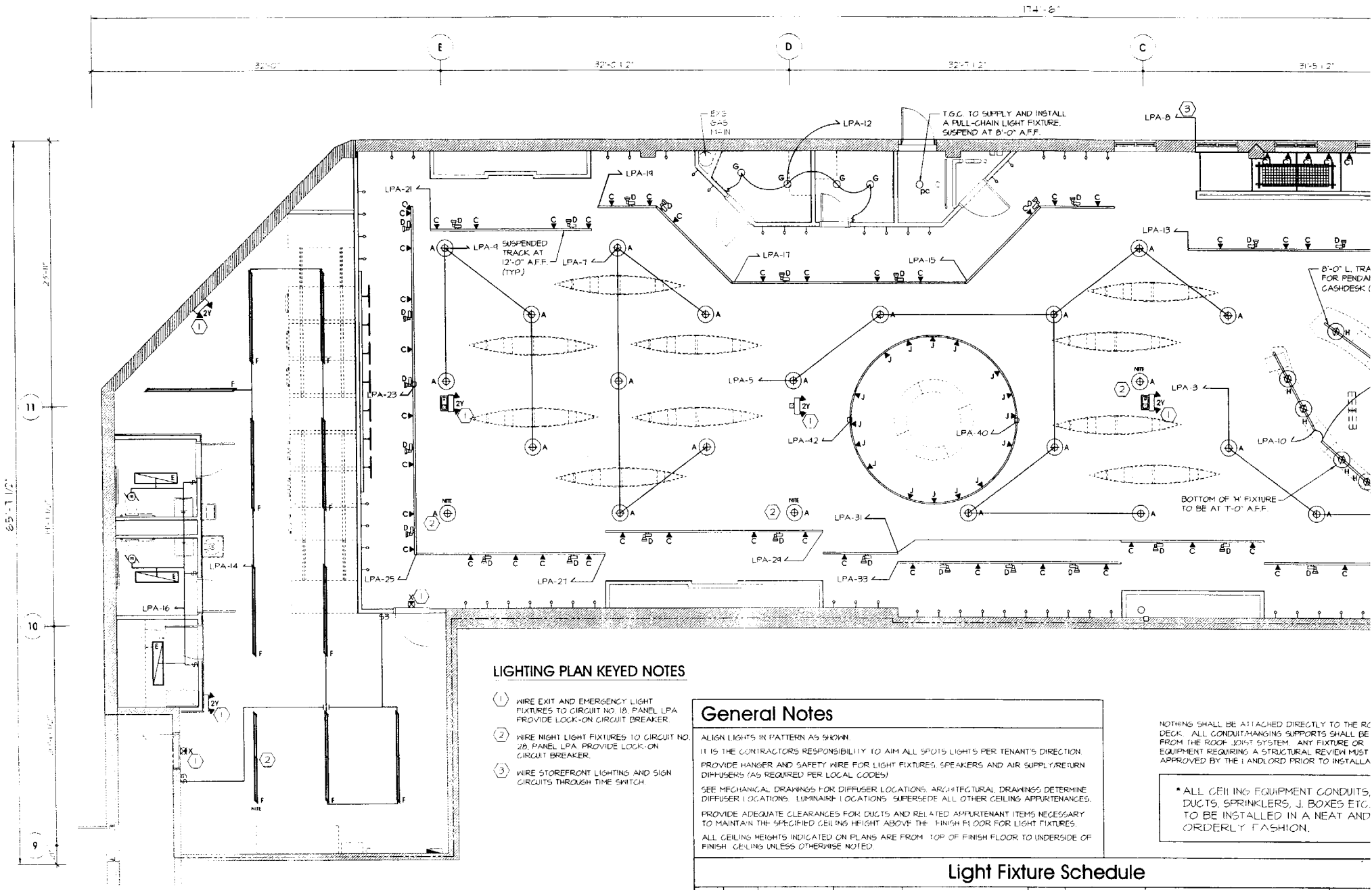


LIGHTING PLAN KEYED NOTES

1. WIRE EXIT AND EMERGENCY LIGHT FIXTURES TO CIRCUIT NO. 18, PANEL LPA. PROVIDE LOCK-ON CIRCUIT BREAKER.
2. WIRE NIGHT LIGHT FIXTURES TO CIRCUIT NO. 28, PANEL LPA. PROVIDE LOCK-ON CIRCUIT BREAKER.
3. WIRE STOREFRONT LIGHTING AND SIGN CIRCUITS THROUGH TIME SWITCH.

General Notes

ALIGN LIGHTS IN PATTERN AS SHOWN.

IT IS THE CONTRACTORS RESPONSIBILITY TO AIM ALL SPOTS LIGHTS PER TENANT'S DIRECTION.

PROVIDE HANGER AND SAFETY WIRE FOR LIGHT FIXTURES, SPEAKERS AND AIR SUPPLY/RETURN DIFFUSERS (AS REQUIRED PER LOCAL CODES)

SEE MECHANICAL DRAWINGS FOR DIFFUSER LOCATIONS. ARCHITECTURAL DRAWINGS DETERMINE DIFFUSER LOCATIONS. LUMINAIRE LOCATIONS SUPERSEDE ALL OTHER CEILING APPURTENANCES.

PROVIDE ADEQUATE CLEARANCES FOR DUCTS AND RELATED APPURTENANT ITEMS NECESSARY TO MAINTAIN THE SPECIFIED CEILING HEIGHT ABOVE THE FINISH FLOOR FOR LIGHT FIXTURES.

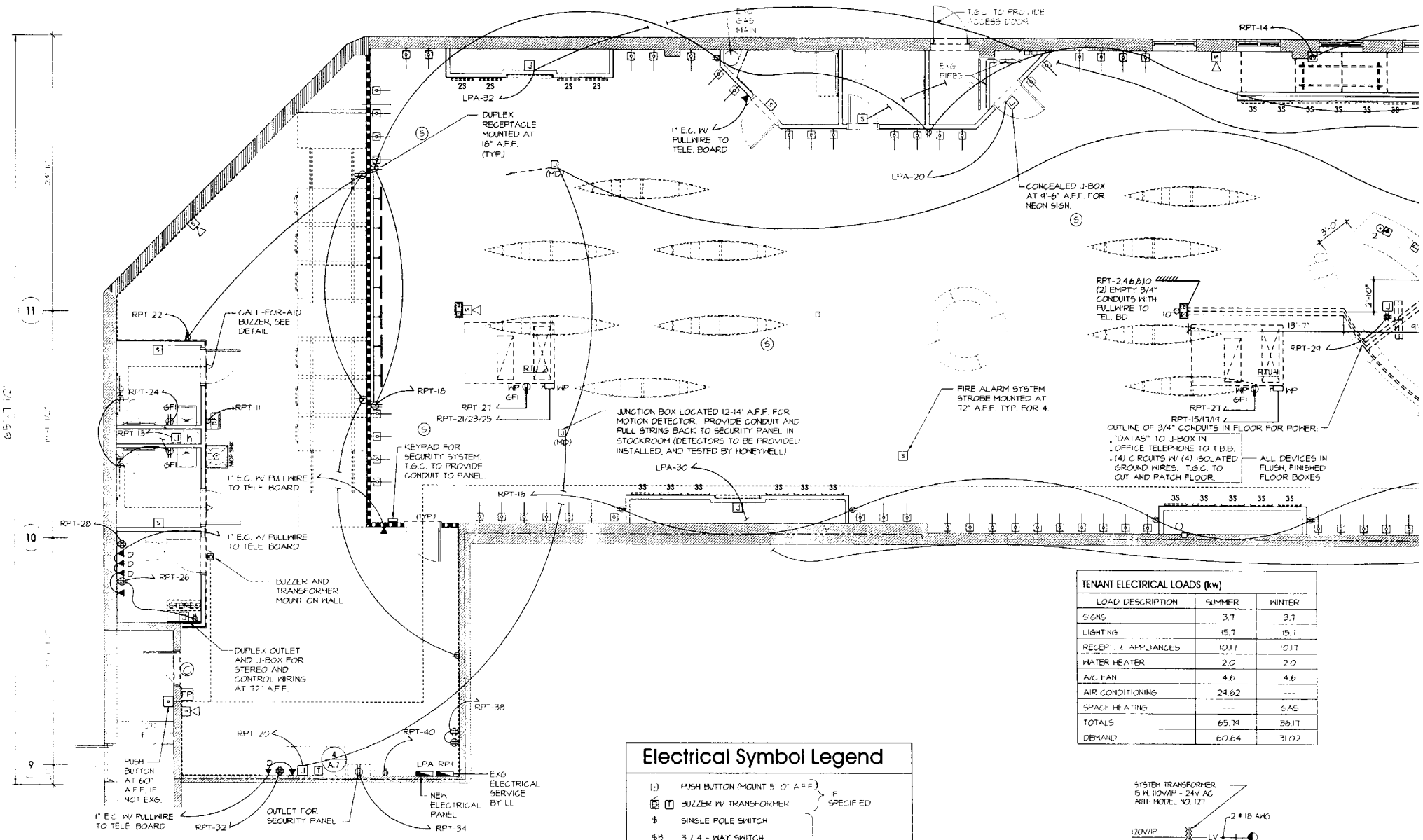
ALL CEILING HEIGHTS INDICATED ON PLANS ARE FROM TOP OF FINISH FLOOR TO UNDERSIDE OF FINISH CEILING UNLESS OTHERWISE NOTED.

NOTHING SHALL BE ATTACHED DIRECTLY TO THE RO DECK. ALL CONDUIT/HANGING SUPPORTS SHALL BE FROM THE ROOF JOIST SYSTEM. ANY FIXTURE OR EQUIPMENT REQUIRING A STRUCTURAL REVIEW MUST APPROVED BY THE LANDLORD PRIOR TO INSTALLA

* ALL CEILING EQUIPMENT CONDUITS, DUCTS, SPRINKLERS, J. BOXES ETC. TO BE INSTALLED IN A NEAT AND ORDERLY FASHION.

Light Fixture Schedule

QTY.	CODE	TYPE	MANFR.	CAT.#	VOLTS	LAMP	DESCRIPTION	MOUNT
38	A *	⊕	AMERLUX	PD3-10017	120V	MH100/C/U/M/BK	PENDANT LIGHT "AMERLUX" PENDALITE III	PENDANT
61	C	▼	CONTECH	CLT838/2B	120V	60PAR38/IRC/FL	HALOGEN TRACK FIXTURE PAR38 (BLACK)	PENDANT
21	C1	▼	CONTECH	CLT838/2B	120V	60PAR38/IRC/FL	HALOGEN TRACK FIXTURE PAR38 (BLACK)	FASCIA
34	D		AMERLUX	MURII-100-M-B-CON-120-HW	120V	MH100/C/U/M/BK	METAL HALIDE WALL WASH LIGHT (BLACK)	-
3	E		MERCURY	MI06-232-OCT-9A-ELB-120V	120V	PHILIPS (2) F32T8/TL735	4'-2 LAMP STRIP LIGHT W/ WRAP AROUND ACRYLIC	SURFACE
10	F		MERCURY	MM 232 OCT/8T-ELB-120V	120V	PHILIPS (4) F32T8/TL735	8' DOUBLE TUBE FLUORESCENT (4)48" LAMPS END TO END	SUSPEND
4	G	○	LIGHTOLIER	1102P1/ P13W/H	120V	PHILIPS 60PAR38/IRC/FL	PAR38 RECESSED DOWN LIGHT	RECESSE
0	G1	○	LIGHTOLIER	8031CGDW 6132BU/1951	120V	PHILIPS PLT32W/30/4P	FLUORESCENT DOWNLIGHT	RECESSE



A Power Plan

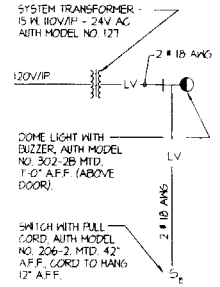
SCALE : 3/16" = 1'-0"

0 1' 2' 3' 6' 12'

TENANT ELECTRICAL LOADS (kw)		
LOAD DESCRIPTION	SUMMER	WINTER
SIGNS	3.1	3.1
LIGHTING	15.1	15.1
RECEPT. & APPLIANCES	10.17	10.17
WATER HEATER	2.0	2.0
A/C FAN	4.6	4.6
AIR CONDITIONING	24.62	---
SPACE HEATING	---	GAS
TOTALS	65.39	36.17
DEMAND	60.84	31.02

Electrical Symbol Legend

	PUSH BUTTON (MOUNT 5'-0" A.F.F.)	IF SPECIFIED
T	BUZZER W/ TRANSFORMER	
$	SINGLE POLE SWITCH	GREY
$3	3 / 4 - WAY SWITCH	
	QUADPLEX WALL RECEPTACLE	
	DUPLEX WALL RECEPTACLE	
	CASH REGISTER RECEPTACLE	
	FLOOR OUTLET	
	CEILING OUTLET (OR ON FASCIA) T.G.C. TO PAINT	
J	JUNCTION BOX (MD) MOTION DETECTOR	
	TELEPHONE / TELEPHONE FLR. OUTLET	
D	DATA LINE / DATA FLR. OUTLET	
S	SECURITY SYSTEM DOOR CONTACT	



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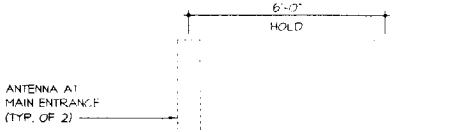
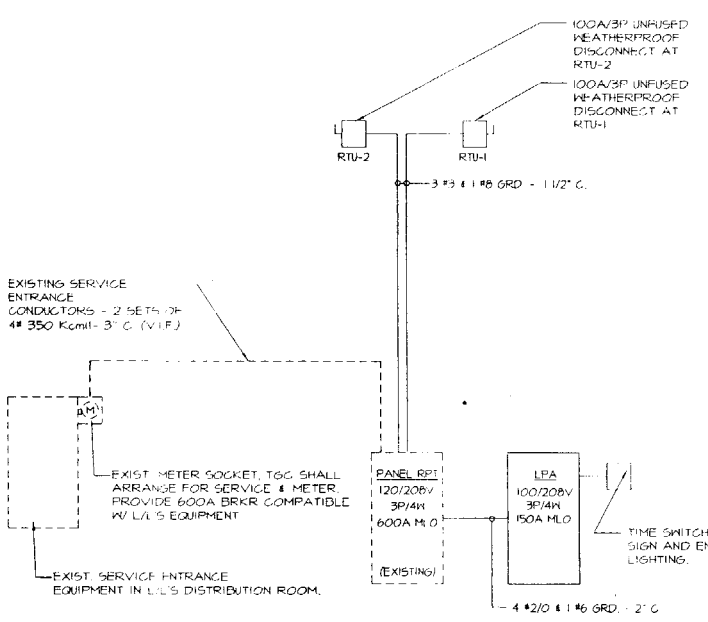


FIXTURE NOTES

1. FIXTURES SHALL HAVE THE APPROPRIATE UL LABEL, INCLUDING DAMP OR WET LABEL, TO SUIT THE INSTALLED LOCATIONS.
2. FIXTURES SHALL INCLUDE ACCESSORIES AND FITTINGS REQUIRED FOR A COMPLETE INSTALLATION AND TO COMPLY WITH ALL LOCAL AND NATIONAL CODES.
3. PRIOR TO ORDERING ANY LIGHTING EQUIPMENT, THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND RECESS DEPTHS.
4. LAMPS SHALL BE INSTALLED ACCORDING TO THE ATTACHED FIXTURE SCHEDULE.
5. CEILING THICKNESS' IN EXCESS OF 3/4" SHALL BE IDENTIFIED IN WRITING BY CONTRACTOR TO THE ARCHITECT.
6. FIXTURES SHALL BE ORDERED WITH THE APPROPRIATE BALLASTS THAT HAVE UL LABEL AND CBM CERTIFICATION.
7. PROVIDE APPROVED FIRE-RATED ENCLOSURES FOR LIGHTING FIXTURES LOCATED IN FIRE-RATED CEILINGS.
8. FIXTURES LOCATED IN INSULATED CEILING AREAS SHALL HAVE AN IC-RATED HOUSING (CONTRACTOR TO COORDINATE)

POWER RISER DIAGRAM

N.T.S.



SPECIFICATIONS:

PART 1 GENERAL

1.01 SCOPE

A. PROVIDE ALL ELECTRICAL SYSTEMS INDICATED ON OR INFERABLE FROM CONTRACT DOCUMENTS, COMPLETE IN ALL RESPECTS READY FOR USE BY THE OWNER. THE DRAWINGS AND SPECIFICATIONS ARE COMPLIMENTARY. IN CASE OF AMBIGUITY, THE MOST STRINGENT PROVISION, THE LARGER QUANTITY OR THE HIGHER QUALITY SHALL APPLY.

1.02 CODES, RULES, REGULATIONS, STANDARDS

A. PERFORM WORK IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND OTHER RULES AND REGULATIONS GOVERNING A SPECIFIC PROJECT LOCATION EXCEPT WHERE WORK OF HIGHER QUALITY IS REQUIRED BY THE DOCUMENTS.

B. CONSTRUCTION STANDARDS RECOMMENDED BY THE MOST STRINGENT OF NEMA, UL, ANSI, ETL-CBM, ASTM AND/OR DRAWING SHALL APPLY.

1.03 COORDINATION WITH LANDLORD AND UTILITY COMPANIES

A. COORDINATE WITH LANDLORD/UTILITY COMPANIES AND PROVIDE PROPER AND TIMELY SERVICES TO THE PROJECT. WORK SHALL BE IN ACCORDANCE WITH LANDLORD AND/OR UTILITY COMPANY REQUIREMENTS. PROVIDE WRITTEN NOTICE OF SHUT-DOWNS WHERE REQUIRED.

1.04 TEMPORARY SERVICES

A. PROVIDE ADEQUATE AND SAFE TEMPORARY ELECTRICAL POWER AND LIGHTING THROUGHOUT THE CONSTRUCTION AND FURNISHING OF THE PREMISES FOR BENEFICIAL OCCUPANCY BY THE TENANT. IN ADDITION TO SPECIAL OR UNUSUAL REQUIREMENTS, PROVIDE AT LEAST THESE ITEMS:

1. THREE 20A CIRCUITS FOR CONSTRUCTION POWER TOOLS; PROVIDE G.F.I. TEMPORARY CIRCUITS W/ COVER PLATES TO MEET OSHA REQUIREMENTS.
2. THREE OR MORE LIGHT STRINGS SUSPENDED APPROXIMATELY ONE FOOT BELOW THE HEIGHT OF FINISHED CEILING WITH LAMPS SPACED NOT MORE THAN TWELVE FEET ON CENTERS. STRINGS SHALL BE RUN THE LENGTH OF THE STORE SPACE PARALLEL TO THE DEMISING WALLS WITH ONE STRING WITHIN EIGHT FEET OF EACH WALL AND ONE (OR MORE) INTERMEDIATE STRING(S) ARRANGED TO LIMIT THE SPACING BETWEEN RUNS TO SIXTEEN FEET OR LESS.
3. FLOODLIGHTING AND TASK-LIGHTING FOR PAINTING AND OTHER FINISH WORK.

WHEN PERMANENT ELECTRICAL SERVICE IS OPERABLE, DISCONNECT AND REMOVE FROM THE PREMISES THE MATERIALS AND EQUIPMENT USED FOR TEMPORARY POWER AND LIGHTING AND RESTORE MODIFICATIONS AND REPAIR DAMAGE CAUSED BY THE INSTALLATION, USE OR REMOVAL OF TEMPORARY SERVICE PROVISIONS.

1.05 EXISTING WORK

A. WORK DRAWN AND SPECIFIED IS NEW EXCEPT WHERE EXISTING WORK IS CLEARLY INDICATED.

IF OTHER ELECTRICAL WORK IS FOUND TO EXIST AT THE JOBSITE, IT MAY BE REUSED PROVIDED THAT:

1. THE WORK IS SUITABLE TO THE NEW ARRANGEMENT, AND...
2. THE QUALITY AND CONDITION OF THE WORK IS AT LEAST EQUAL TO THAT SPECIFIED, AND...
3. A CREDIT IS ALLOWED TO TENANT FOR EQUIPMENT REUSED IN NEW WORK.
4. THE TENANT'S REPRESENTATIVE AGREES IN WRITING TO THE SUITABILITY, QUALITY AND CONDITION OF THE WORK AND TO THE AMOUNT OF THE CREDIT.

B. EXISTING LIGHTING FIXTURES AND EQUIPMENT NOT USED IN THE NEW ARRANGEMENT SHALL BE CAREFULLY REMOVED AND SAFELY STORED AS DIRECTED BY THE TENANT'S REPRESENTATIVE.

1.06 AS-BUILT DRAWINGS

MAINTAIN ONE SET OF CLEAN WORKING DRAWINGS AT THE JOBSITE AND ENTER DAILY SUCH "AS-BUILT" INFORMATION AS FEEDER AND SERVICE ROUTES, PULLBOX LOCATIONS AND CHANGES IN LAYOUT OR ARRANGEMENT WHICH OCCUR DURING CONSTRUCTION. DELIVER CORRECTED COMPLETED DRAWINGS TO THE TENANT.

1.07 INSPECTIONS

ARRANGE AND PAY FOR INSPECTIONS REQUIRED FOR COMPLETION AND ACCEPTANCE OF THE ELECTRICAL WORK.

1.08 DEFECTS AND MALFUNCTIONS

CONTRACTOR SHALL BE RESPONSIBLE FOR DEFECTS IN MATERIALS, WORKMANSHIP OR FINISHES, AND FOR MALFUNCTIONS OF ANY ITEMS FURNISHED, BOTH AT THE TIME OF ACCEPTANCE BY THE TENANT AND FOR A MINIMUM PERIOD OF ONE YEAR THERE AFTER. DEFECTIVE OR MALFUNCTIONING ITEMS SHALL BE REPAIRED TO NEW CONDITION OR REPLACED WITH NEW AND ANY DAMAGE CAUSED BY SUCH DEFECT, MALFUNCTION, REPAIR OR REPLACEMENT SHALL BE CORRECTED PROMPTLY BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE TENANT.

PART 2 PRODUCTS

2.01 GENERAL

A. FURNISH ONLY SCHEDULED OR SPECIFIED PRODUCTS UNLESS SUBSTITUTIONS ARE ACCEPTED IN WRITING BY THE TENANT'S REPRESENTATIVE. MATERIALS AND EQUIPMENT SHALL BE NEW, UNMARRED, UL-LABELED (WHERE APPLICABLE), COMMERCIAL/INDUSTRIAL QUALITY OF "HEAVY-DUTY" OR "SPECIFICATION" GRADE, LOCALLY APPROVED AND READILY AVAILABLE, AND ACCEPTABLE TO THE TENANT'S REPRESENTATIVE.

B. WIRE: GENERAL CABLE, ROME OR APPROVED EQUAL, COPPER, COLOR-CODE INSULATED AS FOLLOWS:

TYPE THW, THWN OR THHN	BRANCH CIRCUITS (INTERIOR)
TYPE THW, THWN:	BRANCH CIRCUITS BELOW GRADE, FEEDER CABLES
TYPE [illegible]	BRANCH CIRCUITS (EXTERIOR), WIRING IN BALLASTS COMPARTMENTS, HEATING ELEMENTS
STRANDED:	#8AWG AND LARGER
SOLID:	#16AWG THROUGH #10AWG EXCEPT AS ABOVE
#16AWG AND LARGER	LOW VOLTAGE WIRING, CONTROLS WIRING
#12AWG AND LARGER	LINE-VOLTAGE WIRING, ALL GENERAL PURPOSES

COLOR CODING:

	120/208V THREE-PHASE	277/480V THREE-PHASE
LINE 1	BLACK	BROWN
LINE 2	RED	ORANGE

2.03 MATERIALS AND MANUFACTURERS

A. RACEWAYS, FITTINGS AND SUPPORTS:

1. RIGID STEEL CONDUIT SHALL BE HOT DIPPED GALVANIZED, THREADED THREADED FITTINGS, INSULATED THROAT CONNECTORS AND BU THREE-PIECE UNIONS AND TWO-HOLE MALLEABLE IRON SUPPORT C RIGID STEEL CONDUIT SHALL BE PVC COATED FOR UNDERG INSTALLATION.
2. ELECTRICAL METALLIC TUBING SHALL BE GALVANIZED STEEL "THINWA STEEL-RING COMPRESSION FITTINGS, INSULATED THROAT BUSHING ONE-HOLE MALLEABLE OR TWO-HOLE GALVANIZED SHEET STEEL C
3. FLEXIBLE CONDUIT SHALL BE CONTINUOUS LENGTH SPIRALLY GALVANIZED, INTERLOCKING STEEL WITH COMPRESSION FI INSULATED-THROAT CONNECTORS, AND GALVANIZED TWO-HOLE SHEE CLAMPS. LIQUID-TIGHT FLEXIBLE CONDUIT SHALL HAVE CONTINUOUS COATING AND GLAND-TYPE SEALED FITTINGS.
4. OTHER RACEWAYS, FITTINGS AND SUPPORTS SHALL BE AS INDICATED DRAWINGS.

D. WIRING DEVICES AND PLATES:

1. WALL AND CEILING PLATES ON GYPSUM BOARD SHALL BE STAINLES (HUBBELL TYPE S SERIES, PASS AND SEYMOUR OR APPROVED
2. DUPLEX RECEPTACLES SHALL HAVE GRAY BODIES (HUBBELL TYPE 5 PASS & SEYMOUR OR APPROVED EQUAL). ISOLATED GROUND RECEPTACLES SHALL BE ORANGE BODY AND (HUBBELL TYPE IG5262 SEYMOUR OR APPROVED EQUAL). SINGLE POLE SWITCHES SHALL B (HUBBELL TYPE HBL 1201GY, PASS AND SEYMOUR OR APPROVED EXCEPT AT THE MASTER LIGHTING STATION. DEVICES AT THE M LIGHTING STATION SHALL BE AS SHOWN ON THE LIGHTING CONTROL DI

E. BOXES: STEEL CITY, APPLETON, RACO OR APPROVED EQUAL.

1. OUTLET BOXES SHALL BE 4" SQUARE BY 1-1/2" DEEP (OR LA GALVANIZED SHEET STEEL, KO-TYPE WITH PLASTER RING AND COV GENERAL INTERIOR USE AND CAST METAL TYPE FS OR FD WITH MA SCREW-COVERS FOR EXTERIOR AND EXPOSED INTERIOR LOC (GASKETED IN DAMP OR WET LOCATIONS).
2. JUNCTION BOXES SHALL BE SAME AS OUTLET BOXES UP TO 42 CU CODE-GAGE STEEL IN LARGER SIZES WITH SURFACE OR FLUSH SCREW-MOUNTED TRIM/COVERS; BOTH BOXES AND COVERS INHIBITOR AND PAINTED INSIDE AND OUT.
3. PULL BOXES SHALL BE SAME AS JUNCTION BOXES U ESS IND OTHERWISE ON THE DRAWINGS, WITH COVERS.
4. TELEPHONE OUTLET BOXES SHALL BE THE TYPE AND SIZE REQUIRED SERVING UTILITY BUT NOT SMALLER THAN 4 11/16" SQUARE BY 2 1/8 WITH SINGLE-GANG RING AND SIERRA #S-754N SPLIT PLATE WITH E PROVIDE PULL-STRING

F. DISCONNECT AND SAFETY SWITCHES: WESTINGHOUSE, SIE SQUARE D OR APPROVED EQUAL HEAVY-DUTY TYPE RATED 240 OPERATION AT 120, 208 OR 240 VOLTS AND RATED 600 OPERATIONAL AT 277 OR 480 VOLTS. FUSIBLE SWITCHES FUSES SHALL BE PROVIDED UNLESS NON-FUSED TYPE IS CL INDICATED.

G. FUSES: BUSSMAN OR APPROVED EQUAL OF TYPE, SIZE AND R INDICATED ON THE DRAWINGS OR TO PROTECT THE INDICATED

H. BALLASTS:

1. GENERAL: BALLASTS SHALL BE RATED FOR THE AP VOLTAGE AND FREQUENCY, SHALL MATCH THE LAMPS SE SHALL BE RATED AT CLASS "A" SOUND LEVEL AT CLA FOR HEAT BUILDUP. BALLASTS SHALL BE LABELED BY C-CBM, TESTED BY ETL, SHALL CONFORM TO SPECIFICATIONS, IEEE RECOMMENDATIONS, AND FCC RULE REGULATIONS, SHALL CONTAIN NO TOXIC SUBSTANCES AND NOT INTERFERE WITH OPERATION OF OTHER ELECTR EQUIPMENT. BALLASTS SHALL CONFORM TO THE NAT APPLIANCE ENERGY CONSERVATION AMENDMENTS OF 1988, LAW NO. 100,357.
2. FULL-SIZE FLUORESCENT LAMPS: BALLASTS SHALL BE FREQUENCY SOLID-STATE ELECTRONIC TYPE WITH POWER F OF 95% OR GREATER, AC INPUT HARMONIC FACTOR LESS 20%, LINE CURRENT CREST FACTOR LESS THAN 1.7 BALLASTS FACTOR OF 0.85 OR GREATER AT NORMAL OUTPUT. BALLASTS SHALL OPERATE TWO OR THREE LAMP AND SHALL MAINTAIN 95% LIGHT OUTPUT +/- 5% AT NO VOLTAGE AND +/- 15% LIGHT OUTPUT FROM 90% TO 110 VOLTAGE, ALL WITHOUT FLICKER.
3. COMPACT FLUORESCENT LAMPS: BALLASTS SHALL BE ELEC TYPE WITH POWER FACTOR OF 90% OR GREATER.
4. MANUFACTURERS: ACCEPTABLE BALLAST MANUFACTURER ADVANCE TRANSFORMER CO., MAGNETEK-TRIAD, ELECT BALLAST TECHNOLOGY, INC. (EBT), MOTOROLA LIGHTIN ROBERTSON, AND MANUFACTURERS OF COMPACT LAMP INTEGRAL BALLAST.

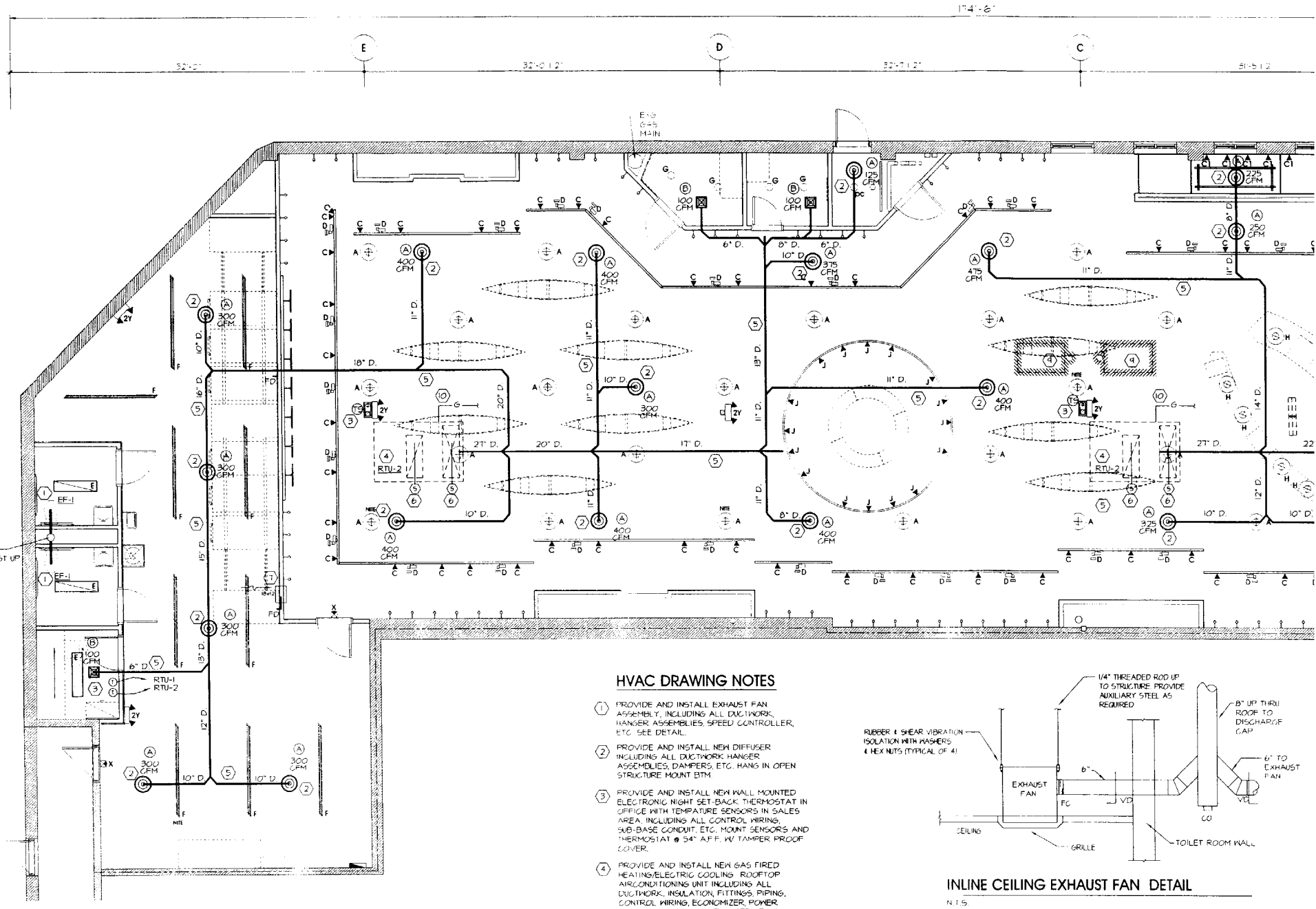
I. ITEMS ON DRAWINGS: THE FOLLOWING ITEMS (AMONG OTHERS FULLY DESCRIBED IN SCHEDULES, DETAILS AND NOTATIONS DRAWINGS:

TRANSFORMER	CONTROL DEVICES
PANELBOARD	LIGHTING FIXTURES, AND LAM
CIRCUIT BREAKERS	EXIT SIGNS
CONTACTORS	EMERGENCY LIGHTS
RELAYS	TELEPHONE PROVISIONS
TIME SWITCHES	

PART

3.01 GE E A

A. FURNISH, INSTALL, CONNECT AND COMPLETE THE WORK, READ BENEFICIAL AND SATISFACTORY USE BY THE TENANT. THE MATE



A H.V.A.C. Plan

SCALE : 3/16" = 1'-0"

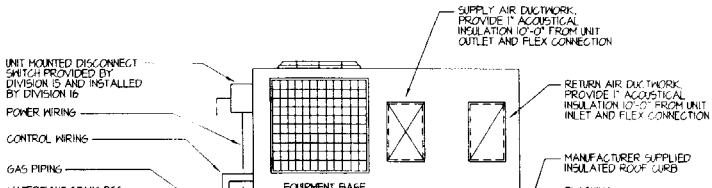
0 1' 2' 3' 6' 12

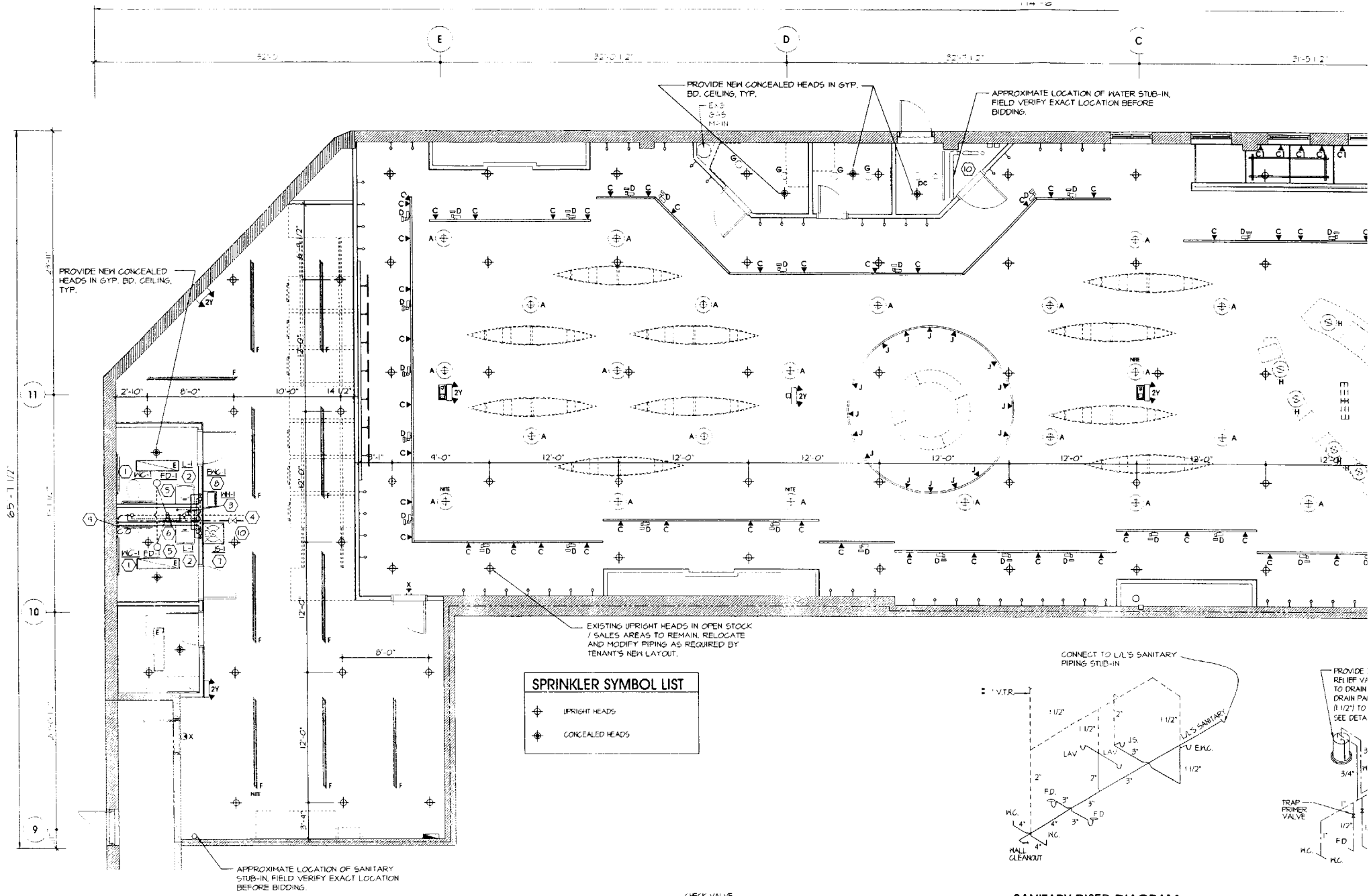
HVAC DRAWING NOTES

1. PROVIDE AND INSTALL EXHAUST FAN ASSEMBLY, INCLUDING ALL DUCTWORK, HANGER ASSEMBLIES, SPEED CONTROLLER, ETC. SEE DETAIL.
2. PROVIDE AND INSTALL NEW DIFFUSER INCLUDING ALL DUCTWORK, HANGER ASSEMBLIES, DAMPERS, ETC. HANG IN OPEN STRUCTURE MOUNT BTM.
3. PROVIDE AND INSTALL NEW WALL MOUNTED ELECTRONIC NIGHT SET-BACK THERMOSTAT IN OFFICE WITH TEMPATURE SENSORS IN SALES AREA, INCLUDING ALL CONTROL WIRING, SUB-BASE CONDUIT, ETC. MOUNT SENSORS AND THERMOSTAT @ 54" A.F.F. W/ TAMPER PROOF COVER.
4. PROVIDE AND INSTALL NEW GAS FIRED HEATING/ELECTRIC COOLING ROOFTOP AIRCONDITIONING UNIT INCLUDING ALL DUCTWORK, INSULATION, FITTINGS, PIPING, CONTROL WIRING, ECONOMIZER, POWER EXHAUST, ROOF CURB, ETC. SEE DETAIL.
5. PROVIDE AND INSTALL NEW SUPPLY AIR DUCTWORK INCLUDING ALL HANGER ASSEMBLIES, INSULATION, FITTINGS, ETC. ALL DUCTWORK SHALL BE METAL SPIRAL, ALL DUCTWORK SHALL BE PAINTED. VERIFY MOUNTING HEIGHTS W/ ARCHITECT.
6. PROVIDE & INSTALL NEW DUCT MOUNTED SMOKE DETECTOR TO SHUT DOWN RTU UPON ACTIVATION AND TO SEND A SIGNAL TO THE FIRE ALARM SYSTEM.
7. TSC TO PROVIDE AND INSTALL NEW 18X12 CEILING PLENUM TRANSFER DUCT WITH FIRE DAMPER PER U.L. STANDARD 555. SEE DETAIL. MTD. AS HIGH AS POSSIBLE.
8. TSC TO PROVIDE AND INSTALL NEW DUCT MOUNTED FIRE DAMPER WITH ACCESS DOOR

INLINE CEILING EXHAUST FAN DETAIL

N.T.S



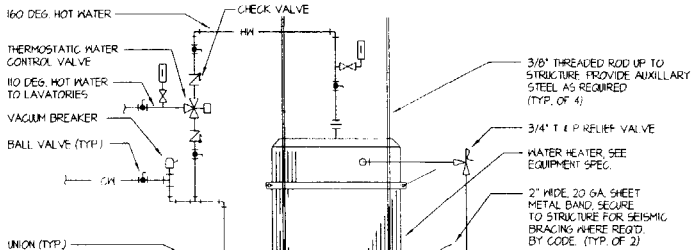


SPRINKLER SYMBOL LIST

- UPRIGHT HEADS
- CONCEALED HEADS

SANITARY RISER DIAGRAM

N.T.S.



WATER R

N.T.S.

PLUMBING S

- DIRECTION OF
- UNION
- PIPE DROP
- PIPE RISE
- ABOVE GROUN
- BELOW GROUN
- VENT

SPRINKLER SYSTEM GENERAL NOTES:

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]

PLUMBING NOTES:
(AS APPLICABLE)

1. WASTE, DRAIN AND VENT PIPING SHALL BE SERVICE WEIGHT CAST IRON, NO HUB FITTINGS ARE ACCEPTABLE (ABOVE GROUND ONLY). SCHEDULE 40 GALVANIZED STEEL OR DWV COPPER MAY BE USED FOR PIPING 2" OR LESS.

2. ABOVE GROUND POTABLE WATER PIPING SHALL BE TYPE "L" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS. BELOW GROUND POTABLE WATER PIPING SHALL BE TYPE "K" SOFT DRAWN COPPER. INSTALLED IN SCHEDULE 40 PVC CONDUIT.

3. INSULATE HOT, COLD, AND CONDENSATE PIPING WITH 1" THICK OWENS CORNING, FIBER GLASS 55LI, APPROVED EQUAL. INSTALLED PER MANUFACTURERS REQUIREMENTS. INSULATION SHALL BE CONTINUOUS THROUGH WALLS, FLOORS, CEILINGS, ETC.

4. THE PLUMBING CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS (APPLICATIONS AND FEES) WITH THE LOCAL UTILITY COMPANY FOR WATER SERVICE REQUIREMENTS.

5. THE DOMESTIC WATER PIPING SYSTEM SHALL BE STERILIZED PER HEALTH CODE.

6. INSULATE STORM PIPING WITH 1" THICK OWENS CORNING FIBERGLASS 55LI1 ON ALL HORIZONTAL RUNS BELOW ROOF LINE.

7. PROVIDE AIR CHAMBERS AT ALL FIXTURES OR SHOCK ABSORBERS AT EACH BATTERY.

8. SECTIONAL SHUT-OFF BALL VALVES ON EACH BRANCH AND RISER, CLOSE TO MAIN WHERE BRANCH OR RISER SERVES 2 OR MORE PLUMBING FIXTURES OR EQUIPMENT CONNECTIONS, AND ELSEWHERE AS INDICATED.

9. PROVIDE SHUTOFF VALVES AT INLET OF EACH PLUMBING EQUIPMENT ITEM, AND AT INLET OF EACH PLUMBING FIXTURE, AND ELSEWHERE AS INDICATED.

10. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND AS REQUIRED BY ALL PLUMBING CODES, AT EACH CHANGE IN DIRECTION OF PIPING GREATER THAN 45 DEG. AT MINIMUM INTERVALS OF 50' FOR PIPING 4" AND SMALLER AND 100' FOR LARGER PIPING, AND AT BASE OF EACH CONDUCTOR. INSTALL FLOOR AND WALL CLEANOUT COVERS FOR CONCEALED PIPING, SELECT TYPE TO MATCH ADJACENT BUILDING FINISH (VERIFY SELECTION WITH TENANT PRIOR TO ORDERING.)

11. INSULATE ALL EXPOSED SANITARY AND WATER PIPING AT ALL HANDICAP ACCESSIBLE LAVATORIES WITH FULLY MOLDED, TRUEBRO, HANDI LAV-GUARD INSULATION KIT MODEL #102.

12. PROVIDE CHROME ESCUTCHEONS WITH SET SCREW, DEEP TYPE, TO COVER SLEEVES OR OF A SIZE TO COVER FITTING PROJECTIONS. PROVIDE ESCUTCHEONS FOR ALL FOR ALL EXPOSED PIPING THROUGH WALLS, FLOORS AND EXPOSED CEILING.

13. MAXIMUM HOT WATER TO PUBLIC LAVS TO BE 110 DEG. AT 5 GPM FLOW PER CODE.

14. MINIMUM SLOPE OF HORIZONTAL WASTE, VENT, AND STORM LINES TO BE 1/8" PER FOOT, OR AS REQUIRED BY CODE.

15. REFER TO GENERAL MECHANICAL NOTES FOR ADDITIONAL REQUIREMENTS.

16. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURE HEIGHTS, CLEARANCES, AND EXACT LOCATIONS.

17. PROVIDE TRAP PRIMER ASSEMBLIES FOR ALL FLOOR DRAINS.

18. PROVIDE SEISMIC BRACING AS REQUIRED BY THE INTERNATIONAL BUILDING CODE SECTION 16 AND ALL SUPPLEMENTARY CODES AS REQUIRED.

19. PIPE INSULATION SHALL BE FIBERGLASS WITH (ASJ) ALL SERVICE, VAPOR BARRIER JACKET AND PVC FITTING JACKETS. INSULATION SHALL BE OF THE FOLLOWING THICKNESS

COLD WATER PIPING UP TO 2"	1"
HOT WATER UP TO 2"	1"
CONDENSATE PIPING	1"

20. UPON COMPLETION OF PIPING INSTALLATION, ENTIRE SYSTEM SHALL BE THOROUGHLY FLUSHED OF ALL FOREIGN MATERIAL. PIPING SHALL BE HYDROSTATICALLY TESTED AT 100 PSIG FOR TWO HOURS AND SHALL BE WITNESSED BY THE OWNERS REPRESENTATIVE.

21. ALL NEW PIPING SHALL BE LABELED WITH "SETON" OPTI-CODE PIPE IDENTIFICATION LABELS SPACED A MAXIMUM OF 30' APART AND SHALL BE ADHERED TO PIPING WITH 2" TAPE WARPED FULL PERIMETER OF PIPE AND IS SAME COLOR AS MARKER. FLOW ARROWS SHALL BE "SETON" ARROWS ON A ROLL. ALL MARKERS SHALL BE READILY VISIBLE FROM FLOOR LEVEL. PIPING SYSTEMS TO BE LABELED ARE AS FOLLOWS:

COLD WATER	GREEN/WHITE LETTERS
HOT WATER	YELLOW/BLACK LETTERS
CONDENSATE PIPING	GREEN/WHITE LETTERS

22. REFER TO GENERAL MECHANICAL NOTES FOR ADDITIONAL REQUIREMENTS.

HVAC NOTES:
(AS APPLICABLE)

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LABOR AND MATERIALS TO PROVIDE A COMPLETE AND WORKING SYSTEM WITHIN THE CONSTRAINTS OF THE EXISTING STRUCTURE AND NEW CEILING SYSTEM.

2. DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED PER ASHRAE AND SMACNA STANDARDS AND THE STATE MECHANICAL CODE. THIS INCLUDES (BUT IS NOT LIMITED TO) SEALING ALL DUCTS, SPLITTERS (OR SIMILAR BALANCING DEVICES) AT MAJOR DUCTWORK BRANCHES, EXTRACTORS AT MINOR DUCTWORK BRANCHES, DOUBLE WALLED ACOUSTIC TURNING VANES IN ELBOWS, SPLITTERS AND TURNING VANES IN TEES.

3. ALL DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL. INSULATE FIRST 10' OF SUPPLY AND RETURN AIR DUCTWORK WITH 1" THICK, 1.5 LB. DENSITY FIBERGLASS DUCT LINER PER ASTM C 1071 SPECIFICATIONS. REMAINDER OF ALL DUCTWORK SHALL BE INSULATED WITH 1 1/2" THICK, 1.5 LB. DENSITY FIBERGLASS DUCT WRAP WITH FOIL FACED VAPOR BARRIER PER ASTM C 1290 SPECIFICATION.

4. ALL SEAMS AND JOINTS IN NEW DUCTWORK SHALL BE THOROUGHLY SEALED WITH APPROVED, U.L. LISTED, NON-HARDENING DUCT SEALER.

5. PROVIDE 45 DEGREE TAPS WITH DAMPER AT EACH RUNOUT BRANCH DUCT.

6. PROVIDE FIRE RESISTANT TYPE FLEXIBLE DUCT CONNECTORS ON THE INLET AND DISCHARGE DUCT CONNECTIONS OF ALL EQUIPMENT CONTAINING FANS.

7. ALL FLEXIBLE DUCTWORK SHALL BE 1 1/2" THICK, 1.5 LB. DENSITY FIBERGLASS WITH FOIL FACED VAPOR BARRIER AND SHALL NOT EXCEED 5'-0" IN LENGTH.

8. ALL DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS.

9. LOCATE THE THERMOSTAT AND INSTALL AS SHOWN ON THESE DOCUMENTS.

10. CONDENSATE DRAIN PIPING SHALL BE TYPE "L" OR "M" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS.

11. INSULATE CONDENSATE PIPING WITH 1" THICK FIBERGLASS WITH ASJ OR 1/2 ARMAFLEX (PLENUM RATED IF IN RETURN AIR PLENUM).

12. FOR UNITS OF 2000 CFM OR GREATER: PROVIDE MANUAL RESET IONIZATION TYPE SMOKE DETECTOR IN RETURN AIR DUCT AHEAD OF ANY OUTSIDE-AIR INLET OR IN EACH ROOM OR SPACE SERVED BY THE RETURN-AIR DUCT. UPON DETECTION OF PRODUCTS OF COMBUSTION DETECTORS SHALL ACTIVATE ACTIVATION OF ANY DETECTOR SHALL CAUSE THE AIR-MOVING EQUIPMENT TO AUTOMATICALLY SHUT DOWN.

13. ALL CONTROL WIRING SHALL BE IN 3/4" ELECTRICAL METALLIC CONDUIT.

14. REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL DIFFUSERS.

15. THE AIR AND WATER SYSTEMS SHALL BE TESTED, ADJUSTED, AND BALANCED BY A CERTIFIED AGENCY. TESTS SHALL DETERMINE QUANTITATIVE PERFORMANCE OF EQUIPMENT; BALANCING SHALL PROPORTION FLOWS WITHIN THE DISTRIBUTION SYSTEM(S) ACCORDING TO SPECIFIED DESIGN QUANTITIES. ALL WORK SHALL MEET LOCAL CODES AND STANDARDS, NEBB AND ASHRAE TESTING, ADJUSTING, AND BALANCING PROCEDURES. SUBMIT TO TENANT AND OWNER, FOR REVIEW, APPROVAL AND RECORD, TWO COPIES OF THE BALANCING REPORTS ON THE STANDARD REPORT FORMS PREPARED BY NEBB. TESTING SHALL BE PERFORMED BY AN INDEPENDENT CONTRACTING COMPANY.

16. ALL EQUIPMENT NAMEPLATE INFORMATION SHALL BE PERMANENTLY AFFIXED TO EQUIPMENT. NAMEPLATE INFORMATION SHALL BE ETCHED ON METAL PLATES.

17. PIPE INSULATION SHALL BE FIBERGLASS WITH (ASJ) ALL SERVICE, VAPOR BARRIER JACKET AND PVC FITTING JACKETS. INSULATION SHALL BE OF THE FOLLOWING THICKNESS

CHILLED WATER PIPING UP TO 2"	1"
HEATING HOT WATER UP TO 2"	1"
CONDENSATE PIPING	1"

18. UPON COMPLETION OF PIPING INSTALLATION, ENTIRE SYSTEM SHALL BE THOROUGHLY FLUSHED OF ALL FOREIGN MATERIAL. PIPING SHALL BE HYDROSTATICALLY TESTED AT 100 PSIG FOR TWO HOURS AND SHALL BE WITNESSED BY THE OWNERS REPRESENTATIVE.

19. ALL NEW PIPING SHALL BE LABELED WITH "SETON" OPTI-CODE PIPE IDENTIFICATION LABELS SPACED A MAXIMUM OF 30' APART AND SHALL BE ADHERED TO PIPING WITH 2" TAPE WARPED FULL PERIMETER OF PIPE AND IS SAME COLOR AS MARKER. FLOW ARROWS SHALL BE "SETON" ARROWS ON A ROLL. ALL MARKERS SHALL BE READILY VISIBLE FROM FLOOR LEVEL. PIPING SYSTEMS TO BE LABELED ARE AS FOLLOWS:

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CONDENSATE PIPING	GREEN/WHITE LETTERS

17. REFER TO GENERAL MECHANICAL NOTES FOR ADDITIONAL REQUIREMENTS.

FAN SCHEDULE

SYMBOL	CFM	S.P.	RPM	TYPE	VOLTS/PH	HP	ACTIVATION	MAKE & MODEL	NOTES:
EF-1	100	.125	1050	CEILING	115V/1PH	.02	WALL SWITCH	PENN/Z65	1

NOTES:
1) PROVIDE AUTOMATIC BACK DRAFT DAMPER.

ROOFTOP A/C UNIT GAS

	FAN SECTION						DX COOL	
SYMBOL	CFM	OA	RPM	FPM	TYPE	TOTAL SP	TOTAL MBTU	
RTU-1	5000	600	1140	550	DRAW THRU	.75	160.0	