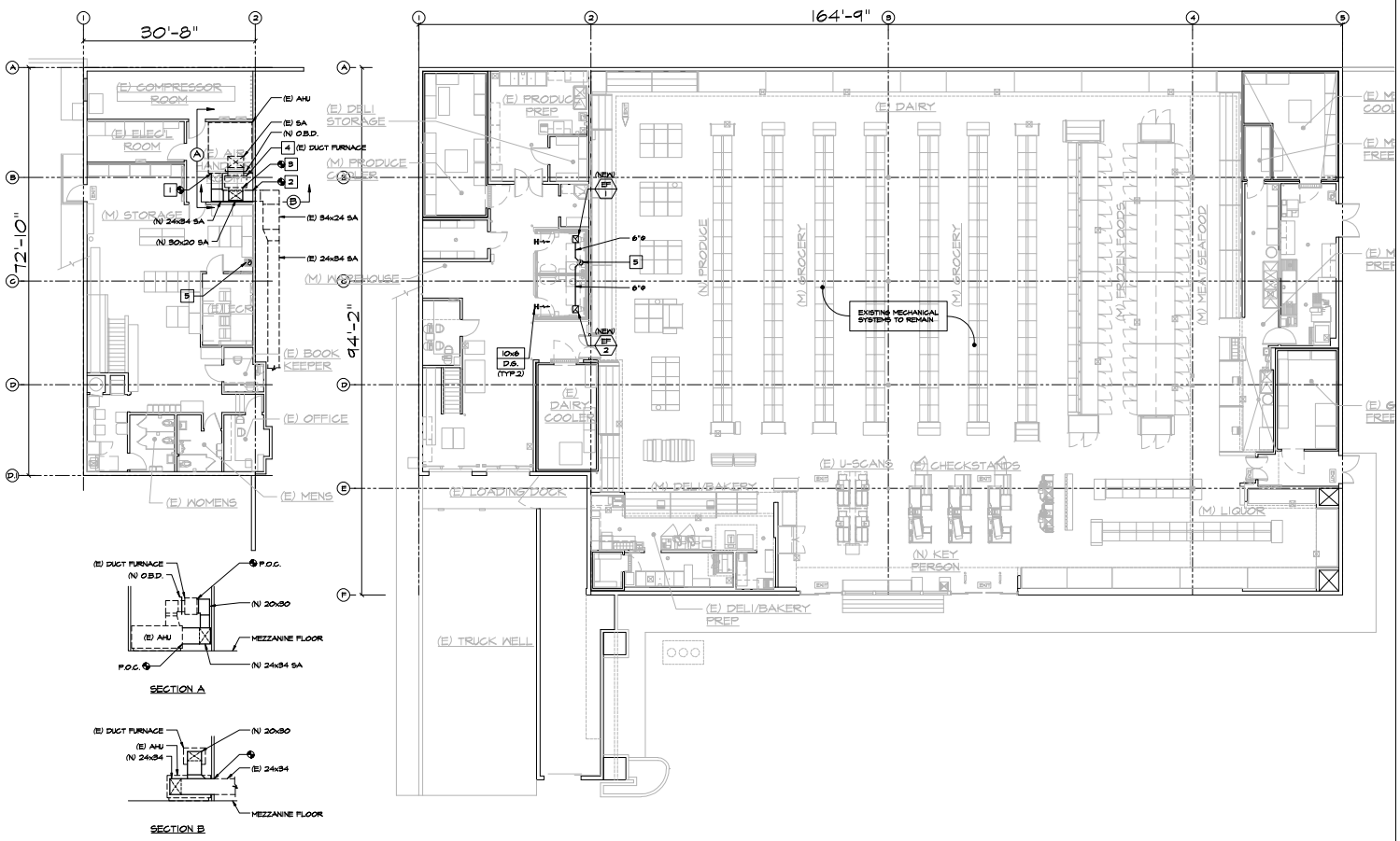

HVAC KEYNOTES

1. P.O.C. OF (N) 24x34 SUPPLY AIR DUCT TO EXISTING AHU SUPPLY AIR PLENUM VERIFY EXISTING CONDITION IN FIELD.
2. P.O.C. OF (N) 24x34 SUPPLY AIR DUCT TO EXISTING DUCT. VERIFY EXISTING CONDITION IN FIELD.
3. P.O.C. OF (N) 30x20 SUPPLY AIR DUCT TO EXISTING DUCT FURNACE. VERIFY EXISTING CONDITION IN FIELD.
4. VERIFY EXISTING GAS FURNACE OPERATES PROPERLY AT ITS FULL CAPACITY AS PART OF AIR BALANCE SCOPE.
5. 6"ø EXHAUST DUCT UP THRU MEZZANINE LEVEL TO ROOF WITH RAIN CAP. VERIFY EXISTING CONDITION IN FIELD.

CONSTRUCTION SET 09-06-2017

HVAC FLOOR PLAN

SCALE: 1/8" = 1'-0"

1

REVISIONS:

DPA ARCHITECTURE and PLANNING
DAVID J. PACHECO, ARCHITECT
TEL (714) 374-8269
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214 ADAMS AVENUE, SUITE 207
HUNTINGTON BEACH, CA 92648

SUBMITTAL DATES

HEALTH DEPT.: 08 / 17 / 2016
BUILDING DEPT.: 08 / 17 / 2016
BID DATE:
CHECKED BY:
DRAWN BY:

RALPHS # 004
700 S. COAST HIGHWAY
LAGUNA BEACH, CALIF. 92651

Ralphs fresh fare
Re-Fresh Decor

DATE: 04 / 06 / 2017

SHEET TITLE: HVAC FLOOR PLAN

SHEET NO.: M1.1

JOB NO.: 16 - 610

CONSULTING ENGINEERS
500 N. Brookhurst
Suite 200
Anaheim, CA 92804
Phone: 626-449-3550
Fax: 626-449-3555

AIR CONDITIONING NOTES

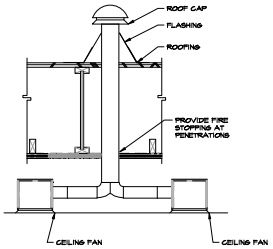
1. PRIOR TO START OF ALL WORK, HVAC, PLUMBING, ELECTRICAL & FIRE SPRINKLER CONTRACTORS SHALL:
   A) PREPARE SHOP DRAWINGS & SUBMIT TO GC FOR APPROVAL.
   B) IN ADDITION, THESE SHOP DRAWINGS SHOULD BE COORDINATED BETWEEN THESE CONTRACTORS IN FORM OF OVERLAY MEP LAYOUT TO IDENTIFY CONFLICTS PRIOR TO START OF PROJECT.
   C) PROVIDE COPIES OF ALL SHOP DRAWINGS TO ARCHITECT FOR APPROVAL. DO NOT START WORK PRIOR TO COMPLETING ABOVE TASK TO IDENTIFY AND RESOLVE CONFLICTS.
2. HVAC CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID TO SEE THE EXISTING CONDITIONS & TO VERIFY THE FEASIBILITY OF WHAT SHOWN ON PLANS, SUBMITTED BID SHALL INCLUDE ALL MATERIAL AND LABOR NECESSARY FOR A COMPLETE INSTALLATION AND START UP INCLUDING ONE YEAR LABOR AND MATERIAL WARRANTY. VERIFY EXACT LOCATION OF EXISTING EQUIPMENT AND MECHANICAL COMPONENTS SHOWN ON THIS SET OF DRAWINGS BEFORE COMMENCEMENT OF WORK & REPORT ANY DISCREPANCY TO ARCHITECT OR ENGINEER FOR DIRECTION.
3. FABRICATE ALL DUCTS PER CHAPTER 6 OF 2013 CMC , §602.1 GENERAL. SUPPLY AIR, RETURN AIR, AND OUTSIDE AIR FOR HEATING, COOLING, OR EVAPORATIVE COOLING SYSTEMS SHALL BE CONDUCTED THROUGH DUCT SYSTEMS CONSTRUCTED OF METAL AS SET FORTH IN THE ANSI/SMACNA 006-2006 HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE , OR ANOTHER APPROVED DUCT CONSTRUCTION STANDARD. RECTANGULAR DUCTS IN EXCESS OF TWO (2) INCHES W.G. SHALL COMPLY WITH THE ANSI/SMACNA 006-2006 HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE, OR AN OTHER APPROVED DUCT CONSTRUCTION STANDARD.
4. ALL H.V.A.C. EQUIPMENT AND DUCTS SHALL BE INSTALLED PER 2013 CMC.
5. ALL COMBUSTIBLE MATERIALS SHALL HAVE A FLAME SPREAD <25, SMOKE SPREAD <50.
6. CONTRACTOR IS RESPONSIBLE TO VERIFY EQUIPMENT VOLTAGE PRIOR TO ORDER.
7. DUCT INSULATION R-VALUES SHALL BE ACCORDING TO 2013 CA ENERGY CODE OR T-24, STANDARD 124-A, B AND C.
8. CONTRACTOR ONLY TO USE FLEX-LINES WHERE SPECIFICALLY INDICATED IN SPECS.
9. PROVIDE BALANCING DAMPERS AT POINTS ON SUPPLY, RETURN AND EXHAUST SYSTEMS WHERE BRANCHES LEAD FROM LARGER DUCTS AS REQUIRED FOR AIR BALANCING. INSTALL AT A MINIMUM OF TWO DUCT WIDTHS FROM BRANCH TAKEOFF.
10. PROVIDE TURNING VANES IN ALL RECTANGULAR 90 DEGREE MITERED ELBOWS.
11. COORDINATE LOCATION OF DUCTWORK AS NOT INTERFERE WITH THE VIEW FROM THE MEZZANINE'S OFFICE AREA.
12. COORDINATE LOCATION OF DUCTWORK AS NOT TO INTERFERE WITH THE POWER POLES FOR THE CHECK LANE EQUIPMENT.
13. DO NOT INDICATE HVAC DUCTWORK ALONGSIDE OF WALLS WITH DECOR EXPOSED TO CUSTOMER'S VIEW IN SALES AREA.
14. GC & ALL SUB CONTRACTORS SHALL REQUEST, REVIEW AND ACT UPON STORE COMMISSIONING REPORT ITEMS REQUIRING MAINTENANCE OR REPAIR.
15.
16. ALL GRAVITY VENTILATORS AND LOUVERS SHALL HAVE BACK DRAFT DAMPERS TO ALLOW AIR IN THE INTENDED DIRECTION AND SHUT DOWN AIR FLOW IN THE OPPOSITE DIRECTION, UNLESS A MOTORIZED DAMPER IS SHOWN.
17. HVAC CONTRACTOR SHALL PROVIDE MERV 8 FILTERS FOR ALL RTUS & AIR HANDLERS PRIOR TO OCCUPANCY.

REMODEL STORE ENERGY NOTES

1. ALL HVAC UNITS SHOULD BE TIED INTO BUILDING AUTOMATED CONTROLS INCLUDING ALL UNIT HEATERS.
2. ALL BLOWER MOTORS ON EXISTING UNITS SHOULD BE TWO SPEED MOTORS OR SINGLE SPEED EQUIPPED WITH A VSD. (NOTE IF YOU HAVE NEW TRANE AHUS IT NEEDS TO BE DESIGNED WITH TWO SPEED MOTORS.) G.C. AND THE ENERGY ENGINEER CAN ASSIST YOU WITH SIZING THE APPROPRIATE DRIVE.
3. ALL UNITS SHALL BE SET UP WITH NIGHT SET BACK STRATEGIES.
4. FULL ADVANTAGE OF ALL POSSIBLE HEAT RECLAIM SHALL BE TAKEN. (VERIFY IF FUNCTIONAL.) REFRIGERATION DESIGNS SHOULD SHOW HEAT RECLAIM.
5. AIR BALANCE OF ALL HVAC SYSTEM SHALL BE PERFORMED, COORDINATE WITH GENERAL CONTRACTOR.
6. ALL RETURN AIR AND RETURN AIR FANS SHALL BE CHECKED FOR OPERATION.
7. HVAC CONTRACTOR SHALL INSPECT ALL EXISTING RTU'S AND AIR HANDLERS FOR PROPER OPERATION, OR FILTER REPLACEMENT AND REPORT TO G.C. AND STORE MAINTENANCE STAFF.

(OWNER PROVIDED) EXHAUST FAN SCHEDULE

SYM.	MAKE	MODEL #	K-NUMBER	CFM	S.P.	RPM	FLA	MOTOR HP	POWER	APPROXIMATE OPERATING WEIGHT	SERVICE	NOTES & ACCESSORIES
EF 1	CAPTIVEAIRE	CFA 150CA	PER QUOTE BASIS	TB	0.25"	457	-	0.154	120V.-1Ø	90 LBS.	RESTROOM	BACKDRAFT DAMPER
EF 2	CAPTIVEAIRE	CFA 150CA	PER QUOTE BASIS	TB	0.25"	457	-	0.154	120V.-1Ø	90 LBS.	RESTROOM	BACKDRAFT DAMPER



1 CEILING EXHAUST FAN DETAIL
SCALE: NONE

EXISTING HVAC LAYOUT NOTES

ALL EXISTING COMPONENTS ARE BASED ON OLD MECHANICAL PLANS. VERIFY THIS INFORMATION IN FILED & REPORT ANY DISCREPANCY TO ARCHITECT PRIOR TO COMMENCEMENT OF WORK.

SHOP DRAWINGS NOTES:

1. PRIOR TO START OF ALL WORK, HVAC, PLUMBING, ELECTRICAL & FIRE SPRINKLER CONTRACTORS SHALL:
   A) PREPARE SHOP DRAWINGS & SUBMIT TO GC FOR APPROVAL.
   B) IN ADDITION, THESE SHOP DRAWINGS SHOULD BE COORDINATED BETWEEN THESE CONTRACTORS IN FORM OF OVERLAY MEP LAYOUT TO IDENTIFY CONFLICTS PRIOR TO START OF PROJECT.
   C) PROVIDE COPIES OF ALL SHOP DRAWINGS TO ARCHITECT FOR APPROVAL.
   D) LOCATION OF ALL HVAC EQUIPMENT SHALL BE COORDINATED WITH OTHER TRADES BEFORE INSTALLATION TO AVOID CONFLICTS WITH OTHER SYSTEMS.
2. DO NOT START WORK PRIOR TO COMPLETING ABOVE TASK TO IDENTIFY AND RESOLVE CONFLICTS.

BALANCING NOTES

1- CONTRACTOR SHALL PROVIDE SERVICES OF NEBB OR AABC CERTIFIED AIR AND HYDRONIC BALANCING SERVICES TO ESTABLISH ALL FLOW QUANTITIES SHOWN ON CONSTRUCTION DOCUMENTS. BALANCING CONTRACTOR SHALL PROVIDE COPIES OF CERTIFIED BALANCE REPORTS FOR REVIEW AND APPROVAL BY ARCHITECT.

2- PRIOR TO COMMENCEMENT OF WORK, BALANCING CONTRACTOR SHALL REVIEW HVAC SHOP DRAWINGS AND COORDINATE ALL VOLUME DAMPERS, BALANCING VALVES AND SIMILAR DEVICES REQUIRED FOR BALANCING WORK TO ASSURE ALL NEEDED ARE INCLUDED DURING CONSTRUCTION.

HVAC SCOPE OF WORK

THE FOLLOWING CONSTITUTES THE EXTENT OF HVAC WORK FOR THIS PROJECT.

- G.C. TO REMOVE ALL OLD EXISTING FANS AND DUCTWORK NOT IN USE AND REPAIR RELATED UNUSED OPENINGS ON ROOF.
- DEMO (E) EXHAUST SYSTEMS AND RELATED DUCTWORKS FROM EXISTING RESTROOMS.
- NEW EXHAUST SYSTEMS FOR THE MODIFIED RESTROOMS.
- REVISE THE SUPPLY AIR DUCTWORK FOR THE SALES AREA AHU AT MEZZANINE.

TESTING AND BALANCING SCOPE OF WORK

1. MEASURE AIR HANDLING UNIT'S TOTAL SA, OSA AND RA CFM.
2. MEASURE DUCT FURNACE BYPASS CFM.
3. WITH HEATING SYSTEM IN FULL CAPACITY WHEN THE HEAT RECLAIM COIL AND DUCT FURNACE ARE PRODUCING MAXIMUM OUTPUT, MEASURE THE TEMPERATURES ENTERING AND LEAVING THE HEAT RECLAIM COIL AND DUCT FURNACE.

AIR CONDITIONING LEGEND

SYMBOL	DESCRIPTION
12x12 / 500	CEILING DIFFUSER, NECK SIZE, IN. Ø AIR QUANTITY CFM
———	SOLID LINE DENOTES NEW DUCTWORK
— — — —	DASHED LINE DENOTES EXISTING DUCTWORK TO REMAIN.
+/+/+/+/+/+	CROSS-HATCHED LINE DENOTES EXISTING DUCTWORK TO BE REMOVED.
	SUPPLY AIR DUCT.
	RETURN AIR DUCT.
	EXHAUST AIR DUCT.
	DOUBLE THICKNESS TURNING VANES
	CEILING DIFFUSER
	RETURN AIR GRILLE, RELIEF GRILLE
	EXHAUST GRILLE
	CEILING FIRE DAMPER
	AUTOMATIC FIRE DAMPER
	MOTORIZED COMBINATION/SMOKE FIRE DAMPER
M.V.D.	MANUAL VOLUME DAMPER
M.D.	MOTORIZED DAMPER
12 X 8	DUCT (FIRST DIMENSION IS SIDE SHOWN).
12 X 6 (L)	LINED DUCT (SHEET METAL SIZE SHOWN).
SD	DUCT SMOKE DETECTOR
T	THERMOSTAT (MOUNT AT 42 IN. ABOVE FLOOR).
S	ROOM SENSOR (MOUNT AT 60" A.F.F.)
C	CO2 SENSOR (FOR DEMAND CONTROL VENTILATION) (MOUNT AT +42 IN. ABOVE FLOOR)
H	HUMIDITY SENSOR
M	EQUIPMENT FURNISHED AND INSTALLED BY MECH. CONTR.
E	EQUIPMENT FURNISHED AND INSTALLED BY ELEC. CONTR.
	POINT OF CONNECTION FROM EXISTING DUCTWORK TO NEW DUCTWORK.
S.A.	SUPPLY AIR
R.A.	RETURN AIR
E.A.	EXHAUST AIR
O.S.A.	OUTSIDE AIR
T.A.	TRANSFER AIR
U.T.R.	UP THRU ROOF
C.D.	CEILING DIFFUSER
R.A.G. / R.G.	RETURN AIR GRILLE, RELIEF GRILLE
E.G.	EXHAUST GRILLE
D.G.	DOOR GRILLE
E.M.S.	ENERGY MANAGEMENT SYSTEM
Z.D.	ZONE DAMPER
M.V.D.	MANUAL VOLUME DAMPER
O.B.D.	OPPOSITE BLADE DAMPER

CONSTRUCTION SET 09-06-2017

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RALPHS # 004
700 S. COAST HIGHWAY
LAGUNA BEACH, CALIF. 92651

Ralphs Fresh Fare
Re-Fresh Decor

REGISTERED PROFESSIONAL ENGINEER
M. ZAHEER
No. 15157
Exp. 12/31/2017
MECHANICAL
STATE OF CALIFORNIA

DATE: 04 / 06 / 2017
SHEET TITLE: HVAC EQUIPMENT SCHEDULE, NOTES, DETAILS & LEGEND

SHEET NO.: M6.1

JOB NO.: 16 - 610