 2.*
5. *Accent #2 solid color 10% Semi-gloss group 1 or 2*

D. *Porcelain Floor Tile: Flat tile as follows:*

1. *Module Size: 2 by 2 inches, Matte Finish – price group 1 & 2*
 2. *Thickness: 5/16 inch.*
 3. *Wall / Cove Base: Match daltile 2x2 Build up Base MB-5A*
 4. *Accent #1 solid color 10% - price group 2*
 5. *Accent #2 solid color 10% - price group 2*
8. Page 4 of 9, Section 2.3 Tile Products Delete item 6 describing requirements for kitchen tile. Not applicable for this project.
 9. Page 5 of 9, Section 2.4 Setting and Grouting Materials, item C, Polymer-modified tile grout (epoxy) shall be used in all locations. Colors shall be white for all wall tile and grey for floor tile.
 10. Page 5 of 9, Section 2.4 Setting and Grouting Materials, **add** item F as follows: F. Primer/ Bond Coat / Bonding Agent, thin section two-component primer, composed of a modified elastomeric copolymer and cementitious filler powder. (Required at application over glazed masonry or surfaces that will not accept mortar.)

Item AD02-PM4

Section 08- SECTIONAL OVERHEAD DOORS

11. Add this specifications to the table of contents and to the specifications. Section is dated August 18, 2014.

Sheets:

Architectural Sheets:

Item AD02-A1

Sheet AD111

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-A2

Sheet A110A

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-A3

Sheet AC111

Replace with attached sheet with revision date of 8/18/2014.

Mechanical Drawings:**Item AD02-M1**

Sheet M000- Phase 2 hvac legend and notes

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-M2

Sheet MD111- Phase 2 upper level mechanical – plumbing demo plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-M3

Sheet M110- Phase 2 lower level hvac plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-M4

Sheet M111- Phase 2 upper level hvac plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-M5

Sheet M112- Phase 2 roof mechanical - plumbing plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-M6

Sheet M701- mechanical - plumbing schedules

Replace with attached sheet with revision date of 8/18/2014.

Plumbing Drawings:**Item AD02-P1**

Sheet PD110- phase 2 lower level demo plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-P2

Sheet P110- phase 2 lower level plumbing plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-P3

Sheet P111- phase 2 upper level plumbing plan

Replace with attached sheet with revision date of 8/18/2014.

Electrical Drawings:**Item AD02-E1**

Sheet E000-electrical legend and notes

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-E2

Sheet ED110-phase 2 lower level demo plan

Replace with attached sheet with revision date of 8/18/2014.

Item AD02-E3

Sheet ED111-phase 2 upper level demo plan

Replace with attached sheet with revision date of 8/18/2014.

SECTION 01127 - ALLOWANCES

PART 1 - GENERAL

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 LUMP-SUM ALLOWANCES

- A. Allowance shall include cost to Contractor of specific products and materials under allowance and shall include all general conditions, taxes, freight, and delivery to Project site.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work.

3.2 SCHEDULE OF ALLOWANCES

- A. Allowance No 1. Include in the base bid, an allowance for moving materials or moving services not identified on the drawings. General Contractor shall provide moving boxes, tape, tape guns, use of hand trucks, and moving services per the Owner's request. Costs of individual materials shall be agreed upon by DPS and General Contractor prior to purchase of any building materials or additional moving services. ALLOWANCE SUM OF: \$5,000.00.
- B. Allowance No 2. Include in Alternate number 5 an allowance for additional electrical power distribution including circuits, conduit, devices and related work for the Ricoh print shop. Scope may include additional I.T. cabling and conduit. Work shall be completed based on agreed upon scopes of work and cost of work. ALLOWANCE SUM OF: \$6,000.00.

END OF SECTION 01127

SECTION 083613 - SECTIONAL OVERHEAD DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Sectional overhead doors including supplementary items necessary to complete the Work required for their installation.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Provide sectional overhead doors capable of withstanding the effects of gravity loads and the following loads and stresses without evidencing permanent deformation of door components:
 - 1. Wind Load: Uniform pressure acting inward and outward as required by local building code and Design Wind Pressure Schedule.
- B. Operation-Cycle Requirements: Design sectional overhead door components and operator to operate for not less than 20,000 cycles and for 10 cycles per day.

1.3 SUBMITTALS

- A. Product Data: For type and size of sectional overhead door and accessory. Include details of construction relative to materials, dimensions of individual components, profiles, and finishes. Provide roughing-in diagrams, operating instructions, and maintenance information. Include the following:
 - 1. Setting drawings, templates, and installation instructions for built-in or embedded anchor devices.
 - 2. Summary of forces and loads on walls and jambs.
- B. Shop Drawings: For special components and installations not dimensioned or detailed in manufacturer's data sheets.
- C. Samples for Verification: Of type of exposed finish required (aluminum), prepared on Samples of size indicated below and of same thickness and material indicated for Work. Where finishes involve normal color and texture variations, include Sample sets showing the full range of variations expected.
- D. Installer Certificates: Signed by manufacturer certifying that installers comply with specified requirements.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who is an authorized representative of the sectional overhead door manufacturer for both installation and maintenance of units required for this Project.
- B. Source Limitations: Obtain sectional overhead doors through one source from a single manufacturer. Obtain accessories from the sectional overhead door manufacturer.

PART 2 - PRODUCTS

2.1 PRODUCT STANDARD

- A. The Contract Documents are based on the following product to establish a standard of quality. Other acceptable manufacturers with products having equivalent characteristics may be considered provided deviations are minor and do not change the intended aesthetic, functional, and performance requirements as judged by the Architect.
1. Manufacturer: Overhead Door Corporation.
 2. Product: Electric Operated Aluminum 511 Series – ½” Insulated glass.
- B. Following Manufacturers listed are “acceptable” only if manufacturer can evidence product compliance with requirements of Contract Documents:
- The Cookson Company.
Cornell Iron Works Inc.
McKeon Rolling Steel Door Company, Inc.
Raynor Garage Doors.
Wayne-Dalton Corp.
- C. For consideration of manufacturers other than the named product standard and other listed acceptable manufacturers, submit as a substitution according to the Conditions of the Contract and Division 01 Specification Sections.

2.2 ALUMINUM SECTIONS

- A. Construct door framing sections with extruded-aluminum shapes, complying with ASTM B 221 (ASTM B 221M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, with wall thickness not less than 0.065 inch for door section 1-3/4 inches deep. Fabricate sections with stile and rail dimensions and profiles shown. Join stiles and rails by welding or with concealed, 1/4-inch- minimum-diameter, aluminum or nonmagnetic stainless-steel through bolts, full height of door section. Form meeting rails to provide a weathertight-seal joint. Provide reinforcement for hardware attachment.
- B. Fabricate panels of aluminum sheet, complying with ASTM B 209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, not less than 0.050 inch thick, set in continuous vinyl channel retained with rigid, snap-in, extruded-vinyl moldings or with rubber or neoprene glazing gasket with aluminum stop.
- C. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
1. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.
 2. Finish doors with manufacturer's standard, Class II, clear anodic finish; AA-M10C22A31; complying with AAMA 607.1.

2.3 TRACKS, SUPPORTS, AND ACCESSORIES

- A. Tracks: Provide manufacturer's standard, galvanized steel track standard lift system, sized for door size and weight, designed to match existing lift type and clearances, and complying with ASTM A 653, for minimum G90 zinc coating. Provide complete track assembly including brackets, bracing, and reinforcement for

rigid support of ball-bearing roller guides for required door type and size. Slot vertical sections of track at 2 inches o.c. for door-drop safety device. Slope tracks at proper angle from vertical or otherwise design to ensure tight closure at jambs when door unit is closed. Weld or bolt to track supports.

- B. Track Reinforcement and Supports: Provide galvanized steel track reinforcement and support members, complying with ASTM A 36 and ASTM A 123. Secure, reinforce, and support tracks as required for door size and weight to provide strength and rigidity without sag, sway, and vibration during opening and closing of doors.
- C. Support and attach tracks to opening jambs with continuous angle welded to tracks and attached to wall. Support horizontal (ceiling) tracks with continuous angle welded to track and supported by laterally braced attachments to overhead structural members at curve and end of tracks.
- D. Weatherseals: Provide replaceable, adjustable, continuous, compressible weather-stripping gaskets of flexible vinyl, rubber, or neoprene fitted to bottom and at top of overhead door.
 - 1. Provide motor-operated doors with combination bottom weatherseal and sensor edge.
 - 2. In addition, provide continuous flexible seals at door jambs for a weathertight installation.
- E. Windows: Provide windows of ½" insulated units of 3 or 4 equal widths across width of opening and equal sections vertically in opening. Set glazing in vinyl, rubber, or neoprene glazing channel for metal-framed doors. Provide removable stops of same material as door section frames.
 - 1. Size: Manufacturer's standard panel sizes to match the existing opening. .
 - 2. Glass Types: Low-E Tinted Fully-Tempered Insulating Glass
 - Outboard Lite: 1/4 in (6 mm) thick tinted fully-tempered float glass.
Product Description: PPG Solexia or equivalent of other acceptable glass manufacturer.
 - Air Space: 1/4 in (12 mm).
 - Inboard Lite: 1/4 in (6 mm) thick clear fully-tempered float glass with Low E coating on No. 3 surface.
Product Description: PPG Solarban 60 Low-E or equivalent of other acceptable glass manufacturer.
 - 3.
- F. Full Vision Panels: Manufacturer's standard aluminum tubular frame section fully glazed with glazing set in vinyl, rubber, or neoprene glazing channel with removable extruded-vinyl or aluminum stops.

2.4 HARDWARE

- A. General: Provide heavy-duty, corrosion-resistant hardware, with hot-dip galvanized, stainless-steel, or other corrosion-resistant fasteners, to suit door type.
- B. Hinges: Provide heavy-duty galvanized steel hinges, of not less than 0.0747-inch thick uncoated steel, at each end stile and at each intermediate stile, per manufacturer's written recommendations for door size. Attach hinges to door sections through stiles and rails with bolts and lock nuts or lock washers and nuts. Use rivets or self-tapping fasteners where access to nuts is not possible. Provide double-end hinges, where required, for doors exceeding 16 feet in width, unless otherwise recommended by door manufacturer.

- C. Rollers: Provide heavy-duty rollers, with steel ball bearings in case-hardened steel races, mounted with varying projections to suit slope of track. Extend roller shaft through both hinges where double hinges are required. Provide 3-inch diameter roller tires for 3-inch track, 2-inch-diameter roller tires for 2-inch track, with case-hardened steel tires.
- D. Fabricate locking device assembly with lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bar to engage through slots in tracks, operable from inside only.
 - 1. Provide Lock cylinder to accept BEST core.
- E. Push/Pull Handles: Provide galvanized steel lifting handles on each side of door.

2.5 COUNTERBALANCING MECHANISM

- A. Torsion Spring: Operation by torsion-spring counterbalance mechanism consisting of adjustable-tension torsion springs, fabricated from oil-tempered-steel wire complying with ASTM A 229, Class II, mounted on a cross-header tube or steel shaft. Connect to door with galvanized aircraft-type lift cables with cable safety factor of at least 5 to 1. Provide springs calibrated for minimum operation – cycle requirements specified.
- B. Cable Drums: Provide cast-aluminum or gray-iron casting cable drums grooved to receive cable. Mount counterbalance mechanism with manufacturer's standard ball-bearing brackets at each end of shaft. Provide 1 additional midpoint bracket for shafts up to 16 feet long and 2 additional brackets at one-third points to support shafts more than 16 feet long, unless closer spacing is recommended by door manufacturer.
- C. Cable Safety Device: Include a spring-loaded, steel or bronze cam mounted to bottom door roller assembly on each side, designed to automatically stop door if either cable breaks.
- D. Bracket: Provide anchor support bracket, as required to connect stationary end of spring to the wall, to level shaft and prevent sag.
- E. Provide a spring bumper at each horizontal track to cushion door at end of opening operation

SCHEDULE 1 - OVERHEAD SECTIONAL DOOR OPERATORS

2.6 Overhead sectional door operator

- A. Door – Medium Duty Operator.
- B. Electric Motor: UL listed.
- C. Rating:
 - 1. 1/2 horsepower single phase with automatic thermal reset overload.
- D. Motor frame comply with:
 - 1. NEMA 42 for 1/2 hp single phase.
- E. Construction:
 - 1. Open drip-proof construction.
- F. Reduction: Primary reduction is SuperBelt poly-V flex auto tension belt. Secondary reduction is by chain and sprocket.
- G. Duty cycle: Accommodate medium usage, up to 15 cycles per hour.
 - 1. Brake: Solenoid actuated band type. Optional on trolley models, standard on jackshaft and hoist models.

2. Limit System: Adjustable linear type synchronized with the door during release operation. Limit activation by opto sensors
- H. Control System: Microprocessor based with relay motor controls on a single board. System incorporates a Liquid Crystal Display (LCD) to display the system status. System shall include the following:
 - I. A delay-on-reverse operating protocol.
 - J. Maximum run timers in both directions of travel that limit motor run time in the event a clutch slips or some other problem occurs.
 - K. Provisions for the connection of a 2-wire monitored photo-eye or a 2-wire monitored edge sensor, as well as non-monitored 2-wire sensing edges, photo-eyes or other entrapment protection devices.
 - L. Control action will be constant contact close until a monitored entrapment device is installed, allowing for selection of momentary contact.
 - M. Provisions for connection of single and/or 3-button control stations.
 - N. On board open, close and stop control keys for local operation.
 - O. Trolley operators with an inherent secondary reversal system.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrate surfaces to receive sectional overhead doors and associated work and conditions under which work will be installed. Do not proceed until unsatisfactory conditions have been corrected in a manner acceptable to the Installer. Starting of work within a particular area will be construed as installer's acceptance of surface conditions.

3.2 INSTALLATION

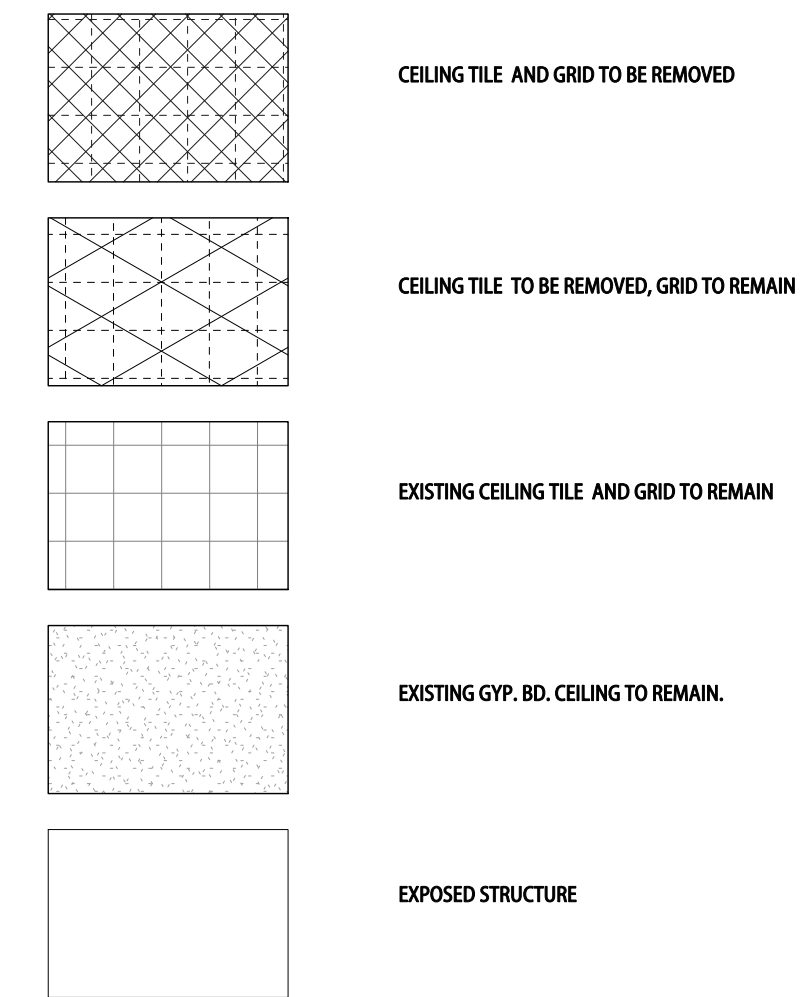
- A. General: Install door, track, and operating equipment complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports according to Shop Drawings, manufacturer's written instructions, and as specified. Fasten vertical track assembly to framing at not less than 24 inches o.c. Hang horizontal track from structural overhead framing with angle or channel hangers welded and bolt fastened in place. Provide sway bracing, diagonal bracing, and reinforcement as required for rigid installation of track and door-operating equipment.
- B. Lubricate bearings and sliding parts; adjust doors to operate easily, free from warp, twist, or distortion and fitting weathertight for entire perimeter.

END OF SECTION 083613

DEMOLITION GENERAL NOTES

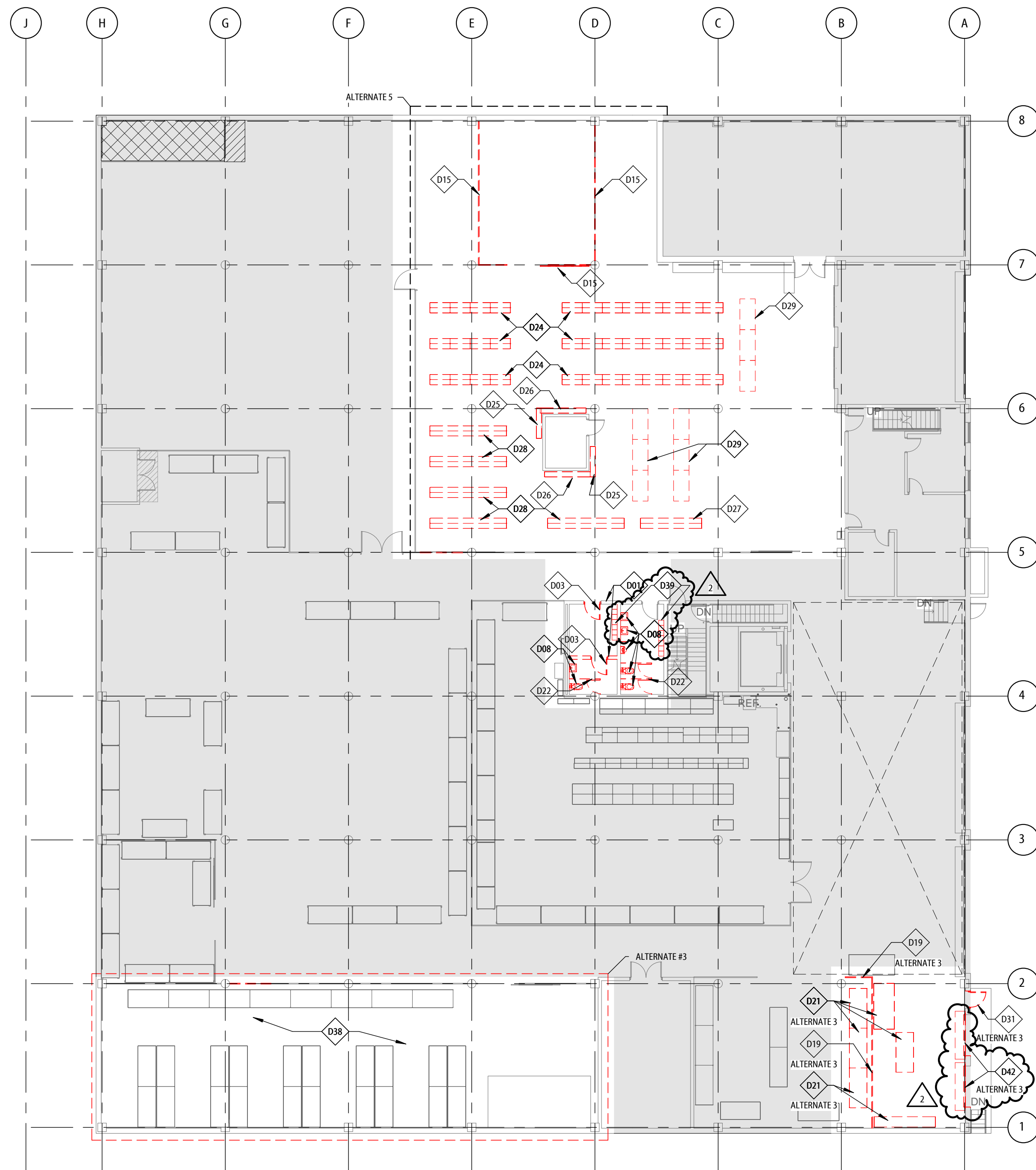
- ELEMENTS TO BE REMOVED/RELOCATED ARE SHOWN DASHED.
- FLOORING TO BE REMOVED SHALL BE REMOVED TO THE EXISTING SLAB U.N.O. PATCH, REPAIR, AND LEVEL TO RECEIVE NEW FINISHES.
- REMOVAL OF WALLS NOTED SHOULD INCLUDE THE REMOVAL OF ALL ITEMS ASSOCIATED WITH THE WALLS, U.N.O.
- AREAS OF DEMOLITION ARE APPROXIMATE. GENERAL CONTRACTOR TO COORDINATE DEMOLITION WITH EXISTING CONDITIONS, NEW CONSTRUCTION, AND ADDITIONAL SCOPE OF WORK INCLUDED IN MECHANICAL, PLUMBING, AND ELECTRICAL DOCUMENTS.
- PATCH, REPAIR, AND REFINISH ALL WALLS EXISTING WALLS TO REMAIN WHERE DEMOLITION SCOPE HAS OCCURRED.
- PATCH, FILL, AND LEVEL ALL FLOOR PENETRATIONS WHERE ELEMENTS ARE TO BE REMOVED AND NEW PLUMBING FIXTURES ARE TO BE REINSTALLED. RE: PLUMBING DWGS

DEMOLITION CEILING LEGEND

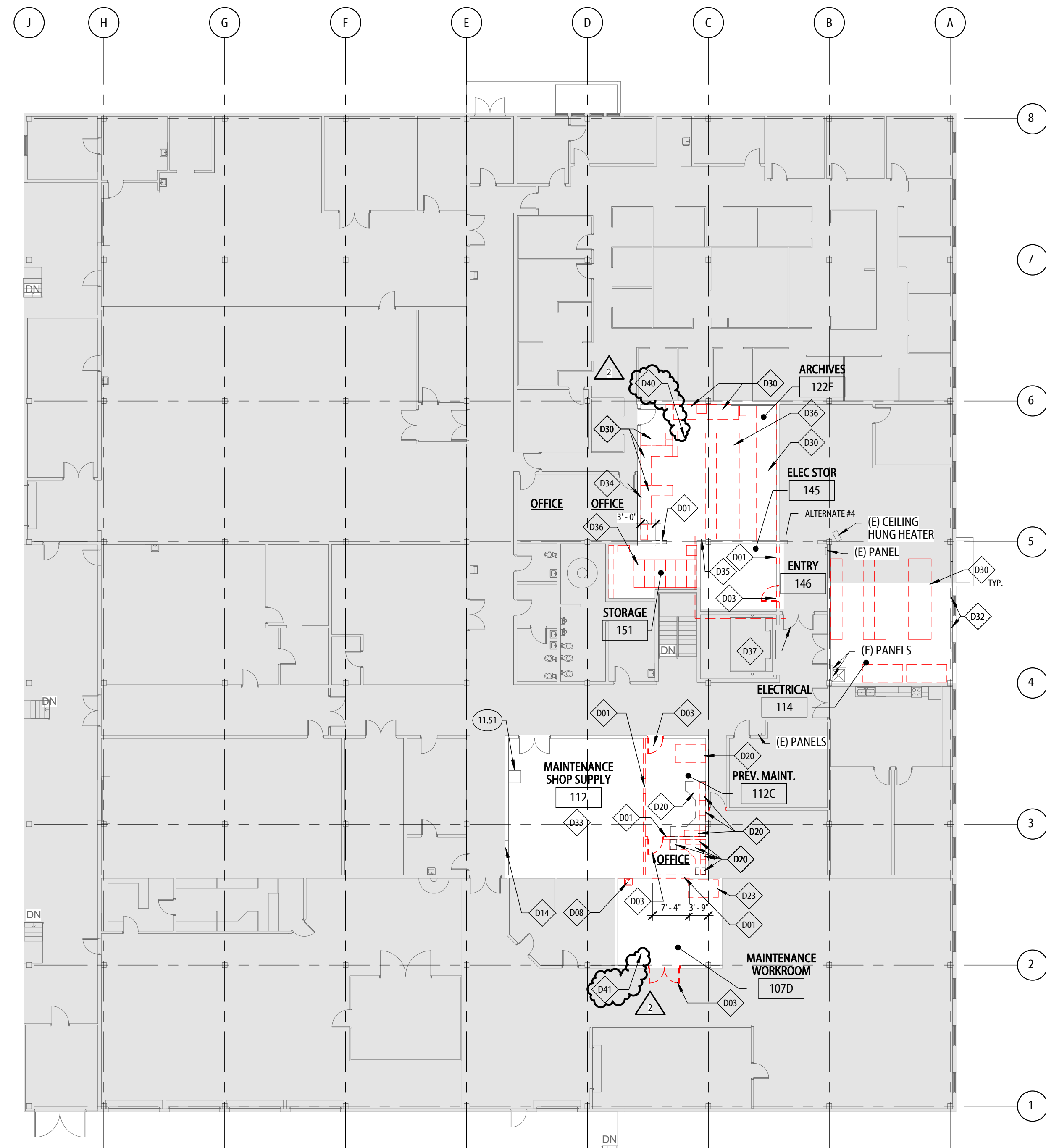


KEYNOTE LEGEND

- 11.51 EXISTING IT CABINET & ADJACENT EQUIPMENT; TO REMAIN
- D01 REMOVE WALL
- D03 REMOVE DOOR AND FRAME
- D08 REMOVE PLUMBING FIXTURES, CAP IN WALL
- D14 REMOVE PLASTIC LAMINATE SILL AND DOOR
- D15 REMOVE FENCING AND GATE
- D19 REMOVE & RELOCATE EXISTING FENCING
- D20 EXISTING CASEWORK RELOCATE, RE: SHEET A110A
- D21 EXISTING SHELVING TO BE RELOCATED, RE: SHEET A110A FOR NEW LOCATION
- D22 REMOVE TOILET PARTITIONS
- D23 REMOVE EXISTING HOOD, CAP ROOF PENETRATION
- D24 EXISTING 1x4 SHELVING, 22 OF 72 TO BE RELOCATED, RE: SHEET A110B FOR NEW LOCATION
- D25 EXISTING 1x6 SHELVING, 9 OF 2 TO BE RELOCATED, RE: SHEET A110B FOR NEW LOCATION
- D26 EXISTING 1x9 SHELVING, 0 OF 2 TO BE RELOCATED, RE: SHEET A110B FOR NEW LOCATION
- D27 EXISTING 1x12 SHELVING, 2 OF 2 TO BE RELOCATED, RE: SHEET A110B FOR NEW LOCATION
- D28 EXISTING 1x15 SHELVING, 8 OF 10 TO BE RELOCATED, RE: SHEET A110B FOR NEW LOCATION
- D29 EXISTING 3x6 TABLE, 8 OF 9 TO BE RELOCATED, RE: SHEET A110B FOR NEW LOCATION
- D30 EXISTING FURNITURE TO BE RELOCATED BY GENERAL CONTRACTOR WITHIN BUILDING
- D31 EXISTING DOOR AND FRAME, REMOVE DOOR HARDWARE, RETURN TO OWNER
- D32 EXISTING BASEBOARD HEATERS, REMOVE & REINSTALL ON EXISTING WALL
- D33 DEMOLITION WILL INCLUDE OPENINGS @ EXISTING CONCRETE DOUBLE T ROOF & AT EXISTING CMU WALLS FOR MECHANICAL
- D34 EXISTING WIRE MOLD POWER & DATA, REMOVE & TERMINATE ABOVE NEW CEILING, COORDINATE WITH SCOPE OF WORK
- D35 EXISTING PLUMBING, TO REMAIN
- D36 HIGH DENSITY SHELVING TO BE RELOCATE & REINSTALLED BY OWNER
- D37 REMOVE EXISTING DOORS & REINSTALL
- D38 GENERAL CONTRACTOR TO REMOVE & REINSTALL ALL SHELVING IN BUSINESS ENTERPRISE STORAGE AREA IF ALTERNATE #3 IS ACCEPTED
- D39 REMOVE EXISTING LOCKERS
- D40 REMOVE EXISTING FLOORING INCLUDING HIGH DENSITY RAILS, SUBFLOOR & VCT.
- D41 REMOVE EXISTING LAY IN CEILING
- D42 REMOVE EXISTING GARAGE DOOR



2 AD111 LOWER LEVEL FLOOR PLAN - DEMO
1/16" = 1'-0"



1 AD111 UPPER LEVEL FLOOR PLAN - DEMO
1/16" = 1'-0"

2	8/18/2014	AD2			
NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPR'D
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. 891 SITE NO. 118 DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		DESIGNED BY: DJA DRAWN BY: JAM CHECKED BY: DJA DATE: 08/05/14	SHEET TITLE UPPER & LOWER LEVEL DEMO PLANS - PHASE 2		
SCALE: DENVER PUBLIC SCHOOLS PROJECT NUMBER: 2240		RITA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER: 2240			
19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO, 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com		DRAWING NO. AD111		SHEET: 3 OF: 25	

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891-2240-RV1-AD111

GENERAL MOUNTING NOTES

1. MOUNTING HEIGHTS SHOWN ARE TYPICAL U.N.O.
2. DIMENSIONS IN BRACKETS [] APPLY TO HC CONDITIONS.
3. ACCESSORIES SHOWN MAY OR MAY NOT OCCUR ON DRAWINGS.
4. DIMENSIONS ARE FROM FINISH MATERIAL, TYPICAL.
5. GENERAL CONTRACTOR SHALL PROVIDE BLOCKING AS REQUIRED FOR INSTALLATION OF ALL ITEMS.

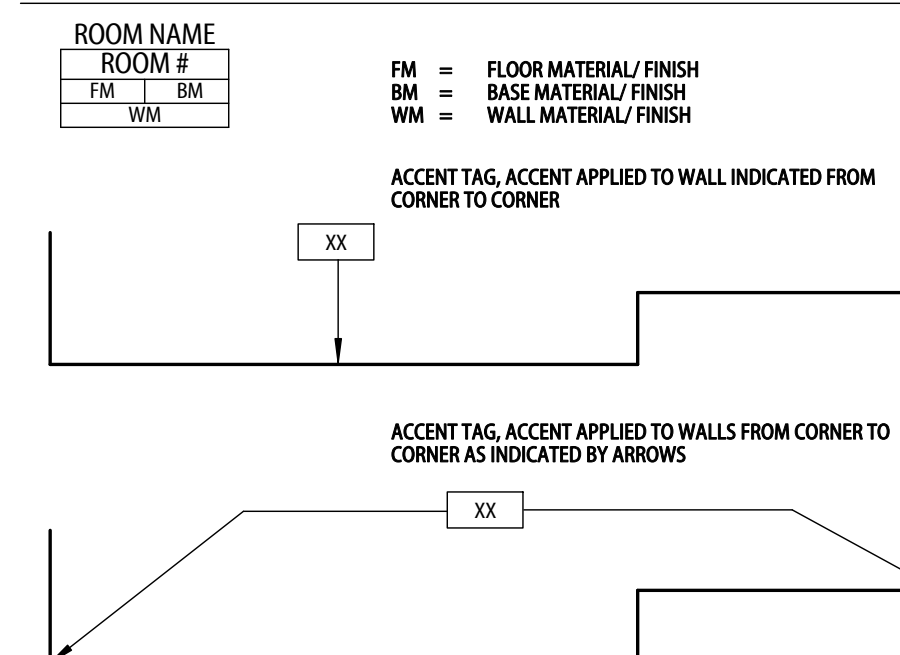
RICOH EQUIPMENT SCHEDULE, OWNER WILL MOVE LOCATE IN SPACE

Type Mark	Description
R1	RICOH - ORDER AREA COPIER
R2	RICOH SHELVES - ORDER AREA
R3	RICOH - PRINTING AREA DESK
R4	RICOH 150
R5	RICOH PRINT AREA SHELVES 2
R6	RICOH PRINT AREA CPU
R7	RICOH PRINT AREA SERVER
R8	RICOH PRINT AREA SHELVES 1
R9	RICOH PACKAGING TABLE
R10	RICOH 651EX
R11	RICOH 11880W
R12	RICOH DESK - FINISHING AREA
R13	RICOH BALM/CUT CUTTER
R14	RICOH MP10500T
R15	RICOH 1357EX
R16	RICOH FINISHING EQUIPMENT
R17	RICOH C901s
R18	RICOH DUPLO CUTTER
R19	RICOH ENVELOPE INSERTER
R20	RICOH LAMINATOR
R21	RICOH TABLE - MAIL AREA
R22	RICOH SHELVES - FINISHING AREA 1
R23	RICOH POSTAGE MACHINE
R24	RICOH MAIL BINS
R25	RICOH SHRINK WRAP
R26	RICOH FINISHING TABLES
R27	RICOH STORAGE SHELVING
R28	RICOH ORANGE CARTS
R29	RICOH MAIL TUBS
R30	RICOH HORIZONTAL FILE CABINETS
R31	RICOH STORAGE ROOM
R32	RICOH LOCKERS

KEYNOTE LEGEND

- 1.52 GENERAL CONTRACTOR TO REMOVE & REINSTALL ALL SHELVING IN BUSINESS ENTERPRISE STORAGE AREA IF ALTERNATE #3 IS ACCEPTED
- 8.50 REPLACE EXISTING GARAGE DOORS W/ GLASS GARAGE DOOR, SEE SCHEDULE
- 10.15 LOCKERS/OWNER PROVIDED, CONTRACTOR TO INSTALL; CONTRACTOR TO TRANSPORT THE LOCKERS FROM ROSEDALE ELEMENTARY SCHOOL
- 10.31 MIRRORS (48"x72") ALONG ENTIRE WALL, 18" A.F.F.
- 12.57 OWNER PROVIDED HIGH-DENSITY STORAGE; TO BE INSTALLED BY 3RD PARTY VENDOR, N.I.C.
- 12.61 G.C. RELOCATE EXISTING 1x4 SHELVING
- 12.62 G.C. RELOCATE EXISTING 1x4 SHELVING
- 12.64 G.C. RELOCATE EXISTING 1x12 SHELVING
- 12.65 G.C. RELOCATE EXISTING 1x15 SHELVING
- 12.66 3x8 TABLES, OWNER PROVIDED CONTRACTOR INSTALLED
- 32.50 CHAIN LINK FENCING GATES TO 12'-0" AFF. INSTALL 1 1/4" HORIZONTAL PIPE 4" ABOVE FLOOR, MID-HEIGHT, AND 4" BELOW TOP BETWEEN 4" VERTICAL POSTS SPACED @ 8'-0" O.C. SURFACE MOUNT VERTICAL POSTS AT FLOOR LEVEL. ATTACH CHAIN LINK TO HORIZONTAL @ 16" O.C., TYP. THROUGHOUT. GATES TO CONSIST OF TWO (2) 4'-0" WIDE X 8' TALL LEAVES AND THREE (3) RINGS PER GATE.
- 32.52 8" ROLLING CHAIN LINK GATE WITH HASP FOR LOCK

ROOM FINISH MATERIAL LEGEND



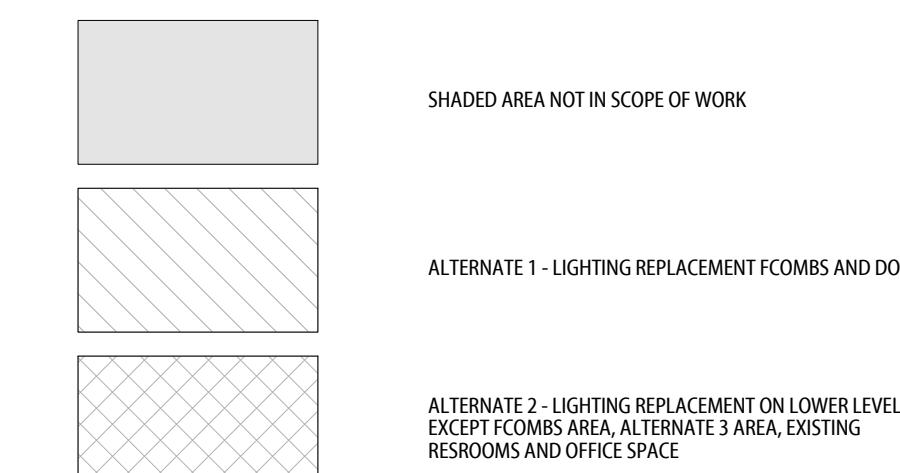
FINISH MATERIAL SCHEDULE

NAME	MAUFACTURER	STYLE	COLOR	SIZE	FINISH	NOTES
CERAMIC TILE						
CT-1	DALTILE	PORCELAIN	COLOR	2'X2'	GLAZED	PORCELAIN FLOOR TILE
CT-2	DALTILE	COLOR	COLOR	4'X4'	MATILE	WALL TILE
CT-3	DALTILE	STYLE	COLOR	2'X2'		COVE BASE
CONCRETE						
CONC-1						EXPOSED EXISTING CONCRETE FLOOR
OPT						
CPF-1						CARPET TILE TO MATCH EXISTING
PAINT						
P-1	MFR	STYLE	COLOR			AS SELECTED BY ARCHITECT FROM DPS STANDARDS
P-2	MFR	STYLE	COLOR			AS SELECTED BY ARCHITECT FROM DPS STANDARDS
P-3	MFR	STYLE	COLOR			AS SELECTED BY ARCHITECT FROM DPS STANDARDS
RUBBER BASE						
RB-1	ARMSTRONG	4" HIGH	60-JET BLACK	4' LENGTHS	TOPSET COVE, PRE-FORMED CORNER PIECES	
SPORTS FLOORING						
SF-1	ECORE INTERNATIONAL	EVERLAST	COLOR	36" SQUARE X 3/8" THICK - INTERLOCKING		

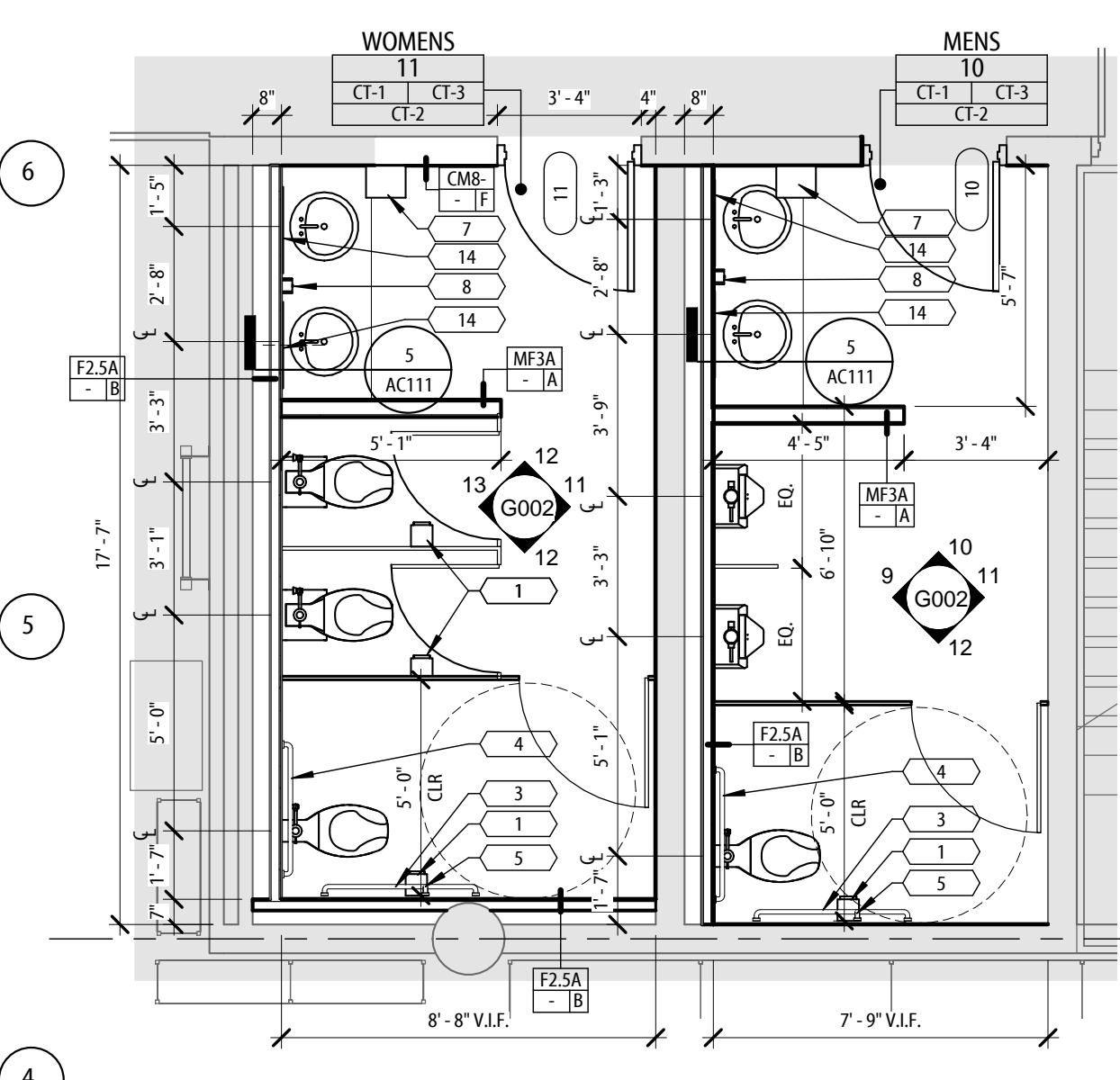
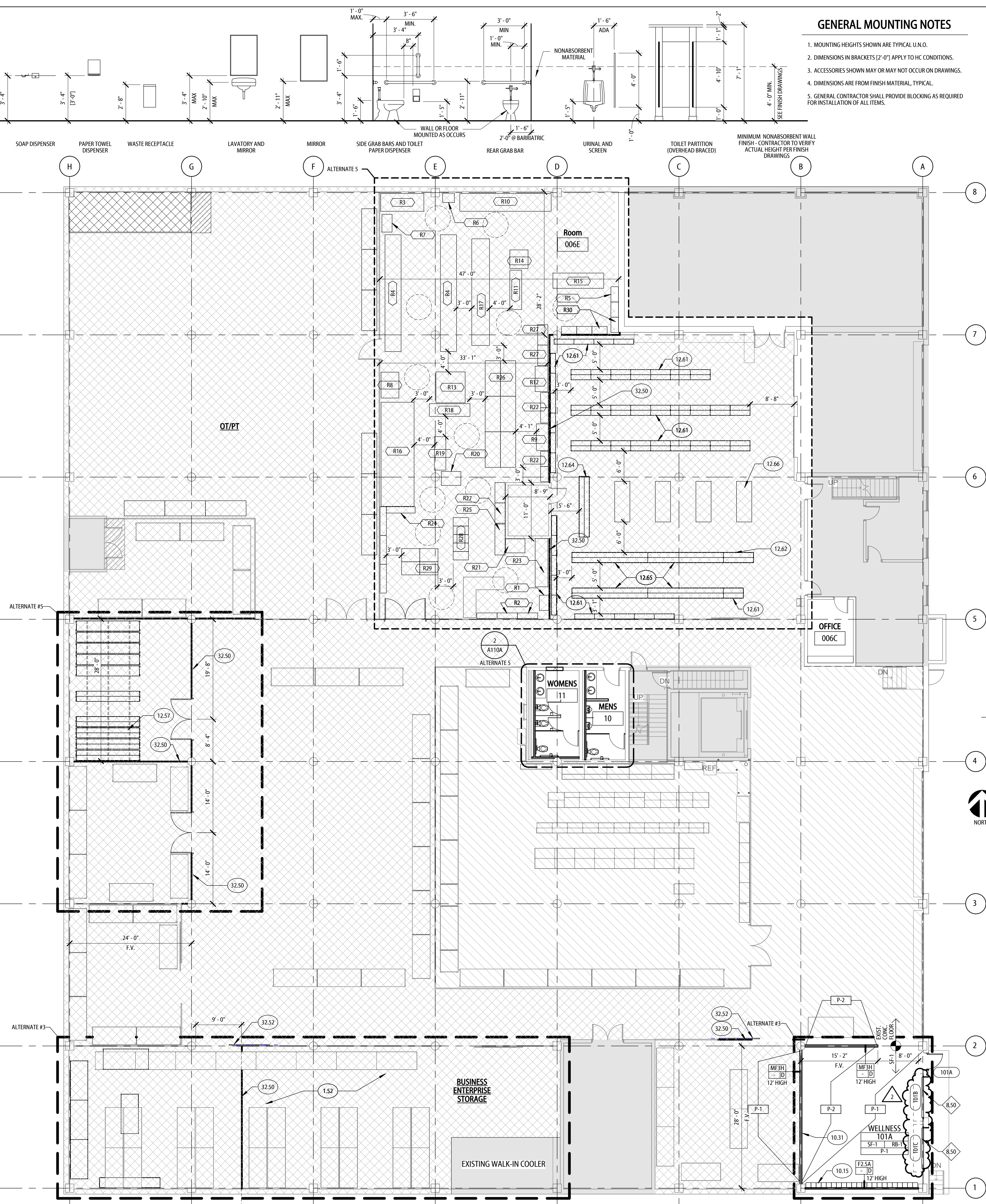
TOILET ACCESSORIES SCHEDULE

#	ITEM DESCRIPTION	MANUFACTURER	MODEL #	FINISH	INSTALLED BY	FURNISHED BY	COMMENTS
1	TOILET PAPER DISPENSER	GEORGIA-PACIFIC, COMPACT	56746	STAINLESS FINISH	CONTRACTOR	CONTRACTOR	
3	42" HORIZONTAL GRAB BAR	BOBRICK	B-6806	STAINLESS STEEL	CONTRACTOR	CONTRACTOR	
4	36" HORIZONTAL GRAB BAR	BOBRICK	B-6806	STAINLESS STEEL	CONTRACTOR	CONTRACTOR	
5	18" VERTICAL GRAB BAR	BOBRICK	B-6806	STAINLESS STEEL	CONTRACTOR	CONTRACTOR	
7	PAPER TOWEL DISPENSER	GEORGIA-PACIFIC, ENMOTION	59462	TRANSLUCENT SMOKE	CONTRACTOR	CONTRACTOR	
8	SOAP DISPENSER	TECHNICAL CONCEPTS	750139	BLACK/GREY	CONTRACTOR	CONTRACTOR	
11	SHOWER SEAT (WALL MTD)	BOBRICK	B-1181	STAINLESS STEEL	CONTRACTOR	CONTRACTOR	
14	24"x36" MIRROR	BOBRICK	B-165 2436	STAINLESS STEEL BORDER	CONTRACTOR	CONTRACTOR	
16	HORIZONTAL TWO-WALL GRAB BAR	BOBRICK	B-6861		CONTRACTOR	CONTRACTOR	
18	TRASH RECEPTACLE				OWNER	OWNER	

SCOPE OF WORK



2	8/18/2014	AD2					
NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPR'D		
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. 891 SITE NO. 118 DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204 LOWER LEVEL PLAN - PHASE 2							
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		DESIGNED BY: DJA DRAWN BY: JAM CHECKED BY: DJA DATE: 08/05/14		SHEET TITLE LOWER LEVEL PLAN - PHASE 2		RITA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER: 2240	
SCALE: 		19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com		DRAWING NO. A110A		SHEET: 4 OF: 25	



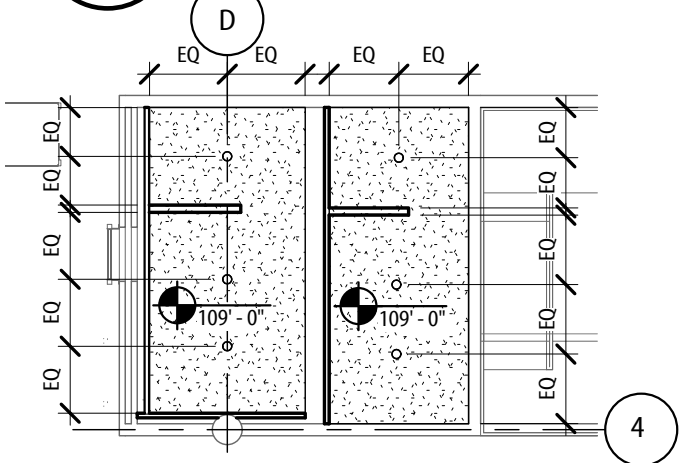
ENLARGED RESTROOM FLOOR PLAN - ALTERNATE #5
 1/4" = 1'-0"

LOWER LEVEL FLOOR PLAN - RENOVATION FLOOR PLAN
 3/32" = 1'-0"

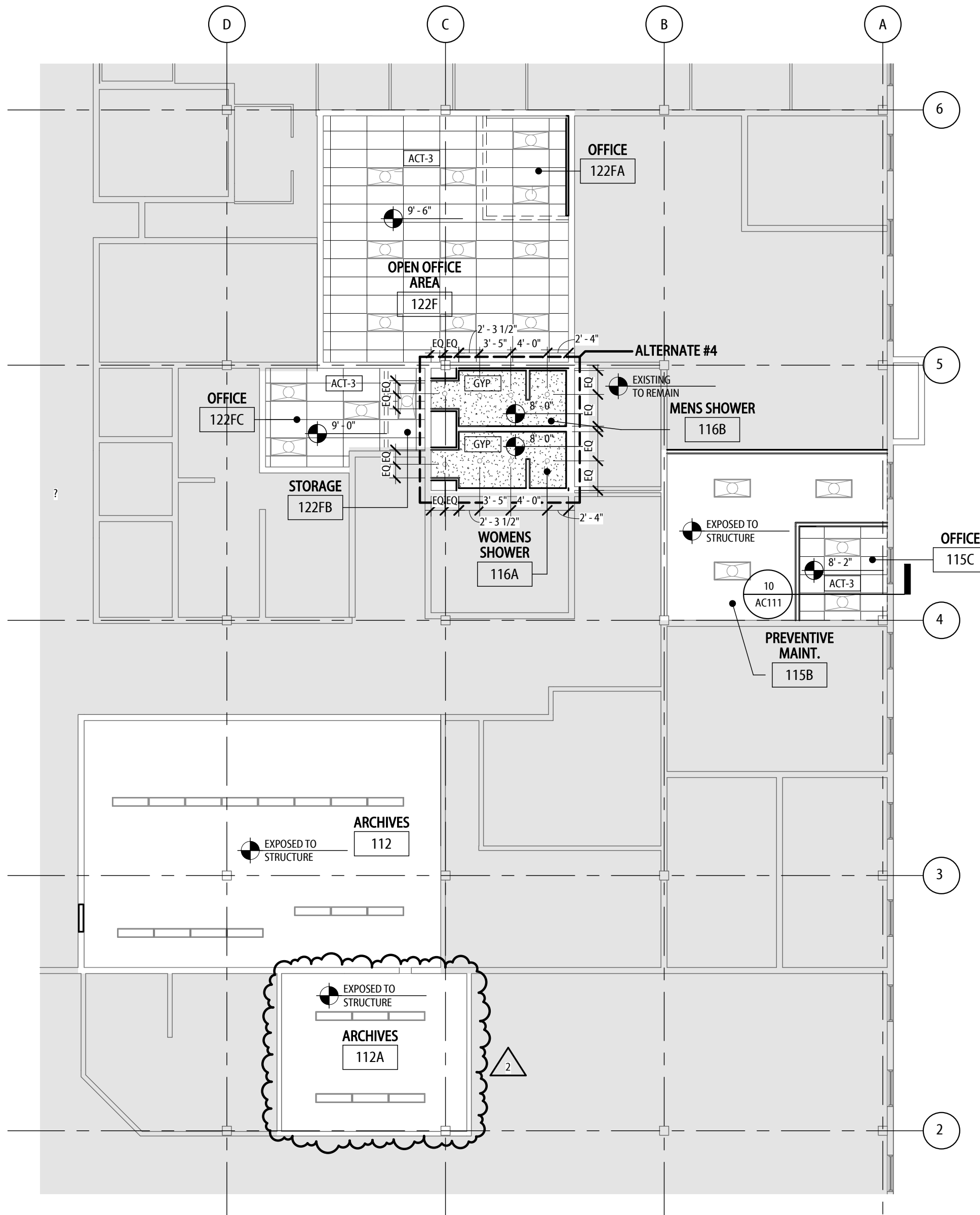
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UPPER LEVEL DOOR & FRAME SCHEDULE										
DOOR NO.	DOOR SIZE		DOOR TYPE (1)	DOOR MATERIAL (2)	FRAME TYPE (4)	FRAME MATL. (5)	HDWR. GROUP (6)	DETAILS		REMARKS
	WIDTH	HEIGHT						HEAD	JAMB	
UPPER LEVEL PLAN										
112	6'-0"	7'-0"	2A	EXIST.	EXIST.	EXIST.		6/AC111	9/AC111	EXISTING DOOR AND FRAME, REPLACE LOCK
114C	3'-0"	7'-0"	1A	HM	A1	HM		8/AC111	9/AC111	
116A	3'-0"	7'-0"	1A	HM	A2	HM		8/AC111	9/AC111	
116B	3'-0"	7'-0"	1A	HM	A2	HM		8/AC111	9/AC111	
122F1	3'-0"	7'-0"	1A	HM	A2	HM		8/AC111	9/AC111	
122F2	3'-0"	7'-0"	1A	HM	A2	HM		8/AC111	9/AC111	
122F3	3'-0"	7'-0"	1A	HM	A1	HM		6/AC111	6/AC111	

LOWER LEVEL DOOR & FRAME SCHEDULE - WELLNESS										
DOOR NO.	DOOR SIZE		DOOR TYPE (1)	DOOR MATERIAL (2)	FRAME TYPE (4)	FRAME MATL. (5)	HDWR. GROUP (6)	DETAILS		REMARKS
	WIDTH	HEIGHT						HEAD	JAMB	
LOWER LEVEL PLAN										
101A	3'-0"	7'-0"	1A	EXIST.						EXISTING DOOR & FRAME, REPLACE HARDWARE, PANIC DEVICE, SWEEPS & SEALS
101B	8'-0"	10'-0"	9A	ALUM						SEE SPEC
101C	8'-0"	10'-0"	9A	ALUM						SEE SPEC

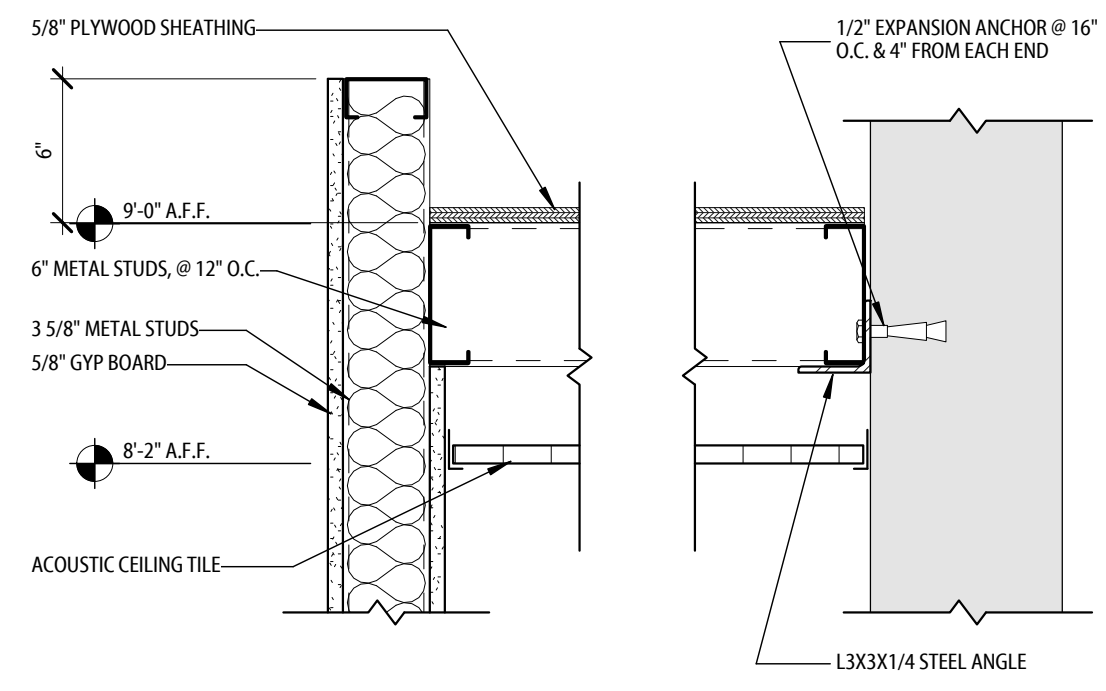


2 AC111 3/32" = 1'-0"
PARTIAL LOWER LEVEL REFLECTED CEILING PLAN - (ALTERNATE #5)

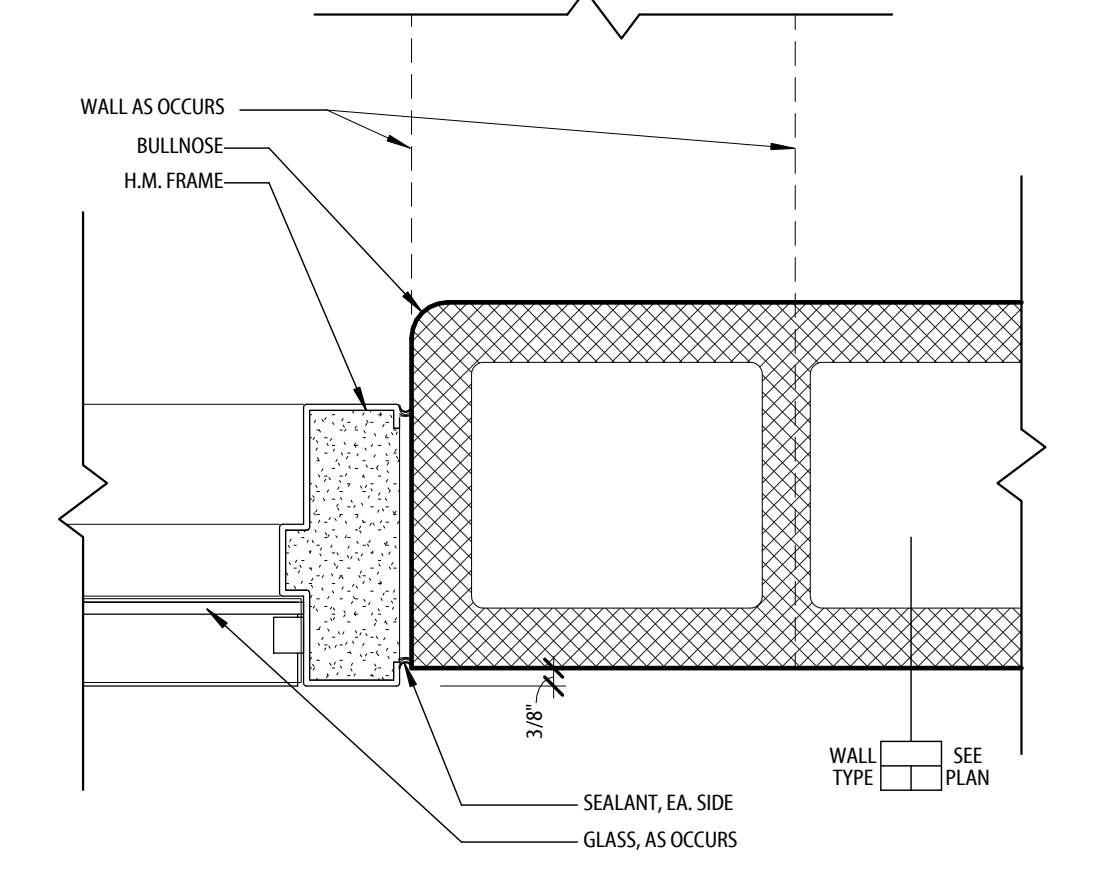


1 AC111 3/32" = 1'-0"
PARTIAL UPPER LEVEL REFLECTED CEILING PLAN

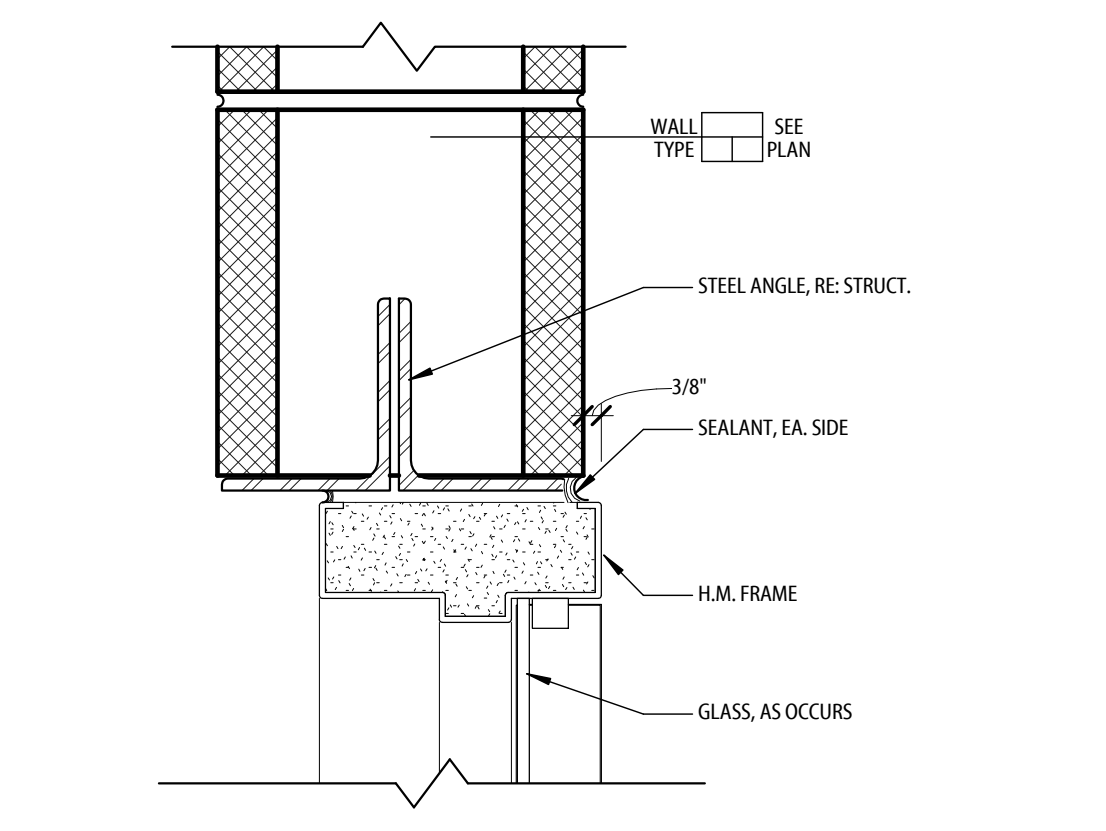
LOWER LEVEL DOOR & FRAME SCHEDULE										
DOOR NO.	DOOR SIZE		DOOR TYPE (1)	DOOR MATERIAL (2)	FRAME TYPE (4)	FRAME MATL. (5)	HDWR. GROUP (6)	DETAILS		REMARKS
	WIDTH	HEIGHT						HEAD	JAMB	
LOWER LEVEL PLAN										
10	3'-0"	6'-8"	1A	SC	A2	HM		8/AC111	9/AC111	
11	3'-0"	7'-0"	1A	SC	A2	HM		8/AC111	9/AC111	



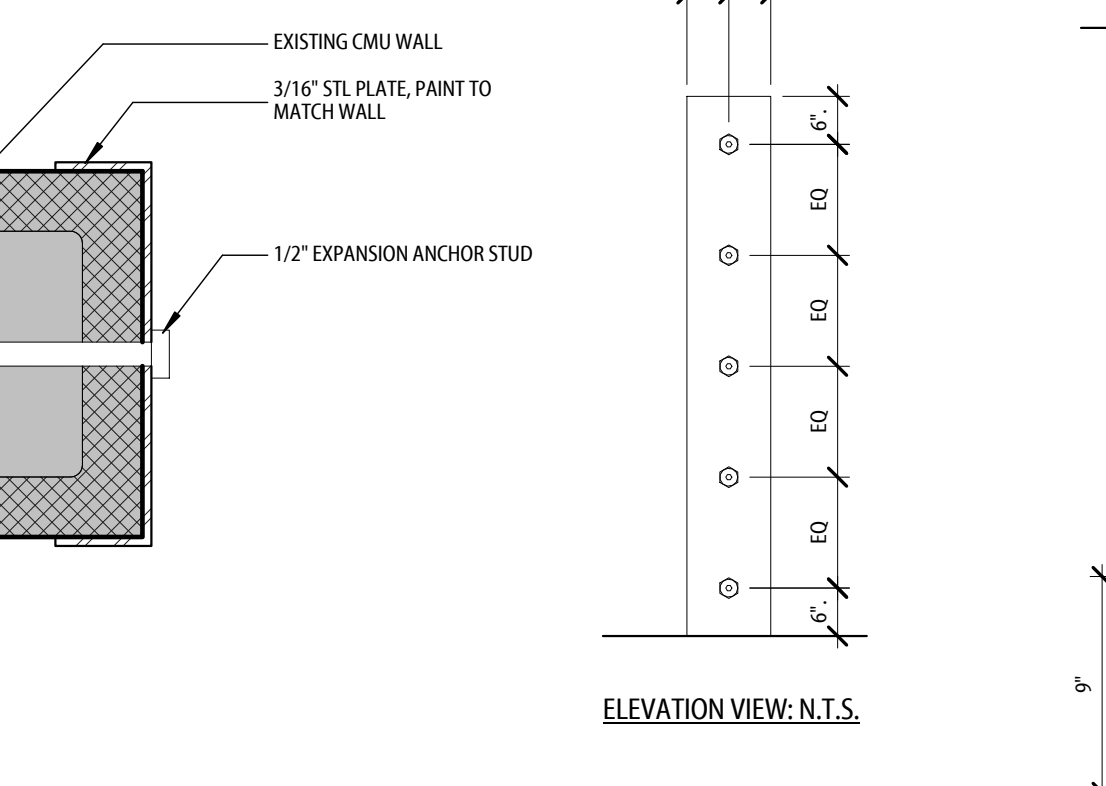
10 AC111 1 1/2" = 1'-0"
CEILING DETAIL



9 AC111 3" = 1'-0"
DOOR/WINDOW - HM JAMB AT CMU, TYP

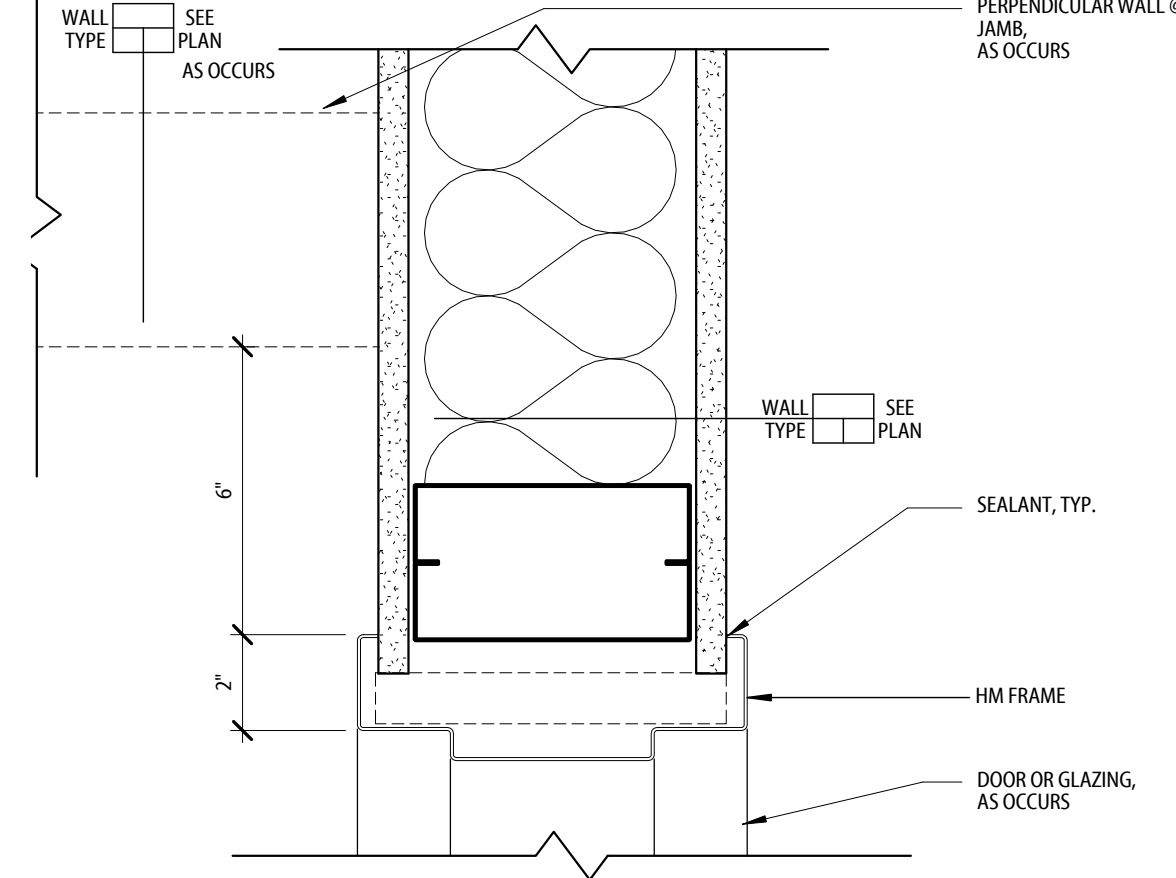
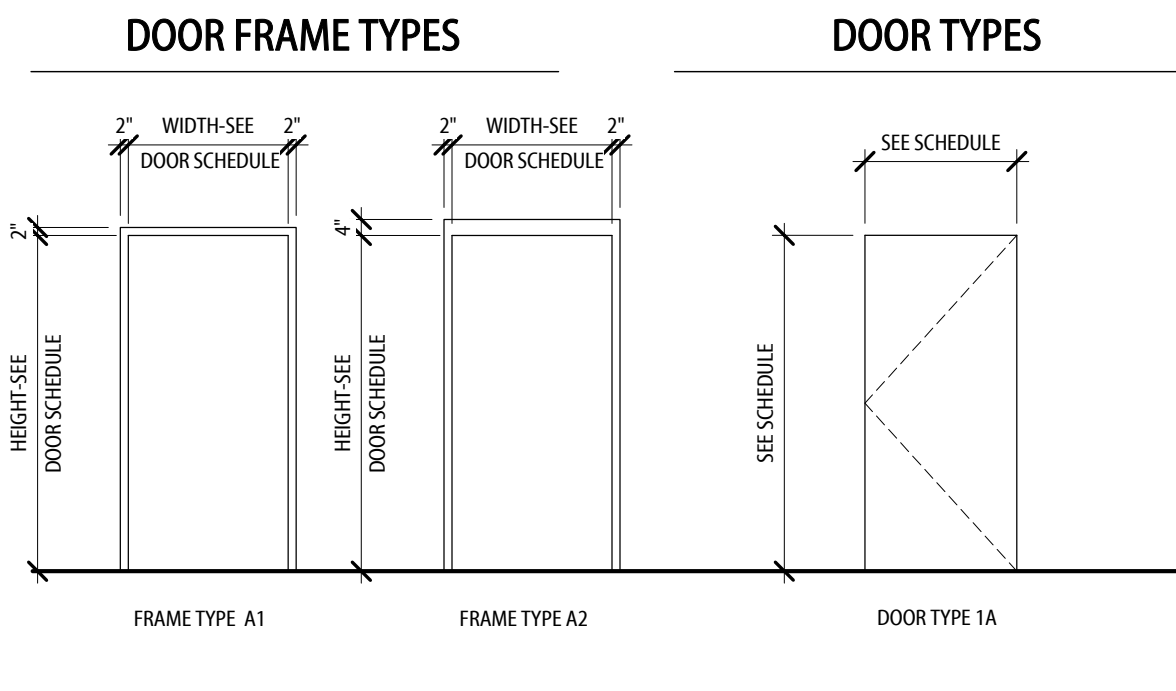


8 AC111 3" = 1'-0"
DOOR/WINDOW - HM HEAD AT CMU, TYP

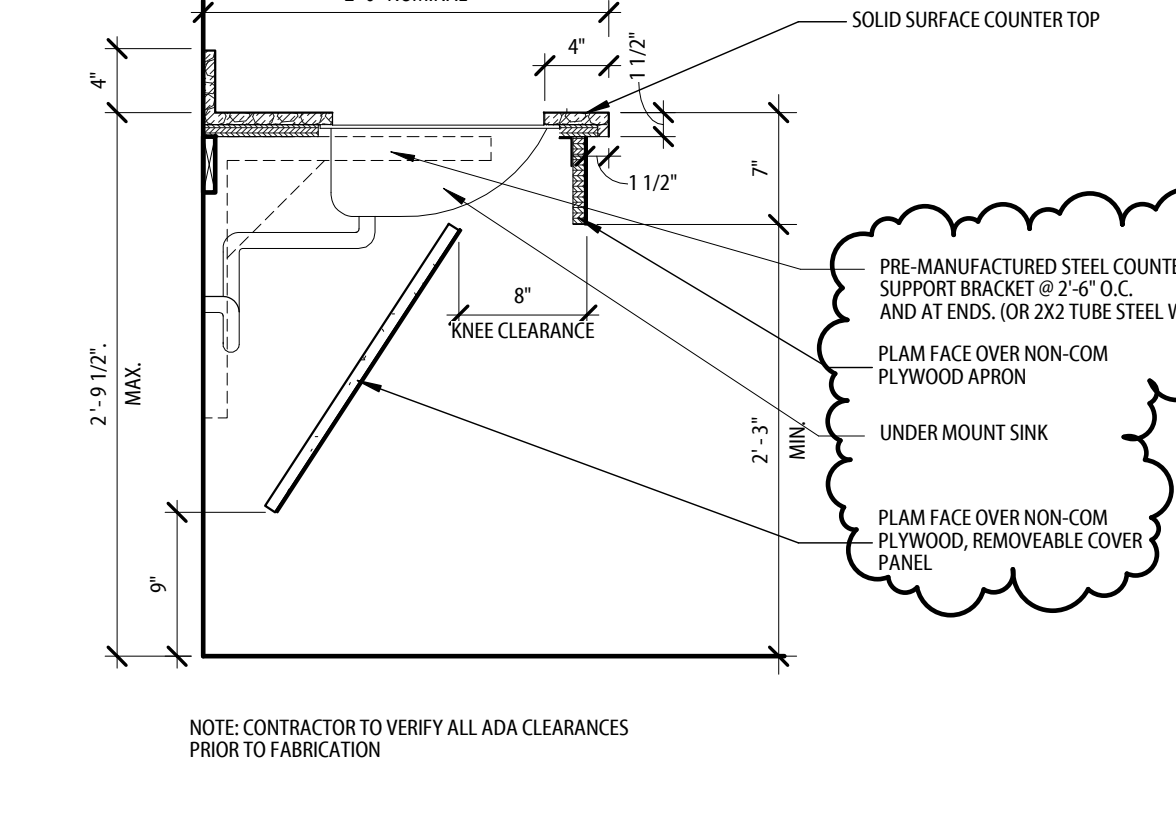


7 AC111 3" = 1'-0"
WALL - CAP DETAIL

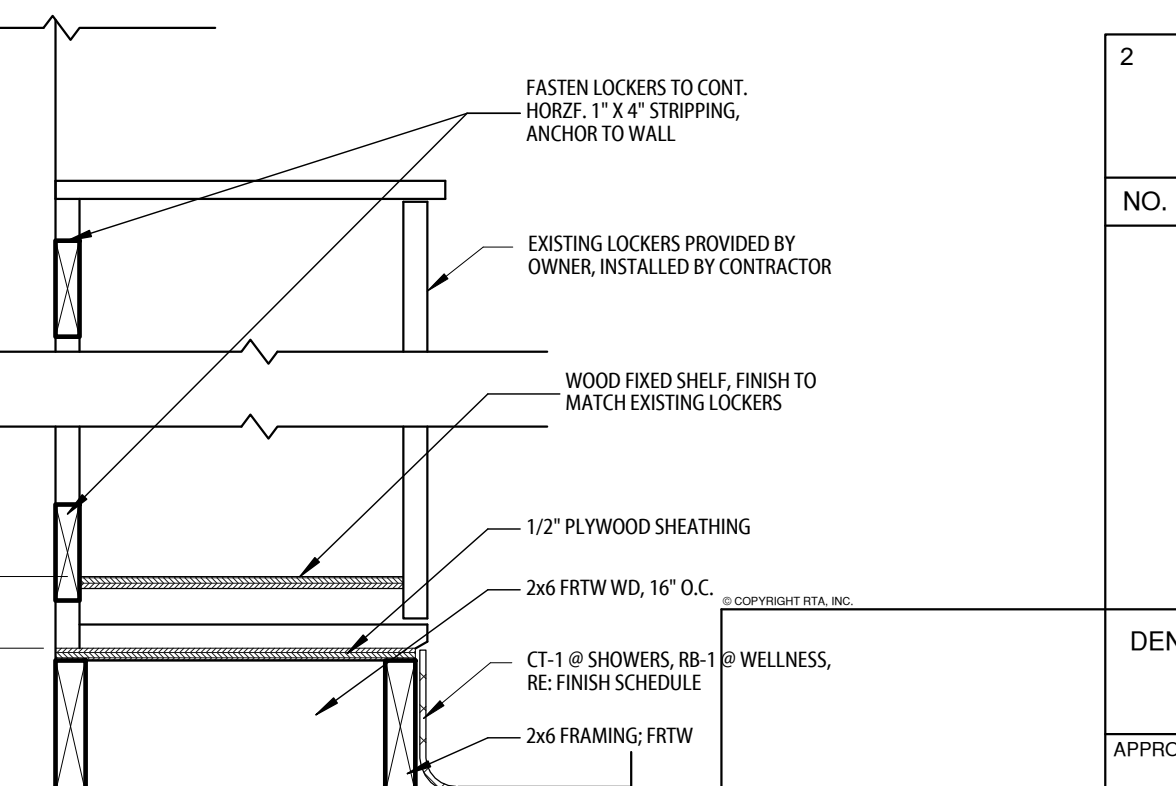
KEYNOTE LEGEND



6 AC111 3" = 1'-0"
HM DOOR HEAD/JAMB DETAIL @ STUD WALL TYP.



5 AC111 1" = 1'-0"
CASEWORK - ADA COUNTER AT RESTROOM SINK



4 AC111 1 1/2" = 1'-0"
EQUIPMENT - LOCKER BASE DETAIL

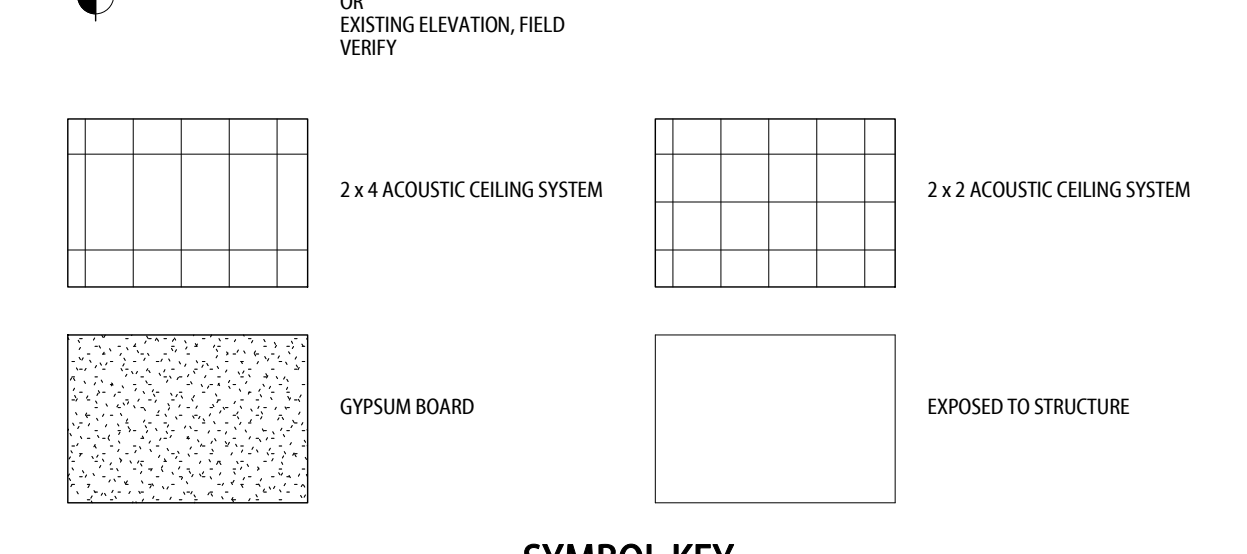
CASEWORK GENERAL NOTES

- 1 1/2" FILLER PANELS SHALL OCCUR AT THE WALL AT ALL CABINET LOCATIONS ABUTTING A WALL UNLESS NOTED OTHERWISE.
2. WHEN FILLER PANELS ARE REQUIRED AT BOTH ENDS OF CASEWORK TERMINATION, BOTH FILLER PANELS SHALL BE EQUAL WIDTH.
3. PROVIDE 4" BACKSPLASH AND SIDE SPLASH AT ALL COUNTERTOPS WITH SINKS, UNLESS NOTED OTHERWISE.
4. COORDINATE ROUGH-IN FOR ELECTRICAL OUTLETS, SWITCHES AND UNDER CABINET LIGHTING WITH ELECTRICAL DRAWINGS.
5. CONTRACTOR TO VERIFY MEP AND DIMENSIONAL ROUGH-IN REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT AND APPLIANCES.
6. WHEN PROVIDING NEW CASEWORK ADJACENT TO EXISTING CASEWORK FIELD VERIFY DIMENSIONS TO MATCH EXISTING.
7. PROVIDE 4" TOE-KICK, TYPICAL UNLESS NOTED OTHERWISE.
8. DEPTH INDICATED AT ALL UPPER CABINETS SHALL BE THE CLEAR INTERIOR DIMENSION.

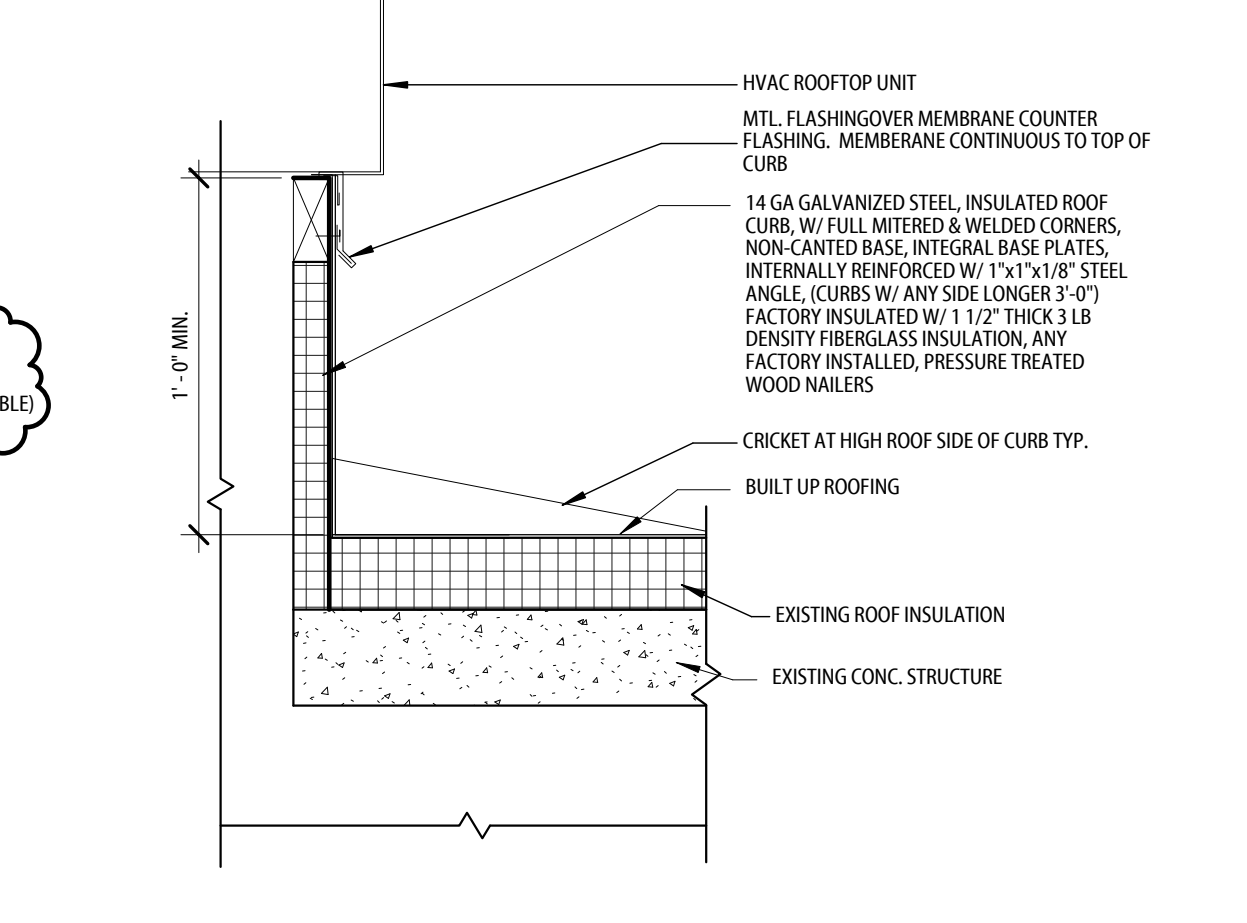
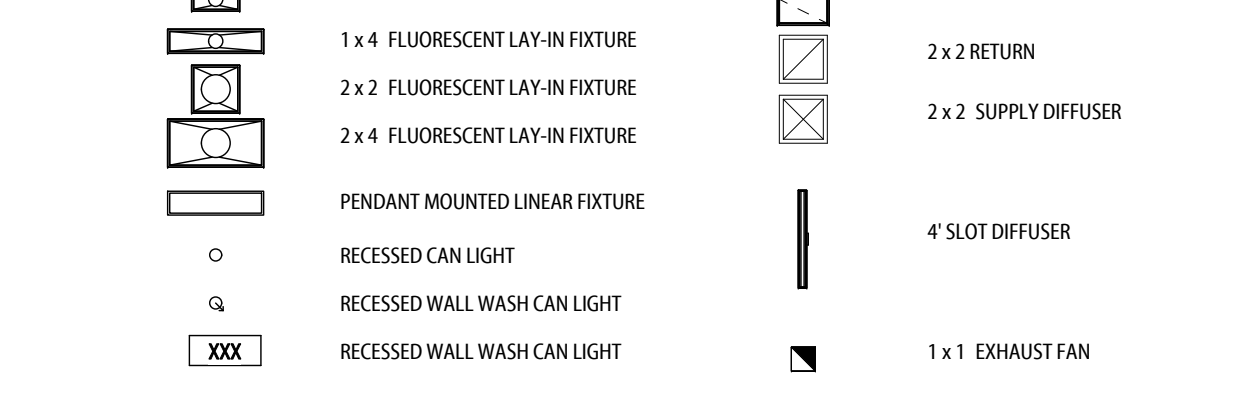
CEILING PLAN GENERAL NOTES

1. ALL CEILING HEIGHTS ARE 9'-0" A.F.F. U.N.O.
2. ALL NOTED CEILING HEIGHTS ARE RELATIVE TO THE FINISH FLOOR BELOW.
3. ALL DIMENSIONS ARE TO FINISH FACE OF SOFFIT OR PARTITION AND TO CENTERLINE OF LIGHT FIXTURE U.N.O.
4. CENTER CEILING GRID IN BOTH DIRECTIONS IN ROOM U.N.O.
5. CENTER RECESSED DOWN LIGHTS AND SPRINKLER HEADS IN CEILING SYSTEM U.N.O.
6. REFER TO MECHANICAL DRAWINGS FOR DIFFUSER TYPES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLACEMENT OF DEVICES. NOTIFY ARCHITECT OF ANY POTENTIAL CONFLICTS PRIOR TO PROCEEDING WITH WORK.
7. REFER TO ELECTRICAL DRAWINGS FOR LIGHT FIXTURE TYPES. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT PLACEMENT OF FIXTURES. NOTIFY ARCHITECT OF ANY POTENTIAL CONFLICTS PRIOR TO PROCEEDING WITH WORK.
8. UNDER CABINET LIGHTING (UCL) INDICATED ON INTERIOR ELEVATIONS.
9. SCONES ARE SHOWN ON ARCHITECTURAL PLANS AND ELEVATIONS.

CEILING PLAN LEGEND



SYMBOL KEY

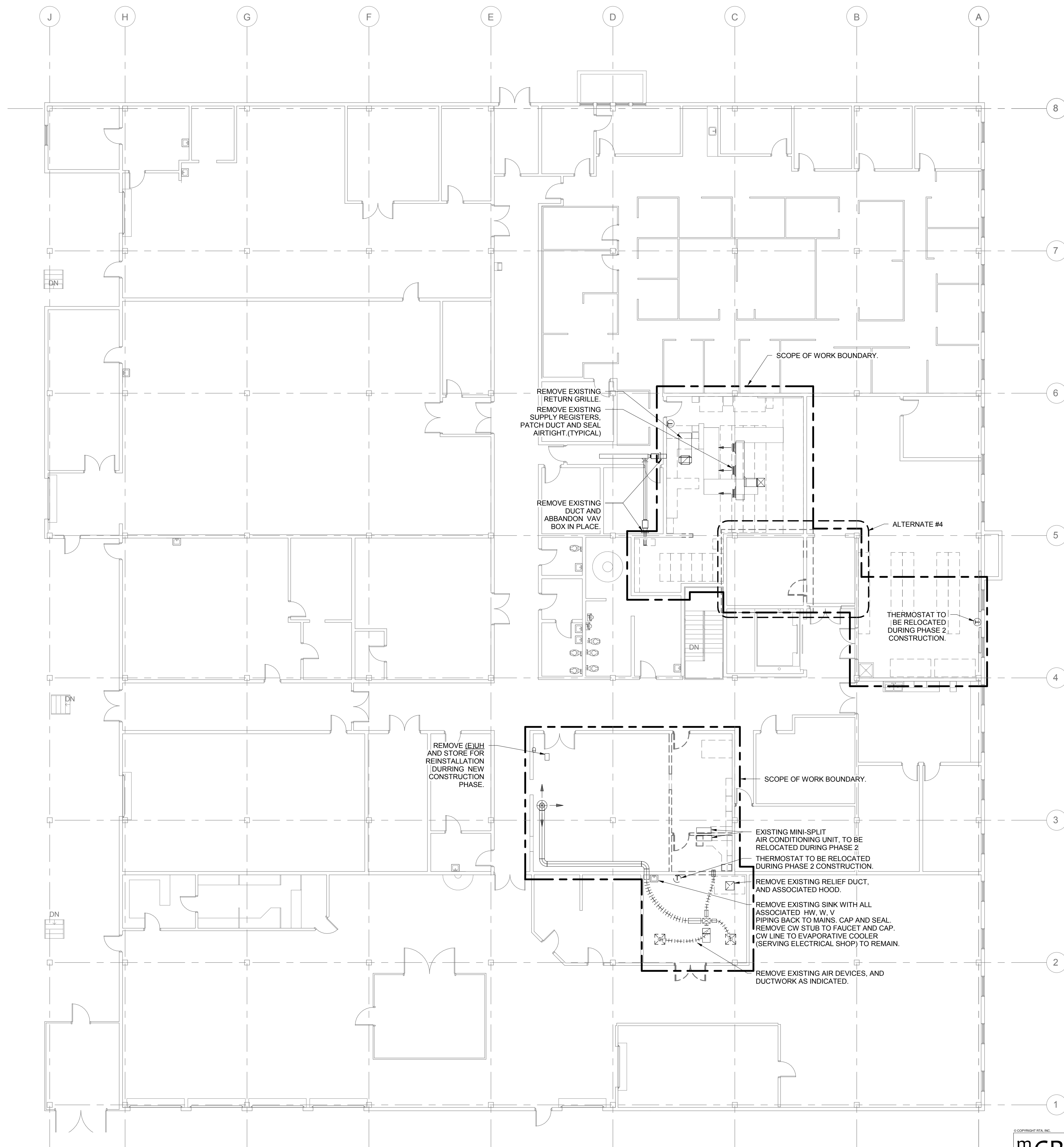


3 AC111 1 1/2" = 1'-0"
ROOF CURB DETAIL

2	8/18/2014	AD2			
NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPR'D
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. 891 SITE NO. 118 DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		DESIGNED BY: DJA DRAWN BY: JAM CHECKED BY: DJA DATE: 08/05/14	SHEET TITLE: UPPER LEVEL CEILING PLANS & INTERIOR ELEVATIONS - PHASE 2 RITA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER: 2240		
SCALE: 		19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com			
DRAWING NO. AC111			SHEET: 6 OF: 25		

MECHANICAL SYMBOLS	ABBREVIATIONS	MECHANICAL GENERAL NOTES
<p>NOTE: ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS.</p> <p>LINEAR SLOT DIFFUSER</p> <p>INSULATED FLEXIBLE DUCT (MAXIMUM 6'-0" LONG)</p> <p>BRANCH DUCT WITH 45° TAP AND MANUAL VOLUME DAMPER</p> <p>BRANCH DUCT WITH CONICAL FITTING AND MANUAL VOLUME DAMPER</p> <p>ELBOW WITH TURNING VANES</p> <p>SUPPLY OR OUTSIDE AIR DUCT UP</p> <p>SUPPLY OR OUTSIDE AIR DUCT DOWN</p> <p>RETURN OR TRANSFER AIR DUCT UP</p> <p>RETURN OR TRANSFER AIR DUCT DOWN</p> <p>EXHAUST AIR DUCT UP</p> <p>EXHAUST AIR DUCT DOWN</p> <p>TYPE, NECK SIZE, CFM AT SUPPLY DIFFUSER OR REGISTER</p> <p>TYPE, THROAT SIZE, CFM AT RETURN GRILLE OR REGISTER</p> <p>TYPE, SIZE AT EXHAUST GRILLE OR REGISTER</p> <p>MANUAL VOLUME DAMPER</p> <p>SQUARE TO ROUND TRANSITION</p> <p>THERMOSTAT</p> <p>HUMIDISTAT</p> <p>CARBON DIOXIDE SENSOR</p> <p>CARBON MONOXIDE SENSOR</p> <p>TEMPERATURE SENSOR</p> <p>FIRE DAMPER</p> <p>FIRE/SMOKE DAMPER</p> <p>SMOKE DAMPER</p> <p>MOTORIZED DAMPER</p> <p>ROUND/OVAL DUCT RISER</p> <p>RECTANGULAR DUCT (PLAN DIMENSION SHOWN FIRST)</p> <p>ROUND DUCT</p> <p>FLAT OVAL DUCT (PLAN DIMENSION SHOWN FIRST)</p> <p>FLEXIBLE DUCT</p> <p>TRANSITION IN DUCT SIZE</p> <p>OPPOSED BLADE DAMPER</p> <p>PARALLEL BLADE DAMPER</p>	<p>A/C AIR CONDITIONING</p> <p>AFF ABOVE FINISHED FLOOR</p> <p>AHU AIR HANDLING UNIT</p> <p>BOD BOTTOM OF DUCT</p> <p>BOP BOTTOM OF PIPE</p> <p>BOS BOTTOM OF STRUCTURE</p> <p>BTU BRITISH THERMAL UNIT</p> <p>CH CHILLER</p> <p>CFM CUBIC FEET PER MINUTE</p> <p>CRAC COMPUTER ROOM AIR CONDITIONING UNIT</p> <p>CRCU COMPUTER ROOM CONDENSING UNIT</p> <p>CT COOLING TOWER</p> <p>CU CONDENSING UNIT</p> <p>CUH CABINET UNIT HEATER</p> <p>DB DRY BULB</p> <p>DDC DIRECT DIGITAL CONTROL</p> <p>DN DOWN DX DIRECT EXPANSION</p> <p>(E) EXISTING TO REMAIN</p> <p>EAT ENTERING AIR TEMPERATURE</p> <p>EDB ENTERING DRY BULB</p> <p>EF EXHAUST FAN</p> <p>ERV ENERGY RECOVERY VENTILATOR</p> <p>EWB ENTERING WET BULB</p> <p>EWT ENTERING WATER TEMPERATURE</p> <p>FCU FAN COIL UNIT</p> <p>FD FIRE DAMPER</p> <p>FSD FIRE/SMOKE DAMPER</p> <p>GPM GALLONS PER MINUTE</p> <p>HD HEAD</p> <p>HP HORSEPOWER, HEAT PUMP</p> <p>HOA HAND OFF AUTOMATIC</p> <p>HRV HEAT RECOVERY VENTILATOR</p> <p>HSTAT HUMIDISTAT</p> <p>HTG HEATING</p> <p>IN WC INCHES OF WATER COLUMN</p> <p>LAT LEAVING AIR TEMPERATURE</p> <p>LRA LOCKED ROTOR AMPS</p> <p>LWT LEAVING WATER TEMPERATURE</p> <p>MAU MAKE UP AIR UNIT</p> <p>MBH 1000 BTU PER HOUR</p> <p>MCA MINIMUM CIRCUIT AMPACITY</p> <p>MFR MANUFACTURER</p> <p>MMBH 1,000,000 BTU PER HOUR</p> <p>(N) NEW</p> <p>N/A NOT APPLICABLE</p> <p>NC NOISE CRITERIA, NORMALLY CLOSED</p> <p>NO NORMALLY OPEN</p> <p>OA OUTSIDE AIR</p> <p>PH Ø PHASE</p> <p>PRV PRESSURE REDUCING VALVE</p> <p>(R) RELOCATED EXISTING</p> <p>RA RETURN AIR</p> <p>RH RELATIVE HUMIDITY</p> <p>RLA RUNNING LOAD AMPS</p> <p>RPM REVOLUTIONS PER MINUTE</p> <p>RTU ROOF TOP UNIT</p> <p>SA SUPPLY AIR</p> <p>SD SMOKE DAMPER</p> <p>SF SQUARE FEET, SUPPLY FAN</p> <p>SP STATIC PRESSURE</p> <p>SS STAINLESS STEEL</p> <p>ST SOUND TRAP, STEAM TRAP</p> <p>STM STEAM</p> <p>TA TRANSFER AIR OPENING</p> <p>TD TRANSFER DUCT</p> <p>TDH TOTAL DYNAMIC HEAD</p> <p>TSTAT THERMOSTAT</p> <p>TYP TYPICAL</p> <p>UH UNIT HEATER</p> <p>VAC VACUUM</p> <p>VAV VARIABLE AIR VOLUME</p> <p>W WITH</p> <p>W/O WITHOUT</p> <p>WB WET BULB</p> <p>WC WATER COLUMN</p> <p>WPD WATER PRESSURE DROP</p>	<p>1. THE PLANS ARE, TO A GREAT EXTENT, DIAGRAMMATIC IN NATURE. DRAWING SCALES SHOULD BE VERIFIED FROM DIMENSIONS ON ARCH. PLANS. THE INFORMATION PRESENTED IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL OBTAIN EXACT LOCATION, MEASUREMENTS LEVELS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT THE WORK TO THE ACTUAL CONDITIONS AT THE PROJECT SITE.</p> <p>2. CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO COVER THE CONDITIONS AT THE SITE INFORMING THEMSELVES OF ALL DETAILS.</p> <p>3. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ORDINANCES, AND ALL AUTHORITIES HAVING JURISDICTION.</p> <p>4. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS, THE OWNER'S DESIGN CRITERIA, UTILITY COMPANY REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.</p> <p>5. RECORD DRAWINGS - PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING THE EXACT LOCATION OF ALL EQUIPMENT INCLUDING THE EQUIPMENT'S "AS INSTALLED" SIZE(S), MANUFACTURER, MODEL NUMBERS, AND PERFORMANCE RATINGS.</p> <p>6. SUPPORTS - EQUIPMENT, PIPING, DUCTWORK OR ANY OTHER ACCESSORY SHALL NOT BE SUPPORTED FROM OTHER PIPING, DUCTWORK, METAL ROOF DECK, LATERAL BRACING BRIDGING, OR CONDUIT. ITEMS SHALL ONLY BE SUPPORTED FROM BUILDING STRUCTURE.</p> <p>7. COORDINATE EXACT LOCATION OF ALL DUCTWORK, AIR TERMINAL UNITS, PIPING, ETC., WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND OTHER MECHANICAL SYSTEMS.</p> <p>8. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.</p> <p>9. ALL DUCTWORK, PIPING, AND TEMPERATURE CONTROL CONDUIT TO VIBRATING EQUIPMENT SHALL HAVE FLEXIBLE CONNECTORS.</p> <p>10. COORDINATE ALL ROOF AND CHASE PENETRATIONS WITH STRUCTURAL DRAWINGS AND ROOF INSTALLER.</p> <p>11. OWNER TO HAVE CHOICE SALVAGE OF ALL PLUMBING FIXTURES AND MECHANICAL EQUIPMENT WHICH ARE PLANNED TO BE REMOVED BY CONTRACTOR. EQUIPMENT NOT SALVAGED BY OWNER SHALL BE REMOVED FROM SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.</p> <p>12. BEFORE REMOVAL OF ANY MECHANICAL EQUIPMENT, CONTRACTOR SHALL RECOVER USED REFRIGERANT IN A PROPERLY LABELED D.O.T. APPROVED REFILLABLE CYLINDER TO MEET E.P.A. STANDARDS. RECOVERED REFRIGERANT MUST BE CHEMICALLY ANALYZED AND REPROCESSED OR DISPOSED OF PER E.P.A. REQUIREMENTS, SECTION 608 OF THE CLEAN AIR ACT AND A.R.I. STANDARD 700.</p> <p>13. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.</p> <p>14. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.</p> <p>15. ALL SA DUCT BRANCH TAKE-OFFS TO DIFFUSER TO BE SAME SIZE AS DIFFUSER NECK UNLESS OTHERWISE NOTED.</p> <p>16. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR DUCT LINING THICKNESS.</p> <p>17. CONTRACTOR SHALL COORDINATE LOCATION OF ALL DIFFUSERS AND GRILLES WITH STRUCTURAL, ELECTRICAL, AND ARCHITECTURAL REFLECTED CEILING PLANS.</p> <p>18. BEFORE INSTALLATION, EQUIPMENT CONTRACTOR SHALL VERIFY THAT COILS CAN BE REMOVED WITHOUT INTERFERENCE. CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS AND COIL REMOVAL SPACE FOR ALL EQUIPMENT.</p> <p>19. ACCESS PANELS ARE REQUIRED (MIN. 18"x18") FOR ACCESS TO EVERY VALVE, DAMPER, AIR TERMINAL UNIT, AND CONTROL SENSOR IF NOT OTHERWISE ACCESSIBLE.</p> <p>20. AT THE COMPLETION OF WORK, CONTRACTOR IS TO CLEAN ALL AFFECTED DUCTS WITHIN THE SCOPE OF WORK AREA.</p>
<p>MISCELLANEOUS</p> <p>SECTION CUT, UPPER NUMBER INDICATED DRAWING NUMBER LOWER NUMBER INDICATES SHEET NUMBER</p> <p>CONNECTION POINT OF NEW WORK TO EXISTING</p> <p>DETAIL REFERENCE, UPPER NUMBER INDICATES DETAIL NUMBER LOWER NUMBER INDICATES SHEET NUMBER</p> <p>RISER DESIGNATION</p> <p>NOTE REFERENCE SYMBOL</p> <p>EXISTING LINEWORK</p> <p>DEMOLITION LINEWORK</p> <p>NEW LINEWORK</p>	<p>MOUNTING HEIGHTS U.N.O.</p> <p>THERMOSTATS (USER ADJ.) 48" (ADA) 60"</p> <p>CONTROLS (CENTERLINE) 48" (ADA) 60"</p>	

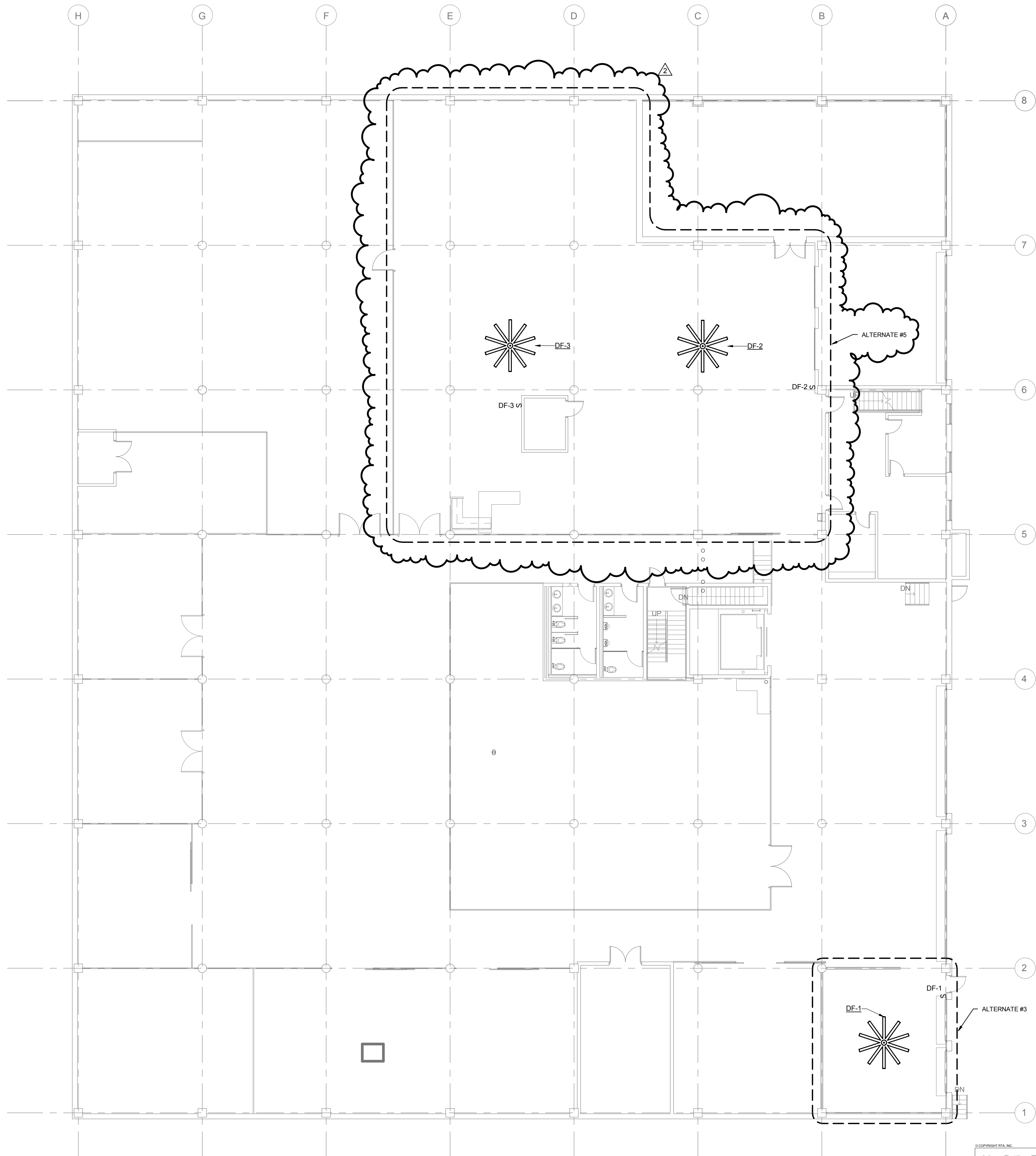
1	8/18/2014	AD2			
NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPRD
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DESIGNED BY: CNB DRAWN BY: CNB CHECKED BY: MJC DATE: 08/05/14			SHEET TITLE: HVAC LEGEND AND NOTES		
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT			RFA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:		
<p>707 17th Street, SUITE 3000 DENVER, CO 80202 T: 303.382.1920 F: 303.382.1930 www.megroup.com Job #: 887.002 High Performance Building Consultants</p>		<p>19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com</p>		SHEET: 7 OF: 25	




1 UPPER LEVEL HVAC/PLUMBING DEMOLITION PLAN
3/32" = 1'-0"

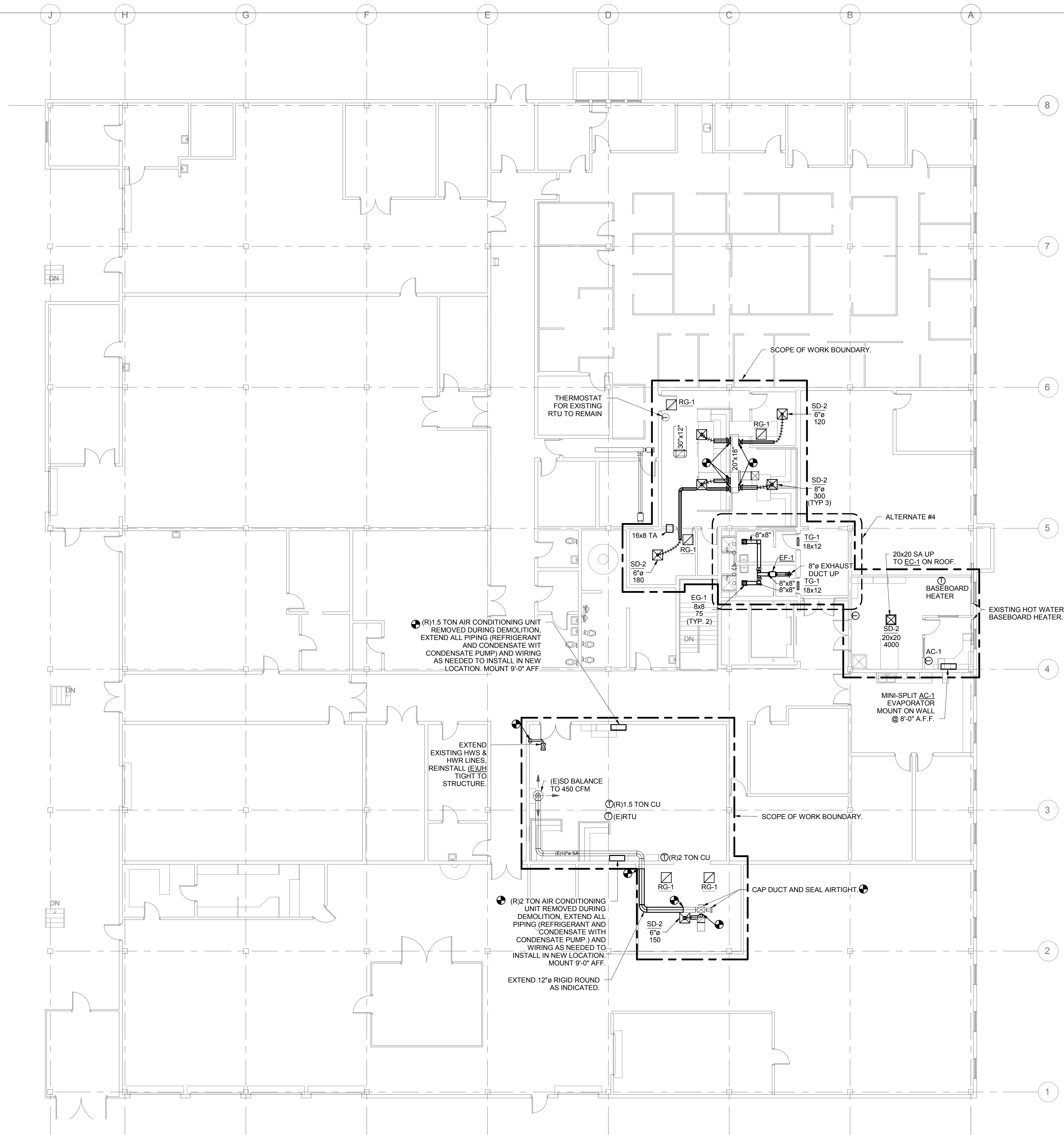
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PHASE 2 UPPER LEVEL MECHANICAL/PLUMBING DEMO PLAN					
DESIGNED BY: CNB CHECKED BY: MJC DATE: 08/05/14		RITA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:			
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① LOWER LEVEL HVAC PLAN
3/32" = 1'-0"

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DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		RTA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:			
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1 UPPER LEVEL HVAC PLAN
3/32" = 1'-0"

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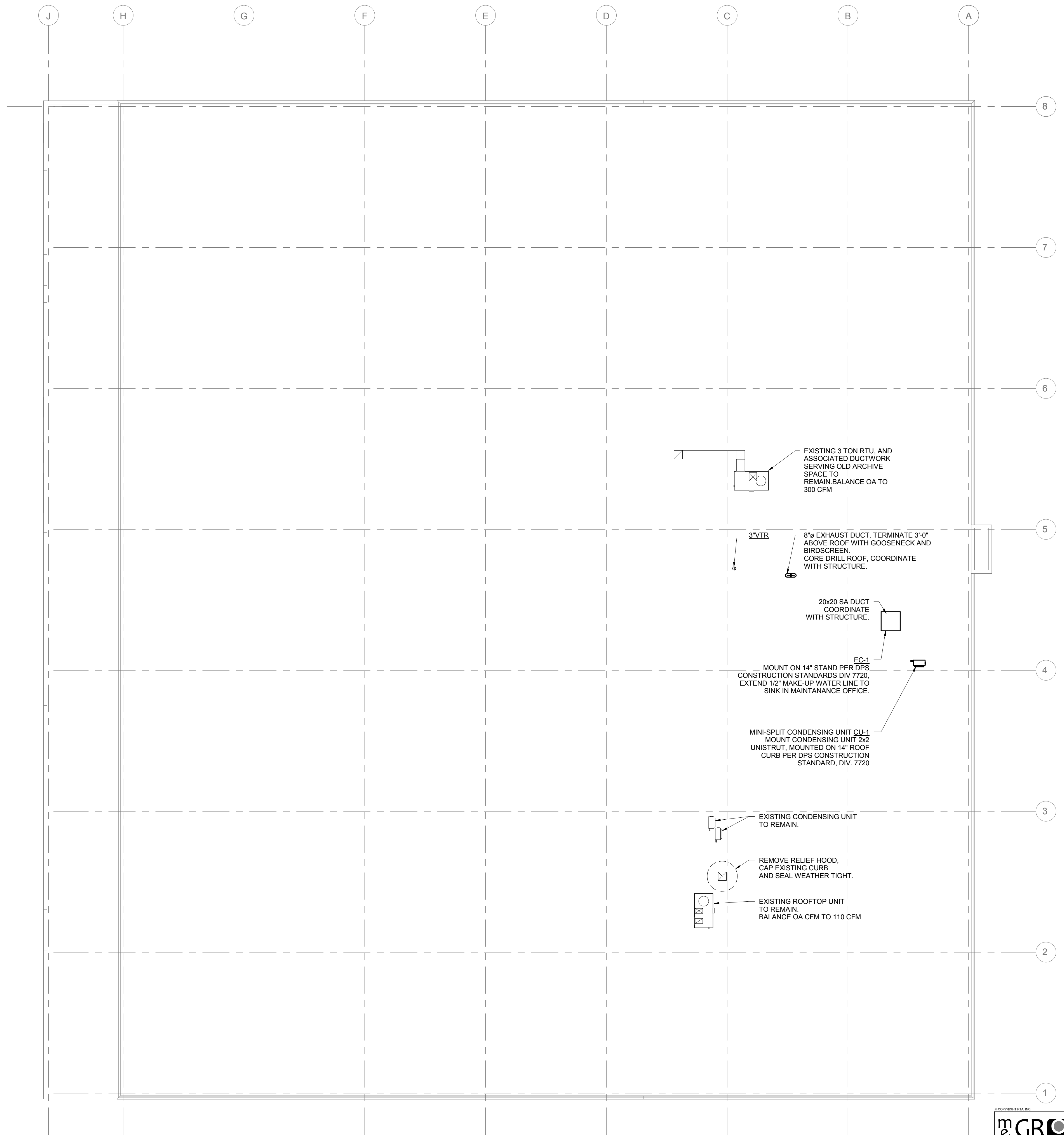
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 DATE: 08/05/14
 RTA PROJECT NUMBER: 12035.02
 DENVER PUBLIC SCHOOLS PROJECT NUMBER:

PHASE 2 UPPER LEVEL HVAC PLAN
 SCALE: 3/32" = 1'-0"
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1 HVAC/PLUMBING ROOF PLAN
3/32" = 1'-0"

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DESIGNED BY: CNB DRAWN BY: CNB CHECKED BY: MC DATE: 08/05/14		PROJECT TITLE: PHASE 2 ROOF MECHANICAL/PLUMBING PLAN			
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		RTA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:			
707 17th Street, SUITE 3000 DENVER, CO 80202 T: 303.382.1920 F: 303.382.1930 www.megroup.com Job #: 887.002 High Performance Building Consultants		RTA ARCHITECTS 19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com		SHEET: 11 OF: 25	
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EVAPORATIVE COOLER SCHEDULE

MARK	MANUFACTURER	MODEL	SERVES	DIMENSIONS	WEIGHT	FAN INFORMATION						COOLING COIL				ELECTRICAL DATA			NOTES	
						TYPE	CFM	RPM	B.H.P.	MIN. E.S.P. "wg.	MIN. OUTSIDE AIR (CFM)	MAX. MEDIA FACE VEL. (FPM)	CAPACITY TOTAL (MBH)	EAT (DEG F) DB	WB	LAT (DEG F) DB	WB	FLA		VOLTS/PH/Hz
EC-1	BREEZEAIR	BREEZEAIR, EXT 265	CREW ROOM	45.5x45.5x38.5 H	190	CENTRIF	4390	1470	0.75	0.3	4390	300	36	93	64	65	64	8.7	115/160	1, 2, 3

NOTES:
 1. PROVIDE EVAPORATIVE COOLER WITH SENSOR TOUCH CONTROL KIT, FILL AND DRAIN KIT, 24 GAUGE OR STRONGER ROOF JACK, CHILLCEL EVAPORATIVE MEDIA.
 2. MOUNT UNIT ON ROOF FOLLOWING ALL MANUFACTURERS RECOMMENDATIONS.
 3. COLOR BY OWNER

SPLIT SYSTEM HEAT PUMP SCHEDULE

MARK	MANUFACTURER	MODEL	LOCATION	FAN INFO		COOLING			ELECTRICAL DATA			DIMENSIONS LXDXH (IN)	WEIGHT (LBS)	NOTES	
				CFM	E.S.P.	REFRIG.	CAPACITY (MBH)	EER	LBS REFRIG / TON	MCA	MOPD				VOLTS/PH/Hz
AC-1	CARRIER	40QNC018	PREVENTIVE MAINTENANCE			410A	16.6	11.8	3.60	0.48	15	208/160	43x8x11	35	1,2,3
CU-1	CARRIER	38HDF018	ROOF			410A	18	11.8		12.1	20	208/160	37x18x26	175	1,2

NOTES:
 1. CAPACITIES ARE NOMINAL CATALOG RATINGS.
 2. PROVIDE WITH LOW AMBIENT COOLING DOWN TO -20F.
 3. PROVIDE WITH WIRELESS CONTROLLER

GRILLE, REGISTER, & DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	FACE SIZE	NECK	MATERIAL	FRAME TYPE	COLOR	NOTES
SD-1	PRICE	520	45 DEG. FIXED LOUVER	NECK + 3/4"	AS NOTED	STEEL	N/A	WHITE	
SD-2	PRICE	SCD	SQUARE 3-CONE LOUVERED FACE	NECK + 3/4"	AS NOTED	STEEL	N/A	WHITE	
RG-1	PRICE	PDDR	PERFORATED FACE NON-DUCTED RETURN	24x24	22x22	STEEL	LAY-IN	WHITE	
EG-1	PRICE	530	3/4" SPACING 45 DEG. FIXED LOUVER		SEE PLANS	ALUMINUM	SURFACE	WHITE	
TG-1	PRICE	ATGH	1/2" SPACING 45 DEG. FIXED LOUVER	NECK + 3/4"	18x12	ALUMINUM	DOOR MTD.	WHITE	

NOTES:
 1.

FAN SCHEDULE

MARK	MANUFACTURER	MODEL	SERVES	TYPE	CFM	ESP (IN WC)	MOTOR	DRIVE	BACKDRAFT DAMPER	SIZE (LxWxH)	WEIGHT (LBS)	VOLTS/PH/Hz	NOTES
DF-1	BAF	ESSENCE	WELLNESS	DESTRATIFICATION	N/A	N/A	10A	DIRECT	N/A	10' DIA	85	120/160	1
DF-2	BAF	ESSENCE	RICOH	DESTRATIFICATION	N/A	N/A	10A	DIRECT	N/A	20' DIA	300	120/160	1
DF-3	BAF	ESSENCE	RICOH	DESTRATIFICATION	N/A	N/A	10A	DIRECT	N/A	20' DIA	300	120/160	1
EF-1	GREENHECK	CSP-A190	SHOWERS	INLINE	150	0.25	180W	DIRECT	YES	14x10x9	20	120/160	1

NOTES:
 1. ALL CAPACITIES ARE SIZED AT 5280 FT.

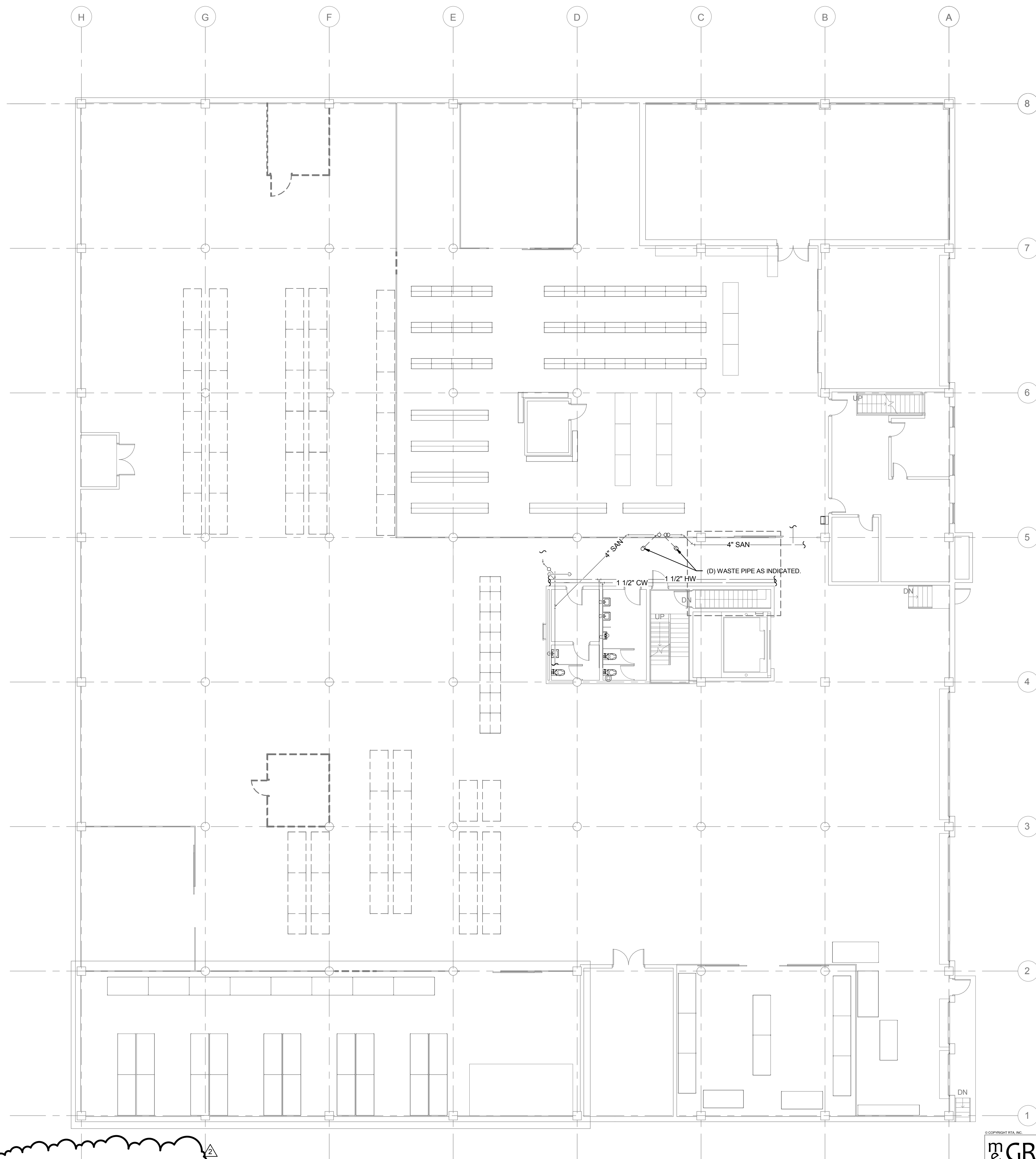
PLUMBING FIXTURE & EQUIPMENT CONNECTION SCHEDULE

FIXTURE	COMPONENT	MANUFACTURER	MODEL	COLOR	DESCRIPTION	FLOW RATE (GPM/GPF)	ACCESSIBLE	WASTE	VENT	CW	HW
L-1	LAVATORY FAUCET	KOHLER SLOAN	K-2805 EFX250.500.0100.0	WHITE CHROME	WALL HUNG, 4" CENTERS, PROVIDE WITH CARRIER, COORDINATE WITH WALL THICKNESS. BATTERY OPERATED INFRARED FAUCET, W/ITMV-1 AND SA-1. PROVIDE GRID DRAIN, 17 GAUGE P-TRAP, ANGLE SUPPLIES W/L.K. STOPS, INSULATION KIT.	0.5	YES	2"	1-1/2"	1/2"	1/2"
SH-1	SHOWER VALVE HEAD/ HAND SHOWER SHOWER STALL	BRADLEY BRICOR COMFORT DESIGNS	HN300-HD-BJ-BP B150CH-R 3838TR.75 1P L-BAR	CHROME CHROME RE: ARCH	HEAVY DUTY SHOWER VALVE W/ BACKPLATE AND BALL JOINT, LESS SEAT, CURTAIN, GRAB BAR. HEAVY DUTY SHOWER HEAD, DIVERTER VALVE, 24" SLIDE BAR, HAND SHOWER 36x36 CODE COMPLIANT SOLID SURFACE ONE PIECE WITH INTEGRAL TRENCH DRAIN	1.5	YES	2"	1-1/2"	1/2"	1/2"
TMV-1	THERMOSTATIC MIXING VALVE	POWERS	LM495	ROUGH BRASS	4 GPM @ 5 PSI LOSS MAX. ASSE 1017 LISTED, SET AT 120°F, MOUNT ON WALL FOR ACCESS AND ADJUSTMENT.	-	-	-	-	-	-
SA-1	SHOCK ARRESTOR	SIoux CHIEF	652-A	COPPER	SIZE "A", PISTON-TYPE WATER HAMMER ARRESTOR, PROVIDE WITH LINE SIZE BALL VALVE FOR ISOLATION AND PROVIDE WITH ACCESS.	-	-	-	-	-	PER PLAN
ES/IEW-1	EMERGENCY EYE WASH/ EMERGENCY SHOWER	BRADLEY	S19314BF		COMBINATION SHOWER AND EMERGENCY EYE WASH STATION. BARRIER FREE WITH PULL HANDLE. REVERSE DRAIN TO FACE FORWARD, AWAY FROM WALL.	-	YES	-	-	-	1-1/4" (TEPID)
FD-1	FLOOR DRAIN	JOSAM	30000-A	NICKALLOY	TWO-PIECE DRAIN WITH DOUBLE FLANGE, CLAMP RING, ROUND ADJUSTABLE NICKALLOY STRAINER PROVIDE WITH SURE SEAL TRAP SEAL.	-	-	PER PLAN	-	-	-
TMV-2	THERMOSTATIC MIXING VALVE	BRADLEY	S19-2100	ROUGH BRASS	EMERGENCY MIXER THAT FAILS COLD. 20 GPM @ 15 PSI LOSS MAX. SET TO PROVIDE TEPID WATER, LOCATED IN CASEWORK OR AS INDICATED WITH ACCESS FOR SERVICE.	-	-	-	-	1-1/4"	1-1/4"

ASHRAE 62.1-2007 VENTILATION CALCULATIONS

AIR UNIT TAG	SPACE	ROOM NAME	SYSTEM TYPE	ROOM TYPE PER TABLE 6-1	AREA BREAKDOWN %	AREA (AZ) (SQ.FT.)	OUTDOOR AIRFLOW RATE PER PERSON (RP) CFM / PERSON	OUTDOOR AIRFLOW RATE PER UNIT AREA (RA) CFM / SQ.FT.	ZONE POPULATION PEOPLE/1000 SQ.FT.	DEFAULT ZONE POPULATION	ZONE POPULATION (PZ)	OUTDOOR AIRFLOW RATE (PEOPLE COMPONENT) PZ x RP	DIVERSITY OUTDOOR AIRFLOW RATE (PEOPLE COMPONENT) PZ x RP	OUTDOOR AIRFLOW RATE (AREA COMPONENT) AZ x RA	REQUIRED OUTDOOR AIR REQUIRED AT BREATHING ZONE CFM (VBZ)	DIVERSITY REQUIRED OUTDOOR AIR REQUIRED AT BREATHING ZONE CFM (VBZ)	ZONE AIR DISTRIBUTION EFFECTIVENESS (EZ) TABLE 6-2	ZONE CORRECTED AIRFLOW RATE CFM (VOZ)	ZONE MINIMUM PRIMARY AIRFLOW CFM (VPZ)	ZONE PRIMARY OUTDOOR FRACTION (ZP)	SYSTEM VENTILATION EFFICIENCY (EV) TABLE 6-3	Vot SYSTEM/BREATHING ZONE OUTDOOR AIR REQUIREMENT CFM	ACTUAL CFM DELIVERED TO SPACE CFM
(E) AHU-1	112	ARCHIVES	Single-Zone System	WAREHOUSES	100%	1,416	0	0.06	0	0.0	2	0	0	85	85	85	0.8	106	1,800	0.06	1.00	106	110
(E)AHU-2	122F	OPEN OFFICE	Single-Zone System	OFFICE SPACE	75%	645	15	0.06	5	3.2	4	60	23	39	99	61	0.8	123	900	0.14	1.00	123	225
	122FA	OFFICE	Single-Zone System	OFFICE SPACE	10%	95	15	0.06	5	0.5	1	15	6	6	21	11	0.8	26	120	0.22	0.94	26	30
	122FC	OFFICE	Single-Zone System	OFFICE SPACE	15%	135	15	0.06	5	0.7	1	15	6	8	23	14	0.8	29	180	0.16	0.99	29	45

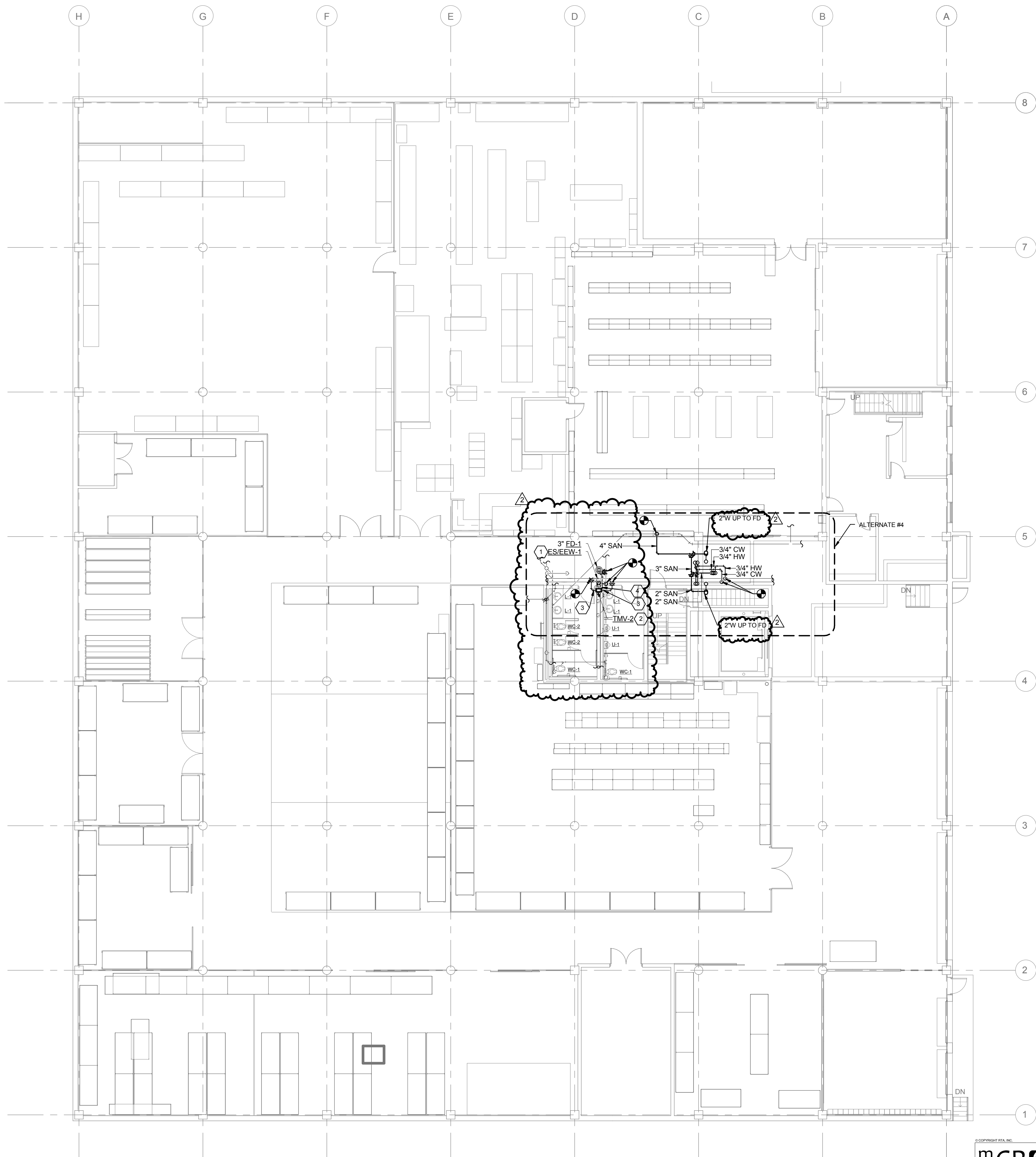
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DESIGNED BY: CNB DRAWN BY: CNB CHECKED BY: MC DATE: 08/05/14		PROJECT TITLE: MECHANICAL/PLUMBING SCHEDULES			
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1 LOWER LEVEL PLUMBING DEMOLITION PLAN
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KEY NOTES (THIS SHEET)

1. STUB 1-1/4" TEMPERED WATER AT 62-1/4" A.F.F., AND 1-1/4"W AT 6" A.F.F.
2. TMV-2 MOUNTED ON WALL AT MEZZANINE LEVEL.
3. ROUTE 1-1/4" HW & CW AS INDICATED AND CONNECT TO (E) HW & CW AS INDICATED.
4. CONNECT 2"V AT P-TRAP ROUTE AS INDICATED & UP IN CHASE CONNECT TO (E)VENT ABOVE.

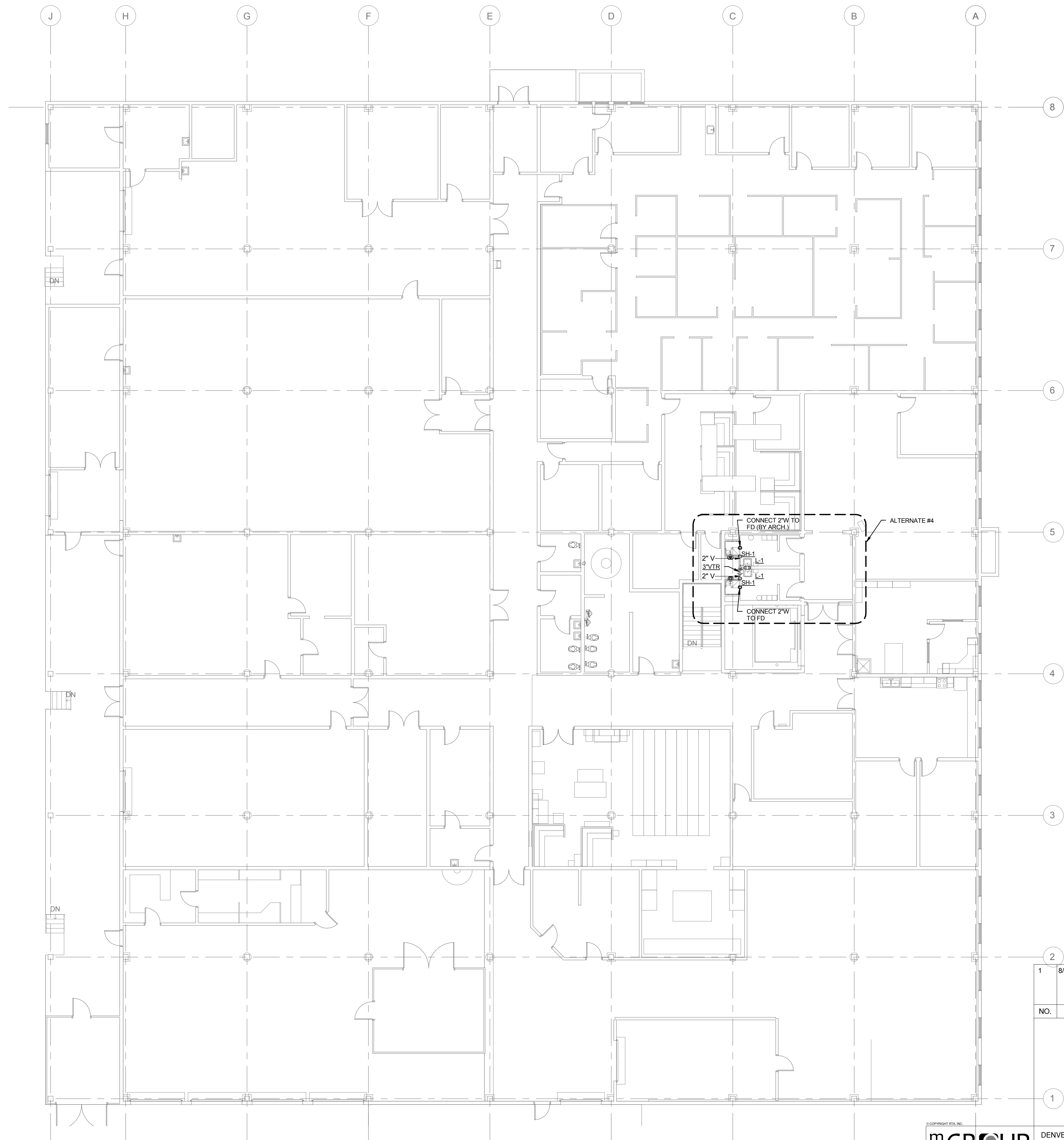
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SCALE:			RTA PROJECT NUMBER: 12035.02	DENVER PUBLIC SCHOOLS PROJECT NUMBER:	
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1 UPPER LEVEL PLUMBING PLAN
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ELECTRICAL SYMBOLS

NOTE:

THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

ONE LINE AND RISER

Table of electrical symbols for one line and riser, including Panel, Motor, Surge Protection Device, Ground Connection, Switch, Fuse, Circuit Breaker, Utility Meter, Safety Switch, Fused Disconnect, Combination Starter/Disconnect, Transformer, Conduit Connection, Circuit Breaker with Ground Fault Protection, Fuse with Ground Fault Protection, Automatic Transfer Switch, Ground Connection with Test Well, Ground Rod, Pole Mounted Utility Transformer, and Engine Generator.

MISCELLANEOUS

Table of miscellaneous symbols including Key Note Designation, Short Circuit Tag Designation, Feeder Tag Designation, Revision Number Designation, New to Existing Connection, Existing Linework, Demolition Linework, and New Linework.

COMMUNICATIONS

Table of communication symbols including Junction Box for Installation of (1) Communication and (1) Data Outlet, Floor Junction Box for Installation of Communication or Data Outlet, Junction Box for Installation of TV Outlet, Microphone Outlet Box with Cover Plate, Speaker, Ceiling Mounted, Speaker, Wall Mounted, Horn Speaker, Volume Control, Intercom Master - Wall, Intercom Master - Wall with Handset, Intercom Master - Staff Station, and Wireless Access Point.

POWER

Table of power symbols including Panelboard, Electrical Distribution Panel, or Load Center Surface Mounted, 20 AMP, 125V, NEMA 5-20R Duplex Receptacle, 20 AMP, 125V, NEMA 5-20R Quad Receptacle, 20 AMP, 125V, NEMA 5-20R Switched Duplex Receptacle, 20 AMP, 125V, NEMA 5-20R Duplex Floor Receptacle, 20 AMP, 125V, NEMA 5-20R Quad Floor Receptacle, Junction Box, Special Receptacle, Special Receptacle, Ceiling Mounted, Motor, Plugmold, Safety Switch, Fused Disconnect, Combination Starter/Disconnect, and Photocell.

FIRE ALARM

Table of fire alarm symbols including Fire Alarm Control Panel, Fire Alarm Remote Annunciator Panel, Access Control Panel, Gas Alarm Control Panel, Smoke Detector, Addressable Photo Electric, Smoke Detector, Early Warning Laser Detection, Flame Detector, Heat Detector, Gas Detector, Duct Smoke Detector, Addressable Photo Electric, Fire ADA Alarm Strobe, Fire Alarm Audible and ADA Strobe Light, Fire Alarm Manual Pull Station, Magnetic Door Holder, Fire Alarm Flow Switch, Fire Alarm Tamper Switch, Fire Alarm Control Module, and Duct Detector Remote Indicator Alarm and Test.

CONDUIT DESIGNATIONS

Table of conduit designations including Panel Name / Circuit Number - Branch Circuits, Conduit and Wire Concealed, Conduit and Wire Embedded in Concrete or Below Grade, Conduit Turning Down, and Conduit Turning Up.

LIGHTING

Table of lighting symbols including 2' x 4' Recessed Fluorescent Luminaire, 2' x 4' Surface Fluorescent Luminaire, 2' x 2' Recessed Fluorescent Luminaire, 2' x 2' Surface Mounted Fluorescent Luminaire, 1' x 4' Recessed Fluorescent Luminaire, 1' x 4' Surface Mounted Fluorescent Luminaire, 1' x 4' Wall Mounted Fluorescent Luminaire, Linear Pendant Fluorescent Luminaire, Pendant Luminaire, Fluorescent Strip Type Luminaire, Surface Mounted Downlight, Recessed Mounted Downlight, Wall Mounted Luminaire, Wall Wash Luminaire, Recessed Step Light Luminaire, Track Luminaire, Ceiling Mounted Exit Sign, Emergency Battery Luminaire, Emergency Battery Luminaire with Mounted Exit Sign, Wall Mounted Exit Sign, Single Pole Mounted Exterior Luminaire, Double Pole Mounted Exterior Luminaire, Quad Pole Mounted Exterior Luminaire, Bollard Luminaire, Ceiling Fan, Single Pole Switch, Ceiling Mounted Occupancy Sensor, Directional Ceiling Mounted Occupancy Sensor, and Dual Directional Ceiling Mounted Occupancy Sensor.

STANDARD MOUNTING HEIGHTS U.N.O.

Table of standard mounting heights for various electrical components such as Receptacles, Alarms, Telephone Outlets, Safety Switches, Starters, Panels, Clock Outlets, Fire Alarm Pull Stations, Strobes, Fire Alarm Bells, Controls, Annunciation Panels, Intercom, Remote Indicating Light, Exit Signs, Television Outlets, Intercoms, and Photocells.

ABBREVIATIONS

Table of abbreviations for electrical symbols, including Amps, Air, Compressed, Above Finished Ceiling, Area for Evacuation Assistance, Above Finished Floor, Air Handling Unit, Ampere Interrupting Current, Aluminum, Automatic Transfer Switch, American Wire Gauge, Below Finished Floor, Bottom of Structure, Conduit, Cable Television System, Closed Circuit Television, Cubic Feet Per Minute, Ceiling, Coffee Maker, Copper, Condensing Unit, Direct Digital Control, Down, Double Pole, Double Throw, Double Pole, Single Throw, Existing, Emergency Power Off, Existing to Remain, Furnished by Others, Finished Floor, Fire Hose Cabinet, Full Load Amps, Floor, Full Voltage, Non Reversing, Garbage Disposal, Ground Fault Circuit Interrupter, Ground Fault Protected from Upstream, Ground Fault Relay, Hand Off Automatic, High Pressure Sodium, Humidistat, Heating, Heater, Isolated Ground, 1000 Circular Mils, Kilovolt, Kilovolt Amps, Kilovolt Amps Reactive, Kilowatt, Kilowatt Hour, Light Emitting Diode, Linear Feet, Locked Rotor Amps, Master Antenna Television System, 1000 BTU Per Hour, Minimum Circuit Ampacity, Main Circuit Breaker, Motor Control Center, Motorized Damper, Main Distribution Panel, Manufacturer, Motor Generator, Manhole, Main Switchboard, Mounted, Microwave, Not Applicable, Not in Contract, Normally Open, Normally Closed, Night Light, On Center, Oven, Power Distribution Unit, Phase, Post Indicator Valve, Mounted on Ceiling for Projector, Panel, Potential Transformer, Quantity, Return Air, Reflected Ceiling Plan, Refrigerator, Revision, Relative Humidity, Running Load Amps, Revolutions Per Minute, Supply Air, Smoke Detector, Under Slab, Single Pole, Double Throw, Single Pole, Single Throw, Static Pressure, Switchboard, Thermostat, Twistlock, Television, Typical, Underfloor, Underground, Under Slab, Underwriters Laboratories, Inc., Unless Noted Otherwise, Uninterruptible Power Supply, Volts Alternating Current, Vacuum, Variable Air Volume, Vending Machine, With, Without, Weatherproof, Watertight, Weight, Transformer, and Explosion Proof.

ELECTRICAL GENERAL NOTES

- 1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK. REFER TO MECHANICAL PLANS FOR LOCATION OF ALL MECHANICAL EQUIPMENT. REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS PRIOR TO BID. COORDINATE ELECTRICAL WORK REQUIRED BY OTHER DISCIPLINES.
2. PROVIDE ELECTRICAL DEMOLITION REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN AND/OR RESTORE CONTINUITY OF SERVICE TO EXISTING CIRCUITS. REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, J-BOXES, RECEPTACLES, SWITCHES, LIGHTS, FIRE ALARM DEVICES, ETC. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE OR NEAREST ACTIVE DEVICE. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE AND WITH PERMISSION FROM THE OWNER, OUTLET SHALL BE ABANDONED. WIRE REMOVED AND BLANK COVER PLATES PROVIDED. IN ALL CONDUIT ABANDONED IN PLACE INSTALL A PULL STRING LABELED AT BOTH ENDS.
3. FIELD VERIFY EXISTING EQUIPMENT OR CIRCUITS THAT ARE REMAINING TO BE RECONNECTED TO NEW OR EXISTING SWITCHBOARDS/PANELBOARDS. PROVIDE SWITCHES, RECEPTACLES, CONDUIT, WIRE, ETC. AS REQUIRED TO RESTORE CONTINUITY OF CIRCUITS.
4. CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. COORDINATE EQUIPMENT CONNECTION REQUIREMENTS WITH DIVISION 15 CONTRACTOR. CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT SUPPLIED.
5. COORDINATE EQUIPMENT SIZES WITH ROOM SIZES. CONTRACTOR SHALL VERIFY THAT ELECTRICAL EQUIPMENT ORDERED CAN BE INSTALLED IN THE SPACE PROVIDED WHILE MAINTAINING CODE REQUIRED CLEARANCES.
6. EXISTING SYSTEMS AND CONDITIONS SHOWN ON DRAWINGS FOR EXISTING BUILDINGS ARE TO BE NOTED "FOR GUIDANCE ONLY". THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING AND TO INCLUDE IN HIS BID AN ALLOWANCE FOR REMOVAL AND/OR RELOCATION OF EXISTING CONDUITS, WIRES, DEVICES, FIXTURES, OR OTHER EQUIPMENT AS INDICATED ON THE PLANS OR AS REQUIRED TO COORDINATE AND ADAPT NEW AND EXISTING ELECTRICAL SYSTEM TO ALL OTHER WORK.
7. SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER-IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE PERSONNEL ADVISED OF SUCH WORK.
8. EXISTING CONDUCTORS AND RACEWAY MAY BE RE-USED IN PLACE AT THE CONTRACTORS DISCRETION AFTER OBTAINING PERMISSION IN WRITING FROM OWNER AND GRANTING OWNER CREDIT FOR WORK NOT PERFORMED. ALL WIRE AND RACEWAY SHALL BE FULLY FUNCTIONAL AND WARRANTED AS NEW INCLUDING ANY MATERIAL THAT IS EXISTING AND HAS BEEN RE-USED.
9. EXISTING CONDUITS, WIRE, DEVICES, ETC. WHICH ARE NOT INDICATED FOR REUSE SHALL BE OFFERED TO OWNER, IF REFUSED BY OWNER, SHALL BECOME THE PROPERTY OF THE ELECTRICAL CONTRACTOR.
10. LIGHTING FIXTURES, PANELS, FUSED SWITCHES, CIRCUIT BREAKERS, FIRE ALARM EQUIPMENT ETC. SHALL BECOME THE PROPERTY OF THE OWNER.
11. REVIEW ARCHITECTURAL, STRUCTURAL, AND MECHANICAL DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO STARTING WORK IN THESE AREAS.
12. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES. COORDINATE WORK WITH LOCAL FIRE DEPARTMENT.
13. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
14. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
15. WIRE SHALL BE COPPER, 60 DEGREES C RATED UP TO 100 AMPS AND 75 DEGREES C RATED ABOVE 100 AMPS. FOR HID FIXTURES AND WIRING WITHIN 3 INCHES OF FLUORESCENT BALLASTS WIRE SHALL BE COPPER, MINIMUM 90 DEGREES C RATED. SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 DEGREES C AMBIENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
16. PROVIDE SHOP DRAWINGS SUBMITTALS FOR ITEMS NOTED IN THE SPECIFICATIONS. SHOP DRAWINGS NOT REQUIRED BY THE SPECIFICATIONS WILL NOT BE REVIEWED.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
18. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
19. SYSTEMS SHALL BE COMPLETE, OPERABLE, AND READY FOR CONTINUOUS OPERATION. LIGHTS, SWITCHES, RECEPTACLES, MOTORS, ETC. SHALL BE CONNECTED AND OPERABLE.
20. NEW RECESSED FIXTURES INSTALLED INDOORS SHALL BE THERMALLY PROTECTED.
21. PROVIDE NEW UPDATED PANELBOARD DIRECTORIES FOR EXISTING AND NEW CIRCUITS BEING UTILIZED FOR COMPLETION OF PROJECT.
22. CONDUITS PENETRATING THROUGH ROOF SHALL HAVE ROOF FLASHING WITH CAULK TYPE COUNTER FLASHING SLEEVE. INSTALLATION SHALL BE WATERTIGHT.
23. FINAL CONNECTIONS TO MOTORS, TRANSFORMERS AND OTHER VIBRATING EQUIPMENT SHALL BE MADE WITH LIQUID TIGHT FLEXIBLE CONDUIT AND APPROVED FITTINGS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT. PROVIDE VIBRATION ISOLATION PADS FOR ALL TRANSFORMERS AND MOTORS.
24. WHERE PANELS ARE INSTALLED FLUSH WITH WALLS, EMPTY CONDUITS SHALL BE EXTENDED FROM THE PANEL TO AN ACCESSIBLE SPACE ABOVE OR BELOW. A MINIMUM OF ONE 3/4" CONDUIT SHALL BE INSTALLED FOR EVERY THREE SINGLE POLE SPARE CIRCUIT BREAKERS OR SPACES, OR FRACTION THEREOF, BUT NOT LESS THAN TWO CONDUITS.
25. WIRE TERMINATION PROVISIONS FOR PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED AS SUITABLE FOR 60 DEGREES C RATED UP TO 100 AMPS AND 75 DEGREES C RATED ABOVE 100 AMPS.
26. ALL ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED BY UL.
27. SYSTEM DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE IN EVERY RESPECT. SUBMIT SHOP DRAWINGS ACCORDING TO SPECIFICATIONS. SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIAGRAM THAT SHOWS DEVICES, CONDUIT, WIRE, CABLE SIZES AND EQUIPMENT TO BE USED. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.
28. BACK-TO-BACK OUTLETS IN THE SAME WALL, OR "THRU-WALL" TYPE BOXES SHALL NOT BE PERMITTED. PROVIDE 2-4 INCH SEPARATION TO OFFSET OUTLETS SHOWN ON OPPOSITE SIDES OF A COMMON WALL TO MINIMIZE SOUND TRANSMISSION. COVER BACKBOXES WITH EITHER FIRE OR SOUND PUTTY PAD.
29. OUTLET BOXES ON OPPOSITE SIDES OF FIRE-RATED WALLS AND PARTITIONS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF AT LEAST 24 INCHES.
30. THE FIRE ALARM SYSTEM SHOP DRAWINGS WILL BE PROVIDED AS A DEFERRED SUBMITTAL IN ACCORDANCE WITH 2009 IBC 107.2.2, 107.3.4.2, 2002 NFPA 72, AND 2011 NEC. EXTEND FIRE ALARM SYSTEM DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE IN EVERY RESPECT. SUBMIT SHOP DRAWINGS ACCORDING TO SPECIFICATIONS. SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIAGRAM THAT SHOWS DEVICES, CONDUIT, WIRE, CABLE SIZES AND EQUIPMENT TO BE USED. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.
31. FIRE ALARM CONTRACTOR SHALL PROVIDE NEW GRAPHIC MAP. NEW MAP SHALL COMPLY WITH REQUIREMENTS OUTLINED IN SPECIFICATION SECTION 28 31 11.

Table with columns: NO., DATE, DESCRIPTION OF REVISION, AUTHORITY, MADE, APPRD.

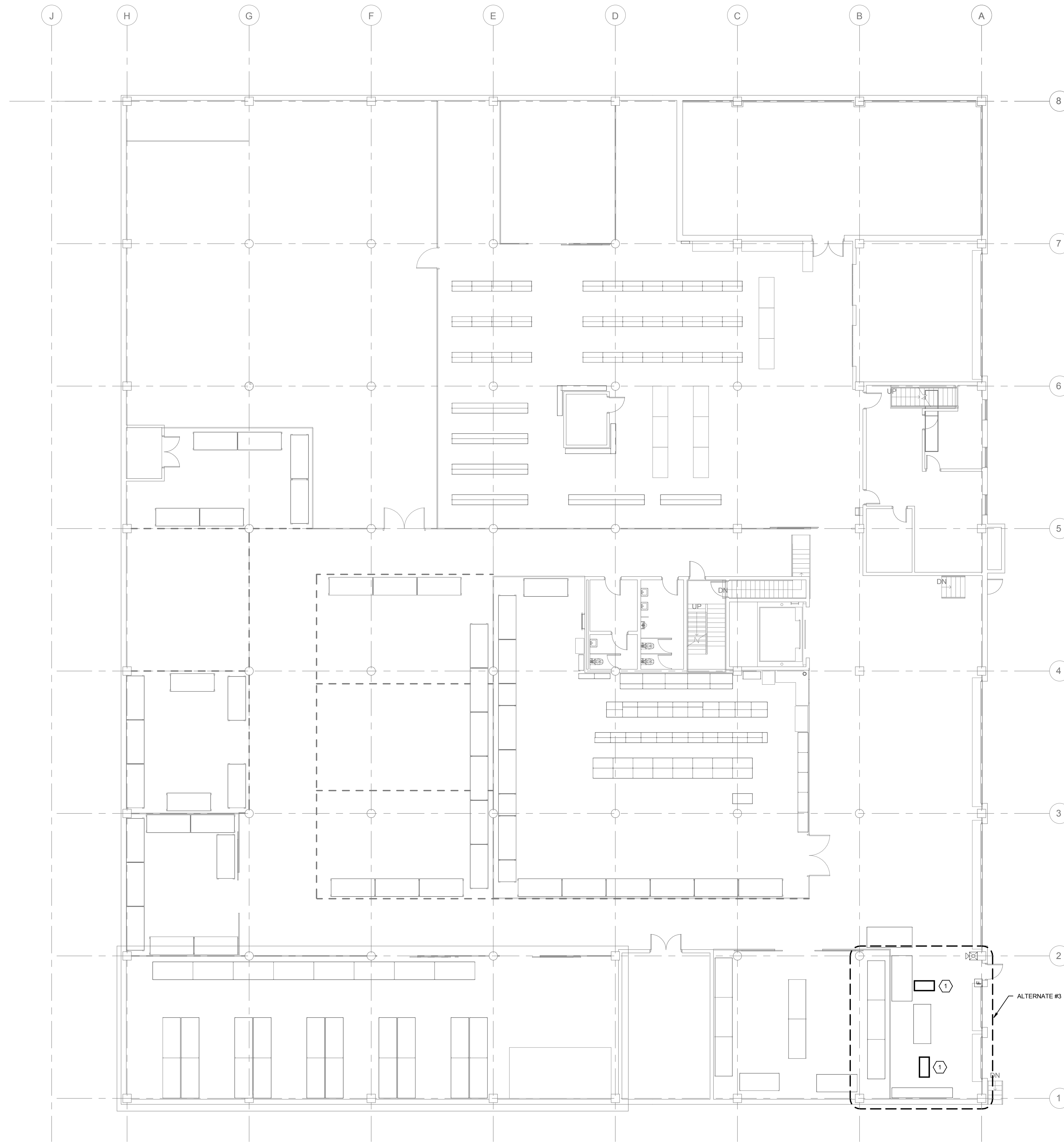
DENVER PUBLIC SCHOOLS
DEPARTMENT OF FACILITIES MANAGEMENT
SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO
HILLTOP SERVICE CENTER
ARCHIVES RENOVATION
2800 WEST 7TH AVENUE
DENVER, CO 80204

ELECTRICAL LEGEND AND NOTES
DESIGNED BY: PMP
CHECKED BY: PMP
DATE: 08/05/14
SCALE:
RITA PROJECT NUMBER: 12035.02
DENVER PUBLIC SCHOOLS PROJECT NUMBER:

707 17th Street, SUITE 3000
DENVER, CO 80202
T: 303.382.1920
F: 303.382.1930
www.megroup.com
Job #: 887.002
High Performance Building Consultants
DATE:
SHEET: 17 OF 25
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1 LOWER LEVEL POWER PLAN
3/32" = 1'-0"

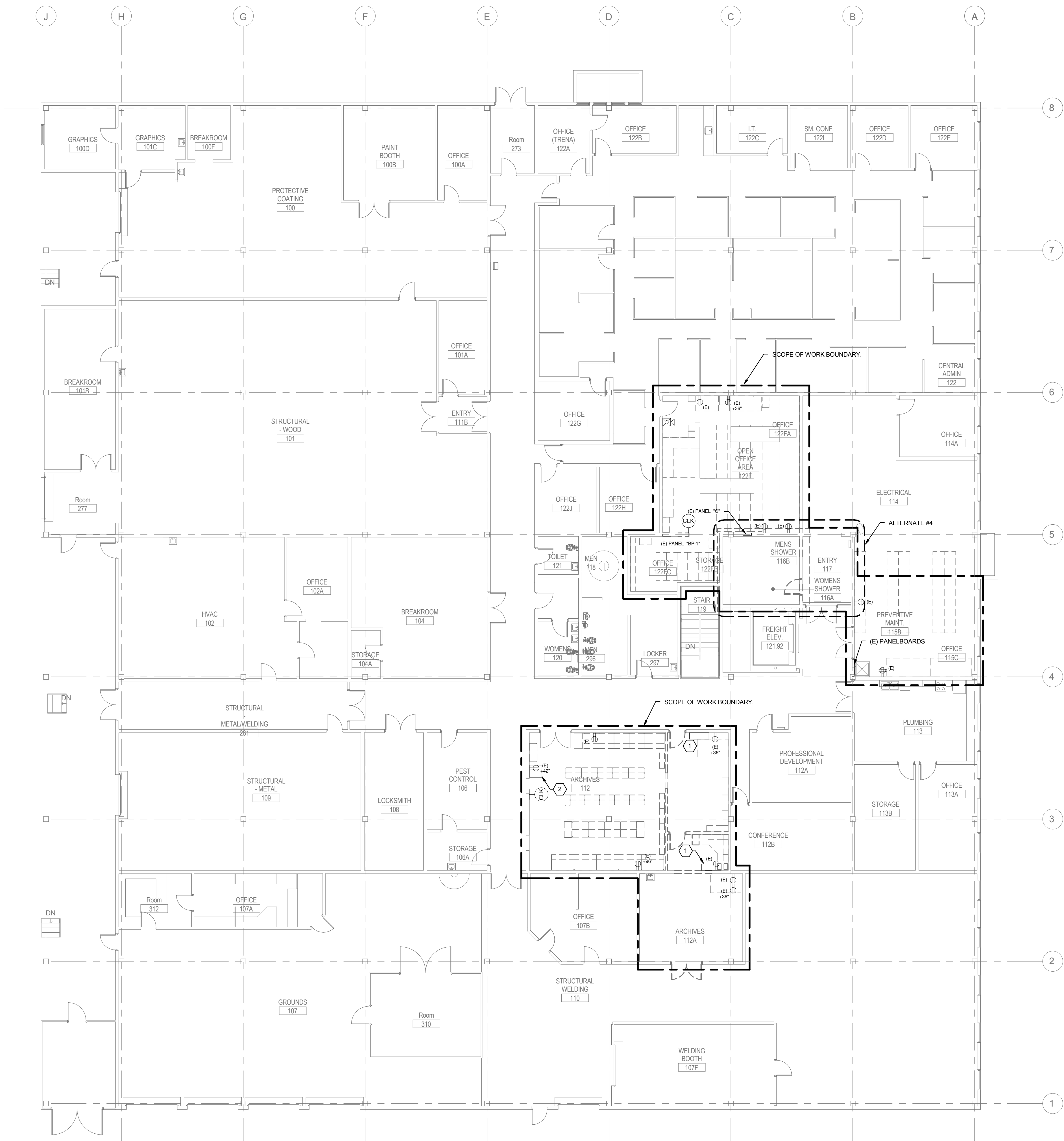
GENERAL NOTES (THIS SHEET)

1. COORDINATE SEQUENCE OF DEMOLITION WITH OWNER AND ARCHITECT PRIOR TO BEGINNING WORK.
2. PROTECT EQUIPMENT THAT IS TO BE RELOCATED FROM DAMAGE. STORE INDOORS IN A SAFE LOCATION UNTIL EQUIPMENT CAN BE RE-INSTALLED.
3. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE THEMSELVES WITH THE PROJECT AND INCLUDE IN THEIR BID ALL COSTS ASSOCIATED WITH NEW WORK.
4. CONTRACTOR SHALL VERIFY QUANTITIES OF OPERATIONAL LUMINAIRES IN THE FIELD.
5. REMOVE AND OFFER TO OWNER ALL LIGHTING AND LIGHTING CONTROLS FROM AREAS OF DEMOLITION UNLESS NOTED OTHERWISE. ALL FIXTURES REFUSED BY OWNER SHALL BE PROPERLY DISPOSED. SALVAGED LIGHTING SHALL BE STORED AND PREPARED FOR INSTALLATION IN NEW WORK.
6. REMOVE ALL ELECTRICAL DEVICES FROM WALLS SHOWN IN DASHED LINEWEIGHT AND DEVICES WITH A HATCH PATTERN OVER THEM. REMOVE BRANCH CIRCUITING INCLUDING BACK BOXES, CONDUCTOR AND CONDUIT FROM DEVICE LOCATION TO PANELBOARD OR NEAREST DEVICE TO REMAIN. DEVICES SHOWN IN THIN LINEWEIGHT WITHOUT A HATCH PATTERN OVER THEM ARE EXISTING TO REMAIN.
7. REMOVE EXISTING SURFACE MOUNTED RECEPTACLES, AND DATA DEVICES WITHIN THE AREAS OF DEMOLITION UNLESS NOTED OTHERWISE. DEMO CONDUIT AND CONDUCTORS BACK TO NEAREST DEVICE ON CIRCUIT.
8. CIRCUIT BREAKERS MADE SPARE BY REMODEL WORK SHALL BE LABELED AS SPARE.
9. REVISE EXISTING PANEL SCHEDULES TO SHOW NEW WORK.
10. IDENTIFY EXISTING CIRCUITS SERVING AREA FOR REUSE DURING NEW WORK.
11. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR SUMMARY OF REMOVED AND ADDED LOADS.
12. DEMOLISH ALL LIGHT SWITCHES THAT ARE EXISTING AND ARE CURRENTLY NOT SERVING ANY FUNCTIONAL LIGHTING. SWITCHES THAT ARE IN SPACES WHERE WORK IS NOT BEING CONDUCTED ARE TO REMAIN UNLESS OTHERWISE NOTED.

KEY NOTES (THIS SHEET)

1. DEMOLISH EXISTING LUMINAIRE. REMOVE BRANCH CIRCUITING INCLUDING BACK BOXES, CONDUCTOR AND CONDUIT FROM DEVICE LOCATION TO PANELBOARD OR NEAREST DEVICE TO REMAIN.

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DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DESIGNED BY: PMP DRAWN BY: PMP CHECKED BY: RH DATE: 08/05/14		SHEET TITLE: PHASE 2 LOWER LEVEL DEMO PLAN			
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		RITA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:			
707 17th Street, SUITE 3000 DENVER, CO 80202 T: 303.382.1920 F: 303.382.1930 www.megroup.com Job #: 887.002 High Performance Building Consultants		RTA ARCHITECTS 19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com		SHEET: 18 OF: 25 ED110	



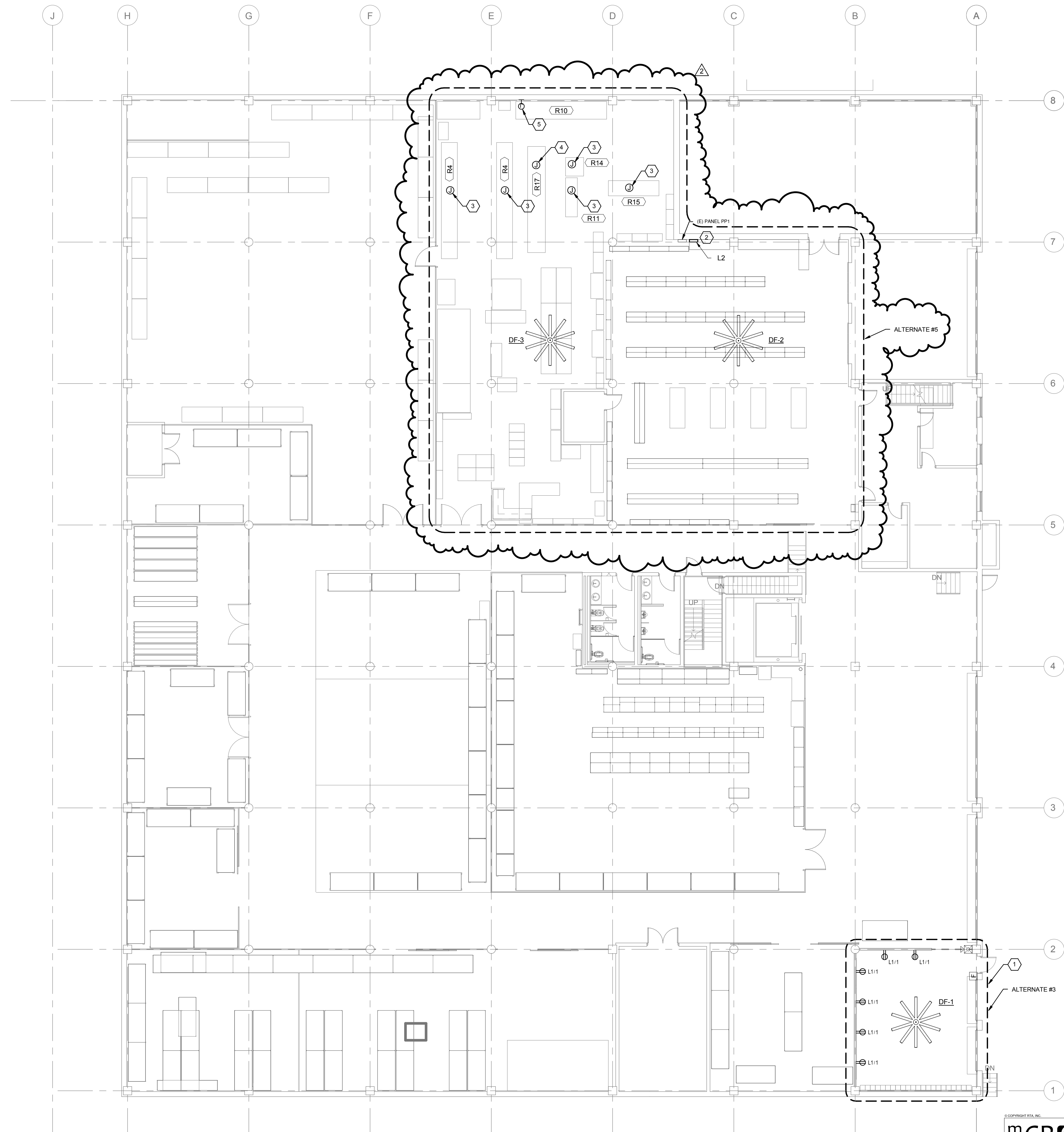
- GENERAL NOTES** (THIS SHEET)
- COORDINATE SEQUENCE OF DEMOLITION WITH OWNER AND ARCHITECT PRIOR TO BEGINNING WORK.
 - PROTECT EQUIPMENT THAT IS TO BE RELOCATED FROM DAMAGE. STORE INDOORS IN A SAFE LOCATION UNTIL EQUIPMENT CAN BE RE-INSTALLED.
 - ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE THEMSELVES WITH THE PROJECT AND INCLUDE IN THEIR BID ALL COSTS ASSOCIATED WITH NEW WORK.
 - CONTRACTOR SHALL VERIFY QUANTITIES OF OPERATIONAL LUMINAIRES IN THE FIELD.
 - REMOVE AND OFFER TO OWNER ALL LIGHTING AND LIGHTING CONTROLS FROM AREAS OF DEMOLITION UNLESS NOTED OTHERWISE. ALL FIXTURES REFUSED BY OWNER SHALL BE PROPERLY DISPOSED. SALVAGED LIGHTING SHALL BE STORED AND PREPARED FOR INSTALLATION IN NEW WORK.
 - REMOVE ALL ELECTRICAL DEVICES FROM WALLS SHOWN IN DASHED LINEWEIGHT AND DEVICES WITH A HATCH PATTERN OVER THEM. REMOVE BRANCH CIRCUITING INCLUDING BACK BOXES, CONDUIT AND CONDUIT FROM DEVICE LOCATION TO PANELBOARD OR NEAREST DEVICE TO REMAIN. DEVICES SHOWN IN THIN LINEWEIGHT WITHOUT A HATCH PATTERN OVER THEM ARE EXISTING TO REMAIN.
 - REMOVE EXISTING SURFACE MOUNTED RECEPTACLES, AND DATA DEVICES WITHIN THE AREAS OF DEMOLITION UNLESS NOTED OTHERWISE. DEMO CONDUIT AND CONDUCTORS BACK TO NEAREST DEVICE ON CIRCUIT.
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 - REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR SUMMARY OF REMOVED AND ADDED LOADS.
 - DEMOLISH ALL LIGHT SWITCHES THAT ARE EXISTING AND ARE CURRENTLY NOT SERVING ANY FUNCTIONAL LIGHTING. SWITCHES THAT ARE IN SPACES WHERE WORK IS NOT BEING CONDUCTED ARE TO REMAIN UNLESS OTHERWISE NOTED.

- KEY NOTES** (THIS SHEET)
- EXISTING MECHANICAL EQUIPMENT TO BE RELOCATED. REFER TO MECHANICAL DRAWINGS FOR NEW LOCATION. EXTEND CIRCUIT AS NECESSARY TO NEW LOCATION OF EQUIPMENT.
 - EXISTING TELECOM EQUIPMENT TO BE RELOCATED. COORDINATE NEW LOCATION WITH OWNER. RELOCATE EXISTING POWER AND ALL ASSOCIATED ELECTRICAL EQUIPMENT TO NEW LOCATION.

1 UPPER LEVEL POWER PLAN
3/32" = 1'-0"

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m&G GROUP 707 17th Street, SUITE 3000 DENVER, CO 80202 T: 303.382.1920 F: 303.382.1930 www.megroup.com Job #: 887.002 High Performance Building Consultants		DESIGNED BY: PMP CHECKED BY: PMP DATE: 08/05/14 APPROVED CONTRACT DOCUMENT		RITA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:	
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		SCALE:		SHEET: 19 OF: 25	
RTA ARCHITECTS 19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com		ED111		891-2240-RVI-AD110A	

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GENERAL NOTES (THIS SHEET)

- SEE SHEET E000 FOR LEGEND AND ADDITIONAL GENERAL NOTES.
- INFORMATION ON THIS SHEET WAS OBTAINED FROM FIELD SURVEY INFORMATION AND RECORD DRAWINGS. THE DRAWINGS REPRESENT INFORMATION AS ACCURATE AS POSSIBLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL FIELD CONDITIONS DIFFER FROM INFORMATION INDICATED ON THE DRAWINGS.
- DEVICES AND EQUIPMENT SHOWN IN THIN LIGHT LINEWEIGHT AND LABELED WITH AND (E) IS EXISTING TO REMAIN. DEVICES AND EQUIPMENT SHOWN IN THICK BOLD LINEWEIGHT IS NEW.
- PROTECT EQUIPMENT THAT IS TO BE RELOCATED FROM DAMAGE. STORE INDOORS IN A SAFE LOCATION UNTIL EQUIPMENT CAN BE RE-INSTALLED.
- ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE THEMSELVES WITH THE PROJECT AND INCLUDE IN THEIR BID ALL COSTS ASSOCIATED WITH NEW WORK.
- MAINTAIN CIRCUIT CONTINUITY TO ALL DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN. DEVICES ARE SHOWN IN THIN DASHED LINEWEIGHT.
- REVISE EXISTING PANEL SCHEDULES TO SHOW NEW WORK.
- IDENTIFY EXISTING CIRCUITS SERVING AREA FOR REUSE DURING NEW WORK.
- REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR SUMMARY OF REMOVED AND ADDED LOADS.
- ALL FIRE ALARM DEVICES ARE EXISTING TO REMAIN. CONTRACTOR SHALL VERIFY THAT THE FIRE ALARM SYSTEM IS FUNCTIONAL AND FULLY OPERATIONAL.
- COORDINATE AND VERIFY EXACT LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
- COORDINATE EXACT ELECTRICAL REQUIREMENTS AND LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
- MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REQUIRING ELECTRICAL CONNECTION. THIS SHALL INCLUDE BUT NOT BE LIMITED TO ALL MECHANICAL AND OTHER EQUIPMENT INCLUDED IN THIS PROJECT.
- PROVIDE ELECTRICAL DEMOLITION REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN AND/OR RESTORE CONTINUITY OF SERVICE TO EXISTING CIRCUITS. REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, J-BOXES, RECEPTACLES, FIRE ALARM DEVICES, ETC. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE OR NEAREST ACTIVE DEVICE. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE AND WITH PERMISSION FROM THE OWNER, OUTLET SHALL BE ABANDONED. WIRE REMOVED AND BLANK COVER PLATES PROVIDED. IN ALL CONDUIT ABANDONED IN PLACE INSTALL A PULL STRING LABELED AT BOTH ENDS.

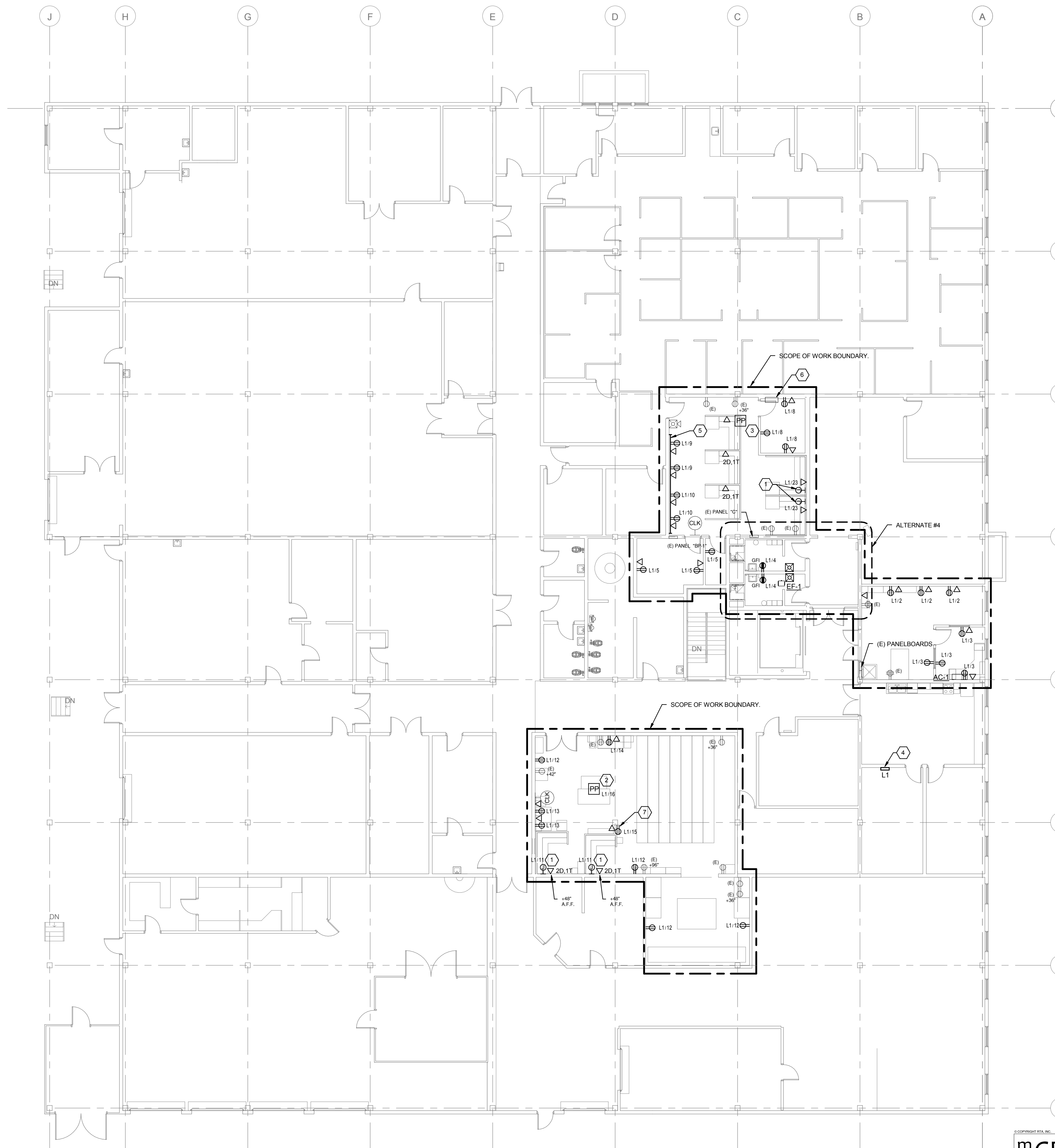
KEY NOTES (THIS SHEET)

- COORDINATE NEW WORK IN THIS AREA WITH EXISTING CONDITIONS / ELECTRICAL DEVICES.
- PROVIDE NEW 200A, 120/208V, 3Ø, 4W PANELBOARD. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
- PROVIDE INDUSTRIAL DROP CORD RECEPTACLE FOR CONNECTION TO RICOH EQUIPMENT. COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. CIRCUIT TO PANEL L2 USING (2#12, 1 #12G) 3/4" C. REFER TO PANEL SCHEDULE ON SHEET E500 FOR ADDITIONAL INFORMATION.
- PROVIDE INDUSTRIAL DROP CORD RECEPTACLE FOR CONNECTION TO RICOH EQUIPMENT. COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. CIRCUIT TO PANEL L2 USING (2#8, 1# 10G) 3/4" C. REFER TO PANEL SCHEDULE ON SHEET E500 FOR ADDITIONAL INFORMATION.
- PROVIDE CONNECTION TO RICOH EQUIPMENT. COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN. CIRCUIT TO PANEL L2 USING (2#12, 1#12G) 3/4" C. REFER TO PANEL SCHEDULE ON SHEET E500 FOR ADDITIONAL INFORMATION.

① LOWER LEVEL POWER PLAN
3/32" = 1'-0"

1	8/18/2014	AD2			
NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPRD
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DESIGNED BY: PMP		CHECKED BY: RH		DATE: 08/05/14	
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT		APPROVED CONTRACT DOCUMENT		SCALE:	
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SHEET: 20				OF: 25	
E110				891-2240-RVI-AD110A	

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GENERAL NOTES (THIS SHEET)

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2. INFORMATION ON THIS SHEET WAS OBTAINED FROM FIELD SURVEY INFORMATION AND RECORD DRAWINGS. THE DRAWINGS REPRESENT INFORMATION AS ACCURATE AS POSSIBLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL FIELD CONDITIONS DIFFER FROM INFORMATION INDICATED ON THE DRAWINGS.
3. DEVICES AND EQUIPMENT SHOWN IN THIN LIGHT LINEWEIGHT AND LABELED WITH AND (E) IS EXISTING TO REMAIN. DEVICES AND EQUIPMENT SHOWN IN THICK BOLD LINEWEIGHT IS NEW.
4. PROTECT EQUIPMENT THAT IS TO BE RELOCATED FROM DAMAGE. STORE INDOORS IN A SAFE LOCATION UNTIL EQUIPMENT CAN BE RE-INSTALLED.
5. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE THEMSELVES WITH THE PROJECT AND INCLUDE IN THEIR BID ALL COSTS ASSOCIATED WITH NEW WORK.
6. MAINTAIN CIRCUIT CONTINUITY TO ALL DEVICES THAT ARE SHOWN AS EXISTING TO REMAIN. DEVICES ARE SHOWN IN THIN DASHED LINEWEIGHT.
7. REVISE EXISTING PANEL SCHEDULES TO SHOW NEW WORK.
8. IDENTIFY EXISTING CIRCUITS SERVING AREA FOR REUSE DURING NEW WORK.
9. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR SUMMARY OF REMOVED AND ADDED LOADS.
10. ALL FIRE ALARM DEVICES ARE EXISTING TO REMAIN. CONTRACTOR SHALL VERIFY THAT THE FIRE ALARM SYSTEM IS FUNCTIONAL AND FULLY OPERATIONAL.
11. COORDINATE AND VERIFY EXACT LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL ELEVATIONS PRIOR TO ROUGH-IN.
12. COORDINATE EXACT ELECTRICAL REQUIREMENTS AND LOCATIONS OF MECHANICAL AND PLUMBING EQUIPMENT WITH MECHANICAL AND PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
13. MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT REQUIRING ELECTRICAL CONNECTION. THIS SHALL INCLUDE BUT NOT BE LIMITED TO ALL MECHANICAL AND OTHER EQUIPMENT INCLUDED IN THIS PROJECT.
14. PROVIDE ELECTRICAL DEMOLITION REQUIRED. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN AND/OR RESTORE CONTINUITY OF SERVICE TO EXISTING CIRCUITS. REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, J-BOXES, RECEPTACLES, FIRE ALARM DEVICES, ETC. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE OR NEAREST ACTIVE DEVICE. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE AND WITH PERMISSION FROM THE OWNER, OUTLET SHALL BE ABANDONED, WIRE REMOVED AND BLANK COVER PLATES PROVIDED. IN ALL CONDUIT ABANDONED IN PLACE INSTALL A PULL STRING LABELED AT BOTH ENDS.

KEY NOTES (THIS SHEET)

1. PROVIDE J-BOX FOR 120V CONNECTION TO FURNITURE FEED. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN. CONTRACTOR SHALL ELECTRIFY ALL CUBICALS.
2. PROVIDE POWER POLE WIREMOLD TYPE 30TP-4V OR APPROVED EQUAL. REFER TO MANUFACTURERS INSTALLATION REQUIREMENTS FOR ADDITIONAL INFORMATION. PROVIDE POWER POLE WITH (2) DUPLEX RECEPTACLES AND (2) DATA PORTS. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.
3. PROVIDE POWER POLE WIREMOLD TYPE 30TP-4V OR APPROVED EQUAL FOR CONNECTION TO FURNITURE FEED. REFER TO MANUFACTURERS INSTALLATION REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN. CONTRACTOR SHALL ELECTRIFY ALL CUBICALS. CONNECT TO PANEL L1 UTILIZE CIRCUIT #6 AND #7.
4. PROVIDE NEW 100A, 120/208V, 3φ, 4W PANELBOARD. REFER TO ELECTRICAL ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.
5. PROVIDE TWO SECTION SURFACE MOUNTED RACEWAY BELOW COUNTER WITH RECEPTACLES AS INDICATED IN PLAN. COORDINATE COMMUNICATIONS DEVICES AND CABLE REQUIREMENTS WITH OWNER. RACEWAY SHALL BE WIREMOLD #DS4000 SERIES. COORDINATE FINISH SELECTION WITH ARCHITECT. VERIFY EXACT MOUNTING HEIGHT WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION. WIREMOLD SHALL BE MOUNTED AS CLOSE TO THE BOTTOM OF COUNTER TOP AS POSSIBLE.
6. EXISTING MASTER TIMECLOCK AND MISC. ELECTRICAL DEVICES TO REMAIN.
7. SURFACE MOUNT DEVICES TO COLUMN.

1 UPPER LEVEL POWER PLAN
3/32" = 1'-0"

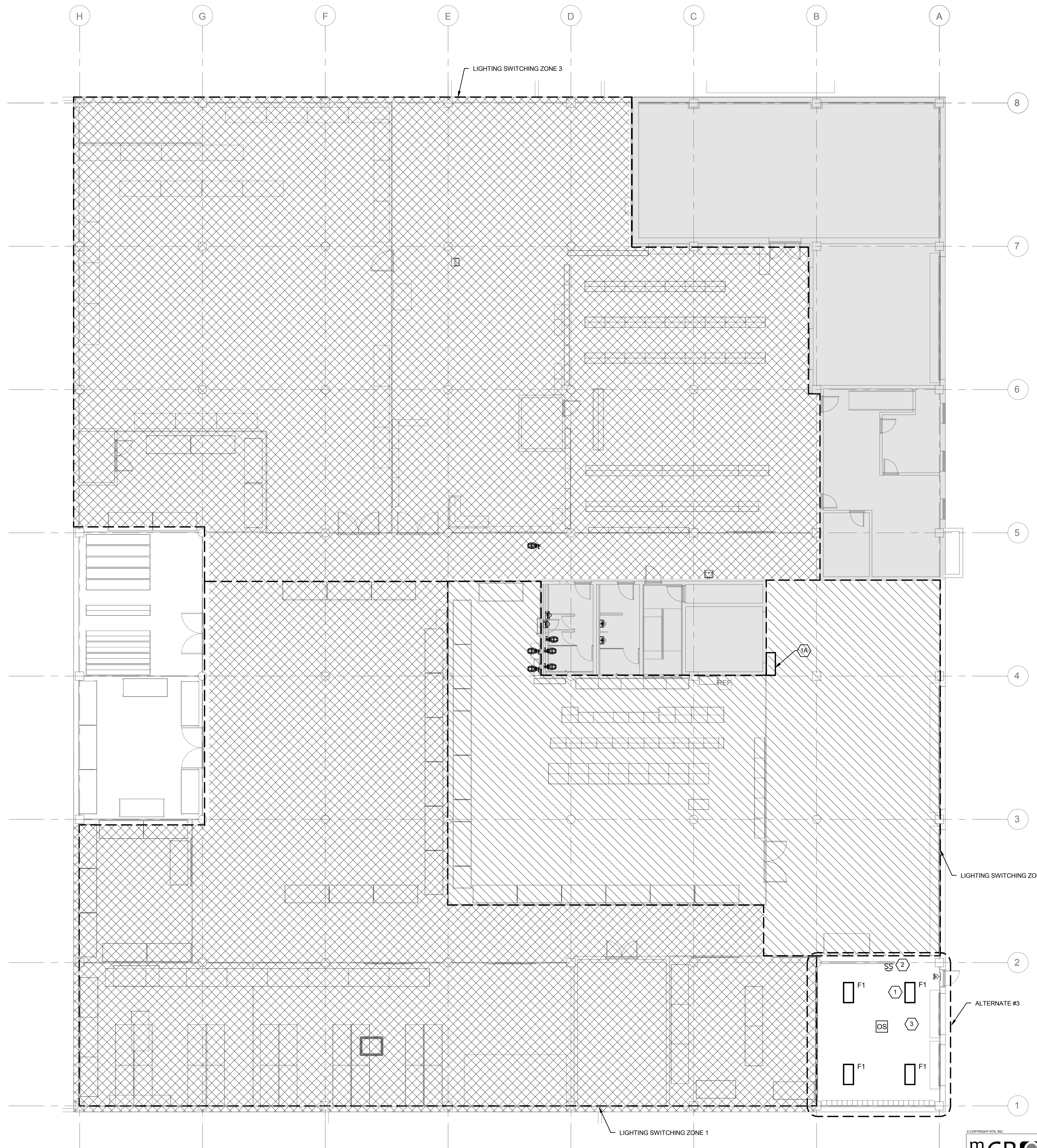
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High Performance Building Consultants

NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPRD
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DESIGNED BY: PMP		DATE: 08/05/14			
CHECKED BY: PMP		SCALE: RITA PROJECT NUMBER: 12035.02			
APPROVED CONTRACT DOCUMENT		DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT			
DATE:		RITA PROJECT NUMBER: 12035.02		DENVER PUBLIC SCHOOLS PROJECT NUMBER:	
DATE:		RTA ARCHITECTS 18 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com		SHEET: 21 OF: 25	

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GENERAL NOTES (THIS SHEET)

- SEE SHEET E000 FOR LEGEND AND ADDITIONAL GENERAL NOTES.
- INFORMATION ON THIS SHEET WAS OBTAINED FROM FIELD SURVEY INFORMATION AND RECORD DRAWINGS. THE DRAWINGS REPRESENT INFORMATION AS ACCURATE AS POSSIBLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL FIELD CONDITIONS DIFFER FROM INFORMATION INDICATED ON THE DRAWINGS.
- DEVICES AND EQUIPMENT SHOWN IN THIN LIGHT LINEWEIGHT AND LABELED WITH AND (E) IS EXISTING TO REMAIN. DEVICES AND EQUIPMENT SHOWN IN THICK BOLD LINEWEIGHT IS NEW.
- CONFIRM MOUNTING HEIGHT AND LOCATION OF ALL LUMINAIRES AND DEVICES WITH ARCHITECT PRIOR TO ROUGH IN.

KEY NOTES (THIS SHEET)

- PROVIDE F1 TYPE LUMINAIRE TYP. SUSPEND LUMINAIRE FROM STRUCTURE, MOUNT AT 15'-0" A.F.F.
- PROVIDE DUAL SWITCHES FOR DUEL LEVEL CONTROL OF LUMINAIRE TYPE F1.
- COORDINATE NEW WORK IN THIS AREA WITH EXISTING CONDITIONS / ELECTRICAL DEVICES.

ALTERNATE KEY NOTES (THIS SHEET)

1A. PROVIDE SWITCH BANK FOR LIGHTING ZONES 1,2,3 IN THIS LOCATION.

SCOPE OF WORK

- SHADED AREA NOT IN SCOPE OF WORK
- ALTERNATE 1 - LIGHTING REPLACEMENT FCOMBS AND DOCK AREA. REPLACE EXISTING LUMINAIRES WITH LITHONIA TYPE FGB24-6-32-NI-D20U-NLWG-MVOLT-GEB101S-LP841 OR APPROVED EQUAL. SPACE FIXTURES AT 18" ON CENTER. REUSE EXISTING LIGHTING CIRCUIT SERVING THIS AREA. VERIFY QUANTITY OF EXISTING NEWER 2 X 4 LUMINAIRES THROUGHOUT THIS LEVEL. SHOULD THERE BE AN ADEQUATE NUMBER OF LUMINAIRES. UTILIZE EXISTING 2 X 4 LUMINAIRES TO PROVIDE COVERAGE IN THIS ZONE. SPACE LUMINAIRES AT 14" ON CENTER. PROVIDE X1 TYPE LUMINAIRES IN PATH OF EGRESS. REFER TO SHEET E500 FOR ADDITIONAL INFORMATION.
- ALTERNATE 2 - LIGHTING REPLACEMENT ON LOWER LEVEL EXCEPT FCOMBS AREA. ALTERNATE 3 AREA, EXISTING RESROOMS AND OFFICE SPACE. REPLACE EXISTING LUMINAIRES WITH LITHONIA TYPE FGB24-6-32-NI-D20U-NLWG-MVOLT-GEB101S-LP841 OR APPROVED EQUAL. SPACE FIXTURES AT 18" ON CENTER. CONNECT LIGHTING TO PANEL L2 ON THIS LEVEL. SEE SHEET E111 FOR MORE INFORMATION. PROVIDE X1 TYPE LUMINAIRES IN PATH OF EGRESS. REFER TO SHEET E500 FOR ADDITIONAL INFORMATION.

1 LOWER LEVEL LIGHTING PLAN
3/32" = 1'-0"

NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPRD
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					

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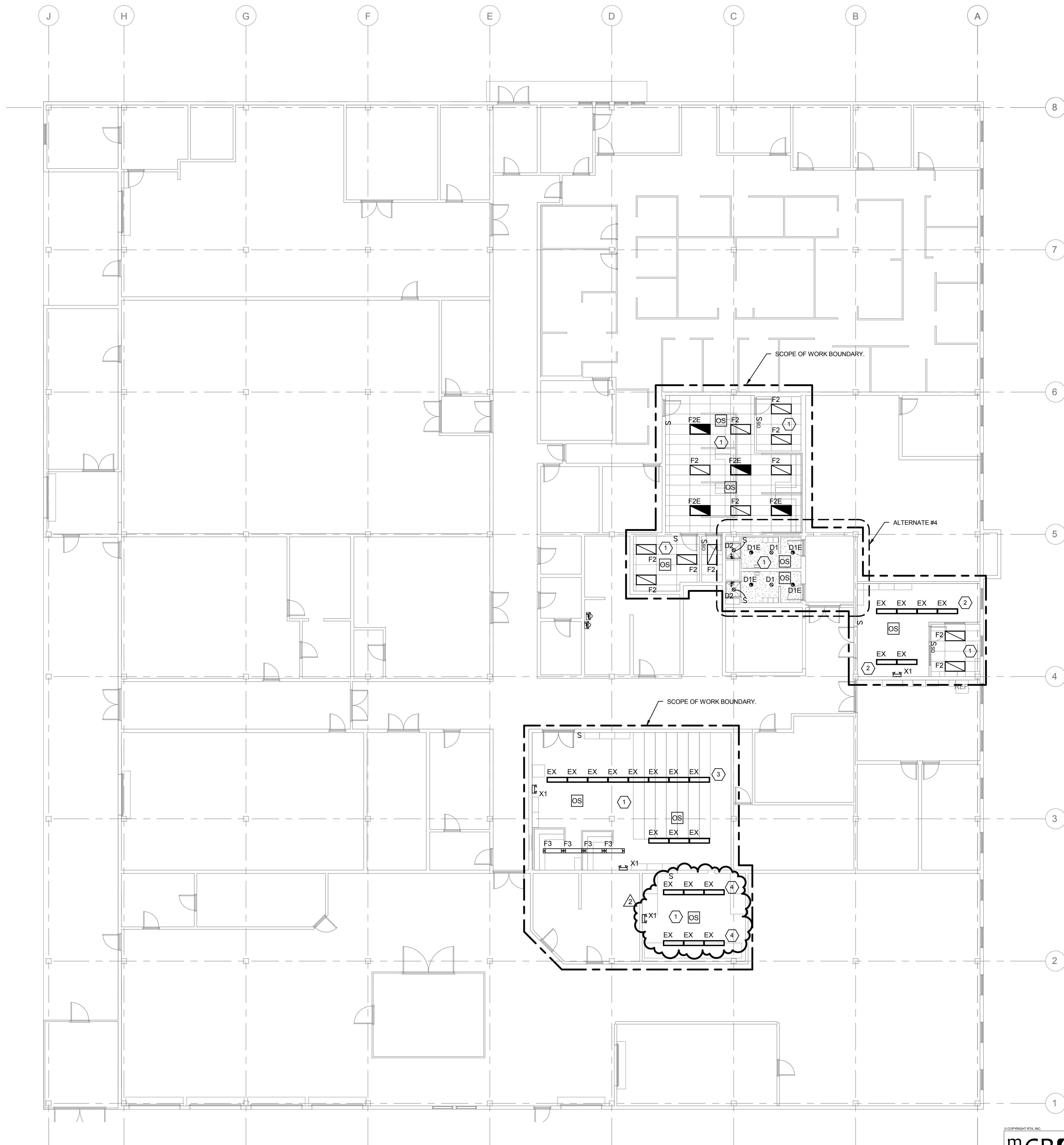
DESIGNED BY: PMP
 DRAWN BY: PMP
 CHECKED BY: RH
 DATE: 08/05/14

PROJECT TITLE: **PHASE 2 LOWER LEVEL LIGHTING PLAN**
 RFA PROJECT NUMBER: 12035.02
 DENVER PUBLIC SCHOOLS PROJECT NUMBER: _____



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SHEET: 22
 OF: 25
 E210



- GENERAL NOTES** (THIS SHEET)
- SEE SHEET E000 FOR LEGEND AND ADDITIONAL GENERAL NOTES.
 - INFORMATION ON THIS SHEET WAS OBTAINED FROM FIELD SURVEY INFORMATION AND RECORD DRAWINGS. THE DRAWINGS REPRESENT INFORMATION AS ACCURATE AS POSSIBLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL FIELD CONDITIONS DIFFER FROM INFORMATION INDICATED ON THE DRAWINGS.
 - DEVICES AND EQUIPMENT SHOWN IN THIN LIGHT LINEWEIGHT AND LABELED WITH AND (E) IS EXISTING TO REMAIN. DEVICES AND EQUIPMENT SHOWN IN THICK BOLD LINEWEIGHT IS NEW.
 - CONFIRM MOUNTING HEIGHT AND LOCATION OF ALL LUMINAIRES AND DEVICES WITH ARCHITECT PRIOR TO ROUGH IN.

- KEY NOTES** (THIS SHEET)
- CONNECT LUMINAIRES TO EXISTING 120V CIRCUIT PREVIOUSLY SERVING THIS AREA. LOAD REMOVED IS GREATER THAN LOAD ADDED.
 - EXISTING LUMINAIRES TO REMAIN. REMOVE LUMINAIRES AS NECESSARY TO ACCOMMODATE NEW OFFICE.
 - RECONFIGURE EXISTING LUMINAIRES TO LOCATIONS SHOWN. MAINTAIN CIRCUIT CONTINUITY TO ALL LUMINAIRES THAT ARE TO REMAIN IN THIS SPACE.
 - RELOCATE LUMINAIRES FROM OLD ARCHIVE SPACE. CONNECT LUMINAIRES TO EXISTING 120V CIRCUIT PREVIOUSLY SERVING THIS AREA. LOAD REMOVED IS GREATER THAN LOAD ADDED.

① 2 - Lighting
3/32" = 1'-0"

1	8/18/2014	AD2			
NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPRD
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					
DESIGNED BY: PMP DRAWN BY: PMP CHECKED BY: RH DATE: 08/05/14		PROJECT TITLE: PHASE 2 UPPER LEVEL LIGHTING PLAN			
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT APPROVED CONTRACT DOCUMENT		RFA PROJECT NUMBER: 12035.02 DENVER PUBLIC SCHOOLS PROJECT NUMBER:			
707 17th Street, SUITE 3000 DENVER, CO 80202 T: 303.382.1920 F: 303.382.1930 www.megroup.com Job #: 887.002 High Performance Building Consultants		19 SOUTH TEJON ST., SUITE 300 COLORADO SPRINGS, CO 80903 TELE: 719-471-7566 FAX: 719-471-1174 www.rtaarchitects.com			
		E211		SHEET: 23	OF: 25

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MECHANICAL EQUIPMENT SCHEDULE

KEY	ITEM	LISTED LOAD			EQUIV. LOAD (VA)	VOLTS	PH	FEEDERS		DISCONNECT		PANEL	NOTES
		HP	FLA	KW				CONDUCTORS	CONDUIT	DISC SW	FUSE		
AC-1	AIR CONDITIONING UNIT				80	208	1	2 # 12, 1 # 12 G	3/4	Sto		L1	1
CU-1	CONDENSING UNIT				2014	208	1	2 # 12, 1 # 12 G	3/4	30 A 2 P	20	L1	
EC-1	EVAPORATIVE COOLER				1044	120	1	2 # 12, 1 # 12 G	3/4	Sto		L1	1
DF-1	DESERTIFICATION FAN	1/2			1176	120	1	2 # 12, 1 # 12 G	3/4	Sto		L1	1
DF-2	DESERTIFICATION FAN	1/2			1176	120	1	2 # 12, 1 # 12 G	3/4	Sto		L2	1
DF-3	DESERTIFICATION FAN	1/2			1176	120	1	2 # 12, 1 # 12 G	3/4	Sto		L2	1
EF-1	EXHAUST FAN	1/12			264	120	1	2 # 12, 1 # 12 G	3/4	Sto		L1	1

GENERAL NOTES:

- REFER TO MECHANICAL DRAWINGS FOR MECHANICAL EQUIPMENT LOCATIONS.
- DIVISION 26 CONTRACTOR TO VERIFY EXACT POWER REQUIREMENTS WITH DIVISION 23 CONTRACTOR PRIOR TO ROUGH-IN.

NOTES:

- PROVIDE SINGLE-POLE, FRACTIONAL HORSEPOWER MANUAL STARTER WITH OVERLOAD PROTECTION. SIZE PER NAMEPLATE RATING OF UNIT.

LOAD SUMMARY

EXISTING PEAK DEMAND LOAD	910.4A
EXISTING PEAK DEMAND LOAD X 125% NEW ADDED LOAD	1138.0A 96.6A
TOTAL LOAD EXISTING SERVICE	1234.0A 2000.0A

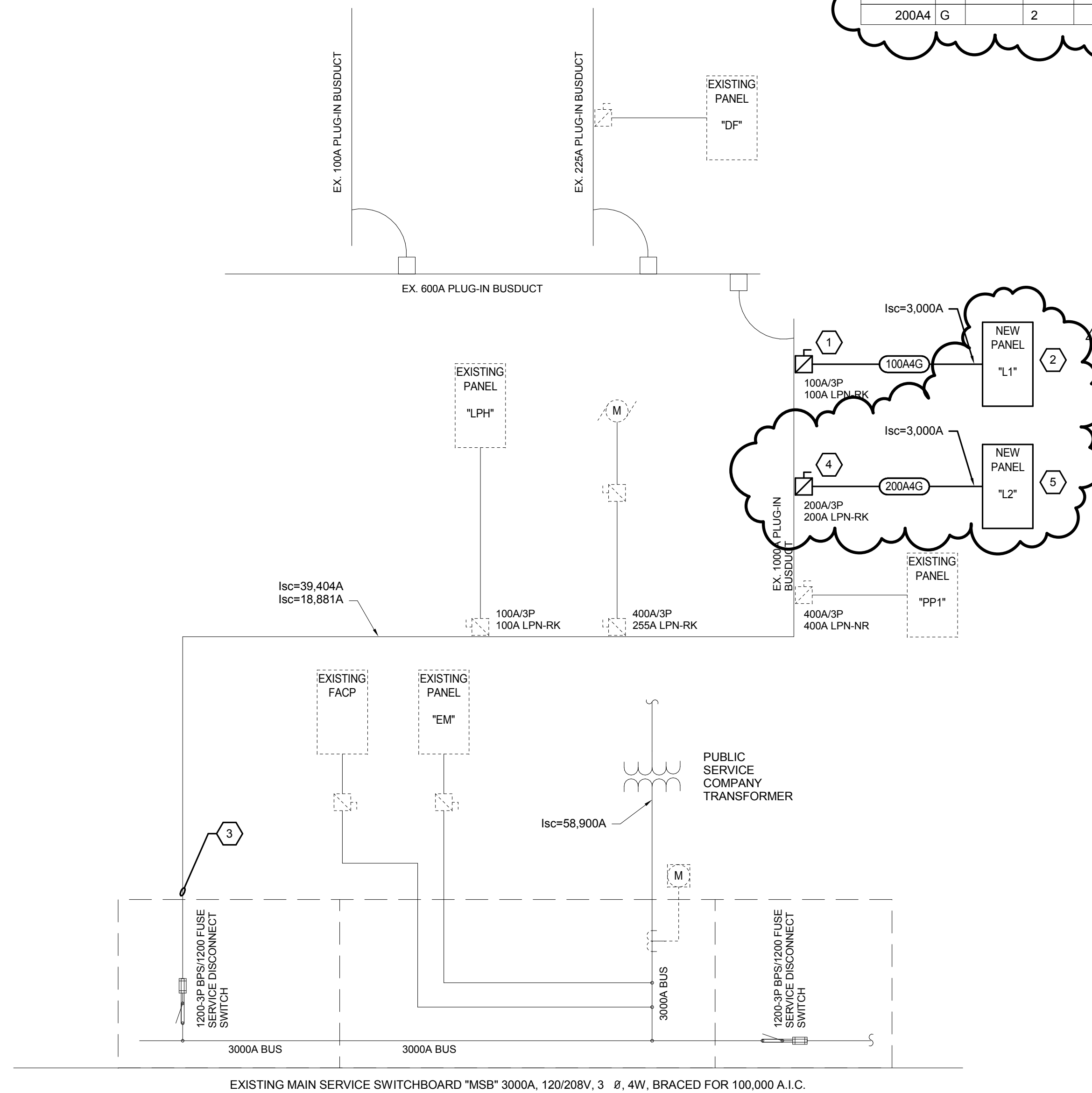
GENERAL NOTES

(THIS SHEET)

- SEE SHEET E001 FOR LEGEND AND ADDITIONAL GENERAL NOTES.
- INFORMATION ON THIS SHEET WAS OBTAINED FROM FIELD SURVEY INFORMATION AND RECORD DRAWINGS. THE DRAWINGS REPRESENT INFORMATION AS ACCURATE AS POSSIBLE. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS PRIOR TO BID. NOTIFY ENGINEER IMMEDIATELY IF ACTUAL FIELD CONDITIONS DIFFER FROM INFORMATION INDICATED ON THE DRAWINGS.
- REFER TO ELECTRICAL FLOOR PLANS FOR PANEL LOCATIONS.
- ALL EQUIPMENT IS EXISTING TO REMAIN UNLESS OTHERWISE NOTED.
- ALL NEW DEVICES IN EXISTING GEAR SHALL BE UL LISTED FOR THE EQUIPMENT, BE OF THE SAME MANUFACTURER AND WITHSTAND RATING.

FEEDER SCHEDULE

KEY	COPPER CONDUCTORS						REMARK
	SETS	"C"	CONDUCTORS				
100A4 G	1	1-1/2	4 #	1	1 #	8 G	
200A4 G	2		4 #	3/0	1 #	6 G	



① ELECTRICAL ONE-LINE DIAGRAM
1/8" = 1'-0"

KEY NOTES

(THIS SHEET)

- PROVIDE 100A/3P BUS DUCT DISCONNECT WITH 100A FUSE TO MATCH EXISTING BUILDING DISCONNECTS. LOCATE IN ACCESSIBLE AREA.
- PROVIDE NEW 100A, 120/208V, 3φ, 4W PANELBOARD WITH 100A MAIN BREAKER, AND MINIMUM OF 10KAIC RATING. PROVIDE PANELBOARD WITH 42 POLE SPACES.
- PROVIDE THREE PHASE DIGITAL RECORDING CIRCUIT ANALYZER ON INDICATED BUSDUCT FOR A PERIOD OF THIRTY DAYS PRIOR TO THE START OF CONSTRUCTION TO VERIFY EXISTING LOAD. CIRCUIT ANALYZER SHALL RECORD VOLTAGE, AMPERAGE, KVA AND POWER FACTOR FOR EACH PHASE AND AVERAGE FOR ALL PHASES. ANALYZER SHALL ALSO RECORD A PER DAY MAXIMUM DEMAND. THE CONTRACTOR SHALL COMPILE A SUMMARY REPORT LISTING MAXIMUM READINGS AND SUBMIT A 7-DAY AND 30-DAY REPORTS TO THE ENGINEER. ANALYZER SHALL HAVE BEEN CALIBRATED IN PREVIOUS 60 DAYS. SUBMIT DOCUMENTATION OF CALIBRATION TO ENGINEER.
- PROVIDE 200A/3P BUS DUCT DISCONNECT WITH 200A FUSE TO MATCH EXISTING BUILDING DISCONNECTS. LOCATE IN ACCESSIBLE AREA.
- PROVIDE NEW 200A, 120/208V, 3φ, 4W PANELBOARD WITH 200A MAIN BREAKER, AND MINIMUM OF 10KAIC RATING. PROVIDE PANELBOARD WITH 42 POLE SPACES.

NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPR'D
1	8/18/2014	AD2			

DENVER PUBLIC SCHOOLS
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 DESIGNED BY: PMP
 DRAWN BY: PMP
 CHECKED BY: RH
 DATE: 08/05/14
 SCALE:

RTA
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ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES
 RITA PROJECT NUMBER: 12035.02
 DENVER PUBLIC SCHOOLS PROJECT NUMBER:
 SHEET: 24
 OF: 25
 E400

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER OR APPROVED EQUIVALENT	CATALOG SERIES NUMBER OR APPROVED EQUIVALENT	LAMPS (QTY) TYPE	INPUT VA	VOLTAGE	AREA SERVED	NOTES
F1	2x4 HIGH BAY FIXTURE WITH WIRE GUARD SIX FLUORESCENT LAMPS AND ELECTRONIC BALLAST	FOCAL POINT	FGB24-6-32-NI-D20U-NLWG-MVOLT-23-GE810IS-LP841	(2) 28W T8 3500 DEG. KELVIN	56	120V	OFFICES	
F2	2x4 RECESSED BI-DIRECTIONAL FIXTURE WITH TWO FLUORESCENT LAMPS AND ELECTRONIC BALLAST	LITHONIA	2AL8-2-32-MVOLT-GE810PS-LP841	(2) 28W T8 3500 DEG. KELVIN	56	120V	OFFICES	
F2E	2x4 RECESSED BI-DIRECTIONAL FIXTURE WITH TWO FLUORESCENT LAMPS AND ELECTRONIC BALLAST WITH BATTERY BACKUP	LITHONIA	2AL8-2-32-MVOLT-GE810PS-LP841-EL14	(2) 28W T8 3500 DEG. KELVIN	56	120V	OFFICES	
F3	PENDANT MOUNTED LINEAR FLUORESCENT 33% DIRECT / 67% INDIRECT LUMINAIRE WITH COLD-ROLLED STEEL HOUSING AND ALUMINUM END CAPS, INJECTION MOLDED ACRYLIC Baffle, AIRCRAFT CABLE, STRAIGHT CORD, AND 90% EFFICIENCY MINIMUM.	PEERLESS	SPM4-2-32-WHR-(REFER TO FLOOR PLAN)-120-GE810-1SE-EL-SCT-LP841-F1-24-CO32	(2) 28W T8 3500 DEG. KELVIN	56	120V	OFFICES	
D1	6" DIAMETER DOWNLIGHT WITH COMPACT FLUORESCENT LAMP, COMFORT CLEAR DIFFUSE REFLECTOR, WHITE FLANGE AND ELECTRONIC BALLAST	LITHONIA	AFV-32TRT-6AR-MVOLT	(1) 32W TRT	32	120V	RESTROOMS	
D1E	6" DIAMETER DOWNLIGHT WITH COMPACT FLUORESCENT LAMP, COMFORT CLEAR DIFFUSE REFLECTOR, WHITE FLANGE AND ELECTRONIC BALLAST WITH BATTERY BACKUP	LITHONIA	AFV-32TRT-6AR-MVOLT-EL	(1) 32W TRT	32	120V	RESTROOMS	
D2	6" DIAMETER DOWNLIGHT WITH COMPACT FLUORESCENT LAMP, ROUND LENS, WET LOCATION AND ELECTRONIC BALLAST.	LITHONIA	LGTV-32TRT-6RW-FOL-MVOLT	(1) 32W TRT	32	120V	SHOWERS	
EX	PENDANT MOUNTED LINEAR FLUORESCENT SALVAGED DURING DEMOLITION	N/A	N/A	(2) 28W T8 3500 DEG. KELVIN	56	120V	OFFICES	
X1	THERMOPLASTIC EMERGENCY LED LIGHT	LITHONIA	EML2-LED-SD	LED	2	120V	OPEN OFFICES	

GENERAL NOTES:
 A. CONTRACTOR TO VERIFY LIGHT FIXTURE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.
 B. VERIFY TRIM COMPATIBILITY WITH CEILING TYPE PRIOR TO SUBMITTALS.
 C. COORDINATE WALL MOUNTING HEIGHTS WITH ARCHITECTURAL PLANS, ELEVATIONS AND DETAILS.

SCHEDULED NOTES:
 1. PROVIDE WITH 0-10V DIMMING BALLAST, 0.05 TO 1.00 BALLAST FACTOR, ADVANCE MARK VII OR EQUIVALENT FOR FIXTURES CONNECTED TO DIMMER SWITCH.
 2. PROVIDE WITH 90 MINUTE BATTERY BACKUP, INTEGRAL SELF DIAGNOSTICS, ARROWS AS SHOWN ON PLANS AND MOUNTING TYPE AS SHOWN ON PLAN.
 3. PROVIDE WITH DIMMER LEVEL CONTROL SWITCHING. THIS SHALL BE ACCOMPLISHED BY STEP DIMMING WHEREVER POSSIBLE. WHERE STEP DIMMING IS NOT POSSIBLE INBOARD/OUTBOARD BALLASTS SHALL BE PROVIDED TO ACCOMPLISH THE DIMMER LEVEL SWITCHING.

Branch Panel: L1

Location: _____ Volts: 120/208 Wye
 Supply From: _____ Phases: 3
 Mounting: Recessed A.I.C. Rating: 10,000
 Enclosure: Type 1 Bus Rating: 100 A
 MCB Rating: 100 A

CKT	Circuit Description	Load Class	Trip	Poles	A (VA)	B (VA)	C (VA)	Poles	Trip	Load Class	Circuit Description	CKT	
1	LOWER LEVEL RECEPT.	R	20 A	1	1080	540			1	20 A	R	PREV. MAINT. 115B RECEPT.	2
3	OFFICE 115C RECEPT.	R	20 A	1		720	360		1	20 A	R	RESTROOM RECEPT.	4
5	OFFICE 122FFC RECEPT.	R	20 A	1			540	500	1	20 A	R	FURNITURE FEED OFFICE 122F	6
7	FURNITURE FEED OFFICE 122F	R	20 A	1	500	540			1	20 A	R	OFFICE 122FA RECEPT.	8
9	OFFICE 122F RECEPT.	R	20 A	1		360	360		1	20 A	R	OFFICE 122F RECEPT.	10
11	FURNITURE FEED ARCHIVE 112	R	20 A	1			1000	720	1	20 A	R	ARCHIVES 112 RECEPT.	12
13	ARCHIVES 112 RECEPT.	R	20 A	1	360	1200			1	20 A	E	ARCHIVES PLOTTER	14
15	ARCHIVES PLOTTER	E	20 A	1		1200	0		1	20 A	R	ARCHIVES POWER POLE	16
17	AC-1	M	20 A	2			40	264	1	20 A	M	EF-1	18
19					40	1176			1	20 A	M	DF-1	20
21	EC-1	M	20 A	1		1044	1007						22
23	FURNITURE FEED OFFICE 122F	R	20 A	1			360	1007	2	20 A	LM	CU-1	24
25	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	26
27	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	28
29	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	30
31	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	32
33	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	34
35	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	36
37	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	38
39	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	40
41	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	42
Total Load:					5436 VA	5051 VA	4431 VA						
Total Amps:					46 A	43 A	37 A						
Phase Balance					93 % A-B	88 % B-C	82 % C-A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
L Lighting				
C Continuous				
R Receptacle	7940 VA	100.00%	7940 VA	Total Conn. Load: 14918 VA
M Motor	2564 VA	100.00%	2564 VA	Total Est. Demand: 15422 VA
LM Largest Motor	2014 VA	125.00%	2518 VA	Total Conn.: 41 A
E Equipment	2400 VA	100.00%	2400 VA	Total Est. Demand: 43 A
A Appliance				Spare Capacity: 57 A

Branch Panel: L2

Location: _____ Volts: 120/208 Wye
 Supply From: _____ Phases: 3
 Mounting: Recessed A.I.C. Rating: 10,000
 Enclosure: Type 1 Bus Rating: 200 A
 MCB Rating: 200 A

CKT	Circuit Description	Load Class	Trip	Poles	A (VA)	B (VA)	C (VA)	Poles	Trip	Load Class	Circuit Description	CKT		
1	RICOH 1357EX	E	20 A	2	1664	1440			1	20 A	E	RICOH W3601	2	
3						1664	2500		2	35 A	E	RICOH C901s	4	
5	RICOH C851EX	E	20 A	2	2000	1176		2000	2500	1	20 A	M	DF-2	6
7										1	20 A	M	DF-2	8
9	DF-3	M	20 A	1		1176	0		1	20 A	--	SPARE	10	
11	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	12	
13	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	14	
15	SPARE	--	20 A	1		0	0		1	20 A	--	SPARE	16	
17	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	18	
19	SPARE	--	20 A	1	0	0			1	20 A	--	SPARE	20	
21	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	22	
23	SPARE	--	20 A	1			0	0	1	20 A	--	SPARE	24	
25	SPARE	--	--	--	0	0			--	--	--	SPARE	26	
27	SPARE	--	--	--		0	0		--	--	--	SPARE	28	
29	SPARE	--	--	--			0	0	--	--	--	SPARE	30	
31	SPARE	--	--	--	0	0			--	--	--	SPARE	32	
33	SPARE	--	--	--		0	0		--	--	--	SPARE	34	
35	SPARE	--	--	--			0	0	--	--	--	SPARE	36	
37	SPARE	--	--	--	0	0			--	--	--	SPARE	38	
39	SPARE	--	--	--			0	0	--	--	--	SPARE	40	
41	SPARE	--	--	--				0	0	--	--	SPARE	42	
Total Load:					6280 VA	5340 VA	4500 VA							
Total Amps:					53 A	46 A	38 A							
Phase Balance					85 % A-B	84 % B-C	72 % C-A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
L Lighting				
C Continuous				
R Receptacle				Total Conn. Load: 16120 VA
M Motor	2352 VA	100.00%	2352 VA	Total Est. Demand: 16120 VA
LM Largest Motor				Total Conn.: 45 A
E Equipment	13768 VA	100.00%	13768 VA	Total Est. Demand: 45 A
A Appliance				Spare Capacity: 155 A

1 8/18/2014 AD2

NO.	DATE	DESCRIPTION OF REVISION	AUTHORITY	MADE	APPR'D
DENVER PUBLIC SCHOOLS DEPARTMENT OF FACILITIES MANAGEMENT SCHOOL DISTRICT NO. 1 SCHOOL NO. SITE NO. DENVER, CO HILLTOP SERVICE CENTER ARCHIVES RENOVATION 2800 WEST 7TH AVENUE DENVER, CO 80204					

DESIGNED BY: PMP
 CHECKED BY: RH
 DATE: 08/05/14

SCALE: _____

RTA PROJECT NUMBER: **12035.02**

RTA ARCHITECTS

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 COLORADO SPRINGS, CO 80903
 TELE: 719-471-7566 FAX: 719-471-1174
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SHEET: 25
 OF: 25

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