

DESIGNER NOTE: REMOTE ENCLOSURE UNIT HEATER - USE IN NORTHERN CLIMATES ONLY (TN, IN, KY, ETC)

UNIT HEATER SCHEDULE (ELECTRIC)

MARK	MANUFACTURER	MODEL	NOM (KW)	MIN NO OF STAGES	EAT/LAT (DEG. F)	CFM	V/PH	DISC TYPE	NOTES
UH-1	MARLEY	MUH0381	3	1	30/40	350	208/1	DIV 26	A-D

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:

- A. MOUNT 8 FEET ABOVE FINISHED FLOOR WITHOUT OBSTRUCTING AIRFLOW.
- B. PROVIDE WITH UNIT MOUNTED THERMOSTAT.
- C. PROVIDE NECESSARY MOUNTING BRACKET AND ACCESSORIES FOR MOUNTING.
- D. DISCONNECT SWITCH FURNISHED BY DIVISION 26 CONTRACTOR.

KITCHEN EXHAUST HOOD SCHEDULE
(OWNER FURNISHED, CONTRACTOR INSTALLED)

MARK	EQUIPMENT SERVED	MANUFACTURER	MODEL	HOOD DIMENSIONS (IN.) (L x W x H)	EXHAUST AIR CFM	MAKEUP AIR CFM	NOTES
H-1	FRYER	K-TECH	5424 PK-ND-2 Q-SB-F	72x54x24	1,300	1,040	ALL

NOTES:

1. HOOD SUPPLIER SHALL PROVIDE HOOD PRE-PIPED FOR WET-TYPE FIRE EXTINGUISHING SYSTEM MEETING REQUIREMENTS OF NFPA-96 AND LOCAL CODES.
2. HOOD SUPPLIER SHALL FURNISH HOOD WITH UL LISTED BAFFLE-TYPE GREASE FILTERS, GREASE DRAIN WITH REMOVABLE CUP, AND UL LISTED VAPORPROOF INCANDESCENT LIGHT FIXTURES.
3. HOOD SUPPLIER SHALL FURNISH STAINLESS STEEL ENCLOSURE PANELS FROM TOP OF HOOD TO FINISH CEILING AND 3 INCH STANDOFF FROM WALL AS REQUIRED.
4. HOOD SUPPLIER SHALL FACTORY INSTALL THE HOOD CONTROL PACKAGE IN THE HOOD UTILITY CABINET.
5. PROVIDE HOOD FIRE SUPPRESSION SYSTEM MEETING NFPA-96 AND LOCAL CODES.
6. PROVIDE INTERLOCK KIT WITH ONE TEMPERATURE SENSOR PER GREASE EXHAUST COLLAR TO MEET IMC REQUIREMENTS.
7. REFER TO REFERENCE DRAWINGS OF KITCHEN HOOD MANUFACTURER FOR KITCHEN EXHAUST HOOD DETAILS.
8. HOOD SHALL BE FURNISHED AND INSTALLED BY DIVISION 23.

DESIGNER NOTE: GAS UNIT SHOWN FOR REFERENCE ONLY

DESIGNER NOTE: UPDATE MODEL NUMBER FOR GAFL PROJECTS
- USE 48TCDXXXB FOR RA SMOKE DETECTOR
- USE 48TCDXXXC FOR SA SMOKE DETECTOR

DESIGNER NOTE: FOR INDIANA AND KENTUCKY STORES ONLY: CHANGE RTUS FROM ELECTRIC TO GAS.

DESIGNER NOTE: UPDATE MODEL NUMBER FOR GAFL PROJECTS
- USE 50TC-XXXX FOR RA SMOKE DETECTOR
- USE 50TC-XXXX FOR SA SMOKE DETECTOR

DESIGNER NOTE: UPDATE SMOKE DETECTOR TO SUPPLY DUCT FOR GAFL PROJECTS

DESIGNER NOTE: CURRENT FAN SCHEDULE IS FOR ELECTRIC UNITS (SCHEDULE NAME: FAN KTECH ELEC). IF USING GAS, SWITCH SCHEDULE WITH GAS SCHEDULE (SCHEDULE NAME: FAN KTECH GAS).

GAS ROOFTOP A/C EQUIPMENT SCHEDULE

A/C UNIT TAG	MANUFACTURER	MODEL**	CFM	E.S.P. (in. W.C.)	BHP	COOLING(MBH)*				HEATING			ELECTRICAL			OPERATING WEIGHT LBS.	NOTES	
						TOTAL	SENSIBLE	IEER	EER	TYPE	MBH	STAGES	OUTSIDE AIR CFM	VOLT/PH/ HZ	MCA			MOCPP
RTU-1	CARRIER	48TCDE14K3M5-6W1K0	4800	0.5	4.02	158.7	106.1	12.2	10.8	GAS	180	1	760	208/3/60	68	80	1558	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-2	CARRIER	48TCDE14K3M5-6W1K0	4800	0.5	4.02	157.1	106.7	12.2	10.8	GAS	180	1	710	208/3/60	68	80	1558	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-3	CARRIER	48TCDE14K3M5-6W1K0	4800	0.5	4.02	157.6	106.7	12.2	10.8	GAS	180	1	650	208/3/60	68	80	1558	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-4	CARRIER	48TCDE16K2M5-6W1K0	5760	0.5	2.61	180.8	142.5	12.4	10.8	GAS	180	1	400	208/3/60	72	80	1883	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

ROOFTOP A/C EQUIPMENT SCHEDULE

A/C UNIT TAG	MANUFACTURER	MODEL**	CFM	E.S.P. (in. W.C.)	BHP	COOLING(MBH)*				HEATING				OUTSIDE AIR CFM	ELECTRICAL			OPERATING WEIGHT LBS.	NOTES
						TOTAL	SENSIBLE	IEER	EER	TYPE	KW	MBH	STAGES		VOLT/PH/ HZ	MCA	MOCP		
RTU-1	CARRIER	50TC-E14K3M5-6W1K0	4800	1.0	3.94	158.7	106.1	12.4	11.0	ELEC	24.0	81.9	1	760	208/3/60	101	110	1535	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-2	CARRIER	50TC-E14K3M5-6W1K0	4800	1.0	4.08	158.2	106.7	12.4	11.0	ELEC	24.0	81.9	1	710	208/3/60	101	110	1535	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-3	CARRIER	50TC-E14K3M5-6W1K0	4800	1.0	4.08	159.7	107.9	12.4	11.0	ELEC	24.0	81.9	1	650	208/3/60	101	110	1535	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
RTU-4	CARRIER	50TC-E16K2M5-6W1K0	5760	1.0	3.03	180.8	142.5	12.6	11.0	ELEC	12.4	42.3	1	400	208/3/60	72	80	1857	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

*DESIGN BASED ON 95°F OA, 80°F DB, AND 67°F WB

**MODEL NUMBER PROVIDED THROUGH NATIONAL ACCOUNT AGREEMENT. IF ANY DISCREPANCIES BETWEEN MODEL NUMBER AND NOTES OCCUR, PROVIDE REQUIRED ACCESSORIES AS INDICATED IN NOTES.

RACETRAC HAS AN EXCLUSIVE NATIONAL ACCOUNT WITH CARRIER. PLEASE CONTACT BOB ECKWEILER 937-222-6742 OR EMAIL bob.eckweiler@carrier.com FOR PRICING QUESTIONS.

NOTES:

1. PROVIDE UNITS WITH INSULATED MATCHING ROOF CURB, WITH MINIMUM HEIGHT TO MOUNT BOTTOM OF EQUIPMENT 8 INCHES ABOVE ROOF SURFACE. COORDINATE WITH ARCHITECTURAL ROOF INSULATION THICKNESS.
2. PROVIDE UNITS WITH ENTHALPY ECONOMIZER WITH BAROMETRIC RELIEF AND LOW LEAKAGE OUTDOOR AIR DAMPERS.
3. PROVIDE COMPRESSORS WITH SHORT CYCLING PROTECTION.
4. NOT USED
5. FACTORY INSTALLED CONDENSATE DRAIN OVERFLOW SENSOR SWITCH. CONDENSATE OVERFLOW SENSOR SHALL BE AQUAGUARD MODEL AG1250E.
6. PROVIDE SMOKE DETECTOR ON RETURN DUCT, TO SHUTDOWN UNIT IF DETECTING SMOKE.
7. PROVIDE DEHUMIDIFICATION PACKAGE WITH ADDITIONAL INTEGRAL HOT GAS REHEAT COIL AND REFRIGERATION PIPING. CONTRACTOR SHALL REFER TO MANUFACTURER HUMIDISTAT WIRING REQUIREMENTS AND INSTRUCTIONS PRIOR TO ROUGH-IN.
8. UNITS ARE AHRI RATED.
9. PROVIDE WITH EPOXY COATED COILS WITHIN 5 MILES OF COAST LINE.
10. PROVIDE WITH HAIL GUARDS.
11. PROVIDE 5 YEAR COMPRESSOR AND 3 YEAR PARTS WARRANTY.
12. EXTERNALLY MOUNTED NEMA 3R, RK1, CURRENT LIMITING FUSED DISCONNECT SWITCH PROVIDED BY RACETRAC.
13. CONTRACTOR SHALL PROVIDE HONEYWELL T7351E210 THERMOSTAT AND HONEYWELL T7351F2010 T-STAT & H7635B2018 DUCT MOUNTED SENSOR. CONTRACTOR SHALL REFER TO MANUFACTURER WIRING REQUIREMENTS AND INSTRUCTIONS PRIOR TO ROUGH-IN.
14. FAN SHALL BE SET TO RUN CONTINUOUSLY TO MAINTAIN OUTDOOR AIR REQUIREMENTS.

ECONOMIZER CONTROL NOTES:

AS THE MIXED AIR TEMPERATURE FLUCTUATES ABOVE 55°F OR BELOW 50°F DAMPERS WILL MODULATE (OPEN OR CLOSE) TO BRING IN MIXED-AIR TEMPERATURE BACK WITH CONTROL. IF MECHANICAL COOLING IS UTILIZED WITH FREE COOLING, THE OUTDOOR-AIR DAMPER WILL MAINTAIN ITS CURRENT POSITION AT THE TIME THE COMPRESSOR IS STARTED. IF THE INCREASE IN COOLING CAPACITY CAUSES THE MIXED-AIR TEMPERATURE TO DROP BELOW 45°F, THEN THE OUTDOOR-AIR DAMPER POSITION WILL BE DECREASED TO THE MINIMUM POSITION. CONTROL RETURNS TO NORMAL ONCE THE MIXED-AIR TEMPERATURE RISES ABOVE 48°F.

FAN SCHEDULE

MARK	SERVICE AREA	MANUFACTURER	MODEL NUMBER	CONFIG	CFM	ESP (IN)	SONES	NOM HP	FAN RPM	DRIVE (BELT/DIRECT)	VOLT/PH/HZ	WEIGHT (LBS)	DIMENSIONS LxW	OPENING L"xW"	CONTROL	NOTES
EF-1	RESTROOM WOMENS	GREENHECK	G-080-VG	ROOF	200	0.33	6.5	1/10	1438	DIRECT	115/1/60	38	17x17	12.5x12.5	CONTINUOUS	1,2,3,5
EF-2	RESTROOM MENS	GREENHECK	G-100-VG	ROOF	500	0.33	5.8	1/4	1174	DIRECT	115/1/60	54	19x19	14.5x14.5	CONTINUOUS	1,2,3,5
EF-3	KITCHEN PREP	GREENHECK	G-095-VG	ROOF	600	0.33	6.9	1/6	1363	DIRECT	115/1/60	42	17x17	12.5x12.5	WALL SWITCH	1,2,3,5,6
EF-4	DRY GOODS RECEIVING	GREENHECK	G-095-VG	ROOF	600	0.33	6.9	1/6	1363	DIRECT	115/1/60	42	17x17	12.5x12.5	THERMOSTAT	1,2,3,5
KEF-1	KITCHEN PREP	K-TECH	DU85HK	ROOF	1300	1.0	9.8	3/4	1194	DIRECT	115/1/60	93	23x23	22.5x22.5	HOOD	3,5,7,8,9
KSF-1	KITCHEN PREP	K-TECH	K-A1-E-201-15D	ROOF	1040	0.5	9.7	1	1298	DIRECT	115/1/60	442	71x27.375	13.25x11.5	HOOD	1,2,3,5,9

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NOTES:

1. PROVIDE FANS WITH INSULATED MATCHING ROOF CURB, MINIMUM 12" IN HEIGHT.
2. PROVIDE FANS WITH AUTOMATIC BACKDRAFT DAMPERS.
3. PROVIDE FANS WITH DISCONNECT SWITCH.
4. NOT USED.
5. PROVIDE WITH MANUFACTURER'S ELECTRONICALLY COMMUTATED (EC) MOTOR.
6. REFERENCE SHEET E110 FOR WALL SWITCH LOCATION.
7. PROVIDE WITH MINIMUM 12" HIGH ROOF CURB, VENTED ROOF CURB EXTENSION FOR 40" MINIMUM DISCHARGE HEIGHT ABOVE ROOF SURFACE OR AT ELEVATION HIGHER THAN ADJACENT BUILDING STRUCTURE WITHIN 10 FEET WHICHEVER IS GREATER, GREASE TRAP WITH ABSORBENT MATERIAL AND DRAIN CONNECTION, HINGE KIT, ACCESS PORT FOR CLEANING FAN BLADES AND INTEGRAL MOTOR OVERLOAD PROTECTION.
8. FAN SHALL HAVE UL762 RATING.
9. ELECTRICAL CONTRACTOR SHALL INTERLOCK FRYER WITH EXHAUST FAN/MAKE-UP AIR UNIT. EXHAUST FAN/MAKE-UP AIR UNIT SHALL TURN "ON" WHEN EQUIPMENT IS STARTED AND "OFF" 30 MINUTES AFTER EQUIPMENT HAS BEEN TURNED "OFF".

AIR DISTRIBUTION SCHEDULE

TAG	MANUFACTURER	MODEL NUMBER	FACE SIZE	NECK SIZE	MATERIAL	FRAME	FINISH	DAMPER	THROW	NC	CFM RANGE	NOTES
A	TITUS	TMSA-AA	12x12	10x10	ALUM.	GYP SUM CEILING	OFF WHITE	-	-	MAX. 30	*	1, 2, 3, 4, 5
B	TITUS	TMSA-AA	24x24	SEE PLAN	ALUM.	LAY-IN	OFF WHITE	-	VERT/HORZ	MAX. 30	250-425	1, 2, 3, 4, 5
D	TITUS	ML39	(4'4"x1')	SEE PLAN	ALUM.	LAY-IN	OFF WHITE	-	VERT/HORZ	MAX. 30	350-425	2, 3, 4, 5, 7
F	TITUS	ML39	(5'4"x1')	SEE PLAN	ALUM.	LAY-IN	OFF WHITE	-	VERT	MAX. 30	10-575	2, 3, 4, 5, 7
G	TITUS	ML39	(5'4"x1')	SEE PLAN	ALUM.	GYP SUM CEILING	OFF WHITE	-	VERT	MAX. 30	10-250	2, 3, 4, 5, 7
R	TITUS	350FL	12x12	10x10	ALUM.	SEE PLANS	OFF WHITE	-	-	MAX. 30	*	2, 3, 5, 6
S	TITUS	350FL	24x24	22x22	ALUM.	SEE PLANS	OFF WHITE	-	-	MAX. 30	*	2, 3, 5
T	TITUS	350FL	24x48	22x46	ALUM.	SEE PLANS	OFF WHITE	-	-	MAX. 30	*	2, 3, 5

NOTES:

1. PROVIDE TYPICAL 4-WAY DIFFUSION, 2-WAY OR 3-WAY ONLY WHERE INDICATED ON PLANS.
2. REFER TO ARCHITECT PLANS FOR CEILING TYPE.
3. FINAL COLOR SELECTION SUBJECT TO ARCHITECT APPROVAL.
4. FLEX DUCT SIZE TO BE SAME AS DIFFUSER NECK SIZE.
5. PROVIDE INSULATION ON THE BACK OF DIFFUSER.
6. PROVIDE GRILLE MOUNTED OPPOSED BLADE VOLUME DAMPER WITH CONCEALED ACCESSIBLE OPERATOR.
7. PROVIDE MP1-39 PLENUM BOX AND BORDER TYPE 2A.

INCORPORATED SPB: 2022-0104

RaceTrac.

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DESIGN PROFESSIONALS

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/13/22	SPB NO. 0104

RaceTrac.

RACETRAC INC.
SUITE 900
200 GALLERIA PARKWAY SOUTHEAST
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANYTOWN,CITY

CITY
STATE 000000
ADDRESS

RACETRAC STORE NUMBER

#0000

PROTOTYPE SERIES TC

2022 LH MO 0104

PLAN MODIFICATION NOTICE

SPB NO. 0104 DATE 05/13/22

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PROFESSIONAL SEAL

PROJECT NUMBER

XXXXXXXX

SHEET TITLE

MECHANICAL
EQUIPMENT
SCHEDULES

SHEET NUMBER

M002

DESIGN PROFESSIONALS

ISSUE/REVISION RECORD	
DATE	DESCRIPTION
05/13/22	SPB NO. 0104

PROJECT NAME
ANYTOWN,CITY

CITY
STATE 000000
ADDRESS

RACETRAC STORE NUMBER
#0000

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2022 LH M0 0104

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PROJECT NUMBER
XXXXXXXX

SHEET TITLE
MECHANICAL PLAN

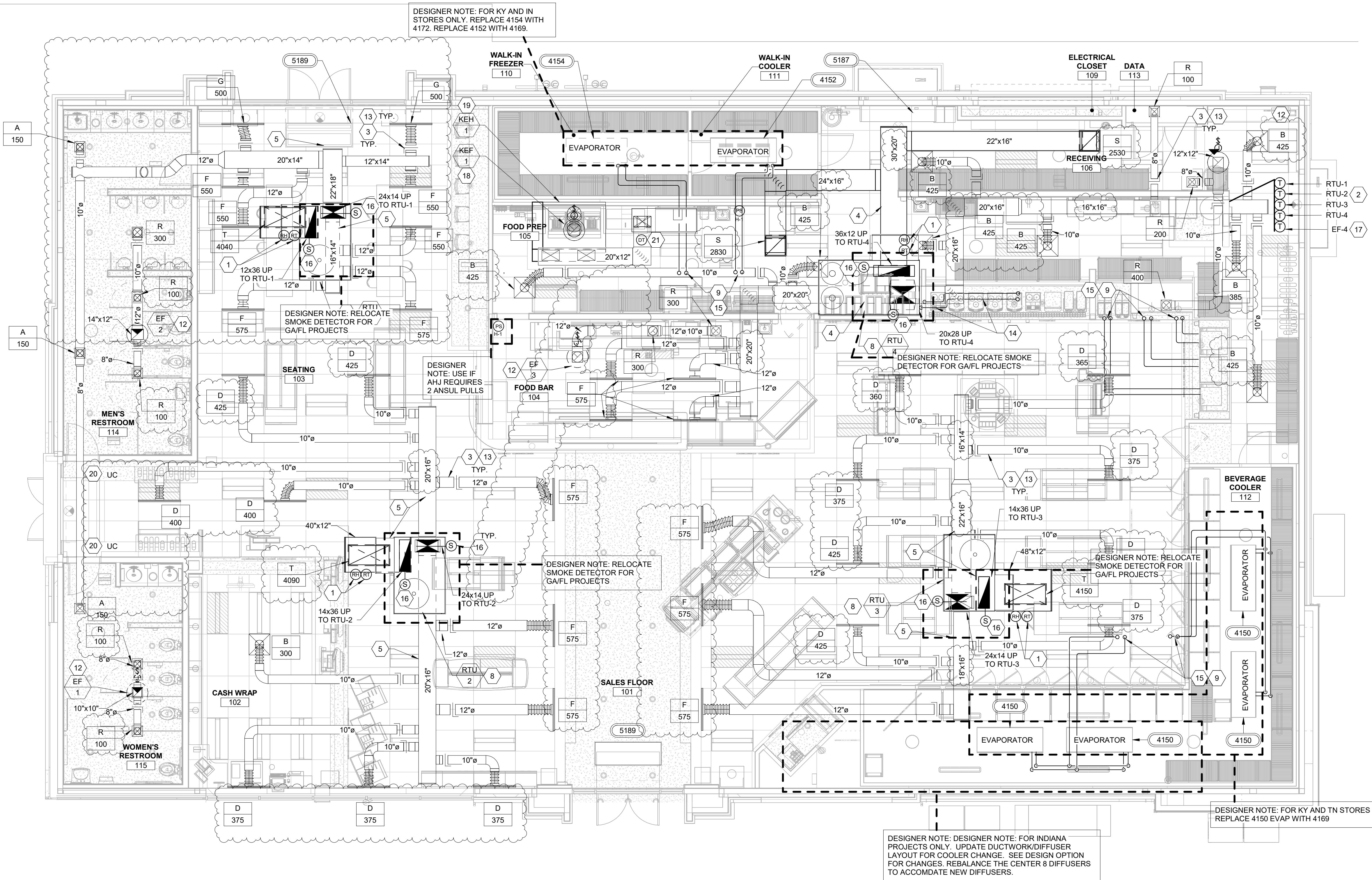
SHEET NUMBER
M120

GENERAL NOTES

- FLEXIBLE DUCTWORK NOT TO EXCEED 5'-0" WHEN LONGER RUNS OCCUR, USE MINIMUM #26 GA HARD ROUND DUCTWORK TO MAINTAIN REQUIRED LENGTH.
- CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE OWNER AND ARCHITECT.
- GENERAL CONTRACTOR TO PROVIDE PIPE STAND TO HOLD REFRIGERANT LINES UP OFF ROOF.
- CONTRACTOR SHALL PERFORM AN AIR BALANCE OF THE HVAC SYSTEMS TO THE AIR QUANTITIES SHOWN ON THE PLAN AND EQUIPMENT SCHEDULE. SUBMIT AIR BALANCE REPORT TO ENGINEER AND OWNER FOR APPROVAL.
- CONTRACTOR SHALL INSTALL 1/2" HARDWARE CLOTH ACROSS ALL RETURN AIR AND SUPPLY AIR DUCTWORK TO PREVENT DEBRIS GETTING INTO THE AIR DISTRIBUTION SYSTEM DURING CONSTRUCTION.
- INSTALL 1" ACOUSTICAL DUCT LINER IN FIRST 15' OF SUPPLY AND RETURN AIR DUCT FROM ROOFTOP UNIT.
- PROVIDE DIFFUSERS/GRILLES WITH NECK SIZE SAME SIZE AS BRANCH DUCTWORK.
- HOOD SYSTEM COMPONENTS TO MAINTAIN MIN. 18" CLEARANCE FROM COMBUSTIBLE MATERIAL, 3" CLEAR FROM LIMITED COMBUSTIBLE MATERIAL, AND 0" CLEAR FROM NON-COMBUSTIBLE MATERIAL, AS DEFINED IN NFPA 96.
- BRANCH SUPPLY DUCT CONNECTION TO MAIN SUPPLY DUCT SHALL BE A MIN. 5'-0" FROM RTU SUPPLY DROP.

SHEET KEYNOTES

- REMOTE TEMPERATURE/HUMIDITY SENSOR MOUNTED IN RETURN DUCT. CONNECT TO PROGRAMMABLE THERMOSTAT/HUMIDISTAT LOCATED IN BACK OF HOUSE AREA.
- THERMOSTAT/HUMIDISTAT FOR RTU-1, RTU-2 & RTU-3 TO BE SET AT 68°F FOR HEATING, 72°F FOR COOLING AND 50% FOR HUMIDITY. THERMOSTAT/HUMIDISTAT FOR RTU-4 TO BE SET AT 67°F FOR HEATING, 73°F FOR COOLING AND 50% FOR HUMIDITY. REFER TO MANUFACTURER REQUIREMENTS FOR FIELD INSTALLED WIRING PRIOR TO ROUGH-IN. THERMOSTATS/HUMIDISTATS SHALL BE INSTALLED AT 48" A.F.F. LOCATE DUCT DETECTOR SMOKE TEST SWITCHES ABOVE THERMOSTATS/HUMIDISTATS.
- SPIN-IN FITTING AND EXTRACTOR SCOOP, TYPICAL.
- ROUTE DUCTWORK BELOW JOIST.
- ROUTE DUCTWORK BETWEEN JOIST.
- NOT USED.
- PACKAGED HVAC UNIT TO BE INSTALLED ON ROOF CURB POSITIONED OVER BUILDING STEEL. COORDINATE INSTALL WITH ARCH/STRUCT DWG. SEE DETAIL 2 AND 6 ON SHEET M430, AND DETAIL 7 ON SHEET M432.
- INSTALL REFRIGERANT PIPING FROM REMOTE CONDENSER ON ROOF TO INDOOR EQUIPMENT/EVAPORATOR AND CONNECT FOR OPERATION. SEAL PIPE PENETRATIONS WITH 3M LATEX SEALANT CP 25WB+. INSULATE PER MECHANICAL NOTES ON SHEET M001. COORDINATE INSTALLATION REQUIREMENTS WITH EQUIPMENT VENDOR.
- NOT USED.
- NOT USED.
- EXHAUST DUCT UP THROUGH ROOF TO EXHAUST FAN. SEE DETAIL 1 ON SHEET M430.
- BALANCE DAMPER SHALL BE PRICE MODEL 80 LOCKING HAND QUADRANT WITH 2" STOPOFF. HAND QUADRANT SHALL BE MOUNTED ON BOTTOM OF DUCT. PROVIDE MAGNETIC INDICATOR ON CEILING GRID FOR LOCATION OF HAND QUADRANT. TYPICAL. SEE DETAIL 5 ON SHEET M430.
- VENDOR TO PROVIDE CHILLED WATER PIPING FROM YOGURT MACHINES #4025 TO REMOTE CHILLER #4131 ON ROOF. PIPING TO GO THROUGH ATR HUB. SEE DETAIL 3 ON SHEET A201.
- REFRIGERANT PIPING UP THROUGH ROOF IN ATR HUB. SEE DETAIL 3 ON SHEET A201.
- SMOKE DETECTOR PROVIDED BY ROOFTOP UNIT. MANUFACTURER TO SHUTDOWN UNIT UPON SENSING SMOKE AND SEND OUT A REMOTE ALARM SIGNAL.
- EF-4 THERMOSTAT SHALL CLOSE ON TEMPERATURE RISE. THERMOSTAT SHALL BE SET AT 75°F. THERMOSTAT SHALL BE HONEYWELL MODEL T651A3018. COORDINATE WITH ELECTRICAL.
- LISTED GREASE DUCT TO BE INSTALLED IN ACCORDANCE WITH LISTING MANUFACTURER INSTRUCTIONS. SLOPE HORIZONTAL DUCT 2% TOWARD HOOD. ACCESS OPENINGS SHALL BE PROVIDED AT ALL CHANGES OF DIRECTION, MAX. 12 FEET APART, AND SHALL COMPLY WITH REQUIREMENTS OF NFPA 96 SECTIONS 7.3 AND 7.4. MAINTAIN 18" CLEAR AROUND DUCT.
- LISTED GREASE EXHAUST DUCT TO BE INSTALLED IN ACCORDANCE WITH LISTING MANUFACTURER INSTRUCTIONS. MAINTAIN 18" CLEAR AROUND DUCT. REFERENCE DETAIL 4 ON SHEET M431.
- UNDERCUT DOOR 3/4" FOR AIR TRANSFER.
- INSTALL DUCT THERMOSTAT.



1 MECHANICAL PLAN
3/16" = 1'-0"

DESIGNER NOTE: VERIFY ACTUAL NORTH DIRECTION AND CHANGE ORIENTATION FOR PROJECT (TYP.)

DESIGN PROFESSIONALS

ISSUE/REVISION RECORD	
DATE	DESCRIPTION
05/13/22	SPB NO. 0104

PROJECT NAME

ANYTOWN,CITY

CITY
STATE 000000
ADDRESS

RACETRAC STORE NUMBER
#0000

PROTOTYPE SERIES TC
2022 LH M0 0104

PLAN MODIFICATION NOTICE
SPB NO. 0104 DATE 05/13/22

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BULLETINS NOT INCORPORATED HEREIN.

PROFESSIONAL SEAL

PROJECT NUMBER
XXXXXXXX

SHEET TITLE
**MECHANICAL ROOF
PLAN**

SHEET NUMBER

M200

GENERAL NOTES

- RUN REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. SUCTION PIPING SHALL BE INSULATED WITH 1/2" MANVILLE AEROTUBE 11 PIPE INSULATION SLID OVER TUBING WITHOUT CUTTING. ALL JOINTS AND SEAMS SHALL BE SEALED WITH ADHESIVE. PROVIDE COATING TO PROTECT INSULATION FROM DETERIORATION FROM THE SUN AND WEATHER.
- CONTRACTOR TO PROVIDE PROTECTIVE HOUSINGS ON ALL HVAC AND REFRIGERATION EQUIPMENT LOCATED OUTSIDE.
- GENERAL CONTRACTOR TO PROVIDE PIPE STAND TO HOLD REFRIGERANT LINES UP OFF ROOF.
- CONTRACTOR SHALL INSTALL 1/2" HARDWARE CLOTH ACROSS DIMENSIONS OF AIR INLET & OUTSIDE AIR INTAKE TO PREVENT BLOCKAGE FROM DEBRIS. CONTRACTOR RESPONSIBLE FOR PAINT TOUCH-UP AT ANY SCRATCHED/MARRED SURFACES. PAINT SPEC PER MANUFACTURER'S RECOMMENDATIONS.
- EXHAUST VENTS SHALL MAINTAIN A MINIMUM OF 10'-0" CLEARANCE FROM ANY OUTSIDE AIR INTAKE.
- COORDINATE EXACT LOCATION OF ALL ROOF PENETRATIONS WITH THE ARCHITECTURAL DRAWINGS.
- ALL CONDUIT/PIPING ROUTED THROUGH ATR HUB SHALL HAVE LOW POINT OUTSIDE OF ATR TO ENSURE WATER TIGHT AND NO WATER OR CONDENSATE RUNS BACK INTO ATR HUB.

SHEET KEYNOTES

- CONTRACTOR TO MAINTAIN 10'-0" CLEARANCE OF OUTSIDE AIR INTAKES ON HVAC UNITS TO ALL EXHAUST OUTLETS AND SANITARY VENTS.
- MAINTAIN FACTORY RECOMMENDED SERVICE CLEARANCES FOR EQUIPMENT ON ROOF.
- COORDINATE LOCATION OF UNITS AND ROOF CURBS WITH THE ARCHITECTURAL AND STRUCTURAL DWGS SHOWING BUILDING STEEL. SEE DETAIL 2 AND 6 ON SHEET M430.
- ALL UTILITIES TO ROOFTOP HVAC UNITS TO BE ROUTED UP THROUGH ROOF CURB. COORDINATE WITH MANUFACTURERS RECOMMENDATION THROUGH THE BASE LOCATIONS FOR UTILITIES.
- G.C. SHALL PROVIDE EQUIPMENT SUPPORT RACKS FOR REMOTE CONDENSERS M.C. SHALL INSTALL OWNER FURNISHED CONDENSERS ON RACKS. SEE DETAIL 8 ON SHEET M430.
- CONTRACTOR SHALL FURNISH AND INSTALL REFRIGERANT PIPING FROM CONDENSERS TO EVAPORATOR/COOLERS IN THE SPACE. COORDINATE EXACT LINE SIZES WITH EQUIPMENT VENDOR.
- G.C. SHALL PROVIDE ATR HUB FOR REFRIGERANT PIPING PENETRATION THROUGH ROOF. SEAL ALL OPENINGS AROUND PIPING WITH FOAM AIR TIGHT. SEE DETAIL 3 ON SHEET A201.
- CONTRACTOR SHALL FURNISH AND INSTALL 1 1/4" CHILLED WATER SUPPLY AND RETURN PIPING FROM CHILLER TO YOGURT MACHINES. COORDINATE EXACT REQUIREMENTS WITH VENDOR.
- SHOWN FOR REFERENCE.
- PROVIDE 1" CONDENSATE DRAIN PIPING FROM ROOFTOP HVAC UNIT TO CLOSEST SCUPPER. SEE DETAIL 4/P431.
- RTU CONDENSATE SHALL TERMINATE AT SCUPPER WITH ELBOW TURNED DOWN IN SCUPPER WITH REQUIRED AIR GAP.
- NON-FREEZE ROOF HYDRANT. SHOWN FOR REFERENCE. SEE PLUMBING PLANS FOR MORE INFORMATION.
- FAN DISCHARGE TO BE LOCATED MIN. 40" ABOVE ROOF SURFACE AND FAN HOUSING TO BE LOCATED MIN. 5'-0" FROM ANY COMBUSTIBLE STRUCTURE. SEE DETAIL 5 ON SHEET M431.
- ROUTE GAS PIPING IN PVC SLEEVE THROUGH PARAPET WALL DOWN TO GAS METER ON OUTSIDE OF WALL.
- 1 1/4" GAS PIPING DOWN THRU ROOF FOR WATER HEATER. ROOF PENETRATIONS SHALL BE BY ROOFING CONTRACTOR. ALL ROOF PENETRATIONS SHALL BE MADE WEATHER TIGHT BY ROOFING CONTRACTOR. GC SHALL COORDINATE WITH ROOFING CONTRACTOR. SEE DETAIL 7 ON P430.
- COMBINATION FLUE/FRESH AIR FOR WATER HEATER. ROOF PENETRATION SHALL BE BY ROOFING CONTRACTOR. ALL ROOF PENETRATIONS SHALL BE MADE WEATHER TIGHT BY ROOFING CONTRACTOR. GC SHALL COORDINATE WITH ROOFING CONTRACTOR.
- ROUTE GAS PIPING ON ROOF. SEE 8 ON P431
- PROVIDE 1 1/4" GAS PIPING TO ROOFTOP UNIT. CONTRACTOR SHALL PROVIDE GAS SHUT-OFF, 6" DIRT LEG AND UNION PRIOR TO FINAL CONNECTION.
- COORDINATE WITH LOCAL GAS UTILITY COMPANY TO PROVIDE A GAS METER SETTING FOR A TOTAL DEMAND OF 840 CFH AT 7"WC DISCHARGE PRESSURE. PROVIDE UNION INCREASER, AND GAS COCK AT DISCHARGE OF METER, AND DIRT LEG AT BOTTOM OF RISER. PROVIDE EARTHQUAKE-ACTIVATED AUTOMATIC GAS SHUT-OFF VALVE IF REQUIRED BY LOCAL AUTHORITIES, AND ANCHOR VALVE TO BUILDING WALL. PAY ANY GAS COMPANY FEES FOR INSTALLATION.
-

GAS KEYNOTES FOR
INKY PROJECTS
REMOVE IF NOT IN INKY.

LOW PRESSURE GAS PIPE SIZING CHART	
PIPE SIZE	LOAD (CFH)
1/2"	36
3/4"	76
1"	143
1-1/4"	294
1-1/2"	441
2"	849
2-1/2"	1,353

FOR SCHEDULE 40 STEEL PIPE
OPERATING PRESSURE OF 7"WC WITH A
PRESSURE DROP OF 0.5"WC
TOTAL DEVELOPED
LENGTH (FEET) = 180
BASED ON NFPA 54 EQUATION 4-1

TOTAL CONNECTED NATURAL GAS LOAD		
EQUIPMENT DESIGNATION	DESCRIPTION	CFH (EACH)
RTU-1	ROOFTOP UNIT	180
RTU-2	ROOFTOP UNIT	180
RTU-3	ROOFTOP UNIT	180
RTU-4	ROOFTOP UNIT	180
KSF1	MAKE UP AIR UNIT	72
GWH #3027	WATER HEATER	120
TOTAL =		912

NATURAL GAS SYSTEM OPERATING PRESSURE: 7" WC
NATURAL GAS SYSTEM SIZED WITH TOTAL DEVELOPED LENGTH FROM
GAS METER TO MOST REMOTE PIECE OF EQUIPMENT: 180 FEET
SYSTEM DESIGN PRESSURE DROP: 0.5" WC

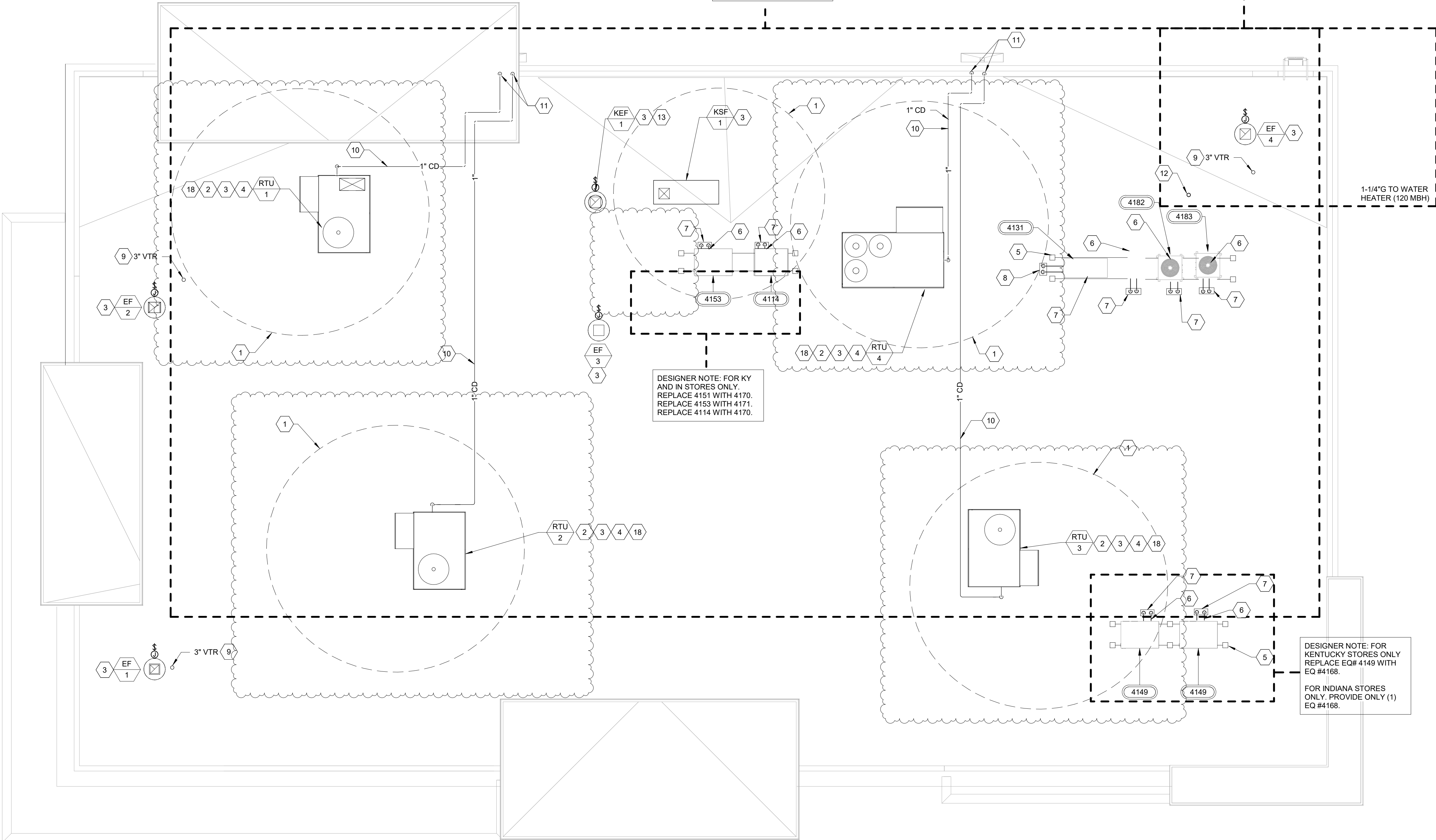
GAS SCHEDULES ARE FOR
INKY PROJECTS. REMOVE IF
PROJECT IS NOT IN INKY.

FOR INKY PROJECTS
REPLACE ELECT. RTU GROUP
WITH GAS RTU GROUP
DOUBLE CHECK TO MAKE
SURE RTUs ARE TAGGED AND
GAS PIPING IS HIDDEN.
REMOVE GAS REFERENCES
AND KEYNOTES #17 AND #18
IF NOT IN INKY PROJECT.

DELETE WATER HEATER VENT,
KEYNOTES #14, #15, #16, #17, #18, #19,
GAS METER AND PIPING FOR
PROJECTS THAT DO NOT HAVE GAS

DESIGNER NOTE: FOR KY
AND IN STORES ONLY
REPLACE 4151 WITH 4170.
REPLACE 4153 WITH 4171.
REPLACE 4114 WITH 4170.

DESIGNER NOTE: FOR
KENTUCKY STORES ONLY
REPLACE EQ# 4149 WITH
EQ #4168.
FOR INDIANA STORES
ONLY. PROVIDE ONLY (1)
EQ #4168.



DESIGN PROFESSIONALS

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/13/22	SPB NO. 0104

RaceTrac.

RACETRAC INC.
200 GALLERIA PARKWAY SOUTHEAST
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANYTOWN,CITY

CITY
STATE 000000
ADDRESS

RACETRAC STORE NUMBER

#0000

PROTOTYPE SERIES TC

2022 LH MO 0104

PLAN MODIFICATION NOTICE

SPB NO. 0104 DATE 05/13/22

STANDARD PLAN BULLETINS (SPB) MODIFY THE
PROTOTYPE SERIES SET NOTED ABOVE. THE
LISTED SPB REPRESENTS THE LATEST
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LISTS ANY REVISIONS OR SPB INCORPORATED IN
THIS SET AFTER THE ORIGINAL RELEASE.
CONTACT RACETRAC ENGINEERING AND
CONSTRUCTION FOR ANY SUBSEQUENT
BULLETINS NOT INCORPORATED HEREIN.

PROFESSIONAL SEAL

PROJECT NUMBER

XXXXXXXX

SHEET TITLE

PLUMBING NOTES
AND LEGENDS

SHEET NUMBER

P001

PLUMBING NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH 2012 IPC, APPLICABLE LOCAL CODES, RULES AND ORDINANCES.
2. PLUMBING CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL CONDITIONS.
3. ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMAN LIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIONAL. ALL EXCAVATION AND BACKFILL, AS REQUIRED FOR THIS PHASE OF CONSTRUCTION, SHALL BE A PART OF THIS CONTRACT.
4. REQUIRED INSURANCE SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
5. PLUMBING CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TESTS, PLUMBING CONTRACTOR TO OBTAIN PERMIT AND APPROVED SUBMITTALS PRIOR TO BEGINNING WORK OR ORDERING EQUIPMENT. PLUMBING CONTRACTOR MUST BE PRESENT FOR ALL INSPECTIONS OF HIS WORK BY REGULATORY AUTHORITIES.
6. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FOR THE EXACT LOCATION OF FIXTURES, PIPING, EQUIPMENT, ETC. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS
7. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION. REPORT ANY DISCREPANCY TO THE ENGINEER/ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
8. VERIFY LOCATION, SIZE, DIRECTION OF FLOW AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. ADVISE ENGINEER OF ANY DISCREPANCIES.
9. WATER DISTRIBUTION PIPING EXPOSED ABOVE GROUND AND BELOW GROUND SHALL BE ASTM B88 TYPE "L" COPPER. WATER DISTRIBUTION PIPING CONCEALED IN WALLS AND ABOVE CEILINGS SHALL BE ASTM D2846 CPVC, APPROVED FOR POTABLE WATER USAGE. COORDINATE WITH LOCAL JURISDICTION FOR ADDITIONAL REQUIREMENTS.
10. DRAIN AND MANIFOLD PIPING UNDER 1-COMPARTMENT AND 3-COMPARTMENT SINKS SHALL BE TYPE "L" COPPER.
11. SOIL, WASTE, AND VENT PIPING SHALL BE NO HUB ASTM A74 CAST IRON OR ASTMD 2685 PVC, WHERE CODE ALLOWS. PVC MAY NOT BE USED THRU RATED FIRE ASSEMBLIES OR IN AIR PLENUMS.
12. ALL FIXTURES MUST BE PROVIDED WITH READILY ACCESSIBLE STOPS AND APPROPRIATELY MARKED ACCESS PANELS. COORDINATE LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
13. FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS AS SHOWN ON DOMESTIC WATER ISOMETRIC, SIZED AND LOCATED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WH-PDI 201.
14. DIELECTRIC COUPLINGS ARE REQUIRED BETWEEN ALL DISSIMILAR METALS IN PIPING AND EQUIPMENT CONNECTIONS.
15. ISOLATE COPPER PIPE FROM HANGER OR SUPPORTS WITH ISOLATOR PADS OR MATERIAL.
16. PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DETECTS FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM DATE OF ACCEPTANCE BY OWNER. CORRECTION OF ANY DETECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
17. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND ALL WATER HAMMER ARRESTORS. ACCESS PANELS IN FIRE RATED WALLS MUST MAINTAIN THE SAME RATING AND MUST MATCH THE FINISH OF THE WALL IN WHICH IT IS INSTALLED.
18. PROVIDE COMBINATION COVER PLATE AND CLEANOUT PLUG OR ACCESS PANEL FOR ALL WALL CLEANOUTS FINISH TO MATCH FIXTURE TRIM.
19. ALL CONTROL VALVES SHALL BE TAGGED AND MARKED. A REPRODUCIBLE DIAGRAM LOCATING ALL VALVES SHALL BE PROVIDED FOR OWNER/OPERATOR.
20. ALL CONDENSATE DRAIN PIPING SHALL BE TYPE "L" COPPER WITH 1/2" ARMAFLEX INSULATION. PVC PIPING WITH ARMAFLEX INSULATION MAY BE USED IN LOCATIONS WHERE ALLOWED BY LOCAL CODES. SEE PLUMBING DRAWINGS FOR SIZE AND LOCATION OF PIPING.
21. PROVIDE ANGLE STOPS ON ALL WATER SERVICE LINES TO FIXTURES FOR INDIVIDUAL SHUT-OFF.
22. WATER PIPING INSULATION SHALL BE 1" ARMAFLEX INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS FOR ALL HOT WATER PIPING. ALL COLD WATER PIPING SHALL BE INSULATED WITH 1/2" ARMAFLEX INSULATION, PER 2012 IECC.
23. PLUMBING CONTRACTOR SHALL COORDINATE INVERT ELEVATION OF EXISTING SANITARY WASTE DRAINAGE PIPING WITH NEW PIPING PRIOR TO INSTALLATION.
24. GENERAL CONTRACTOR TO SEAL ALL PENETRATIONS IN WALLS AND CEILINGS.
25. GENERAL CONTRACTOR TO PROVIDE AND INSTALL QUICK CONNECTIONS / ISOLATION VALVES AT ALL BEVERAGE MACHINES.
26. INDIRECT DRAIN LINES FROM FOUNTAINS, ICE MACHINES, COLD PANS, & OTHER REFRIGERATED MACHINES SHALL BE INSULATED.
27. CONDENSATE LINES IN COOLERS AND FREEZERS SHALL BE INSULATED. INSTALL HEAT TRACE FOR CONDENSATE LINES IN FREEZER.

PLUMBING LEGEND

FCO	FLOOR CLEAN OUT	----->	SANITARY SEWER PIPING
WCO	WALL CLEAN OUT	----- GW ----->	GREASE WASTE PIPING
GCO	GRADE CLEAN OUT	----->	VENT PIPING
S.O.V	SHUT-OFF VALVE	----- CW ----->	DOMESTIC COLD WATER PIPING
FD	FLOOR DRAIN	----- HW ----->	HOT WATER PIPING
CW	DOMESTIC COLD WATER	----- HWR ----->	HOT WATER RECIRCULATING
HW	DOMESTIC HOT WATER	----- CD ----->	CONDENSATE PIPING
HWR	DOMESTIC HOT WATER RECIRCULATING	----- FW ----->	FILTERED WATER PIPING
HB	HOSE BIB	----- FWPH ----->	FILTERED WATER PHOSPHATE PIPING
HD	HUB DRAIN	----->	PIPE RISE UP
VTR	VENT THRU ROOF	----->	PIPE DOWN OR DROP
⌵	BALL VALVE	----->	CAPPED END OF PIPE
⌵	GLOBE VALVE	----->	P-TRAP
⌵	BALANCING VALVE		
#	WATER HAMMER ARRESTER (PDI No.)		
⊙ FD	FLOOR DRAIN		
≡ FS	FLOOR SINK		

SLOPE OF HORIZ. DRAINAGE PIPE

SIZE (inches)	MINIMUM SLOPE (inch per foot)
2-1/2 or less	1/4
3 to 6	1/8
8 or larger	1/16

PER THE 2012 INTERNATIONAL PLUMBING CODE.

DESIGNER NOTE:
UPDATE PER CODE

DESIGNER NOTE:
UPDATE PER CODE

DESIGNER NOTE:
UPDATE PER CODE

INCORPORATED SPB: 2022-0104

CONTRACTOR PROVIDED PLUMBING FIXTURE SCHEDULE

FCV	FLOW CONTROL VALVE: FLOWDESIGN # ICSS "AUTOFLOW". SERIES 300 STAINLESS UNION BODY WITH NICKEL PLATED UNION NUT, STAINLESS STEEL PRESSURE COMPENSATING CARTRIDGE, MEETING NSF 61 ANNEX G, NAMEPLATE AND 1/2" VALVE BODY SIZE UNLESS SHOWN OTHERWISE ON PLANS. PROVIDE 0.5 GPM FLOW RATE CARTRIDGE UNLESS SHOWN OTHERWISE ON PLANS.
FD-1	ADJUSTABLE ON-GRADE FLOOR DRAIN, SQUARE, SIOUX CHIEF MODEL #832-35PNQ
FD-2	ADJUSTABLE ON-GRADE FLOOR DRAIN, ROUND, SIOUX CHIEF MODEL #832-35PNR
FS-1	12"X12"X10" DEEP SQUARE HALF GRATE FLOOR SINK WITH DOME STRAINER, JOSAM MODEL #49360A-NB-3
FS-2	12"X12"10" DEEP SQUARE HALF GRATE FLOOR SINK WITH DOME STRAINER, JOSAM MODEL #49360A-3
FS-3	8"X8"6" DEEP SQUARE GRATE FLOOR SINK WITH DOME STRAINER, JOSAM MODEL #49302-LF
TP	TRAP PRIMER, PRECISION PLUMBING PRODUCTS MODEL PT-6. 120V AC REQUIRED
HYD	WALL HYDRANT TO BE ZURN MODEL #Z1320-C WITH BOX, 6" WALL THICKNESS, 3/4" STRAIGHT INLET CONNECTION, ANTI-SIPHON, FREEZELESS
HYD-R	NON-FREEZE ROOF HYDRANT JAY R SMITH MODEL 5906-H, 3/4" INLET CONNECTION, 1/8" DRAIN HOLE
HWRP-1	BELL AND GOSSETT RECIRC. PUMP, MODEL NBF-22U, 115V, 100 WATT, WITH AQUASTAT.
FCO	FINISHED FLOOR CLEANOUT, ZURN Z1440-NH, CLEANOUT FERRULE W/BRONZE PLUG.
WCO	WALL CLEANOUT, ZURN MODEL #ZS1468 W/STAINLESS STEEL ACCESS COVER AND PLUG.
GCO	GRADE CLEANOUT, WADE MODEL #6000-12
MV-1 MIXING VALVE	ZURN MODEL P6900-TMV-1 WITH 3/8" INLETS/ OUTLETS, INTEGRAL CHECK VALVES AND STRAINER SCREEN, MIN. FLOW 0.50 GPM, MEETS ASSE 1070.
HD-1	ADJUSTABLE HUB DRAIN, ROUND, SIOUX CHIEF MODEL #832-3HHD.
BFP-1	ZURN MODEL 740 ASSE 1022 DUAL CHECK VALVE.
GENERAL NOTES: (1) - FIXTURES SHALL BE AS SHOWN. (2) - ALL FIXTURES SHALL COMPLY WITH TABLE 604.4 OF IPC 2012. (3) - ALL FIXTURES TRIM PACKAGES INCLUDING BUT NOT LIMITED TO TRAP, ANGLE STOP, FLUSH VALVE, SUPPLY TUBES, AND CLEANOUT COVER PLATES SHALL BE POLISHED CHROME FINISH THE SAME AS ZURN Z0930 FAUCET AND PER ARCHITECTURAL FINISH SCHEDULE. (4) - ALL FIXTURES SHALL BE ROUGHED IN PER MANUFACTURER CUT SHEET TO MAINTAIN UNIFORMITY.	

SHOCK ARRESTOR SCHEDULE

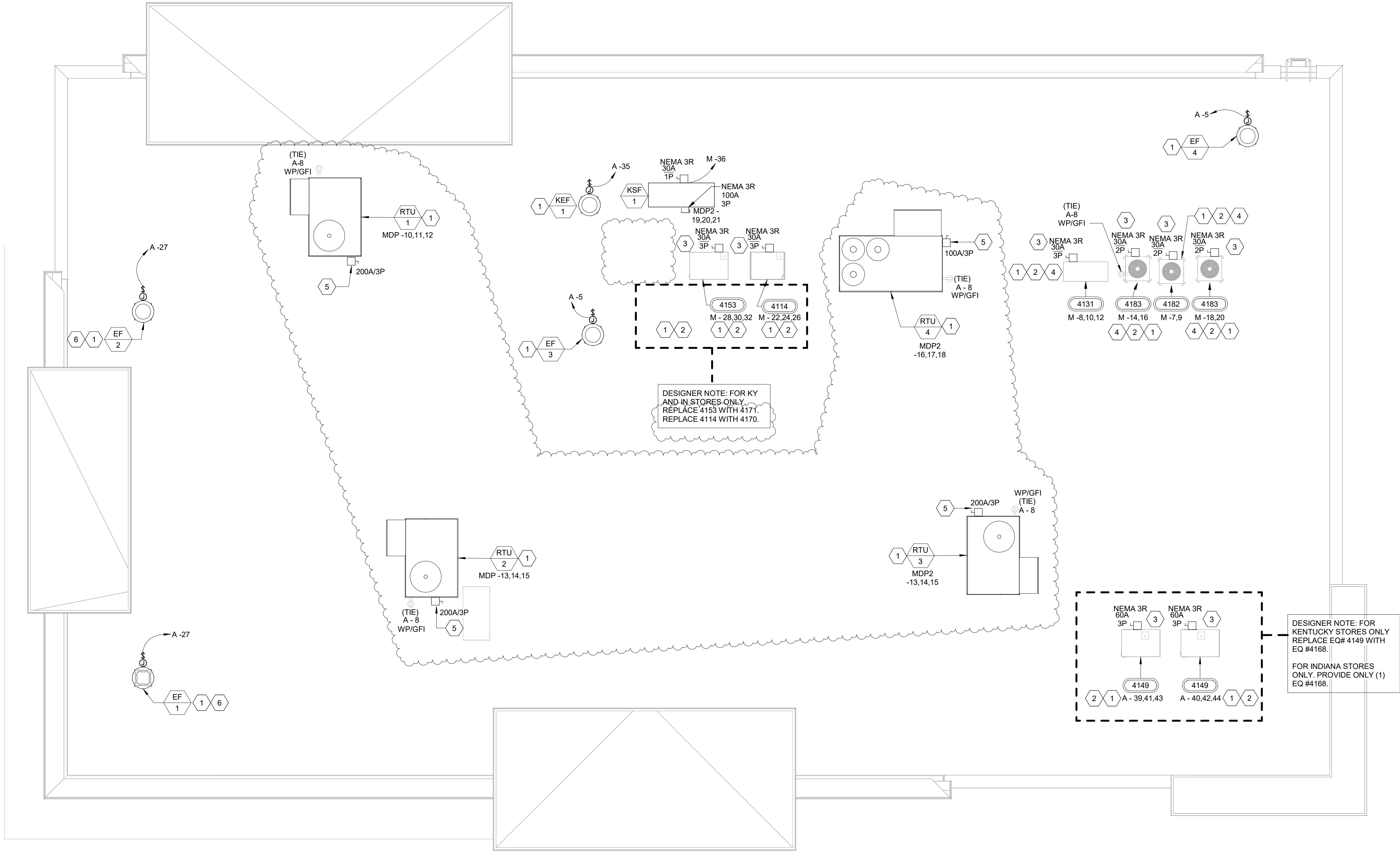
P.D.L. DESIGNATION	MANUF. & MODEL	FIXTURE UNITS	CONNECTION
A	SIOUX CHIEF 652-A	1-11	1/2"
B	SIOUX CHIEF 653-B	12-32	3/4"
C	SIOUX CHIEF 654-C	33-60	1"
SIOUX CHIEF SHOCK ARRESTORS APPROVED FOR INSTALLATION WITH NO ACCESS DOOR REQUIRED. CONFORMS TO ANSI/ASSE 1010 STANDARDS.			

WATER HEATER RECOVERY CALCULATION

FIXTURE	DEMAND (GPH)	QUANTITY	TOTAL (GPH)	NOTES
LAVATORY	6	8	48	0.50 GPM AERATOR
HAND SINK	10	2	20	0.50 GPM AERATOR
3-COMP SINK	60	1	60	2.20 GPM AERATOR
1-COMP SINK	15	1	15	2.20 GPM AERATOR
MOP SINK	20.0	1	20	2.20 GPM AERATOR
				163

163 PH X 0.30 USAGE FACTOR = 48.9 GPH RECOVERY
48.9 GPH X 0.9 STORAGE FACTOR = 44 GAL TANK MINIMUM, 50 GAL TANK PROVIDED

18,000 WATT = 82.6 GPH @ 90°F TEMP RISE PROVIDED



1 ELECTRICAL ROOF PLAN
3/16" = 1'-0"

GENERAL NOTES

1. DISCONNECTS FOR HVAC EQUIPMENT FURNISHED BY HVAC MANUFACTURER.
2. DISCONNECTS FOR REFRIGERATION EQUIPMENT PROVIDED BY EC.
3. RECEPTACLES SHOWN ON HVAC EQUIPMENT PROVIDED BY HVAC MANUFACTURER. WIRING TO THE RECEPTACLES BY EC.
4. ELECTRICAL CONTRACTOR TO APPLY NAME LABELS TO COMPRESSOR HOUSINGS AFTER INSTALLATION. LABELS SUPPLIED BY RACETRAC.

SHEET KEYNOTES

1. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL INTERCONNECTING WIRE AND OVER CURRENT PROTECTION REQUIRED BY THE MANUFACTURER. REFER TO INSTALLATION INSTRUCTIONS.
2. ROUTE BRANCH CIRCUITS DOWN THROUGH ROOF VIA REFRIGERANT LINE ROOF JACK PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. COORDINATE 'ATR' HUB LOCATIONS WITH ARCHITECTURAL & MECHANICAL DRAWINGS.
3. FUSES ACCORDING TO MANUFACTURER RECOMMENDATIONS. PROVIDED BY RT.
4. CONDENSER TO BE FED FROM ITS ASSOCIATED ICE MAKER ON SALES FLOOR.
5. ELECTRICAL CONTRACTOR TO INSTALL OWNER FURNISHED EXTERNAL MOUNTED FUSED DISCONNECT SWITCH, NEMA 3R, RK1, CURRENT LIMITING
6. EXHAUST FANS EF-1 & EF-2 SHALL BE CONTROLLED BY OCCUPANCY SENSOR IN RESTROOMS.

RaceTrac

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PROHIBITED. 2021 RACETRAC INC.

DESIGN PROFESSIONALS

ISSUE/REVISION RECORD

DATE	DESCRIPTION
05/13/22	SPB NO. 0104

RaceTrac

RACETRAC INC.
200 GALLERIA PARKWAY SOUTHEAST
SUITE 900
ATLANTA, GEORGIA 30339
(770) 431-7600

PROJECT NAME

ANYTOWN,CITY

CITY
STATE 000000
ADDRESS

RACETRAC STORE NUMBER

#0000

PROTOTYPE SERIES TC

2022 LH MO 0104

PLAN MODIFICATION NOTICE

SPB NO. 0104 DATE 05/13/22

STANDARD PLAN BULLETINS (SPB) MODIFY THE
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PROFESSIONAL SEAL

PROJECT NUMBER

XXXXXXXX

SHEET TITLE

ROOF POWER
PLANS

SHEET NUMBER

E200

INCORPORATED SPB: 2022-0104

Branch Panel: M1																
Location: Supply From: MDP2 Mounting: PRE-FABRICATED Enclosure: PRE-FABRICATED						Volts: 120/208 Wye Phases: 3 Wires: 4				A.I.C. Rating: 65,000 SERIES RATED Mains Type: MLO Mains Rating: 200 A MCB Rating:						
Notes:																
Notes	CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT	Notes	
GB	1	FCB VIPER #3014 L	30 A	2	2000	2080					2	20 A	BEAN TO CUP MACHINE 1 #3017	2	GB	
	3						2000	2080						2000		2080
GB	5	FCB VIPER #3014 R	30 A	2	2000	2080				2000	2080	2	20 A	BEAN TO CUP MACHINE 2 #3017	6	GB
	7														8	
GB	9	ICE MAKER #4181 (CUBED)	20 A	2			1279	2080			2	20 A	BEAN TO CUP MACHINE 3 #3017	10	GB	
	11							1279	2080							12
GB	13	ICE MAKER (CRUSHED) - 1 #4013	20 A	2	1591	2080					2	20 A	BEAN TO CUP MACHINE 4 #3017	14	GB	
	15						1591	2080								16
GB	17	ICE MAKER(CRUSHED) - 2 #4013	20 A	2						1591	2080	2	20 A	BEAN TO CUP MACHINE 1 #3022	18	GB
	19				1591	2080									20	
GB	21	HOT PLATE (HATCO) # 5185-1	20 A	1			1560	2080			2	20 A	BEAN TO CUP MACHINE 2 #3022	22	GB	
GB	23	HOT PLATE (HATCO) #5185-2	20 A	1					1560	2080				24		
GB	25	SINGLE FOOD WARMER #5059	20 A	1	420	588					1	20 A	GLASS DOOR FREEZER #5060	26		
GB	27	TEA BREWER 1 #3033	20 A	1			1680	145			1	20 A	PASTRY CASE #5158	28	GB	
GB	29	TEA BREWER 2 #3033	20 A	1					1680	1104	1	20 A	TWO DOOR REFRIGERATOR #4033	30	GB	
GB	31	HOT CASE #5179	20 A	2	2054	1800					1	20 A	CAPPUCCINO DISPENSER #3008	32	GB	
	33						2054	1800								
GB	35	INFRARED STRIP HEATER #5210-1	20 A	2						1550	1800	1	20 A	VERTICAL OPE DISPLAY CASE 2 #5115	36	GB
	37				1550	1550										
GB	39	INFRARED STRIP HEATER #5210-3	20 A	2			250	1550			2	20 A	INFRARED STRIP HEATER #5210-2	40	GB	
	41									250				0		1
Total Load:					23464 VA		22229 VA		21134 VA							
Total Amps:					197 A		187 A		176 A							
Legen...																
Load Classification			Connected Load		Demand Factor		Estimated Demand		Panel Totals							
Other			3600 VA		100.00%		3600 VA									
Receptacle			8320 VA		100.00%		8320 VA		Total Conn. Load: 66828 VA							
Kitchen Equipment			54908 VA		65.00%		35690 VA		Total Est. Demand: 47610 VA							
									Total Conn.: 185 A							
									Total Est. Demand: 132 A							
Notes:																

PANEL SCHEDULE NOTES:

- L - CIRCUIT REQUIRES A BREAKER LOCKING DEVICE.
- P - CIRCUIT IS PREWIRED BY POWER WALL PRE-FABRICATOR TO ITS POINT OF UTILIZATION WITHIN THE POWER WALL.
- D - PREWIRED FROM BREAKER THRU CONTACTOR TO TERMINAL STRIP. CONTACTOR IS CONTROLLED BY THE MP/DISPENSER CONTROL SYSTEM.
- M - MOTOR OVERLOAD PROTECTION IS TO BE INTEGRAL TO MOTOR OR PROVIDED BY OTHERS. MOTOR OVERLOAD PROTECTION IS NOT PROVIDED BY PRE-FABRICATOR.
- S - INTEGRAL SHUNT-TRIP CIRCUIT BREAKER.
- GB - CIRCUIT REQUIRES A GROUND FAULT (GFCI) BREAKER.
- GBE - CIRCUIT REQUIRES A EQUIPMENT GROUND FAULT (GFCI) BREAKER (30ma).
- GR - CIRCUIT REQUIRES A GROUND FAULT (GFCI) RECEPTACLE.
- EM - (ADJACENT TO PANEL CIRCUIT NUMBERS) DENOTES EACH CIRCUIT THAT SHALL BE OPERATIONAL WHEN THE GENERATOR IS IN USE. ALL OTHER CIRCUIT BREAKERS SHALL BE SWITCHED "OFF", AND THE PANEL DOORS SHALL BE CLOSED AND LOCKED.

-ALL WORK PERTAINING TO THE CONNECTION AND OPERATION OF THE PORTABLE EMERGENCY GENERATOR SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR. THIS INCLUDES THE SWITCHED "OFF", AND PROTECTION OF ALL CIRCUIT BREAKERS NOT DESIGNATED 'EM' ON THE PANEL SCHEDULES.

CIRCUITS SHOWN WITH (***) ARE CONTROLLED LIGHTING CIRCUITS. REFER TO SHEET E001 FOR CONTACTOR SCHEDULE.

MAXIMUM 4800 WATTS PER 208 VOLT, 30 AMP LIGHTING CIRCUIT.
MAXIMUM 1800 WATTS PER 120 VOLT, 20 AMP LIGHTING CIRCUIT.

VERIFY BREAKER SIZE AND LOAD WITH MANUFACTURER'S LITERATURE IN FIELD.

DESIGNER NOTE: SITE ADAPT FOR SITES THAT HAVE LIFT STATIONS.

MAIN DISTRIBUTION PANEL: MDP												
Location: ELECTRICAL CLOSET 109					Volts: 120/208 Wye			A.I.C. Rating: 65,000 SERIES RATED				
Supply From:					Phase... 3			Mains Type: MCB 100% RATED				
Mounting: PRE-FABRICATED					Wires: 4			Mains Rating: 1000 A				
Enclosure: PRE-FABRICATED					MCB Rating:							
Notes	CKT	Circuit Description	Circuit Information	Trip	Poles	A	B	C				
P	1	PANEL D1	4#3/0, & 1#6GND., INTERNALLY PRE-WIRED FACTORY INSTALLED	200 A	3	14306 VA						
	2						12486 VA		10326 VA			
	3											
P	4	PANEL B	4#3/0, & 1#6GND., INTERNALLY PRE-WIRED FACTORY INSTALLED	200 A	3	8691 VA						
	5						6523 VA					
	6								7210 VA			
P	7	PANEL D	4#3/0, & 1#6GND., INTERNALLY PRE-WIRED FACTORY INSTALLED	200 A	3	15109 VA						
	8						16309 VA		11967 VA			
	9											
	10	RTU-1	3 #1, & 1 #6 GND., IN 1-1/2" CONDUIT	110 A	3	12129 VA						
	11						12129 VA		12129 VA			
	12											
	13	RTU-2	3 #1, & 1 #6 GND., IN 1-1/4" CONDUIT	110 A	3	12129 VA						
	14						12129 VA		12129 VA			
	15								12129 VA			
	16	WATER HEATER #3013	4#4, & 1#8GND., IN 1" CONDUIT	70 A	3	6004 VA						
	17						6004 VA		6004 VA			
	18											
GB	19	FRYER 1 - #5139	3#6, & 1#10GND., IN 3/4" CONDUIT, WIRE THROUGH SHUNT TRIP CONTACTOR AT HOOD.	60 A	3	5667 VA						
	20						5667 VA		5667 VA			
	21								5667 VA			
GB	22	FRYER 2 - #5139	3#6, & 1#10GND., IN 3/4" CONDUIT, WIRE THROUGH SHUNT TRIP CONTACTOR AT HOOD.	60 A	3	5667 VA						
	23						5667 VA		5667 VA			
	24								5667 VA			
GB	25	FRYER 3 - #5139	3#6, & 1#10GND., IN 3/4" CONDUIT, WIRE THROUGH SHUNT TRIP CONTACTOR AT HOOD.	60 A	3	5667 VA						
	26						5667 VA		5667 VA			
	27								5667 VA			
	28	PANEL T	4#4, & 1#10GND., IN 1-1/4" CONDUIT	60 A	3	4718 VA						
	29						4640 VA		3106 VA			
	30											
	31	PANEL T1	4#4, & 1#10GND., IN 1-1/4" CONDUIT	60 A	3	829 VA						
	32						1500 VA		1500 VA			
	33											
--	34	SPACE		--	1	--						
--	35	SPACE		--	1		--					
--	36	SPACE		--	1			--				
--	37	SPACE		--	1	--						
--	38	SPACE		--	1		--					
--	39	SPACE		--	1			--				
--	40	SPACE		--	1	--						
--	41	SPACE		--	1		--					
--	42	SPACE		--	1			--				
	43	PROVISION FOR LIFT STATION	3#2, & 1#8GND, IN 1" CONDUIT	100 A	3	3483 VA						
	44						3483 VA		3483 VA			
	45											
	46	GENERATOR CONNECTION BOX	(2) SETS #4350KCMIL, & 1#2/0GND., IN 3" CONDUIT (KIRK KEY INTERLOCK)	600 A	3	0 VA						
	47						0 VA		0 VA			
	48								0 VA			
	49	MAIN BREAKER	REFER TO ELETRICAL SERVICE SCHEMATIC ELEVATION FOR SERVICE CONDUCTORS	1000 A	3	0 VA						
	50						0 VA		0 VA			
	51								0 VA			
	52	TVSS	3#10, & 1#10GND., IN 3/4" CONDUIT	30 A	3	0 VA						
	53						0 VA		0 VA			
	54								0 VA			
Total Load:						94397 VA	92203 VA	84854 VA				
Total Amps:						796 A	778 A	707 A				
Load Classification		Connected Load	Demand Factor	Estimated...	Panel Totals							
HVAC		90785 VA	100.00%	90785 VA								
Lighting		17139 VA	125.00%	21424 VA								
Other		3960 VA	100.00%	3960 VA	Total Conn. Load: 271453 VA							
Power		64479 VA	100.00%	64479 VA	Total Est. Demand: 253296 VA							
Receptacle		19184 VA	76.06%	14592 VA	Total Conn. Current: 753 A							
Kitchen Equipment		51000 VA	65.00%	33150 VA	Total Est. Demand Current: 703 A							
MISC EQUIP		14458 VA	100.00%	14458 VA								
MOTORS		10449 VA	100.00%	10449 VA								
Notes:												

MAIN DISTRIBUTION PANEL: MDP												
Location: ELECTRICAL CLOSET 109 Supply From: Mounting: PRE-FABRICATED Enclosure: PRE-FABRICATED					Volts: 120/208 Wye Phase... 3 Wires: 4			A.I.C. Rating: Mains Type: MCB 100% RATED Mains Rating: 1000 A MCB Rating:				
Notes	CKT	Circuit Description	Circuit Information			Trip	Poles	A	B	C		
P	1	PANEL M	4#3/0, & 1#6GND., INTERNALLY PRE-WIRED FACTORY INSTALLED			200 A	3	18490 VA				
								19756 VA				
										21382 VA		
P	4	PANEL E	4#3/0, & 1#6GND., INTERNALLY PRE-WIRED FACTORY INSTALLED			200 A	3	22850 VA		19279 VA		
										20289 VA		
P	7	PANEL M1	4#3/0, & 1#6 GND., INTERNALLY PRE-WIRED FACTORY INSTALLED			200 A	3	23464 VA		22229 VA		
										21134 VA		
P	10	PANEL A	4#3/0, & 1#6 GND., INTERNALLY PRE-WIRED FACTORY INSTALLED			200 A	3	17663 VA		17806 VA		
										17006 VA		
	13	RTU-3	3 #1, & 1 #6 GND., IN 1-1/2" CONDUIT			110 A	3	12129 VA	12129 VA		12129 VA	
	15	RTU-4	3 #3, & 1 #8 GND., IN 1-1/4" CONDUIT			80 A	3	8646 VA	8646 VA		8646 VA	
	17		3 #3, & 1 #8 GND., IN 1-1/4" CONDUIT			90 A	3	5776 VA	5776 VA		5776 VA	
	19	KSF-1 HEATER										
--	22	SPACE				--	1	--				
--	23	SPACE				--	1		--			
--	24	SPACE				--	1			--		
--	25	SPACE				--	1	--				
--	26	SPACE				--	1		--			
--	27	SPACE				--	1			--		
--	28	SPACE				--	1	--				
--	29	SPACE				--	1			--		
--	30	SPACE				--	1				--	
--	31	SPACE				--	1				--	
--	32	SPACE				--	1		--			
--	33	SPACE				--	1			--		
--	34	SPACE				--	1	--				
--	35	SPACE				--	1			--		
--	36	SPACE				--	1				--	
--	37	SPACE				--	1	--				
--	38	SPACE				--	1			--		
--	39	SPACE				--	1				--	
--	40	SPACE				--	1	--				
--	41	SPACE				--	1			--		
--	42	SPACE				--	1				--	
--	43	SPACE				--	1	--				
--	44	SPACE				--	1			--		
--	45	SPACE				--	1				--	
	46	GENERATOR CONNECTION BOX	(2) SETS 4#350KCMIL, & 1#2/0GND., IN 3" CONDUIT (KIRK KEY INTERLOCK)			600 A	3	0 VA	0 VA		0 VA	
	48											
	50	MAIN BREAKER	REFER TO ELECTRICAL SERVICE SCHEMATIC ELEVATION FOR SERVICE CONDUCTORS			1000 A	3	0 VA	0 VA		0 VA	
	51											
	52	TVSS	3#10, & 1#10GND., IN 3/4" CONDUIT			30 A	3	0 VA	0 VA		0 VA	
	53											
	54											
							Total Load:	108999 VA	105621 VA	106279 VA		
							Total Amps:	909 A	880 A	886 A		
Load Classification			Connected Load	Demand Factor	Estimated...	Panel Totals						
HVAC			70334 VA	100.00%	70334 VA	Total Conn. Load:			320891 VA			
Lighting			5940 VA	125.00%	7425 VA	Total Est. Demand:			245728 VA			
Motor			1080 VA	100.00%	1080 VA	Total Conn. Current:			891 A			
Other			10700 VA	100.00%	10700 VA	Total Est. Demand Current:			682 A			
Power			7700 VA	100.00%	7700 VA							
Receptacle			21837 VA	72.90%	15919 VA							
Kitchen Equipment			202094 VA	65.00%	131361 VA							
MISC EQUIP			1188 VA	100.00%	1188 VA							
MOTORS			60 VA	100.00%	60 VA							
Notes:												