1. Floor-Ceiling Assembly - The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:

System No. F-C-8032

A. Flooring System - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening shall be 5 in. B. Wood Joists* - Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped. C. Gypsum Board* - Nom 4 ft wide by 5/8 in. thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to wood joists

Underwriters Laboratories, Inc.

October 21, 2004

or furring channels as specified in the individual Floor-Ceiling Design. Reproduced by HILTI, Inc. Courtesy of

FIRESTOP SYSTEMS

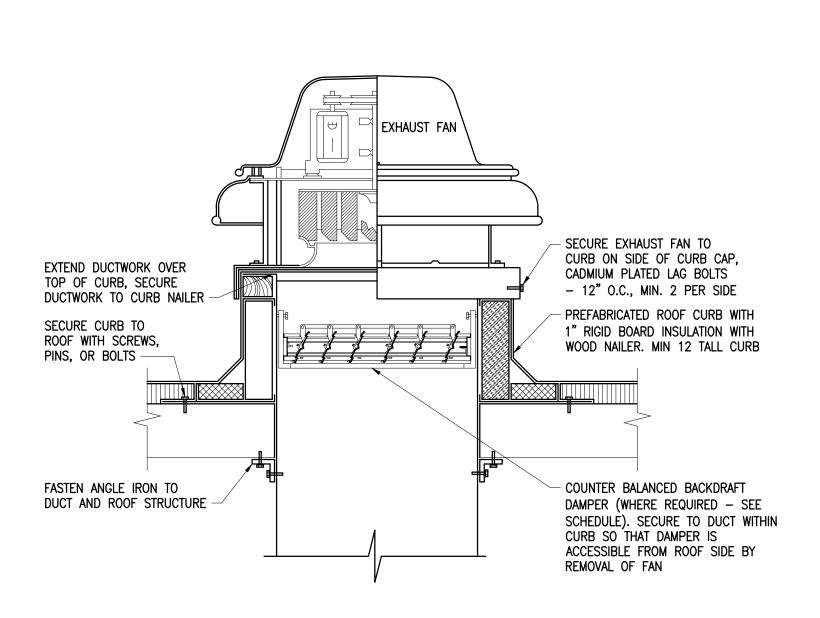
Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. **FIRESTOP SYSTEMS** October 21, 2004

System No. F-C-8032

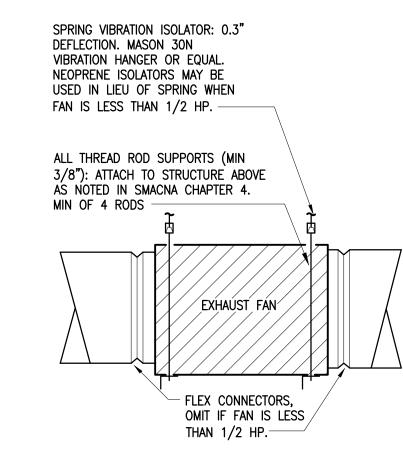


REFRIGERANT LINE SET PENETRATION. (2 SETS) SCALE: NONE

*Bearing the UL Classification Mark



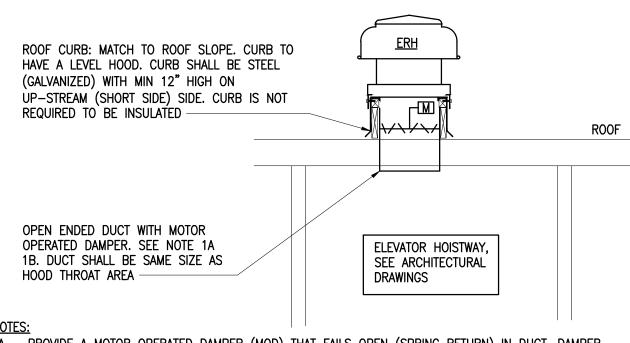
ROOF MOUNTED EXHAUST FAN SCHEMATIC - NO SCALE



1. WALL LOUVER, SCREEN, AND DAMPER ASSEMBLY SHALL BE SUPPORTED BY BUILDING PROVIDER/MANUFACTURER. COORDINATE BETWEEN TRADES. LOUVER SHALL BE FACTORY PAINTED TO MATCH EXTERIOR WALL COLOR.

HORIZONTAL FAN DETAIL SCHEMATIC - NO SCALE

SUBMIT COLOR CHART WITH SHOP DRAWINGS.



1A. PROVIDE A MOTOR OPERATED DAMPER (MOD) THAT FAILS OPEN (SPRING RETURN) IN DUCT. DAMPER ACTUATOR SHALL BE 120 OR 24 VOLT. PROVIDE CONTROL TRANSFORMER IF 24 VOLTS IS USED. COORDINATE WITH ELECTRICAL CONTRACTOR FOR ELECTRICAL CONNECTION/CIRCUIT. THE BUILDING FIRE ALARM SYSTEM SHALL SIGNAL THE DAMPER TO OPEN UPON DETECTION OF SMOKE BY THE ELEVATOR HOISTWAY SMOKE DETECTOR. THE MOTOR OPERATED DAMPER SHALL HOLD THE DAMPER CLOSED UNTIL A SIGNAL FROM THE FIRE ALARM SYSTEM SIGNALS THE MOTOR OPERATED DAMPER TO OPEN. - COORDINATE

1B. CONTROL DAMPER SHALL HAVE THE FOLLOWING CHARACTERISTICS: EXTRUDED ALUMINUM BLADES AND FRAME, BLADES SHALL BE FLAT TYPE 0.125" THICK, BLADE EDGE SEALS SHALL BE NEOPRENE AND MECHANICALLY LOCKED IN EXTRUDED SLOTS (BLADES SEALS SHALL BE CAPABLE OF EASILY REPLACING IN THE FIELD). BEARINGS SHALL BE NONCORROSIVE MOLDED SYNTHETIC. PERFORMANCE DATA SHALL BE OBTAINED BY TESTING IN ACCORDANCE WITH AMCA STANDARD 500. PERFORMANCE: PRESSURE DROP SHALL NOT BE GREATER THAN 0.04" AT 1000 FPM AND LEAKAGE SHALL NOT BE GREATER THAN 3 CFM/SQ FT WITH A 1" STATIC PRESSURE CLOSED OVER A 24"X24" SIZE. DAMPER SHALL BE OPPOSED OR PARALLEL BLADE CONFIGURATION (RUSKIN CD51 MEETS THESE CRITERIA).

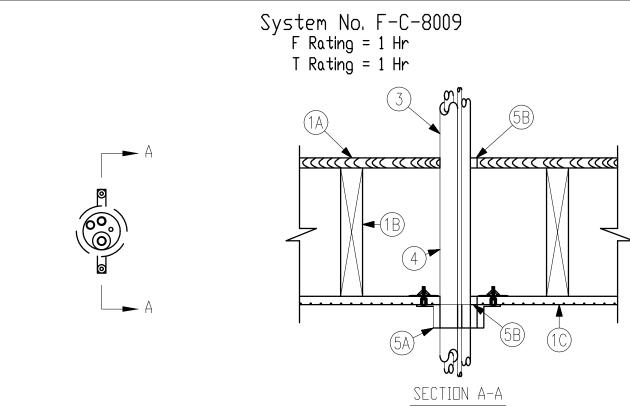
VENTING IS BASED ON INTERNATIONAL BUILDING CODE (IBC) SECTION 3004 WHICH REQUIRES 3.5% OF THE AREA OF THE HOISTWAY NOR LESS THAN 3 SQ FT PER ELEVATOR CAR. IN THIS CASE THE 3 SQ FT IS THE LARGER OF THE TWO VALUES.

ROOF HOOD-ELEVATOR SHAFT NOTED; EQUAL BY: COOK,

TAG	GREENHECK MODEL #	SIZE			MIN.		
		THROAT W x L	CURB CAP W x L	HOOD W x L x H	THROAT AREA	DUTY	NOTES
ERH	FABRA HOOD	20x24	28x32	34x39x16	3.33 SQ FT	ELEVATOR RELIEF	1,2,3,4,5
1 I	OD SHALL HAVE	, ,					AUGU.

HOODS SHALL BE CONSTRUCTED OF GALVANIZED STEEL COATING WITH A BAKED ENAMEL FINISH -SELECTED BY ARCHITECT AT TIME OF SUBMITTAL (INCLUDE COLOR CHART). HOOD CAN HAVE DIFFERENT DIMENSIONS FROM THOSE SCHEDULED; HOWEVER, HOOD CANNOT HAVE LESS THROAT AREA THAN SCHEDULED AMOUNT. HOOD SHALL BE MADE TO OPERATE AS A RELIEF HOOD (NOT EXHAUST). DISCHARGE AREA SHALL NOT BE LESS THAN THROAT AREA. HOOD SHALL BE HINGED SO THAT M.O.D. CAN BE ACCESSED. PROVIDE M.O.D. IN HOOD OR CURB. PROVIDE DISCONNECT SWITCH FOR M.O.D. IN CURB/HOOD.

> ELEVATOR HOISTWAY VENT SCHEMATIC - NO SCALE



1. Floor-Ceiling Assembly - The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as summarized below:

A. Flooring System – Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening is 3 in. B. Wood Joists - Nom 10 in. deep (or deeper) lumber, steel or combination lumber and

steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped. C. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in the individual Floor—Ceiling Design. Max diam of opening in ceiling [when chase wall (Item 2) is not provided is 2-3/4 in.

2. Chase Wall - (Optional, Not Shown) - The through penetrant (Item 3) may be routed through a 1 hr fire-rated single, double or staggered wood stud/avpsum wallboard chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs - Nom 2 by 6 in. lumber or double nom 2 by 4 in. lumber studs.

B. Sole Plate - Nom 2 by 6 in. lumber or parallel 2 by 4 in. lumber plates, tightly butted. C. Top Plate — The double top plate shall consist of two nom 2 by 6 in. lumber plates or 2 sets of parallel nom 2 by 4 in. lumber, tightly butted. Max diam of opening is 3 in. D. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

3. Through Penetrants — Pipe, cable and tubing to be bundled and rigidly supported on both sides of floor assembly. A nom annular space of min 0 in. (point contact) to max 1/2 in. is required within the firestop system. The following types and sizes of pipe, cable and tubing are to be used in the firestop system in sufficient quantities to fill the firestop device: A. Type PJT thermoset cable, 5/C No. 18 AWG copper conductor, plastic insulation and jacket.

B. Polyvinyl Chloride (PVC) Pipe – Nom 1-1/2 in. diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems. C. Copper Tubing — Nom 3/4 in. diam (or smaller) Type L (or heavier) copper tubing. D. Copper Tubing - Nom 1/2 in. diam (or smaller) Type L (or heavier) copper tubing.

4. Tube Insulation - Plastics+ - Nom 1/2 in. thick acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing. Insulation to be installed only on one through reverant having a max nom diam of 3/4 in.

See Plastics+ (QMFZ2) category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL94 Flammability Classification of 94-5VA may be used. 5. Firestop System - The firestop system shall consist of the following:

A. Firestop Device* — Firestop Collar — Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around the penetrants and secured to underside of gypsum wallboard ceiling using the anchor hooks provided with the collar. The anchor hooks are to be secured to the surface of the ceiling with min 3/16 in. diam min 2-1/2 in. long toggle bolts. HILTI CONSTRUCTION CHEMICALS, DIV OF

HILTI INC - CP 64-3 90/3"N, CP 64-3 63/2"N, CP 64-3 50/1-1/2"N. B. Fill, Void or Cavity Material* — Sealant — Min 3/4 in. thickness of fill material applied within the annulus, flush with top surface of floor. Min 5/8 in. thickness of fill material applied within the annulus, flush with bottom surface of ceiling. Caulk to be forced into interstices of penetration group to max extent possible at top surface of floor and bottom surface of ceiling.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS611A or FS-ONE Sealant +Bearing the UL Recognized Component Mark *Bearing the UL Classification Marking

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. FIRESTOP SYSTEMS March 22, 2004

System No. F-C-2025

F Rating - 1 and 2 Hr (See Item 1)

T Ratings - 0, 3/4, 1, 1-1/2 & 2 Hr (See Item 3)

SECTION A-A

1. Floor-Ceiling Assembly -- The 1 or 2 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials

firestop system is equal to the rating of the floor-ceiling and wall assemblies. The general construction features of the floor-ceiling assembly

A. Flooring System -- Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the

B. Joists -- Nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members*

C. Furring Channels -- (Not Shown) -- (not Shown) (As required) - Resilient galvanized steel furring installed in accordance with the

D. Gypsum Board* -- Thickness, type, number of layers and fasteners shall be as specified in the individual Floor-Ceiling Design,

2. Chase Wall -- The through penetrant (Item 3) shall be routed through a fire-rated single, double or staggered wood stud/gypsum wallboard

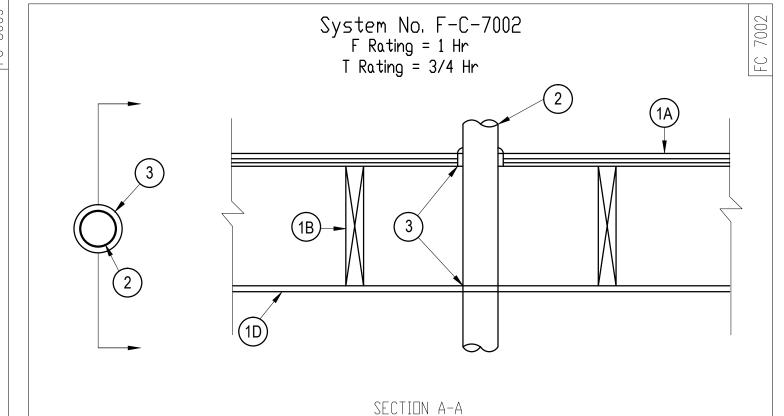
manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following

chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the

C. Top Plate -- The double top plate shall consist of two nom 2 by 6 in. or two sets of parallel 2 by 4 in. lumber plates, tightly butted.

D. Gypsum Board* -- Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The F Rating of the



1. Floor-Ceiling Assembly — The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory, as summarized below:

A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 5 in.

B. Wood Joists — Nom 2 by 10 in. lumber joists spaced 16 in. OC with nom 1 by 3 in. lumber bridging and with ends firestopped. As an alternate to lumber joists, nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required with ends firestopped.

C. Furring Channels — (Not Shown) — Resilient galv steel furring installed perpendicular to wood joists (Item 1B) between wallboard (Item 1D) and wood joists or furring channels as required in the individual Floor-Ceiling Design.

D. Gypsum Board* — Nom 4 ft wide by 5/8 in. thick as specified in the individual Floor-Ceiling Design. Wallboard secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max diam of ceiling opening is 5 in.

1.1 Chase Wall — (Not Shown, optional) The through penetrant (Item 2) may be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum wallboard chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Nom 2 by 6 in. or double nom 2 by 4 in. lumber studs.

B. Sole Plate — Nom 2 by 6 in. or parallel 2 by 4 in. lumber plates, tightly butted.

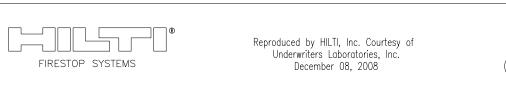
C. Top Plate — The double top plate shall consist of two nom by 6 in. or two sets of parallel 2 by 4 in. lumber plates, tightly butted. Max diam of opening is 5 in.

D. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

2. Steel Duct — Nom 4 in. diam (or smaller) No. 30 gauge (or heavier) steel duct. One duct to be centered within the firestop system. Diam of openings hole-sawed through flooring system and through gypsum wallboard ceiling to the nom 1/2 in. larger than the outside diam of through-penetrant. Steel duct to be rigidly supported on both sides of floor-ceiling assembly.

3. Fill, Void or Cavity Material* — Sealant — Min 3/4 in. thickness of fill material applied within annulus on top surface of floor. Min 5/8 in. thickness of fill material applied within annulus on bottom surface of ceiling or lower top plate of chase wall assembly. Additional fill material to be installed such that a min 1/8 in. crown is formed around the penetrating item on bottom surface of ceiling or lower top plate of chase

SPECIFIED TECHNOLOGIES INC — SpecSeal Series SSS Sealant or SpecSeal LCI Sealant





DUCT (UNINSULATED) THRU TOP PLATE OF RATED WALL SCALE: NONE

CONTRACTOR SHALL OBSERVE THE FOLLOWING GUIDELINES:

1. MANUFACTURERS OTHER THAN HILTI (OR BRAND SHOWN HERE) MAY BE USED. 2. IF A PENETRATION IS NOT REPRESENTED ON THESE SHEETS, CONTRACTOR SHALL Page: 1 of 1 CONTACT ENGINEER FOR GUIDANCE PRIOR TO INSTALLING.

3. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR RATING OF FLOOR, WALLS, ETC.

REFRIGERANT LINE SET PENETRATION. SCALE: NONE

individual Floor-Ceiling Design. Max diam of floor opening is 5 in.

A. Studs -- Nom 2 by 6 in. or double nom 2 by 4 in. lumber studs.

B. Sole Plate -- Nom 2 by 6 in. or parallel 2 by 4 in. lumber plates, tightly butted.

manner specified in the individual L500 Series Designs in the Fire Resistance Directory

with bridging as required and with end firestopped

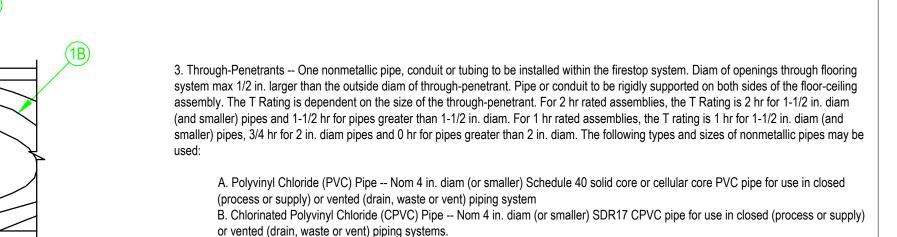
Max diam of opening is 5 in.

Max diam of openings is 5 in.

FIRESTOP SYSTEMS

construction features:

System No. F-C-2025 F Rating - 1 and 2 Hr (See Item 1) T Ratings - 0, 3/4, 1, 1-1/2 & 2 Hr (See Item 3)



supply) or vented (drain, waste or vent) piping system. 4. Firestop System -- The details of the firestop system shall be as follows:

in closed (process or supply) or vented (drain, waste or vent) piping systems.

A. Steel Collar -- Collar fabricated from precut 0.017 in. thick (28 MSG) galv steel available from sealant manufacturer. Collar shall be min 2 in. deep with a min 1-1/4 in. wide by 2 in. long anchor tabs for securement to floor surface. Retainer tabs 1-1/4 in. wide by 3/4 in. long and located opposite the anchor tabs are folded 90 deg towards the pipe surface to maintain the annular space around the pipe and to retain the fill material. For nom 2 in. diam (or smaller) PVC and CPVC pipes in 1 hr rated assemblies, retainer tab length may be reduced to 1/2 in. Collar secured to the surface of floor with wood screws and washers at every other anchor tab. A nom 1/2

C. Acrylonitrile Butadiene Styrene (ABS) Pipe -- Nom 4 in. diam (or smaller) Schedule 40 solid-core or cellular core ABS pipe for use

D. Flame Retardant Polypropylene (FRPP) Pipe -- Nom 4 in. diam (or smaller) Schedule 40 FRPP pipe for use in closed (process or

in. wide stainless steel hose clamp shall be secured to the collar at mid-depth. B. Fill, Void or Cavity Material* -- Sealant -- Min 3/4 in. thickness of fill material applied within the annulus, flush with top surface of the floor. Min 1/2 in. thickness of fill material applied within the annulus flush with the bottom surface of the lower plate. Fill material also installed to completely fill the steel collar.

HILTI CONSTRUCTION CHEMICALS, DIV OF

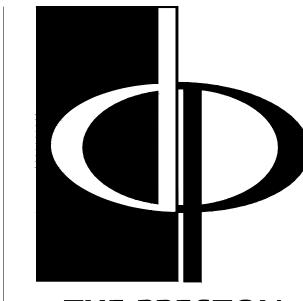
HILTI INC -- FS-One Sealant

C. Firestop Device* -- Firestop Collar -- As an alternate to item A filled with B above. Firestop collar shall be installed in accordance with the accompanying installation instructions. Collar to be installed and latched around the pipe and secured to underside of floor using the anchor hooks provided with the collar. (Minimum 2 anchor hooks for 1-1/2 and 2 in. diam pipes and 3 anchor hooks for 3 and 4 in. diam pipes). The anchor hooks are to be symmetrically installed and secured to the surface of floor with min No. 12 min 3/4 in. long wood screws and washers.

HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP 643 50/1.5 "N, CP 643 63/2 "N, CP 643 90/3 "N or CP 643 110/4 "N Firestop Collar

*Bearing the UL Classification Mark

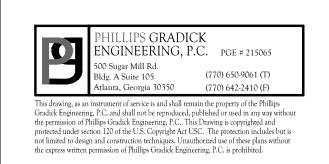
NON METALLIC PIPE PENETRATION OF RATED FLOOR/CEILING



THE PRESTON PARTNERSHIP, LLC

SOUTH TERRACES 115 PERIMETER CENTER PLACE, SUITE 950 ATLANTA, GEORGIA 30346 TELEPHONE: 770 396 7248 FAX: 770 396 2945

WWW.THEPRESTONPARTNERSHIP.COM CONSULTANT





REVEL AT THE **BALLPARK** PHASE II 2885 CRESCENT PKWY

SMYRNA, GA 30080



ATLANTIC REALTY **PARTNERS**

3438 PEACHTREE ROAD **SUITE 1425** ATLANTA, GA 30326

ISSUES & #\ REVISIONS	DATE		
CONCEPTUAL DESIGN	8/21/15		
SD PROGRESS SET	09/28/15		
GMP PRICING SET	10/14/15		
FOUNDATION PACKAGE	12/07/15		
GMP PACKAGE	04/03/17		
DEDMIT CET	05/00/47		

PERMIT SET

05/22/2017

DETAILS - HVAC

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