

1 FLOOR PLAN - MECHANICAL  
1/4" = 1'-0"

**LEGEND**

-  SUPPLY 4-WAY AIR (UNLESS NOTED OTHERWISE)
-  EXHAUST, RETURN OR TRANSFER AIR
-  MANUAL DAMPER
-  THERMOSTAT
-  CFM SUPPLY AIR
-  CFM RETURN AIR
-  CFM EXHAUST AIR
-  CONDENSING UNIT (ROOF MOUNTED)
-  CFM
-  EXHAUST FAN
-  FAN COIL UNIT (CEILING MOUNTED)
-  SUPPLY AIR DIFFUSER
-  SUPPLY AIR GRILLE
-  RETURN AIR GRILLE
-  EXHAUST AIR GRILLE
-  ROOF TOP AIR CONDITIONING UNIT
-  AIR TRANSFER
-  NEW CONNECTION

**NOTES**

1. **GENERAL:**
  - 1.1. SPECIFICATION SECTIONS 01 11 00 SUMMARY OF WORK, 20 05 00 COMMON WORK RESULTS FOR MECHANICAL, 20 07 00 MECHANICAL INSULATION, SECTION 23 30 00 HVAC AIR DISTRIBUTION, SECTION 23 80 00 DECENTRALIZED HVAC EQUIPMENT AND 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL SHALL BE CONSIDERED A PART OF THIS WORK.
2. **EQUIPMENT:**
  - 2.1. ALL REMOTE CONDENSING UNITS ARE LOCATED ON THE ROOF AND ARE SHOWN DOTTED ON FLOOR PLAN.
  - 2.2. SEE ARCHITECTURAL DRAWINGS FOR HVAC EQUIPMENT ROOF CURBS, EXHAUST FAN ROOF CURBS, GAS PIPE PORTALS, AND CONDENSATE DRAIN PORTALS (IF APPLICABLE). HVAC EQUIPMENT ROOF CURBS AND EXHAUST FAN ROOF CURBS ARE FURNISHED BY MECHANICAL CONTRACTOR.
  - 2.3. INSTALL HVAC EQUIPMENT LEVEL ON ROOF CURBS.
  - 2.4. OUTSIDE AIR INTAKE ON ROOF SHALL BE LOCATED A MINIMUM OF 15'-0" AWAY FROM ANY EXHAUST DUCT, BLOWER DISCHARGE, PLUMBING VENTS, ETC.
  - 2.5. HVAC UNITS SHALL INCLUDE FLEXIBLE CONNECTIONS.
  - 2.6. ALL OUTSIDE AIR DAMPERS FOR UNITS SHALL BE MOTORIZED AND HAVE A LOW LEAKAGE GASKET.
  - 2.7. PROVIDE LAMINATED BAKELITE NAME PLATES ON EACH HVAC UNIT AND LOCATE NEXT TO UNIT NAME (E.F., ETC.). IN ADDITION CONTRACTOR TO APPLY WALGREENS PROVIDED ASSET TAG AS WELL AS ALL REQUIRED INFORMATION (ASSET TAG NUMBER, SERIAL NUMBER, MAKE, MODEL, YEAR OF INSTALL.) A/E TEAM TO PROVIDE INFORMATION TO WALGREENS POINT OF CONTACT.
  - 2.8. START UP AND TEST EQUIPMENT PER MANUFACTURER RECOMMENDATIONS.
3. **CONDENSATE DRAIN SYSTEM:**
  - 3.1. LOCATE CONDENSATE DRAIN PIPING SO IT WILL NOT INTERFERE WITH THE REQUIRED ACCESS TO THE HVAC UNIT..
4. **AIR DISTRIBUTION:**
  - 4.1. DUCTWORK SHALL BE GALVANIZED STEEL METAL PER SMACNA. REFER TO SPECIFICATION 23 30 00. INTERNAL LINING IS NOT PERMITTED IN THE SUPPLY DUCTWORK.
  - 4.2. ALL VOLUME DAMPERS SHALL BE FLAGGED WITH STREAMERS FOR EASY IDENTIFICATION ESPECIALLY WHEN COVERED WITH INSULATION.
  - 4.3. AIR BALANCING: BALANCE AIR TO INDICATED QUANTITIES WITHIN A TOLERANCE OF PLUS OR MINUS 10%. ADJUST SUPPLY AIR GRILLE BLADES TO MEET COMFORT CONDITIONS IN WORKING AREA PER MANUFACTURER'S RECOMMENDATIONS.
5. **INSULATION**
  - 5.1. INSULATE DUCTWORK AND PIPING PER SPECIFICATION 20 07 00.
  - 5.2. INSULATE ALL CONDENSATE DRAIN PIPING INSIDE THE BUILDING TO INCLUDE MAINS, BRANCHES AND VENTS. INSULATION TO MEET SPECIFICATION 20 07 00 REQUIREMENTS.
6. **REFRIGERATION PIPING**
  - 6.1. PROVIDE AND INSTALL PRE-INSULATED REFRIGERATION PIPING, MATERIAL AND PRESSURE RATING PER MANUFACTURERS RECOMMENDATIONS. PURGE ANY BRAZED CONNECTIONS WITH NITROGEN.
  - 6.2. PRESSURE TEST SYSTEM AND INSTALL REFRIGERANT PER MANUFACTURER RECOMMENDATIONS, LOCAL CODES, AND LEAK TEST STANDARDS LAID OUT IN ASME 31.5, WHICHEVER IS MORE STRINGENT. IN ADDITION TO PRESSURE TEST, REQUIRE SYSTEM TO HOLD AT DESIGN PRESSURE FOR MINIMUM 1 HR. PROVIDE WAG ENGINEERING NOTIFICATION OF PASS/FAIL.

**TEST & BALANCE NOTES**

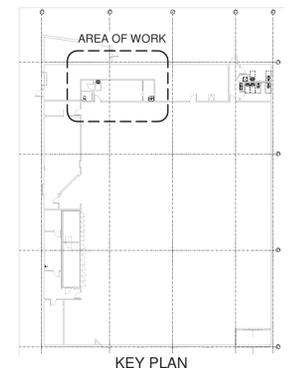
1. BALANCE NEW SUPPLY DIFFUSERS AND RETURN GRILLES TO AIR FLOWS SHOWN ON DRAWINGS, REDISTRIBUTE ADDITIONAL AIR TO EXISTING DIFFUSERS OF AFFECTED RTU.
2. ADJUST AFFECTED RTU TO PROVIDE APPROPRIATE OUTDOOR AIR, ADJUST EXISTING DIFFUSERS AS REQUIRED FOR NEW VOLUMES.
3. BALANCE TOILET EXHAUST FAN TO AIRFLOW SHOWN ON DRAWING/SCHEDULE.
4. PROVIDE HEATING AND COOLING CAPABILITY OF DUCTLESS SPLIT SYSTEM IN NORMAL OPERATION.
5. SUBMIT TEST AND BALANCE REPORT TO WAG ENGINEERING FOR REVIEW.

**MECHANICAL KEYED NOTES**

KEY VALUE	KEYNOTE TEXT
23 10 01	CONNECT NEW 8"Ø SUPPLY DUCT TO EXISTING 14"x10" SUPPLY DUCT FROM EXISTING ROOFTOP UNIT RTU-5 TO PROVIDE CODE VENTILATION AIR TO NEW LAB CORP SPACE.
23 10 02	ROUTE 6"Ø EXHAUST DUCT UP THRU ROOF. TERMINATE WITH ROOF CAP.
23 10 03	EXTEND CONDENSATE DRAIN FROM NEW FAN COIL UNITS TO NEW FUNNEL FLOOR DRAIN LOCATED IN WORK SINK CABINET WITH AIR GAP.
23 10 04	REFRIGERANT PIPING UP THRU PORTAL TO ROOF MOUNTED CONDENSING UNIT, SEE ARCHITECTURAL DRAWINGS FOR PORTAL.
23 10 05	THE CONDENSING UNIT IS TO BE PLACED ON A BALLASTED ISOLATION MAT AT ROOF LEVEL. NO FLASHED CURBS ARE TO BE INSTALLED.
23 10 06	EXISTING ROOFTOP UNIT RTU-5 OUTSIDE AIR SET TO 260 CFM.
23 10 07	BALANCE THE EXISTING DIFFUSER/GRILLE TO CFM SHOWN.
23 10 08	TRANSFER GRILLE SHALL BE LOCATED IN STOCK AREA MINIMUM 10'-0" ABOVE FINISHED FLOOR.
23 10 09	RELOCATE EXISTING SUPPLY AIR DIFFUSER. FIELD VERIFY EXACT NECK SIZE OF EXISTING GRILLE. BALANCE TO CFM SHOWN.

**DEMOLITION NOTES**

1. REMOVE AND DISPOSE OF EXISTING SUPPLY DIFFUSERS AND RETURN GRILLES THAT WILL NOT BE REUSED OR RELOCATED AS NEEDED PER PLAN.
2. REMOVE BRANCH DUCTS THAT WILL NOT BE REUSED, ALONG WITH ALL ASSOCIATED HANGERS AND DAMPERS BACK TO SUPPLY/RETURN MAINS PER NEW LAYOUT. CAP OR PATCH, SEAL AND INSULATE AS REQUIRED.
3. DISPOSE OF DEMOED MATERIALS IN ACCORDANCE WITH NATIONAL AND LOCAL CODES.
4. REMOVE AND KEEP STOCKROOM UNIT HEATERS FOR RELOCATION AS NEEDED PER PLAN.



KEY PLAN

**Walgreens**  
Store Planning and Design Development  
106 Wilmet Road  
Deerfield, IL 60015-5105

I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATIONS WERE PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE ENGINEERING LAW OF THE STATE OF NEW YORK AS SIGNED BY MY HAND AND SEAL.



DATE: 1/22/21 EXP.: 9/30/22



LINGLE DESIGN GROUP INC.  
158 W. MAIN ST.  
LENA, IL 61048  
815-369-9150  
1764 BLAKE ST  
DENVER, CO 80202  
303.974.5879  
WWW.LINGLEDESIGN.COM

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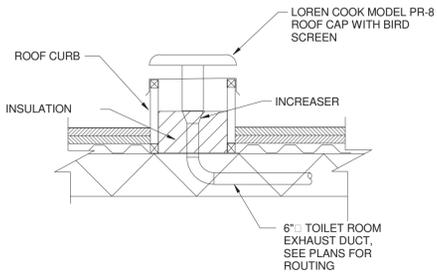
MECHANICAL FLOOR PLAN

STORE # 02758  
**WALGREENS**  
134 WIDLEY STREET  
TARRYTOWN, NEW YORK

PRINT TIME STAMP:  
1/22/2021 1:16:18 PM  
DRAWN BY:  
D. LYASKOV  
DATE: 01/28/21  
REVIEWED:  
J. THOMAS

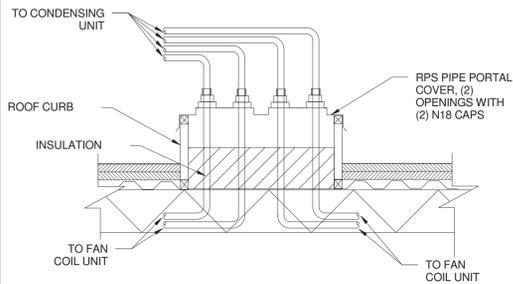
**WCW** Engineers, Inc.  
760 Crael Drive  
Wood Dale, Illinois 60191  
Tel: 630/595-8800  
Fax: 630/595-8818  
www.WCWengineers.com

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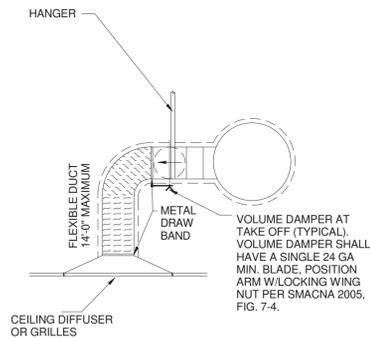
- NOTES:
1. ROOF CURB TO BE RPS MODEL RPS-2A.
  2. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR CURB INSTALLATION REQUIREMENTS.

**1 TOILET EXHAUST DETAIL**  
NOT TO SCALE



- NOTES:
1. USE STAINLESS STEEL CLAMP ON ALL PIPES.
  2. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PIPE CURB INSTALLATION REQUIREMENTS.
  3. ROOF CURB TO BE RPS MODEL RPS-2A.

**2 REFRIGERANT PORTAL DETAIL**  
NOT TO SCALE



**3 SUPPLY FLEXIBLE DUCTWORK**  
NOT TO SCALE

## VENTILATION SCHEDULE

ROOM NAME	ROOM CLASSIFICATION	ROOM AREA	OCCUPANT DENSITY PEOPLE/1000	# OF OCCUPANTS	# OF WC & UR	PEOPLE OUTDOOR AIRFLOW RATE CFM/PERSON	AREA OUTDOOR AIRFLOW RATE CFM/sq. ft.	EXHAUST AIRFLOW RATE CFM/sq. ft.	EXHAUST AIRFLOW RATE CFM/WC OR UR	PEOPLE OUTDOOR AIR REQUIRED CFM	AREA OUTDOOR AIR REQUIRED CFM	EXHAUST AIR REQUIRED CFM	TOTAL OUTDOOR AIR REQUIRED CFM
WORK AREA	OFFICE	52	5	1		5	0.06	0.0		5	4.00	0	9
SERVICE AREA	OFFICE	236	5	2		5	0.06	0.0		10	15.00	0	25
TOILET ROOM	TOILET ROOM	58	0	0	1	0	0.00	0.0	70	0	0	70	0
		346								15	19.00	70.00	34
										0	0.00		0
						Air Distribution Configuration						Correction Factor	Corrected O.A. Required
						Ceiling Supply of Warm Air and Ceiling Return						0.8	43

## FAN SCHEDULE

UNIT	AREA SERVED	CFM	SP. IN. WC.	MOTOR		RPM	MAKE AND MODEL	REMARKS
				HP	VOLT PHASE			
EF-1	TOILETS	75	0.25	52W	120 1	925	COOK GC-142	FAN SHALL BE INTERLOCKED TO ROOM LIGHT SWITCH

- NOTES:
1. PREWIRED FAN SPEED CONTROL.
  2. BACKDRAFT DAMPER AND DISCONNECT SWITCH.
  3. ACCEPTABLE MANUFACTURERS: ACME, CARNES, COOK, GREENHECK, PENN AND TWIN CITY.
  4. SPRING VIBRATION INSULATION HANGING KIT.
  5. PROVIDE WITH ROOF CAP, ROOF CURB AND BIRD SCREEN.

## LABCORP UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	REFR. TYPE	OUTDOOR SECTION						INDOOR SECTION				WEIGHT LBS.	NOTES
				TOTAL COOLING (MBH)	TOTAL HTG. @ 47°F (MBH)	AMB (°F)	V/PH	MCA/MOCP	SEER	TOTAL COOLING (MBH)	TOTAL HTG. @ 47°F (MBH)	CFM	V/PH		
CU-1	YORK	DHM24CMB21S	410A	26.0	29.0	95	208/1	20/30	16.0					135	A-D
FCU-1	YORK	DHMW12NKB21S	410A							12	13.1	177 L	208/1	40	A-C,E&F
FCU-2	YORK	DHMW18NKB21S	410A							15.3	18.7	353 M	208/1	40	A-C,E&F

MODEL NUMBERS SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBERS ONLY. REVIEW THE COMPLETE DESCRIPTION, NOTES AND SPECIFICATIONS TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED. THE MANUFACTURERS LISTED ARE THE BASIS FOR THE DESIGN.

- NOTES:
- CONTRACTOR SHALL VERIFY WITH EQUIPMENT SUPPLIER EXACT ROUTING AND SIZE OF INSULATED REFRIGERANT PIPING. INSTALL PER MANUFACTURERS RECOMMENDATIONS.
  - DIVISION 16 CONTRACTOR TO PROVIDE DISCONNECT SWITCH FOR EVAPORATOR SECTION AND CONDENSING SECTION.
  - PROVIDE WITH WALL MOUNTED CONTROLLER D/WCMW BY UNIT MANUFACTURER.
  - PROVIDE YORK ECO PAD, BLACK, 18" X 28" X 2", MINI SPLIT PAD ON ROOF EP-1838-2.
  - PROVIDE WITH INTEGRAL CONDENSATE PUMP.
  - PROVIDE FAN COIL UNITS WITH VIBRATION ISOLATORS.

## AIR TERMINAL SCHEDULE

TAG	AREA	RANGE CFM	NECK OR NOMINAL SIZE IN.	OVERALL SIZE IN.	BORDER	TYPE	BLOW	O.R.D. DAMPER	PRICE MODEL OR LISTED EQUAL (SEE NOTE 1)
SAD	ALL FINISHED CEILINGS	121 - 250	8 DIA.	24 X 24	LAY-IN	PLAQUE	360 DEG.	NONE	ASPD OR SPD
TAG	LAB CORP	0 - 800	14 X 14	16 X 16	NOTE 3	NOTE 2	N/A	NONE	630 L OR 530 L

- NOTES:
1. ACCEPTABLE MANUFACTURERS: KRUEGER, METALAIRE, NAILOR, PRICE, TITUS, TUTTLE AND BAILEY.
  2. FIXED LOUVERS, 45° DEFLECTION, 3/4" LOUVER SPACING, BLADES PARALLEL TO LONG DIMENSION.
  3. PROVIDE PROPER BORDER AND MOUNTING OPTION THAT IS COMPATIBLE WITH THE ADJACENT SURFACE.
  4. ADJUSTABLE DOUBLE DEFLECTION WITH HORIZONTAL FRONT BLADES, 3/4" SPACING, PARALLEL TO LONG DIMENSION. FOR SIDEWALL MOUNTING SAG/SAR INITIAL DEFLECTION BLADES POSITIONS ARE VERTICAL - 0° AND HORIZONTAL - 22.5° SPREAD, FOR CEILING MOUNTING SAG/SAR INITIAL DEFLECTION BLADES POSITIONS ARE 0° (UNLESS NOTED OTHERWISE ON PLAN).

**Walgreens**  
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MECHANICAL EQUIPMENT SCHEDULES  
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D. LYASKOV  
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J. THOMAS

**WCW** Engineers, Inc.  
760 Creel Drive  
Wood Dale, Illinois 60191  
Tel: 630/595-8800  
Fax: 630/595-8818  
www.WCWengineers.com

**M610**