

KEYED NOTES

- 1 HAZ SHALL PROVIDE FULL SIZE DIRT LEG WITH GAS COCK AND UNION AT ALL NEW GAS FIRED EQUIPMENT. MAINTAIN 3" MINIMUM CLEARANCE FOR CLEANING OF DIRT LEG.
- 2 NEW GAS PIPING SHALL BE INSTALLED ON ROOF. SEE DETAILS ON SHEET M201 FOR MORE INFORMATION.
- 3 FLEXIBLE DUCTS SHALL BE INSTALLED TO PROVIDE SWEEPING CONFIGURATIONS WITH NOT LESS THAN MFR'S RECOMMENDED BEND RADII. WITHOUT UNNECESSARY SAGS OR CURVES. FLAT BANDING MATERIAL, NOT LESS THAN 1-1/2" WIDE SHALL BE USED TO SUSPEND FLEXIBLE DUCTS. DUCTING FURNISHED WITH FACTORY INSTALLED GROMMETS SHALL BE SUSPENDED BY WIRES ATTACHED TO GROMMETS. FLEX DUCT SHALL NOT EXCEED 5'-0". PREFERRED FOR ONLY VERTICAL DROP TO DIFFUSER/GRILLE.
- 4 EXISTING GAS METER CONNECTED LOAD = 169 MBH. DELIVERY PRESSURE = 7" W.C. COORDINATE WITH GAS UTILITY CO. FOR UPGRADES AND/OR REPLACEMENT TO METER AND SERVICE AS REQUIRED TO ACCOMMODATE NEW CONNECTED LOAD OF 365 MBH. CONTRACTOR SHALL REMOVE EXISTING RISER AND REPLACE WITH 1-1/2" RISER TO LOCATION OF FIRST GAS BRANCH TO NEW ROOFTOP UNIT. (SEE PLAN). GAS PIPE SIZING IS BASED ON TABLE 402.4(2) OF THE 2017 FLORIDA FUEL AND GAS CODE, 365 MBH, AND DEVELOPED LENGTH OF 168 FEET. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY REQUIREMENTS, AND AVAILABLE PRESSURE, ETC. PRIOR TO COMMENCING WITH WORK. CONTACT PROFESSIONAL OF RECORD WITH ANY DISCREPANCIES IN INFORMATION PRESENTED HERE.
- 5 EXTEND NEW SUPPLY DUCTS FROM EXISTING SUPPLY DUCT DROP. PROVIDE TEE / TURNING VANES / VOLUME DAMPERS IN EACH DIRECTION AT BOTTOM OF DUCT DROP. FIELD VERIFY EXISTING CONDITIONS PRIOR TO FABRICATION.
- 6 MECHANICAL CONTRACTOR TO NUMBER RTU'S AS SHOWN. PROVIDE 12" HIGH REFLECTIVE UNIT NUMBERS WITH THE SPECIFIC RTU # TO BE POSTED ON EACH UNIT ON THE CONTROL PANEL DOOR AND IN A LOCATION VISIBLE FROM THE ROOF HATCH.
- 7 PROVIDE TYPE "M" OR "DW" COPPER CONDENSATE DRAIN FROM UNIT TO ROOF ON LOW ROOF (DOWNHILL) SIDE OF UNIT. EXTERNAL 4" DEEP P-TRAP REQUIRED ONLY IF EQUIPMENT IS NOT SUPPLIED WITH BUILT-IN TRAP SYSTEM. SEE RTU CONDENSATE DRAIN PIPING DETAIL AND ROOF PIPING SUPPORT DETAIL ON DRAWING M201. VERIFY WITH RTU MFR. CAP ALL UNUSED CONDENSATE DRAIN FITTINGS. ANCHOR THE DISCHARGE END OF CONDENSATE DRAIN PIPING TO MIN. 4" X 4" X 24" LONG PRESSURE TREATED WOOD BLOCKING WITH 1" STRAP ANCHOR AND TWO (2) #10 X 1-1/2" SHEET METAL SCREWS. CENTER BLOCKING BELOW PIPING. DO NOT ATTACH WOOD BLOCKING TO ROOF. TYP. AT ALL RTU'S. WHEN REQUIRED BY LOCAL CODE, CONDENSATE PIPING SHALL BE EXTENDED AS REQ'D. TO DISCHARGE TO AN APPROVED LOCATION THROUGH AN APPROVED INDIRECT CONNECTION OR TO AN APPROVED DRY WELL. LOCATION AND METHOD OF DISCHARGE SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT/ENGINEER OR THE OWNER'S REPRESENTATIVE. INSULATE ALL INTERIOR CONDENSATE DRAIN PIPING WITH 3/8" THICK "ARMAFLEX" PIPE INSULATION (OR APPROVED EQUIVALENT). SEAL ALL JOINTS IN THE INSULATION.
- 8 BRANCH DUCT SHALL EXTEND FROM SUPPLY DROP AS HIGH AS POSSIBLE TO BE ROUTED WITHIN THE JOIST SPACE (FIELD VERIFY DUCT WILL FIT BETWEEN JOIST WEBBING/CHORDS PRIOR TO INSTALLATION). PROVIDE DAMPER, TURNING VANES, ETC. AS REQUIRED TO ENSURE BRANCH TO RESTROOM CORE BALANCES PROPERLY.
- 9 NEW ROOFTOP UNIT ON NEW CURBS. SEE DETAILS ON M201 FOR MORE INFORMATION.
- 10 EXISTING ROOFTOP UNIT SHALL REMAIN AND BE REUSED. CONTRACTOR SHALL ENSURE EXISTING UNIT IS IN PROPER WORKING ORDER. CONTACT GENERAL CONTRACTOR IF REPAIR OR REPLACEMENT IS RECOMMENDED. EXISTING DROP BOX SUPPLY DIFFUSER SHALL BE REMOVED AND RETURNED TO TOYS R US. SECURE REMAINING SUPPLY DROP FOR FUTURE RECONNECTION. EXISTING RETURN DUCT SHALL REMAIN AND BE REUSED.
- 11 ALL EXPOSED DUCTWORK AND EQUIPMENT SHALL BE PAINTED. SEE ARCH AND SPECS FOR COLOR AND PAINT SPECS.
- 12 NEW DUCT MAIN SHALL BE ROUTED WITH BOTTOM OF DUCT 6 INCHES ABOVE BOTTOM CHORD OF JOISTS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BID AND CONTACT PROFESSIONAL OF RECORD WITH ANY EXPECTED CONFLICTS THAT WOULD PROHIBIT THE DUCT AND AIR DEVICES TO BE LOCATED AS SHOWN.
- 13 BRANCH DUCT SHALL BE ROUTED AS HIGH AS POSSIBLE WITHIN THE JOIST SPACE (FIELD VERIFY DUCT WILL FIT BETWEEN JOIST WEBBING/CHORDS PRIOR TO INSTALLATION).
- 14 ROUTE DUCT THROUGH BULKHEAD / WALL. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO ENSURE DUCT PENETRATION THROUGH WALL WILL NOT CONFLICT WITH PROPOSED MURAL OR SIGNAGE AT SAME LOCATION.
- 15 PROVIDE ELBOWS AND DROP BRANCH DUCT TO BE ROUTED JUST ABOVE VIGNETTE CEILING STRUCTURE.
- 16 MOUNT DROP BOX DIFFUSER TIGHT TO BOTTOM OF JOISTS. FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTACT GENERAL CONTRACTOR WITH ANY EXPECTED CONFLICTS.
- 17 SEE ARCHITECTURAL FOR GRILLE AND/OR UNDERCUT IN DOOR FOR MEANS OF AIR TRANSFER.
- 18 MOUNT BOTTOM OF SLOT DIFFUSER AT 12" (MINIMUM) ABOVE BOTTOM OF SOFFIT. FIELD VERIFY FINAL MOUNTING HEIGHT WITH OWNER'S REPRESENTATIVE.
- 19 PROVIDE TEE / TURNING VANES / VOLUME DAMPERS IN EACH DIRECTION AT BOTTOM OF DUCT DROP. FIELD VERIFY EXISTING CONDITIONS PRIOR TO FABRICATION.
- 20 EXISTING RETURN DUCT TO REMAIN.
- 21 PROVIDE RETURN DUCT PER PLENUM DETAIL ON M201.
- 22 PLENUM BOX BY MECHANICAL CONTRACTOR. MATCH TO SIZE AND VOLUME INDICATED FOR WALL-MOUNTED SUPPLY DIFFUSER.

NOTE:

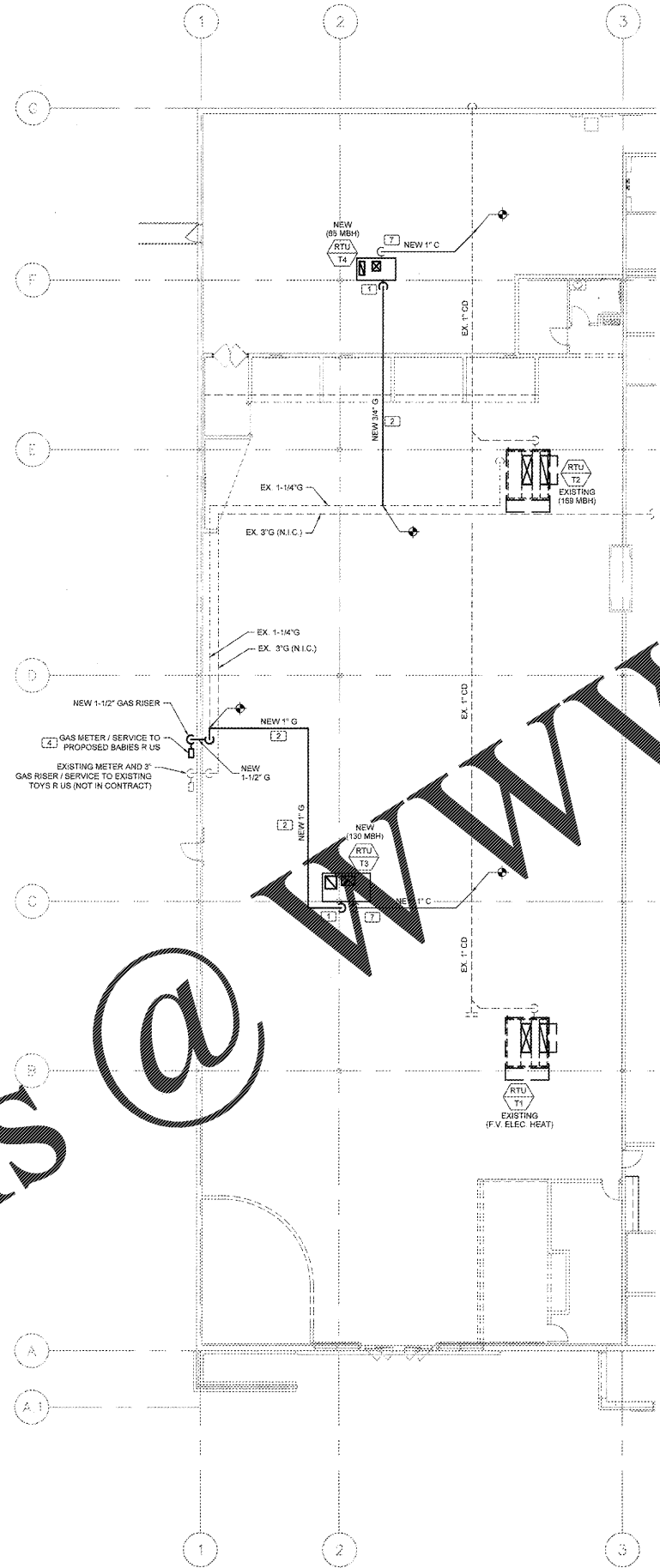
CONTRACTORS SHALL REFER TO THE FIXTURING PLAN, DRAWING FOR COORDINATION OF ALL PIPING, EQUIPMENT, DUCTS, MAINS AND SERVICE RISERS WITH THE OWNER'S STORE FIXTURING. ALL SYSTEMS SHALL BE ROUTED AND/OR LOCATED AS REQUIRED TO AVOID INTERFERENCE WITH THE STORE FIXTURES, SHELVING, AND RACKING INCLUDING THE FUNCTIONAL USE OF SAME. INSTALLATIONS MADE WITHOUT REGARD TO STORE FIXTURING SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER. SPECIAL CONSIDERATION SHALL BE GIVEN TO THE ESTHETIC INTENT OF THE FRONT GRAPHICS WALL OF THE STORE AND TO THE STORAGE AND MATERIALS HANDLING ASPECTS OF THE PRE-SALES AND RECEIVING DOCK AREAS.

GENERAL NOTES:

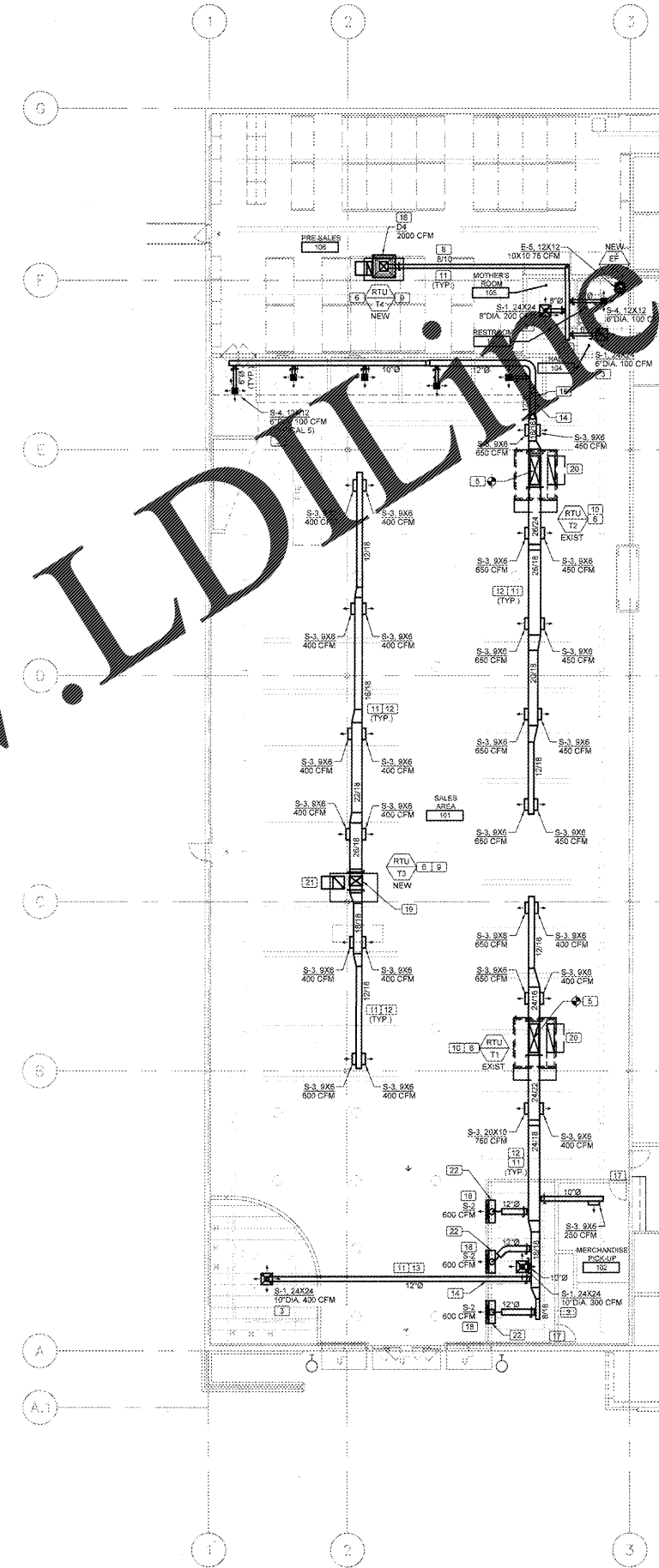
- 1 EXPOSED SUPPLY AND RETURN AIR DUCTWORK, AND DUCTWORK WITHIN 10' OF FANS (INCLUDING EXHAUST DUCTWORK) SHALL HAVE 1" THICK INTERNAL FIBERGLASS DUCT LINER EQUIVALENT TO CERTAINTREED (GCS) OR OWENS CORNING. DUCT SIZES SHOWN ON DRAWING ARE INSIDE CLEAR SIZES. ALLOWANCE FOR INTERNAL DUCT LINER HAS NOT BEEN MADE WHERE SPECIFIED.
- 2 CONCEALED SUPPLY AND RETURN DUCTWORK SHALL HAVE 1" BLANKET INSULATION (REFER TO SPECIFICATIONS); INTERNALLY LINED SPIRAL DUCT SHALL BE USED WHERE VISIBLE FROM SALES FLOOR.
- 3 RTU'S ARE CONTROLLED BY OWNER FURNISHED CONTROLS/SENSORS. ELECTRICAL CONTRACTOR SHALL INSTALL RTU SENSORS. REFER ELECTRICAL DRAWINGS AND EMS DRAWINGS FOR ADDITIONAL INFORMATION.
- 4 PROVIDE SMOOTH RADIUS ELBOWS (R/W = 1.0) AS DEFAULT. MITERED ELBOWS ALLOWED IF PROVIDED WITH TURNING VANES (S-3.28').
- 5 REFER TO DIFFUSER CONNECTION DETAIL ON DWG. M201.

HVAC DDC CONTROL NOTES:

- 1 ALL RTU'S ARE OWNER FURNISHED WITH LENOX BAGNET INTERFACE BOARDS.
- 2 THE HVAC DDC CONTROLS ARE BY NOVART INC. PROVIDED BY OWNER.
- 3 ALL WIRING/INSTALLATION OF HVAC AND LIGHTING CONTROLS SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR.
- 4 FOR TEMPERATURE SENSING LOCATIONS, EMS MAIN PANEL LOCATIONS, ETC. REFER TO ELECTRICAL AND EMS DRAWINGS.
- 5 THE MECHANICAL CONTRACTOR AND AIR BALANCER SHALL COORDINATE UNIT STARTUP AND OPERATION WITH E.C. AND NOVART NATIONAL ACCOUNT REPRESENTATIVE. REFER TO EMS DRAWINGS FOR ADDITIONAL INFORMATION.



2 GAS AND CONDENSATE PLAN (ROOF)
M101 SCALE = 3/32" = 1'-0"
PLAN NORTH



1 HVAC PLAN
M101 SCALE = 3/32" = 1'-0"
PLAN NORTH

REVISIONS

No	Date	Description
01	1/22/18	90% OWNER REVIEW
02	1/29/18	ISSUED FOR PERMIT BID

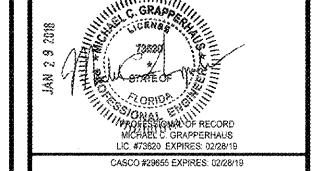
NO SUBSTITUTIONS SHALL BE ALLOWED UNLESS OTHERWISE NOTED (REFER TO SPECIFICATIONS)

DESIGNED FOR: FLORIDA BUILDING CODE, 6TH EDITION (2017).



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BID DATE: 01/29/18 PROJECT NO: 918219
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PROTOTYPE



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Location
LAKELAND, FLORIDA
3770 US HIGHWAY 98 NORTH 33809

Drawing Title
MECHANICAL FLOOR PLANS

Scale AS NOTED **Date** 1/29/18

Sheet No. M101

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