

# Dr. Le Gl medical office

## 310 KINGWOOD EXECUTIVE DR., SUITE B

### KINGWOOD, TX 77339

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**Dr. Le Gl medical office**  
 310 KINGWOOD EXECUTIVE DR., SUITE B  
 KINGWOOD, TX 77339

JOB NO/201705  
 DATE/ 07/18/2017  
 ISSUANCE & REVISIONS

DRAWING TITLE  
**SITE PLAN**  
**GENERAL INFO.**

DRAWING NO.  
**IA0**

### PROJECT INFORMATION

#### TENANT INFO.

PROJECT DESCRIPTION : TENANT IMPROVEMENT.  
 TENANT: Dr. Le Gl medical office  
 PROJECT ADDRESS: 310 KINGWOOD EXECUTIVE DR., Suite B  
 KINGWOOD, TX 77339  
 TENANT IMPROVEMENT SPACE : 3150 SF  
 OCCUPANCY GROUP : B  
 CONSTRUCTION TYPE : 2-B  
 OCCUPANT LOAD: 3150 SF/100 SF = 32

#### APPLICABLE CODE:

- 2012 INTERNATIONAL BUILDING CODE HOUSTON AMENDMENTS
- 2012 UNIFORM MECHANICAL CODE HOUSTON AMENDMENTS
- 2012 UNIFORM PLUMBING CODE HOUSTON AMENDMENTS
- 2014 NATIONAL ELECTRICAL CODE HOUSTON AMENDMENTS
- 2012 INTERNATIONAL FIRE CODE HOUSTON AMENDMENTS
- TEXAS ACCESSIBILITY STANDARD (TAS)
- TEXAS ARCHITECTURAL BARRIERS ACT  
 ARTICLE 9102, TEXAS CIVIL STATUTES
- 2015 IECC HOUSTON COMMERCIAL AMENDMENTS
- Errata 2009 IECC HOUSTON AMENDMENTS
- ASHRAE 90.1-2013 HOUSTON AMENDMENTS

### SYMBOL LEGEND

- EXISTING PARTITION FOR INFORMATION ONLY
  - NEW PARTITION TYPE, HOUR / FIRE RATE.
  - DOOR TYPE, DOOR SCHEDULE
  - WINDOW TYPE WINDOW SCHEDULE, SEE SHEET 10/IA 3.0
  - ROOM NAME ROOM NUMBER ROOM SCHEDULE, SEE SHEET 13/IA 3.0
  - ELEVATION NUMBER, RE: SHEET IA 3.0 SHEET NUMBER
- CONTRACTOR TO VERIFY ALL DOOR HANDLES ARE LEVER TYPE & THEIR MOUNTING HEIGHT CONFORM WITH TAS AS PRINTED ON SHEET IA 1

### DRAWING INDEX

#### ARCHITECTURAL

- IA0 SITE PLAN & GENERAL INFO.
- IA1 ADA INFORMATION
- IA2 FLOOR PLAN
- IA3 REFLECTED CEILING PLAN
- IA4 SCHEDULES, DETAILS AND NOTES
- IA5 ELEVATIONS/DETAILS

#### MECHANICAL

- M1.0 MECHANICAL PLAN
- M2.0 MECHANICAL NOTES & DETAILS

#### ELECTRICAL

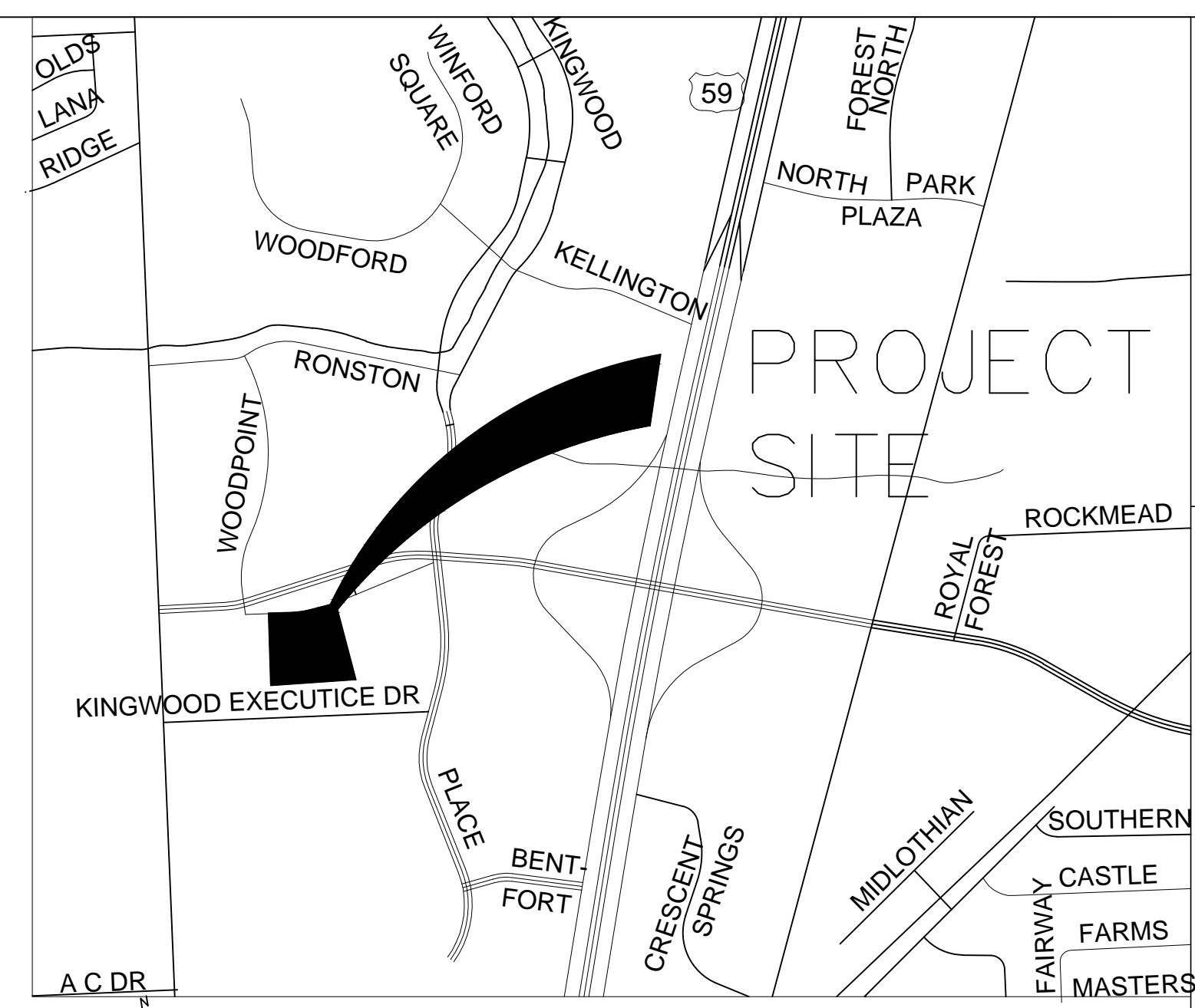
- E1.0 ELECTRICAL LIGHTING PLANS
- E2.0 ELECTRICAL POWER PLANS
- E3.0 ELECTRICAL ONE-LINE & SCHEDULES

#### PLUMBING

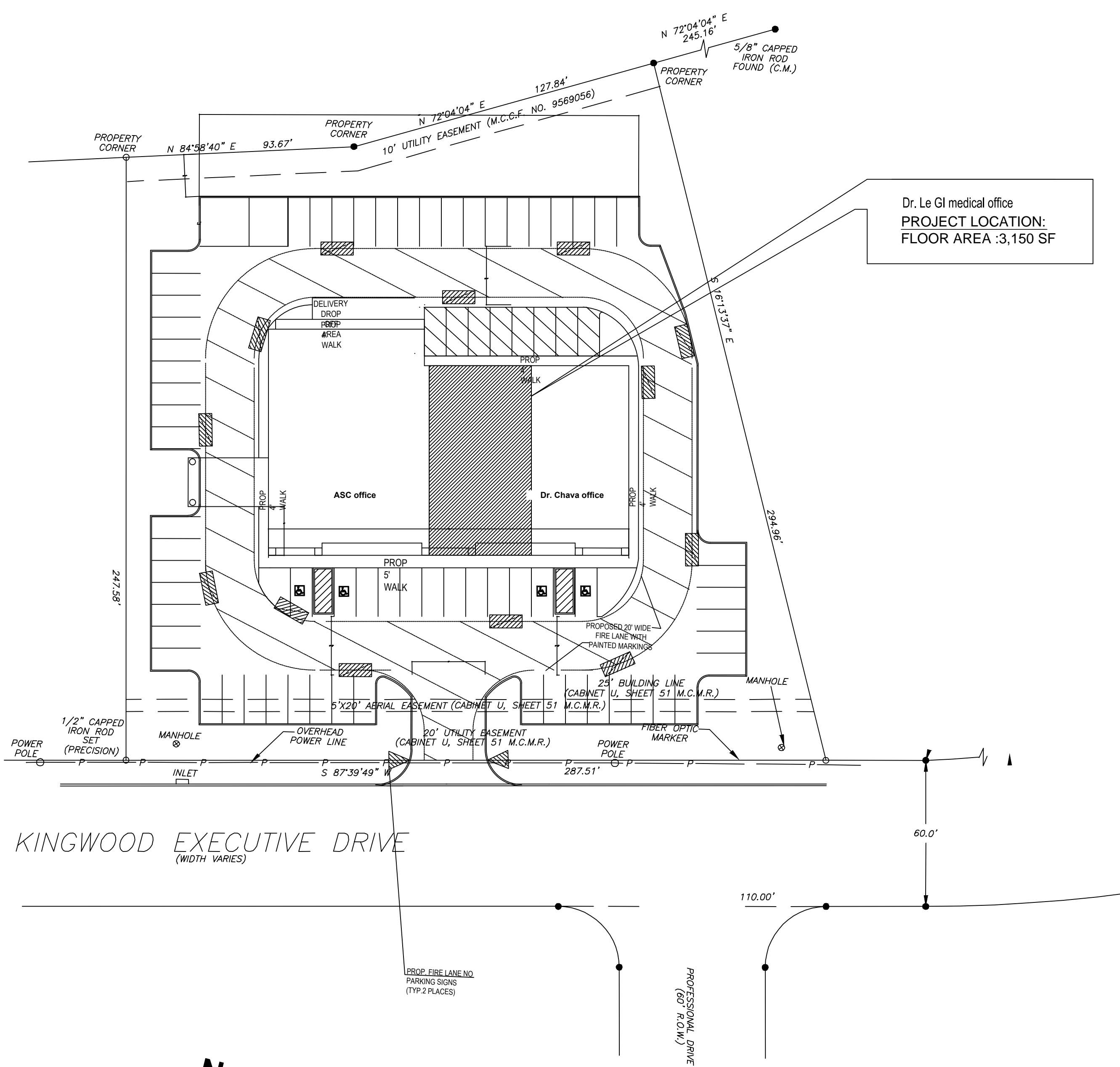
- P1.0 PLUMBING PLAN,
- P2.0 PLUMBING RISERS & NOTES

### GENERAL NOTES

- A. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.
- B. ANY EXISTING UTILITIES TO BE ABANDONED SHALL BE PROPERLY DISCONNECTED, PLUGGED OR CAPPED, AS REQUIRED BY CODE OR SOUND CONSTRUCTION PRACTICE.
- C. THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. ADDITIONAL DATA SHALL BE FROM THE ARCHITECT THROUGH WRITTEN CLARIFICATION ONLY. VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, AND DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF ANY WORK.
- D. NO CHANGES, MODIFICATIONS OR DEVIATIONS SHALL BE MADE FROM THE DRAWINGS OR SPECIFICATIONS WITHOUT FIRST SECURING WRITTEN PERMISSION FROM THE ARCHITECT.
- E. WHERE LACK OF INFORMATION, OR ANY DISCREPANCY SHOULD APPEAR IN THE DRAWINGS OR SPECIFICATIONS, REQUEST WRITTEN INTERPRETATION FROM THE ARCHITECT BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
- F. ALL WORK AS OUTLINED IN THESE DOCUMENTS, SHALL STRICTLY CONFORM TO ALL APPLICABLE CODES AND ORDINANCES. THE EVENT OF A CONFLICT, THE MORE STRINGENT REQUIREMENT SHALL GOVERN AND BE MET.
- G. THE CONTRACTOR SHALL PAY FOR ALL FEES, PERMITS, LICENCES, ETC., NECESSARY FOR PROPER COMPLETION OF THE WORK.
- H. CONTRACTOR SHALL BE FAMILIAR WITH JOB SITE AND UTILITY LOCATION AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWING SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
- I. CONTRACTOR SHALL ACQUAINT WITH THE CONSTRUCTION DETAILS BEFORE SUBMITTING HIS BID AS NO ALLOWANCE WILL BE MADE BECAUSE OF CONTRACTOR'S UNFAMILIARITY W/ THESE DETAILS.
- J. WHEN A SYSTEM OR ASSEMBLY IS CALLED OUT FOR, ALL NECESSARY PARTS AND MATERIALS REQUIRED FOR A COMPLETE INSTALLATION/SYSTEM SHALL BE AND INSTALLED ACCORDING TO THE MANUFACTURERS INSTRUCTIONS.
- K. UNLESS OTHERWISE NOTED, ELECTRICAL CONDUITS, PLUMBING LINES, ETC., SHALL BE RUN CONCEALED AND FRAMING SHALL BE ADEQUATE SIZE TO ACCOMPLISH RESULT WITHOUT CAUSING ANY CHANGES IN THE WALL PLANE.
- L. COORDINATE WITH ALL TRADES THE LOCATIONS OF SLEEVES OR OTHER PRESET ACCESSORIES INVOLVING OTHER TRADES.
- M. IT IS THE INTENT OF THESE CONTRACT DOCUMENTS TO DEFINE A COMPLETE FINISHED FACILITY. ANY MATERIAL, SYSTEM, EQUIPMENTS OR ASSEMBLY WHICH NORMALLY WOULD BE REQUIRED SHALL BE PROVIDED.
- N. DISRUPTED EXISTING CONDITIONS I.E. LANDSCAPING, LIGHTING, IRRIGATION, PEDESTRIAN AND VEHICLE ACCESS SHOULD BE MINIMALLY REPLACED AT THE END OF CONSTRUCTION TO THE SAME CONDITIONS PRIOR TO CONSTRUCTION DISRUPTION.
- O. DISRUPTED ELECTRICAL AND WATER LINES RE-ROUTED DURING PROJECT CONSTRUCTION ARE TO REMAIN IN CONTINUOUS SERVICE.
- P. WHEN WORK IS NOT CALLED OUT AS REQUIRED TO COMPLETE THE PROJECT, IT SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER AND BE OF THE BEST MATERIALS AND WORKMANSHIP.

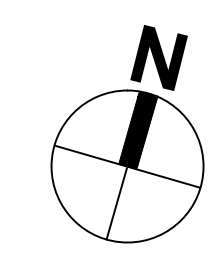


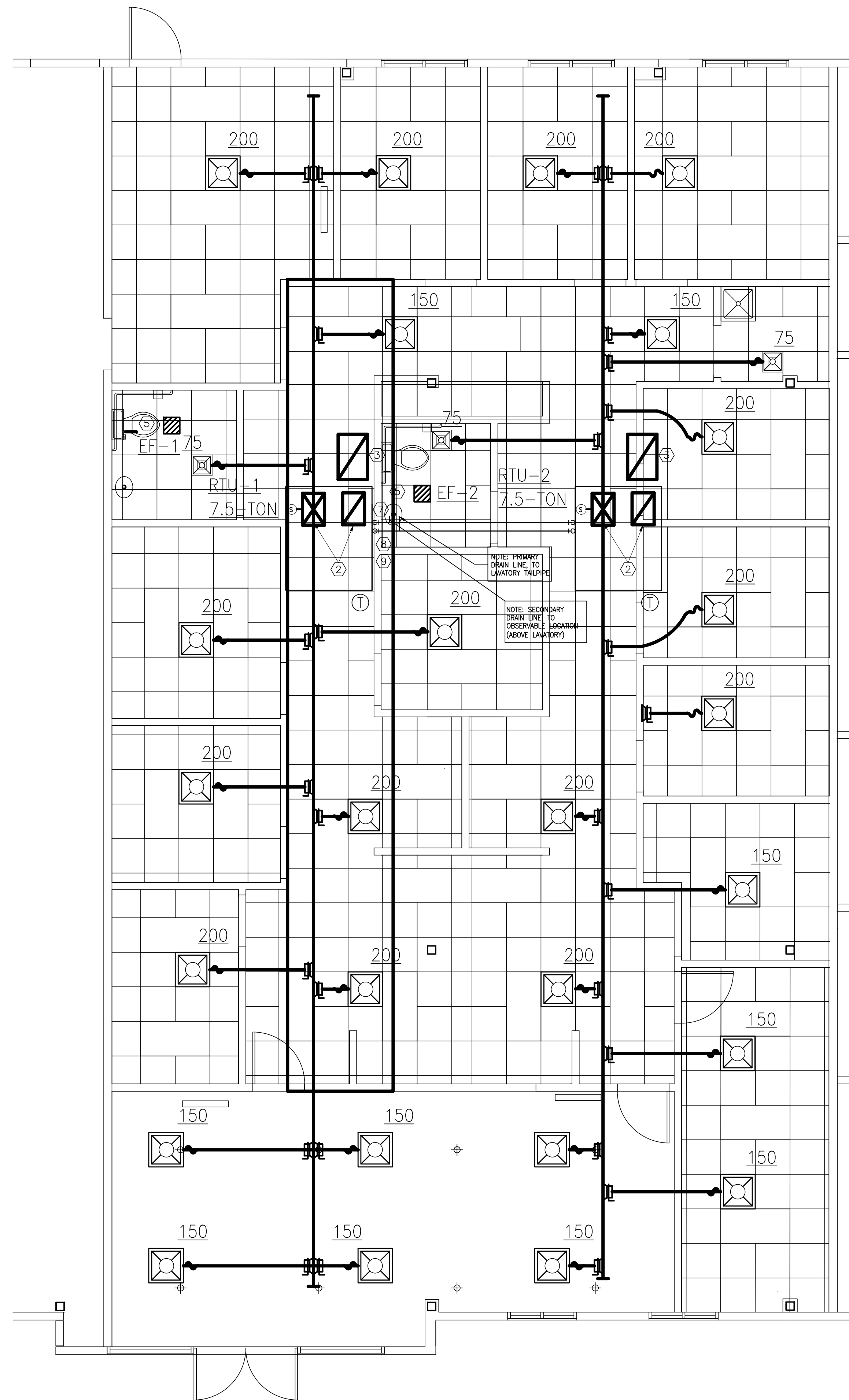
KEYMAP: 337 V



Dr. Le Gl medical office  
 PROJECT LOCATION:  
 FLOOR AREA :3,150 SF

**1 SITE PLAN**  
 SCALE: NTS  
**ONE STORY**





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

**MECHANICAL KEYED NOTES:**

- ① 18/16 SUPPLY & 24/14 RETURN AIR DUCKS UP THRU ROOF TO RTU ON ROOF.
- ② 26/16 SUPPLY & 24/20 RETURN AIR DUCKS UP THRU ROOF TO RTU ON ROOF.
- ③ 24" X 36" FILTER RETURN AIR GRILLE.
- ④ 24" X 24" FILTER RETURN AIR GRILLE.
- ⑤ EXHAUST FAN RUN FULL SIZE EXHAUST DUCK TO ROOF CAP.
- ⑥ 24" X 24" RETURN AIR GRILLE WITH 6" DEEP INSULATED PLENUM.
- ⑦ ROUTE CONDENSATE DRAIN TO LAVATORY TAILPIECE.
- ⑧ PROVIDE SHEETMETAL AUXILIARY DRAIN PAN. DRAIN PAN IS TO EXTEND 6" BEYOND LEADING EDGE OF UNIT. PROVIDE FLOAT SWITCH IN DRAIN PAN TO DE-ENERGIZE UNIT UPON DETECTION OF MOISTURE.
- ⑨ RUN AUXILIARY DRAINLINE TO OBSERVABLE LOCATION (ABOVE LAVATORY)

**MECHANICAL LEGEND**

	DUCT WORK, RECTANGULAR OR ROUND
	INSULATED FLEXIBLE DUCT
	DUCT TRANSITION
	SPINI-IN FITTING WITH VOLUME DAMPER
	RETURN AIR GRILL/EXHAUST
	2'x2' SUPPLY AIR DIFFUSER
	SUPPLY AIR DIFFUSER
Ⓟ	THERMOSTAT @ 48" A.F.F.
Ⓢ	FIRESTAT
Ⓣ	SMOKE DETECTOR
RTU	ROOF TOP PAKAGED A/C UNIT
AHU	AIR HANDLING UNIT
FD	FIRE DAMPER

**IECC COMPLIANCE:**

1. EACH HEATING AND COOLING SYSTEM SHALL HAVE AT LEAST ONE PROGRAMMABLE THERMOSTAT. THE THERMOSTAT SHALL HAVE THE CAPABILITY TO SET BACK OR SHUT DOWN THE SYSTEM BASED ON DAY OF THE WEEK AND TIME OF DAY, AND PROVIDE A READILY ACCESSIBLE MANUAL OVERRIDE THAT WILL RETURN TO THE PRE-SET BACK OR SHUTDOWN SCHEDULE WITHOUT RE-PROGRAMMING.
2. PROGRAMMABLE THERMOSTAT SHALL PROVIDE DEADBAND OF AT LEAST 5°F WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS CAPABLE OF BEING SHUT OFF OR REDUCED TO MINIMUM.
3. ALL SUPPLY AND RETURN AIR DUCTS INSIDE THE BUILDING INSULATION ENVELOPE SHALL BE INSULATED WITH MINIMUM R-6 INSULATION.
4. ALL SUPPLY AND RETURN AIR DUCTS OUTSIDE THE BUILDING INSULATION ENVELOPE SHALL BE INSULATED WITH MINIMUM R-8 INSULATION.



GENERAL MECHANICAL NOTES

- CODES, RULES AND REGULATIONS – DESIGN OF SYSTEM
  - ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES AND CODES.
  - WHEN THE DRAWINGS CALL FOR MATERIALS OR CONSTRUCTION OF A BETTER QUALITY OR LARGER SIZES THAN REQUIRED BY THE ABOVE MENTIONED CODES AND RULES, WORK SHALL BE AS SPECIFIED OR SHOWN RATHER THAN AS REQUIRED BY CODE. ALL ITEMS OR FEATURES OF THE MECHANICAL SYSTEMS REQUIRED BY CODE SHALL BE INCLUDED, EVEN THOUGH NOT SPECIFIED HEREIN.
  - INSTALLATION OF THE SYSTEMS SHALL BE IN ACCORDANCE WITH THE ABOVE MENTIONED CODES AND REGULATIONS AND ALSO SHALL CONFORM TO GOOD, ACCEPTED MECHANICAL PRACTICES.
- PROVIDE AND INSTALL VOLUME DAMPERS IN ALL BRANCH DUCTS.
- FLEXIBLE CONNECTIONS AT SUPPLY AND RETURN AIR OPENINGS OF ALL AIR CONDITIONING UNITS.
- FLEXIBLE DUCTS TO BE GLASS-FLEX 6"-0", MAXIMUM IN LENGTH, WHERE APPLICABLE.
- COORDINATE EXACT LOCATION OF ALL AIR OUTLETS AND INLETS (DIFFUSERS, REGISTERS AND GRILLES) WITH APPROPRIATE ARCHITECTURAL PLAN, AND VERIFY THEIR LOCATION WITH ARCHITECT ON THE JOB SITE BEFORE INSTALLATION. COLOR AS DIRECTED BY ARCHITECT.
- APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE FASTENED IN PLACE.
- A MAINTENANCE LABEL SHALL BE AFFIXED TO MECHANICAL EQUIPMENT AND A MAINTENANCE MANUAL SHALL BE PROVIDED FOR THE OWNERS USE.
- PROVIDE ACCESS PANEL FOR ALL CEILING MOUNTED EQUIPMENT & VOLUME DAMPERS.
- PROVIDE MIN. 10"-0" SEPARATION BETWEEN POINT OF EXHAUST AND ANY FRESH AIR INTAKE, OR A/C UNIT OSA INTAKE.
- TRANSVERSE JOINTS FOR ALL AIR SUPPLY DUCTS INSTALLED WHERE AIR LEAKAGE WOULD BE NON-BENEFICIAL TO THE OCCUPIED AREA, TEMPERATURE REQUIREMENTS SHALL BE SEALED WITH APPROVED MASTIC OR TAPE.
- ALL DUCT SIZES SHOWN ON THE FLOOR PLANS ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL ENLARGE DUCT SIZE IN ORDER TO ACCOMMODATE LINING INSIDE OF DUCT IF REQUIRED.
- THE PROJECT SHALL BE AIR BALANCED AND A COPY OF THE FINAL REPORT SHALL BE PRESENTED TO THE TENANT AND OWNER.
- ENERGY CONSERVATION STANDARDS FOR NEW NONRESIDENTIAL BUILDINGS HAVE BEEN REVIEWED AND DESIGN SUBSTANTIALLY CONFORMS TO THEM.
- EACH SINGLE SYSTEM PROVIDING HEATING OR COOLING AIR IN EXCESS OF 2,000 CFM SHALL BE EQUIPPED WITH AN AUTOMATIC SHUT-OFF. THE SMOKE DETECTOR SHALL BE INSTALLED IN THE MAIN SUPPLY AIR DUCT DOWNSTREAM OF THE FILTERS. DETECTORS SHALL ALSO BE INSTALLED IN THE MAIN RETURN DUCT (IF REQ'D. BY THE LOCAL CODE) AHEAD OF OSA INTAKE. SEE CODE FOR EXEMPTIONS AND LOCAL AUTHORITY FOR CODE INTERPRETATION, OR AS INDICATED ON PLAN.
- ALL EQUIPMENT AND APPLIANCES ARE LISTED PRODUCTS, AND WILL BE INSTALLED ACCORDING TO THEIR LISTING, AND ALL LISTING INFORMATION WILL BE AVAILABLE FOR INSPECTION.
- ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE LATEST VERSION OF SMACNA STANDARDS. ALL DUCTWORK SHALL BE GALVANIZED STEEL.
- REFER TO DETAILS FOR MECHANICAL CONSTRUCTION REQUIREMENTS. INSTALL IN FULL ACCORDANCE WITH PROPER CODES AND GUIDELINES.
- COORDINATE IN THE FIELD THE EXACT LOCATION OF ALL CEILING MOUNTED GRILLES AND DIFFUSERS WITH LIGHT FIXTURES AND (ARCHITECTURAL) REFLECTED CEILING PLAN.
- ALL EXTERIOR BRACKETS, CLAMPS, AND HANGERS SHALL BE HOT DIPPED GALVANIZED. COAT ALL CUT ENDS AND WELDS WITH "ZRC" COLD GALVANIZING COMPOUND.

- SHOP PRIME ALL MISCELLANEOUS INTERIOR BRACKETS AND HANGERS UNLESS GALVANIZED OR STAINLESS STEEL.
- DUCTWORK CONSTRUCTION DETAILS:
  - MATERIAL: GAL. SHEET METAL GAUGE 26 FOR UP TO 14"Ø & GAUGE 24 FOR UP TO 23"Ø DUCT
  - SUPPORT: UP TO 10"Ø DUCT SAME GAUGE AS GAL. STEEL DUCT, 1" WIDE OR (NO. 18 GAUGE GAL. STEEL WIRE) ON 10 FT. CENTERS, AND UP TO 40"Ø DUCT SAME GAUGE AS GAL. STEEL DUCT, 1" WIDE OR (NO. 8 GAUGE GAL. STEEL WIRE) TIED TO 1" GAL. STEEL BAND AROUND DUCT ON 10 FT. CENTERS.
  - HANGER: UP TO 36" DUCT 1/4" ROUND ROD OR 1" X 1" X 1/8" ANGLE.
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY MATERIALS/EQUIPMENT REQUIRED THAT HAVE LONG DELIVERY TIME.
- THE ELECTRICAL SYSTEM DESIGN IS BASED IN PART ON THE SPECIFIED HVAC EQUIPMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE ELECTRICAL REQUIREMENTS OF THE HVAC EQUIPMENT BEING FURNISHED. ANY CHANGES TO THE ELECTRICAL SYSTEM DUE TO HVAC EQUIPMENT OTHER THAN THE SPECIFIED EQUIPMENT BEING FURNISHED SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXTERIOR EQUIPMENT SHALL BE FASTENED IN A SECURE MANNER TO WITHSTAND MIN. EXPOSURE B – 90 MPH WINDS & 110 MPH 3-SECOND GUSTS PER 2006 IBC CH. 16, AND 2006 IMC SEC. 301.12.

MECHANICAL EQUIPMENT SCHEDULE :

TOILET EXHAUST FAN : EF-1, EF-2,

ACME MODEL VQ300 CEILING MOUNT, 100 CFM AT 0.125 SP, 212-WATTS HP MOTOR  
120 VOLTS, 1-PHASE W/ ROOF CAP AND VARIABLE SPEED CONTROL.  
RUN FULL SIZE EXHAUST DUCT TO ROOF CAP.  
INTERLOCKED WITH LIGHT.

ROOF TOP UNIT – RTU –1,2 (13.0 SEER)

ROOF TOP UNIT BY "CARRIER" , OR APPROVED EQUAL, 240V, 7.5 TONS, 11.5 KW HEAT, 2800 CFM AT .5" S.P., COOLING CAPACITY OF 72,000 BTU. INSTALL THE UNIT W/ COMPLETE MANUFACTURER ROOF CURB.

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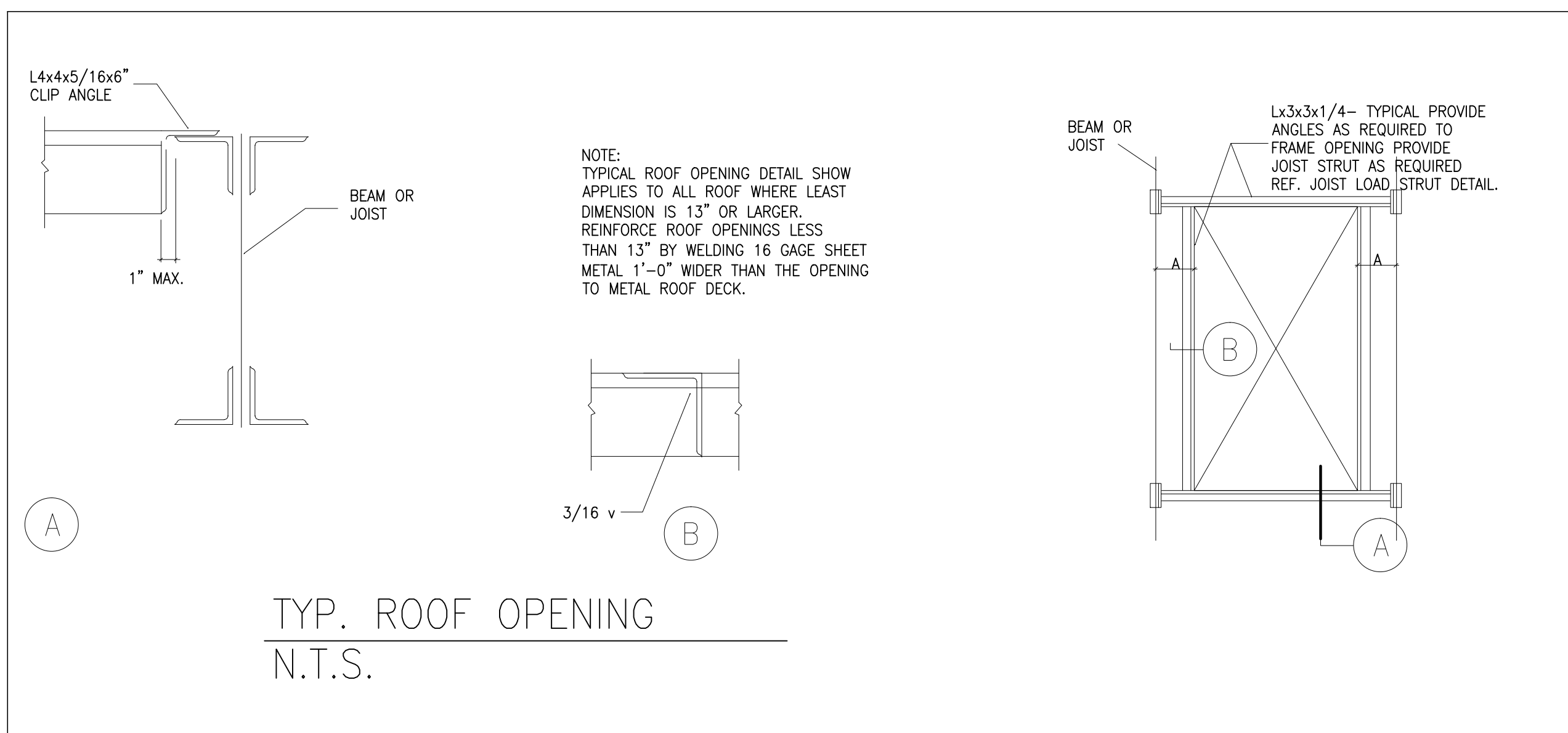


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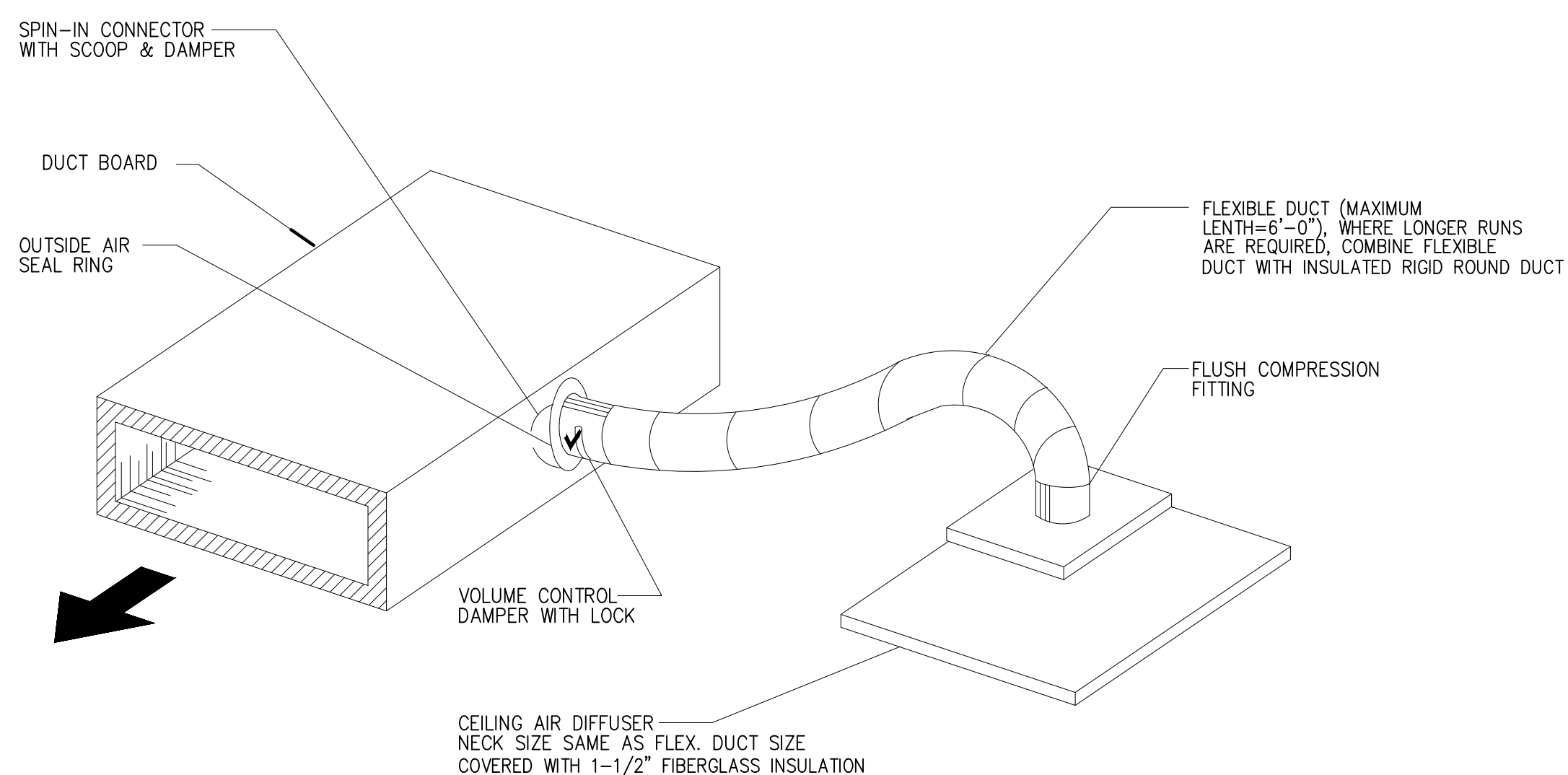
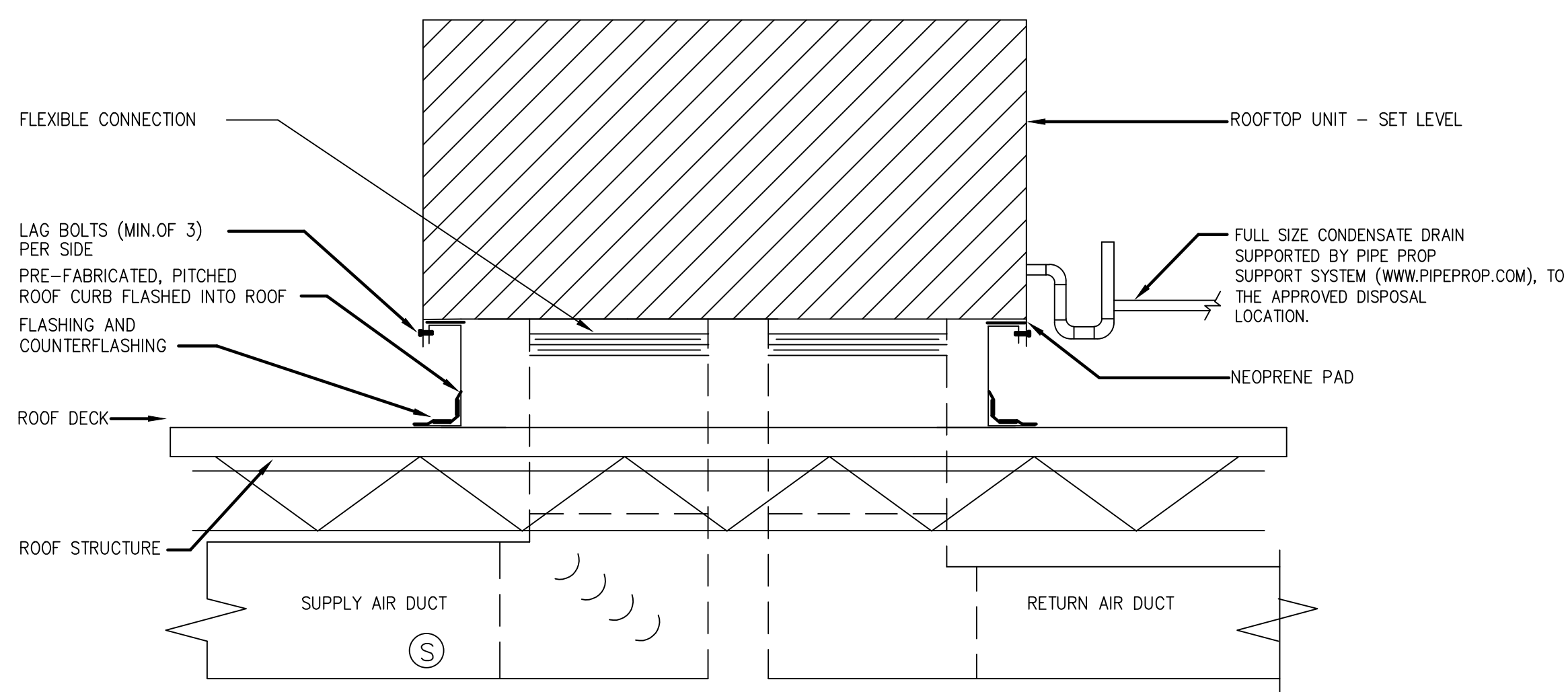
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MECHANICAL  
DETAILS, NOTES,  
& LEGENDS

DRAWING NO.  
**M2.0**



NOTE  
WARRANTY ROOFER CONTACT INFORMATION  
JIM WIMBERLEY SLM CONSTRUCTION SERVICES  
713-824-2982  
slmconstruction@gmail.com

FLEX OR RIGID DUCT SIZE	CFM RANGE
6" DIA.	0 TO 120
8" DIA.	121 TO 250
10" DIA.	251 TO 350
12" DIA.	351 TO 500
14" DIA.	501 TO 650



OUTSIDE AIR CALCULATIONS

(PER TABLE 402-1, 2012 HOUSTON AMENDMENTS TO THE UMC)

RTU-1

RESTROOM #1 EXHAUST FANS = 100 CFM

OFFICE #1 = 100 SQ.FT.  
OPEN OFFICE = 45 SQ.FT.  
RECEPTION (OFFICE) = 65 SQ.FT.  
WAITING AREA (OFFICE) = 260 SQ.FT.  
EXAM RM #1-4 (OFFICE) = 385 SQ.FT.  
TOTAL ABOVE (OFFICE) = 855 SQ.FT.  
OUTSIDE AIR FLOW RATE FOR OFFICE = 0.06 CFM/SQ.FT.

CORRIDOR = 300 SQ.FT.  
OUTSIDE AIR FLOW RATE FOR CORRIDOR = 0.06 CFM/SQ.FT.  
BREAK ROOM = 120 SQ.FT.  
OUTSIDE AIR FLOW RATE FOR BREAK ROOM = 0.12 CFM/SQ.FT.

CALCULATED OUTSIDE AIR FLOW RATE = 100 + (855+300)X0.06 + 220X.12 = 197 CFM  
(PROVIDED OUTSIDE AIR QUANTITY FOR UNIT = 420 CFM)

RTU-2

RESTROOM #2 EXHAUST FANS = 100 CFM

OFFICE #1-#4 = 500 SQ.FT.  
OPEN OFFICE = 45 SQ.FT.  
RECEPTION (OFFICE) = 65 SQ.FT.  
WAITING AREA (OFFICE) = 180 SQ.FT.  
EXAM RM #5-7 (OFFICE) = 260 SQ.FT.  
TOTAL ABOVE (OFFICE) = 810 SQ.FT.  
OUTSIDE AIR FLOW RATE FOR OFFICE = 0.06 CFM/SQ.FT.

CORRIDOR = 300 SQ.FT.  
OUTSIDE AIR FLOW RATE FOR CORRIDOR = 0.06 CFM/SQ.FT.

CALCULATED OUTSIDE AIR FLOW RATE = 100 + (810+300)X0.06 = 167  
(PROVIDED OUTSIDE AIR QUANTITY FOR UNIT = 420 CFM)