

# THE UNIVERSITY OF TEXAS PERMIAN BASIN STC LAB 2205 FINISH-OUT

# **100% CONSTRUCTION DOCUMENTS**





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A2.1

MECH	ANICAL ABBREVIATIONS		
ABBREV	DESCRIPTION	ABBREV	DESCRIPTION
AAV ABV A/C AD AF AFC AFF	AUTOMATIC AIR VENT ASSEMBLY ABOVE AIR CONDITIONED ACCESS DOOR AIR FLOW ABOVE FINISHED CEILING ABOVE FINISHED FLOOR	ID IE IN INSUL IN WG KW	INSIDE DIAMETER INVERT ELEVATION ( FLO INCHES INSULATION INCHES OF WATER KILOWATT(S)
AFG AHU ANSI AMCA AP APPROX ARCH ARI ASME ASTM	ABOVE FINISHED GRADE AIR HANDLING UNIT AMERICAN NATIONAL STANDARD INSTITUTE AIR MOVING AND CONDITIONING ASSOCIATION, INC. ACCESS PANEL APPROXIMATE ARCHITECTURAL AIR CONDITIONING & REFRIGERATION INSTITUTE AMERICAN SOCIETY OF MECHANICAL ENGINEERS AMERICAN SOCIETY FOR TESTING MATERIALS	L LAT LAV LB LIN FT LPG LRA LVR	Long, Length Leaving Air Temperatu Lav or Lavatory Pound Lineal Foot Liquid Propane Gas Locked Rotor Amps Louver
AUX B BCU BDD BFC BFF	AUXILIARY BOILER BLOWER COIL UNIT BACK DRAFT DAMPER BELOW FINISHED CEILING BELOW FINISHED FLOOR	MAX MBD MBH MECH MG MIN MS	MAXIMUM MANUAL BALANCING DAN THOUSAND BTU / HR MECHANICAL NATURAL GAS (MEDIUM F MINIMUM MOTOR STARTER
BFG BFP BHP BI BLDG BOD BOP	BELOW FINISHED GRADE BACKFLOW PREVENTER BRAKE HORSEPOWER BACKWARD INCLINED BUILDING BOTTOM OF DUCT BOTTOM OF DIPE	NA NC NIC NO NTS	NOT APPLICABLE NORMALLY CLOSED NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE
BOP BSMT BTU CD CFH CFM	BASEMENT BRITISH THERMAL UNIT CONDENSATE DRAIN LINE OR CONTROL DAMPER CUBIC FEET PER HOUR CUBIC FEET PER MINUTE	OA OAH OBD OC OD	OUTSIDE AIR OUTSIDE AIR INTAKE HOO OPPOSED BLADE DAMPE ON CENTER OUTSIDE DIAMETER
CH CHP CHR CHS CIRC CL	CHILLER CHILLED WATER PUMP CHILLED WATER RETURN CHILLED WATER SUPPLY CIRCULATING CENTER LINE	PBD PCHP PCHR PCHS PD PH	PARALLEL BLADE DAMPE PRIMARY CHILLED WATE PRIMARY CHILLED WATE PRIMARY CHILLED WATE PRESSURE DROP PHASE
CLG CM CMU CO CONC COND CONN CONT	CEILING CONSTRUCTION MANAGER CONCRETE MASONRY UNIT CLEANOUT CONCRETE CONDENSATE CONNECTION CONTINUATION CONDENSATE RETURN	PHL PLUMB PNL PPM PRESS PRV PRV PSIG	PRESSURE HIGH LIMIT PLUMBING PANEL PARTS PER MILLION PRESSURE POWER ROOF VENTILATO PRESSURE REDUCING VA POUND PER SQUARE INC
CRAC CRAH CT CWR CWS CU CV CV CW	COMPUTER ROOM AIR CONDITIONER COMPUTER ROOM AIR HANDLER COOLING TOWER CONDENSING WATER RETURN CONDENSING WATER SUPPLY CONDENSING UNIT CONTROL VALVE DOMESTIC COLD WATER	QTY RA RAG RAH RE REQ'D REV	QUANTITY RETURN AIR RETURN AIR GRILLE RELIEF AIR HOOD REFER REQUIRED REVISED OR REVISIONS
D DB DEG DG DIA	DRAIN DRY BULB DEGREES DOOR GRILLE DIAMETER	RH RHC RM RPM RTU	RELATIVE HUMIDITY REHEAT COIL ROOM REVOLUTION PER MINUT ROOF TOP UNIT
DIFF DMPR DN DWG DX	DIFFUSER DAMPER DOWN DRAWING DIRECT EXPANSION	PRV SA SAF SCH SCHP	POWER ROOF VENTILATO SUPPLY AIR SUPPLY FAN SCHEDULE SECONDARY CHILLED WA
EA EAG EAT EDH EF EH ELEC ELEV EMERG	EACH OR EXHAUST AIR EXHAUST GRILLE ENTERING AIR TEMPERATURE ELECTRIC DUCT HEATER EXHAUST FAN EXHAUST HOOD ELECTRICAL ELEVATION EMERGENCY	SD SEC SECT SF SHT SQ SS	SMOKE DAMPER SECOND SECTION SQUARE FOOT SHEET SQUARE SERVICE SINK, STAINLES SANITARY SEWER STANDARD
ENT EOM EQUIP ESP EWT EVAP	ENTERING END OF MAIN EQUIPMENT EXTERNAL STATIC PRESSURE ENTERING WATER TEMPERATURE EVAPORATOR EVISTING	STM SURF SUSP SW SYS	STEAM SURFACE SUSPEND OR SUSPENDE SOFTENED WATER SYSTEM
F F FCU FD FLEX FLG	EXHAUST DEGREES FAHRENHEIT OR FIRE LINE DEGREES FAHRENHEIT FAN COIL UNIT OR FURNACE & COIL UNIT FIRE DAMPER FLEXIBLE FLANGE	THL TLL TP TSP TSTAT TU TXV TYP	TEMPERATURE HIGH LIM TEMPERATURE LOW LIMI TOTAL PRESSURE TOTAL STATIC PRESSURI THERMOSTAT TERMINAL UNIT THERMOSTATIC EXPANS TYPICAL
FLK FM FO FPB FPM FS ET	FLOOK FACTORY MUTUAL FLAT OVAL DUCT FAN-POWERED BOX FOOT PER MINUTE FLOW SWITCH	UF UG UH UNO	UNDERFLOOR UNDERGROUND UNIT HEATER UNLESS OTHERWISE NOT
G GAL GALV GC GPH GPM	NATURAL GAS (LOW PRESSURE) GALLON GALVANIZED GENERAL CONTRACTOR GALLON PER HOUR GALLON PER MINUTE	V VAV VB VEL VENT VERT VF VOL VTR	VARIABLE AIR VOLUME VALVE BOX OR VACUUM VELOCITY VENTILATE VERTICAL VENTILATION FAN VOLUME VENT THRU ROOF
H HD HOA HP HR HW HWP	HIGH, HEIGHT HOSE BIBB HEAD IN FEET HAND-OFF-AUTO HORSE POWER OR HEAT PUMP HOUR DOMESTIC HOT WATER HEATING WATER PLIMP	W W/ W/O WB WG WT	WASTE OR WIDE, WIDTH WITH WITHOUT WET BULB WATER GAUGE WEIGHT
HVAC HZ	HEATING / VENTILATING / AIR CONDITIONING HERTZ	Δ ø	DELTA PHASE OR ROUND

	MECH	HANICAL LEGEND			MECHANICAL GEN
		DESCRIPTION			A SIZE AND LOCATION OF EXISTING ONLY. FIELD VERIFY EXACT CONE
			—HWS—		
		EXISTING COMPONENT TO REMAIN	—HWR—	HEATING WATER RETURN	AND/OR DUCTWORK HAS BEEN RI
-R	+ <del>-</del>	DROP	<u> </u>	STEAM WITH PRESSURE INDICATED	EXISTING MATERIAL TO ENSURE R
	<del></del> ю	RISE	<u> </u>	CONDENSATE RETURN - LOW PRESSURE	C COORDINATE DEMOLITION WITH G
	-+0+	RISE OFF TOP	//	CONDENSATE RETURN - HIGH PRESSURE	ALL REMOVED COMPONENTS. THI ACTIVE SERVICE LOCATION. REMO
	<del>- 101 -</del>	DROP OFF BOTTOM	— o —		CONTROLS, ETC.
RY	+ <del>0</del> +	BRANCH OFF TOP	— BFW—	BUILER FEED WATER	
		BRANCH OFF BOTTOM BRANCH OFF SIDE		FLOAT & THERMOSTATIC TRAP	
EGAS		CAP			
AMPS		BLIND FLANGE		DESCRIPTION	A IT IS THE RESPONSIBILITY OF THE
		CONCENTRIC REDUCER	М	THERMOSTAT	MANUFACTURERS AND SUPPLIERS GENERAL NOTES. IF CONFLICT OC
		ECCENTRIC REDUCER	e B	HUMIDISTAT	
/ HR		SLEEVE	S or T	TEMPERATURE SENSOR	B EVERY EFFORT HAS BEEN MADE T DEFINE WORK IN THE MOST LOGIC
(IEDIUM PRESSURE)		ANCHOR	Η	HUMIDITY SENSOR	WORK IS DEFINED THROUGHOUT
, D		FLOW DIRECTION		PRESSURE SENSOR	ENTIRE SET OF CONTRACT DOCU
Γ.	<b>_</b>	GRADE DOWNWARD	DP or (DP)	DIFFERENTIAL PRESSURE SENSOR	UNDERSTAND THE FULL SCOPE O
	•	CONNECT TO EXISTING	DUCTWC	ORK & ACCESSORIES	COMMENCEMENT OF WORK.
CT		ACCESSORIES	SYMBOL	DESCRIPTION	C PROVIDE ALL MATERIALS, LABOR,
N	SYMBOL	DESCRIPTION	<u> </u>	RECTANGULAR DUCT (FIRST DIM VISIBLE)	OPERABLE SYSTEMS AS INDICATE APPLICABLE CODES, AND PER MA
	│	BALL VALVE	<u>2 120</u>		
AKE HOOD		BUTTERFLY VALVE	<u>v 12/10</u>	FLAT OVAL DUCT (FIRST DIM VISIBLE)	D NO CUTTING SHALL BE DONE TO A LESSEN THEIR STRENGTH. UNLES
EDAMPER		MOTORIZED BUTTERFLY VALVE			
TER		GATE VALVE	У И	DUCT TURNED UP	E ALL PIPING AND DUCTWORK SHAL PIPING AND DUCTWORK AROUND
		GAS COCK	Y X	RECTANGULAR SUPPLY DUCT TURNED DOWN	PROVIDED AT NO ADDITIONAL COS
E DAMPER ED WATER PUMP			<u>y I</u> Z	RECTANGULAR RETURN OR EXHAUST	F COORDINATE CONSTRUCTION OF
D WATER RETURN		PRESSURE REDUCING VALVE		DUCT TURNED DOWN	PLUMBING, ELECTRICAL WORK, ET
P		MOTORIZED 2-WAY CONTROL VALVE		ROUND SUPPLY DUCT TURNED UP	G VERIEY AND COORDINATE ALL FIN
I I MIT		MOTORIZED 3-WAY CONTROL VALVE		ROUND SUPPLY DUCT TURNED DOWN	EQUIPMENT SUBMITTED AND APPI
	——————————————————————————————————————	THERMOSTATIC MIXING VALVE	$\square \bigcirc$	TURNED UP	H ALL OPENINGS IN FIRE WALLS FOR
ION		SOLENOID VALVE		ROUND RETURN OR EXHAUST	WITH A SPECIFIED PRODUCT SIMIL
		VALVE BOX	9 10	OVAL SUPPLY DUCT TURNED UP	I UNLESS OTHERWISE SHOWN, LOC
		WATER METER			4'-0" ABOVE FINISHED FLOOR. LOO
JARE INCH. (GAUGE)	-BFP-	BACKFLOW PREVENTER		OVAL SUFFET DUCT TORNED DOWN	
				OVAL RETURN OR EXHAUST DUCT TURNED UP	J ALL DUCTWORK DIMENSIONS AS S
			۷	OVAL RETURN OR EXHAUST DUCT TURNED	DUCT LINER IS SPECIFIED.
LLE		GAS PRESSURE REGULATOR	Y R► X	CHANGE OF ELEVATION IN DIRECTION	
D		THERMOMETER		INDICATED (D=DROP, R=RISE)	REFLECTED CEILING PLANS, LIGH
			< <u>-</u> ⊠	DIFFUSER W/ AIR PATTERN	ACCESSIBLE. MARE MINOR DUCT
DITY		PETE'S PLUG	$\overline{\mathbf{+}}$		L LOCATE ALL MECHANICAL EQUIPM
	FS	FLOW SWITCH		RETURN, EXHAUST OR TRANSFER AIR GRILLE	CONTROLS, AND VALVING. MAINT
R MINUTE	<b>P</b> S	PRESSURE SWITCH			M RUNS OF FLEXIBLE DUCT SHALL N
	<u> </u>	AQUASTAT	⊻	SIDEWALL SUPPLY GRILLE OR REGISTER	N PROVIDE ACCESS DOORS IN DUCT
ENTILATOR		AUTO AIR VENT	ӯ──҇┠╾ѵ╴	SIDEWALL RETURN, EXHAUST OR TRANSFER	COILS, AND OTHER ITEMS LOCATE
		VACUUM RELIEF VALVE	<b>U</b>	AIR GRILLE	O PROVIDE ACCESS PANELS IN WAL
	₹—	TEMPERATURE & PRESSURE RELIEF		LINEAR AIR DEVICE	VALVES, TRAPS, DAMPERS, CLEAN
ILLED WATER PUMP	T た	PRESSURE RELIEF VALVE	y [ ]	MANUAL BALANCING DAMPER	P LOCATE ALL TEMPERATURE, PRES
		FLEXIBLE CONNECTION			LOCATIONS WITH STRAIGHT SECT REQUIRED BY THE MANUFACTURE
				WITH CONCEALED REGULATOR	
				MOTORIZED DAMPER	
R			У	HOUR FIRE DAMPER	
	COOLING		FD		
	SYMBOL	DESCRIPTION		COMBINATION FIRE / SMOKE DAMPER	
	—CHR—		<b>y</b>		
		CHILLED WATER SUPPLY	SD SD		
	-PCHS-	PRIMARY CHILLED WATER SUPPLY		HORIZONTAL FIRE DAMPER	
HIGH LIMIT	—CWR—	CONDENSING WATER RETURN			
LOW LIMI I RE	—cws—	CONDENSING CHILLED WATER SUPPLY			
RESSURE	RL	REFRIGERANT LIQUID		FLEX CONNECTION	
		REFRIGERANT SUCTION		ACCESS DOOR	
EXPANSION VALVE	— KHG—	MAKEUP WATER	<b>Z</b>	MITERED ELBOW (TURNING VANES UNO)	
	D —	CONDENSATE DRAIN			
			$\Box$	RADIUS ELBOW (1.5; RADIUS UNO)	
		DESCRIPTION		х <b>с</b> — — — ,	
WISE NOTED	^		ӯ╌҄Ӷ҇Ѵ	CONCENTRIC TRANSITION	
	A			(1 IN 4 MAX SLOPE)	
ACUUM BREAKER	G — G	NATURAL GAS - LOW PRESSURE (<1 PSI)	Σ	EUGENTRIC TRANSITION (1 IN 4 MAX SLOPE)	
	—MG	NATURAL GAS - MED. PRESSURE (>1 PSI)			
	LP	LIQUID PROPANE GAS			
Ν					1
F					
	I				

GENERAL DEMOLITION NOTES
XISTING EQUIPMENT, DUCTWORK, PIPING, ETC. SHOWN FOR REFERENCE T CONDITIONS PRIOR TO BID.
TCH ALL WALLS, FLOORS, AND CEILINGS TO REMAIN WHERE PIPING BEEN REMOVED. PATCHES IN RATED CONSTRUCTION SHALL MATCH ISURE RATING INTEGRITY.
WITH GENERAL CONTRACTOR. OWNER SHALL HAVE FIRST RIGHTS TO ITS. THE REMAINING ITEMS SHALL BE COMPLETELY REMOVED BACK TO N. REMOVE ALL ASSOCIATED HANGERS, SUPPORTS, POWER,
GENERAL NOTES
OF THE GENERAL CONTRACTOR, SUB-CONTRACTORS, PPLIERS TO ADHERE TO THE REQUIREMENTS OF THE FOLLOWING FLICT OCCURS, CONTACT A/E PRIOR TO COMMENCEMENT OF WORK.
MADE TO MAKE THESE DOCUMENTS CONCISE AND COORDINATED, TO IT LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCOPE OF GHOUT THE ENTIRE SET OF DRAWINGS & SPECIFICATIONS AND IS NOT IES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. REVIEW THE T DOCUMENTS TO DETERMINE EACH CONTRACTOR'S SCOPE OF WORK. LL BE INCURRED BY THE OWNER FOR CONTRACTOR'S FAILURE TO COPE OF WORK. IF CONFLICT OCCURS, CONTACT A/E PRIOR TO K.
LABOR, AND EQUIPMENT AS REQUIRED TO INSTALL COMPLETE AND IDICATED ON THE DRAWINGS, AS SPECIFIED, AS REQUIRED BY ALL PER MANUFACTURER'S DIRECTIONS.
NE TO ANY OF THE STRUCTURAL MEMBERS THAT WOULD TEND TO , UNLESS SPECIFIC PERMISSION IS GRANTED BY THE ARCHITECT.
RK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN ROUND OBSTRUCTIONS AND AS REQUIRED FOR SERVICE SHALL BE NAL COST TO THE OWNER.
ION OF ALL WORK WITH ARCHITECTURAL, CIVIL, STRUCTURAL, ORK, ETC., SHOWN ON ALL OTHER CONTRACT DOCUMENT DRAWINGS.
ALL FINAL EQUIPMENT SIZES AND CONNECTING SERVICES WITH ACTUAL ND APPROVED & OWNER PROVIDED EQUIPMENT.
LLS FOR DUCTWORK, PIPING, CONDUITS, ETC., SHALL BE FIRE STOPPED CT SIMILAR TO 3M, OR APPROVED EQUAL.
WN, LOCATE ALL ROOM THERMOSTATS, SENSORS, AND HUMIDISTATS OR. LOCATIONS ADJACENT TO DOORS SHALL MAINTAIN A MINIMUM OF
INS AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS INCREASED TO COMPENSATE FOR DUCT LINER THICKNESS, WHERE
SER, REGISTER, AND GRILLE LOCATIONS WITH ARCHITECTURAL S, LIGHTING, AND OTHER CEILING ITEMS. MBD'S SHALL BE FULLY R DUCT MODIFICATIONS AS REQUIRED.
EQUIPMENT FOR UNOBSTRUCTED ACCESS TO UNIT ACCESS PANELS, MAINTAIN THE MINIMUM SERVICE CLEARANCE PER MANUFACTURER.

SHALL NOT EXCEED 4 FEET OR BEND GREATER THAN 90°. IN DUCTWORK FOR ALL FIRE DAMPERS, SMOKE DAMPERS, HUMIDIFIERS, LOCATED IN DUCTWORK WHICH REQUIRE SERVICE AND/OR INSPECTION.

IN WALLS AND CEILINGS TO ALLOW ADEQUATE ACCESS TO EQUIPMENT, S, CLEANOUTS, CONTROLS, ETC.

, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE SECTION OF PIPE OR DUCT UPSTREAM AND DOWNSTREAM AS ACTURER FOR GOOD ACCURACY.

## DOUBLE DUCT VAV BOX SCHEDULE MIXED CFM COLD CFM HOT CFM INLET SIZE MAX. / MIN. MAX. / MIN. MAX. / MIN. COLD HOT EXAMPLE: MARK EX. DD-S1-205 1530 / 840 1530 / 410 430 / 0 --- --- EXISTING NOTES: 1. BAS CONTRACTOR SHALL PROVIDE LABORATORY AIR TRACKING QUALITY FLOW SENSOR, TRANSMITTERS AND FAST ACTING ACTUATORS. PROGRAM FOR LAB SEQUENCE PER CONTROL DIAGRAM. 2. FOR UNITS WHERE MAX. MIXED AIRFLOW REQUIRES BLENDING, UNITS MAY BE PROGRAMMED FOR COLD DECK MAX EQUAL TO MIXED AIR MAXIMUM. SCHEDULED VALUES INDICATE THE MAXIMUM FLOW REQUIRED PER THE LOAD CALCULATIONS AND PRESSURE REQUIREMENTS. LAB EXHAUST VALVE SCHEDULE EXHAUST CFMSIZECONTROL<br/>TYPEEXAMPLEMARKMAX.MIN.ROOM OFFSETSIZECONTROL<br/>TYPEEXAMPLELE-5-20183030040010"VAVSIEMENS LGE-10EX. GE-3-2071930410400EX.EX. VAVEXISTING NOTE: 1. BAS CONTRACTOR SHALL PROVIDE LABORATORY AIR TRACKING QUALITY FLOW SENSOR, TRANSMITTERS AND FAST ACTING ACTUATORS. PROGRAM FOR LAB SEQUENCE PER CONTROL DIAGRAM. AIR DISTRIBUTION SCHEDULE MARKTYPEFRAMESIZEFINISHMATERIALEXAMPLES-29SUPPLYTB24x24WHITESTEELTITUS TriTecR-1.1RETURNTB24x24WHITESTEELTITUS PAR W/ RA BOOT NOTE: 1. TB = LAY-IN T- BAR

2. VERIFY FRAME TYPE WITH CEILING INSTALLER'S LAYOUT.



**AIR DEVICE MOUNTING DETAIL - ROUND RUNOUT** NO SCALE

NOTES: 1. THE FLEX DUCT INNER CORE & OUTER INSULATION SHALL BE SECURED SEPARATELY WITH WORM DRIVE STAINLESS STEEL BANDS OR NYLON DRAW BANDS.

2. IF TRUNK DUCT IS NOT DEEP ENOUGH TO ACCEPT ROUND SPIN-IN DAMPER, PROVIDE 45° RECTANGULAR TO ROUND TAKEOFF FITTING W/ DAMPER HAVING SAME DAMPER REQUIREMENTS AS SPIN-IN FITTING DESCRIBED ABOVE.





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### TYPICAL LAB CONTROLS DIAGRAM NO SCALE

# TYPICAL LAB AIR SYSTEM SEQUENCE OF OPERATION

- A. ROOM SUPPLY/EXHAUST AND EXHAUST HOOD TERMINALS 1. SYSTEM MODULATES SUPPLY AIR TERMINAL TO PROVIDE SUFFICIENT MIXED AIR TO MATCH SUM OF EXHAUST TERMINALS LESS SCHEDULED OFFSET. SYSTEM MODULATES PERCENTAGE OF MIXED AIR FROM HOT DECK AND COLD DECK TO MAINTAIN SPACE TEMPERATURE.
- 2. FUME HOOD EXHAUST TERMINAL MODULATE BETWEEN HOOD MAXIMUM AND HOOD MINIMUM TO MAINTAIN CORRECT AIR VELOCITY ACROSS SASH OPENING BASED ON SASH HEIGHT.
- 3. GENERAL EXHAUST TERMINAL: MODULATES IN CONJUNCTION WITH FUME HOOD EXHAUST TERMINAL AND SUPPLY AIR TERMINAL TO THE VOLUME REQUIRED TO MAINTAIN NEGATIVE SPACE PRESSURE.
- 4. TEMPERATURE AND AIR CHANGE SETBACK. BASED ON SCHEDULE PROVIDED BY OWNER, SPACE TEMPERATURE AND AIR CHANGE RATES SHALL "SETBACK" TO ADJUSTABLE VALUES DURING SCHEDULED UN-OCCUPIED TIMES.
- NOTE: ROOM PRIORITIES FOR LABS 1. PRESURIZATION
- 2. TEMPERATURE





NOTES INDICATED BY "() "

- 1 EXISTING DIFFUSER AND ASSOCIATED DUCTWORK TO BE REMOVED.
- 2 EXISTING SUPPLY FLOW SENSOR TO BE RELOCATED.
- 3 REMOVE EXISTING DUCT CAP, ROTATE FITTING 180 DEGREES AND SEAL TRUNK DUCT.
- 4 EXISTING ROOM SENSOR TO BE RELOCATED.
- 5 BAS CONTRACTOR SHALL REPLACE EXISTING SLOW ACTING LAB CONTROL MODULE (LCM) AND DAMPER ACTUATORS WITH WITH FAST ACTING LCM AND ACTUATORS. BALANCE EXISTING VAV BOX AS INDICATED IN SCHEDULE.
- 6 BAS CONTRACTOR PROVIDED SUPPLY AIR DAMPER WITH FAST ACTING DAMPER ACTUATOR TO BE INSTALLED BY MECHANICAL CONTRACTOR.
- 7 RELOCATED EXISTING SUPPLY FLOW SENSOR. BAS CONTRACTOR SHALL REPLACE OFF-BOARD AIR MODULE (OAM) AS REQUIRED TO MEET FAST ACTING LAB CONTROL REQUIREMENTS. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR TO MAINTAIN REQUIRED STRAIGHT DUCT REQUIREMENTS.
- 8 EXISTING GENERAL EXHAUST VALVE. BAS CONTRACTOR SHALL REPLACE EXISTING SLOW ACTING DAMPER ACTUATOR AND OAM WITH WITH FAST ACTING ACTUATOR AND OAM. BALANCE GENERAL EXHAUST VALVE AS INDICATED IN SCHEDULE.
- 9 10"Ø EXHAUST DUCT DOWN TO LAB EXHAUST VALVE. CONNECT LAB EXHAUST VALVE TO FUME HOOD. COORDINATE CONNECTION REQUIREMENTS WITH HOOD MANUFACTURER.
- 10 RELOCATED EXISTING ROOM SENSOR.
- 11 ROTATED EXISTING FITTING.
- 12 RUN OUT LOCATION SHALL BE DETERMINED BY RELOCATED EXISTING SUPPLY FLOW SENSOR REQUIREMENTS (NOTE 7).





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PLU	MBING ABBREVIATIONS			PLUN	/BING LEGEND			PLUMBING GENERAL DEMOLITION NOTES
ABBREV	DESCRIPTION	ABBREV	DESCRIPTION	GENERAL	_	VALVES	& ACCESSORIES	A SIZE AND LOCATION OF EXISTING EQUIPMENT, PIPING, ETC. SHOWN FOR REFERENCE ONLY.
PLU ABBREV AAV AAV AAV AAFF AFG AAV AAFF AFG AAV AB BECC BFF BFD BBD BBFP BBD BBFP BBD BBFP BBD BBFP BBD BBFF BBFP BBD BBFF BBFP BBD BBFF BBFP BBD BBFF BBFP BBD BBFF BBFP BBD BBFF BBFP BBD BBFF BBFP BBD BBFF BBBB BBFF BBBB BBFF BBBBB BBBB BBFF BBBBB BBFF BBBBB BBBB BBBB BBBB BBBB BBBB BBBB BBBB	MBING ABBREVIATIONS         DESCRIPTION         AUTOMATIC AIR VENT ASSEMBLY ABOVE         ABOVE FINISHED CEILING ABOVE FINISHED CEILING AMERICAN NATIONAL STANDARD INSTITUTE ACCESS PANEL         APPROXIMATE         ARCHITECTURAL AMERICAN SOCIETY OF PLUMBING ENGINEERS AMERICAN SOCIETY OF PLUMBING ENGINEERS AMERICAN SOCIETY OF MECHANICAL ENGINEERS AMERICAN SOCIETY OF MECHANICAL ENGINEERS AMERICAN SOCIETY FOR TESTING MATERIALS AUXILIARY ACID VASTE AMERICAN WATER WORKS ASSOCIATION         BOUER BLOWFNISHED CEILING BELOW FINISHED CEILING BELOW FINISHED CADDE BACKFLOW PREVENTER BRAKE HORSEPOWER BUIDING BOTTOM OF DIUCT BOTTOM OF DIUCT BOTTOM OF DIUCT BOTTOM OF DUCT BASEMENT BRITISH THERMAL UNIT BALL VALVE         COMDENSATE DRAIN LINE OR CONTROL DAMPER CUBIC FEET PER HOUR CAST IRON CIRCULATING CENTER LINE CEILING CENTER LINE CEILING CONCRETE MASONRY UNIT CLEANOUT CONCRETE CONNERTIC COLD WATER DOMESTIC COLD WATER DOMESTIC COLD WATER DOMESTIC COLD WATER DOMESTIC HOT WATER RETURN DOMESTIC HOT WATER RETURN DOMISPOUT NOZZLE DRAWING         CACH OR EXHAUST AIR ELECTRIC WATER TEMPERATURE ELECTRIC WATER TEMPERA	ABBREV ID IE IN SUL IN WG KW L AT LAV LB FT LPG LRA MAX MBH MECH MS MTD MV N 20 NC NC NC NC NC NC NC NC NC NC	DESCRIPTION INSIDE DIAMETER INVERT ELEVATION (FLOW LINE) INCHES INVERT ELEVATION (FLOW LINE) INCHES OF WATER KILOWATT(S) LONG, LENGTH LEAVING AIR TEMPERATURE LAV OR LAVATORY POUND LINEAL FOOT LIQUID PROPANE GAS LOCKED ROTOR AMPS MEDICAL AIR MAXIMUM MOP BASIN THOUSAND BTU / HR MECHANICAL MINIMUM MOTOR STARTER MAXIMUM MOTOR STARTER MAXIMUM MOTOR STARTER MOUNTED MEDICAL VACUUM NITROGEN NITROGEN NITROJS OXIDE NOT APICABLE NORMALLY CLOSED NATURAL GAS NOT IN CONTRACT NORMALLY OPEN NOT TO SCALE OXYGEN OUTSIDE DIAMETER OVERFLOW DRAIN OVERHEAD PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PRESSURE PROP PROP PRESSURE PROP PROP PRESSURE PROP PROP PRESSURE PROP PR	PLUNGENERAL SYMBOL $\neg$ $\neg$ $\neg$ $\neg$ $\neg$ $\uparrow$ $\downarrow$ <	ABING LEGEND DESCRIPTION EXISTING COMPONENT TO REMAIN EXISTING COMPONENT TO BE REMOVED DROP RISE RISE OFF TOP DROP OFF BOTTOM BRANCH OFF TOP BRANCH OFF SIDE CAP BLIND FLANGE CONCENTRIC REDUCER ECCENTRIC REDUCER ECCENTRIC REDUCER SLEEVE GUIDE ANCHOR FLOW DIRECTION GRADE DOWNWARD CONNECT TO EXISTING COMPRESSED AIR INSTRUMENT AIR NATURAL GAS - LOW PRESSURE (<1 PSI) NATURAL GAS - LOW PRESSURE (<1 PSI) NATURAL GAS - LOW PRESSURE (<1 PSI) NATURAL GAS - NED. PRESSURE (<1 PSI) NOTER DRAIN OVER PLOW DRAIN FLOOR SINK HUB DRAIN OVER FLOW DRAIN FLOOR SINK HUB DRAIN OVER SITE DRAIN OVER SITE DRAIN OVER SITE DRAIN OVER SITE DRAIN OVER SITE DRAIN PRESCRIPTION DOMESTIC COLD WATER LINE HOT WATER RETURN LINE HOT WATER RETURN LINE HOT WATER RETURN LINE HOT WATER LINE W/ TEMP INDICATED SOFT WATER LINE W/ TEMP INDICATED		& ACCESSORIES DESCRIPTION BALL VALVE GATE VALVE GATE VALVE GATE VALVE GATE VALVE GATE VALVE GATE VALVE GATE VALVE CHECK VALVE PRESSURE REDUCING VALVE MOTORIZED 2-WAY CONTROL VALVE VALVE BOX WATER METER BACKFLOW PREVENTER ANGLE VALVE BALANCING VALVE UNION STRAINER W/ BLOW DOWN GAS PRESSURE REGULATOR THERMOMETER PRESSURE GAUGE W/ GAUGE COCK PETE'S PLUG FLOW SWITCH PRESSURE GAUGE W/ GAUGE COCK PETE'S PLUG FLOW SWITCH PRESSURE GAUGE W/ GAUGE COCK PETE'S PLUG FLOW SWITCH PRESSURE SWITCH AQUASTAT AUTO AIR VENT TRAP PRIMER VACUUM RELIEF VALVE TEMPERATURE & PRESSURE RELIEF PRESSURE RELIEF VALVE FLEXIBLE CONNECTION OTECTION FIRE MAIN AUTO FIRE SPRINKLER ALARM ASSEMBLY RISER DASCRIPTION FIRE MAIN AUTO FIRE SPRINKLER ALARM ASSEMBLY RISER SIAMESE FIRE SPRINKLER WET FIRE SPRINKLER ALARM ASSEMBLY RISER SIAMESE FIRE DEPARTMENT CONNECTION UPRIGHT SPRINKLER SIDEWALL SPRINKLER FIRE HORANT FIRE PUMP TEST CONNECTION UPRIGHT SPRINKLER SIDEWALL SPRINKLER SIDEWALL SPRINKLER FIRE HOSE CABINET <b>TORY SERVICES</b> DESCRIPTION CARBON DIOXIDE LABORATORY VACUUM NITROGEN	<ul> <li>PLUMBING GENERAL DEMOLITION NOTES</li> <li>SEE AND LOCATION OF EXISTING BOURMENT, PIPING, ETC. SHOWN FOR REFERENCE ONLY. FIELD VERY EXACT CONDITIONS PRIOR TO FID.</li> <li>REMOVE SLEEVES AND PATCH ALL WALLS, FLOORS, AND CELLINGS TO REMAIN WHERE PIPING H EELN REMOVED, INTOLES IN RATELED CONTRACTION SHALL MATCH EXISTING MATERIAL TO SUBJECT WARKS INTOLES IN RATELED CONTRACTOR. SHALL MATCH EXISTING MATERIAL TO SUBJECT WARKS INTOLES IN RATELED CONTRACTOR.</li> <li>COORDINATE DEMOLITION WITH GENERAL CONTRACTOR. SHALL HAVE FIRST INTOLES ALL REMOVED CONFORMENTS. THE REMAINING ITEMS SHALL BE COMPLETELY REMOVED BOAT ALL REMOVED CONFORMENTS. THE REMAINING ITEMS SHALL HAVE FIRST INTOLES ALL REMOVED CONFORMENTS. THE REMAINING ITEMS SHALL HAVE FIRST INTOLES ALL REMOVED CONFORMENTS. THE REMAINING ITEMS SHALL HAVE FIRST INTOLES ALL REMOVED CONFORMENTS. THE REMAINING ITEMS SHALL HAVE FIRST INTOLES ALL REMOVED CONFORMENTS. THE REMAINING ITEMS SHALL HAVE FIRST INTOLES CONFERENCE INCLUENCE AND TO ALL READ TO ALMER SHALL HAVE FIRST INTOLES (OTHER AND SHALL HE READ TO ALMER TO THAT INTOLEMENTS IN OTHER INCLUMENTS GENERAL NOTES IF CONFLICT OCCURS. CONTACT ALE FIRST INTOLES SHELLER TO BOUNDANCY. THE SCORE OF WORK IS DEFINED THAN DUE TO AME TO MAKE THESE DOCUMENTS. CONSERANCE HEAD TO UNDER THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF WORK IS DEFINED THAN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF WORK IS DEFINED THAN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF WORK IS DEFINED THAN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF THE WORK IS DEFINED THAN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF THE WORK IS DEFINED THAN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF WORK IS DEFINED THAN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCORE OF WORK IS DEFINED THAN THE MOST DATE THAN THE SCORE OF THE SCORE OF THE SCORE OF WORK IS DEFINED THAN THAN THAN THAN THAN THAN THE MAND THAN THE MOS</li></ul>
EQUIP EWC EWH EWT EX F <sup>°</sup> F FCU FD FF FG FLEX FLG FLR FS FT GALV GC GEN GPH GW GV	EQUIPMENT ELECTRIC WATER COOLER ELECTRIC WATER HEATER ENTERING WATER TEMPERATURE EXISTING DEGREES FAHRENHEIT OR FIRE LINE DEGREES FAHRENHEIT FAN COIL UNIT OR FURNACE & COIL UNIT FLOOR DRAIN FINISH FLOOR FINISH FLOOR FINISH GRADE FIRE HOSE CABINET FLEXIBLE FLANGE FLOOR FACTORY MUTUAL FLOOR SINK OR FLOW SWITCH FEET, FOOT GALLON GALLON GALVANIZED GENERAL CONTRACTOR GENERATOR GALLON PER HOUR GALLON PER MINUTE GREASE WASTE GREASE VENT	STD STM SURF SUSP SW SYS TEMP THL TLL TP TSP TSTAT TMV TYP U UF UG UH UNO V VB VEL VENT VERT VOL	SEWER STANDARD STEAM SURFACE SUSPEND OR SUSPENDED SOFTENED WATER SYSTEM TEMPERATURE TEMPERATURE HIGH LIMIT TEMPERATURE LOW LIMIT TOTAL PRESSURE TOTAL STATIC PRESSURE THERMOSTAT THERMOSTATIC MIXING VALVE TYPICAL URINAL UNDERFLOOR UNDERGROUND UNIT HEATER UNLESS OTHERWISE NOTED VOLT(S) VALVE BOX OR VACUUM BREAKER VELOCITY VENTILATE VERTICAL VOLUME	—	SOFT WATER LINE REVERSE OSMOSIS DEIONIZED WATER WALL HYDRANT HOSE BIBB	LA LV N	<ul> <li>LABORATORY AIR</li> <li>LABORATORY VACUUM</li> <li>NITROGEN</li> </ul>	<ul> <li>COORDINATE WITTELECARS AND 42° CLEAR SPACE FOR 480V DEVICES. THIS SHALL INCLUE SWITCH GEAR, DISTRIBUTION PANELS, VFDS, STARTERS, DISCONNECTS, ETC. LOCATION OF THI SERVICE SPACE SHALL BE DETERMINED BY THE SPECIFIC ELECTRICAL DEVICE.</li> <li>P COORDINATE WITH ELECTRICAL AS REQUIRED TO ROUTE NO DUCT OR PIPE DIRECTLY OVER DEVICES SUCH AS PANELBOARDS, MOTOR CONTROL CENTERS AND SWITCHBOARDS UNLESS IT A MINIMUM OF 6' ABOVE THE TOP OF THE DEVICE, OR PROTECTION FROM DAMAGE FROM THE PI OR DUCT IS PROVIDED. THIS SHALL INCLUDE NOT ONLY PROTECTION FROM LEAKS, BUT FROM BREAKAGE.</li> </ul>
H HB HD HR HTR HVAC HW HWR HWR HWR HWR HZ	HIGH, HEIGHT HOSE BIBB HEAD IN FEET HORSE POWER OR HEAT PUMP HOUR HEATER HEATING / VENTILATING / AIR CONDITIONING DOMESTIC HOT WATER HEATING WATER PUMP DOMESTIC HOT WATER RETURN HOT WATER RECIRCULATING PUMP HERTZ	VTR W W/O WAGD WC WCO WH WG WT $\Delta$	VENT THRU ROOF WASTE OR WIDE, WIDTH WITH WITHOUT WASTE ANESTHESIA GAS DISPOSAL WATER CLOSET WALL CLEANOUT WATER HEATER OR WALL HYDRANT WATER GAUGE WEIGHT DELTA PHASE or ROUND					





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NOTES INDICATED BY " () "

- 1 REMOVE A PORTION OF EXISTING RO MAIN SHOWN DASHED.
- 2 CONNECT NEW 2" AW TO EXISTING ACID WASTE RISER IN FIRST FLOOR INTERSTITIAL.
- 3 2" ACID WASTE UP.
- 4 1-1/2" ACID VENT UP.
- 5 CONNECT 1/2" DCW & 1/2" DHW TO SINK FAUCET. CONNECT 1/2" DCW TO EMERGENCY EYE WASH. CONNECT 1/2" RO TO RO FAUCET. LOOP RO MAIN AS INDICATED AND PROVIDE BALL VALVE & FLOW CONTROL VALVE IN 1/2" RO LINE TO FAUCET. COORDINATE EXACT CONNECTION REQUIREMENTS WITH CASEWORK MANUFACTURER.
- 6 1/2" LAB AIR, 3/4" LAB VACUUM, 1/2" NITROGEN & 1/2" DCW DOWN TO FUME HOOD. COORDINATE EXACT CONNECTION REQUIREMENTS WITH FUME HOOD MANUFACTURER.
- 7 1/2" NITROGEN LINE DOWN EXPOSED ON WALL WITH BALL VALVE, 24" LONG STAINLESS STEEL BRAIDIED FLEX CONNECTOR AND REGULATOR FOR CONNECTION TO NITROGEN CYLINDER. COORDINATE EXACT REQUIREMENTS WITH OWNER.







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ELECT	TRICAL LEGEND			ELECTR	ICAL ABBREVIATIONS
<b>LIGHTING</b> SYMBOL	DESCRIPTION	COMMUNICA	TIONS	ABBREVIATION	DESCRIPTION
O LPA-1	LIGHTING FIXTURE - TYPE & CIRCUIT NOTED	SYMBOL	WALL MOUNTED TELEPHONE DEVICE - NO. OF OUTLETS INDICATED	А	AMPERE(S)
A1	LIGHTING FIXTURE WITH BATTERY BACK-UP - TYPE & CIRCUIT NOTED	▼2	FLOOR MOUNTED TELEPHONE DEVICE - NO. OF OUTLETS INDICATED	ABV	ABOVE
OLPA-1	LIGHTING FIXTURE - TYPE & CIRCUIT NOTED	$\nabla_2$	WALL MOUNTED DATA DEVICE - NO. OF OUTLETS INDICATED	AC	ABOVE COUNTER
A1 OLPA-1	LIGHTING FIXTURE WITH BATTERY BACKUP - TYPE & CIRCUIT NOTED	$\nabla_2$	CEILING MOUNTED DATA DEVICE	A/C	AIR CONDITIONING
A DLPA-1	WALL WASHER - TYPE & CIRCUIT NOTED		FLOOR MOUNTED DATA DEVICE - NO. OF OUTLETS INDICATED	AIC	AMPERE INTERRUPTING CAPACITY
	WALL MOUNTED LIGHTING FIXTURE - TYPE & CIRCUIT NOTED	$\nabla^2$	WALL MOUNTED COMMUNICATIONS DEVICE - TWO OUTLETS	AFF	ABOVE FINISHED FLOOR
$\triangleleft \mathbf{X} \triangleright^{X}$	CEILING MOUNTED EXIT SIGN - TYPE NOTED - DIRECTIONAL ARROWS INDICATED	▼ \[\]	FLOOR MOUNTED COMMUNICATIONS DEVICE - TWO OUTLETS	AFG	ABOVE FINISHED GRADE
	WALL MOUNTED EXIT SIGN - TYPE NOTED - DIRECTIONAL ARROWS INDICATED		EXISTING COMMUNICATIONS DEVICE TO REMAIN	AHU	AIR HANDLING UNIT
	EMERGENCY LIGHTING FIXTURE - TYPE & CIRCUIT NOTED	∨E 57-	EXISTING COMMUNICATIONS DEVICE TO BE REMOVED	ATS	AUTOMATIC TRANSFER SWITCH
A LPA-1	FLOOD LIGHT - TYPE & CIRCUIT NOTED	© E		BFF	BELOW FINISHED FLOOR
A A LPA-1	POLE MOUNTED LIGHTING FIXTURE - TYPE & CIRCUIT NOTED	6		BFG	BELOW FINISHED GRADE
	GROUND MOUNTED BOLLARD LIGHT - TYPE & CIRCUIT NOTED	© <sub>c</sub>		BLDG	BUILDING
T E	EXISTING LIGHT FIXTURE TO REMAIN	HS)		С	CONDUIT
	EXISTING LIGHT FIXTURE TO BE REMOVED	HS) <sub>WP</sub>		СВ	CIRCUIT BREAKER
	EXISTING LIGHT FIXTURE TO REMAIN			CCTV	CLOSED CIRCUIT TELEVISION
0	EXISTING LIGHT FIXTURE TO BE REMOVED			СКТ	CIRCUIT
⊢€ E	EXISTING EXIT LIGHT FIXTURE TO REMAIN	HCB)		COND	CONDUCTOR
HX	EXISTING EXIT LIGHT FIXTURE TO BE REMOVED	$\otimes$		CPU	CENTRAL PROCESSING UNIT
	DESCRIPTION	⊘ <sub>c</sub>		DCP	
		$\bigotimes$	FLOOR MOUNTED VIDEO/TV OUTLET LOCATION	DIST	
		©	CEILING MOUNTED CLOCK	DIST	
		HC)	WALL MOUNTED CLOCK	DWGS	DRAWINGS
P	PULLBOX	© <sub>df</sub>	CEILING MOUNTED DUAL FACE CLOCK	FC	EMPTY CONDUIT
0	MOTOR LOCATION	FCDF	WALL MOUNTED DUAL FACE CLOCK	EDF	ELECTRIC DRINKING FOUNTAIN
	LIGHTING CONTACTOR	нB	WALL MOUNTED BELL	EF	EXHAUST FAN
	DISCONNECT SWITCH - CIRCUIT NOTED	HBWP	WEATHERPROOF WALL MOUNTED BELL	EQMT	EQUIPMENT
H <sub>LPA-1</sub>	COMBINATION MOTOR STARTER/DISCONNECT SWITCH - CIRCUIT NOTED	FIRE ALARM SYMBOL	DESCRIPTION	EWC	ELECTRIC WATER COOLER
T	TIMECLOCK	F	FIRE ALARM PULL STATION	EXH	EXHAUST
T	THERMOSTAT LOCATION	ΕM	FIRE ALARM AUDIBLE ALARM/VISUAL STROBE	EXP	EXPLOSION PROOF
н•	PUSHBUTTON	۳۵ <sub>C</sub>	CEILING MOUNTED FIRE ALARM AUDIBLE ALARM/VISUAL STROBE	EXTG	EXISTING
Hoss	START/STOP PUSHBUTTON	SA	FIRE ALARM SPEAKER/VISUAL STROBE	F/A	FIRE ALARM
	SURFACE MOUNTED LIGHTING AND APPLIANCE PANELBOARD	FO	FIRE ALARM VISUAL STROBE	FC	FOOTCANDLES
	FLUSH MOUNTED LIGHTING AND APPLIANCE PANELBOARD	FO <sub>C</sub>	CEILING MOUNTED FIRE ALARM VISUAL STROBE	FCU	FAN COIL UNIT
Ĵ	EXISTING JUNCTION BOX TO REMAIN	S	FIRE ALARM SMOKE DETECTOR	FLUOR	FLUORESCENT
$(\widehat{\mathbf{J}})$	EXISTING JUNCTION BOX TO BE REMOVED	Н	FIRE ALARM HEAT DETECTOR	FN	FULL NEUTRAL
WIRING DEVIC	CES	$\Theta^{s}$	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR IN SUPPLY AIR DUCT	FT	FEET, FOOT
SYMBOL ¢	DESCRIPTION		FIRE ALARM DUCT MOUNTED SMOKE DETECTOR IN RETURN AIR DUCT	GALV	GALVANIZED
¢ 2	SPST WALL SWITCH	SD	FIRE ALARM SMOKE DAMPER LOCATION	GFCI	GROUND FAULT CIRCUIT INTERRUPTER
<b>ን</b> 3 ቀ	3-WAY WALL SWITCH	D	FIRE ALARM DOOR HOLD OPEN DEVICE	GFI	GROUND FAULT INTERRUPTER
<b>ቅ</b> 4		FS	FIRE ALARM SPRINKLER FLOW SWITCH	GND	GROUND
ን <sub>P</sub>	SPST WALL SWITCH WITH PILOT LIGHT	TS	FIRE ALARM SPRINKLER TAMPER SWITCH	GRD	
ቅ <sub>K</sub>		F	EXISTING FIRE ALARM PULL STATION	нір	
\$* <sub>D</sub>	WALL MOUNTED DIMMER SWITCH	FK	EXISTING FIRE ALARM AUDIBLE ALARM/VISUAL STROBE	HOA	
\$* <sub>M</sub>	WALL MOUNTED OCCUPANCY SENSOR - OPTIONS (M2) TWO POLE	FOE	EXISTING FIRE ALARM VISUAL STROBE	HPS	
\$™ <sub>MD</sub>	WALL MOUNTED COMBINATION OCCUPANCY SENSOR/DIMMER	SE	EXISTING FIRE ALARM SMOKE DETECTOR	HVAC	HEATING/VENTILATING/AIR CONDITIONIN
\$ <sub>V</sub>	WALL MOUNTED VOLUME CONTROL SWITCH	E	EXISTING FIRE ALARM PULL STATION TO BE REMOVED	HZ	HERTZ
\$ <sub>L2</sub> ∕⊋ <sup>H</sup>	WALL MOUNTED LOW VOLTAGE SWITCH - NO. OF BUTTONS / ZONES NOTED	E31	EXISTING FIRE ALARM AUDIBLE ALARM/VISUAL STROBE TO BE REMOVED	IC	INTERCOM
S S S	CEILING MOUNTED OCCUPANCY SENSOR - OPTIONS (H) HIGH BAY, (S) SYSTEM	FD	EXISTING FIRE ALARM VISUAL STROBE TO BE REMOVED	ID	INSIDE DIAMETER
	CEILING MOUNTED DAY LIGHTING SENSOR - OPTIONS (S) SYSTEM	ເອງ	EXISTING FIRE ALARM SMOKE DETECTOR TO BE REMOVED	IMC	INTERMEDIATE STEEL CONDUIT
	OCCUPANCY SENSOR POWER PACK - OPTIONS (D) DIMMING, (E) UL 924 EMERGENCY	SECURITY SYMBOL	DESCRIPTION	IN	INCHES
Ψ <sup>51</sup> ለ- 1 ታ <sup>30A</sup>	SIMPLEX RECEPTACLE - 20A, 125V, 2P, 3W, GROUNDING - CIRCUIT NOTED SIMPLEX RECEPTACLE - 125V, 2P, 3W, GROUNDING - AMP RATING AND CIRCUIT	C	CARD READER	INC	INCANDESCENT
Ф LPA-1 Ф L PA-1		L	DOOR LOCK	IG	ISOLATED GROUND
₩/ <sup></sup> /1 IPA-1 3		М	MOTION DETECTOR	JB	JUNCTION BOX
Ψ <sub>30A</sub>	RECEPTACLE - 125/250V, 3P, 3W - AMP RATING AND CIRCUIT NOTED	A	DOOR/WINDOW ALARM MONITOR	KV	KILOVOLT
₩ 60A	DOUBLE DUDLEY RECEPTACLE 2004 400/ 00 004 0000000000 00000000000	G	GLASS BREAK DETECTOR	KVA	
	DUBLE DUPLEX RECEPTACLE - 20A, 125V, 2P, 3W, GROUNDING - CIRCUIT NOTED	К	SECURITY KEY PAD	KVAC	KILOVOLT AMPERE CAPACITIVE
		IC	INTERCOM STATION		
	DUPLEX RECEPTACLE WITH GFT- CIRCUIT NOTED		SECURITY CAMERA		
$\Psi_{WP}^{LPA-1}$	DUPLEX RECEPTACLE WITH WEATHER-PROOF COVER - CIRCUIT NOTED		EXTERIOR SECURITY CAMERA AND ENCLOSURE		
$\Phi_{\rm EWC}^{\rm LPA-1}$	DUPLEX RECEPTACLE WITH GFI SERVING ELECTRIC WATER COOLER - CIRCUIT NOTED				
	FLOOR MOUNTED DUPLEX RECEPTACLE - CIRCUIT NOTED		NURSE CALL PATIENT STATION		
	FLOOR MOUNTED DOUBLE DUPLEX RECEPTACLE - CIRCUIT NOTED	E	NURSE CALL EMERGENCY STATION		
	CEILING MOUNTED DUPLEX RECEPTACLE - CIRCUIT NOTED	S	NURSE CALL STAFF STATION		
	SURFACE MOUNTED RACEWAY - DEVICES INDICATED	$\langle M \rangle$	NURSE CALL MASTER CONTROL STATION		
LPA-1	POWER/COMMUNICATIONS POLE - CIRCUIT NOTED	œ	NURSE CALL CODE BLUE STATION		
ФE	EXISTING DUPLEX RECEPTACLE TO REMAIN	D	NURSE CALL DOME LIGHT		
₽	EXISTING DUPLEX RECEPTACLE TO BE REMOVED	07	NURSE CALL ZONE DOME LIGHT		
₽E	EXISTING DOUBLE DUPLEX RECEPTACLE TO REMAIN	۷			
û	EXISTING DOUBLE DUPLEX RECEPTACLE TO BE REMOVED				
\$ E	EXISTING SPST WALL SWITCH TO REMAIN				
5; E	EXISTING SPST WALL SWITCH TO BE REMOVED			]	

BBREVIATION	DESCRIPTION
KVAR	KILOVOLT AMPERE REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LB	POUND
LPS	LOW PRESSURE SODIUM
М	MANHOLE
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MOUNTING HEIGHT
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTG	MOUNTING
MV	MERCURY VAPOR
NA	NON APPLICABLE
NC	NORMALLY CLOSED
NF	NON FUSED
NO	NORMALLY OPEN
NL	NIGHT LIGHT
OC	ON CENTER
OFCI	
ОН	OVERHEADRNISHED CONTRACTOR INSTALLED
Р	POLE
PA	PUBLIC ADDRESS
PB	PUSHBUTTON
PBX	PRIVATE BUILDING EXCHANGE
PC	PULL CHAIN
P/C	PHOTOCELL
PDP	POWER DISTRIBUTION PANEL
PNL	PANELBOARD
PSI	POUNDS PER SQUARE INCH
PWR	POWER
S	SECURITY
SN	SOLID NEUTRAL
SQFT	SQUARE FOOT
SW	SWITCH
SWBD	SWITCHBOARD
TC	TIME CLOCK
TELE	TELEPHONE
TP	TAMPER RESISTANT
TSTAT	THERMOSTAT
TV	TELEVISION
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UPE	UNDERGROUND PRIMARY ELECTRIC
V	VOLT(S)
VP	
W	
WP	WEATHERPROOF
XFMR	TRANSFORMER
XPD	TRANSPONDER
Z	IMPEDANCE
1P	ONE POLE
2P	TWO POLE
3P	THREE POLE
Ø	PHASE

# ELECTRICAL GENERAL NOTES

- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR, SUB-CONTRACTORS, MANUFACTURERS AND SUPPLIERS TO ADHERE TO THE REQUIREMENTS OF THE FOLLOWING GENERAL NOTES. IF CONFLICT OCCURS, CONTACT A/E PRIOR TO COMMENCEMENT OF WORK. EVERY EFFORT HAS BEEN MADE TO MAKE THESE DOCUMENTS CONCISE AND COORDINATED, TO DEFINE WORK IN THE
- MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. THE SCOPE OF WORK IS DEFINED THROUGHOUT THE ENTIRE SET OF DRAWINGS & SPECIFICATIONS AND IS NOT LIMITED TO JUST ONE SERIES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS TO DETERMINE EACH CONTRACTOR'S SCOPE OF WORK. NO ADDITIONAL COST SHALL BE INCURRED BY THE OWNER FOR CONTRACTOR'S FAILURE TO UNDERSTAND THE FULL SCOPE OF WORK. IF CONFLICT OCCURS, CONTACT A/E PRIOR TO COMMENCEMENT OF WORK.
- PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT AS REQUIRED TO INSTALL COMPLETE AND OPERABLE SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AS REQUIRED BY ALL APPLICABLE CODES, AND PER MANUFACTURER'S DIRECTIONS.
- SIZE AND LOCATION OF EXISTING EQUIPMENT, CONDUIT, WIRING, ETC. SHOWN FOR REFERENCE ONLY. FIELD VERIFY EXACT CONDITIONS PRIOR TO BID.
- NO CUTTING SHALL BE DONE TO ANY OF THE STRUCTURAL MEMBERS THAT WOULD TEND TO LESSEN THEIR STRENGTH, UNLESS SPECIFIC PERMISSION IS GRANTED BY THE ARCHITECT.
- REMOVE SLEEVES AND PATCH ALL WALLS, FLOORS, AND CEILINGS TO REMAIN WHERE CONDUIT AND/OR ELECTRICAL EQUIPMENT HAS BEEN REMOVED. PATCHES IN RATED CONSTRUCTION SHALL MATCH EXISTING MATERIAL TO ENSURE RATING INTEGRITY.
- COORDINATE DEMOLITION WITH GENERAL CONTRACTOR. OWNER SHALL HAVE FIRST RIGHTS TO ALL REMOVED COMPONENTS. THE REMAINING ITEMS SHALL BE COMPLETELY REMOVED BACK TO ACTIVE SERVICE LOCATION. REMOVE ALL ASSOCIATED HANGERS, SUPPORTS, POWER, CONTROLS, ETC. PROVIDE SMOOTH CONCRETE FILL AND PATCH FOR ALL FLOOR MOUNTED OUTLETS BOXES AND FLOOR CHASES NOT
- BEING REUSED FOR NEW CONSTRUCTION IS COMPLETE. COORDINATE CONSTRUCTION OF ALL WORK WITH ARCHITECTURAL, CIVIL, STRUCTURAL, PLUMBING, ELECTRICAL WORK, ETC., SHOWN ON ALL OTHER CONTRACT DOCUMENT DRAWINGS.
- ALL OPENINGS IN FIRE WALLS FOR BOXES, CONDUITS, ETC., SHALL BE FIRE STOPPED WITH A SPECIFIED PRODUCT SIMILAR TO 3M, OR APPROVED EQUAL.
- PROVIDE UPDATED CIRCUIT DIRECTORIES FOR ALL EXISTING PANELBOARDS WHERE NEW CIRCUITS ARE ADDED OR EXISTING CIRCUITS ARE DEMOLISHED.
- ALL CONDUCTORS SHALL BE INSTALLED IN RIGID METAL RACEWAY AS DESCRIBED IN THE SPECIFICATIONS. METAL CLAD, TYPE MC CABLE IS NOT AN ACCEPTABLE WIRING METHOD.
- PROVIDE DEDICATED NEUTRAL CONDUCTORS FOR ALL CIRCUITS REQUIRING A NEUTRAL CONNECTION. SHARING NEUTRAL CONDUCTORS BETWEEN PHASES IS PROHIBITED.
- ALL OUTLET, DEVICE AND JUNCTION BOXES AND ASSOCIATED CONDUIT INDICATED IN NEW BLOCK WALLS SHALL BE CONCEALED IN THE BLOCK WALL. SURFACE MOUNTED BOXES AND CONDUIT ARE NOT ACCEPTABLE AND WILL BE NOTED FOR CORRECTION ON SITE INSPECTION PUNCH LISTS.
- FASTEN JUNCTION AND PULL BOXES TO OR SUPPORT FROM BUILDING STRUCTURE. DO NOT SUPPORT BOXES BY CONDUITS.

	BRANCH CIRCUI	AND SERVICE CONDU	CTOR SIZING SC	HEDULE	
BRANCH CIRCUIT/FEEDER IDENTIFICATION	OVERCURRENT DEVICE	PHASE AND NEUTRAL CONDUCTORS (AWG/kcmil)	EQUIPMENT GROUNDING CONDUCTOR(S) (AWG/kcmil)	GROUNDING ELECTRODE CONDUCTOR (AWG/kcmil)	CONDUIT
< F20 >	20	12	12		1/2"
< F25 >	25	10	10		1/2"
<b>F30</b>	30	10	10		1/2"
<b>F35</b>	35	8	10		1"
<b>F40</b>	40	8	10		1"
<b>F45</b>	45	8	10		1"
<b>F50</b>	50	8	10	8	1"
<b>F60</b>	60	6	10	8	1"
< F70 >	70	4	8	8	1-1/4"
<b>F80</b>	80	4	8	8	1-1/4"
<b>F90</b>	90	2	8	8	1-1/4"
<pre>F100</pre>	100	2	8	8	1-1/4"
F125	125	1/0	6	6	2"
F150	150	1/0	6	6	2"
F175	175	2/0	6	4	2"
< F200 >	200	3/0	6	4	2"
< F225 >	225	4/0	4	2	2-1/2"
< F250 >	250	250 kcmil	4	2	2-1/2"
<b>F300</b>	300	350 kcmil	4	2	3"
<b>F350</b>	350	500 kcmil	2	1/0	4"
< F400 >	400	(2) 3/0	(2) 2	1/0	(2) 2-1/2"
< F450 >	450	(2) 4/0	(2) 2	1/0	(2) 2-1/2"
< F500 >	500	(2) 250 kcmil	(2) 2	1/0	(2) 2-1/2"
< F600 >	600	(2) 350 kcmil	(2) 1/0	2/0	(2) 3"
< F700 >	700	(2) 500 kcmil	(2) 1/0	2/0	(2) 4"
< F800 >	800	(3) 300 kcmil	(3) 1/0	2/0	(3) 3"
<f1000></f1000>	1000	(3) 400 kcmil	(3) 2/0	3/0	(3) 3"
<f1200></f1200>	1200	(4) 350 kcmil	(4) 3/0	3/0	(4) 3"
<f1600></f1600>	1600	(5) 400 kcmil	(5) 4/0	3/0	(5) 3"
<f2000></f2000>	2000	(6) 400 kcmil	(6) 250 kcmil	3/0	(6) 3"
< <u>F2500</u> >	2500	(7) 500 kcmil	(7) 350 kcmil	3/0	(7) 4"
< <u>F3000</u> >	3000	(8) 500 kcmil	(8) 400 kcmil	3/0	(8) 4"
<f4000></f4000>	4000	(11) 500 kcmil	(11) 500 kcmil	3/0	(11) 4"
NOTES:					

WHERE BRANCH CIRCUIT OR FEEDER IS NOT DESIGNATED ON THE DRAWINGS, BRANCH CIRCUIT OR FEEDER SHALL BE SIZED TO MATCH THE OVERCURRENT DEVICE LISTED ABOVE.

GROUNDING ELECTRODE CONDUCTORS FOR SEPARATELY DERIVED SYSTEMS SHALL BE SELECTED BASED ON THE SECONDARY FEEDER OVERCURRENT DEVICE RATING.





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BOXES MUST BE ON OPPOSITE SIDE OF STUD AS INDICATED.





LAY-IN LIGHT FIXTURE DETAIL NO SCALE

# LIGHT FIXTURE SCHEDULE

LTAGE	MOUNTING	MANUFACTURER	MODEL NO.	LAMPS	DELIVERED LUMENS	INPUT WATTS	NO
20/277	RECESSED	METALUX	24FP6435C	LED	6100	60 VA	
20/277	RECESSED	METALUX	24FP6435C	LED	6100	60 VA	
20/277	SURFACE	SURE-LITES	CX61-SD-R	LED		5 VA	

A PROVIDE EMERGENCY DRIVERS WHERE INDICATED ON THE SCHEDULE. FOR LINEAR FIXTURES, DRIVER SHALL PROVIDE A MINIMUM LIGHT OUTPUT OF 1400 LUMENS FOR 90 MINUTES. FOR DOWNLIGHT FIXTURES, DRIVER SHALL PROVIDE A MINIMUM LIGHT OUTPUT OF 900 LUMENS FOR 90 MINUTES

B EACH LIGHT FIXTURE TYPE SHALL BE BINNED WITHIN A THREE-STEP MACADAM ELLIPSE TO ENSURE COLOR CONSISTENCY AMONG LUMINAIRES.

1 PROVIDE FIXTURE WITH BODINE GTD2 UL 924 TRANSFER RELAY.

Supply From: 2DPB Mounting: Recessed Enclosure: Type 1	ł	Volts:120/208 WyeA.I.C. Rating:10000Phases:3Mains Type:MCB / SHUNT TRIPWires:4Mains Rating:100 AMCB Rating:100 AMCB Rating:100 A										ains Type: MCB / SHUNT TRIP ns Rating: 100 A B Rating: 100 A		
Circuit Description	Trip	Poles	Notes	Α	В	С	Α	В	С	Notes	Poles	Trip	Circuit Description	СКТ
ECEPTACLE LAB 2205	20 A	1		600			600				1	20 A	RECEPTACLE LAB 2205	2
ECEPTACLE LAB 2205	20 A	1			1000			1000			1	20 A	RECEPTACLE LAB 2205	4
ECEPTACLE LAB 2205	20 A	1				1000			1000		1	20 A	RECEPTACLE LAB 2205	6
ECEPTACLE LAB 2205	20 A	1		1000			1000				1	20 A	RECEPTACLE LAB 2205	8
ECEPTACLE LAB 2205	20 A	1			1000			1000			1	20 A	RECEPTACLE LAB 2205	10
ECEPTACLE LAB 2205	20 A	1				1000			1000		1	20 A	RECEPTACLE LAB 2205	12
ECEPTACLE LAB 2205	20 A	1		1000			1000				1	20 A	RECEPTACLE LAB 2205	14
ECEPTACLE LAB 2205	20 A	1			1000			1000			1	20 A	RECEPTACLE LAB 2205	16
ECEPTACLE LAB 2205	20 A	1				1000			1000		1	20 A	RECEPTACLE LAB 2205	18
ECEPTACLE LAB 2205	20 A	1		600			400				1	20 A	RECEPTACLE LAB 2205	20
ECEPTACLE LAB 2205	20 A	1			400			1000			1	20 A	RECEPTACLE LAB 2205	22
ECEPTACLE LAB 2205	20 A	1				200			200		1	20 A	RECEPTACLE LAB 2205	24
ECEPTACLE LAB 2205	20 A	1		600			800				1	20 A	RECEPTACLE LAB 2205	26
PARE	20 A	1			0			0			1	20 A	SPARE	28
PARE	20 A	1				0			0		1	20 A	SPARE	30
PARE	20 A	1		0			0				1	20 A	SPARE	32
PARE	20 A	1			0			0			1	20 A	SPARE	34
PARE	20 A	1				0			0		1	20 A	SPARE	36
PACE ONLY				0			0						SPACE ONLY	38
PACE ONLY					0			0					SPACE ONLY	40
PACE ONLY						0			0				SPACE ONLY	42
	Tota	Load:		760	0 VA	740	D VA	640	D VA					
	Total	Amps:		65	δA	63	3 A	53	3 A					
sification		Conr	nected L	.oad	Der	nand Fa	ctor	Estim	nated De	emand			Panel Totals	
CLE		2	1400 VA	۹.		73.36%			15700 V	4				
													Total Conn. Load: 21400 VA	
												Т	otal Est. Demand: 15700 VA	
	Total Cor			Total Conn.: 65 A										
												_		
												T	otal Est. Demand: 44 A	





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2DPB-SECTION 2 400A,208Y/120V,3PH,4W,10,000 AIC



EXISTING ONE-LINE DIAGRAM NO SCALE



# GENERAL NOTES

- A VERIFY THE EXACT LOCATION OF ALL ELECTRICAL EQUIPMENT AT THE SITE.
- B WHERE FEEDER SIZES ARE NOT INDICATED, FEEDER SHALL MATCH THE ASSOCIATED OVERCURRENT PROTECTIVE DEVICE AS INDICATED ON THE BRANCH CIRCUIT AND SERVICE CONDUCTOR SIZING SCHEDULE.

# NOTES INDICATED BY " "

- 1 EXISTING 100A-3P CIRCUIT BREAKER IN EXISTING PANEL "2DPB". USE CIRCUIT BREAKER TO SERVE NEW PANEL "2LC".
- 2 EXISTING 1-1/4" CONDUIT. INSTALL 4 #3 & #8 GROUND IN EXISTING CONDUIT TO NEW PANEL "2LC".
- 3 EXISTING JUNCTION BOX IN PROJECT AREA. EXTEND 1-1/4" CONDUIT AND 4 #3 & #8 GROUND FROM JUNCTION BOX TO PANEL "2LC". VERIFY EXACT LOCATION AND CONDITIONS AT JOBSITE.







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# DEMOLITION GENERAL NOTES

- A VERIFY EXACT DEMOLITION WITH ARCHITECTURAL DEMOLITION PLAN.
- B VERIFY EXACT SALVAGE REQUIREMENTS WITH OWNER AND/OR ARCHITECT BEFORE DEMOLITION BEGINS.
- C PROVIDE SMOOTH CONCRETE FILL AND PATCH FOR ALL FLOOR MOUNTED OUTLETS BOXES AND FLOOR CHASES NOT BEING REUSED FOR NEW CONSTRUCTION IS COMPLETE. D REMOVE ALL ELECTRICAL DEVICES IN WALLS TO BE REMOVED DURING CONSTRUCTION.
- E REMOVE ALL ELECTRICAL DEVICES INTERFERING WITH NEW WALL CONSTRUCTION.
- F REMOVE AND RECONNECT ANY ELECTRICAL DEVICES INTERFERING WITH CONSTRUCTION BUT REUSED AFTER CONSTRUCTION.

# LIGHTING GENERAL NOTES

- A VERIFY THE EXACT LOCATION OF ALL LIGHT FIXTURES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.
- B INSTALL A CONTINUOUS, NON-SWITCHED HOT CONNECTION TO ALL NEW EMERGENCY DRIVERS AND EXIT SIGNS.
- C VERIFY THE EXACT MOUNTING HEIGHT OF ALL WALL MOUNTED LIGHT FIXTURES WITH THE ARCHITECTURAL ELEVATIONS.
- D ALL OCCUPANCY SENSORS, WITH THE EXCEPTION OF THE FOLLOWING LOCATIONS, SHALL BE SET TO VACANCY MODE FOR MANUAL ON-AUTOMATIC OFF: CORRIDORS, STAIRS, RESTROOMS, BUILDING PRIMARY ENTRANCES, LOBBIES AND OTHER AREAS AS INDICATED ON THE PLAN.

# **POWER & COMMUNICATIONS GENERAL NOTES**

- A PROVIDE 3/4" CONDUIT TO 6" ABOVE THE NEAREST ACCESSIBLE CEILING OR TO THE STRUCTURE IN OPEN CEILING AREAS AT EACH COMMUNICATIONS DEVICE INDICATED. INSTALL CATEGORY 6 COMMUNICATIONS WIRING FROM EACH OUTLET TO NEW PATCH PANEL IN EXISTING IDF RACK. REFER TO THE DIVISION 27 SPECIFICATIONS FOR ALL REQUIREMENTS.
- B VERIFY ALL DEVICE MOUNTING HEIGHTS FOR DEVICES LOCATED IN MILLWORK WITH ARCHITECTURAL ELEVATIONS. FOR ALL DEVICES NOT INDICATED ON THE ARCHITECTURAL ELEVATIONS, VERIFY THE EXACT LOCATION AND MOUNTING HEIGHT WITH THE ARCHITECT PRIOR TO INSTALLATION.
- C VERIFY THE EXACT LOCATION OF ALL FLOOR MOUNTED DEVICES WITH THE ARCHITECT AND/OR OWNER PRIOR TO ROUGH-IN INSTALLATION.
- D CIRCUITS INDICATED TO EXISTING PANELS ARE FOR GROUPING AND REFERENCE ONLY. RE-USE EXISTING 20A-1P CIRCUIT BREAKERS AND PROVIDE NEW 20A-1P CIRCUIT BREAKERS AS NECESSARY TO SERVE CIRCUITS INDICATED. VERIFY CIRCUIT NUMBERS AND ALL EXISTING PANEL CONDITIONS AT THE JOBSITE. PROVIDE UPDATED CIRCUIT DIRECTORIES FOR ALL EXISTING PANELS INDICATING REVISED CIRCUIT LOCATIONS.

## FIRE ALARM GENERAL NOTES

- A PROVIDE A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM AS INDICATED ON THE DRAWINGS AND AS DETAILED IN DIVISION 28 OF THE SPECIFICATIONS. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO CONNECT ALL NEW DEVICES TO THE EXISTING FIRE ALARM SYSTEM. RECERTIFY EXISTING SYSTEM AFTER COMPLETING WORK.
- B PROVIDE ALL FIRE ALARM WIRING IN 3/4" CONDUIT. PROVIDE COMPLETE CONDUIT LAYOUT WITH FIRE ALARM SUBMITTAL.
- C REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF ALL TEMPERATURE CONTROL DEVICES.

# NOTES INDICATED BY " "

1	REMOVE ELECTRICAL ITEM, WIRING AND ASSOCIATED CONDUIT BACK TO SOURCE UNLESS NOTED OTHERWISE. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE VERIFICATION PRIOR TO BID. ELECTRICAL ITEMS FEEDING ADJAC SPACES SHALL REMAIN AND BE PROTECTED DURING DEMOLITION.
2	EXISTING SMOKE DETECTOR TO BE RELOCATED INTO NEW CEILING.
3	EXISTING FIRE ALARM DEVICE TO REMAIN.
4	EXISTING FLOOR BOX TO BE REMOVED. REMOVE ALL CIRCUITS BACK TO THEIR SOURCE. PATCH FLOOR AS DIREC BY OWNER AND ARCHITECT.
5	CONNECT BOTH NORMAL AND EMERGENCY CIRCUITS TO UL 924 TRANSFER RELAY PROVIDED WITH LIGHT FIXTURE
6	NEW ELECTRICAL PANEL "2LC". REFER TO RISER DIAGRAM.
7	EMERGENCY POWER OFF PUSHBUTTON. VERIFY EXACT LOCATION WITH THE OWNER. INSTALL CONTROL WIRING CONDUIT TO MAIN SHUNT TRIP CIRCUIT BREAKER IN NEW PANEL "2LC".
8	RECEPTACLE TO SERVE FUME HOOD. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH THE EQUIPMENT PROVIDER.
9	J-BOXES TO SERVE FUTURE CARD READER AND DOOR LOCK. VERIFY EXACT ROUGH-IN REQUIREMENTS AND LOCATIONS. WITH THE OWNER
10	POWER SERVICE POLE TO SERVE LAB TABLES. PROVIDE A LEGRAND WIREMOLD MODEL NO. 30-2V, 10', DUAL CHAN

- SERVICE POLE OR EQUAL. PROVIDE POLE WITH TWO 20A, DUPLEX RECEPTACLES. VERIFY EXACT LOCATION AND MOUNTING AT THE JOBSITE WITH THE OWNER. (TYPICAL OF 16).
- 11 RECEPTACLE TO BE CONNECTED TO NEW 20A-2P CIRCUIT BREAKER IN EXISTING EMERGENCY POWER PANEL "2ELB". PROVIDE RED RECEPTACLE. 12 RECEPTACLE TO BE CONNECTED TO EXISTING 20A-1P SPARE CIRCUIT BREAKER IN EXISTING EMERGENCY POWER PANEL "2ELB". PROVIDE RED RECEPTACLE.
- 13 EXISTING RELOCATED SMOKE DETECTORS. RE-INSTALL IN NEW CEILING AND RECONNECT AS EXISTING.
- 14 NEW FIRE ALARM INDICATING DEVICE. PROVIDE CONTROL WIRING IN 3/4" CONDUIT TO EXISTING AREA INDICATING CIRCUIT. PROVIDE ALL LABOR AND MATERIALS NECESSARY TO CONNECT THE NEW DEVICE FOR COMPLETE OPERATION.

15 APPROXIMATE LOCATION OF EXISTING DISTRIBUTION PANEL IN EXISTING ELECTRICAL ROOM. REFER TO THE ELECTRICAL RISER DIAGRAM. VERIFY EXACT LOCATION AND EXISTING CONDITIONS AT THE JOBSITE.





OTHERWISE. EEDING ADJACENT

OOR AS DIRECTED IGHT FIXTURE.

TROL WIRING IN 1/2"

0', DUAL CHANNEL



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