

ISSUED DATES	
OWNER:	12-22-14
PERMIT:	01-13-15
BID:	01-13-15
REVISIONS	
FIRM REGISTRATION ENGINEER: 29655 EXPIRATION: 02-28-15	

MICHAEL C. GRAPPERHAUS LIC. NO. 73620 EXP. DATE 02/28/15 PROFESSIONAL OF RECORD PHONE: 314-821-1100
DRAWN BY LCA
CHECKED BY MCG
CASCO PROJECT NO. 914206
ISSUE DATE 01-13-15
SCALE 1/8"=1'-0"
SHEET NUMBER <b>M1.0</b> ROSS CRITERIA DATE: JULY, 2014

**LEGEND/SYMBOLS**

- ROOF TOP UNIT
- EXHAUST FAN
- DETAIL NUMBER  
DETAIL LOCATION
- NECK SIZE /  $\frac{S1}{500}$  — DIFFUSER/GRIFFLE TYPE  
 $\frac{S2}{500}$  — CFM
- CEILING SUPPLY AIR DIFFUSER
- CEILING EXHAUST AIR GRILLE
- CEILING RETURN AIR GRILLE
- THERMA-FUSER TYPE TF-HC DIFFUSER
- BALANCE DAMPER
- EX. EXISTING
- FIRE DAMPER
- SPIN IN FITTING WITH VOLUME DAMPER
- KEYED NOTE
- DEMOLITION KEYED NOTE
- SMOKE DETECTOR
- TURNING VANES
- POINT OF CONNECTION

**GENERAL NOTES:**

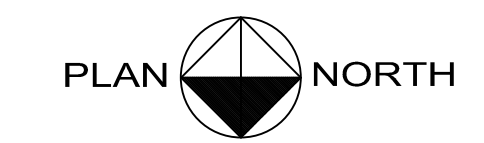
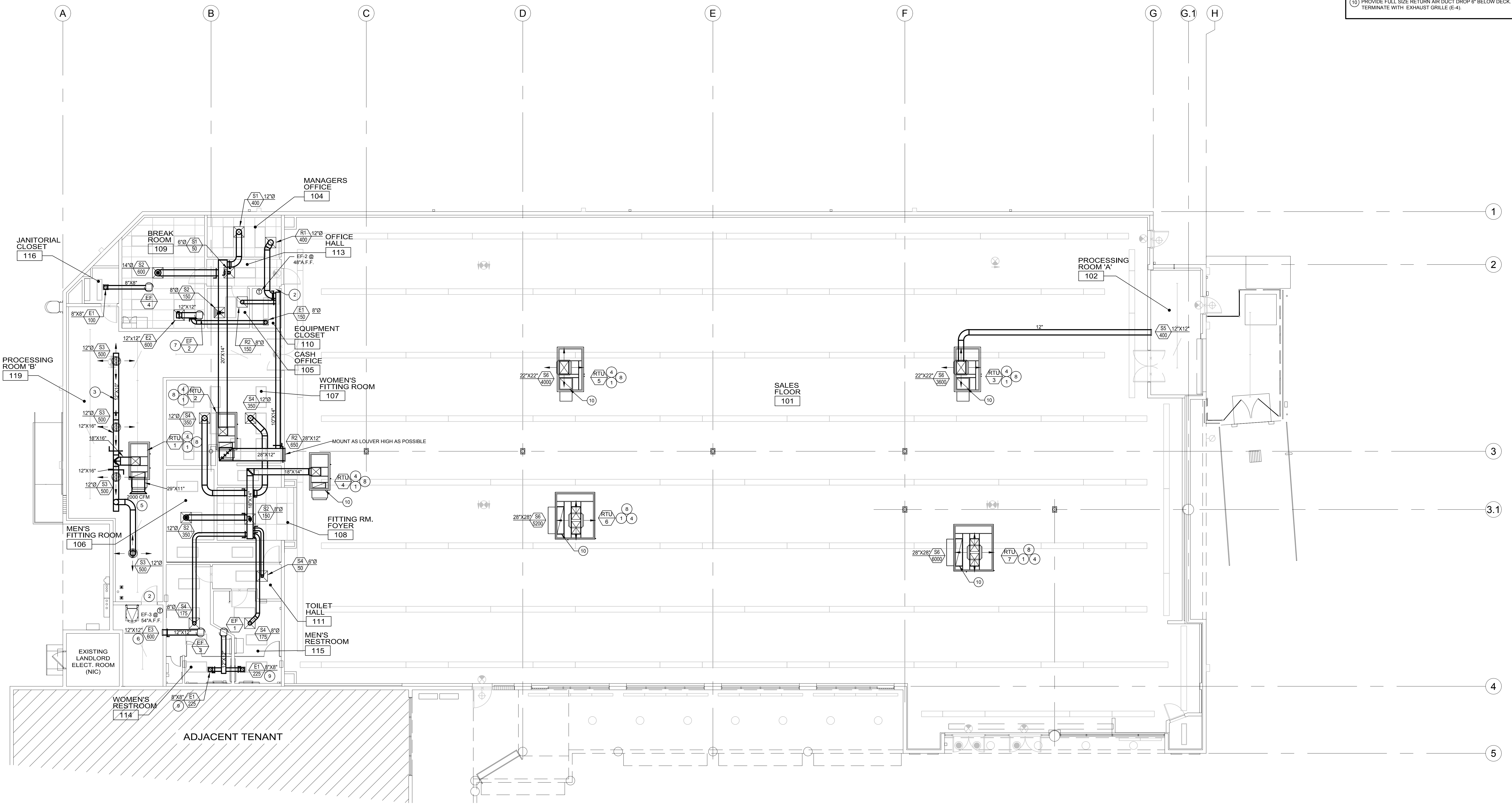
1. ALL DUCTWORK AND FITTINGS SHALL BE MANUFACTURED IN ACCORDANCE WITH SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS LATEST EDITION.
2. NO HARD TAPS TO RTU DROPS.
3. DO NOT PUNCH OR SUPPORT ANY ITEMS FROM ROOF DECK. MECHANICAL EQUIPMENT, DUCTWORK, ETC. SHALL BE SUPPORTED FROM STRUCTURAL ROOF MEMBERS.
4. BRANCH DUCTWORK SIZE SHALL BE EQUAL TO CONNECTING DIFFUSER NECK SIZE.

**NOTE**

REFER TO EMS PLANS FOR LOCATION OF TEMPERATURE.

**HVAC KEYED NOTES**

1. NEW RTU TO BE MOUNTED ON NEW CURB. CONTRACTOR TO PROVIDE DROP-IN BURGLAR BARS AT SUPPLY AND RETURN OPENINGS BY ROOF PRODUCTS, INC. OR EQUAL. SUPPLY AND RETURN DUCTWORK UP TO RTU SHALL BE FULL SIZE OF RTU CURB DROP OPENING. TRANSITIONS SHALL BE MADE IN VERTICAL DROP TO MATCH DIMENSIONS SHOWN ON PLAN IN ACCORDANCE WITH SMACNA STANDARDS. SEE DETAILS 2, 8 & 10 ON SHEET M2.0 FOR ADDITIONAL INFORMATION.
2. PROVIDE 200 SQ IN DOOR GRILLE OR UNDERCUT DOOR. SEE DOOR SCHEDULE ON SHEET AS.0.
3. INSTALL EXPOSED DUCTWORK WITH APPROXIMATELY 12" SPACE BETWEEN TOP OF LARGEST DUCTWORK AND UNDERSIDE OF JOIST/GIRDER. TYPICAL OF ALL DUCTWORK IN STORAGE AREA.
4. SMOKE DETECTORS SHALL DE-ACTIVATE RTU FAN UPON SENSING SMOKE AND SHALL BE TIED INTO BUILDING'S FIRE ALARM CONTROL PANEL WITH SUPERVISORY SIGNAL. WIRING BY CONTRACTOR. LOCATE SMOKE DETECTOR RESET IN ELECTRICAL ROOM WHEN ALLOWED. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
5. ROUTE RETURN AIR DUCT FROM UNIT PER SECTION DIAGRAMS ON SHEET M2.0. TRANSITION AS REQUIRED FOR RTU-1. PROVIDE EXPANDED METAL MESH SCREEN WITH A MINIMUM OF 80% FREE AREA IN RETURN AIR DUCT OPENING. SEE DETAIL 1 ON SHEET M2.0.
6. MOUNT 12X12 EXHAUST GRILLE AS HIGH AS POSSIBLE.
7. IN BUILDING OCCUPIED MODE EXHAUST FAN IS CONTROLLED BY EMS. IN BUILDING UNOCCUPIED MODE, EXHAUST FAN CONTROLLED BY A T-STAT IN EQUIPMENT ROOM. WIRED TO OPERATE WHEN A TEMPERATURE OF 88 DEGREES OR HIGHER IS DETECTED.
8. MECHANICAL CONTRACTOR TO PROVIDE 12" HIGH REFLECTIVE UNIT NUMBERS WITH THE SPECIFIC RTU # TO BE POSTED ON EACH UNIT ON THE CONTROL PANEL DOOR AND SIDE WITH THE DISCONNECT SWITCH IN A LOCATION VISIBLE FROM THE ROOF HATCH.
9. YOUNG REGULATOR IN HARD CEILING TO CONTROL VOLUME DAMPER FOR DIFFUSER. SEE DETAIL 8 ON SHEET M2.0.
10. PROVIDE FULL SIZE RETURN AIR DUCT DROP 6" BELOW DECK. TERMINATE WITH EXHAUST GRILLE (E-4).



**MECHANICAL FLOOR PLAN**