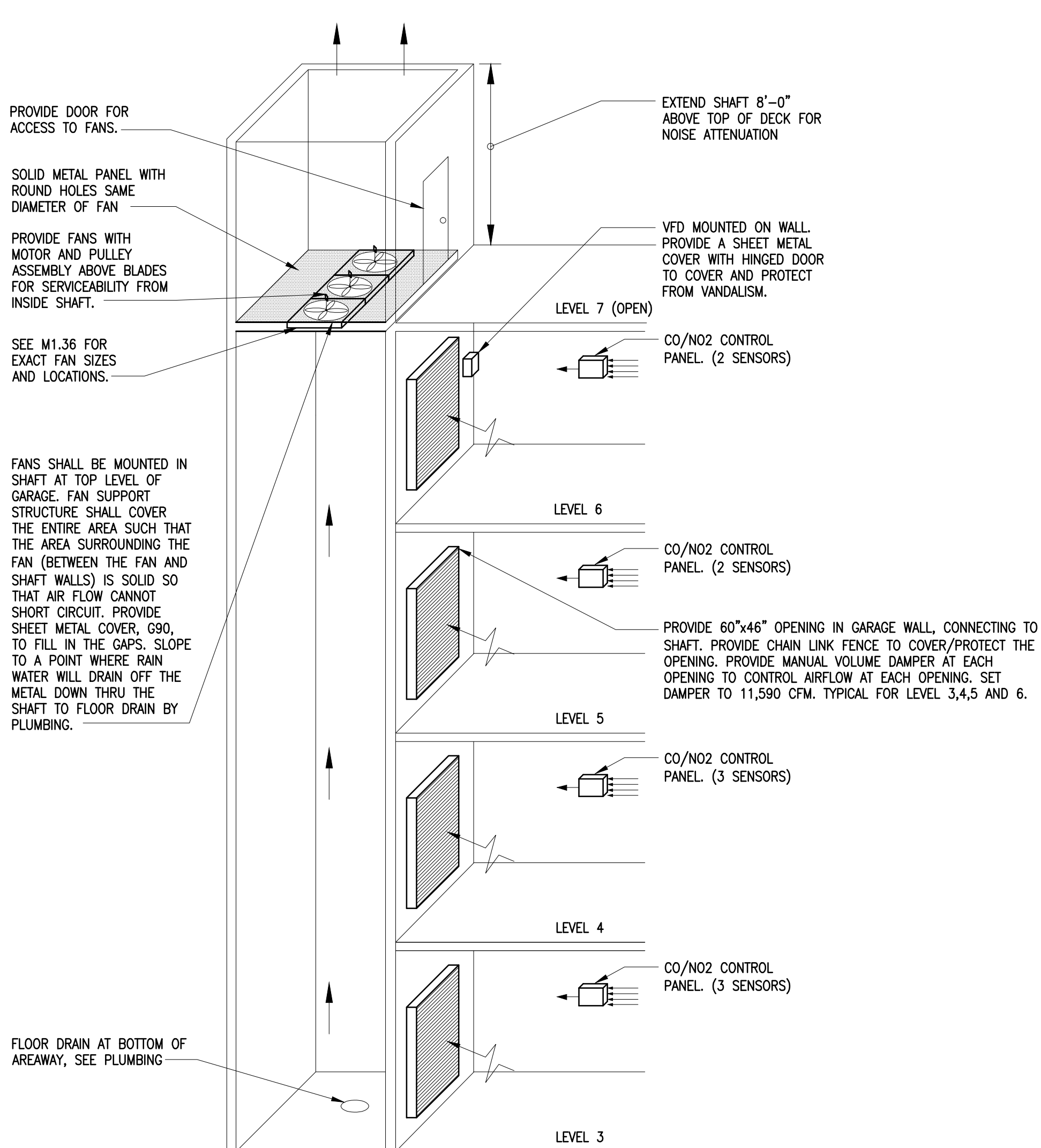


NOTES:

- INTAKE DEVICE SHALL BE CUSTOM BUILT BY THE GENERAL CONTRACTOR. OPENING SHALL HAVE A MINIMUM SIZE AS SPECIFIED ON DRAWINGS (EACH LEVEL). OPENING PROTECTION SHALL BE PER THE ARCHITECT'S DIRECTION. BEHIND THE PROTECTION DEVICE MECHANICAL CONTRACTOR SHALL PROVIDE A MANUAL VOLUME DAMPER. SET DAMPER AS INDICATED ON PLANS. DAMPER SHALL BE ACCESSIBLE AT FACE OF OPENING.
- COORDINATE WITH THE ARCHITECT AND THE GENERAL CONTRACTOR.
- THERE SHALL BE 3/4" SPACE BETWEEN EACH FAN FOR VIBRATION ISOLATION PADS TO BE PLACED.
- PROVIDE A METAL GRATE SYSTEM OVER SHAFT. GRATE SHALL HAVE CHARACTERISTICS PER THE METAL BAR GRATING MANUAL (MBS 531): W-19-4, 1-1/4"x3/16", STAINLESS STEEL 316. SECTIONS SHALL BE NO LONGER THAN 6'-6" LONG. 24" WIDE GRATE SHALL SPAN AND REST ON PARKING SHAFT LEDGES. PROVIDE 2.5 X 2.5 X 1/4" ANGLE IRON SUPPORT FOR GRATE COMPONENTS ON ALL ON ALL FOUR SIDES OF SHAFT. ANGLE SHALL HAVE A YIELD STRENGTH OF 25,000 PSI OR GREATER AND SHALL BE GALVANIZED. ATTACH TO WALL WITH ANCHORS (SUITABLE FOR CONCRETE) AS RECOMMENDED BY STRUCTURAL ENGINEER SPACED EVERY 12" O.C. PROVIDE AS MANY 24" WIDE SPANS A NECESSARY TO COVER THE SHAFT. SHAFT SHALL NOT BE GREATER THAN 6' - 6" WIDE.

GARAGE EXHAUST SYSTEM (GEF-A)

SCHEMATIC - NO SCALE



NOTES:

- INTAKE DEVICE SHALL BE CUSTOM BUILT BY THE GENERAL CONTRACTOR. OPENING SHALL HAVE A MINIMUM SIZE AS SPECIFIED ON DRAWINGS (EACH LEVEL). OPENING PROTECTION SHALL BE PER THE ARCHITECT'S DIRECTION. BEHIND THE PROTECTION DEVICE MECHANICAL CONTRACTOR SHALL PROVIDE A MANUAL VOLUME DAMPER. SET DAMPER AS INDICATED ON PLANS. DAMPER SHALL BE ACCESSIBLE AT FACE OF OPENING.
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GARAGE EXHAUST SYSTEM (GEF-B)

SCHEMATIC - NO SCALE

CONTROL NOTES:

- EACH GARAGE EXHAUST FAN GEF'S WILL BE CONTROLLED VIA A VFD PER FAN. THE VFD SHALL BE MOUNTED ON THE SIDE WALL OF THE SHAFT NEAR THE FAN AS INDICATED IN DETAIL.
- VFD SHALL BE EQUAL TO A CERSUS GS SERIES DRIVE. SEE VFD REQUIREMENTS THIS SHEET.
- SEE FAN SCHEDULE REGARDING FAN CFM. FANS SHALL OPERATE CONTINUOUSLY AT A REDUCED SPEED OF 30% UNLESS A SIGNAL IS SENT FROM THE CARBON MONOXIDE/NITROGEN DIOXIDE SYSTEM OR OCCUPANCY SENSORS TO THE VFD WHICH WILL THEN INCREASE THE FAN SPEED TO MAXIMUM. A SIGNAL FROM ANY CO/NO2 CONTROL PANEL OR CO/NO2 SENSOR OR OCCUPANCY SENSOR SHALL ACTIVATE ALL SIX (6) FANS TO OPERATE AT THEIR MAXIMUM CAPACITY LISTED BELOW.
- GRATE AT TOP OF EXHAUST SHAFT SHALL BE REMOVABLE FOR MAINTENANCE OF THE FANS.
- VFD'S ARE TO BE MOUNTED IN THE GARAGE.

FAN NOTES:

- FANS HAVE BEEN SIZED IN ACCORDANCE WITH THE NFPA 88A SECTION 6.3.1 AND THE I.M.C. SECTION 404.1 AND 404.2.
- LEVEL 2 OF THE GARAGE IS 26,326 SQ. FT. @ 1.0 CFM/SF EQUALS 26,326 CFM. TOTAL EXHAUST REQUIRED IS 26,326 CFM.
- LEVELS 3, 4, 5 AND 6 OF THE GARAGE ARE 24,343 SQ. FT. @ 1.0 CFM/SF EQUALING 24,343 CFM PER LEVEL.
- THERE ARE A TOTAL OF (5) LEVELS TO BE VENTILATED. TOTAL EXHAUST REQUIRED IS 123,698 CFM. PROVIDE SIX (6) FANS WHICH PROVIDE 20,617 CFM PER FAN FOR A TOTAL OF SIX (6) FANS PROVIDING 123,698 CFM OF EXHAUST.
- I.M.C. SECTION 404.2 REQUIRES AUTOMATIC OPERATION OF THE SYSTEM SHALL NOT REDUCE THE VENTILATION RATE BELOW 0.05 CFM/SF OF THE FLOOR AREA. THE FANS TO OPERATE CONTINUOUSLY TO MAINTAIN AN EXHAUST RATE OF 0.05 CFM/SF WHICH WOULD BE 6,185 CFM (OR 1,031 CFM PER FAN). BECAUSE THE VFD'S WILL NOT OPERATE THE FAN PROPERLY AT THIS SPEED THE FANS SHALL BE CONTROLLED VIA THE VFD LOGIC TO OPERATE 6,185 CFM (GEF-A) AND 6,185 CFM (GEF-B) (30%) PER FAN.
- THERE ARE (2) EXHAUST SHAFTS WHICH HAVE INTAKE OPENINGS AT EACH LEVEL. EACH SHAFT CONTAINS (3) THREE FANS AT THE TOP LEVEL OF THE SHAFT. NOTE THE TOP LEVEL OF THE GARAGE IS OPEN AND DOES NOT REQUIRE MECHANICAL VENTILATION.
- FANS WILL BE EXPOSED TO THE WEATHER AND WILL REQUIRE SPECIAL "WASH DOWN" MOTORS. FANS WILL BE MOUNTED IN THE HORIZONTAL POSITION. SEE SCHEDULE FOR ADDITIONAL INFORMATION. ENSURE THAT FAN MANUFACTURER IS AWARE THAT FAN IS IN THE HORIZONTAL POSITION.
- THIS DETAIL IS SCHEMATIC IN NATURE. COORDINATE THE EXACT SIZE AND CONSTRUCTION OF THE SHAFT WITH THE ARCHITECT AND STRUCTURAL ENGINEERING DRAWINGS PRIOR TO START OF WORK RELATED TO THE SHAFT.
- COORDINATE FAN SIZES AND INSTALLATION REQUIREMENTS WITH THE GENERAL CONTRACTOR PRIOR TO START OF HVAC WORK. GENERAL CONTRACTOR WILL PROVIDE ACCESSIBLE METAL GRATE AT TOP LEVEL FOR FAN INSTALLATION, AND PRE-CAST OPENINGS IN LOWER LEVELS FOR THE INTAKE OPENINGS.

VARIABLE FREQUENCY DRIVES:

VFD'S PROVIDED ON ALL GEF'S. VFD MUST BE COMPATIBLE WITH CARBON MONOXIDE SYSTEM AND SHALL HAVE THE FOLLOWING:

- BYPASS SUPPORT FOR RAPID MOTOR CHANGEOVER; INPUT, OUTPUT AND BYPASS CONTACTORS
- AUTO RESTART AFTER POWER LOSS OR RESETTABLE FAULT, SELECTABLE PROGRAMMABLE
- SHORT CIRCUIT PROTECTION: PHASE-PHASE AND PHASE-NEUTRAL
- GROUND FAULT PROTECTION
- SHORT CIRCUIT WITHSTAND RATING: 65,000 AMPS RMS
- ELECTRONIC MOTOR OVERLOAD PROTECTION
- FAULT CIRCUIT: OVER CURRENT, OVER VOLTAGE, OVER TORQUE
- CIRCUIT BREAKER DISCONNECT, WITH INTERLOCKED THROUGH-THE-DOOR OPERATING MECHANISM
- THERMAL MOTOR OVERLOAD RELAY, CLASS 20
- 115VAC CONTROL TRANSFORMER, FUSED.
- HAND/OFF/AUTO SELECTOR SWITCH
- DRIVE/BYPASS SELECTOR SWITCH
- NORMAL/TEST SELECTOR SWITCH
- PILOT LIGHTS FOR CONTROLS
- POWER, DRIVE RUN, DRIVE FAULT, BYPASS RUN, MOTOR.
- NEMA 3R ENCLOSURE.
- SHALL BE CAPABLE OF STARTING IN A ROTATING LOAD (FORWARD OR REVERSE)
- SHALL HAVE A SOFT START CAPABILITY (ACCELERATION) AND A SOFT STOP (DECELERATION)
- SHALL BE CAPABLE OF OPERATING WITHIN A SUSTAINED AMBIENT TEMPERATURE OF 14 DEGREES AND ABOVE AND UP TO 104 DEGREES F. PROVIDE A PANEL SPACE HEATER OF 50 WATTS WITH CIRCUIT FOR POWERING.
- SHALL BE CAPABLE OF ACCEPTING ANALOG OR DIGITAL SIGNAL FROM THE CO/NO2 CONTROL PANELS.
- H-O-A SELECTOR SWITCH.

VFD FOR HVAC EQUIPMENT SHALL BE PROVIDED BY HVAC OR CONTROLS SUBCONTRACTOR.

CARBON MONOXIDE/NITROGEN DIOXIDE EXHAUST SYSTEM

THE CARBON MONOXIDE/NITROGEN DIOXIDE (CO/NO2) EXHAUST SYSTEM CONSISTS OF:

- (1) CARBON MONOXIDE/NITROGEN DIOXIDE SYSTEM CONTROL PANELS FOR EACH LEVEL OF VENTILATED PARKING, EQUAL TO THOSE MANUFACTURED BY MACURCO INC. A WITH A MINIMUM OF 7 (SEVEN) CO/NO2 DETECTORS EACH FLOOR (2 FLOORS TOTAL) COVERING APPROXIMATELY 5000 S.F. EACH CO/NO2 DETECTOR/SENSOR LOCATED ON THE LOWER LEVEL OF THE PARKING DECK (MAIN LEVEL IS CONSIDERED OPEN AND WILL NOT REQUIRE VENTILATION OR CO/NO2 MONITORING).
- ALL GARAGE FANS SHALL RUN AT 30% CAPACITY (SEE FAN SCHEDULE) CONTINUOUSLY TO SATISFY THE I.M.C. CODE SECTION 404.
- WHEN A SIGNAL FROM THE CO/NO2 SENSOR(S) IS SENT TO A CONTROL PANEL, ALL FANS SHALL BE ENERGIZED AT FULL SPEED (SEE FAN SCHEDULE) AND FANS SHALL RUN AT FULL SPEED UNTIL THE SENSOR RESETS TO NORMAL OPERATING LEVEL.

DETECTOR SHALL PROVIDE THE FOLLOWING FEATURES:

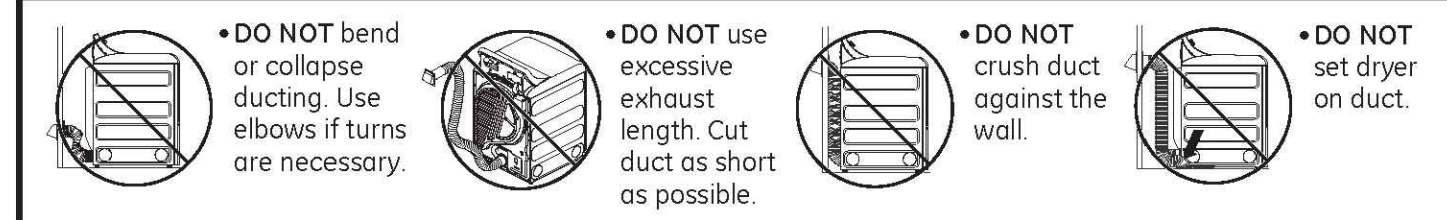
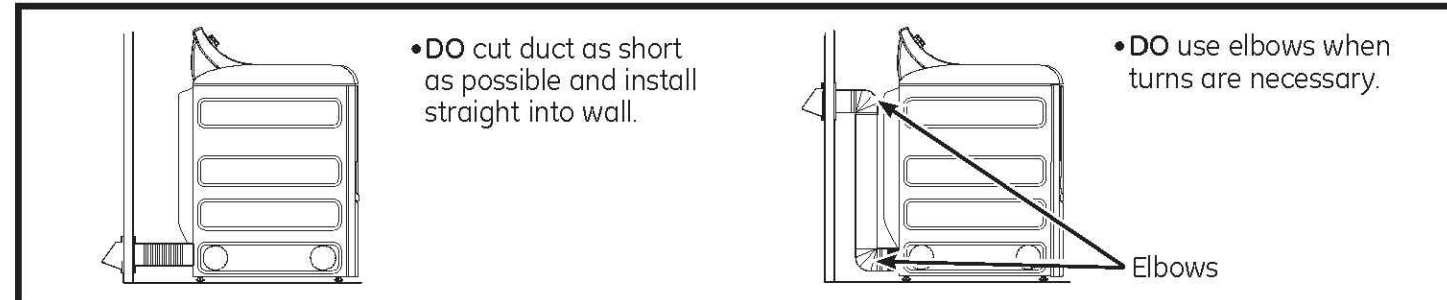
- SENSITIVITY CONTROL TO AVOID NUISANCE ALARMS.
- CO ADJUSTMENT AND SETPOINT SO THAT FAN IS ACTIVATED BASED ON A CO LEVEL VERSUS TIME CALCULATION. FANS SHALL ENERGIZE UPON A DETECTION OF CO LEVELS ABOVE 25 PPM OF CO.
- SHALL MEET UL2034 AND OSHA STANDARDS FOR CO/NO2 EXPOSURE.
- SENSORS SHALL BE CAPABLE OF SENDING AN ELECTRICAL SIGNAL TO THE FAN STARTER.
- PILOT LIGHTS TO REFLECT THE SYSTEM STATUS.

THE SENSOR/DETECTOR SHALL BE POWERED BY A 12 OR 24 V SIGNAL. PROVIDE A CONTROL TRANSFORMER AS NEEDED TO POWER UP THE SENSOR.

THE STARTER FOR THE FANS SHALL BE A VFD THAT HAS A H-O-A SWITCH. MOUNT STARTER ON GARAGE WALL AS INDICATED. ROUTE WIRING IN EMT CONDUIT.

CONNECT CO/NO2 SIGNAL TO THE AUTOMATIC "A" SWITCH OF THE H.O.A. SWITCH WHEN H.O.A. SWITCH IS SET TO THE "H" SETTING FANS SHALL OPERATE AT 100%. WHEN H.O.A. SWITCH IS SET TO THE "O" SETTING, POWER IS SWITCHED OFF TO FANS.

Installation Instructions



EXHAUST LENGTH

Using exhaust longer than specified length will:

- Increase the drying times and the energy cost.
- Reduce the dryer life.
- Accumulate lint, creating a potential fire hazard.

The correct exhaust installation is **YOUR THIS HOOD**

Problems due to incorrect installation are not covered by the warranty.

The MAXIMUM ALLOWABLE length of the exhaust system depends upon the type of duct, number of turns, the type of exhaust hood (wall cap) and all conditions noted on the chart.

- Internal elbows added for side or bottom vent conversions must be included in the total elbow count.
- Any elbow greater than 45° should be treated as a 90° elbow.
- Two 45° elbows will be treated like one 90° elbow.
- For every additional 90° elbow, reduce the allowable vent system length by 10 feet.
- When calculating the total vent system length, you must add all the straight portions and elbows of the system including the transition duct!

EXHAUST LENGTH		
RECOMMENDED MAXIMUM LENGTH		
Exhaust Hood Types		
Recommended	Use only for short run installations	Use only for short run installations
No. of 90° Elbows	Rigid Metal	Rigid Metal
0	120 Feet	90 Feet
1	100 Feet	75 Feet
2	80 Feet	65 Feet
3	70 Feet	55 Feet
4	60 Feet	45 Feet
5	55 Feet	35 Feet

NOTES:

- PROVIDE ALL DRYERS WITH A 4" HOODED CAP. DO NOT PROVIDE CAPS WITH BIRD CAGE, OR LOUVERED CAP.
- SEE SHEET M3.X SERIES FOR SPECIFIC DRYER VENT LENGTHS FOR EACH APARTMENT UNIT TYPE.
- WHERE THIS DRYER IS USED IN STACKED CONFIGURATION CONTRACTOR IS TO PROVIDE A RACK SYSTEM. VERIFY WITH OWNER.

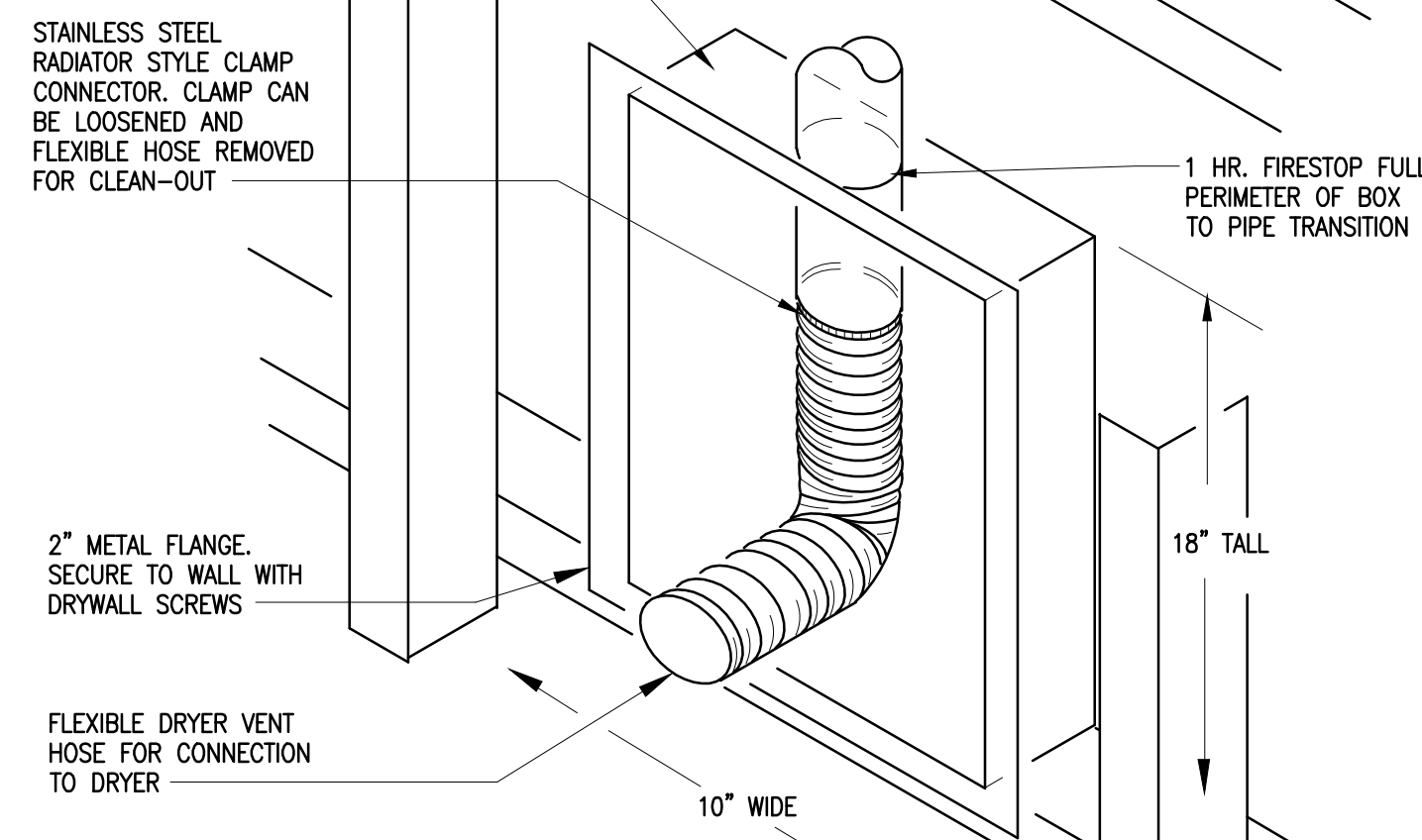
OWNER PROVIDED SIDE/SIDE DRYER GE MODEL # GTX18ESSJWW INSTALLATION INSTRUCTIONS

SCHEMATIC - NO SCALE

PER MECKLENBERG REQUIREMENTS, DRYER VENT LOCATED WITHIN THE RATED FLOOR CEILING ASSEMBLY SHALL BE WRAPPED WITH FIREWRAP INSULATION TO PROVIDE A 1 HOUR RATING (SAME AS FLOOR SYSTEM) ENTIRE LENGTH OF RUN TO EXTERIOR WALL.

4" DRYER VENT, MIN 26 GAUGE. ROUTE TO DRYER EXHAUST VENT ON OUTSIDE WALL.

26 GAUGE MIN METAL BOX RECESSED IN 6" STUD WALL, NOTE 5.



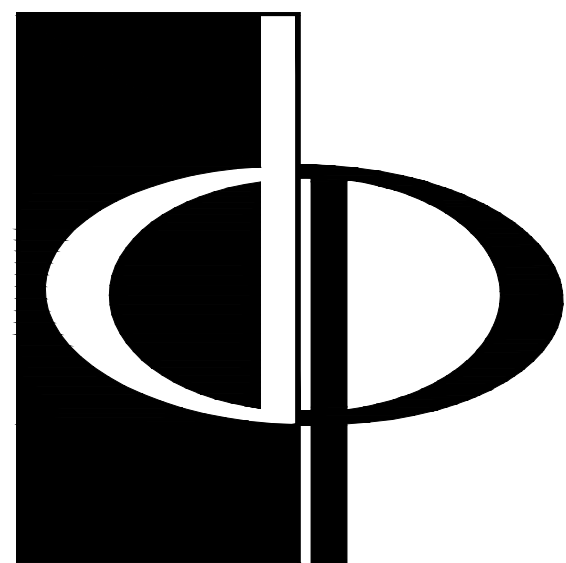
NOTES:

- NON-RATED DRYER BOXES SHALL NOT BE INSTALLED IN A RATED WALL.
- DRYER WALL BOXES WHICH ARE LOCATED IN RATED WALLS SHALL BE ALL METAL CONSTRUCTION EQUAL TO IN-O-WATE TECHNOLOGIES DRYERBOX MODEL #425. BOXES IN RATED WALLS MUST BE INSTALLED IN A MANNER THAT COMPLIES WITH THE N.C.M.C. SECTION 302.2.
- BOX MAY BE PREFABRICATED AND MADE OF PLASTIC.
- DIMENSIONS OF BOX ARE APPROXIMATE.
- FOR STAND ALONE DRYERS MOUNT BOX SUCH THAT BOTTOM IS 48" AFF.
- FOR STACKED DRYERS, MOUNT BOX SUCH THAT TOP OF BOX IS AT 36" BELOW CEILING.

DRYER WALL BOX DETAIL

SCHEMATIC - NO SCALE

REVISION #1 - SUMMARY - FM COMMENTS
1. REVISED PARKING DECK VENTILATION REQUIREMENTS.



THE PRESTON PARTNERSHIP, LLC

A MULTI-DISCIPLINARY DESIGN FIRM

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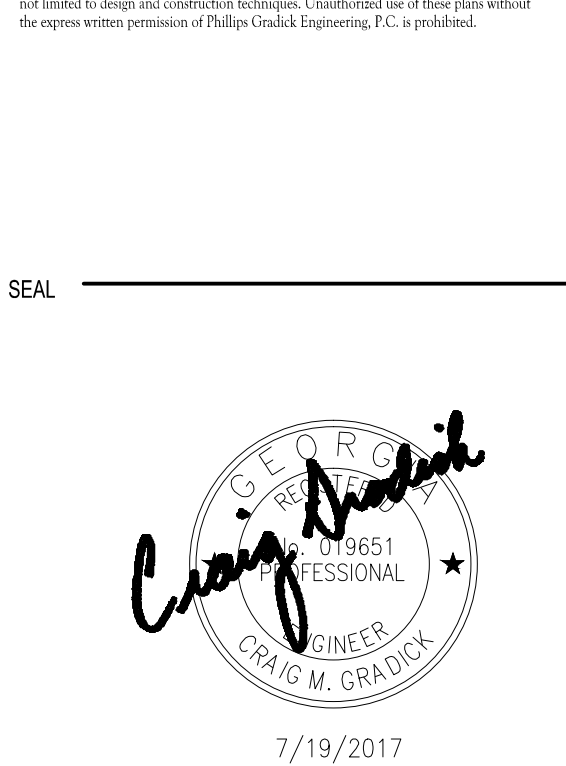
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CONSULTANT



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580 State Mill Rd.
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TEL: 770.660.9001
FAX: 770.660.2400

SEAL



7/19/2017

PROJECT

REVEL AT THE BALLPARK PHASE II

2885 CRESCENT PKWY
SMYRNA, GA 30080

FOR



ATLANTIC REALTY PARTNERS

3438 PEACHTREE ROAD
SUITE 1425
ATLANTA, GA 30326

ISSUES & REVISIONS

CONCEPTUAL DESIGN	8/21/15
50% PROGRESS SET	09/28/15
60% PROGRESS SET	10/14/15
FOUNDATION PACKAGE	12/07/15
GMP PACKAGE	04/03/17
PERMIT SET	05/22/17
FM COMMENTS	07/19/17

DATE	05/22/2017
JOB NUMBER	1493101
DRAWN BY	LD
CHECKED BY	CMG
SHEET TITLE	
SHEET NUMBER	
COMMENTS	

DETAILS - HVAC

SHEET NUMBER

M0-03

COMMENTS