

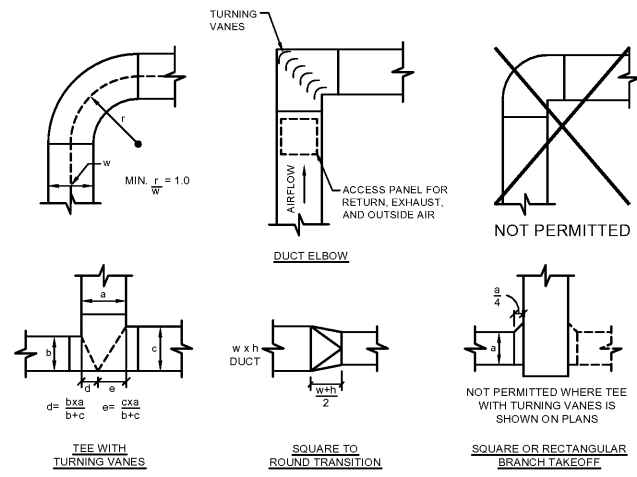
# LEGEND

NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

SYMBOL	ABBREV.	IDENTIFICATION	SYMBOL	ABBREV.	IDENTIFICATION	SYMBOL	ABBREV.	IDENTIFICATION
		DUCT (RISE/DROP)			ECCENTRIC TRANSITION		FC	FLEXIBLE CONNECTION
		RADIUS ELBOW			CONCENTRIC TRANSITION		MOD	MOTOR OPERATED DAMPER
		SQUARE ELBOW WITH TURNING VANES			SQUARE TO ROUND TRANS.		VD	VOLUME DAMPER
		SQUARE ELBOW WITHOUT TURNING VANES			DUCT CAP		BDD	BACKDRAFT DAMPER
		SQUARE OR RECTANGULAR BRANCH TAKEOFF		ALD	ACOUSTICALLY LINED DUCT (NOT ALWAYS SHOWN)		DS	DUCT SMOKE DETECTOR
		RECTANGULAR TO ROUND TAKEOFF		SA	SUPPLY AIR DUCT UP		FD	FIRE DAMPER
		TEE WITH TURNING VANES		OA	OUTSIDE AIR DUCT UP		SD	SMOKE DAMPER
		ROUND TO ROUND BRANCH TAKEOFF		RA	RETURN AIR DUCT UP		FSD	FIRE/SMOKE DAMPER
				EA	EXHAUST AIR DUCT UP		SG	SUPPLY GRILLE
				SA OR OA	DUCT DOWN OR AWAY		EG, RG, TG	(EXHAUST) RETURN/TRANSFER GRILLE
				EA OR RA	DUCT DOWN OR AWAY		UCD	UNDERCUT DOOR (BY GC)
							DTG	DOOR TRANSFER GRILLE
							RC	REHEAT COIL
							AD	ACCESS DOOR

MISCELLANEOUS AND CONTROLS					
	EQUIPMENT BY OTHERS, CONNECTION BY HC	AFF	ABOVE FINISHED FLOOR	BJ	BETWEEN JOISTS
	CONNECT TO EXISTING	HC	HEATING CONTRACTOR	TJ	THRU JOISTS
	THERMOSTAT / TEMP. SENSOR	EC	ELECTRICAL CONTRACTOR	TTS	TIGHT TO STRUCTURE
		GC	GENERAL CONTRACTOR	TYP	TYPICAL
		PC	PLUMBING CONTRACTOR	TV	TURNING VANES
		NIC	NOT IN CONTRACT		

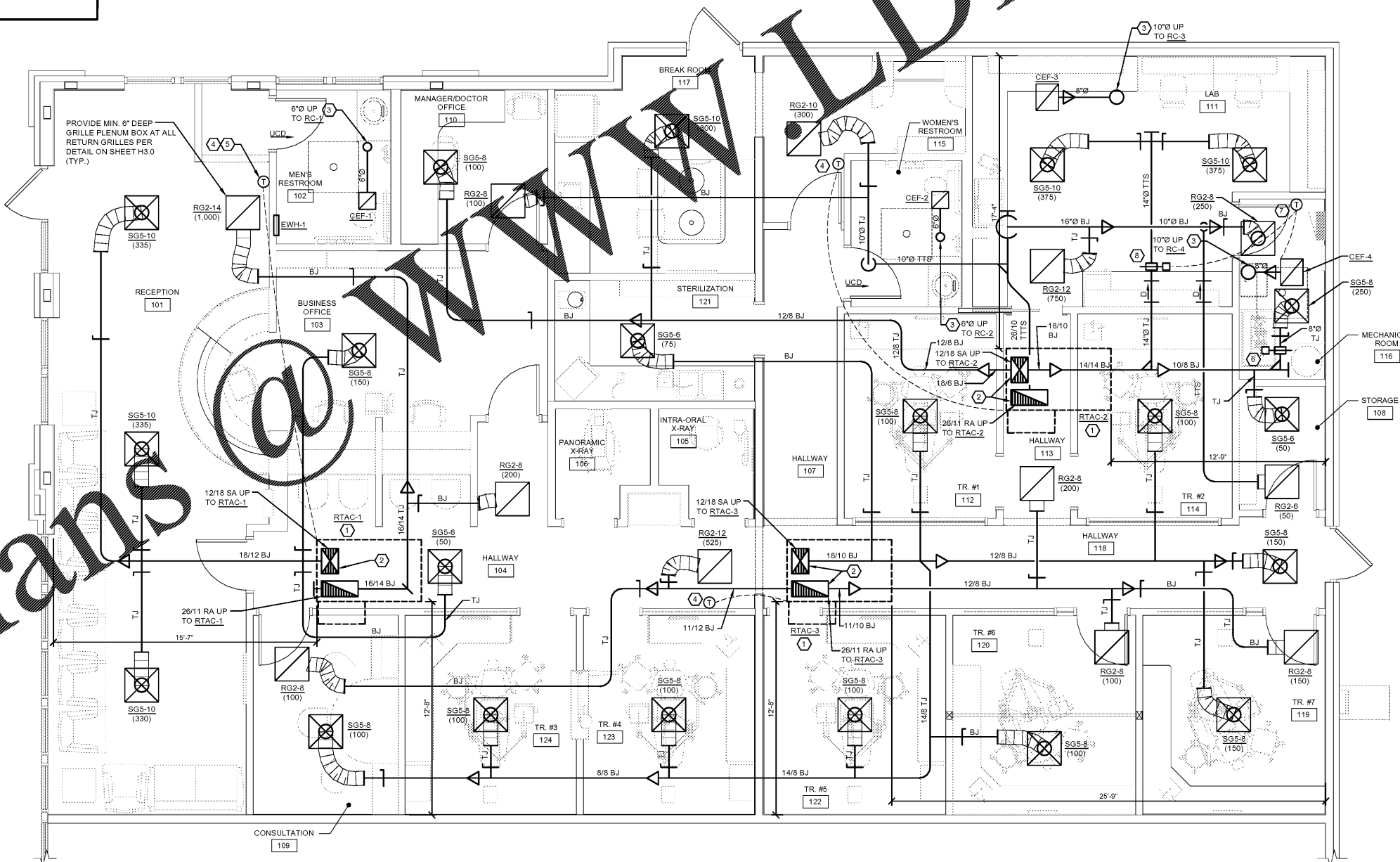


## DUCT FITTING DETAILS

NO SCALE

**NOTES:**  
 - MAKE TRANSITION FROM DUCTWORK SIZES SHOWN ON THE DRAWINGS TO EQUIPMENT DUCT CONNECTION SIZES. VERIFY EQUIPMENT CONNECTION SIZES IN THE FIELD. ACTUAL EQUIPMENT SIZES SHALL TAKE PRECEDENCE OVER SIZES SHOWN ON PLANS.  
 - IF DUCT SYSTEMS ARE USED FOR TEMPORARY HEAT, PROVIDE TEMPORARY FILTERS AT RETURN AIR OPENINGS AND INSTALL FILTERS IN THE UNITS EQUIVALENT TO THE EFFICIENCY OF THE SPECIFIED FILTERS FOR THE UNIT. IF PROPER EFFICIENCY FILTERS ARE NOT INSTALLED IN UNIT, UNIT AND ALL DUCTWORK DOWNSTREAM OF UNIT SHALL BE CLEANED BEFORE TEST AND BALANCE.  
 - COORDINATE GRILLE LOCATIONS WITH FINAL REFLECTED CEILING PLAN AND CORRESPONDING LIGHTING CONFIGURATION.  
**HVAC CALCULATION NOTES:**  
 HVAC CALCULATIONS ASSUMES THE FOLLOWING FOR ENVELOPE CONSTRUCTION:  
 - EXISTING WALL WITH BATT INSULATION/WOOD STUDS: ESTIMATED R-VALUE= 18.31 TOTAL  
 - SPANDREL GLASS/FRAMED WALL: ESTIMATED R-VALUE= 6.42 TOTAL  
 ESTIMATED WALL HEIGHT OF 15'-3"  
 - ROOF: ESTIMATED R-VALUE = 30.0 (MIN. PER WORKLETTER)  
 - GLASS: INSULATED CLEAR GLAZING ESTIMATED U-VALUE = 0.4 ESTIMATED SHADING COEFFICIENT = 0.4  
 IF ACTUAL ENVELOPE CONSTRUCTION VARIES FROM THESE ESTIMATES, CONTRACTOR TO CONTACT EXCEL ENGINEERING INC.

- KEYED NOTES**
- ROOF TOP UNIT FOR NEW TENANT CONSTRUCTION. SEE RTAC SCHEDULE ON SHEET H0.1 & T2.0 FOR RESPONSIBILITY OF INSTALLATION.
  - TRANSITION FROM RTAC SUPPLY AND RETURN DUCT SIZES TO SIZE SHOWN ON PLAN. TRANSITION SIZE IN VERTICAL IF TRANSITION CAN MEET SPECIFICATIONS. OTHERWISE TRANSITION AFTER ELBOW. PROVIDE TURNING VANES IN DUCT ELBOWS OR TEES.
  - COORDINATE BUILDING PENETRATION WITH LANDLORD. PROVIDE GRAVITY BACK DRAFT DAMPER BELOW ROOF DECK. EXHAUST OUTLET LOCATION MUST BE AT LEAST 10'-0" AWAY FROM ANY OUTSIDE AIR INTAKE.
  - MOUNT PROGRAMMABLE THERMOSTAT AT 48" A.F.F. IN LOCATIONS AS SHOWN. UNLESS LOCAL CODE AUTHORITY WILL ALLOW A 60" HEIGHT OF 60" A.F.F. THERMOSTATS SHALL BE CARRIER EDGE PRO COMMERCIAL SERIES PROGRAMMABLE THERMOSTAT MODEL 33CS2PT-03. THERMOSTAT FURNISHED BY HVAC CONTRACTOR.
  - PROVIDE A LOCKING COVER FOR THE THERMOSTAT LOCATION IN THE RECEPTION AREA. TURN OVER LOCK/KEYS TO ASPEN MANAGEMENT UPON JOB COMPLETION.
  - MOTOR OPERATED DAMPER WITH 120V, 2 POSITION SPRING RETURN, NORMALLY OPEN DAMPER ACTUATOR TO SPAN RESTROOM. DAMPER: "GREENHECK" MODEL VCOR-53 OR EQUIVALENT ACTUATOR: "BELIMO" MODEL TFB120 OR EQUIVALENT
  - HONEYWELL MODEL T851A OR EQUIVALENT REVERSE ACTING THERMOSTAT FURNISHED BY HVAC CONTRACTOR. CONDUIT AND WIRING PROVIDED BY ELECTRICAL CONTRACTOR. REFER TO SHEET E1.1P. TURN ON FAN AND DOSE MECHANICAL ROOM MOTOR OPERATED DAMPER ON A RISE IN SPACE OPERATING ABOVE SETPOINT.
  - MOTOR OPERATED DAMPER WITH 120V, 2 POSITION, SPRING RETURN, NORMALLY OPEN DAMPER ACTUATOR WIRED TO WALL SWITCH BY E.C. TO CLOSE DAMPER WHEN SWITCH IS "ON". DAMPER: "GREENHECK" MODEL VCOR-53 OR EQUIVALENT ACTUATOR: "BELIMO" MODEL TFB120 OR EQUIVALENT



**FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"

1500 CAMMELT DRIVE  
 FORT DU LAC, WI 54935  
 PHONE: (920) 926-9800  
 WWW.EXCELENGINEER.COM

**PROJECT INFORMATION**

PROJECT NUMBER 1823380

TENANT BUILD-OUT FOR:  
**ASPEN DENTAL**  
 4011 WARDS ROAD • LYNCHBURG, VA 24502

PROFESSIONAL SEAL

**SHEET DATES**

ISSUE DATE MAY 31, 2018

REVISIONS


**SHEET INFORMATION**

FLOOR PLAN, LEGEND & DETAILS

SHEET NUMBER

**H1.1**

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