

NUMBER SHEET NAME REVISION NUMBER SHEET NAME	*		CURRENT		CURRENT			CURRENT			CURRENT		
ATTACH PT PT <th< td=""><td>NUMBER</td><td>SHEET NAME</td><td>REVISION</td><td>NUMBER SHEET NAME</td><td>REVISION</td><td>NUMBER</td><td>SHEET NAME</td><td>REVISION</td><td>NUMBEF</td><td>R SHEET NAME</td><td>REVISION</td><td>NUMBER</td><td>. SHEET NAME</td></th<>	NUMBER	SHEET NAME	REVISION	NUMBER SHEET NAME	REVISION	NUMBER	SHEET NAME	REVISION	NUMBEF	R SHEET NAME	REVISION	NUMBER	. SHEET NAME
No. No. <td>GENERAL DRAW</td> <td>INGS</td> <td></td> <td>A116 OVERALL REFLECTED CEILING PLAN -</td> <td>5</td> <td>A570</td> <td>MILLWORK DETAILS</td> <td>5</td> <td>]</td> <td></td> <td></td> <td>E201</td> <td>1ST FLOOR LIGHTING PLAN</td>	GENERAL DRAW	INGS		A116 OVERALL REFLECTED CEILING PLAN -	5	A570	MILLWORK DETAILS	5]			E201	1ST FLOOR LIGHTING PLAN
Bit is Bit is<	G000R	COVER SHEET	6	LEVEL 06		A572	MILLWORK DETAILS	5	MECHANICAL [DRAWINGS		E202	5TH FLOOR LIGHTING PLAN
201 Diversion in Product 1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000 (1000	G010	ARCHITECTURAL STANDARDS	5	A117 OVERALL REFLECTED CEILING PLAN -	5	A573	MILLWORK DETAILS	5	M001	MECHANICAL DATA SHEET	5	E203	6TH FLOOR LIGHTING PLAN
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <td>G020R</td> <td></td> <td>6</td> <td>A121 OVERALL FINISH PLAN - LEVEL 01</td> <td>5</td> <td>A574</td> <td></td> <td>5</td> <td>M002R</td> <td>MECHANICAL SPECIFICATIONS</td> <td>6</td> <td>E204</td> <td>7TH FLOOR LIGHTING PLAN</td>	G020R		6	A121 OVERALL FINISH PLAN - LEVEL 01	5	A574		5	M002R	MECHANICAL SPECIFICATIONS	6	E204	7TH FLOOR LIGHTING PLAN
0.00000000000000000000000000000000000	G101R G105R	OVERALL LIFE SAFETY PLAN - LEVEL 01	<u> </u>	A125 OVERALL FINISH PLAN - LEVEL 05	5	A600		5	M003R	MECHANICAL SPECIFICATIONS	5	E301	STH ELOOR POWER PLAN
EVE EVEX-10 EVEX.10 EV	G106R	OVERALL LIFE SAFETY PLAN - LEVEL 06	6	A126 OVERALL FINISH PLAN - LEVEL 06	5		PARTITIONS	5	M004 M101	1ST FLOOR MECHANICAL DEMO	PLAN 5	E303	6TH FLOOR POWER PLAN
	G107R	OVERALL LIFE SAFETY PLAN - LEVEL 07	6	A127 OVERALL FINISH PLAN - LEVEL 07	5	A620	CURTAIN WALL TYPES AND DETAILS	5	M102R	5TH FLOOR MECHANICAL DEMO	PLAN 6	E304R	7TH FLOOR POWER PLAN
In 12 - 1000000000000000000000000000000000	¥				5	A630	INTERIOR PARTITION TYPES	5	M103R	6TH FLOOR MECHANICAL DEMO	PLAN 6	EM301	1ST FLOOR MECHANICAL POWER P
Bits Description	STRUCTURAL DF	RAWINGS		A145 OVERALL FURNITURE PLAN - LEVEL 05	5	_ A640	INTERIOR ROOM FINISH SCHEDULE	5	M104R	7TH FLOOR MECHANICAL DEMO	PLAN 6	EM302	5TH FLOOR MECHANICAL POWER F
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <td>S101</td> <td>PARTIAL STRUCTURAL FRAMING PLANS</td> <td>5</td> <td>(FOR REFERENCE ONLY)</td> <td>, , , , , , , , , , , , , , , , , , ,</td> <td>A641</td> <td>INTERIOR FINISH SCHEDULES</td> <td>5</td> <td>M201R</td> <td>1ST FLOOR MECHANICAL PLAN</td> <td>6</td> <td>EM303</td> <td>6TH FLOOR MECHANICAL POWER P</td>	S101	PARTIAL STRUCTURAL FRAMING PLANS	5	(FOR REFERENCE ONLY)	, , , , , , , , , , , , , , , , , , ,	A641	INTERIOR FINISH SCHEDULES	5	M201R	1ST FLOOR MECHANICAL PLAN	6	EM303	6TH FLOOR MECHANICAL POWER P
And The Constraints Constraints <td>SZUIR</td> <td>AND DETAILS</td> <td>0</td> <td>A146 OVERALL FURNITURE PLAN - LEVEL 06</td> <td>5</td> <td>FIRE PROTECTION</td> <td>N DRAWINGS</td> <td></td> <td>M202R M203R</td> <td>6TH FLOOR MECHANICAL PLAN</td> <td>6</td> <td>EM304</td> <td></td>	SZUIR	AND DETAILS	0	A146 OVERALL FURNITURE PLAN - LEVEL 06	5	FIRE PROTECTION	N DRAWINGS		M202R M203R	6TH FLOOR MECHANICAL PLAN	6	EM304	
					5	FP001	FIRE PROTECTION DATA SHEET	5	M203R	7TH FLOOR MECHANICAL PLAN	6	E401	1ST FLOOR FIRE ALARM PLAN
Ref Add/D (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	ARCHITECTURAL	L DEMOLITION DRAWINGS		(FOR REFERENCE ONLY)	J J	FP002	FIRE PROTECTION SPECIFICATIONS	5	M205R	ROOF MECHANICAL PLAN	6	E402	5TH FLOOR FIRE ALARM PLAN
Construction Mathematical Construction Mathmatical Construction Mathematical Con	AD101	DEMOLITION FLOOR PLAN - LEVEL 01	5	A151R OVERALL DEMOUNTABLE WALL PARTITIO	N 6	FP003	FIRE PROTECTION SPECIFICATIONS	5	M301	MECHANICAL DETAILS	5	E403	6TH FLOOR FIRE ALARM PLAN
No. Prior P	AD105	DEMOLITION FLOOR PLAN - LEVEL 05	5	PLAN - LEVEL 01		FP201	1ST FLOOR FIRE PROTECTION PLAN	5	M302	MECHANICAL DETAILS	5	E404	7TH FLOOR FIRE ALARM PLAN
Non- Non- <th< td=""><td>AD106</td><td></td><td>5</td><td>A155R OVERALL DEMOUNTABLE WALL PARTITIO</td><td>N 6</td><td>FP202 EP203</td><td></td><td>5</td><td>M401</td><td>MECHANICAL SCHEDULES</td><td>5</td><td>E501</td><td></td></th<>	AD106		5	A155R OVERALL DEMOUNTABLE WALL PARTITIO	N 6	FP202 EP203		5	M401	MECHANICAL SCHEDULES	5	E501	
	AD107	DEMOLITION REFLECTED CEILING PLAN -	5	A156R OVERALL DEMOUNTABLE WALL PARTITIO	N 6	FP204	7TH FLOOR FIRE PROTECTION PLAN	5	M402R	MECHANICAL SCHEDULES	5	E502	
Autor (1) Control (1)		LEVEL 01	•	PLAN - LEVEL 06				v	M403	MECHANICAL SCHEDULES	5	E601	
All Line Line Line Line Line Line Line Line				A157R OVERALL DEMOUNTABLE WALL PARTITIO	N 6	PLUMBING DRAW	INGS		M405	MECHANICAL SCHEDULES	5	E701	ELECTRICAL SCHEDULES
Non- transmission Non- transmiss	ARCHITECTURAL		r	A401 ENLARGED FLOOR PLANS	5	- P001R	PLUMBING DATA SHEET	6	_			E702	ELECTRICAL PANEL SCHEDULES
Norm Object House Hall Set Main Main <td></td> <td>OVERALL FLOOR PLAN - LEVEL 01</td> <td>56</td> <td>A402 ENLARGED FLOOR PLANS</td> <td>5</td> <td>- P002</td> <td>PLUMBING SPECIFICATIONS</td> <td>5</td> <td>ELECTRICAL D</td> <td>RAWINGS</td> <td></td> <td>E703</td> <td>ELECTRICAL PANEL SCHEDULES</td>		OVERALL FLOOR PLAN - LEVEL 01	56	A402 ENLARGED FLOOR PLANS	5	- P002	PLUMBING SPECIFICATIONS	5	ELECTRICAL D	RAWINGS		E703	ELECTRICAL PANEL SCHEDULES
Norm Operation Status Add Locations Status	A106R	OVERALL FLOOR PLAN - LEVEL 05	6	A451R ELEVATIONS	6	P101	1ST ELOOR PLUMBING DEMO PLAN	5	E001	ELECTRICAL DATA SHEET	5	E704	
Image: Description of Mail: Description of Mail: <thdescription ma<="" of="" td=""><td>A107R</td><td>OVERALL FLOOR PLAN - LEVEL 07</td><td>6</td><td>A452 ELEVATIONS</td><td>5</td><td>P201</td><td>1ST FLOOR PLUMBING PLAN</td><td>5</td><td>E001A</td><td></td><td>5</td><td>E705</td><td>ELECTRICAL PANEL SCHEDULES</td></thdescription>	A107R	OVERALL FLOOR PLAN - LEVEL 07	6	A452 ELEVATIONS	5	P201	1ST FLOOR PLUMBING PLAN	5	E001A		5	E705	ELECTRICAL PANEL SCHEDULES
	A111	OVERALL REFLECTED CEILING PLAN -	5	A453 ELEVATIONS	5	– P202R	5TH FLOOR PLUMBING PLAN	6	E002	ELECTRICAL SPECIFICATIONS	5	TELECOMMUNI	CATIONS DRAWINGS
NO PERT 10 <	A115	LEVEL 01	E	A454 ELEVATIONS	5	- P203R	6TH FLOOR PLUMBING PLAN	6	E004	ELECTRICAL SPECIFICATIONS	5	T0.01	TELECOM DATA SHEET
	ATIS	LEVEL 05	Э	A565 DETAILS	5	- P204R	7TH FLOOR PLUMBING PLAN	6	E101	FIRST FLOOR ELECTRICAL DEMO	DLITION 5	T1.01	TELECOM FIRST FLOOR PLAN
REFERENCE SYMBOLS ABBREVIATIONS 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 1		M	<u>M</u>	A. M. M. M.	M								
Singlight of the second s		RE	FERENCE SYMBO	LS				ABBRE	VIATIONS				
Contraction Contracti	(A.10)	STRUCTU	RAL GRID	REVISION CLOUD / DELTA	AB ANCHOR BOLT ACT ACOUSTIC CEILING TILE ADJ ADJUSTABLE AFF ABOVE FINISHED FLOOR AGGR AGGREGATE A/C AIR CONDITIONING	CONT CO CONTR CO COORD CO CORR CO CPT CO CRS CO	ONTINUOUS FIN ONTRACTOR FLR OORDINATE FRGP ORRIDOR FTG ARPET FURN OURSES GA	FINISHED FLOOR FIBER REINFORCED GYPSUM PANEL FOOTING FURNISHED GAUGE	MATL MATER MAX MAXIMU MECH MECHA MED MEDIUM MEMB MEMBR MEP MECHA	IAL JM NICAL A ANE NICAL, ELECTRICAL, AND PLUMBING	PTD PAINTED QT QUARRY TILE R RADIUS RD ROOF DRAIN REC RECESSED RECPT RECEPTACLE	UH UNIT HEATER UNFIN UNFINISHED UOD UNDERSIDE OF UON UNLESS OTHEF UV UNIT VENTILAT VCT VINYL COMPOS	DECK RWISE NOTED OR SITION TILE
SEE INAGO MATCHINE Gasgo CTUERDRY INTERGRE LEVATION Avg Avgestion Avg Mode model North North <td>MATCHLINE</td> <td></td> <td></td> <td>10-0" AFF SPOT ELEVATION</td> <td>ALT ALTERNATE ALUM ALUMINUM ANOD ANODIZED ATTEN ATTENUATION AUTO AUTOMATIC</td> <td>CT CI CUFT(CF) CW D DBL</td> <td>ERAMIC TILE GALV CUBIC FOOT GB COLD WATER GC DRYER GFRC DOUBLE GL</td> <td>GALVANIZED GRAB BAR GENERAL CONTRACTOR GLASS FIBER REINFORCED CONCRETE GLASS</td> <td>MFR MANUF, MH MANHO MIN MINIMU MISC MISCEL MO MASON</td> <td>ACTURER LE M LANEOUS RY OPENING</td> <td>REINF REINFORCING REQD REQUIRED REV REVISION RFT RESILIENT FLOOR TILE RM ROOM</td> <td>VERT VERTICAL W/ WITH WC WATER CLOSE WD WOOD WF WIDE FLANGE</td> <td>T</td>	MATCHLINE			10-0" AFF SPOT ELEVATION	ALT ALTERNATE ALUM ALUMINUM ANOD ANODIZED ATTEN ATTENUATION AUTO AUTOMATIC	CT CI CUFT(CF) CW D DBL	ERAMIC TILE GALV CUBIC FOOT GB COLD WATER GC DRYER GFRC DOUBLE GL	GALVANIZED GRAB BAR GENERAL CONTRACTOR GLASS FIBER REINFORCED CONCRETE GLASS	MFR MANUF, MH MANHO MIN MINIMU MISC MISCEL MO MASON	ACTURER LE M LANEOUS RY OPENING	REINF REINFORCING REQD REQUIRED REV REVISION RFT RESILIENT FLOOR TILE RM ROOM	VERT VERTICAL W/ WITH WC WATER CLOSE WD WOOD WF WIDE FLANGE	T
1 1 1 0 0 00 cm/steps 5M SML 48 5ML 48	SEE 1/A350	· · · M	ATCHLINE (A38	A350 1 EXTERIOR / INTERIOR ELEVATION	AVG AVERAGE B/ BOTTOM OF BC BRICK COURSE BD BOARD BLDG BUILDING	DEG DIA DIM DIM DIV	DEGREE GYP DIAMETER HAGB DIMENSION HB DIMENSION HDWD DIV/SION HDWB	GYPSUM HIGH ABUSE GYPSUM BOARD HOSE BIBB HARDWOOD HARDWARE	NIC NOT IN NO NUMBE NOM NOMINA NON-COM NON- OA OVE	CONTRACT R NL COMBUSTABLE RALL	RUB RUBBER RV ROOF VENT RX REMOVE EXISTING SEL SELECT SGT STRUCTURAL GLAZED THE	WP WORK POINT WT WEIGHT	
Image: section Image: section Image: section Image: section CJ control upint EQ e EQUAL ID inside the control upint PART PART PART STRUCT	1 A350	A350 BULDING	SECTION		BLK BLOCK BM BENCHMARK CB CATCH BASIN CFMF COLD FORMED METAL FI CG CORNER GUARD	DW EJ ELEC RAMING ELEV ENCL	DISHWASHER HM EXPANSION JOINT HORIZ ELECTRICAL HT ELEVATION HW ENCLOSURE HWT	HOLLOW METAL HORIZONTAL HEIGHT HOT WATER HOT WATER TANK	OC ON C OD OUTS OFF OFFI OPP OPPC OVHD OVEF	ENTER EINTER CE DSITE RHEAD	SIM SIMILAR SPEC SPECIFICATION SQFT(SF) SQUARE FOOT SS STAINLESS STEEL STD STANDARD		South shore
1 DETAIL SECTION REFER TO ENLARGED PLAN 1/A350 ALTERNATIVE MATCHLINE FOM ALTERNATIVE MATCHLINE FOM FOUNDATION FDN FOUNDATION	1 A350	WALL	SECTION		CJ CONTROL JOINT CL CENTERLINE CLG CEILING CLO CLOSET CLR CLEAR CMU CONCRETE MASONRY UI COL COLUMN	EQ EQUIP EXIST EXP BOLT EWC NIT FAB FD	EQUALIDEQUIPMENTIGUEXISTINGINCLEXPANSION BOLTINSULELECTRIC WATER COOLERJANFABRICATEDJBFLOOR DRAINJT	INSIDE DIAMETER INSULATED GLAZING UNIT INCLUDED INSULATION JANITOR JUNCTION BOX JOINT	PART PART PL PLAT PLAM PLAS PLMB PLUM POL POLIS PREFAB PREF PREFIN PREF	TITION E ITIC LAMINATE IBING SHED SABRICATED TINISHED	STORSTORAGESTRUCTSTRUCTURALSUSP CLGSUSPENDED CEILINGT/TOP OFTELTELEPHONETEMPTEMPEREDTERRTERRAZZO		ts liaden
	1 A350	DETAIL	SECTION	EFER TO ENLARGED PLAN 1/A350 ALTERNATIVE MATCHLINE	COMP COMPOSITION CONC CONCRETE CONN CONNECTION CONST CONSTRUCTION	FDN FE FEC FHC	FOUNDATIONLAMFIRE EXTINGUISHERLAVFIRE EXTINGUISHER CABINETLFFIRE HOSE CABINETMAS	LAMINATE LAVATORY LINEAR FEET MASONRY	PREP PREF PROC PROC PROP PROF PT PAIN	PERATION CEDURE PERTY T	TGTONGUE AND GROOVETHKTHICK OR THICKNESSTLTTOILETTYPTYPICAL		sees seender st 412 Ro

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RESPO	NSIBILITY MATRIX	AV CONTRACTOR	PLUMBING CONTRACTOR	DIRTT OWIRACTOR	AV CONT	ELECTRICAL COMP	PLUMBING CONTRACTOR DIRT	GC OR GC SUB
STRUCTURAL							TALL	
	All non-DIRTT framing, soffit headers, lighting support, MEP, etc. Structural bracing of DIRTT system to building structure Structural attachment of DIRTT curtain walls to GC walls Backing of GC wall for curtain wall connections All drawings and calculations for DIRTT walls and attachments, including seismic, up to connection points			• • •		•		•
	Rough-in and connection of all mechanical & HVAC			•				•
ELECTRICAL (DIRTT POWER)	DIRTT zone box DIRTT zone box to DIRTT j-box Device box & conduit inside DIRTT walls DIRTT j-box: express lines, extender cables, splitters, and power chassis Hardwire connections Electrical receptacles, face plate/trim ring in DIRTT walls Non-DIRTT electrical receptacles, face plate/ trim rings Room lighting (exception - lighting integrated into DIRTT millwork) LED lighting within DIRTT millwork - hardwire - review wiring diagram prior to DIRTT arrival Electrical circuiting labeling on electrical face plates Occupancy sensors, transformers, thermostats, motion sensors, exiting devices and all lighting controls	•		• • • • •				•
PLUMBING								
	Rough in, stub-up and connection of all plumbing fixtures and pipes In-wall domestic water Bathroom lavatory backing - integrated in DIRTT wall Domestic water final connections Waste water connections - incl. vent, ptrap, drain cover, etc. Toilet fixture, sinks, carriers, and flush valves Toilet & bathroom accessories backing- installed on DIRTT wall		•	•			• • • • • • • • • • • • • • • • • • • •	
DATA (DIRTT NETWORKS)	See DIRTT SOW document							
WALLS & DOORS	Fire-rated walls Glazing /Glass (DIRTT walls) Interior DIRTT walls: insulation, frames, face-mounted tiles Door slabs (see DIRTT shop drawing for details) Door pulls Door lever sets Backing for all DIRTT wall-mounted items (DIRTT Madonna) Backing for all dry wall-mounted items			• • • • •				
CEILINGS	Ceiling grid: t-bar grid and tiles Ceiling grid to DIRTT wall hangers DIRTT Bespoke Ceilings			•			•	•
FLOOR	Carpet or finished floor material							•
SECURITY EQUIPMENT	Raised floor, subfloor system (if in scope) Security door hardware Final security wiring to building system Maglocks in door headers Keypad, card-scanners, push button, motion sensor Keypad sizels gave hask berwith card kilo out out			•			•	•
MILLWORK	Reypad single gang back box with conduit and tile cut out			•				
	Toe-kicks Hanger brackets or French cleats Cabinets (see Millwork shops for details and scope) Hardware, pulls, LED lighting within DIRTT cabinets Surfaces and counter top, backsplash, subtops			• • •			• • • •	•
INTEGRATED TECHNOLOGY & AC	CESSORIES Imbedded TV within DIRTT wall Power chassis, fan kits Mounting Brackets (embedded or facemounted) Clocks and other visible accessories			•				
	Accessory or Medical equipment - support brackets only Accessory or Medical equipment			•			·	•
WALL-MOUNTED TECHNOLOGY &	& ACCESSORIES Wall-mounted equipment - support brackets only Wall-mounted equipment - backing (Madonna) Wall-mounted equipment			•			•	•
HEALTHCAKE SPECIFIC	Medgas Plumbing							•



-ANY CASEWORK, CLOSET SHELVING AND COUNTERTOPS DOCUMENTED AS PART OF THESE ARCHITECTURAL DRAWINGS, ARE PART OF THE GC SCOPE OF WORK. BLOCKING LOCATIONS HAVE BEEN PREVIOUSLY COORDINATED WITH THE DIRTT DEMOUNTABLE WALL TEAM. BLOCKING WILL BE PROVIDED AND ADDED AS PART OF THE DIRTT SCOPE.
 THERE WILL BE CASES WHERE COUNTERTOPS AND CASEWORK WILL ABUT OR ATTACH TO THE DIRTT WALL SURFACES. -THIS SCOPE RESPONSBILITY MATRIX IS A BASIC GUIDELINE PROVIDED BY THE DIRTT PRODUCT MANUFACTURER. THE HACP PROJECT SHALL USE 4 PRIME CONTRACTORS AS OUTLINED IN THE PROJECT MANUAL.

RESPO	NSIBILITY MATRIX	AV CONTO	ELECTRICA.	PLUMBING CONTRACTOR	DIRTT	GC OR GC SUB	ELECTION FLECTOR	PLUMBING CONTRACTOR	DIRTT	GC OR GC SUB
AREA			MA	TERI	AL			INSTALL		
	Medgas Devices (Oxygen, Air, Vacuum, Sliders)					•				•
	Medgas Devices Mounting Brackets				•				•	
	Coved Flooring Base					•				•
	Fiumping Grases Infection Prevention Gaskets (DIRTT walls only)				•				•	
PERMITS AND DRAWINGS										
	Permit Application (GC)									
	Permit drawings (architect)					•				
	DIRTT walls and millwork shop drawings				•					
	DIRTT installation drawings and as builts				•					
INSTALLATION AND SITE										
	Dumpster, recycling bins and disposal fees					•				•
	Forklift with 6 foot forks					•				•
	Scissor Lifts (2)					•				•
	Delivery coordination of trucks and sequencing				•				•	
	Delivery labor from DIKI I trucks/site to store location				•				•	
	Offsite storage, if needed					•				
OTHER										
	In-drywall electrical									•
	In-drywall data									
	Drywall-mounted doors and windows (non-DIRTT supplied)					•				•
	Major appliances					•				•







CHAPTER 10 - MEANS OF EGRESS	LIFE SAFETY NOTES	
<i>1007.1.1</i> THE SEPARATION DISTANCE BETWEEN TWO EXIT ACCESS DOORWAYS SHALL NOT BE LESS THAN ONE-HALF OF THE LEGNTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE SERVED.	1. AN ASTERISK (*) ON THE IBC OCCUPANCY TAG INDICATES THE AREA CALCULATION IS A ROUNDED UP GROSS AREA MEASUREMENT. FOR THE TRUE REQUIRED OCCUPANCY OF THIS AREA PER LEVEL AS DEFINED IN TABLE 1004.1.1 OF THE INTERNATIONAL BUILDING CODE, REFER TO THE GROSS AREA SCHEDULE.	$\mathbf{O27}$
EXCEPTION #2 WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE SEPARATION DISTANCE SHALL NOT BE LESS THAN ONE-THIRD OF THE OVERALL DIAGONAL DIMENSION OF THE AREA SERVED.	ALL ALTERATIONS AND CHANGES OF OCCUPANCY MEET THE PRESCRIPTIVE	2840 LIBERTY AVENUE SUITE 403 PITTSBURGH, PA 15222
1009.1 ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS FROM ANY ACCESSIBLE SPACE.	REQUIREMENTS OF THE INTERNATIONAL EXISTING BUILDING CODE 2015 EDITION AND ARE IN COMPLIANCE WITH ALL CODES NOTED IN APPLICABLE CODES TABLE.	(412) 932 2044 www.ae7.com
1017.2 EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED THE DISTANCES GIVEN IN <i>TABLE 1017.2</i> . <i>TABLE 1017.2</i> OCCUPANCY GROUP B (SPRINKLERED): 300'-0"		PROFESSIONAL SEAL:
<i>1020.1</i> CORRIDORS SHALL BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH TABLE <i>1020.1</i> .		SELINSYLLA
TABLE 1020.1 CORRIDORS SERVING OCCUPANCY GROUPS B WITH AN OCCUPANT LOAD GREATER THAN 30 IN A BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM = 0 HOUR FIRE-RESISTANCE RATING REQUIRED.		JEFFARE C
1020.4 WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 20'-0".		H-J C Way
EXCEPTION #2 IN OCCUPANCY GROUP B, WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE LENGTH OF THE DEAD-END CORRIDORS SHALL NOT EXCEED 50'-0".		CONSULTANT:
CHAPTER 11 - ACCESSIBILITY		
1105.1 60% OF ALL PUBLIC ENTRANCES SHALL BE ACCESSIBLE. 1109.2 AT LEAST ONE OF EACH TYPE OF FIXTURE, ELEMENT, CONTROL, OR DISPENSER IN EACH ACCESSIBLE TOILET ROOM SHALL BE ACCESSIBLE.		
CHAPTER 30 - ELEVATORS AND CONVEYING SYSTEMS		CLIENT: Housing Authority of the City of Pittsburgh
3006.2 ELEVATOR HOISTWAY DOOR OPENINGS SHALL BE PROTECTED IN HIGH-RISE BUILDINGS IN ACCORDANCE WITH SECTION 3006.3.		200 ROSS STREET PITTSBURGH PA 15219
3006.3.4 THE ELEVATOR HOISTWAY SHALL BE PRESSURIZED IN ACCORDANCE WITH SECTION 909.21.		(412) 456-5000 hacp.org
CHAPTER 4 - FIXTURES, FAUCETS, AND FIXTURE FITTINGS (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAIMAGE ARTICLE YU)	OCCUPANCY LEGEND	
403.3.3 (IPC 2015) IN OCCUPANCIES OTHER THAN COVERED AND OPEN MALL BUILDINGS, THE REQUIRED PUBLIC AND EMPLOYEE TOILET FACILITIES SHALL BE LOCATED NOT MORE THAN ONE STORY ABOVE OR BELOW THE SPACE REQUIRED TO BE PROVIDED WITH THE TOILET FACILITIES AND THE PATH OF TRAVEL TO SUCH FACILITIES SHALL NOT EXCEED A DISTANCE OF 500'.	"B" BUSINESS OCCUPANCY "A-2" ASSEMBLY OCCUPANCY OUT OF SCOPE. VARIOUS OCCUPANCIES EGRESS COMPONENT	
 CHAPTER 4 - FIXTURES, FAUCETS, AND FIXTURE FITTINGS (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ARTICLE XV) DELETE 500' FROM IPC 403.3.3 AND REPLACE WITH 300'. 403 OCCUPANCY GROUP B LEVEL 01: 36 OCCUPANTS 		tsburgh
TOTAL (OCCUPANCY GROUP B): 39 OCCUPANTS IN SCOPE WATER CLOSETS TOILETS (MALE): 19.5 OCCUPANTS @ 2 PER 16-35 OCCUPANTS = 2 TOILETS REQUIRED TOILETS (FEMALE): 19.5 OCCUPANTS @ 2 PER 16-35		v of Pit
OCCUPANTS = 2 TOILETS REQUIRED LAVATORIES LAVATORIES (MALE/FEMALE): 39 OCCUPANTS @ 2 PER 26-50 OCCUPANTS = 2 LAVATORIES REQUIRED) e Cit
DRINKING FOUNTAINS DRINKING FOUNTAINS (MALE/FEMALE): 39 OCCUPANTS @ 1 PER 100 OCCUPANTS = 1 DRINKING FOUNTAIN REQUIRED	LIFE SAFETY LEGEND	/ of th A 15219
SERVICE SINKS SERVICE SINKS: 1 REQUIRED PER FLOOR		ority rgh, P
LOWER LEVEL (OUT OF SCOPE): 230 OCCUPANTS TOTAL (OCCUPANCY GROUP A-3): 230 OCCUPANTS		Auth
WATER CLOSETS TOILETS (MALE): 129 OCCUPANTS @ 1 PER 125 OCCUPANTS = 2 TOILETS REQUIRED TOILETS (FEMALE): 129 OCCUPANTS @ 1 PER 65 OCCUPANTS = 2 TOILETS REQUIRED	- 2 HR FIRE RESISTANT	Lsing A
LAVATORIES LAVATORIES (MALE/FEMALE): 258 OCCUPANTS @ 1 PER 200 OCCUPANTS = 2 LAVATORIES REQUIRED	SYMBOLS	HOL ard of th
DRINKING FOUNTAINS DRINKING FOUNTAINS (MALE/FEMALE): 258 OCCUPANTS @ 1 PER 500 OCCUPANTS = 1 DRINKING FOUNTAIN REQUIRED	EXIT ARROW	CP -
SERVICE SINKS SERVICE SINKS: 1 REQUIRED PER FLOOR		HA 412 I
LOWER LEVEL (OUT OF SCOPE): 37 OCCUPANTS TOTAL (OCCUPANCY GROUP S-2): 37 OCCUPANTS WATER CLOSETS	FIRE EXTINGUISHER	
TOILETS (MALE/FEMALE): 37 OCCUPANTS @ 1 PER 100 OCCUPANTS = 1 TOILETS REQUIRED	DOOR TYPE	
DRINKING FOUNTAINS (MALE/FEMALE): 37 OCCUPANTS @ 1 PER 100 DRINKING FOUNTAINS (MALE/FEMALE): 37 OCCUPANTS @ 1	240 OCC. MAX ALLOWABLE OCC. 150 OCC. ACTUAL OCC.	
PER 1,000 OCCUPANTS = 1 DRINKING FOUNTAIN REQUIRED SERVICE SINKS SERVICE SINKS: 1 REQUIRED	- EGRESS LINE -LONGEST PATH	6 ADDENDUM #6 02/10/2021 5 100% CONSTRUCTION DOCUMENTS REVISION #3 09/03/2020 4 100% CONSTRUCTION DOCUMENTS 07/30/2020
COMBINED TOTAL MINIMUM NUMBER OF REQUIRED FIXTURES FOR LEVEL 01 AND LOWER LEVEL(OUT OF SCOPE)	- EGRESS LINE -COMMON PATH	REVISION #2 3 100% CONSTRUCTION DOCUMENTS REVISION #1 07/09/2020 2 100% CONSTRUCTION DOCUMENTS 05/22/2020
WATER CLOSETS MALE: 4 REQUIRED / 4 PROVIDED FEMALE: 4 REQUIRED / 4 PROVIDED MALE OR FEMALE: 1 REQUIRED / 1 PROVIDED	- EGRESS LINE - "DEAD END" CORRIDOR DIAGONAL DISTANCE PATH	1 100% DESIGN DEVELOPMENT 01/23/2020 # DESCRIPTION DATE PROJECT ISSUANCE
LAVATORIES: 5 REQUIRED / 7 PROVIDED DRINKING FOUNTAINS: 3 REQUIRED / 6 PROVIDED	AREA IN SF	PROJECT NO: DRAWN BY: REVIEWED BY: 190427.00 AE7 JW SHEET NAME:
SERVICE SINKS: 1 REQUIRED PER FLOOR / 1 PROVIDED PER FLOOR 419 (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE ARTICLE X/1 THE NUMBER OF UPINALS FOR MALES	Area Name 150 SF Occupancy Load = 10,000	OVERALL LIFE SAFETY
SHALL BE AT LEAST 50% OF THE TOTAL NUMBER OF WATER CLOSETS REQUIRED FOR MALES. THE NUMBER OF WATER CLOSETS MAY BE DECREASED BY THE NUMBER OF URINALS WHICH ARE USED, BUT THE NUMBER OF REMAINING WATER CLOSETS SHALL NOT BE	OCCUPANCY LOAD PER IBC TABLE 1004.1.1 IBC ALLOWABLE AREA	SHEET NO:
LESS THAT 50% OF THE ORIGINAL TABULATED TOTAL.	PER OCCUPANT	G101R

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2 OVERALL LIFE SAFETY PLAN - LEVEL 05

APPLICABLE CODES - LEVEL 05

APPLICABLE CODES: UNIFORM CONSTRUCTION CODE (UCC), PA ACT 45 INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION INTERNATIONAL MECHANICAL CODE (IMC), 2015 EDITION INTERNATIONAL PLUMBING CODE (IPC), 2015 EDITION INTERNATIONAL FIRE CODE (IFC), 2015 EDITION INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2015 EDITION ARTICLE XV OF THE ALLEGHENY COUNTY HEALTH DEPARTMENT'S RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE -CURRENT EDITION NFPA 70 - 2008 ELECTRICAL CODE

ACCESSIBILITY STANDARDS:

ICC/ANSI A117.1 - 2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES CHAPTER 11 - 2018 INTERNATIONAL BUILDING CODE APPENDIX E - 2018 INTERNATIONAL BUILDING CODE

AUTHORITY HAVING JURISDICTION:

CITY OF PITTSBURGH - DEPARTMENT OF PERMITS, LICENSES, AND INSPECTIONS

CHAPTER 3 - OCCUPANCY CLASSIFICATION

TYPE "B" BUSINESS - 15,136 SF

303.1.2 THE FOLLOWING ROOMS AND SPACES SHALL NOT BE CLASSIFIED AS ASSEMBLY OCCUPANCIES: A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS, OR LESS THAN 750 SQUARE FEET IN AREA, AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A

GROUP "B" OCCUPANCY OR AS A PART OF THAT OCCUPANCY.

CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

403.2.1.1.2 IN A HIGH-RISE BUILDING, THE FIRE-RESISTANCE RATING OF THE BUILDING ELEMENTS IN TYPE IB CONSTRUCTION SHALL BE PERMITTED TO BE REDUCED TO THE FIRE-RESISTANCE RATING IN TYPE IIA.

CHAPTER 5 - BUILDING HEIGHT & AREA

TYPE "IB" CONSTRUCTION (EXISTING)

ALLOWABLE HEIGHT - 12 STORIES / 180' - 0"

ACTUAL - 9 STORIES / 116' - 10" ALLOWABLE BUILDING AREA - UL SF/FLOOR ACTUAL (LEVEL 05) - 16,434 SF

508.1 WHERE A BUILDING CONTAINS MORE THAN ONE OCCUPANCY GROUP, THE BUILDING OR PORTION THEREOF SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 508.2, 508.3, 508.4, OR A COMBINATION OF THESE SECTIONS.

508.3 AREAS/OCCUPANCIES WITHIN SCOPE ARE TO BE CONSIDERED NONSEPARATED OCCUPANCIES IN ACCORDANCE TO THE PROVISIONS SET FORTH IN SECTION 508.2.

CHAPTER 6 - TYPES OF CONSTRUCTION

TYPE "IB" CONSTRUCTION (EXISTING)

TABLE 601 PRIMARY STRUCTURE: 1 HOUR BEARING WALLS - EXTERIOR: 1 HOUR BEARING WALLS - INTERIOR: 1 HOUR NON-BEARING WALLS - INTERIOR: 0 HOUR FLOOR CONSTRUCTION: 1 HOUR ROOP CONSTRUCTION: THOUR ALL DEMOUNTABLE PARTITIONS ARE TO BE OF NONCOMBUSTIBLE MATERIALS, IN COMPLIANCE WITH CHAPTER 6, SECTION 601 AND SECTION 603.

CHAPTER 8 - INTERIOR FINISHES

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803.11 INTERIOR WALL AND CEILING FINISH SHALL HAVE A FLMAE SPREAD INDEX NOT GREATER THAN THAT SPECIFIED IN TABLE 803.11 FOR THE GROUP AND LOCATION DESIGNATED.

TABLE 803.11 OCCUPANCY GROUP B EXIT ENCLOSURES/PASSAGEWAYS: B CORRIDORS: C

ROOMS/ENCLOSED SPACES: C

CHAPTER 9 - FIRE PROTECTION SYSTEMS-

903.2 AUTOMATIC SPRINKLERS REQUIRED IN LOCATIONS AS REFERENCED IN SECTION 403.3 REGARDING HIGHRISE BUILDINGS. EXISTING SPRINKLERS TO BE ADJUSTED IN COMPLIANCE WITH NFPA-13 STANDARD ON AUTOMATIC SPRINKLERS – GENERAL BUILDING CLASSIFICATION IS LIGHT HAZARD, WITH PORTIONS OF ORDINARY HAZARD GROUP 1.

905.2 STANDPIPE SYSTEM REQUIRED IN BUILDINGS OVER 30 FEET IN HEIGHT – EXISTING TO REMAIN AS INSTALLED IN COMPLIANCE WITH 🧹 NFPA-14 STANDARD ON STANDPIPE SYSTEMS.

906.1 PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN NEW AND EXISTING GROUP A, AND B OCCUPANCIES. TABLE 906.3(1) FIRE EXTINGUISHER - CLASS A FIRE, 2-A RATING

MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER = 75'-0"

907.1 FIRE ALARM AND DETECTION SYSTEM AND EMERGENCY VOICE/ ALARM COMMUNICATION SYSTEM PROVIDED BY BASE BUILDING.

	CHAPTER 10 - MEANS OF EGRESS	LIFE SAFETY NOTES	
	1004.1.1 OCCUPANCY GROUP B: BUSINESS AREAS - 100 GROSS 15,081 SF / 100 GROSS SF/OCCUPANT = 152 OCCUPANTS	1. AN ASTERISK (*) ON THE IBC OCCUPANCY TAG INDICATES THE AREA CALCULATION IS A ROUNDED UP GROSS AREA MEASUREMENT. FOR THE	$\bigcirc \bigcirc $
	152 OCCUPANTS IN SCOPE (LEVEL 01 ONLY) 1005.3.1 THE TOTAL WIDTH OF MEANS OF EGRESS SHALL NOT BE	TRUE REQUIRED OCCUPANCY OF THIS AREA PER LEVEL AS DEFINED IN TABLE 1004.1.1 OF THE INTERNATIONAL BUILDING CODE, REFER TO THE GROSS AREA SCHEDULE.	
	LESS THAN THE TOTAL OCCUPANT LOAD SERVED BY THE MEANS OF EGRESS MULTIPLIED BY 0.3 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.2 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.		2840 LIBERTY AVENUE SUITE 403 PITTSBURGH, PA 15222
	EXCEPTION #1 FOR OTHER THAN GROUP H AND I-2 OCCUPANCIES, THE CAPACITY, IN INCHES, OF MEANS OF EGRESS SHALL BE CALCULATED BY MULTIPLIED BY 0.2 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.15 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.	REQUIREMENTS OF THE INTERNATIONAL EXISTING BUILDING CODE 2015 EDITION AND ARE IN COMPLIANCE WITH ALL CODES NOTED IN APPLICABLE CODES TABLE.	(412) 932 2044 www.ae7.com
	(STAIRWAYS) 152 OCCUPANTS x 0.2" = 30.4" REQUIRED / 92" (EXISTING)		PROFESSIONAL SEAL:
	(OTHERS) 152 OCCUPANTS x 0.15" = 22.8" REQUIRED / 68" PROVIDED 1006.2.1 TWO EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE		CELINSYLVANA C
_	COMMON PATH OF TRAVEL EXCEEDS THE VALUES LISTED IN TABLE 1006.2.1.		
	TABLE 1006.2.1 OCCUPANCY GROUP B (SPRINKLERED) MAXIMUM OCCUPANT LOAD OF SPACE: 49 MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 100'-0" 1007.1.1 THE SEPARATION DISTANCE RETWEEN TWO EXIT ACCESS		HJC Way
	DOORWAYS SHALL NOT BE LESS THAN ONE-HALF OF THE LEGNTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE SERVED.		CONSULTANT:
	EXCEPTION #2 WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE SEPARATION DISTANCE SHALL NOT BE LESS THAN ONE-THIRD OF THE OVERALL DIAGONAL DIMENSION OF THE AREA SERVED.		
	1009.1 ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS FROM ANY ACCESSIBLE SPACE.		
	DISTANCES GIVEN IN TABLE 1017.2.		CLIENT:
	TABLE 1017.2 OCCUPANCY GROUP B (SPRINKLERED): 300'-0" 1020.1 CORRIDORS SHALL BE FIRE-RESISTANCE RATED IN		Housing Authority
	ACCORDANCE WITH TABLE <i>1020.1</i> . <i>TABLE 1020.1</i> CORRIDORS SERVING OCCUPANCY GROUPS B WITH AN OCCUPANT LOAD GREATER THAN 30 IN A BUILDING EQUIPPED WITH AN AUTOMATIC OPPINIC FOR SYSTEM – 0. USUB FIRE DESISTANCE		City of Pittsburgh
	AN AUTOWATE STRINKLER STSTEIN = U HOUR FIRE-RESISTANCE RATING REQUIRED. 1020.4 WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE EXIT ACCESS SHALL BE ARRANGED SUCH THAT		200 ROSS STREET PITTSBURGH, PA 15219 (412) 456-5000
	THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 20'-0". EXCEPTION #2 IN OCCUPANCY GROUP B, WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM,	OCCUPANCY LEGEND	indep.org
	THE LENGTH OF THE DEAD-END CORRIDORS SHALL NOT EXCEED 50'-0".	"B" BUSINESS OCCUPANCY	
ן ן ך		"A-2" ASSEMBLY OCCUPANCY	
		OUT OF SCOPE. VARIOUS OCCUPANCIES	
_	1109.2 AT LEAST ONE OF EACH TYPE OF FIXTURE, ELEMENT, CONTROL, OR DISPENSER IN EACH ACCESSIBLE TOILET ROOM SHALL BE ACCESSIBLE.	EGRESS COMPONENT	lrgh
	CHAPTER 30 - ELEVATORS AND CONVEYING SYSTEMS		Pittsbu
	3006.2 ELEVATOR HOISTWAY DOOR OPENINGS SHALL BE PROTECTED IN HIGH-RISE BUILDINGS IN ACCORDANCE WITH SECTION 3006.3.		y of F
	3006.3.4 THE ELEVATOR HOISTWAY SHALL BE PRESSURIZED IN ACCORDANCE WITH SECTION 909.21.		C <u>i</u>
_	CHAPTER 4 - FIXTURES, FAUCETS, AND FIXTURE FITTINGS (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ARTICLE XV)		of the A 15219
	403.3.3 (IPC 2015) IN OCCUPANCIES OTHER THAN COVERED AND OPEN MALL BUILDINGS, THE REQUIRED PUBLIC AND EMPLOYEE TOILET FACILITIES SHALL BE LOCATED NOT MORE THAN ONE STORY ABOVE OR BELOW THE SPACE REQUIRED TO BE PROVIDED WITH THE TOILET FACILITIES AND THE PATH OF TRAVEL TO SUCH FACILITIES	WALL RATINGS	Ithority sburgh, P/
	SHALL NOT EXCEED A DISTANCE OF 500'. CHAPTER 4 - FIXTURES, FAUCETS, AND FIXTURE FITTINGS (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ADTOLE YM DELETE 500' FROM JPC 402.2.2 AND BEDI ACE WITH 200'	- 1 HR FIRE RESISTANT	ng Au lies, Pitt
Z	*REFER TO G106 "APPLICABLE CODES - LEVEL 06" FOR COMBINED TOTAL MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES FOR		DUSIT f the Al
Ì	LEVEL US AND LEVEL UG	OTIVIDOLO	- HC
		EXII ARROW	Soule CP
4		FEC	HA 412 E
1			
		- EXIT CAPACITY TAG	
		36" 240 OCC. 150 OCC. MAX ALLOWABLE OCC. ACTUAL OCC.	
		- EGRESS LINE -LONGEST	6 ADDENDUM #6 02/10/2021 5 100% CONSTRUCTION DOCUMENTS 09/03/2020
		- EGRESS LINE -COMMON	REVISION #3 4 100% CONSTRUCTION DOCUMENTS REVISION #2 07/30/2020 3 100% CONSTRUCTION DOCUMENTS 07/09/2020
		PATH - EGRESS LINE - "DEAD END"	REVISION #1 01/03/2020 2 100% CONSTRUCTION DOCUMENTS 05/22/2020 1 100% DESIGN DEVELOPMENT 01/23/2020
		CORRIDOR	# DESCRIPTION DATE PROJECT ISSUANCE
		AREA IN SF	PROJECT NO: DRAWN BY: REVIEWED BY: 190427.00 AE7 JW SHEET NAME:
		Area Name 150 SF Occupancy Load = 10,000	OVERALL LIFE SAFETY PLAN - LEVEL 05
		OCCUPANCY LOAD PER IBC TABLE 1004.1.1 IBC ALLOWABLE ARFA	SHEET NO:
		PER OCCUPANT	G105R

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2 OVERALL LIFE SAFETY PLAN - LEVEL 06

APPLICABLE CODES - LEVEL 06

APPLICABLE CODES: UNIFORM CONSTRUCTION CODE (UCC), PA ACT 45 INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION INTERNATIONAL MECHANICAL CODE (IMC), 2015 EDITION INTERNATIONAL PLUMBING CODE (IPC), 2015 EDITION

INTERNATIONAL FIRE CODE (IFC), 2015 EDITION INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2015 EDITION ARTICLE XV OF THE ALLEGHENY COUNTY HEALTH DEPARTMENT'S RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE CURRENT EDITION NFPA 70 - 2008 ELECTRICAL CODE

ACCESSIBILITY STANDARDS: ICC/ANSI A117.1 - 2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES

CHAPTER 11 - 2018 INTERNATIONAL BUILDING CODE APPENDIX E - 2018 INTERNATIONAL BUILDING CODE

AUTHORITY HAVING JURISDICTION: CITY OF PITTSBURGH - DEPARTMENT OF PERMITS, LICENSES, AND INSPECTIONS

CHAPTER 3 - OCCUPANCY CLASSIFICATION

TYPE "B" BUSINESS - 13,960 SF

TYPE "A-2" ASSEMBLY - 1,623 SF

303.1.2 THE FOLLOWING ROOMS AND SPACES SHALL NOT BE CLASSIFIED AS ASSEMBLY OCCUPANCIES: A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS, OR LESS THAN 750 SQUARE FEET IN AREA, AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP "B" OCCUPANCY OR AS A PART OF THAT OCCUPANCY.

CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

403.2.1.1.2 IN A HIGH-RISE BUILDING, THE FIRE-RESISTANCE RATING OF THE BUILDING ELEMENTS IN TYPE IB CONSTRUCTION SHALL BE PERMITTED TO BE REDUCED TO THE FIRE-RESISTANCE RATING IN TYPE IIA.

CHAPTER 5 - BUILDING HEIGHT & AREA

TYPE "IB" CONSTRUCTION (EXISTING)

ALLOWABLE HEIGHT - 12 STORIES / 180' - 0" ACTUAL - 9 STORIES / 116' - 10" ALLOWABLE BUILDING AREA - UL SF/FLOOR

ACTUAL (LEVEL 06) - 16,434 SF 508.1 WHERE A BUILDING CONTAINS MORE THAN ONE OCCUPANCY GROUP, THE BUILDING OR PORTION THEREOF SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 508.2, 508.3, 508.4, OR A COMBINATION OF THESE SECTIONS.

508.3 AREAS/OCCUPANCIES WITHIN SCOPE ARE TO BE CONSIDERED NONSEPARATED OCCUPANCIES IN ACCORDANCE TO THE PROVISIONS SET FORTH IN SECTION 508.3.

CHAPTER 6 - TYPES OF CONSTRUCTION

TYPE "IB" CONSTRUCTION (EXISTING)

TABLE 601 PRIMARY STRUCTURE: 1 HOUR **BEARING WALLS - EXTERIOR: 1 HOUR** BEARING WALLS - INTERIOR: 1 HOUR

NON-BEARING WALLS - INTERIOR: 0 HOUR FLOOR CONSTRUCTION: 1 HOUR ROOF CONSTRUCTION: 1 NOUR

ALL DEMOUNTABLE PARTITIONS ARE TO BE OF NONCOMBUSTIBLE MATERIALS, IN COMPLIANCE WITH CHAPTER 6, SECTION 601 AND SECTION 603.

INTERIOR FINISHES

803.11 INTERIOR WALL AND CEILING FINISH SHALL HAVE A FLMAE SPREAD INDEX NOT GREATER THAN THAT SPECIFIED IN TABLE 803.11 FOR THE GROUP AND LOCATION DESIGNATED.

TABLE 803.11 OCCUPANCY GROUP B EXIT ENCLOSURES/PASSAGEWAYS: B CORRIDORS: C ROOMS/ENCLOSED SPACES: C

TABLE 803.11 OCCUPANCY GROUP A-2

EXIT ENCLOSURES/PASSAGEWAYS: B CORRIDORS B ROOMS/ENCLOSED SPACES: C

CHAPTER 9 - FIRE PROTECTION

SYSTEMS 903.2 AUTOMATIC SPRINKLERS REQUIRED IN LOCATIONS AS REFERENCED IN SECTION 403.3 REGARDING HIGHRISE BUILDINGS. EXISTING SPRINKLERS TO BE ADJUSTED IN COMPLIANCE WITH

NFPA-13 STANDARD ON AUTOMATIC SPRINKLERS – GENERAL BUILDING CLASSIFICATION IS LIGHT HAZARD, WITH PORTIONS OF ORDINARY HAZARD GROUP 1. 905.2 STANDPIPE SYSTEM REQUIRED IN BUILDINGS OVER 30 FEET IN

HEIGHT – EXISTING TO REMAIN AS INSTALLED IN COMPLIANCE WITH NFPA-14 STANDARD ON STANDPIPE SYSTEMS. 906.1 PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN NEW

AND EXISTING GROUP A, AND B OCCUPANCIES. TABLE 906.31 FIRE EXTINGUISHER - CLASS A FIRE, 2-A RATING

MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER = 75'-0" 907.1 FIRE ALARM AND DETECTION SYSTEM AND EMERGENCY VOICE/ ALARM COMMUNICATION SYSTEM PROVIDED BY BASE BUILDING.

CHAPTER 10 - MEANS OF EGRESS

1004.1.1 OCCUPANCY GROUP B: BUSINESS AREAS - 100 GROSS 13,960 SF / 100 GROSS SF/OCCUPANT = 140 OCCUPANTS

> OCCUPANCY GROUP A-2: ASSEMBLY WITHOUT FIXED SEATING (UNCONCENTRATED) - 15 NET 1,623 SF / 15 NET SF/OCCUPANT = 109 OCCUPANTS

249 OCCUPANTS IN SCOPE (LEVEL 01 ONLY) 1005.3.1 THE TOTAL WIDTH OF MEANS OF EGRESS SHALL NOT BE

LESS THAN THE TOTAL OCCUPANT LOAD SERVED BY THE MEANS OF EGRESS MULTIPLIED BY 0.3 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.2 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

EXCEPTION #1 FOR OTHER THAN GROUP H AND I-2 OCCUPANCIES, THE CAPACITY, IN INCHES, OF MEANS OF EGRESS SHALL BE CALCULATED BY MULTIPLIED BY 0.2 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.15 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

(STAIRWAYS) 249 OCCUPANTS x 0.2" = 49.8" REQUIRED / 92" (EXISTING)

1006.2.1.

(OTHERS) 249 OCCUPANTS x 0.15" = 37.35" REQUIRED / 68" PROVIDED 1006.2.1 TWO EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD OR THE COMMON PATH OF TRAVEL EXCEEDS THE VALUES LISTED IN TABLE





2 OVERALL LIFE SAFETY PLAN - LEVEL 07

APPLICABLE CODES - LEVEL 07

APPLICABLE CODES:

UNIFORM CONSTRUCTION CODE (UCC), PA ACT 45 INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION INTERNATIONAL MECHANICAL CODE (IMC), 2015 EDITION INTERNATIONAL PLUMBING CODE (IPC), 2015 EDITION INTERNATIONAL FIRE CODE (IFC), 2015 EDITION INTERNATIONAL ENERGY CONSERVATION CODE (IECC), 2015 EDITION ARTICLE XV OF THE ALLEGHENY COUNTY HEALTH DEPARTMENT'S RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE CURRENT EDITION NFPA 70 - 2008 ELECTRICAL CODE

ACCESSIBILITY STANDARDS:

ICC/ANSI A117.1 - 2009 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES CHAPTER 11 - 2018 INTERNATIONAL BUILDING CODE APPENDIX E - 2018 INTERNATIONAL BUILDING CODE

AUTHORITY HAVING JURISDICTION: CITY OF PITTSBURGH - DEPARTMENT OF PERMITS, LICENSES, AND

CHAPTER 3 - OCCUPANCY CLASSIFICATION

TYPE "B" BUSINESS - 15,122 SF

INSPECTIONS

303.1.2 THE FOLLOWING ROOMS AND SPACES SHALL NOT BE CLASSIFIED AS ASSEMBLY OCCUPANCIES: A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSONS, OR LESS THAN 750 SQUARE FEET IN AREA, AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP "B" OCCUPANCY OR AS A PART OF THAT OCCUPANCY.

CHAPTER 4 - SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

403.2.1.1.2 IN A HIGH-RISE BUILDING, THE FIRE-RESISTANCE RATING OF THE BUILDING ELEMENTS IN TYPE IB CONSTRUCTION SHALL BE PERMITTED TO BE REDUCED TO THE FIRE-RESISTANCE RATING IN TYPE IIA.

CHAPTER 5 - BUILDING HEIGHT & AREA

TYPE "IB" CONSTRUCTION (EXISTING)

ALLOWABLE HEIGHT - 12 STORIES / 180' - 0" ACTUAL - 9 STORIES / 116' - 10"

ALLOWABLE BUILDING AREA - UL SF/FLOOR ACTUAL (LEVEL 07) - 16,434 SF

508.1 WHERE A BUILDING CONTAINS MORE THAN ONE OCCUPANCY GROUP, THE BUILDING OR PORTION THEREOF SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 508.2, 508.3, 508.4, OR A COMBINATION OF THESE SECTIONS.

508.3 AREAS/OCCUPANCIES WITHIN SCOPE ARE TO BE CONSIDERED NONSEPARATED OCCUPANCIES IN ACCORDANCE TO THE PROVISIONS SET FORTH IN SECTION 508.2.

CHAPTER 6 - TYPES OF CONSTRUCTION

TYPE "IB" CONSTRUCTION (EXISTING)

TABLE 601 PRIMARY STRUCTURE: 1 HOUR BEARING WALLS - EXTERIOR: 1 HOUR BEARING WALLS - INTERIOR: 1 HOUR NON-BEARING WALLS - INTERIOR: 0 HOUR FLOOR CONSTRUCTION: 1 HOUR ROOF CONSTRUCTION: 1 HOUR ALL DEMOUNTABLE PARTITIONS ARE TO BE OF NONCOMBUSTIBLE

MATERIALS, IN COMPLIANCE WITH CHAPTER 6, SECTION 601 AND SECTION 603. MMMM

CHAPTER 8 - INTERIOR FINISHES

803.11 INTERIOR WALL AND CEILING FINISH SHALL HAVE A FLMAE SPREAD INDEX NOT GREATER THAN THAT SPECIFIED IN TABLE 803.11 FOR THE GROUP AND LOCATION DESIGNATED.

TABLE 803.11 OCCUPANCY GROUP B EXIT ENCLOSURES/PASSAGEWAYS: B CORRIDORS: C ROOMS/ENCLOSED SPACES: C

CHAPTER 9 - FIRE PROTECTION SYSTEM8 \sim

903.2 AUTOMATIC SPRINKLERS REQUIRED IN LOCATIONS AS REFERENCED IN SECTION 403.3 REGARDING HIGHRISE BUILDINGS. EXISTING SPRINKLERS TO BE ADJUSTED IN COMPLIANCE WITH NFPA-13 STANDARD ON AUTOMATIC SPRINKLERS – GENERAL BUILDING CLASSIFICATION IS LIGHT HAZARD, WITH PORTIONS OF ORDINARY HAZARD GROUP 1.

905.2 STANDPIPE SYSTEM REQUIRED IN BUILDINGS OVER 30 FEET IN HEIGHT – EXISTING TO REMAIN AS INSTALLED IN COMPLIANCE WITH NFPA-14 STANDARD ON STANDPIPE SYSTEMS.

906.1 PORTABLE FIRE EXTINGUISHERS SHALL BE INSTALLED IN NEW AND EXISTING GROUP A, AND B OCCUPANCIES. ABLE 906.3(1) \sim

FIRE EXTINGUISHER - CLASS A FIRE, 2-A RATING MAXIMUM TRAVEL DISTANCE TO FIRE EXTINGUISHER = 75'-0"

907.1 FIRE ALARM AND DETECTION SYSTEM AND EMERGENCY VOICE/ ALARM COMMUNICATION SYSTEM PROVIDED BY BASE BUILDING.

CHAPTER 10 - MEANS OF EGRESS

1004.1.1 OCCUPANCY GROUP B: BUSINESS AREAS - 100 GROSS 15,122 SF / 100 GROSS SF/OCCUPANT = 152 OCCUPANTS

152 OCCUPANTS IN SCOPE (LEVEL 7 ONLY)

1005.3.1 THE TOTAL WIDTH OF MEANS OF EGRESS SHALL NOT BE LESS THAN THE TOTAL OCCUPANT LOAD SERVED BY THE MEANS OF EGRESS MULTIPLIED BY 0.3 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.2 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

EXCEPTION #1 FOR OTHER THAN GROUP H AND I-2 OCCUPANCIES, THE CAPACITY, IN INCHES, OF MEANS OF EGRESS SHALL BE CALCULATED BY MULTIPLIED BY 0.2 INCH PER OCCUPANT FOR STAIRWAYS AND BY 0.15 INCH PER OCCUPANT FOR OTHER EGRESS COMPONENTS.

(STAIRWAYS) 152 OCCUPANTS x 0.2" = 30.4" REQUIRED / 92" (EXISTING)

(OTHERS) 152 OCCUPANTS x 0.15" = 22.8" REQUIRED / 68" PROVIDED

1006.2.1 TWO EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED WHERE THE DESIGN OCCUPANT LOAD OR THE COMMON PATH OF TRAVEL EXCEEDS THE VALUES LISTED IN TABLE 1006.2.1.

	CHAPTER 10 - MEANS OF EGRESS	LIFE SAFETY NOTES	
	TABLE 1006.2.1 OCCUPANCY GROUP B (SPRINKLERED) MAXIMUM OCCUPANT LOAD OF SPACE: 49 MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 100'-0"	1. AN ASTERISK (*) ON THE IBC OCCUPANCY TAG INDICATES THE AREA CALCULATION IS A ROUNDED UP GROSS AREA MEASUREMENT. FOR THE TRUE REQUIRED OCCUPANCY OF THIS AREA PER LEVEL AS DEFINED IN TABLE 1004.1.1 OF THE INTERNATIONAL BUILDING CODE, REFER TO THE	$\bigcirc $
	1007.1.1 THE SEPARATION DISTANCE BETWEEN TWO EXIT ACCESS DOORWAYS SHALL NOT BE LESS THAN ONE-HALF OF THE LEGNTH OF THE MAXIMUM OVERALL DIAGONAL DIMENSION OF THE BUILDING OR AREA TO BE SERVED.	GROSS AREA SCHEDULE.	2840 LIBERTY AVENUE SUITE 403 PITTSBURGH, PA 15222
	EXCEPTION #2 WHERE A BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE SEPARATION DISTANCE SHALL NOT BE LESS THAN ONE-THIRD OF THE OVERALL DIAGONAL DIMENSION OF THE AREA SERVED.	ALL ALTERATIONS AND CHANGES OF OCCUPANCY MEET THE PRESCRIPTIVE REQUIREMENTS OF THE INTERNATIONAL EXISTING BUILDING CODE 2015 EDITION AND ARE IN COMPLIANCE WITH ALL CODES NOTED IN APPLICABLE CODES TABLE.	(412) 932 2044 www.ae7.com
	1009.1 ACCESSIBLE SPACES SHALL BE PROVIDED WITH NOT LESS THAN ONE ACCESSIBLE MEANS OF EGRESS FROM ANY ACCESSIBLE SPACE.		PROFESSIONAL SEAL:
	1017.2 EXIT ACCESS TRAVEL DISTANCE SHALL NOT EXCEED THE DISTANCES GIVEN IN <i>TABLE 1017.2</i> .		CIS EUNSYLVA
	1020.1 CORRIDORS SHALL BE FIRE-RESISTANCE RATED IN ACCORDANCE WITH TABLE 1020.1.		JEFFTH LOUIS
	TABLE 1020.1 CORRIDORS SERVING OCCUPANCY GROUPS B WITH AN OCCUPANT LOAD GREATER THAN 30 IN A BUILDING EQUIPPED WITH AN AUTOMATIC SPRINKLER SYSTEM = 0 HOUR FIRE-RESISTANCE RATING REQUIRED.		H-CWETZEL NO ATUNI
	1020.4 WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE EXIT ACCESS SHALL BE ARRANGED SUCH THAT THERE ARE NO DEAD ENDS IN CORRIDORS MORE THAN 20'-0".		CONSULTANT:
	EXCEPTION #2 IN OCCUPANCY GROUP B, WHERE THE BUILDING IS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM, THE LENGTH OF THE DEAD-END CORRIDORS SHALL NOT EXCEED 50'-0".		
	CHAPTER 11 - ACCESSIBILITY		
	1109.2 AT LEAST ONE OF EACH TYPE OF FIXTURE, ELEMENT, CONTROL, OR DISPENSER IN EACH ACCESSIBLE TOILET ROOM SHALL BE ACCESSIBLE.		CLIENT:
	CHAPTER 30 - ELEVATORS AND CONVEYING SYSTEMS		Housing Authority of the City of Pittsburgh
	3006.2 ELEVATOR HOISTWAY DOOR OPENINGS SHALL BE PROTECTED IN HIGH-RISE BUILDINGS IN ACCORDANCE WITH SECTION 3006.3. 3006.3.4 THE ELEVATOR HOISTWAY SHALL BE PRESSURIZED IN		200 ROSS STREET PITTSBURGH, PA 15219 (412) 456-5000
	ACCORDANCE WITH SECTION 909.21. CHAPTER 4 - FIXTURES, FAUCETS,		hacp.org
	AND FIXTURE FITTINGS (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ARTICLE XV)	"B" BUSINESS OCCUPANCY	
	403 OCCUPANCY GROUP B LEVEL 07: 152 OCCUPANTS	"A-2" ASSEMBLY OCCUPANCY	
	TOTAL (OCCUPANCY GROUP B): 152 OCCUPANTS IN SCOPE WATER CLOSETS TOILETS (MALE): 76 OCCUPANTS @ 4 PER 56-80 OCCUPANTS =	EGRESS COMPONENT	<u> </u>
	4 REQUIRED / 6 PROVIDED TOILETS (FEMALE): 76 OCCUPANTS @ 4 PER 56-80 OCCUPANTS = 4 REQUIRED / 5 PROVIDED		bind
	LAVATORIES LAVATORIES (MALE/FEMALE): 152 OCCUPANTS @ 5 PER 151- 200 OCCUPANTS = 5 REQUIRED / 8 PROVIDED		ittsk
	DRINKING FOUNTAINS DRINKING FOUNTAINS (MALE/FEMALE): 152 OCCUPANTS @ 1		of P
)	SERVICE SINKS SERVICE SINKS: 1 REQUIRED PER FLOOR / 1 PROVIDED		City
	419 (ACHD RULES AND REGULATIONS FOR PLUMBING AND BUILDING DRAINAGE, ARTICLE XV) THE NUMBER OF URINALS FOR MALES SHALL BE AT LEAST 50% OF THE TOTAL NUMBER OF WATER CLOSETS REQUIRED FOR MALES. THE NUMBER OF WATER CLOSETS MAY BE DECREASED BY THE NUMBER OF URINALS WHICH ARE USED		of the (5219
	BUT THE NUMBER OF REMAINING WATER CLOSETS SHALL NOT BE LESS THAT 50% OF THE ORIGINAL TABULATED TOTAL.	LIFE SAFETY LEGEND	rity c
		WALL RATINGS	uthol sburgh
		- 1 HR FIRE RESISTANT	g Au les, Pitt
_/	ζ	- 3 HR FIRE RESISTANT	usin the Alli
-	$\left\{ \right.$	SYMBOLS	- HO
-	$\left\{ \right. \right\}$	EXIT ARROW	
,	\mathcal{L}	FEC FIRE EXTINGUISHER CABINET	HA 412
		36" 11PE 240 OCC. MAX ALLOWABLE OCC. 150 OCC. ACTUAL OCC.	
		- EGRESS LINE -LONGEST PATH	6 ADDENDUM #6 02/10/2021 5 100% CONSTRUCTION DOCUMENTS REVISION #3 09/03/2020 4 100% CONSTRUCTION DOCUMENTS 07/30/2020
		- EGRESS LINE -COMMON PATH	REVISION #2 3 100% CONSTRUCTION DOCUMENTS REVISION #1 07/09/2020 2 100% CONSTRUCTION DOCUMENTS 05/22/2020
		- EGRESS LINE - "DEAD END" CORRIDOR	1 100% DESIGN DEVELOPMENT 01/23/2020 # DESCRIPTION DATE PROJECT ISSUANCE
			PROJECT NO: DRAWN BY: REVIEWED BY: 190427.00 AE7 JW
		AREA IN SF	
		- IBC OCCUPANCY TAG Occupancy Load = 10,000	PLAN - LEVEL 07
		OCCUPANCY LOAD PER IBC TABLE 1004.1.1 IBC ALLOWABLE AREA PER OCCUPANT	

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GE	INERAL NUTES:	STRUCTURAL SPE
DESI	GN LIVE LOADS	SPECIAL INSPECTION
DL-1	INTERIOR WIND PRESSURE	STEEL CONSTRUCTION:
2- וח		1. FABRICATOR:
		a. SEE INSPECTION OF FABRICATOR(S).
DL-3	CURTAIN WALL DEFLECTION LIMIT	2. INSPECTION OF STEEL FRAME JOINT DETAILS FO APPROVED CONSTRUCTION DOCUMENTS:
STRI	JCTURAL STEEL	a. DETAILS SUCH AS BRACING AND STIFFENING.
S-1	ALL STRUCTURAL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE	
	INSTITUTE OF STEEL CONSTRUCTION.	a. MANUFACTURER CERTIFICATIONS AVAILABLE MATERIALS.
S-2	GRADE OF STEEL	
	WIDE FLANGE SHAPES ASTM A500, CRADE B OR C	
	STEEL PIPES	4. INSPECTION OF HIGH-STRENGTH BOLTING:
	COLUMN BASE PLATES AND MOMENT	a. SNUG-TIGHT JOINTS.
	CONNECTION END PLATES ASTM A572, GRADE 50	D. PRETENSIONED AND SLIP-CRITICAL JOINTS OF METHOD WITH MATCHMARKING TECHNIQUES
S-3	ALL STRUCTURAL BOLTS SHALL BE ASTM A325, 3/4" DIAMETER, TYPE N, UNLESS NOTED	c. PRETENSIONED AND SLIP-CRITICAL JOINTS U METHOD OR TURN OF NUT METHOD WITHOUT
00	OTHERWISE.	5. MATERIAL VERIFICATION OF WELD FILLER MATE
S-4	ALL STRUCTURAL WELDING SHALL CONFORM TO AWS D1.1 OF THE AMERICAN WELDING SOCIETY.	a. MANUFACTURER CERTIFICATIONS AVAILABLE CONSUMABLES.
S-5	ALL BEAM END CONNECTIONS NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS	b. MATERIAL IDENTIFICATION (TYPE/GRADE) AND SPECIFICATIONS AVAILABLE.
	SHALL BE DESIGNED FOR THE END REACTIONS INDICATED ON THE DRAWINGS. WHERE END	6. INSPECTION OF WELDING:
	REACTIONS ARE NOT INDICATED, THE END CONNECTION SHALL BE DESIGNED FOR ONE HALF	a. SINGLE-PASS FILLET WELDS < 5/16"
	OF THE UNIFORM LOAD CAPACITY OF THE MEMBER IN ACCORDANCE WITH AISC SPECIFICATIONS.	b. SINGLE-PASS FILLET WELDS > 5/16"
S-6	ALL MODIFICATIONS REQUIRED FOR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWINGS	c. MULTI-PASS FILLET WELDS.
	AND MADE DURING SHOP FABRICATION. FIELD BURNING OF STRUCTURAL STEEL IS PROHIBITED.	d. PLUG AND SLOT WELDS.
2 7		e. COMPLETE AND PARTIAL PENETRATION GROO
3-7	BE EQUALLY SPACED.	7. NONDESTRUCTIVE TESTING OF CJP GROOVE W
S-8	ALL STRUCTURAL STEEL SHALL BE SHOP COATED WITH METAL PRIMER CONFORMING TO SSPC-PAINT 25. ALL STEEL SURFACES SHALL BE PREPARED IN ACCORDANCE WITH SSPC-SP2 "HAND TOOL CLEANING" OR SSPC-SP3 "POWER TOOL CLEANING" PRIOR TO APPLYING THE	a. RISK CATEGORY II: ULTRASONIC TESTING SH/ ON 10% OF CJP GROOVE WELDS IN BUTT, T- A JOINTS SUBJECT TO TRANSVERSELY APPLIED IN MATERIALS 5/16" THICK OR GREATER.
	PRIMER COAT. SURFACES WITHIN 3 INCHES OF WELDS SHALL NOT BE PAINTED PRIOR TO WELDING. MEMBERS TO BE FIREPROOFED AND PORTIONS TO BE IN CONTACT WITH SLIP-CRITICAL BOLTED CONNECTIONS SHALL NOT BE PAINTED.	b. RISK CATEGORY III OR IV: ULTRASONIC TESTI PERFORMED ON ALL CJP GROOVE WELDS IN CORNER JOINTS SUBJECT TO TRANSVERSELY LOADING, IN MATERIALS 5/16" THICK OR GREA
CON	CRETE/MASONRY ANCHORS	8. INSPECTION OF STEEL ELEMENTS OF COMPOSI PRIOR TO CONCRETE PLACEMENT:
		a. PLACEMENT AND INSTALLATION OF STEEL DE
A-1	ALL EXPANSION ANCHORS SHALL BE "HILLI KWIK-BOLT 3", AS MANUFACTURED BY HILLI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL MEETING THE REQUIREMENTS OF FEDERAL SPECIFICATION A-A 1923A, TYPE 4.	b. PLACEMENT AND INSTALLATION OF STEEL HE c. DOCUMENT ACCEPTANCE OR REJECTION OF
		INSPECTION OF FABRICATOR(S):
A-2	ALL SLEEVE ANCHORS SHALL BE "HILTI HLC SLEEVE ANCHORS", AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED FOULA	(1. APPLICABLE ELEMENT (FABRICATOR CERTIFICA
	TASTENING STOTEWIS, INC., ON AN AFFICOVED EQUAL.	a. STRUCTURAL STEEL (AISC CERTIFIED FOR CO
A-3	ALL ADHESIVE ANCHORS SHALL BE "HILTI HIT ADHESIVE ANCHORS", AS MANUFACTURED BY HILTI	2. WHEN SPECIAL INSPECTIONS ARE REQUIRED B
	FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL. SCREEN TUBES SHALL BE ADDED AT ALL INSTALLATIONS IN CAVITY WALLS AND WALLS WITH HOLLOW CELLS.	a. FABRICATION AND IMPLEMENTATION PROCED FABRICATOR MAINTAINS DETAILED FABRICAT
A-4	ALL THREADED RODS FOR ADHESIVE ANCHORS SHALL BE "HILTI HAS-E" CARBON STEEL THREADED RODS, AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., CONFORMING TO ISO 898 CLASS 5.8 WITH A MINIMUM TENSILE STRENGTH OF 72.5 KSI AND A MINIMUM YIELD	TO APPROVED CONSTRUCTION DOCUMENTS SHALL REVIEW THE PROCEDURES FOR COMP REQUIREMENTS FOR THE FABRICATOR'S SCO
	STRENGTH OF 58 KSI.	3. WHEN SPECIAL INSPECTIONS ARE NOT REQUIR
Δ_5	ALL SCREW ANCHORS SHALL BE "KWIK-CON II+ TORY HEY HEAD" AS MANUEACTURED BY HILTI	a. UPON COMPLETION OF FABRICATION, THE AP
J	FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL.	COMPLIANCE TO THE BUILDING OFFICIAL STA WITH THE APPROVED CONSTRUCTION DOCUM
A-6	ALL POWDER ACTUATED FASTENERS SHALL BE "HILTI X-U" AS MANUFACTURED BY HILTI FASTENING SYSTEMS, INC., OR AN APPROVED EQUAL.	
<u>م</u> ح		

- A-7 ALL ANCHOR SPACING, EMBEDMENT, EDGE DISTANCE, AND INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. REFER TO SECTIONS AND DETAILS ON THE DRAWINGS FOR ADDITIONAL INFORMATION.
- A-8 SUBSTITUTIONS:

ANY PROPOSED ANCHOR SUBSTITUTIONS BY THE CONTRACTOR MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. PROPOSED SUBSTITUTION SUBMITTALS MUST INCLUDE STRUCTURAL CALCULATIONS, SIGNED AND SEALED BY THE CONTRACTOR'S PROFESSIONAL ENGINEER, DEMONSTRATING THAT THE PROPOSED ANCHORS ARE STRUCTURALLY ADEQUATE FOR THE SPECIFIC LOADS AND CONDITIONS AT EACH LOCATION WHERE THE SUBSTITUTION IS TO BE CONSIDERED. (DUE TO VARIOUS CONDITIONS AND ADJUSTMENT FACTORS THAT MUST BE CONSIDERED WHEN CALCULATING ANCHOR CAPACITIES, LOAD TABLES PREPARED BY OTHER MANUFACTURERS FOR SIMILAR ANCHOR TYPES ARE NOT SUFFICIENT FOR DETERMINING ANCHOR SUITABILITY).

			SEE PLAN
UTAL INOFEUTIU		REFERENCED	$\langle $
		STANDARD	$\langle \cdot \rangle$
			$\langle T T T T T T T T$
FOR COMPLIANCE WITH	11		(2) 0.157" DIA. POWDER — WALL CONSTRUCTION (SEE ARCH. DWGS.)
Э.	PERIODIC		@ 16" O.C. OR BOTTOM TRACK BY MANUFACTURER
DNNECTION.	PERIODIC	AISC 360: N5.2	3/16" DIA. KWIK-CON II+ CONCRETE SCREWS
BOLTING MATERIALS:			@ 12" O.C. FLOOR DECK
	CONTINUOUS	N5.2, N5.6 APPLICABLE ASTM	
ASTM REQUIREMENTS.	CONTINUOUS	MATERIAL SPECIFICATIONS	$\langle \rangle$
	PERIODIC		$\langle \cdot \rangle$
USING TURN OF NUT S.	PERIODIC	AISC 360: N5.2, N5.6 TABLES N5.6-1, N5 6-2 N5 6-3	$\langle $
JSING CALIBRATED WRENCH IT MATCHMARKING TECHNIQUES	. CONTINUOUS		$\langle $
ERIALS: E FOR WELDING		AISC 360: A3.5,	
JD WELDING PROCEDURE		N5.2, N5.4 APPLICABLE AWS A5	
	CONTINUOUS	DOCUMENTS) EXIST. STEEL BEAM ENCASED IN CONC.
	PERIODIC		
		AWS D1.1 AISC 360: N5.2, N5.4	\mathbf{i}
		I ABLES N5.4-1, N5.4-2, N5.4-3	$\langle \rangle$
VELDS:			$\langle \underline{1} $ SECTION
HALL BE PERFORMED AND CORNER			S201 SCALE: 3/4" = 1'-0"
	ļ	AWS D1.1	$\langle \rangle$
NNG SHALL BE NBUTT, T- AND Y APPI IED TENSION		AISC 300. 193	\langle
	<u>г</u>		
EADED STUD ANCHORS.	CONTINUOUS	AISC 360: N5.2, N6 TABLE N6.1	
STEEL ELEMENTS.			$\int \tau r$
ATION REQUIREMENTS):			<pre></pre>
ONVENTIONAL STEEL BUILDINGS BY BUILDING OFFICIAL:	5)		
DURES: THE SPECIAL INSPECTO	R SHALL VERIFY	THAT THE T PROVIDE A	#12 TEK SCREWS
VORKMANSHIP, AND THE FABRIC/ S AND REFERENCED STANDARDS	ATOR'S ABILITY 1 6. THE SPECIAL IN	TO CONFORM NSPECTOR	@ 12" O.C.
PLETENESS AND ADEQUACY REL OPE OF WORK.	ATIVE TO THE C	ODE	
RED BY THE BUILDING OFFICIAL: PPROVED FABRICATOR SHALL SI	UBMIT A CERTIFI	CATE OF	(VERIFY IN FIELD) (SEE PLAN)
ATING THAT THE WORK WAS PEF JMENTS.	RFORMED IN ACC	CORDANCE	
]	$\langle \rangle$
~~~~~			
		$\Lambda$	
		$\sum \sum$	
			^
			3 SECTION
			S201 SCALE: 3/4" = 1'-0"
			Ŷ
			SEE
			(APPLY SPRAY-ON FIRE PROOFING AFTER
			HSS GIRT
			(FOR ERECTION) W/ 3/4" DIA. A325 BOLT TOP & BOTTOM
			v 



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1) OVERALL FLOOR PLAN - LEVEL 05



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OVERALL FLOOR PLAN - LEVEL 06



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0VERALL FLOOR PLAN - LEVEL 07









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0VERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 05 (FOR REFERENCE ONLY)



DEMOUNTABLE PLAN NO	TES	
1. REFER TO SHEET G010 FOR PROJECT GENEL 2. REFER TO RESPONSIBILITY MATRIX ON SHEE CLARIFICATION REGARDING GC VS. DEMOUN SCOPE.	RAL NOTES. ET G020 FOR ADDITIONAL ITABLE PARTITION VENDER	2840 LIBERTY AVENUE SUITE 403 PITTSBURGH, PA 15222 (412) 932 2044 www.ae7.com
		PROFESSIONAL SEAL:
		CLIENT: Housing Authority of the City of Pittsburgh 200 ROSS STREET PITTSBURGH, PA 15219 (412) 456-5000 hacp.org
		HACP - Housing Authority of the City of Pittsburgh 412 Boulevard of the Allies, Pittsburgh, PA 15219
PLAN LEGEND	EXISTING CONSTRUCTION DEMOUNTABLE WALL PARTITION NEW CONSTRUCTION ROOM TAG ROOM TAG REFER TO SHEET A600-P1 PARTITION TAG REFER TO SHEET A630 KEYNOTE	Image: construction of the second
	NOT IN SCOPE	A155R



1 OVERALL DEMOUNTABLE WALL PARTITION PLAN - LEVEL 06 (FOR REFERENCE ONLY)

DEMOUNTABLE PLAN NO	TES		
<ol> <li>REFER TO SHEET G010 FOR PROJECT GENER</li> <li>REFER TO RESPONSIBILITY MATRIX ON SHEE CLARIFICATION REGARDING GC VS. DEMOUNT SCOPE.</li> </ol>	RAL NOTES. ET G020 FOR ADDITIONAL TABLE PARTITION VENDER	2840 LIBERTY A PITT	AVENUE SUITE 403 SBURGH, PA 15222 (412) 932 2044 www.ae7.com
		PROFESSIONAL SEAL:	ARCHINE 1899
		CI JENTT-	
		Housin of the Cit	<b>1g Authority</b> <b>y of Pittsburgh</b> 200 ROSS STREET ITTSBURGH, PA 15219 (412) 456-5000 hacp.org
		g Authority of the City of Pittsburgh	es, Pittsburgh, PA 15219
		HACP - Housinç	412 Boulevard of the Allie
PLAN LEGEND			
	EXISTING CONSTRUCTION		
	DEMOUNTABLE WALL PARTITION		#6 02/10/2021
	NEW CONSTRUCTION	5 100% CONSTRUCTION REVISION 4 100% CONSTRUCTION	OC         OC<
ROOM NAME [101] 150 SF ROOM NUMBER	ROOM TAG	REVISION           3         100% CONSTRUCTION REVISION           2         100% CONSTRUCTION           1         100% DESIGN DEVE	#2
AREA	DOOR TAG	#         DESCRIPTION           PROJECT NO:         DRAWN	ON DATE SSUANCE BY: REVIEWED BY:
A00	PARTITION TAG REFER TO SHEET A630	190427.00 AE7 SHEET NAME: OVERALL DEN	MOUNTABLE
KEYED NOTE 00 VALUE	KEYNOTE	WALL PARTIT LEVEL 06	ION PLAN -
	NOT IN SCOPE	A15	

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DEMOUNTABLE PLAN NOTES	
<ol> <li>REFER TO SHEET G010 FOR PROJECT GENERAL NOTES.</li> <li>REFER TO RESPONSIBILITY MATRIX ON SHEET G020 FOR ADDITIONAL CLARIFICATION REGARDING GC VS. DEMOUNTABLE PARTITION VENDER SCOPE.</li> </ol>	2840 LIBERTY AVENUE SUITE 403 PITTSBURGH, PA 15222 (412) 932 2044 www.ae7.com
	PROFESSIONAL SEAL:
	CLIENT: Housing Authority of the City of Pittsburgh 200 ROSS STREET PITTSBURGH, PA 15219 (412) 456-5000 hacp.org
	HACP - Housing Authority of the City of Pittsburgh 412 Boulevard of the Allies, Pittsburgh, PA 15219
PLAN LEGEND         EXISTING CONSTRUCTION         DEMOUNTABLE WALL         PARTITION         DEMOUNTABLE WALL         PARTITION         NEW CONSTRUCTION         ROOM NAME         ROOM TAG         REFER TO SHEET A600-P1         PARTITION TAG         REFER TO SHEET A630         ROOM TAG         NOT IN SCOPE	Image: construction of the second



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| LUN                                   | 3ING FIXURE CON                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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                                                                  | LKAY<br>LKAY<br>& STOPS - MCG<br>ELEVATIONS. S<br>ASTE PLUMBING<br>MBING ROUGH-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>SEE ARCHITECTURAL PL<br>G.<br>IN ACCORDINGLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                
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|                                       | ELECTRIC WATER COO<br>ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>(S:<br>(IDE ALL REQUIRED CON<br>UIRED COMPONENTS AI<br>JRES SHALL BE ADA COM<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL E<br>R TO ARCHITECTURAL E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                                                  | LKAY<br>LKAY<br>& STOPS - MCG<br>ELEVATIONS. S<br>ASTE PLUMBING<br>IMBING ROUGH-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>GEE ARCHITECTURAL PL<br>G.<br>IN ACCORDINGLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                
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PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | y of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOOR                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>(S:<br>/IDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COM<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL E<br>RIC WATER HEATE<br>DESCRIPTION M,<br>(B<br>ELECTRIC A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ER - 1/2" ER - 1/2" ER - 1/2" PONENTS FOR SPECIFIE IPLIANT AND WHITE ANT RAWINGS FOR ANUFACTUR ASIS OF DES O. 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                                                                  | LKAY<br>LKAY<br>& STOPS - MCG<br>ELEVATIONS. S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>G.<br>IN ACCORDINGLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                
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SMITH MO<br>#DEL-20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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MOUI<br>DUNDER AD<br>QUIREMENTS<br>QUIREMENTS<br>GPH RECO<br>90 DEG<br>23 GAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
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                                                                  | LKAY<br>LKAY<br>S & STOPS - MCG<br>ELEVATIONS. S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>G.<br>IN ACCORDINGLY.                                                                                                                                                                                                                                                                                                                                                                                                                                                                
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PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORFDFLOOR DRAIN                                                                                                                                                                                                                                                                                                                                                                                                                                                | g Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VITH STA<br>VITH STA<br>VITH ST                                                                                                                                                                                                                                                                      | ER 1/2"<br>ER -<br>D 1/2"<br>PONENTS FOR<br>PONENTS FO | DULE<br>COR COMPLET<br>D ABOVE.<br>D PROVIDED V<br>I-MICROBIAL<br>OR FIXTURE<br>D RER &<br>BER<br>SIGN)<br>ODEL<br>AB<br>C<br>F<br>ODEL<br>AB<br>C<br>R<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C<br>C                                                                                                                                                                                                                                                                                                                                    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MOUI<br>DUNDER AD<br>QUIREMENTS<br>GPH RECC<br>90 DEG<br>23 GAL<br>23 GAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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COORDI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORGOCLEAN OUT, EXPOSEDFDFLOOR DRAIN                                                                                                                                                                                                                                                                                                                                                                                                                            | sing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
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|                                       | ELECTRIC WATER COC<br>ELECTRIC WATER COOI<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>SE<br>//DE ALL REQUIRED COM<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>RTO ARCHITECTURAL E<br>RIC WATER HEATER M.<br>M.<br>BESCRIPTION M.<br>(B<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>GEE ARCHITECTURAL PL<br>GUIRE #LFBV02-SS WITH<br>GEE ARCHITECTURAL PL<br>GUIRE #LFBV02-SS WITH<br>GEE ARCHITECTURAL PL<br>GUIRE #LFBV02-SS WITH<br>GEE ARCHITECTURAL PL<br>GUIRE #LFBV02-SS WITH<br>GUIRE #LFFV02-SS WITH<br>GUIRE #LFFV02-SS WITH<br>GUIRE #LFFV02-SS WITH<br>GUIRE #LFFV | INTES 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 3. 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PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMER                                                                                                                                                                                                                                                                                                                                                                                   | Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>()DE ALL REQUIRED COM<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA CO<br>DE MCGUIRE PRO-WRAF<br>IR TO ARCHITECTURAL I<br>RIC WATER HEATER M<br>DESCRIPTION M<br>(B<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>UDE EXPANSION TANK P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ER 1/2"<br>ER - 1/2"<br>PONENTS FOR<br>ESPECIFIE<br>IPLIANT AND<br>WHITE ANT<br>RAWINGS FOR<br>ANUFACTUR<br>ANUFACTUR<br>ASIS OF DES<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>SEE ARCHITECTURAL PL<br>S.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AN FOR ELEVATIONS.<br>PLUMBING GENERAL NOTE<br>2, 3, 4, 5<br>2, 3, 4, 5<br>3. FURNISH ALL PLUMBING FIXTUP<br>ON DRAWINGS AND APPROVALS<br>3. FURNISH ALL PLUMBING FIXTUP<br>ON DRAWINGS AND INSTALL CO<br>4. PROVIDE SANITARY WASTE AND<br>PLUCABLE STANDARDS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | S:<br>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND<br>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>MPLETE AND PLACE IN PROPER OPERATION.<br>O VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTACTOR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
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               | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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                                                      | PGPRESSURE GAUGETHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0FLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMER                                                                                                                                                                                                                                                                                                                                                                                                        | ' - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
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|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>RTO ARCHITECTURAL I<br>DESCRIPTION M<br>(B<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>DESCRIPTION TANK. R<br>VATER HEATER A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ER 1/2" ER - 1/2" ER - 1/2" PONENTS FOR SPECIFIE IPLIANT AND WHITE ANT RAWINGS FOR ANUFACTUR ASIS OF DES O. SMITH MO #DEL-20 O. SMITH MO #DEL-20 O. SMITH MO #DEL-20 EFER TO EX FOR TO EX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.0       1.0       0R COMPLET       D ABOVE.       D PROVIDED V       I-MICROBIAL       OR FIXTURE I       OR FIXTURE I       ODEL       AB       ODEL       AB       C       F       ODEL       AB       C       F       ODEL       AB       C       F       ABOVE.       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LOO<br>LOCATION<br>BOVE 5th F<br>CEILING A<br>ROOM 500<br>BOVE 6th F<br>CEILING A<br>ROOM 625<br>BOVE 7th F<br>CEILING A<br>ROOM 700<br>NK SCHE<br>ING WITH<br>CEILING A<br>ROOM 700                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>SEE ARCHITECTURAL PLA<br>S.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ACTES<br>2, 3, 4, 5<br>2, 3, 4, 5<br>3. FURNISH ALL PLUMBING FACILITIES, EXISTING BUILDING FACILITIES, EXISTING SERVICES WHERE INIT CONDITIONS, INVERT ELEVATIO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S:<br>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND<br>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br><br>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>OMPLETE AND PLACE IN PROPER OPERATION.<br>D VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br>NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
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COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                          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PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORCOCLEAN OUT, EXPOSEDFDFLOOR DRAINRDFLOOR DRAINFLOOR DRAINFLOOR DRAINFLOOR SINK/RECEPTOR WITH HALF GRATE                                                                                                                                                                                                                                                                                                                                                     | CP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 
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|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VITH STA<br>VI                                                                                                   | ER 1/2"<br>ER - 1/2"<br>PONENTS FOR<br>SPECIFIE<br>IPLIANT AND<br>WHITE ANT<br>RAWINGS FOR<br>ANUFACTUR<br>ANUFACTUR<br>ANUFACTUR<br>ASIS OF DES<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.0       1.0       0R COMPLET       D ABOVE.       D PROVIDED V       D ABOVE.       D PROVIDED V       I-MICROBIAL       OR FIXTURE I       DULE       RER &       BER       SIGN)       ODEL       AB       ODEL       AB       C       F       BOVE CEILI       C       F       C       F       ODEL       C       F       C       F       ODEL       F       C       F       D       C       F <td>1/2"<br/>1/2"<br/>1/2"<br/>TE FIXTUF<br/>WITH ADA<br/>INSULATI<br/>PLAN LOO<br/>LOCATION<br/>BOVE 5th F<br/>CEILING A<br/>ROOM 500<br/>BOVE 6th F<br/>CEILING A<br/>ROOM 625<br/>BOVE 7th F<br/>CEILING A<br/>ROOM 700<br/>NK SCHE<br/>ING WITH<br/>GRAL TO<br/>CELECTR<br/>RD WHITE</td> <td>1.0         1.0         1.0         RE ROUGH-IN         A COMPLIANTING WRAP OCATION DIME         ING WRAP OCATION DIME         A COMPLIANTING WRAP OCATION DIME         ING WRAP OCATION DIME</td> <td>1 1/2"<br/>1 1/2"</td> <td>1<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I<br/>I</td> <td>1 1/2"<br/>1 1/2"<br/>CONVERTIB<br/>NT AT ADA<br/>DA SINK SUB<br/>S AND COOP<br/>OVERY @<br/>F RISE<br/>LLONS<br/>LLONS<br/>LLONS<br/>LLONS</td> <td>POWER<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS</td> <td>LKAY<br/>LKAY<br/>LKAY<br/>S &amp; STOPS - MCG<br/>ELEVATIONS. S<br/>ASTE PLUMBING<br/>MBING ROUGH-<br/>VOLTAGE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE</td> <td>MODEL # LZSG8<br/>MODEL # LZSG8WSLK<br/>WITH BOTTLE FILL<br/>STATION<br/>GUIRE #LFBV02-SS WITH<br/>SEE ARCHITECTURAL PL<br/>3.<br/>IN ACCORDINGLY.<br/>EFFICIENCY<br/>98% 1,<br/>98% 1,<br/>98% 1,</td> <td>AUTES<br/>2, 3, 4, 5<br/>2, 3, 4, 5<br/>3, 5<br/>4. CONFORM TO ALL APPLICABLE ETC.), GOVERNMENT REGULATI APPLICABLE STANDARDS.<br/>2. OBTAIN PERMITS AND PAY ALL INSPECTIONS AND APPROVALS<br/>3. FURNISH ALL PLUMBING FIXTUF ON DRAWINGS AND INSTALL CO<br/>4. PROVIDE SANITARY WASTE AND EXISTING BUILDING FACILITIES. EXISTING BUILDING FACILITIES. EXISTING SERVICES WHERE IND CONDITIONS, INVERT ELEVATIO AND TEST PIPING FOR PROPER UTILITIES. IMMEDIATELY REPOUND WHERE CONNECTIONS COMPONENTS</td> <td>S:<br/>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br/>ONS, UTILITY COMPANY REQUIREMENTS, AND<br/>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br/>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br/>OMPLETE AND PLACE IN PROPER OPERATION.<br/>O VENT PIPING AND SANITARY SEWER AND EXTEND TO<br/>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br/>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br/>NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br/>OPERATION BEFORE FINAL CONNECTION FOR ALL<br/>RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES<br/>TREMADE RETWEEN NEW AND EXISTING EVENTIME SYSTEMS</td> <td>1, 4<br/>1, 2, 4<br/>1, 2, 4<br/>52MN, NOT<br/>52MN, NOT</td> <td>AW</td> <td>AW<br/>CO2<br/>MAI<br/>MDV<br/>NO<br/>PD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAG</td> <td>ACID WASTE PIPING<br/>CARBON DIOXIDE PIPING<br/>MEDICAL AIR INTAKE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>NITROUS OXIDE PIPING<br/>PUMP DISCHARGE<br/>WASTE ANESTHETIC GAS DISCHARGE<br/>MEDICAL GAS OUTLET<br/>(LETTER DESIGNATES GAS TYPE)<br/>ORDINATION DRAWINGS ARE APPROVED BY<br/>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br/>CONDITIONS IN THE CEILING OF SPACE BELOW<br/>OTO MISS CONFLICTS WITH DUCTWORK AND<br/>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br/>ORDINAS OF PLUMBING FIXTURES.<br/>SS ARE FOR GUIDANCE ONLY AND<br/>INSTRUCTION WORK. THIS CONTRACTOR MAY<br/>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br/>XTEND TO EXISTING SYSTEMS IN OPDED TO</td> <td></td> <td>PGPRESSURE GAUGEITHERMOMETERAQUASTATIAQUASTATIHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br/>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORCOCLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATEDS&amp;YOS&amp;Y VALVE</td> <td>HACP - Housing Authority of the City of Pittsburg</td> | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>LOCATION<br>BOVE 5th F<br>CEILING A<br>ROOM 500<br>BOVE 6th F<br>CEILING A<br>ROOM 625<br>BOVE 7th F<br>CEILING A<br>ROOM 700<br>NK SCHE<br>ING WITH<br>GRAL TO<br>CELECTR<br>RD WHITE                                                                                                                                                                                                                                                                                                                                                                                              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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>SEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98% 1,<br>98% 1,<br>98% 1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | AUTES<br>2, 3, 4, 5<br>2, 3, 4, 5<br>3, 5<br>4. CONFORM TO ALL APPLICABLE ETC.), GOVERNMENT REGULATI APPLICABLE STANDARDS.<br>2. OBTAIN PERMITS AND PAY ALL INSPECTIONS AND APPROVALS<br>3. FURNISH ALL PLUMBING FIXTUF ON DRAWINGS AND INSTALL CO<br>4. PROVIDE SANITARY WASTE AND EXISTING BUILDING FACILITIES. EXISTING BUILDING FACILITIES. EXISTING SERVICES WHERE IND CONDITIONS, INVERT ELEVATIO AND TEST PIPING FOR PROPER UTILITIES. IMMEDIATELY REPOUND WHERE CONNECTIONS COMPONENTS                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | S:<br>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND<br>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>OMPLETE AND PLACE IN PROPER OPERATION.<br>O VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br>NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br>OPERATION BEFORE FINAL CONNECTION FOR ALL<br>RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES<br>TREMADE RETWEEN NEW AND EXISTING EVENTIME SYSTEMS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                       | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>OTO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>ORDINAS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>INSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN OPDED TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATIAQUASTATIHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORCOCLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATEDS&YOS&Y VALVE                                                                                                                                                                                                                                                                                                                        | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     
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|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>UIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>RIC WATER HEATER<br>DESCRIPTION<br>(E<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>A.<br>WATER HEATER<br>A.<br>DE EXPANSION TANK. R<br>VATER HEATER<br>DE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING O<br>TABLE MANUFACTUREF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                                                                                                                                                          | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>LOCATION<br>30VE 5th F<br>CEILING A<br>ROOM 500<br>30VE 6th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 700<br>INK SCHE<br>ING WITH<br>EGRAL TO<br>CELECTR<br>RD WHITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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1/2"<br/>1 1/2"</td><td>1<br/>I<br/>RTER TURN CONTENTS<br/>ORIES. MOUI<br/>DUNDER AD<br/>QUIREMENTS<br/>QUIREMENTS<br/>QUIREMENTS<br/>23 GAL<br/>23 GAL<br/>23 GAL<br/>23 GAL<br/>23 GAL</td><td>1 1/2"<br/>1 1/2"<br/>CONVERTIB<br/>NT AT ADA<br/>DA SINK SUI<br/>S AND COOP<br/>OVERY @<br/>F RISE<br/>LLONS<br/>LLONS<br/>LLONS<br/>AND SUPPO</td><td>POWER<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS</td><td>LKAY<br/>LKAY<br/>LKAY<br/>S &amp; STOPS - MCG<br/>ELEVATIONS. S<br/>ASTE PLUMBING<br/>MBING ROUGH-<br/>VOLTAGE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE</td><td>MODEL # LZSG8<br/>MODEL # LZSG8WSLK<br/>WITH BOTTLE FILL<br/>STATION<br/>GUIRE #LFBV02-SS WITH<br/>SEE ARCHITECTURAL PL<br/>3.<br/>IN ACCORDINGLY.<br/>EFFICIENCY<br/>98% 1,<br/>98% 1,<br/>98% 1,</td><td>INFOR ELEVATIONS.  PLUMBING GENERAL NOTE 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,</td><td>S:<br/>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br/>ONS, UTILITY COMPANY REQUIREMENTS, AND<br/>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br/>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br/>MPLETE AND PLACE IN PROPER OPERATION.<br/>O VENT PIPING AND SANITARY SEWER AND EXTEND TO<br/>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br/>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br/>NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br/>OPERATION BEFORE FINAL CONNECTION FOR ALL<br/>RT TO THE ARCHITECT OR ENGINEER AND EXISTING SYSTEMS AS<br/>RA COMPENSATION WILL BE GRANTED FOR NEW WORK<br/>ID REPLACED BECAUSE LOCATION AND ELEVATION OF</td><td>1, 4<br/>1, 2, 4<br/>1, 2, 4<br/>52MN, NOT<br/>52MN, NOT</td><td>AW</td><td>AW<br/>CO2<br/>MAI<br/>MDV<br/>NO<br/>PD<br/>WAGD<br/>WAGD<br/>WAGD<br/>ID THE CO<br/>STANITA<br/>JNKNOWN<br/>E-ROUTEI<br/>MAY USE "<br/>JNKNOWN<br/>E-ROUTEI<br/>MAY USE "</td><td>ACID WASTE PIPING<br/>CARBON DIOXIDE PIPING<br/>MEDICAL AIR INTAKE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>NITROUS OXIDE PIPING<br/>PUMP DISCHARGE<br/>WASTE ANESTHETIC GAS DISCHARGE<br/>MEDICAL GAS OUTLET<br/>(LETTER DESIGNATES GAS TYPE)<br/>ORDINATION DRAWINGS ARE APPROVED BY<br/>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br/>CONDITIONS IN THE CEILING OF SPACE BELOW<br/>O TO MISS CONFLICTS WITH DUCTWORK AND<br/>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br/>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br/>LL FITTINGS WITH BRAZED JOINTS ARE<br/>BEHIND BANKS OF PLUMBING
FIXTURES.<br/>SS ARE FOR GUIDANCE ONLY AND<br/>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br/>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br/>XTEND TO EXISTING SYSTEMS IN ORDER TO<br/>ESE DRAWINGS. COORDINATE WITH OWNER'S<br/>ADJOINING SPACES AND TO MINIMIZE</td><td></td><td>PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br/>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, FLOORFDFLOOR DRAINRDROOF DRAINRDFLOOR DRAINS84YOS&amp;Y VALVEVALVE WITH TAMPER SWITCH</td><td>HACP - Housing Authority of the City of Pittsburg</td></tr<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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MOUI<br>DUNDER AD<br>QUIREMENTS<br>QUIREMENTS<br>QUIREMENTS<br>23 GAL<br>23 GAL<br>23 GAL<br>23 GAL<br>23 GAL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       
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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>SEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98% 1,<br>98% 1,<br>98% 1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    
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PLUMBING GENERAL NOTE 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,                                                                                                                                                                                                                                                                                                                                                                                                                                                               | S:<br>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND<br>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>MPLETE AND PLACE IN PROPER OPERATION.<br>O VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br>NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br>OPERATION BEFORE FINAL CONNECTION FOR ALL<br>RT TO THE ARCHITECT OR ENGINEER AND EXISTING SYSTEMS AS<br>RA COMPENSATION WILL BE GRANTED FOR NEW WORK<br>ID REPLACED BECAUSE LOCATION AND ELEVATION OF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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                                               | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>ID THE CO<br>STANITA<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ESE DRAWINGS. COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, FLOORFDFLOOR DRAINRDROOF DRAINRDFLOOR DRAINS84YOS&Y VALVEVALVE WITH TAMPER SWITCH                                                                                                                                                                                                                                                                         
                                                                                    | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ER 1/2"<br>ER -<br>D 1/2"<br>PONENTS FO<br>ESPECIFIE<br>IPLIANT AND<br>WHITE ANT<br>RAWINGS FO<br>R SCHED<br>ANUFACTUR<br>ASIS OF DES<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>C. SMITH MO<br>FER HEATER<br>CONTRACTOR<br>S - A.O.SMI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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MOUI<br>D UNDER AD<br>QUIREMENTS<br>QUIREMENTS<br>23 GAL<br>23 GAL<br>23 GAL<br>23 GAL<br>23 GAL<br>NG.<br>DRAIN PAN A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | INTES INTER INTES INTES INTES INTES INTES INTER INTES INTER INTES INTER INTES INTER INTES INTER INTES INTER INTE INTER I | S:         S:         CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND         FEES. 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PLACED BECAUSE LOCATION AND ELEVATION OF ID BEFORE STARTING NEW WORK.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                       | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>ID THE CO<br>SY SANITA<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE TO<br>CESS TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>DYSTRUCTION WORK. 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COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORCOCLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMERDS&YOS&Y VALVEOS&Y VALVET.S.OS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTION                                                                                                                                                                                                                                                                                        | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>RTO ARCHITECTURAL I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ER 1/2"<br>ER -<br>D 1/2"<br>PONENTS FO<br>ESPECIFIE<br>IPLIANT AND<br>WHITE ANT<br>RAWINGS FO<br>ANUFACTUR<br>ANUFACTUR<br>ASIS OF DES<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>EFER TO EX<br>CONTRACTO<br>S - A.O.SMI<br>DULE<br>MANUFA<br>MODEL<br>(BASIS O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.0         1.0         0R COMPLET         DABOVE.         DPROVIDED V         OR FIXTURE I         OR FIXTURE I         ODEL         AB         ODEL         AB         ODEL         AB         C         FIXTURE I         COEL         AB         C         FIXTURE I         ODEL         AB         C         FIXTURE I         ODEL         AB         C         FIXTURE I         ABOVE CEILI         R         R         PROVIDED I         ABOVE CEILI         R         PROVIDED I         ABOVE CEILI         R         PROVIDED I         ABOVE CEILI         R <td>1/2"<br/>1/2"<br/>1/2"<br/>TE FIXTUF<br/>WITH ADA<br/>INSULATI<br/>PLAN LOO<br/>OVE 5th F<br/>CEILING A<br/>ROOM 500<br/>30VE 5th F<br/>CEILING A<br/>ROOM 625<br/>30VE 7th F<br/>CEILING A<br/>ROOM 700<br/>INK SCHE<br/>ING WITH<br/>EGRAL TO<br/>CELECTR<br/>RD WHITE</td> <td>1.0         1.0         1.0         1.0         RE ROUGH-IN         A COMPLIANTING WRAP OCATION DIME         ING WRAP OCATION DIME         N       ST         VI         FLR       20 0         GO       FLR         ICAL CONTR       ICAL CONTR         ICAL CONTR       ICAL CONTR         ICOCATION       ICAL CONTR</td> <td>1 1/2" 1 1/2" 1 1/2" 1 1/2" 1 1/2" 1 1/2" 1 1/2" 1 1/2" 1 ACCESSO N EXPOSE INSION REG GALLONS GALLONS GALLONS IIS DRAWIN ACTURED ACTOR. R. TAM</td> <td>1         1         RTER TURN CONTES. MOUTED UNDER ADEQUIREMENTS         QUIREMENTS         QUIREMENTS         23 GAL         23 GAL         23 GAL         NG.         DRAIN PAN A         NK SIZE</td> <td>1 1/2"<br/>1 1/2"<br/>CONVERTIB<br/>NT AT ADA O<br/>A SINK SUL<br/>S AND COOP<br/>OVERY @<br/>F RISE<br/>LLONS<br/>LLONS<br/>LLONS<br/>AND SUPPO<br/>ACCEP<br/>VOLU</td> <td>POWER<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS</td> <td>LKAY<br/>LKAY<br/>LKAY<br/>S &amp; STOPS - MCG<br/>ELEVATIONS. S<br/>ASTE PLUMBING<br/>MBING ROUGH-<br/>VOLTAGE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE<br/>208 VOLT,<br/>1 PHASE</td> <td>MODEL # LZSG8<br/>MODEL # LZSG8WSLK<br/>WITH BOTTLE FILL<br/>STATION<br/>GUIRE #LFBV02-SS WITH<br/>EEE ARCHITECTURAL PL<br/>3.<br/>IN ACCORDINGLY.<br/>EFFICIENCY<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,</td> <td>INTERPORT OF A CONTRACT OF A C</td> <td>S:         CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND         SE:         CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND         FEES. ARRANGE FOR ALL REQUIRED TESTS,         RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN         DMPLETE AND PLACE IN PROPER OPERATION.         D'VENT PIPING AND SANITARY SEWER AND EXTEND TO         CONTRACTOR SHALL MAKE THE TIE-INS TO THE         DICATED ON DRAWINGS. EXISTING LINE SIZES,         NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN         OPERATION BEFORE FINAL CONNECTION FOR ALL         RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES         RE MADE BETWEEN NEW AND EXISTING SYSTEMS AS         RA COMPENSATION WILL BE GRANTED FOR NEW WORK         D REPLACED BECAUSE LOCATION AND ELEVATION OF         D RESISTING BUILDING FACILITIES AS INDICATED ON         CWATER DISTRIBUTION PIPING TO ALL FIXTURES AND         INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION, DURD FOR COMPLETE INSTALLATION.</td> <td>1, 4<br/>1, 2, 4<br/>1, 2, 4<br/>52MN, NOT<br/>52MN, NOT</td> <td>AW</td> <td>AW<br/>CO2<br/>MAI<br/>MDV<br/>NO<br/>PD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>ID THE CO<br/>EY SANITA<br/>JNKNOWN<br/>E-ROUTEI<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E-ROUTEI<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E-ROUTEI<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E DON TH<br/>CESS TO<br/>OTES:</td> <td>ACID WASTE PIPING<br/>CARBON DIOXIDE PIPING<br/>MEDICAL AIR INTAKE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>NITROUS OXIDE PIPING<br/>PUMP DISCHARGE<br/>WASTE ANESTHETIC GAS DISCHARGE<br/>MEDICAL GAS OUTLET<br/>(LETTER DESIGNATES GAS TYPE)<br/>ORDINATION DRAWINGS ARE APPROVED BY<br/>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br/>CONDITIONS IN THE CEILING OF SPACE BELOW<br/>OT O MISS CONFLICTS WITH DUCTWORK AND<br/>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br/>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br/>LL FITTINGS WITH BRAZED JOINTS ARE<br/>BEHIND BANKS OF PLUMBING FIXTURES.<br/>35 ARE FOR GUIDANCE ONLY AND<br/>DISTRUCTION WORK. THIS CONTRACTOR MAY<br/>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br/>XTEND TO EXISTING SYSTEMS IN ORDER TO<br/>ISE DRAWINGS. COORDINATE WITH OWNER'S<br/>ADJOINING SPACES AND TO MINIMIZE</td> <td></td> <td>PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br/>ARRESTER; TEXT DENOTES
SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINKIDFLOOR DRAIN WITH TRAP PRIMERNS&amp;YOS&amp;Y VALVEYS&amp;YOS&amp;Y VALVET.S.OS&amp;Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFIRE PUMP TEST HEADER</td> <td>HACP - Housing Authority of the City of Pittsburg</td>                                                                                                                                                                                                                                                                                                                                     | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>OVE 5th F<br>CEILING A<br>ROOM 500<br>30VE 5th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 700<br>INK SCHE<br>ING WITH<br>EGRAL TO<br>CELECTR<br>RD WHITE                                                                                                                      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S<br>ASTE PLUMBING<br>MBING ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | INTERPORT OF A CONTRACT OF A C | S:         CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND         SE:         CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND         FEES. 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TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E DON TH<br>CESS TO<br>OTES:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  
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THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ISE DRAWINGS. COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINKIDFLOOR DRAIN WITH TRAP PRIMERNS&YOS&Y VALVEYS&YOS&Y VALVET.S.OS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFIRE PUMP TEST HEADER                                                                                                                                                                                                                                                            | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>RIC WATER HEATER<br>DESCRIPTION<br>(E<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>ELECTRIC<br>WATER HEATER<br>A.<br>ELECTRIC<br>WATER HEATER<br>A.<br>ELECTRIC<br>MATER HEATER<br>A.<br>ELECTRIC<br>A.<br>ELECTRIC<br>A.<br>ELECTRIC<br>A.<br>ELECTRIC<br>A.<br>ELECTRIC<br>WATER HEATER<br>A.<br>ELECTRIC<br>A.<br>DOMESTIC WATER<br>EXPANSION TANK                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ER 1/2"<br>ER -<br>D 1/2"<br>PONENTS FO<br>ESPECIFIE<br>IPLIANT AND<br>WHITE ANT<br>RAWINGS FO<br>R SCHED<br>ANUFACTUR<br>ASIS OF DES<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>C. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>C. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>C. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>O. SMITH MO<br>#DEL-20<br>C. SMITH MO<br>#DEL-20<br>O. 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MOUTED UNDER AD CONTES. MOUTED UNDER AD CONTERMENTS         CORIES. MOUTED UNDER AD CONTERNATION         NK SIZE         MALLONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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S<br>ASTE PLUMBING<br>ROUGH-<br>MOITAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>1, 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | INTES 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 5, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S:<br>FURNISH WITH FILTER, BRASS TRAP AND AND QUARTER<br>TURN STOP VALVE<br>FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS<br>TRAP AND AND QUARTER TURN STOP VALVE<br>URE #9812C15DF, GRID DRAINS & TAILPIECES - MCGUIRE #1<br>DIRE #9812C15DF, GRID DRAINS & TAILPIECES - MCGUIRE #1<br>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND<br>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br>TESS, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>OMPLETE AND PLACE IN PROPER OPERATION.<br>D VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br>INS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br>OPERATION BEFORE FINAL CONNECTION FOR ALL<br>RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES<br>T BE MADE BETWEEN NEW AND EXISTING SYSTEMS AS<br>RA COMPENSATION WILL BE GRANTED FOR NEW WORK<br>D REPLACED BECAUSE LOCATION AND ELEVATION OF<br>ED BEFORE STARTING NEW WORK.<br>M EXISTING BUILDING FACILITIES AS INDICATED ON<br>CWATER DISTRIBUTION PIPING TO ALL FIXTURES AND<br>INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION,<br>DURED FOR COMPLETE INSTALLATION.<br>DRAINS AND EQUIPMENT WITH ALL PLUMBING CODE<br>ID
ACCESSORIES.<br>EN PIPING PER ASHRAE GUIDELINES - MINIMUM OF 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                       | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>MAY USE "<br>INKNOWN<br>E-ROUTEI<br>MAY USE "<br>INKNOWN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>CAREAS O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>DINSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ESE DRAWINGS. COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATIAQUASTATIHOT WATER RECIRC. PUMPIINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORCOCLEAN OUT, FLOORFDFLOOR DRAINRDFLOOR DRAINRDFLOOR DRAINVITH TRAP PRIMEROS&Y VALVET.S.OS&Y VALVET.S.OS&Y VALVE WITH TAMPER SWITCHFHVFIRE PUMP TEST HEADER                                                                                                                                                                                                                                                                                       | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VITH BOTTLE FILL STA<br>VATER HEATER<br>VATER HEATER<br>VATER HEATER<br>VATER HEATER IS TO BE<br>DE HEAT TRAPS ON VAC<br>VATER HEATER IS TO BE<br>DE HEATER HEATER IS TO B                                                                                                                                                                  | ER -<br>D 1/2"<br>ER -<br>D 1/2"<br>PONENTS FOR<br>PONENTS FOR<br>PON                                                                                                                                                                                                    | 1.0         1.0         0R COMPLET         D ROVIDED V         D PROVIDED V         D PROVIDED V         OR FIXTURE         DULE         RER &<br>BER         SIGN)         ODEL         AB         CO         ODEL         AB         CO         ODEL         AB         CO         R         ABOVE CEILI         R         ADVE DESIGN)         ACTURER &         NUMBER         DF DESIGN)         ROL ST-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>OVE 5th F<br>CEILING A<br>ROOM 500<br>30VE 5th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 700<br>NK SCHE<br>ING WITH<br>GRAL TO<br>CELECTR<br>RD WHITE<br>ING WITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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MOUTED UNDER ADEQUIREMENTS         QUIREMENTS         QUIREMENTS         23 GAL         23 GAL         23 GAL         23 GAL         NG.         DRAIN PAN A         MK SIZE         GALLONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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S<br>ASTE PLUMBING<br>ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>1, 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | AND THE CONNECTIONS AND PROVALS<br>2, 3, 4, 5<br>2, 3, 4, 5<br>3. FURMISH ALL PUMBING FIXTUR<br>ON DRAWINGS AND INSTALL CO<br>4. PROVIDE SANITARY WASTE ANI<br>EXISTING BUILDING FACILITIES.<br>EXISTING SERVICES WHERE INI<br>CONDITIONS, INVERT ELEVATIO<br>AND TEST PIPING FOR PROPER<br>UTILITIES. IMMEDIATELY REPON<br>WHERE CONNECTIONS CANNON<br>INDICATED ON PLANS. NO EXTI<br>THAT MUST BE ABANDONED AN<br>EXISTING SUICES WHERE INI<br>CONDITIONS, INSTALL DOMESTIC<br>AND TEST PIPING FOR PROPER<br>UTILITIES. IMMEDIATELY REPON<br>WHERE CONNECTIONS CANNON<br>INDICATED ON PLANS. NO EXTI<br>THAT MUST BE ABANDONED AN<br>EXISTING WAS NOT DETERMINE<br>5. EXTEND DOMESTIC WATER FRO<br>DRAWINGS. INSTALL DOMESTIC<br>EQUIPMENT REQUIRING SAME.<br>AND OTHER ACCESSORIES REC<br>6. PROVIDE PLUMBING FIXTURES,<br>REQUIRED TRIM, CONTROLS AN<br>7. INSULATE HOT AND COLD WATE<br>INCH THICK FIBERGLASS INSUL<br>8. SEWERS TO BE PITCHED A MINI-<br>INCH THICK FIBERGLASS INSUL<br>8. SEWERS TO BE PITCHED A MINI-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | S:<br>FURNISH WITH FILTER, BRASS TRAP AND AND QUARTER<br>TURN STOP VALVE<br>FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS<br>TRAP AND AND QUARTER TURN STOP VALVE<br>IRE #9812C15DF, GRID DRAINS & TAILPIECES - MCGUIRE #1<br>CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND<br>FEES. ARRANGE FOR ALL REQUIRED TESTS,<br><br>RES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>MPLETE AND PLACE IN PROPER OPERATION.<br>D VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br>INS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br>OPERATION BEFORE FINAL CONNECTION FOR ALL<br>RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES<br>T BE MADE BETWEEN NEW AND EXISTING SYSTEMS AS<br>RA COMPENSATION WILL BE GRANTED FOR NEW WORK<br>ID REPLACED BECAUSE LOCATION AND ELEVATION OF<br>D BEFORE STARTING NEW WORK.<br>MEXISTING BUILDING FACILITIES AS INDICATED ON<br>CWATER DISTRIBUTION PIPING TO ALL FIXTURES AND<br>NUCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION,<br>DURING BUILDING FACILITIES AS INDICATED ON<br>CWATER DISTRIBUTION PIPING TO ALL FIXTURES AND<br>NO COMPLETE INSTALLATION.<br>DRAINS AND EQUIPMENT WITH ALL PLUMBING CODE<br>ID ACCESSORIES.<br>ST PIPING PER ASHRAE GUIDELINES - MINIMUM OF 1<br>ATION WITH ALL SERVICE JACKET.<br>MUM OF 1/4" PER FOOT FOR SIZES 3" AND UNDER, AND<br>U ADDER                                                                                                                                 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                       | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>ID THE CO<br>SY SANITA<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>JNKNOWN<br>E-ROUTEI<br>JNKNOWN<br>E-ROUTEI<br>JNKNOWN<br>E-ROUTEI<br>JNKNOWN<br>E-ROUTEI<br>JNKNOWN<br>E-ROUTEI<br>JNKNOWN<br>E-ROUTEI<br>JNKNOWN<br>HAY USE MAN<br>JNKNOWN<br>HAY USE MAN<br>JNKNOWN<br>HAY USE MAN<br>JNKNOWN<br>HAY US                                                                                                                                                                                              | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CELLING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>SED DRAWINGS. COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>HD SCHEDULED WITH THE OWNER, PRIOR TO                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEIHERMOMETERAQUASTATINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, FLOORFDFLOOR DRAINRDFLOOR DRAINRDFLOOR DRAINFLOOR SINK/RECEPTOR WITH HALF GRATEDS&YOS&Y VALVESAYOS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFHVFIRE HOSE VALVE CABINETFNVFIRE HOSE VALVE CABINET                                                                                                                                                                                                         | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>SE<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>RIC WATER HEATER A.<br>DESCRIPTION I<br>(E<br>ELECTRIC A.<br>WATER HEATER A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>UDE EXPANSION TANK. F<br>VATER HEATER IS TO BE<br>DE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING O<br>TABLE MANUFACTUREF<br>JSION TANK SCHEI<br>DESCRIPTION<br>DOMESTIC WATER<br>EXPANSION TANK<br>SING PRESSURE - 150 PS<br>IUM SYSTEM TEMPERAT<br>TABLE MANUFACTUREF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ER 1/2"<br>ER -<br>D 1/2"<br>PONENTS FOR<br>PONENTS                                                                                                                                                                                                       | I.0         1.0         OR COMPLET         DABOVE.         DPROVIDED V         DPROVIDED V         I-MICROBIAL         OR FIXTURE         ODEL         AB         ODEL         AB         C         ODEL         AB         C         F         ODEL         AB         C         R         ODEL         AB         C         F         ODEL         AB         C         R         ODEL         AB         C         F         ODEL         AB         C         R         ODEL         AB         C         R         ABOVE CEILI         R         ACTURER &         NUMBER         DF DESIGN)         R         R         ACTURER &         SOL ST-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>LOCATION<br>30VE 5th F<br>CEILING A<br>ROOM 500<br>30VE 6th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 700<br>NK SCHE<br>ING WITH<br>EGRAL TO<br>Y ELECTR<br>RD WHITE<br>ING WHITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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ROUGH-IN         A COMPLIANTING WRAP OCATION DIME         ING WRAP OCATION DIME         N       ST         ST         V0         FLR       20 0         OCATION       IDULE ON TH         PRE-MANUF       IDULE ON TH         OCATION       IDULE ON TH         IDULE       IDULE ON TH         IDULE       IDULE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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MOUI         ORIES. MOUI         DUNDER AD         QUIREMENTS         GPH RECC         90 DEG         23 GAL         23 GAL         23 GAL         NG.         DRAIN PAN A         NK SIZE         ALLONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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S<br>ASTE PLUMBING<br>NOTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | INTES 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3, 4, 5 2, 3,
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ARRANGE FOR ALL REQUIRED TESTS,<br>TES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>MPLETE AND PLACE IN PROPER OPERATION.<br>D VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL MAKE THE TIE-INS TO THE<br>DICATED ON DRAWINGS. EXISTING LINE SIZES,<br>NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN<br>OPERATION BEFORE FINAL CONNECTION FOR ALL<br>RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES<br>TA COMPENSATION WILL BE GRANTED FOR NEW WORK<br>ID REPLACED BETWEEN NEW AND EXISTING SYSTEMS AS<br>A COMPENSATION WILL BE GRANTED FOR NEW WORK<br>ID REPLACED BECAUSE LOCATION AND ELEVATION OF<br>ED BEFORE STARTING NEW WORK.<br>ID REPLACED BECAUSE LOCATION AND ELEVATION OF<br>ID BEFORE STARTING PACILITIES AS INDICATED ON<br>C WATER DISTRIBUTION PIPING TO ALL FIXTURES AND<br>INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION,<br>DUIRED FOR COMPLETE INSTALLATION.<br>DATING AND EQUIPMENT WITH ALL PLUMBING CODE<br>ID ACCESSORIES.<br>R PIPING PER ASHRAE GUIDELINES - MINIMUM OF 1<br>ATION WITH ALL SERVICE JACKET.<br>MUM OF 1/4" PER FOOT FOR SIZES 3" AND UNDER, AND<br>D LARGER OR TO GRADES INDICATED ON DRAWINGS.<br>RANCH CONNECTIONS SHALL BE MADE WITH APPROVED<br>LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                       | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>MUTHE CO<br>STANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANITA<br>SANIT | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>DISTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ESE DRAWINGS. COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>ID SCHEDULED WITH THE OWNER, PRIOR TO                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINRDFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATEVS&YOS&Y VALVEVS&YOS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFHVFIRE HOSE VALVE CABINETFHVFIRE HOSE VALVE CABINETKITCHEN EQUIPMENT DESIGNATION; REFER TO<br>KITCHEN EQUIPMENT DRAWINGS FOR DETAILS                                                                                                                        | HACP - Housing Authority of the City of Pittsburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>ELECTRIC MA<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>IDE EXPANSION TANK. F<br>VATER HEATER A.<br>UDE EXPANSION TANK. F<br>VATER HEATER IS TO BE<br>IDE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING<br>TABLE MANUFACTUREF<br>JULE<br>JULE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ER 1/2"<br>ER -<br>D 1/2"<br>PONENTS FOR<br>PONENTS                                                                                                                                                                                                       | I.0         1.0         OR COMPLET         DABOVE.         D PROVIDED V         OR FIXTURE         ODEL         AB         ODEL         AB         ODEL         AB         C         FIXTURE         ODEL         AB         C         FIXTURE         ODEL         AB         C         FINDTINTE         ODEL         AB         C         FINDTINTE         ODEL         AB         C         FINDTINTE         C         FINDER         ABOVE CEILI         RETRAL         NUMBER         DF DESIGN)         ROL ST-5         EG F.         S, WATTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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S<br>ASTE PLUMBING<br>NOTES<br>1, 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | INTERPORT CONTROL OF A CONTROL  | S:  S:  CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND SES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN MPLETE AND PLACE IN PROPER OPERATION. CONTRACTOR SHALL MAKE THE TIELINS TO THE DICATED ON DRAWINGS. EXISTING LINE SIZES, NS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN OPERATION BEFORE FINAL CONNECTION FOR ALL RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES I BE MADE BETWEEN NEW AND EXISTING SYSTEMS AS CA COMPENSATION WILL BE GRANTED FOR NEW WORK DI REPLACED BECAUSE LOCATION AND ELEVATION OF ED BEFORE STARTING NEW WORK. DM EXISTING BUILDING FACILITIES AS INDICATED ON CANTRACED BECAUSE LOCATION AND ELEVATION OF ED BEFORE STARTING NEW WORK. DM EXISTING BUILDING FACILITIES AND INCLATED ON CANTRACTOR SHALL BE GRANTED FOR NEW WORK DM ERPLACED BECAUSE LOCATION AND ELEVATION OF ED BEFORE STARTING NEW WORK. DM EXISTING BUILDING FACILITIES AS INDICATED ON CANTRACTOR SHALL BE GRANTED FOR NEW WORK DM ERPLACED BECAUSE LOCATION AND ELEVATION OF ED BEFORE STARTING NEW WORK. DM EXISTING BUILDING FACILITIES AS INDICATED ON CANTRACTOR SHALL BE GRANTED FOR NEW WORK DM EXISTING BUILDING FACILITIES AS INDICATED ON
CANTRACTOR SHALL BE GRANTED FOR NEW WORK DM EXISTING BUILDING FACILITIES AS INDICATED ON CANTRACTOR SHALL BE GRANTED FOR NEW WORK DM EXISTING BUILDING FACILITIES AS INDICATED ON CANTRE DOR COMPLETE INSTALLATION. DRAINS AND EQUIPMENT WITH ALL PLUMBING CODE ID ACCESSORIES. R PIPING PER ASHRAE GUIDELINES - MINIMUM OF 1 ATION WITH ALL SERVICE JACKET. MUM OF 144' PER FOOT FOR SIZES 3'' AND UNDER, AND D LARGER OR TO GRADES INDICATED ON DRAWINGS. RANCH CONNECTIONS SHALL BE MADE WITH APPROVED LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS VS SHALL BE VENTED AS INDICATED ON DRAWINGS AND CHAINS AND EVENTED AS INDICATED ON DRAWINGS AND CONTRACTOR TO BEFORE FOR ENDICATED ON DRAWINGS AND CONNECTIONS SHALL BE MADE WITH APPROVED LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS VS SHALL BE VENTED AS IND | 1, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                       | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>MIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INATED A<br>RESPONS<br>ECT ALL W<br>INATED A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>4 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>3S ARE FOR GUIDANCE ONLY AND<br>INSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>SE DRAWINGS. COORDINATE WITH OWNER'S<br>IDJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>ID SCHEDULED WITH THE OWNER, PRIOR TO<br>COMPLETELY INCLUDING ALL ASSOCIATED<br>TANCES SHALL WORK BE LEFT ABANDONED IN<br>REMOVE ALL UNUSED PIPING AND HANGERS                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEIHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDFLOOR DRAINFLOOR DRAINRDFLOOR SINK/RECEPTOR WITH HALF GRATEPS&YOS&Y VALVET.S.OS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFHVFIRE HOSE VALVE CABINETFHVFIRE HOSE VALVE CABINETKITCHEN EQUIPMENT DESIGNATION; REFER TO<br>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSUTILITY METER                                                                                                                            | ADDENDINA<br>BACP - Housing Authority of the City of Pittsburg<br>ADD - Housing Authority of the City of Evision #1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                       | ELECTRIC WATER COOL<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COL<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>RIC WATER HEATER A.<br>DESCRIPTION I<br>(E<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>UDE EXPANSION TANK. F<br>VATER HEATER IS TO BI<br>DE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING O<br>TABLE MANUFACTUREF<br>JULE<br>DOMESTIC WATER<br>EXPANSION TANK<br>(ING PRESSURE - 150 PS<br>UM SYSTEM TEMPERAT<br>TABLE MANUFACTUREF<br>DULE<br>DULE<br>MANUFACTUREF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ER & 1/2" ER - 1/2" ER - 1/2" PONENTS FOR SPECIFIE IPLIANT AND WHITE ANT RAWINGS FOR R SCHED ANUFACTUR ASIS OF DES O. SMITH MO ASIS OF DES O. SMITH MO #DEL-20 O. SMIT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I.0         1.0         OR COMPLET         DABOVE.         DPROVIDED V         OR FIXTURE I         ODEL         AB         ODEL         AB         ODEL         AB         C         FIXTURE I         ABOVE CEILI         R         ABOVE CEILI         R         ODEL         AB         C         F         NUMBER         ADUBER         ADI DESIGN)         ROL ST-5         EG F.         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WITH<br>CELCTR<br>RD WHITE<br>ING WITH<br>CELCTR<br>RD WHITE<br>ING WITH<br>CELCTR<br>RD WHITE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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MOUTED UNDER AD CONTERNATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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S<br>ASTE PLUMBING<br>ROUGH-<br>VOLTAGE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>208 VOLT,<br>1 PHASE<br>1, 2<br>NOTES<br>1, 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EE ARCHITECTURAL PLA<br>S.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | INTERS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | S:  FURNISH WITH FILTER, BRASS TRAP AND AND QUARTER  TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  URE #9812C15DF, GRID DRAINS & TAILPIECES - MCGUIRE #1  CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, ONS, UTILITY COMPANY REQUIREMENTS, AND  FEES. ARRANGE FOR ALL REQUIRED TESTS,  Tess, EQUIPMENT AND MATERIAL INDICATED AND SHOWN  MPLETE AND PLACE IN PROPER OPERATION.  O VENT PIPING AND SANITARY SEWER AND EXTEND TO  CONTRACTOR SHALL MAKE THE TIE-INS TO THE  DICATED ON DRAWINGS. EXISTING LINE SIZES, INS, AND CAPACITIES SHALL BE FIELD VERIFIED. CLEAN  OPERATION BEFORE FINAL CONNECTION FOR ALL  RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES T BE MADE BETWEEN NEW AND EXISTING SYSTEMS AS RA COMPENSATION WILL BE GRANTED FOR NEW WORK  D REPLACED BECAUSE
LOCATION AND ELEVATION OF: D BEFORE STARTING NEW WORK.  M EXISTING BUILDING FACILITIES AS INDICATED ON  C'WATER DISTIBUTION PIPING TO ALL FIXTURES AND  INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION, DURED FOR COMPLETE INSTALLATION.  DRAINS AND EQUIPMENT WITH ALL PLUMBING CODE  ID ACCESSORIES.:  R PIPING PER ASHRAE GUIDELINES - MINIMUM OF 1  ATION WITH ALL SERVICE JACKET.  MUM OF 1/4" PER FOOT FOR SIZES 3" AND UNDER, AND  D LARGER OR TO GRADES INDICATED ON DRAWINGS.  RANCH CONNECTIONS SHALL BE MADE WITH APPROVED  LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS  NS SHALL BE VENTED AS INDICATED ON DRAWINGS.  RANCH CONNECTIONS SHALL BE MADE WITH APPROVED  LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS  NS SHALL BE VENTED AS INDICATED ON DRAWINGS.  RANCH CONNECTIONS SHALL BE MADE WITH APPROVED  LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS  NS SHALL BE VENTED AS INDICATED ON DRAWINGS.  RANCH CONNECTIONS SHALL BE MADE WITH APPROVED  LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS  NS SHALL BE VENTED AS INDICATED ON DRAWINGS.  ANCH CONNECTIONS SHALL BE MADE WITH APPROVED  LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS  NS SHALL BE VENTED AS INDICATED ON DRAWINGS AND ////////////////////////////////////  | 1, 4<br>1, 2, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT                                                                                                                                                                                                                                                                                                         | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>MUTHE CO<br>STANITA<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>INATED A<br>RESPONS<br>CT ALL W<br>INATED A<br>REMOVEE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>H O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ADJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>HD SCHEDULED WITH THE OWNER, PRIOR TO<br>COMPLETELY INCLUDING ALL ASSOCIATED<br>TANCES SHALL WORK BE LEFT ABANDONED IN<br>REMOVE ALL UNUSED PIPING AND HANGERS                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, FLOORFDFLOOR DRAINRDROOF DRAINRDFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATENSAYOS&Y VALVET.S.OS&Y VALVET.S.OS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFHVFIRE HOSE VALVE CABINETFHVFIRE HOSE VALVE CABINETKITCHEN EQUIPMENT DESIGNATION; REFER TO<br>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSUTILITY METERCONNECT TO EXISTING                                                                            | 6       ADDENDUM#         6       ADDENDUM#         6       ADDENDUM#         6       ADDENDUM#         1       100% CONSTRUCTION D<br>REVISION #         3       100% CONSTRUCTION D<br>REVISION #         2       100% CONSTRUCTION D<br>REVISION #                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                       | ELECTRIC WATER COOL<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>SE<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>ELECTRIC MA<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>ELECTRIC A.<br>WATER HEATER A.<br>IDE EXPANSION TANK. F<br>VATER HEATER IS TO BI<br>IDE HEAT TRAPS ON WA<br>INNECTS BY PLUMBING<br>TABLE MANUFACTUREF<br>JULE DESCRIPTION<br>ING PRESSURE - 150 PS<br>IUM SYSTEM TEMPERAT<br>TABLE MANUFACTUREF<br>JULE<br>DULE<br>MANUFACTUREF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ER -<br>D 1/2"<br>ER -<br>D 1/2"<br>PONENTS FOR<br>PONENTS FOR<br>PON                                                                                                                                                                                                    | I.0         1.0         OR COMPLET         D PROVIDED N         D PROVIDED N         OR FIXTURE         ODEL         AB         C         ODEL         AB         C         ODEL         AB         C         F         ODEL         AB         C         R         ABOVE CEILI         R         NUMBER         DF DESIGN)         ROL ST-5         EG F.         S, WATTS         MODEL         NUMBER         MODEL         NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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R.       1 1/2"       ACTOR.       R.       2 G/</td> <td>1         1         RTER TURN CONTES. MOUTED UNDER ADEQUIREMENTS         QUIREMENTS         NK SIZE         ALLONS         HEAD         PROMENTS</td> <td>1 1/2" 1 1/2" CONVERTIB NT AT ADA DA SINK SUI S AND COOP OVERY @ F RISE LLONS LLONS LLONS LLONS AND SUPPO ACCEPT VOLU 0.9 GAL</td> <td>POWER<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>0RT - SEE DET<br/>0RT - SEE DET<br/>0RT - SEE DET</td> <td>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>S &amp; STOPS - MCG<br/>S &amp; STOPS</td> <td>MODEL # LZSG8<br/>MODEL # LZSG8WSLK<br/>WITH BOTTLE FILL<br/>STATION<br/>GUIRE #LFBV02-SS WITH<br/>EEE ARCHITECTURAL PLA<br/>IN ACCORDINGLY.<br/>EFFICIENCY<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>1,<br/>98%<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,</td> <td>INSTRATE CONFORMER CONFORMER CONFORMER CONFORMER CONFORMER CONFORMER CONFORMER CONFORMERCE CONFORMED CONTINUC CONTINUC CONTINUES CONTAINED CONTINUES CONFORMED CONTINUES CONFORMED CONTINUES CONFORMED CONTINUES CONFORMED CONTINUES CONFORMED CONTINUES CONFORMED CONFORMED CONFORMED CONTIONS (INVERTING CONTONS AND CONTINUES CONFORMED CONFO</td> <td>S: S: S:</td> <td>1, 4<br/>1, 2, 4<br/>1, 2, 4<br/>1, 2, 4<br/>52MN, NOT<br/>52MN, NOT</td> <td>AW</td> <td>AW<br/>CO2<br/>MAI<br/>MDV<br/>NO<br/>PD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>MUTHE CO<br/>STEE-DR<br/>ANIFOLDS<br/>COTES<br/>NERAL CO<br/>AREAS O<br/>FEMS OR I<br/>ED ON TH<br/>CESS TO<br/>OTES:<br/>RESPONS<br/>CAREAS O<br/>FEMS OR I<br/>ED ON TH<br/>CESS TO<br/>OTES:<br/>RESPONS<br/>CTALL W<br/>INATED A<br/>REMOVED<br/>CIRCUMS<br/>FECIFIED<br/>AT THE R<br/>DUITION.</td> <td>ACID WASTE PIPING<br/>CARBON DIOXIDE PIPING<br/>MEDICAL AIR INTAKE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>NITROUS OXIDE PIPING<br/>PUMP DISCHARGE<br/>WASTE ANESTHETIC GAS DISCHARGE<br/>MEDICAL GAS OUTLET<br/>(LETTER DESIGNATES GAS TYPE)<br/>ORDINATION DRAWINGS ARE APPROVED BY<br/>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br/>CONDITIONS IN THE CEILING OF SPACE BELOW<br/>TO MISS CONFLICTS WITH DUCTWORK AND<br/>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br/>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br/>ELL FITTINGS WITH BRAZED JOINTS ARE<br/>BEHIND BANKS OF PLUMBING FIXTURES.<br/>35 ARE FOR GUIDANCE ONLY AND<br/>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br/>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br/>XTEND TO EXISTING SYSTEMS IN ORDER TO<br/>ESE DRAWINGS. COORDINATE WITH OWNER'S<br/>ADJOINING SPACES AND TO MINIMIZE<br/>BLE FOR ALL PLUMBING RELATED DEMOLITION<br/>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br/>ID SCHEDULED WITH THE OWNER, PRIOR TO<br/>COMPLETELY INCLUDING ALL ASSOCIATED<br/>TANCES SHALL WORK BE LEFT ABANDONED IN<br/>REMOVE ALL UNUSED PIPING AND HANGERS<br/>EQUEST OF THE OWNER SHALL BE RETURNED</td> <td></td> <td>PGPRESSURE GAUGETHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br/>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATES&amp;YOS&amp;Y VALVET.S.OS&amp;Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFHVFIRE HOMP TEST HEADERFHVFIRE HOMP TEST HEADERFHVKITCHEN EQUIPMENT DESIGNATION; REFER TO<br/>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSWITILITY METERCONNECT TO EXISTINGDISCONNECT FROM EXISTING</td> <td>BOLIECT NCY DEMONSTRUCTION DI<br/>1 100% CONSTRUCTION DI</td> | 1 1/2"       1 1/2"       1 1/2"       1 1/2"       N, I.E., QUAI       T ACCESSO       IN EXPOSEI       IN EXPOSEI       FORAGE       OUME       GALLONS       GALLONS       GALLONS       GALLONS       GALLONS       GALLONS       ACTOR.       R.       1 1/2"       ACTOR.       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MOUTED UNDER ADEQUIREMENTS         QUIREMENTS         NK SIZE         ALLONS         HEAD         PROMENTS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 1/2" 1 1/2" CONVERTIB NT AT ADA DA SINK SUI S AND COOP OVERY @ F RISE LLONS LLONS LLONS LLONS AND SUPPO ACCEPT VOLU 0.9 GAL                                    | POWER<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>0RT - SEE DET<br>0RT - SEE DET<br>0RT - SEE DET                                 | LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>S & STOPS - MCG<br>S & STOPS                                       | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PLA<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>1,<br>98%<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  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CO<br>STEE-DR<br>ANIFOLDS<br>COTES<br>NERAL CO<br>AREAS O<br>FEMS OR I<br>ED ON TH<br>CESS TO<br>OTES:<br>RESPONS<br>CAREAS O<br>FEMS OR I<br>ED ON TH<br>CESS TO<br>OTES:<br>RESPONS<br>CTALL W<br>INATED A<br>REMOVED<br>CIRCUMS<br>FECIFIED<br>AT THE R<br>DUITION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON
THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>ELL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>35 ARE FOR GUIDANCE ONLY AND<br>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ESE DRAWINGS. COORDINATE WITH OWNER'S<br>ADJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>ID SCHEDULED WITH THE OWNER, PRIOR TO<br>COMPLETELY INCLUDING ALL ASSOCIATED<br>TANCES SHALL WORK BE LEFT ABANDONED IN<br>REMOVE ALL UNUSED PIPING AND HANGERS<br>EQUEST OF THE OWNER SHALL BE RETURNED                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGETHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATES&YOS&Y VALVET.S.OS&Y VALVE WITH TAMPER SWITCHFIRE DEPARTMENT SIAMESE CONNECTIONFHVFIRE HOMP TEST HEADERFHVFIRE HOMP TEST HEADERFHVKITCHEN EQUIPMENT DESIGNATION; REFER TO<br>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSWITILITY METERCONNECT TO EXISTINGDISCONNECT FROM EXISTING                                                  | BOLIECT NCY DEMONSTRUCTION DI<br>1 100% CONSTRUCTION DI                                                                                                                                                                                                          |
|                                       | ELECTRIC WATER COOL<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>VIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>IDE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>ELECTRIC M<br>M<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>ELECTRIC A.<br>WATER HEATER<br>IDE EXPANSION TANK. F<br>VATER HEATER IS TO BI<br>IDE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING OF<br>TABLE MANUFACTUREF<br>JSION TANK SCHEI<br>DESCRIPTION<br>IDE SYPANSION TANK. F<br>VATER HEATER IS TO BI<br>IDE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING OF<br>TABLE MANUFACTUREF<br>JSION TANK SCHEI<br>DESCRIPTION<br>IDE SYPANSION TANK<br>SING PRESSURE - 150 PS<br>IUM SYSTEM TEMPERAT<br>TABLE MANUFACTUREF<br>JULE<br>PTION<br>MANUFACTUREF<br>JULE<br>PTION<br>MANUFACTUREF<br>JREE<br>ATION<br>BELL & GOSS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ER -<br>D 1/2"<br>ER -<br>D 1/2"<br>PONENTS FOR<br>PONENTS FOR<br>PONENT AND<br>PONENTS FOR<br>PONENTS FOR<br>PONE                                                                                                                                                                                                    | I.0         1.0         1.0         I.0         OR COMPLET         DROVIDED V         IMICROBIAL         OR FIXTURE I         ODEL         AB         IF         ODEL         AB         C         R         IF NOT INTE         IF NOT INTE         IF NOT INTE         IF NOT INTE         R         ABOVE CEILI         R         ABOVE CEILI         R         ODEL         ABOVE CEILI         R         NUMBER         DF DESIGN)         R         MODEL         NUMBER         BF-12U/LW                                                                                                                                                                    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R.         LOW         RATE         GPM         GPM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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MOUT         QUIREMENTS         NK SIZE         ALLONS         HEAD         PO         HEAD         PO         HEAD         PO         HEAD         PO         HEAD         PO         I FEET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1 1/2"<br>1 1/2"<br>CONVERTIB<br>NT AT ADA<br>DA SINK SU<br>S AND COOP<br>OVERY @<br>F RISE<br>LLONS<br>LLONS<br>LLONS<br>AND SUPPO<br>ACCEPT<br>VOLU<br>0.9 GAL | POWER<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>0RT - SEE DET<br>0<br>0RT - SEE DET<br>0<br>120 VOLTAGE<br>120 VOLT,<br>1 PHASE | LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>S STOPS - MCG<br>S S | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EE ARCHITECTURAL PL<br>3.<br>IN ACCORDINGLY.<br>EFFICIENCY<br>98% 1,<br>98% 1,<br>98% 1,<br>98% 1,<br>98% 1,<br>SKACCESSORIES<br>ISTRUCTION, 24 HR TIME<br>RCUT SETTER VALVE,<br>KIT, PILOT LIGHT SWITCH                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | INTERPETIONS AND APPROVALS INSPECTIONS AND APPROVALS INSPECTIONS AND APPROVALS INSPECTIONS AND INSTALL AND DRAINING SERVICES WHERE INTIC CONDITIONS, INVERT ELEVATION AND TEST PIPING FOR PROPER UTILITIES. IMMEDIATELY REPORT ON DRAWINGS SITUR DUILDING FACILITIES. EXISTING SERVICES WHERE INTIC CONDITIONS, INSTALL OMESTIC AND TEST PIPING FOR PROPER UTILITIES. IMMEDIATELY REPORT ON DRAWINGS. INSTALL DOMESTIC WATER FROM THAT MUST BE ABADONED AN EXISTING WAS NOT DETERMINE S. EXTEND DOMESTIC WATER FROM CONDITIONS, INSTALL DOMESTIC EQUIPMENT REQUIRING SAME. AND OTHER ACCESSORIES REC I. PROVIDE PLUMBING FIXTURES, REQUIRED TRIM, CONTROLS AN 7. INSULATE HOT AND COLD WATE INCH THICK FIBERGLASS INSUL. 8. SEWERS TO BE PITCHED A MIN 1/8" PER FOOT FOR SIZES 4" AN 9. CHANGES IN DIRECTION AND BIDRAINAGE FITTINGS COMPATIBINS TALLED. 10. FIXTURES AND SANITARY DRAIM IN ACCORDANCE WITH CODE. A FACILITIES OR UP THROUGH RC IT. THIS PROJECTION AND BIDRAINAGE FITTINGS COMPATIBINS TALLED. 10. FIXTURES AND SANITARY DRAIM IN ACCORDANCE WITH CODE. A FACILITIES OR UP THROUGH RC IT. THIS PROJECTION AND BIDRAINAGE FITTINGS COMPATIBINS TALLED. 10. FIXTURES AND SANITARY DRAIM IN ACCORDANCE WITH CODE. A FACILITIES OR UP THROUGH RC IT. THIS PROJECTION AND BIDRAINAGE FITTINGS COMPATIBINS TALLED. 10. FIXTURES AND SANITARY DRAIM IN ACCORDANCE WITH CODE. A FACILITIES OR UP THROUGH RC IT. THIS PROJECTION AND BIDRAINAGE FITTINGS COMPATIBINS TALLED. 10. FIXTURES AND SANITARY DRAIM IN ACCORDANCE WITH CODE. A FACILITIES OR UP THROUGH RC IT. THIS PROJECTION AND BIDRAINAGE FITTINGS COMPATIBINS AND                                                                                                                                                                                                                                                                                                     | S:  CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS<br>TRAP AND AND QUARTER TURN STOP VALVE  IRE #9812C15DF, GRID DRAINS & TAILPIECES - MCGUIRE #1  CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA,<br>ONS, UTILITY COMPANY REQUIREMENTS, AND  FEES. ARRANGE FOR ALL REQUIRED TESTS,<br>TES, EQUIPMENT AND MATERIAL INDICATED AND SHOWN<br>MPLETE AND PLACE IN PROPER OPERATION.<br>D VENT PIPING AND SANITARY SEWER AND EXTEND TO<br>CONTRACTOR SHALL BE FIELD VERIFIED. CLEAN<br>OPERATION BEFORE FINAL CONNECTION FOR ALL<br>RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES<br>I BE MADE BETWEEN NEW AND EXISTING SYSTEMS AS<br>A COMPENSATION WILL BE GRANTED FOR NEW WORK<br>ID REPLACED BECAUSE LOCATION AND ELEVATION OF<br>D BEFORE STARTING NEW WORK.<br>D REVISING BUILDING FACILITIES AS INDICATED ON<br>CWATER DISTRIBUTION PIPING TO ALL FIXTURES AND<br>INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION,<br>DURED FOR COMPLETE INSTALLATION.<br>D RAINING BUILDING FACILITIES AS INDICATED ON<br>C WATER DISTRIBUTION PIPING TO ALL FIXTURES AND<br>INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION,<br>DIRED FOR COMPLETE INSTALLATION.<br>DRAINS AND EQUIPMENT WITH ALL PLUMBING CODE<br>ID ACCESSORIES.<br>RANCH CONNECTION FOR SIZES 3" AND UNDER, AND<br>D LARGER OR TO GRADES INDICATED ON DRAWINGS.<br>RANCH CONNECTIONS SHALL BE MADE WITH APPROVED<br>LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS<br>NS SHALL BE VENTED AS INDICATED ON DRAWINGS.<br>RANCH CONNECTIONS SHALL BE MADE WITH APPROVED<br>LE WITH THE PIPING SYSTEM MATERIAL IN WHICH IT IS<br>NS SHALL BE VENTED AS INDICATED ON DRAWINGS. AND<br>(CEILINGS SHALL BE INSULATED TO MEET PLENUM<br>I,NOTIFY THE ARCHITECT.<br>SCONNECT MEANS, STOPS OR VALVES FOR ISOLATION                                                                                                                                                                                                                                                                                  | 1, 4<br>1, 2, 4<br>1, 2, 4<br>1, 2, 4<br>52MN, NOT<br>52MN, NOT<br>52MN, NOT<br>52MN, NOT<br>52MN, NOT<br>52MN, NOT<br>53MN, NOT<br>53MN, NOT<br>53MN, NOT<br>54MN, NOT<br>55MN, NOT                                                                                                                                                                                                                                                                                                         | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>MUTHE CO<br>STESS<br>MAREAS O<br>TEMS OR I<br>ED ON TH<br>CESS TO<br>OTES:<br>RESPONS<br>CAREAS O<br>TEMS OR I<br>ED ON TH<br>CESS TO<br>OTES:<br>RESPONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>NITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>TO MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>LL FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF FLUMBING FIXTURES.<br>35 ARE FOR GUIDANCE ONLY AND<br>DNSTRUCTION WORK. THIS CONTRACTOR MAY<br>JTSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ESE DRAWINGS. COORDINATE WITH OWNER'S<br>IDJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>ID SCHEDULED WITH THE OWNER, PRIOR TO<br>COMPLETELY INCLUDING ALL ASSOCIATED<br>TANCES SHALL WORK BE LEFT ABANDONED IN<br>REMOVE ALL UNUSED PIPING AND HANGERS<br>EQUEST OF THE OWNER SHALL BE RETURNED<br>ING DEMOLITION TO MAINTAIN SYSTEM<br>O PREVENT DEAD LEGS. PATCH HOLES IN                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGETHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBER/WATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FCOCLEAN OUT, FLOORCOCLEAN OUT, EXPOSEDFDFLOOR DRAINRDFLOOR DRAINFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATEDS&YOS&Y VALVET.S.OS&Y VALVET.S.FIRE DEPARTMENT SIAMESE CONNECTIONFIRE PUMP TEST HEADERFHVFIRE HOSE VALVE CABINETINVERT ELEVATION B.F.F. (IN FEET)KITCHEN EQUIPMENT DESIGNATION; REFER TO<br>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSUTILITY METERCONNECT TO EXISTINGFIEXIBLE PIPE CONNECTION                                                     | ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR<br>ADDENDUAR |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>SE<br>VIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>DE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>ELECTRIC A<br>WATER HEATER A<br>ELECTRIC A<br>WATER HEATER A<br>ELECTRIC A<br>WATER HEATER A<br>ELECTRIC A<br>WATER HEATER A<br>IDE EXPANSION TANK. F<br>VATER HEATER IS TO BI<br>IDE HEAT TRAPS ON WA<br>NNECTS BY PLUMBING OF<br>PTABLE MANUFACTUREF<br>JSION TANK SCHEI<br>DESCRIPTION<br>DOMESTIC WATER<br>EXPANSION TANK<br>(ING PRESSURE - 150 PS<br>10M SYSTEM TEMPERAT<br>PTABLE MANUFACTUREF<br>JULE<br>DULE<br>DULE<br>ANNOFACTUREF<br>JULE<br>DULE<br>ANNOFACTUREF<br>JULE<br>ATION BELL & GOSS<br>OF DESCRIPTION<br>BELL & GOSS<br>OF DESCRIPTION<br>BELL & GOSS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ER & 1/2"  ER - 1/2"  ER - 1/2"  PONENTS FOR PONENTS F                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I.0         1.0         1.0         I.0         OR COMPLET         DPROVIDED V         INDROVE         INDRE         INDRE         INDRE         ABOVE         IF NOT INTE         ODEL         ABOVE CEILI         R         NUMBER         DF DESIGN)         R         BF-12U/LW                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>OVE 5th F<br>CEILING A<br>ROOM 500<br>30VE 5th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 700<br>NK SCHE<br>ING WITH<br>GRAL TO<br>CELECTR<br>RD WHITE<br>CELECTR<br>RD WHITE | 1.0         1.0         1.0         1.0         1.0         RE ROUGH-IN         A COMPLIANTING WRAP OCATION DIME         N       ST         ST         CATION DIME         FLR       20 0         OCATION       HEATER         ICAL CONTRE       ICAL CONTRE         ICAL CONTRE       ICAL CONTRE         ICOCATION       IE AT EACH         ICAL CONTRE       ICAL CONTRE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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RACTOR.         COMMERCION         IS DRAWIN         GALLONS         IS DRAWIN         ACTOR.         RACTOR.         IS DRAWIN         ACTOR.         IS DRAWIN         IS DRAWIN         ACTOR.         IS DRAWIN         IS DRAWIN <td>1         1         RTER TURN CONTES. MOUT         ORIES. MOUT         QUIREMENTS         QUIREMENTS         QUIREMENTS         QUIREMENTS         ALLONS         HEAD         PO         HEAD         PI         HEAD         PI         HEAD         PI         HEAD         PI         TEET</td> <td>1 1/2"<br/>1 1/2"<br/>CONVERTIB<br/>NT AT ADA<br/>OA SINK SU<br/>S AND COOP<br/>OVERY @<br/>F RISE<br/>LLONS<br/>LLONS<br/>LLONS<br/>AND SUPPO<br/>ACCEPT<br/>VOLU<br/>0.9 GAL</td> <td>POWER<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>5.0 KW -<br/>24.0 AMPS<br/>0RT - SEE DET<br/>ORT - SEE DET<br/>VOLTAGE</td> <td>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>LKAY<br/>S &amp; STOPS - MCG<br/>S &amp;</td> <td>MODEL # LZSG8<br/>MODEL # LZSG8WSLK<br/>WITH BOTTLE FILL<br/>STATION<br/>GUIRE #LFBV02-SS WITH<br/>EEE ARCHITECTURAL PLS<br/>IN
ACCORDINGLY.<br/>EFFICIENCY<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>98%<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,<br/>1,</td> <td>IN FOR ELEVATIONS.</td> <td>S:  CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, OND AND QUARTER TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  STATE #1000000000000000000000000000000000000</td> <td>1, 4<br/>1, 2, 4<br/>1, 2, 4<br/>1, 2, 4<br/>52MN, NOT<br/>52MN, NOT<br/>52MN, NOT<br/>52MN, NOT<br/>52MN, NOT<br/>52MN, NOT<br/>52MN, NOT<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MNN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53MN<br/>53M</td> <td>AW</td> <td>AW<br/>CO2<br/>MAI<br/>MDV<br/>NO<br/>PD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>WAGD<br/>MUTHE CO<br/>STESS<br/>TO<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E-ROUTEI<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E-ROUTEI<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E-ROUTEI<br/>MAY USE "<br/>INGS WIT<br/>S. TEE-DR<br/>ANIFOLDS<br/>E DRAWIN<br/>E DRAWIN<br/>E DRAWIN<br/>INATED A<br/>REMOVEE<br/>CIRCUMS<br/>FECIFIED<br/>AT THE R<br/>DE AWIN</td> <td>ACID WASTE PIPING<br/>CARBON DIOXIDE PIPING<br/>MEDICAL AIR INTAKE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>MEDICAL VACUUM DISCHARGE PIPING<br/>MITROUS OXIDE PIPING<br/>PUMP DISCHARGE<br/>WASTE ANESTHETIC GAS DISCHARGE<br/>MEDICAL GAS OUTLET<br/>(LETTER DESIGNATES GAS TYPE)<br/>ORDINATION DRAWINGS ARE APPROVED BY<br/>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br/>CONDITIONS IN THE CEILING OF SPACE BELOW<br/>OT MISS CONFLICTS WITH DUCTWORK AND<br/>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br/>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br/>BLI FITTINGS WITH BRAZED JOINTS ARE<br/>BEHIND BANKS OF PLUMBING FIXTURES.<br/>SS ARE FOR GUIDANCE ONLY AND<br/>INSTRUCTION WORK. THIS CONTRACTOR MAY<br/>ITSIDE OF THIS SCOPE WHERE NECESSARY TO<br/>XTEND TO EXISTING SYSTEMS IN ORDER TO<br/>ISE DRAWINGS. COORDINATE WITH OWNER'S<br/>IDJOINING SPACES AND TO MINIMIZE<br/>BLE FOR ALL PLUMBING RELATED DEMOLITION<br/>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br/>ISE DRAWINGS. COORDINATE WITH OWNER'S<br/>IDJOINING SPACES AND TO MINIMIZE<br/>BLE FOR ALL PLUMBING RELATED DEMOLITION<br/>REMOVE ALL UNUSED PIPING AND HANGERS<br/>EQUEST OF THE OWNER SHALL BE RETURNED<br/>ING DEMOLITION TO MAINTAIN SYSTEM<br/>O PREVENT DEAD LEGS. PATCH HOLES IN<br/>3 - COORDINATE WITH GC.</td> <td></td> <td>PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBERWATER HAMMER<br/>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINRDFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATEDS&amp;YOS&amp;Y VALVET.S.OS&amp;Y VALVEFIRE DEPARTMENT SIAMESE CONNECTIONFIRE PUMP TEST HEADERFHVFIRE HOSE VALVE CABINETFNVFIRE HOSE VALVE CABINETINVERT ELEVATION B.F.F. (IN FEET)KITCHEN EQUIPMENT DESIGNATION; REFER TO<br/>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSIDISCONNECT TO EXISTINGDISCONNECT FROM EXISTINGFLEXIBLE PIPE CONNECTION</td> <td>ADDENDING<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL<br/>ADDENDUAL</td> | 1         1         RTER TURN CONTES. MOUT         ORIES.
MOUT         QUIREMENTS         QUIREMENTS         QUIREMENTS         QUIREMENTS         ALLONS         HEAD         PO         HEAD         PI         HEAD         PI         HEAD         PI         HEAD         PI         TEET                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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RISE<br>LLONS<br>LLONS<br>LLONS<br>AND SUPPO<br>ACCEPT<br>VOLU<br>0.9 GAL | POWER<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>5.0 KW -<br>24.0 AMPS<br>0RT - SEE DET<br>ORT - SEE DET<br>VOLTAGE                                       | LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>LKAY<br>S & STOPS - MCG<br>S &                                     | MODEL # LZSG8<br>MODEL # LZSG8WSLK<br>WITH BOTTLE FILL<br>STATION<br>GUIRE #LFBV02-SS WITH<br>EEE ARCHITECTURAL PLS<br>IN
ACCORDINGLY.<br>EFFICIENCY<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>98%<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,<br>1,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | IN FOR ELEVATIONS.                                    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CODES (LOCAL, STATE, NATIONAL CODES, NFPA, OSHA, OND AND QUARTER TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  FURNISH WITH FILTER, BOTTLE FILL STATION, BRASS TRAP AND AND QUARTER TURN STOP VALVE  STATE #1000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. TEE-DR<br>ANIFOLDS<br>E DRAWIN<br>E DRAWIN<br>E DRAWIN<br>INATED A<br>REMOVEE<br>CIRCUMS<br>FECIFIED<br>AT THE R<br>DE AWIN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ACID WASTE PIPING<br>CARBON DIOXIDE PIPING<br>MEDICAL AIR INTAKE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MEDICAL VACUUM DISCHARGE PIPING<br>MITROUS OXIDE PIPING<br>PUMP DISCHARGE<br>WASTE ANESTHETIC GAS DISCHARGE<br>MEDICAL GAS OUTLET<br>(LETTER DESIGNATES GAS TYPE)<br>ORDINATION DRAWINGS ARE APPROVED BY<br>RY PIPE ROUTING WITH OWNER ON THIS FLOOR<br>CONDITIONS IN THE CEILING OF SPACE BELOW<br>OT MISS CONFLICTS WITH DUCTWORK AND<br>PRESS TYPE" HEAVY DUTY HIGH COMPRESSION<br>1 O-RING SEALS OR TRADITIONAL LEAD-FREE<br>BLI FITTINGS WITH BRAZED JOINTS ARE<br>BEHIND BANKS OF PLUMBING FIXTURES.<br>SS ARE FOR GUIDANCE ONLY AND<br>INSTRUCTION WORK. THIS CONTRACTOR MAY<br>ITSIDE OF THIS SCOPE WHERE NECESSARY TO<br>XTEND TO EXISTING SYSTEMS IN ORDER TO<br>ISE DRAWINGS. COORDINATE WITH OWNER'S<br>IDJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>ALLS, PARTITIONS, CEILINGS, ETC. THAT ARE TO<br>ISE DRAWINGS. COORDINATE WITH OWNER'S<br>IDJOINING SPACES AND TO MINIMIZE<br>BLE FOR ALL PLUMBING RELATED DEMOLITION<br>REMOVE ALL UNUSED PIPING AND HANGERS<br>EQUEST OF THE OWNER SHALL BE RETURNED<br>ING DEMOLITION TO MAINTAIN SYSTEM<br>O PREVENT DEAD LEGS. PATCH HOLES IN<br>3 - COORDINATE WITH GC.                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PGPRESSURE GAUGEITHERMOMETERAQUASTATHOT WATER RECIRC. PUMPINTERIOR HOSE BIBB OR HOSE END DRAIN VALVEEXTERNAL WALL HYDRANTDOMESTIC SHOCK ABSORBERWATER HAMMER<br>ARRESTER; TEXT DENOTES SIZE (PDI: A ~ F)FC0CLEAN OUT, FLOORC0CLEAN OUT, EXPOSEDFDFLOOR DRAINRDROOF DRAINRDFLOOR DRAIN WITH TRAP PRIMERFLOOR SINK/RECEPTOR WITH HALF GRATEDS&YOS&Y VALVET.S.OS&Y VALVEFIRE DEPARTMENT SIAMESE CONNECTIONFIRE PUMP TEST HEADERFHVFIRE HOSE VALVE CABINETFNVFIRE HOSE VALVE CABINETINVERT ELEVATION B.F.F. (IN FEET)KITCHEN EQUIPMENT DESIGNATION; REFER TO<br>KITCHEN EQUIPMENT DRAWINGS FOR DETAILSIDISCONNECT TO EXISTINGDISCONNECT FROM EXISTINGFLEXIBLE PIPE CONNECTION               | ADDENDING<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL<br>ADDENDUAL |
|                                       | ELECTRIC WATER COO<br>ADA HEIGHT MOUNTI<br>WITH BOTTLE FILL STA<br>S<br>TIDE ALL REQUIRED CON<br>QUIRED COMPONENTS A<br>JRES SHALL BE ADA COI<br>IDE MCGUIRE PRO-WRAF<br>R TO ARCHITECTURAL I<br>ELECTRIC A.<br>WATER HEATER<br>DESCRIPTION I<br>(E<br>ELECTRIC A.<br>WATER HEATER A.<br>WATER HEATER A.<br>UDE EXPANSION TANK. F<br>VATER HEATER A.<br>UDE EXPANSION TANK. F<br>VATER HEATER IS TO BI<br>IDE HEAT TRAPS ON WA<br>INNECTS BY PLUMBING<br>PTABLE MANUFACTUREF<br>JULE<br>JUN SYSTEM TEMPERAT<br>PTABLE MANUFACTUREF<br>JULE<br>DESCRIPTION<br>(ING PRESSURE - 150 PS<br>UM SYSTEM TEMPERAT<br>PTABLE MANUFACTUREF<br>JULE<br>DULE<br>DESCRIPTION<br>BELL & GOSS<br>(P<br>DESCRIPTION<br>CALL & CONSTRUCTION<br>(BASIS OF DE<br>CONSTRUCTION<br>(BASIS OF DE<br>CONSTRUCTION<br>( | ER & 1/2" ER - 1/2" ER - 1/2" PONENTS FOR SPECIFIE IPLIANT AND WHITE ANT RAWINGS FOR TALL AND RAWING ASIS OF DES TALL AND                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ACTURER &<br>DOBEL AB<br>CODEL AB<br>CO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1/2"<br>1/2"<br>1/2"<br>TE FIXTUF<br>WITH ADA<br>INSULATI<br>PLAN LOO<br>OVE 5th F<br>CEILING A<br>ROOM 500<br>30VE 5th F<br>CEILING A<br>ROOM 625<br>30VE 7th F<br>CEILING A<br>ROOM 700<br>NK SCHE<br>ING WITH<br>CELECTR<br>RD WHITE<br>LOCAT                                                                                                                                                                                                                                                                                                                  
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VENT PIPING AND SANITARY SEWER AND EXTEND TO CONTRACTOR SHALL MAKE THE TIE-INS TO THE DICATED ON DRAWINGS. EXISTING LINE SIZES, INS, AND CAPACITIES SHALL BE FILED VERIFIED. CLEAN OPERATION BEFORE FINAL CONNECTION FOR ALL RT TO THE ARCHITECT OR ENGINEER ANY INSTANCES I BE MADE BETWEEN NEW AND EXISTING SYSTEMS AS I COMPENSATION WILL BE GRANTED FOR NEW WORK ID REPLACED BECAUSE LOCATION AND ELEVATION OF ID BEFORE STARTING NEW WORK. IM EXISTING BUILDING FACILITIES AS INDICATED ON CWATER DISTRIBUTION PIPING TO ALL FIXTURES AND INCLUDE ALL FITTINGS, VALVES, HANGERS, INSULATION, DURED FOR COMPLETE INSTALLATION. DTAINS AND EQUIPMENT WITH ALL PLUMBING CODE ID ACCESSORIES. IS PIPING PER ASHRAE GUIDELINES - MINIMUM OF 1 ATION WITH ALL SERVICE JACKET. MUM OF 14^A PER FOOT FOR SIZES 3^a AND UNDER, AND D LARGER OR TO GRADES INDICATED ON DRAWINGS. 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THE PIP<br>ROUTING<br>ALL EXIS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AW                                                                  | AW<br>CO2<br>MAI<br>MDV<br>NO<br>PD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>WAGD<br>MUTHE CO<br>SPANITA<br>JNKNOWN<br>E-ROUTEI<br>MAY USE "<br>INGS WIT<br>S. 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ELECTF	ELECTRIC WATER HEATER SCHEDULE								
MARK DESCRIPTION MANUFACTU MARK DESCRIPTION MODEL NU (BASIS OF D		MANUFACTURER & MODEL NUMBER (BASIS OF DESIGN)	LOCATION	STORAGE VOLUME	GPH RECOVERY @ 90 DEG F RISE	POWER	VOLTAGE	EFFICIENCY	NOTES
WH-1	ELECTRIC WATER HEATER	A. O. SMITH MODEL #DEL-20	ABOVE 5th FLR CEILING AT ROOM 506	20 GALLONS	23 GALLONS	5.0 KW - 24.0 AMPS	208 VOLT, 1 PHASE	98%	1, 2, 3, 4, 5
WH-2	ELECTRIC WATER HEATER	A. O. SMITH MODEL #DEL-20	ABOVE 6th FLR CEILING AT ROOM 625C	20 GALLONS	23 GALLONS	5.0 KW - 24.0 AMPS	208 VOLT, 1 PHASE	98%	1, 2, 3, 4, 5
WH-3	ELECTRIC WATER HEATER	A. O. SMITH MODEL #DEL-20	ABOVE 7th FLR CEILING AT ROOM 706	20 GALLONS	23 GALLONS	5.0 KW - 24.0 AMPS	208 VOLT, 1 PHASE	98%	1, 2, 3, 4, 5

EXPANSION TANK SCHEDULE						
MARK	DESCRIPTION	MANUFACTURER & MODEL NUMBER (BASIS OF DESIGN)	LOCATION	TANK SIZE	ACCEPTANCE VOLUME	NOTES
ET-1	DOMESTIC WATER EXPANSION TANK	AMTROL ST-5	ONE AT EACH WATER HEATER WH-1, 2, 3	2 GALLONS	0.9 GALLONS	1, 2

PUMP	IP SCHEDULE										
MARK	C DESCRIPTION MANUFACTUREF MODEL NUMBE (BASIS OF DESIC		R & MODEL R NUMBER GN)	LOCATION	FLOW RATE	HEAD PRESSURE	POWER	VOLTAGE	NOTES	S/ACCESSORIES	
CP-1	120 DEGREE P-1 CIRCULATIO PUMP		BELL & GOSSE	TT NBF-12U/LW	AT 6th FLR WATER HEATER	2 GPM	11 FEET	55 WATTS	120 VOLT, 1 PHASE	BRONZE CON CLOCK, CIR TC-1 TIMER K	STRUCTION, 24 HR TIME CUIT SETTER VALVE, IT, PILOT LIGHT SWITCH
								-	-		
	MIXING VALVE SCHEDULE										
	MARK D		ESCRIPTION	LOCATION	MANUFACTURE	ER & MODE	EL NUMBER		OPTIONS/NC	DTES	LOAD RANGE
	MV-1 120 DEG TO 105 DEG PUBLIC LAVATORI		TO 105 DEG FOR C LAVATORIES	UNDER HAND SINKS	"BRADLE" MODE	Y VERNAT L # S59-40	HERM 08"	ADJUSTAE STRAINER FINISH, MC IN ACCESS	BLE SET POINT, S ON SUPPLY I DUNTING BRAC S PANEL	INTEGRAL NLET, BRONZE KET, PROVIDED	2.5 GPM AT 5 PSI DROP

- 15. FLUSH, VENT AND SANITIZE ALL WATER PIPING WITH EQUIVALENT SOLUTION OF 50 PPM OF AVAILABLE CHLORINE UPON COMPLETION. COMPLY WITH PLUMBING CODE REQUIREMENTS FOR SANITIZATION.
   16. COORDINATE FINAL PIPE ROUTING WITH ARCHITECT AND OTHER TRADES.
   17. NO WORK SHALL BE INSTALLED UNTIL ALL TRADES HAVE SIGNED OFF ON THE

- WHERE PRACTICAL. FIELD VERIFY BEST ROUTING FOR NEW PIPING INSTALLATIONS AND MAKE NECESSARY ADJUSTMENTS IN THE FIELD.

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P-001R





- PLUMBING KEY NOTES: (#)
- 1. EXISTING LOW FLOW 1.28 GPF WATER CLOSET WITH MANUAL OPERATED 1.28 GPF WATER CLOSET FLUSH VALVE RECENTLY INSTALLED SHALL REMAIN IN THIS LOCATION AND CONTINUE IN USE. REPLACE THE MANUAL FLUSH VALVE WITH NEW BATTERY OPERATED UNIT LISTED FOR WC-1 IN THE FIXTURE SCHEDULE.
- 2. EXISTING RECENTLY INSTALLED LOW FLOW 0.5 GPF BATTERY OPERATED PISTON STYLE URINAL FLUSH VALVE SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- 3. PROVIDE NEW ELECTRIC WATER HEATER ABOVE CEILING WITH SUPPORT PLATFORM. EXTEND 3/4" COLD AND HOT WATER TO HEATER CONNECTION PORTS. PROVIDE WITH EXPANSION TANK ON COLD WATER SUPPLY LINE. EXTEND HEATER DRAIN AND T&P VALVE DRAIN TO SAFE WASTE RECESSED IN WALL BOX. SEE DETAIL.



4. PROVIDE 3/4" WATER METER WITH REMOTE READER TO COMPLY WITH LEED REQUIREMENTS OF TENANT WATER METERING. 6 MOUNT METER ABOVE CEILING AND REMOTE READER IN LOCATION SELECTED BY ARCHITECT ON SITE. METER SHALL BE EQUAL TO A NEPTUNE AQUITY MODEL 3/4" X 5/8" WITH E-CODE REAREB

- 5. EXTEND DISHWASHER DRAIN HOSE TO UNDERSIDE OF COUNTER TOP AND ANCHOR PRIOR TO EXTENDING AND CONNECTING TO SINK TAIL PIECE WITH SIDE INLET CONNECTION.
- 6. PROVIDE RECESSED WALL BOX WITH ICE MAKER CONNECTION SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR.
- 7. PROVIDE CHROME PLATED COFFEE MAKER SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR IN BASE CABINET UNDER COFFEE MAKER. EXTEND BRAIDED STAINLESS STEEL FLEX HOSE FROM SHUT OFF VALVE TO COFFEE MAKER.
- 8. PROVIDE DOUBLE BOWL STAINLESS STEEL UNDER COUNTER MOUNTED KITCHEN SINK WITH CHROME PLATED SINGLE LEVER FAUCET WITH PULL-OUT SPRAY HOSE TYPE SPOUT. INCLUDE TAIL PIECES WITH SIDE INLET FOR DISHWASHER CONNECTION AT EACH BOWL.
- 9. EXISTING RECENTLY INSTALLED ELECTRIC WATER COOLER AT STANDARD MOUNTING HEIGHT SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- 10. EXISTING RECENTLY INSTALLED ELECTRIC WATER COOLER MOUNTED AT ADA ACCESSIBILITY HEIGHT SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- 11. EXISTING COUNTER TOP MOUNTED LAVATORY SINK AND FAUCET SHALL REMAIN AND CONTINUE IN USE.
- 12. EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- 13. DISCONNECT AND REMOVE EXISTING WATER CLOSET FLOOR FLANGE AT THIS APPROXIMATE LOCATION - FIELD VERIFY EXACT LOCATION. REMOVE BRANCH LINE BACK TO MAIN AND CAP.

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DAVID C DAVID C DAVID C DAVID C	TERED SIONAL C. PRICE
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CLIENT: by Housing of the Cit 200 Ross	<b>1g Authority</b> <b>y of Pittsburgh</b> St, Pittsburgh, PA 15219 (412) 456-5000 hacp.org
HACP - Housing Authority of the City of Pittsburgh	412 Boulevard of the Allies, Pittsburgh, PA 15219
6     ADDENDUM       6     ADDENDUM       5     100% CONSTRUCTION REVISION :       4     100% CONSTRUCTION REVISION :       3     100% CONSTRUCTION REVISION :       2     100% CONSTRUCTION REVISION :       1     100% DESIGN DEVE # DESCRIPTION PROJECT NO:       PROJECT NO:     DRAWN	1#6     02/10/2021       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0       1     0    0
SHEET NAME: 5TH FLOOR PLUMBING PL SHEET NO: P-202	AN 2R





## PLUMBING KEY NOTES: (#)

- 1. DISCONNECT AND REMOVE EXISTING 1.6 GPF MANUAL FLUSH VALVE AND PREP FOR NEW LOW FLOW 1.28 GPF PISTON STYLE WATER CLOSET FLUSH VALVE. PROVIDE NEW PISTON STYLE BATTERY POWERED SENSOR OPERATED 1.28 GPF WATER CLOSET FLUSH VALVE AND CONNECT TO EXISTING WATER CLOSET AND SUPPLY PIPING - FIELD ADJUST AS NEEDED. ALSO PROVIDE NEW TOILET SEAT.
- 2. DISCONNECT AND REMOVE EXISTING 1.0 GPF MANUAL URINAL FLUSH VALVE AND PREP FOR NEW LOW FLOW 0.5 GPF BATTERY OPERATED PISTON STYLE URINAL FLUSH VALVE. PROVIDE NEW PISTON STYLE 0.5 GPF BATTERY POWERED SENSOR OPERATED URINAL FLUSH VALVE AND CONNECT TO EXISTING URINAL AND SUPPLY PIPING - FIELD ADJUST AS NEEDED.
- 3. PROVIDE NEW ELECTRIC WATER HEATER ABOVE CEILING WITH SUPPORT PLATFORM. EXTEND 3/4" COLD AND HOT WATER TO HEATER CONNECTION PORTS. PROVIDE WITH EXPANSION TANK ON COLD WATER SUPPLY LINE. EXTEND HEATER DRAIN AND T&P VALVE DRAIN TO SAFE WASTE RECESSED IN WALL BOX. SEE DETAIL.

4. PROVIDE 3/4" WATER METER WITH REMOTE READER TO COMPLY WITH
 6 LEED REQUIREMENTS OF TENANT WATER METERING. MOUNT METER
 6 ABOVE CEILING AND REMOTE READER IN LOCATION SELECTED BY
 6 ARCHITECT ON SITE. METER SHALL BE EQUAL TO A NEPTUNE AQUITY
 MODEL 3/4" X 5/8" WITH E-CODE READER.

- 5. EXTEND DISHWASHER DRAIN HOSE TO UNDERSIDE OF COUNTER TOP AND ANCHOR PRIOR TO EXTENDING AND CONNECTING TO SINK TAIL PIECE WITH SIDE INLET CONNECTION.
- 6. PROVIDE RECESSED WALL BOX WITH ICE MAKER CONNECTION SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR.
- 7. PROVIDE CHROME PLATED COFFEE MAKER SHUT OFF VALVE WITH INTEGRAL SHOCK ARRESTOR IN BASE CABINET UNDER COFFEE MAKER. EXTEND BRAIDED STAINLESS STEEL FLEX HOSE FROM SHUT OFF VALVE TO COFFEE MAKER.
- 8. PROVIDE DOUBLE BOWL STAINLESS STEEL UNDER COUNTER MOUNTED KITCHEN SINK WITH CHROME PLATED SINGLE LEVER FAUCET WITH PULL-OUT SPRAY HOSE TYPE SPOUT. INCLUDE TAIL PIECES WITH SIDE INLET FOR DISHWASHER CONNECTION AT EACH BOWL.

9. PROVIDE NEW ELECTRIC WATER COOLER EWC-1 AT STANDARD MOUNTING HEIGHT COMPLETE WITH NEW TRAP AND SUPPLY VALVE. ADJUST EXISTING ROUGH-INS AS NEEDED FOR NEW FIXTURE. WATER COOLER SHALL BE EQUAL TO AN ELKAY MODEL #LZSG8 WITH LIGHT GREY GRANITE VINYL CLAD FINISH TO MATCH UNITS INSTALLED ON OTHER FLOORS OF THIS BUILDING.

10. PROVIDE NEW ELECTRIC WATER COOLER EWC-2 MOUNTED AT ADA ACCESSIBILITY HEIGHT COMPLETE WITH BOTTLE FILL STATION, TRAP AND SUPPLY VALVE. ADJUST EXISTING ROUGH-INS AS NEEDED FOR NEW FIXTURE. WATER COOLER SHALL BE EQUAL TO AN ELKAY MODEL #LZSG8WSLK WITH BOTTLE FILL STATION WITH LIGHT GREY GRANITE VINYL CLAD FINISH TO MATCH UNITS INSTALLED ON OTHER FLOORS OF THIS BUILDING.

11. EXISTING COUNTER TOP MOUNTED LAVATORY SINK AND FAUCET SHALL REMAIN AND CONTINUE IN USE.

- 12. EXISTING JANITOR MOP SINK SHALL REMAIN AT THIS LOCATION AND CONTINUE IN USE.
- 13. APPROXIMATE LOCATION OF NEW SANITARY AND VENT PIPING. FIELD COORDINATE WITH OTHER DISCIPLINES FOR BEST LOCATION OF THIS PIPING ON BOTH FLOORS AND MAKE ADJUSTMENTS AS NEEDED.

CONSULTANT: Allen & Shariff DESIGN I BUILD I MANAGE Allen & Shariff Engineering, LLC 700 River Avenue, Suite 600 Pittsburgh, PA 15212 Tel: 412.322.9280
CLIENT: Housing Authority of the City of Pittsburgh

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6	ADDENDUM #6	02/10/2021			
5	100% CONSTRUCTION DOCUMENTS REVISION #3	09/03/2020			
4	100% CONSTRUCTION DOCUMENTS REVISION #2	07/30/2020			
3		07/09/2020			
2	100% CONSTRUCTION DOCUMENTS	05/22/2020			
1 #	100% DESIGN DEVELOPMENT DESCRIPTION	01/23/2020 DATE			
	PROJECT ISSUANCE				
PRO 19	DJECT NO: DRAWN BY: RE1 00427.00 TJT	VIEWED BY:			
SHEE 6 PI SHEE	SHEET NAME: 6TH FLOOR PLUMBING PLAN SHEET NO:				
	P-203R				



# 1 7TH FLOOR PLUMBING PLAN P-204 1/8" = 1'-0"



# MECHANICAL SPECIFICATIONS

SECTION 019113 - GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

### 1.01 DESCRIPTION

- A. COMMISSIONING IS A SYSTEMATIC PROCESS OF ENSURING THAT THE BUILDING SYSTEMS PERFORM INTERACTIVELY ACCORDING TO THE DESIGN INTENT AND THE OWNER'S OPERATIONAL NEEDS. THIS IS ACHIEVED BY BEGINNING IN THE DESIGN PHASE AND DOCUMENTING DESIGN INTENT AND CONTINUING THROUGH CONSTRUCTION, ACCEPTANCE AND THE WARRANTY PERIOD WITH ACTUAL VERIFICATION OF PERFORMANCE. THE COMMISSIONING PROCESS SHALL ENCOMPASS AND COORDINATE THE TRADITIONALLY SEPARATE FUNCTIONS OF SYSTEM DOCUMENTATION, EQUIPMENT START-UP, CONTROL SYSTEMS CALIBRATION, TESTING AND BALANCING, PERFORMANCE TESTING AND TRAINING.
- B. COMMISSIONING DURING THE CONSTRUCTION PHASE IS INTENDED TO ACHIEVE THE FOLLOWING SPECIFIC OBJECTIVES ACCORDING TO THE CONTRACT DOCUMENTS: 1. VERIFY THAT APPLICABLE EQUIPMENT AND SYSTEMS ARE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND TO
- INDUSTRY ACCEPTED MINIMUM STANDARDS AND THAT THEY RECEIVE ADEQUATE OPERATIONAL CHECKOUT BY INSTALLING CONTRACTORS.
- 2. VERIFY AND DOCUMENT PROPER PERFORMANCE OF EQUIPMENT AND SYSTEMS THROUGH DEVELOPMENT AND IMPLEMENTATION OF SYSTEM TEST PROCEDURES AND EXECUTION.
- 3. VERIFY THAT OWNER'S OPERATING PERSONNEL ARE ADEQUATELY TRAINED.
- 4. DEVELOP AND IMPLEMENT A COMMISSIONING PLAN.
- MAINTAIN AN ISSUES AND BENEFITS LOG THROUGHOUT THE COMMISSIONING PROCESS.
- DOCUMENT ALL FINDINGS AND RECOMMENDATIONS AND REPORT DIRECTLY TO THE OWNER THROUGHOUT THE PROCESS. 7. PREPARE AND MAINTAIN A CURRENT FACILITIES REQUIREMENTS AND OPERATIONS PLAN WHICH CONTAINS INFORMATION NECESSARY TO OPERATE BUILDING EFFICIENTLY IN ACCORDANCE WITH LEED V4.1 FUNDAMENTAL COMMISSIONING REQUIREMENTS.
- C. DEDUCT ALTERNATE: ELIMINATE ENHANCED COMMISSIONING IN ACCORDANCE WITH LEED V4.1 ENHANCED COMMISSIONING AND
- VERIFICATION FROM SCOPE OF WORK. ENHANCED COMMISSIONING CONSISTS OF MEETING ALL REQUIREMENTS DOCUMENTED IN LEED V4.1 FUNDAMENTAL COMMISSIONING REQUIREMENTS AND THE FOLLOWING: 1. REVIEW CONTRACTOR SUBMITTALS.
- 2. INCLUDE SYSTEMS MANUAL REQUIREMENTS IN CONSTRUCTION DOCUMENTS.
- 3. INCLUDE OPERATOR AND OCCUPANT TRAINING REQUIREMENTS IN CONSTRUCTION DOCUMENTS
- 4. VERIFY SYSTEMS MANUAL UPDATES FOR DELIVERY. 5. VERIFY OPERATOR AND OCCUPANT TRAINING DELIVERY AND EFFECTIVENESS.
- 6. VERIFY SEASONAL TESTING.
- 7. REVIEW BUILDING OPERATIONS 10 MONTHS AFTER SUBSTANTIAL COMPLETION.
- 8. DEVELOP AN ONGOING COMMISSIONING PLAN.
- D. THE COMMISSIONING PROCESS DOES NOT TAKE AWAY FROM OR REDUCE THE RESPONSIBILITY OF THE SYSTEM DESIGNERS OR INSTALLING CONTRACTORS TO PROVIDE A FINISHED AND FULLY FUNCTIONING PRODUCT.

#### 1.02 RESPONSIBILITIES

#### A. ARCHITECT & ENGINEER

- 1. RESOLVE OPERATIONAL AND DESIGN ISSUES TO ACHIEVE PROPERLY FUNCTIONING SYSTEMS.
- 2. MAY ATTEND CX SCOPING MEETING AND OTHER MEETINGS NECESSARY TO FACILITATE THE CX PROCESS.
- 3. PROVIDE THE BOD TO THE CXA FOR REVIEW. THIS DOCUMENT SHOULD BE AVAILABLE EARLY IN THE DESIGN STAGE AND FORWARDED TO THE CXA WITHIN 2 WEEKS OF THE FINAL CONSTRUCTION DOCUMENT ISSUE.
- 4. PROVIDE O&M MANUALS TO THE CXA FOR REVIEW AND INCLUSION OF THE SYSTEMS MANUAL (ENHANCED ONLY).

#### B. OWNER

- 1. MAY ATTEND CX SCOPING MEETING AND OTHER MEETINGS NECESSARY TO FACILITATE THE CX PROCESS.
- 2. ARRANGE FOR FACILITY OPERATING AND MAINTENANCE PERSONNEL TO ATTEND MEETINGS NECESSARY TO FACILITATE THE CX PROCESS. 3. PROVIDE THE OPR DOCUMENTATION TO THE CXA FOR USE IN DEVELOPING THE CX PLAN, ASSISTING IN SUBMITTAL REVIEW, PRE FUNCTIONAL TEST SCRIPTS CREATION, FUNCTIONAL TEST SCRIPTS CREATION AND LEED DOCUMENT SUBMISSION. THIS DOCUMENT SHOULD BE AVAILABLE EARLY IN THE DESIGN STAGE AND FORWARDED TO THE CXA WITHIN 2 WEEKS OF CXA CONTRACT APPROVAL.
- C. MECHANICAL: REFER TO DIVISION 23

## D. ELECTRICAL: REFER TO DIVISION 26

### 1.03 DEFINITIONS

- A. BOD: BASIS OF DESIGN: A DOCUMENT THAT RECORDS CONCEPTS, CALCULATIONS, DECISION AND PRODUCT SELECTIONS USED TO MEET THE OPR AND TO SATISFY APPLICABLE REGULATORY REQUIREMENTS. STANDARDS AND GUIDELINES. THE DOCUMENT INCLUDES BOTH NARRATIVE DESCRIPTIONS AND LISTS OF INDIVIDUAL ITEMS THAT SUPPORT THE DESIGN PROCESS.
- B. COMMISSIONING PLAN: A DOCUMENT THAT OUTLINES THE ORGANIZATION, SCHEDULE, ALLOCATION OF RESOURCES AND DOCUMENTATION REQUIREMENTS OF THE COMMISSIONING PROCESS.
- C. CXA: COMMISSIONING AUTHORITY
- D. OPR: OWNER'S PROJECT REQUIREMENTS: A DOCUMENT THAT DETAILS THE FUNCTIONAL REQUIREMENTS OF A PROJECT AND THE EXPECTATIONS OF HOW IT WILL BE USED AND OPERATED. THESE INCLUDE PROJECT GOALS, MEASURABLE PERFORMANCE CRITERIA, COST CONSIDERATIONS, BENCHMARKS, SUCCESS CRITERIA AND SUPPORTING INFORMATION. THE OPR WILL FORM THE BASIS FROM WHICH ALL DESIGN. CONSTRUCTION, ACCEPTANCE AND OPERATIONAL DECISIONS ARE MADE.
- E. SYSTEMS, SUBSYSTEMS, EQUIPMENT AND COMPONENTS: WHERE THESE TERMS ARE USED TOGETHER OR SEPARATELY, THEY SHALL MEAN "AS-BUILT" SYSTEMS, SUBSYSTEMS, EQUIPMENT AND COMPONENTS.

#### 1.04 RELATED WORK

- DIVISION 23 "MECHANICAL SYSTEMS COMMISSIONING"
- DIVISION 26 "ELECTRICAL SYSTEMS COMMISSIONING"
- 3. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER DIVISION 1 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
- 4. OPR AND BOD DOCUMENTATION ARE INCLUDED BY REFERENCE FOR INFORMATION ONLY.
- 5. PRELIMINARY CX PLAN FOUND IN THIS SECTION

### 1.05 COMMISSIONING TEAM

- A. MEMBERS APPOINTED BY CONTRACTOR: INDIVIDUALS, EACH HAVING THE AUTHORITY TO ACT ON BEHALF OF THE ENTITY HE OR SHE REPRESENTS, EXPLICITLY ORGANIZED TO IMPLEMENT THE COMMISSIONING PROCESS THROUGH COORDINATED ACTION. THE COMMISSIONING TEAM SHALL CONSIST OF, BUT NOT BE LIMITED TO, REPRESENTATIVES OF CONTRACTOR, INCLUDING PROJECT SUPERINTENDENT AND SUBCONTRACTORS, INSTALLERS, SUPPLIERS AND SPECIALISTS DEEMED APPROPRIATE BY THE CXA.
- B. MEMBERS APPOINTED BY OWNER:
- 1. CXA: THE DESIGNATED PERSON, COMPANY, OR ENTITY THAT PLANS, SCHEDULES AND COORDINATES THE COMMISSIONING TEAM TO
- IMPLEMENT THE COMMISSIONING PROCESS. OWNER WILL ENGAGE THE CXA UNDER A SEPARATE CONTRACT. 2. REPRESENTATIVES OF THE FACILITY USER AND OPERATION AND MAINTENANCE PERSONNEL.
- 3. ARCHITECT AND ENGINEERING DESIGN PROFESSIONALS.

#### END OF SECTION 019113

#### MECHANICAL GENERAL CONDITIONS (230010)

- A. GENERAL
- 1. CONFORM TO ALL GENERAL AND SPECIAL CONDITIONS OF CONTRACT AS SPECIFIED BY ARCHITECT AND/OR OWNER.
- 2. PRODUCTS AND INSTALLATION SHALL COMPLY WITH ALL APPLICABLE LAWS, CODES, GOVERNMENT REGULATIONS, UTILITY COMPANY REQUIREMENTS, ETC. OF ALL AUTHORITIES HAVING JURISDICTION. WORK SHALL COMPLY WITH THE FOLLOWING CODES, STANDARDS AND ORGANIZATIONS: INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL PLUMBING CODE (IPC), INTERNATIONAL ENERGY CODE, NATIONAL ELECTRIC CODE, NFPA, UNDERWRITERS LABORATORY (UL), IRI, FM, SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" GUIDELINES, DETAILS, & MODEL SPECIFICATION, ASHRAE. WHERE CONFLICTS EXIST BETWEEN CODES, STANDARDS OR THIS SPECIFICATION THE HIGHER REQUIREMENT SHALL APPLY. DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY THE ABOVE AUTHORITIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. OBTAIN PERMITS AND PAY ALL FEES. ARRANGE FOR ALL REQUIRED

- B. DEMOLITION

- E. WARRANTY

INSPECTIONS AND APPROVALS. CONFIRM ALL UTILITY COMPANY REQUIREMENTS AND CONNECTION POINTS IN FIELD, PRIOR TO STARTING WORK

3. ALL SPECIFICATIONS AND DRAWINGS, I.E., ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL ARE COMPLIMENTARY AND MUST BE USED IN COMBINATION TO OBTAIN COMPLETE CONSTRUCTION INFORMATION. ANY INFORMATION CONFLICTS WITHIN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION. DRAWINGS ARE DIAGRAMMATIC. CONFIRM ALL DIMENSIONS BY FIELD MEASUREMENT. THE EXACT LOCATIONS FOR APPARATUS, FIXTURES, EQUIPMENT AND PIPING WHICH IS NOT COVERED BY DRAWINGS, SHALL BE OBTAINED FROM THE ARCHITECT OR HIS REPRESENTATIVE IN THE FIELD, AND THE WORK SHALL BE LAID OUT ACCORDINGLY.

4. VISIT SITE, CHECK FACILITIES AND CONDITIONS MAKE ALL NECESSARY OBSERVATIONS, MEASUREMENTS, NOTE CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED, AND TAKE ALL ITEMS INTO CONSIDERATION IN BID.

5. EACH CONTRACTOR SHALL PROVIDE FOR HIS OWN CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF ALL RUBBISH DAILY. CONTRACTOR SHALL PROTECT THEIR WORK AND EXISTING OR ADJACENT PROPERTY AGAINST WEATHER, TO MAINTAIN THEIR WORK, MATERIALS, APPARATUS AND FIXTURES FREE FROM INJURY OR DAMAGE. ANY WORK DAMAGED BY FAILURE TO PROVIDE PROTECTION REQUIRED. SHALL BE REMOVED AND REPLACED WITH NEW WORK AT THE CONTRACTOR'S EXPENSE.

6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCES OF CONSTRUCTION AND THE SAFETY OF WORKMEN.

7. NO PIPING, DUCTWORK, CONTROLS, ETC., SHALL BE INSTALLED OR ROUTED ABOVE ELECTRICAL PANELS AND EQUIPMENT OR THROUGH ELEVATOR ROOMS.

8. THE CONTRACTOR SHALL COORDINATE AND OBTAIN A WRITTEN LISTING OF ELECTRICAL CHARACTERISTICS OF ALL MECHANICAL EQUIPMENT FROM ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF EQUIPMENT. NO ADDITIONAL PAYMENT WILL BE MADE FOR LACK OF CONTRACTOR COORDINATION OF ELECTRICAL CHARACTERISTICS.

9. DURING THE BUILDING CONSTRUCTION SOME EXISTING INSTALLATION MAY BE EXPOSED THAT WILL HAVE TO BE CHANGED, ALTERED, REROUTED AND/OR ABANDONED. ANY SUCH WORK WHICH COMES UNDER THE JURISDICTION OF THIS CONTRACTOR SHALL BE DONE BY THIS CONTRACTOR WITHOUT EXTRA COST TO THE OWNER. AS THOUGH FULLY DETAILED ON PLANS AND/OR DESCRIBED IN THE SPECIFICATIONS.

10. WORK RELATED TO THE EXISTING BUILDING SHALL BE COORDINATED TO MINIMIZE INTERFERENCE OR INTERRUPTION OF NORMAL BUILDING USE BY OWNER. REFER TO ARCHITECTURAL PLANS FOR PHASING REQUIREMENTS.

11. IN CASES OF DOUBT AS TO THE WORK INTENDED, OR IN THE EVENT OF NEED FOR EXPLANATION THEREOF, THE CONTRACTOR SHALL REQUEST SUPPLEMENTARY INSTRUCTIONS FROM THE ENGINEER. NO CHANGES ARE TO BE MADE TO THE WORK OF THIS CONTRACT WITHOUT PRIOR KNOWLEDGE AND APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL HOLD THE OWNER AND ITS CONSULTANTS HARMLESS AGAINST ALL CLAIMS AND JUDGMENTS ARISING OUT OF THE CONTRACTORS PERFORMANCE OF THE WORK OF THIS CONTRACT. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK, WHICH HE EXPECTS ADDITIONAL COMPENSATION BEYOND THE CONTRACT AMOUNT, WITHOUT WRITTEN AUTHORIZATION FROM THE APPROPRIATE AUTHORITY. FAILURE TO OBTAIN SUCH AUTHORIZATION SHALL INVALIDATE ANY CLAIM FOR EXTRA COMPENSATION.

12.IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO INSTALL THE HEATING, VENTILATION AND AIR CONDITIONING SYSTEM SO AS TO INSURE QUIET OPERATION. NO VIBRATION OR SOUND SHALL BE TRANSMITTED TO THE BUILDING, STRUCTURE OR OCCUPIED AREAS. THE DECISION OF THE ENGINEER AS TO THE QUIETNESS OF THE SYSTEM AND EQUIPMENT SHALL BE FINAL. IT SHALL BE THIS CONTRACTORS RESPONSIBILITY TO CORRECT OR REPLACE ANY NOISY SYSTEM OR EQUIPMENT AS REQUIRED.

13. OBTAIN PERMITS AND PAY ALL FEES. ARRANGE FOR ALL REQUIRED INSPECTIONS AND APPROVALS.

1. DISCONNECT, DISASSEMBLE, CAP, PLUG AND REMOVE ALL MEP ELEMENTS (PIPING, DUCTS, ELECTRICAL DEVICES, WIRING, CONDUIT, EQUIPMENT, HANGERS, SUPPORTS, ETC) INDICATED ON THE DRAWINGS OR NOT OTHERWISE REQUIRED FOR COMPLETED PRODUCT. NO MEP ELEMENTS ARE TO BE ABANDONED IN PLACE UNLESS SPECIFICALLY NOTED. NOT ALL ITEMS TO BE REMOVED ARE INDICATED ON DRAWING

2. ALL OPENINGS ON PIPING AND DUCTS THAT REMAIN SHALL BE CAPPED AND PROPERLY SECURED. WIRING SHALL BE DISCONNECTED AT CIRCUIT BREAKERS AND REMOVED AND BREAKERS MARKED "SPARE." REMOVE AND RECLAIM ANY REFRIGERANT IN EXISTING SYSTEMS PRIOR TO DEMOLITION OF ANY EQUIPMENT ACCORDING TO FEDERAL REQUIREMENT.

3. ANY EQUIPMENT DESIGNATED BY OWNER TO BE SALVAGED SHALL BE PROTECTED AND DELIVERED TO AN OWNER DESIGNATED AREA ON SITE

4. ALL ASBESTOS REMOVAL (IF REQUIRED) WILL BE HANDLED BY THE OWNER AND IS NOT A PART OF THIS WORK. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; NOTIFY ARCHITECT AND OWNER IMMEDIATELY.

C. BASIS OF DESIGN AND SUBSTITUTIONS

1. MANUFACTURERS LISTED ARE BASIS OF DESIGN. SUBSTITUTIONS ARE SUBJECT TO THE APPROVAL OF THE OWNER, ARCHITECT & ENGINEER. IF SUBSTITUTION IS SUBMITTED, IT IS THE CONTRACTOR'S RESPONSIBILITY TO EVALUATE IT AND CERTIFY THAT THE SUBSTITUTION IS EQUIVALENT IN ALL RESPECTS TO THE BASIS OF DESIGN. WHERE SUBMITTALS VARY FROM THE CONTRACT REQUIREMENTS, THE CONTRACTOR SHALL CLEARLY INDICATE ON SUBMITTAL OR ACCOMPANYING DOCUMENTS THE NATURE AND REASON FOR VARIATIONS. IF SUBSTITUTIONS ARE APPROVED, NOTIFY ALL OTHER CONTRACTORS, SUBCONTRACTORS OR TRADES AFFECTED BY SUBSTITUTION AND FULLY COORDINATE. ANY COSTS RESULTING FROM SUBSTITUTION, WHETHER BY CONTRACTOR OR OTHERS, SHALL BE RESPONSIBILITY OF AND PAID FOR BY SUBSTITUTING CONTRACTOR. APPROVED SHOP DRAWINGS DOES NOT ABSOLVE THIS CONTRACTOR FROM THIS RESPONSIBILITY. APPROVAL OF SUBSTITUTIONS IS AT THE DISCRETION OF THE ARCHITECT & ENGINEER AND IF SUBMITTED AFTER THE BID, AT THE RISK OF THE CONTRACTOR.

2. ALL EQUIPMENT AND MATERIALS SHALL BE NEW, FREE OF DEFECTS AND U.L. LABELED.

D. CUTTING, PATCHING AND DRILLING

1. ALL CUTTING AND PATCHING OF THE BUILDING CONSTRUCTION REQUIRED FOR THIS WORK SHALL BE BY THIS CONTRACTOR UNLESS SHOWN ON ARCHITECTURAL DRAWINGS AND CONFIRMED AS TO SIZE AND LOCATION PRIOR TO NEW CONSTRUCTION. CUTTING SHALL BE IN A NEAT AND WORKMANLIKE MANNER. NEATLY SAW CUT ALL RECTANGULAR OPENINGS, SET SLEEVE THROUGH OPENING, AND FINISH PATCH OR PROVIDE TRIM FLANGE AROUND OPENING. CORE DRILL AND SLEEVE ALL ROUND OPENINGS. DO NOT CUT ANY STRUCTURAL COMPONENTS WITHOUT ARCHITECT'S APPROVAL.

2. PATCH AND FINISH TO MATCH ADJACENT AREAS THAT HAVE BEEN CUT, DAMAGED OR MODIFIED AS A RESULT OF THE INSTALLATION OF THE MECHANICAL OR ELECTRICAL EQUIPMENT. FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER.

3. ALL CONTRACTORS SHALL CONFIRM WITH OWNER, PRIOR TO BID, TIMES AVAILABLE FOR NOISE PRODUCING WORK SUCH AS CUTTING AND CORE DRILLING OF FLOORS, WALLS, ETC., AS WELL AS TIMES FOR WORK WHICH REQUIRE ACCESS INTO ADJOINING TENANT SPACES. INCLUDE ANY PREMIUM TIME IN BID.

4. INFORMATION REGARDING REQUIRED PIPE OPENINGS IN WALLS, FLOORS, CHASES, ETC., AND CONCRETE EQUIPMENT PADS OR FOUNDATIONS SHALL BE GIVEN TO THE GENERAL CONTRACTOR BY THIS CONTRACTOR PRIOR TO THE CONSTRUCTION PERIOD. IF THIS CONTRACTOR FAILS TO COMPLY WITH THIS REQUEST, OR IF INCORRECT INFORMATION IS GIVEN, THE NECESSARY CUTTING AND PATCHING WILL BE PERFORMED BY THE GENERAL CONTRACTOR, AT THIS CONTRACTOR'S EXPENSE.

1. FULLY WARRANT ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.EXTEND ALL MANUFACTURER'S WARRANTIES TO OWNER, INCLUDING ALL EXTENDED WARRANTIES ON HVAC EQUIPMENT.

2. REPAIR OR REPLACE WITHOUT CHARGE TO THE OWNER ALL ITEMS FOUND DEFECTIVE DURING THE WARRANTY PERIOD. IN THE CASE OF REPLACEMENT OR REPAIR DUE TO FAILURE WITHIN THE WARRANTY PERIOD, THE WARRANTY ON THAT PORTION OF THE WORK SHALL BE EXTENDED FOR A MINIMUM PERIOD OF ONE (1) YEAR FROM THE DATE OF SUCH REPLACEMENT OR REPAIR.

F. SHOP DRAWING SUBMITTALS

1. SUBMIT SHOP DRAWINGS FOR MECHANICAL EQUIPMENT, FIRE PROTECTION SYSTEMS, DUCTWORK, AND PLUMBING FIXTURES AND EQUIPMENT WITH ADEQUATE DETAILS AND SCALES TO CLEARLY SHOW CONSTRUCTION. INDICATE THE OPERATING CHARACTERISTICS FOR EACH REQUIRED ITEM. CLEARLY IDENTIFY EACH ITEM ON THE SUBMITTAL AS TO MARK, LOCATION AND USE, USING SAME IDENTIFICATION AS PROVIDED ON DESIGN DRAWINGS.

2. DUCTWORK AND FIRE PROTECTION DRAWINGS SHALL BE FULLY DIMENSIONED BASED ON FIELD VERIFIED BUILDING CLEARANCES AND ARCHITECTURAL CEILING LAYOUTS, AND INDICATE STRUCTURAL, LIGHTING, DUCTWORK AND PIPING AT ALL CRITICAL LOCATIONS.

3. CONTRACTOR SHALL REVIEW AND INDICATE HIS APPROVAL OF EACH SHOP DRAWING PRIOR TO SUBMITTAL FOR REVIEW. DO NOT START WORK OR FABRICATION UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED BY THE ENGINEER AND RETURNED TO THE CONTRACTOR.

- ACCOMPANYING DOCUMENTS THE NATURE AND REASON FOR VARIATIONS.

- G. RECORD DRAWINGS
- CONSTRUCTION.
- BELOW-GRADE LINES.
- PERMANENT RECORD OF THE INSTALLATION AS ACTUALLY CONSTRUCTED.
- H. FIRESTOPPING
- MUTUAL APPROVED.
- I. ACCESS DOORS & PANELS

- PAINTING
- K. > TEMPORARY HEAT

**DUCTWORK (233113)** 

- BULLETIN 90A REQUIREMENTS.
- RATING WITH SEAL CLASS A SEAMS AND JOINTS.

- 6. ALL RECTANGULAR TRANSFER DUCTWORK SHALL HAVE 1" THICK ACOUSTICAL LINER.
- JOINTS.

- FITTINGS. BUTT FITTINGS ARE NOT ACCEPTABLE.
- SHALL MEET ALL NFPA AND IBC REQUIREMENTS.

4. SUBMITTALS WILL BE REVIEWED ONLY FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND NOT FOR DIMENSIONS OR QUANTITIES. THE SUBMITTAL REVIEW SHALL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PURCHASE OF ANY ITEM IN FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS OR ITS COMPLETE AND PROPER INSTALLATION.

5. WHERE SUBMITTALS VARY FROM THE CONTRACT REQUIREMENTS, THE CONTRACTOR SHALL CLEARLY INDICATE ON SUBMITTAL OR

6. REFER TO VARIOUS SECTIONS FOR LISTING OF SHOP DRAWINGS REQUIRED ON THIS PROJECT.

7. EACH MANUFACTURER OR HIS REPRESENTATIVE MUST CHECK THE APPLICATION OF HIS EQUIPMENT AND CERTIFY AT TIME OF SHOP DRAWING SUBMITTAL THAT EQUIPMENT HAS BEEN PROPERLY APPLIED AND CAN BE INSTALLED, SERVICED AND MAINTAINED WHERE INDICATED ON DRAWINGS. ADVISE ENGINEER IN WRITING WITH SUBMITTAL DRAWINGS OF ANY POTENTIAL PROBLEMS. THE MANUFACTURER SHALL BE RESPONSIBLE FOR ANY CHANGES THAT MIGHT BE NECESSARY BECAUSE OF PHYSICAL CHARACTERISTICS OF EQUIPMENT THAT HAVE NOT BEEN CALLED TO THE ENGINEER'S ATTENTION AT THE TIME OF SUBMITTAL.

1. EACH CONTRACTOR OR SUBCONTRACTOR SHALL KEEP ONE (1) COMPLETE SET OF THE CONTRACT WORKING DRAWINGS ON THE JOB SITE ON WHICH HE SHALL REGULARLY RECORD ANY DEVIATIONS OR CHANGES FROM SUCH CONTRACT DRAWINGS MADE DURING

2. THESE DRAWINGS SHALL RECORD THE LOCATION OF ALL CONCEALED EQUIPMENT, PIPING, ELECTRIC SERVICE, SEWERS, WASTES, VENTS, DUCTS, CONDUIT AND OTHER PIPING, BY MEASURED DIMENSIONS TO EACH SUCH ITEM FROM READILY IDENTIFIABLE AND ACCESSIBLE WALLS OR CORNERS OF THE BUILDING. PLANS ALSO SHALL SHOW INVERT ELEVATION OF SEWERS AND TOP ELEVATION OF ALL OTHER

3. RECORD DRAWINGS SHALL BE KEPT CLEAN AND UNDAMAGED AND SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN RECORDING DEVIATIONS FROM WORKING DRAWINGS AND EXACT LOCATIONS OF CONCEALED WORK.

4. AFTER THE PROJECT IS COMPLETED, THESE SETS OF DRAWINGS SHALL BE DELIVERED TO THE ARCHITECT IN GOOD CONDITION, AS A

1. ALL SERVICES THAT PASS THRU FIRE OR SMOKE RATED PARTITIONS, WALLS, FLOORS, SHALL BE FIRESTOPPED, FIRE STOPPING RATING SHALL MATCH PARTITION RATING. ALL FIRE STOPPING SYSTEM SHALL MEET THE REQUIREMENTS OF ASTM E 814, UL 1479, AND BE FACTORY

2. ALL FIRESTOPING AND/OR SMOKE STOPPING MATERIAL AND INSTALLATION SHALL BE AS MANUFACTURED BY HILTI OR APPROVED EQUAL.

1. ACCESS DOORS SHALL BE PROVIDED IN WALLS AND CEILINGS WHERE REQUIRED TO PERMIT PROPER ACCESS TO VALVES AND ANY OTHER SUCH DEVICES WHICH REQUIRE MAINTENANCE OR SERVICE. DOORS PLACED IN WALLS, PARTITIONS OR OTHER FIRE-RATED CONSTRUCTION SHALL HAVE A LABEL SIGNIFYING THAT THE DOOR HAS THE SAME FIRE RATING AS THE FIRE-RATED CONSTRUCTION.

2. THIS CONTRACTOR SHALL FURNISH ACCESS PANELS TO THE GENERAL CONTRACTOR FOR INSTALLATION.

3. ACCESS PANELS SHALL BE CONSTRUCTED OF 14 GAUGE STEEL, WITH 16 GAUGE STEEL FRAMES. DOORS SHALL FINISH FLUSH WITH THE SURROUNDING SURFACE. FRAMES SHALL HAVE 3 INCH WIDE EXPANDED METAL FOR PLASTERED SURFACES AND PLAIN FLANGED TYPE FRAME FOR TILE, MASONRY OR GYPSUM BOARD SURFACES. DOORS AND FRAMES SHALL BE FURNISHED PRIME COATED. DOORS INSTALLED IN CERAMIC TILE OR OTHER NON-PAINTED SURFACES SHALL BE STAINLESS STEEL. HINGES SHALL BE CONCEALED SPRING TYPE, TO ALLOW DOORS TO BE OPENED 175 DEGREES. LOCKS SHALL BE FLUSH SCREWDRIVER TYPE WITH STEEL CAMS. ACCESS PANELS SHALL BE 16 INCHES BY 16 INCHES OR LARGER AS MAY BE REQUIRED FOR PROPER ACCESS TO THE DEVICE BEING SERVED.

4. ACCESS PANELS ARE NOT REQUIRED IN COMPLETELY ACCESSIBLE LIFT OUT TILE CEILINGS. CONTRACTOR SHALL REVIEW THE ROOM FINISH SCHEDULE ON THE ARCHITECTURAL DRAWINGS IN ORDER TO VERIFY THE NEED FOR ACCESS PANELS. 

. IN FINISHED SPACES, PAINTING OF ALL MECHANICAL EQUIPMENT, APPARATUS, AND PIPING SHALL BE DONE BY THE PAINTING TRADE UNDER THE GENERAL CONTRACTOR SPECIFICATION, EXCEPT WHERE SPECIFIED TO BE DONE BY THE MECHANICAL CONTRACTOR

THE COSTS OF TEMPORARY HEAT, INCLUDING UTILITY COSTS, SHALL BE AT THE EXPENSE OF THE HEATING TRADE (MECHANICAL CONTRACTOR). THE HEATING TRADE SHALL PROVIDE THE MEANS OF TEMPORARY HEAT. EXISTING HEATING EQUIPMENT AND SYSTEMS MAY NOT BE USED DURING CONSTRUCTION AS THE SYSTEMS SERVE OTHER OCCUPIED SPACES WITHIN THE BUILDING.

. THE PERMANENT MECHANICAL SYSTEM SHALL NOT BE USED UNDER ANY EXCEPTIONS TO PROVIDE TEMPORARY HEATING, VENTILATING, EXHAUST OR AIR CONDITIONING UNTIL THE BUILDING IS CLEAN, WITHOUT ANY DUST OR DEBRIS THAT CAN ENTER THE MECHANICAL SYSTEM AND IS READY FOR OCCUPANCY. COVERING THE RETURN/EXHAUST AIR INLETS WITH FILTER MEDIA IS NOT AN ACCEPTABLE ALTERNATIVE TO HAVING AN ENCLOSED, DUST-FREE ENVIRONMENT FOR THE SYSTEMS TO OPERATE IN. IN NO EVENT SHALL THE MECHANICAL CONTRACTOR'S ONE YEAR WARRANTY BE SHORTENED BY THE USE OF PERMANENT EQUIPMENT FOR TEMPORARY HEAT.

1. FABRICATE AND ERECT ALL DUCTWORK TO ASHRAE AND SMACNA STANDARDS FROM NO. 1 GALVANIZED STEEL. COMPLY WITH NFPA

2. SUPPLY DUCTWORK UPSTREAM OF TERMINAL UNITS AND WITHIN 15' OF ANY AHU FAN OUTLET SHALL HAVE A SMACNA 3" STATIC PRESSURE

3. GENERAL SUPPLY AND RETURN DUCTWORK HAVE A SMACNA 2" STATIC PRESSURE RATING WITH SEAL CLASS B SEAMS AND JOINTS.

4. OUTDOOR AIR INTAKE DUCTWORK SHALL HAVE A SMACNA 2" STATIC PRESSURE RATING WITH SEAL CLASS A SEAMS AND JOINTS.

5. ALL EXPOSED ROUND AND OVAL DUCTWORK IN SHALL HAVE SPIRAL LOCKSEAM CONSTRUCTION.

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7. GENERAL EXHAUST DUCTWORK UNDER 45' IN LENGTH SHALL HAVE A SMACNA 1" STATIC PRESSURE RATING WITH SEAL CLASS B SEAM AND JOINTS. EXHAUST DUCTWORK OVER 45' IN LENGTH SHALL HAVE A SMACNA 2" STATIC PRESSURE RATING WITH SEAL CLASS A SEAM AND

8. ALL FLEXIBLE DUCTWORK SHALL BEAR THE UL 181 LABEL (CLASS 1 AIR DUCT) AND SHALL BE FACTORY INSULATED (1-1/2 ", 0.6 LB., FIBERGLASS) ATCO UPC #076 I OR EQUAL. FLEXIBLE DUCTWORK SHALL COMPLY W/ NFPA 90A, AND NFPA 90B. ALL FLEXIBLE DUCTWORK CONNECTED TO DIFFUSERS SHALL NOT BE LESS THAN THE NECK SIZE OF THE DIFFUSER. MINIMUM FLEXIBLE DUCT BEND RADIUS OF CURVATURE SHALL BE 3 DUCT DIAMETERS, MAXIMUM LENGTH SHALL BE 8-0", NO MORE THAN THE EQUIVALENT OF TWO (2) 90 DEGREE BENDS WILL BE ACCEPTABLE. FLEXIBLE DUCTS SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE AND CONNECTED WITH PLASTIC DRAW BANDS TIGHTENED WITH MANUFACTURER'S TOOL. FLEXIBLE DUCTS ARE NOT PERMITTED IN ROOMS WITHOUT CEILINGS.

9. INCLUDE ALL ACOUSTIC, DOUBLE RADIUS AIRFOIL SHAPED PERFORATED ALUMINUM TURNING VANES, MANUAL DAMPERS, FLEXIBLE CONNECTORS, GRILLES AND DIFFUSERS, ACOUSTIC LINING, AND OTHER SHEET METAL ACCESSORIES FOR THE PROJECT. VOLUME DAMPERS TO BE OF OPPOSED BLADE TYPE CONSTRUCTED IN ACCORDANCE WITH "SMACNA" STANDARDS.

10. ALL BRANCH CONNECTION FITTINGS IN RECTANGULAR DUCTWORK SHALL BE 45 DEGREE TRANSITION TYPE, CONICAL FITTINGS OR SPIN-IN

11. PROVIDE FIRE DAMPERS WITH ACCESS DOORS AT ALL FIRE RATED WALLS, PARTITIONS AND CEILINGS. DAMPERS SHALL HAVE RATING EQUIVALENT TO BARRIER. DAMPER SHALL BE THE DYNAMIC TYPE AND SHALL BE ABLE TO CLOSE AGAINST AN AIRSTREAM. DAMPERS

12. PROVIDE SMOKE DAMPERS WITH ACCESS DOORS AT ALL SMOKE BARRIERS/PARTITIONS. UNIT SHALL INCORPORATE BLADE END SWITCHES (OPEN AND CLOSED), AND OUTSIDE THE DUCT MOUNTED UL LISTED MOTOR. PROVIDE MANUFACTURER'S STANDARD U.L. LISTED OPEN- CLOSE - RESET SWITCH AND POSITION PILOT LIGHTS IN UNIT MOUNTED ENCLOSURE. ENCLOSURE TO BE CAPABLE OF BEING REMOVED FOR REMOTE MOUNTING TO ENSURE VISIBILITY AFTER SYSTEM INSTALLATION.



- 13. PROVIDE COMBINATION FIRE/SMOKE DAMPERS AT ALL FIRE/SMOKE RATED SHAFT AND WALL LOCATIONS. EACH COMBINATION FIRE SMOKE DAMPER SHALL HAVE FABRICATED AIRFOIL BLADES MEETING REQUIREMENTS OF UL STANDARD 555 & 555S AND HAVE AN 1-1/2 HOUR RATING. BASIS OF DESIGN SHALL BE GREENHECK MODEL FSD 200 SERIES. DAMPERS SHALL BE EQUIPPED STANDARD WITH AN ELECTRIC HEAT-RESPONSIVE DEVICE THAT PERFORMS THE SAME FUNCTION AS A FUSIBLE LINK TO CLOSE DAMPER AT 350 °F. PROVIDE POSITION INDICATING SWITCHES TO MEET REQUIREMENTS OF SMOKE PURGE CONTROL AND/OR BUILDING MANAGEMENT SYSTEM CONTROLS. THE DAMPER OPERATION AND CONSTRUCTION SHALL MEET UL REQUIREMENTS.
- 14. PROVIDE CURBS FOR ALL ROOF OPENINGS FOR DUCTS, FLUES, PIPING AND EQUIPMENT. CURBS SHALL BE FURNISHED AS ACCESSORIES TO THE EQUIPMENT OR 8" HIGH PATE OR EQUAL EQUIPMENT SUPPORTS SPANNING STRUCTURE AND FLASHED INTO ROOFING. ALL CUTTING, FLASHING, AND PATCHING OF ROOF SHALL BE BY OWNER'S ROOFING CONTRACTOR AND PAID FOR BY MECHANICAL CONTRACTOR.

15. PROVIDE BIG FOOT H FRAME SETS SUPPORT SYSTEM OR SIMILAR FOR ALL ROOFTOP DUCTWORK. SPACING SHALL BE PER SMACNA GUIDELINES.

#### HYDRONIC PIPING (232113)

- 1. PIPE AND FITTINGS -- HYDRONIC PIPING 2" AND SMALLER SHALL BE TYPE "L" HARD COPPER TUBING ASTM B 88-832 WITH SWEATED JOINTS ASTM B 16.22 USING 95 5 OR ANTIMONY SOLDER OR "PRESS-FIT" MECHANICAL JOINTING. FITTINGS SHALL BE CAST BRASS OR WROUGHT COPPER. PROVIDE SCREWED UNIONS AT FINAL CONNECTIONS TO EQUIPMENT TO ALLOW DISCONNECTION FOR REPAIR OR SERVICING.
- 2. PIPING 2 -1/2" AND LARGER SHALL BE SCHEDULE 40, WELDED BLACK STEEL (ASTM A53) WITH BLACK WROUGHT STEEL, BUTT WELDING TYPE (ASTM B16.9) FITTINGS, OR SCHEDULE 40, GROOVED BLACK STEEL (ASTM A53) WITH GROOVED FITTINGS SIMILAR TO VICTAULIC OR APPROVED EQUAL MAY BE USED.
- 3. BALL VALVES --- UP TO 2": BRONZE TWO PIECE BODY, STAINLESS STEEL BALL, TEFLON SEATS AND BLOW-OUT PROOF STUFFING BOX RING, LEVER HANDLE, AND BALANCING STOPS, UNION SOLDER ENDS. ACCEPTABLE MANUFACTURERS: CONBRACO (APOLLO), WATTS, INC., CRANE, INC., OR STOCKHAM, INC.
- 4. BUTTERFLY VALVES -- BUTTERFLY VALVES SHALL BE DEZURIK 660 OR EQUAL WITH SEMI STEEL LUG STYLE BODY, BRONZE DISC, 416 STAINLESS STEEL SHAFT, BRONZE BEARINGS, "NORDEL" RUBBER SEAT, LEVER HANDLE OPERATORS AND SHALL BE RATED AT 175 POUNDS CWP. VALVES SHALL PROVIDE DEAD TIGHT SHUTOFF CAPABILITY IN EITHER DIRECTION UP TO 150 PSI WHEN THE DOWNSTREAM FLANGES ARE REMOVED.
- 5. VENT AND DRAIN VALVES -- ALL WATER PIPING SYSTEMS SHALL BE INSTALLED IN SUCH A MANNER THAT THEY CAN BE COMPLETELY VENTED AND DRAINED. UNLESS OTHERWISE NOTED, PROVIDE AT ALL HIGH POINTS WHERE AIR CAN COLLECT 1/4" BRASS COMPRESSION VENT COCKS, AND AT ALL LOW POINTS 1/2" BALL VALVES WITH HOSE BIB ENDS AND CAPS.
- 6. PRESSURE/TEMPERATURE PLUGS -- PROVIDE SISCO OR PETERSON 1/4_INCH NPT FITTING OF SOLID BRASS, FOR 1/8" O.D. PROBE. VALVE CORE SHALL BE NEOPRENE FOR TEMPERATURE TO 200 F, AND RATED FOR ZERO LEAKAGE FROM VACUUM TO 1,000 PSIG. PROVIDE TEST KIT CONSISTING OF TWO PRESSURE GAGES WITH PROBES AND 2 DIAL THERMOMETERS WITH CARRYING CASE.
- 7. STRAINERS -- Y-PATTERN, BODY: ASTM A 126, CLASS B CAST IRON, WITH BOLTED OR SCREWED COVER AND BOTTOM DRAIN CONNECTION. END CONNECTIONS: THREADED ENDS FOR STRAINERS NPS 2 AND SMALLER; FLANGED ENDS FOR STRAINERS NPS 2-1/2 AND LARGER. STRAINER SCREEN: STAINLESS-STEEL, 20-MESH STRAINER, OR PERFORATED STAINLESS-STEEL BASKET. WITH TAPPED BLOWOFF PLUG. RATING: 150-PSIG WORKING PRESSURE.
- 8. BALANCING VALVES -- PROVIDE BELL & GOSSETT "CIRCUIT SETTER PLUS" BALANCING VALVES WHERE SHOWN IN PIPING DETAILS ON THE DRAWINGS. VALVES SHALL BE OF BRONZE BODY/BRASS BALL CONSTRUCTION (1/2" TO 3" SIZES) WITH GLASS AND CARBON FILLED TFE SEAT RINGS. VALVES SHALL HAVE DIFFERENTIAL PRESSURE READOUT PORTS, MEMORY STOP, CALIBRATED NAMEPLATE AND DRAIN PORT. EACH VALVE SHALL HAVE POSITIVE SHUTOFF AND SHALL BE CONSTRUCTED FOR 125 PSIG WORKING PRESSURE AT 250 DEGREES. PROVIDE TWO "CIRCUIT SETTER" CALCULATORS FOR THE OWNER'S USE.
- 9. AUTOMATIC BALANCING VALVES -- PROVIDE HAYS FLUID CONTROLS "MEASURFLO" AUTOMATIC BALANCING VALVES, OR APPROVED EQUAL, WHERE SHOWN IN PIPING DETAILS ON DRAWINGS. VALVES SHALL HAVE BRASS BODIES AND CHANGEABLE FLOW CARTRIDGES.
- 10. PROVIDE VALVES AND UNIONS WHERE NEEDED TO PERMIT DISCONNECTIONS OF EACH PIECE OF EQUIPMENT FOR REPAIRS. MAKE CONNECTIONS TO EQUIPMENT WITH SHUT-OFF VALVES ON SUPPLY AND BALANCE VALVES ON RETURNS. INSTALL UNIONS IN PIPES 2" AND SMALLER, ADJACENT TO EACH VALVE, AT FINAL CONNECTIONS EACH PIECE OF EQUIPMENT, AND ELSEWHERE AS INDICATED. UNIONS ARE NOT REQUIRED ON FLANGED DEVICES.
- 11. CONNECTIONS BETWEEN DISSIMILAR PIPING MATERIALS SHALL BE MADE WITH SUITABLE DIELECTRIC INSULATING UNIONS. ISOLATE COPPER PIPING FROM DISSIMILAR METALS, SUCH AS METAL STUDS AND VENT PIPING.
- 12. PROVIDE CONDENSATE DRAIN FOOR ALL COOLING COILS. ALL CONDENSATE DRAINS SHALL BE TRAPPED PER THE COOLING COIL TRAP DETAIL OR MANUFACTURERS RECOMMENDATIONS, WHICH EVER IS MORE STRINGENT/DEEPER. PROVIDE CLEANOUT.
- 13. CONDENSATE DRAIN PIPING IN RETURN AIR RATED PLENUMS SHALL BE TYPE L COPPER WITH 1/2" FIBERGLASS INSULATION (MIN. R-VAULE = 3). SCHEDULE 40 PVC WITHOUT INSULATION MAY BE USED IN ALL OTHER LOCATIONS.
- 14. WHERE DAMAGE TO ANY BUILDING COMPONENT COULD OCCUR AS A RESULT OF OVERFLOW OR STOPPAGE OF THE PRIMARY CONDENSATE DRAIN SYSTEM, PROVIDE UL 508 WATER-LEVEL DETECTION DEVICE IN THE PRIMARY DRAIN PAN, OVERFLOW OUTLET OR IN A SECONDARY DRAIN PAN PER IMC REQUIREMENTS. COOLING SYSTEM SHALL DISABLE UPON DETECTION OF WATER AND GENERATE A BAS ALARM(IF APPLICABLE).

REFRIGERANT PIPING (232300)

- 1. INSTALL REFRIGERANT PIPING BETWEEN CONDENSING UNIT AND DX COIL. PIPING SHALL BE REFRIGERANT GRADE TYPE "L" OR ACR COPPER WITH BRAZED JOINTS. PIPE PER MANUFACTURER'S PIPING DIAGRAMS AND RECOMMENDATIONS.
- 2. ISOLATE PIPING FROM STRUCTURE WITH ONE (1) INCH INSULATION BETWEEN ALL PIPING AND SUPPORT POINTS.
- 3. AFTER COMPLETION, PRESSURE TEST PIPING, PURGE AND EVACUATE SYSTEM TWICE AND CHARGE SYSTEM WITH REFRIGERANT AND OIL.
- 4. INSTALL PIPING IN AS SHORT AND DIRECT ARRANGEMENT AS POSSIBLE TO MINIMIZE PRESSURE DROP. PROVIDE OIL TRAP AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.
- 5. INSTALL UNIONS TO ALLOW REMOVAL OF SOLENOID VALVES, PRESSURE REDUCING VALVES, EXPANSION VALVES, AND AT CONNECTIONS TO COMPRESSORS AND EVAPORATORS.
- 6. FILL THE PIPE AND FITTINGS DURING BRAZING, WITH NITROGEN TO PREVENT FORMATION OF SCALE.

DUCTWORK & PIPE INSULATION (230713, 230719)

- 1. INSULATE ALL ACCESSIBLE CONCEALED SUPPLY DUCTS WITH 1-1/2" THICK FOIL FACED REINFORCED KRAFT JACKET, FIBERGLASS DUCT WRAP FULLY SECURED TO DUCT. LAP AND TAPE SEAMS AND SECURE TIGHTLY TO THE DUCTS WITH WIRE OR STICK PINS. 2" THICK RIGID FIBERGLASS BOARD INSULATION SHALL BE USED FOR ALL INDOOR EXPOSED APPLICATIONS. INSULATION SHALL HAVE A MINIMUM R-VALUE OF 6.
- 2. ALL DUCTWORK INSTALLED OUTSIDE OF THE BUILDING ENVELOPE SHALL BE INSULATED WITH 2" THICK FIBERGLASS BOARD INSULATION HAVING A MINIMUM R-VALUE OF 8.

3. DO NOT INSULATE:

- 3.1. MAKE-UP AIR DUCTWORK OPERATING AT SURROUNDING AMBIENT CONDITIONS.
- 3.2. RETURN AND EXHAUST AIR DUCTWORK LOCATED WITHIN THE BUILDING ENVELOPE. (DOES NOT INCLUDE BUILDING SHAFTS.)
- 3.3. TRANSFER AIR DUCTWORK (ACOUSTICALLY LINE DUCT, CLEAR INSIDE DIMENSIONS SHOWN ON PLANS)
- 3.4. EXPOSED SUPPLY DUCTWORK LOCATED IN CONDITIONED SPACE. (DOES NOT INCLUDE RETURN AIR PLENUM.)
- 4. INTERNAL DUCT INSULATION -- DUCTWORK INDICATED TO HAVE INTERNAL NON-FIBEROUS INSULATION SHALL BE INTERNALLY COVERED WITH 1" THICK FLEXIBLE HYPOALLERGENIC POLYESTER FIBER INSULATION WITH FSK FACING. FOR DUCTWORK LOCATED OUTDOORS USE 3" THICK INTERNAL POLYESTER INSULATION. INSULATION SHALL HAVE AN "R" RATING OF 5 FOR 1" THICK INSULATION, R-8 FOR 2" THICK INSULATION, AND R-12 FOR 3" THICK INSULATION. INSULATION SHALL HAVE FLAME/SMOKE RATING OF 2.5/21. ONE INCH THICK INSULATION TO HAVE NRC COEFFICIENT OF 0.65. INSULATION SHALL WITHSTAND DUCT VELOCITIES OF 4000 FPM. DUCT SIZES SHOWN IS CLEAR INSIDE. WHERE LINER IS USED INCREASE OUTSIDE DIMENSIONS OF SHEET METAL TO MAINTAIN INSIDE DUCT AREA. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- 5. HYDRONIC PIPING TO BE INSULATED SHALL BE COVERED WITH 1-1/2" THICKNESS 4 POUND DENSITY [MAXIMUM CONDUCTIVITY = 0.27 BTU/(HR·FT·°F)] SECTIONAL GLASS FIBER PIPE INSULATION HAVING FACTORY APPLIED WHITE "ALL SERVICE" JACKET. PIPING LOCATED OUTDOORS SHALL BE INSULATED WITH 2" THICK INSULATION. LONGITUDINAL FLAPS SHALL BE SELF-SEALING TYPE ADDITIONALLY SECURED WITH NONFERROUS FLARE DOOR STAPLES SPACED 6" ON CENTERS. END JOINTS SHALL BE CLOSED WITH 4" WIDE SELF-SEALING TAPE STAPLED IN PLACE. ALL FITTINGS TO BE FINISHED WITH PRE MOLDED ONE-PIECE ZESTON TYPE PVC COVERS WITH FIBERGLASS INSULATION INSIDE. SEAL ALL VISIBLE RAW FIBERGLASS WITH BENJAMIN FOSTER #3036 WHITE MASTIC.

- EQUIPMENT (235000)

- CONTRACTOR.

## CONTROLS (230910)

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1.1.	FLOO WIRIN
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2.1.2. THE PUMPS OPERATE IN A LEAD/LAG CONFIGURATION WITH ONE PUMP CONTINUOUSLY ENABLED. THE BAS ENABLES A PUMP ONCE THE OUTSIDE AIR TEMPERATURE FALLS BELOW 60°F. ONCE ENABLED, THE LEAD PUMP REMAINS IN THE LEAD POSITION UNTIL 760 HOURS OF ACCUMULATED RUN TIME OR FAILURE RESULTING IN LOSS OF FLOW. THE BAS WILL MONITOR THE RUN TIME AND ALARM CONTACT OF EACH PUMP AND WILL ROTATE THE PUMPS FROM LEAD TO LAG. SPEED CONTROL OF THE PUMPS IS BY THE BAS. THE BAS MONITORS THE DIFFERENTIAL PRESSURE ACROSS THE SUPPLY AND RETURN PIPING FROM THE HOT WATER LOOP AND MODULATES THE SPEED OF THE PUMPS TO MAINTAIN A DIFFERENTIAL PRESSURE SET POINT.

2.2. EXISTING PACKAGED VARIABLE AIR VOLUME (VAV) ROOFTOP UNITS 2.2.1. TWO (2) UNITS SERVE THE LOWER LEVEL THRU 4TH FLOOR WHILE THE OTHER TWO (2) UNITS SERVE FLOORS 5 THRU 9. ALL ARE VAV CONTROL TYPE DISCHARGING A CONSTANT AIR TEMPERATURE OF 55°F AS SENSED AT THE FIELD INSTALLED DISCHARGE AIR SENSOR. FACTORY LOGIC WILL ALLOW FOR A DISCHARGE AIR RESET BASED ON OUTSIDE AIR TEMPERATURE. THE BAS ENABLES THE UNIT MATCHING THE OCCUPANCY OF THE BUILDING. ONCE ENABLED, THE SUPPLY FANS AND RETURN FANS WILL RUN CONTINUOUSLY. CONTROL OF THE SUPPLY FAN SPEED IS BASED ON STATIC PRESSURE CONTROL. STATIC PRESSURE IS SAMPLED IN THE SUPPLY DUCT AT EACH FLOOR. THE STATIC PRESSURE SETPOINT HAS BEEN ESTABLISHED BY THE BASE BUILDING TAB CONTRACTOR DURING BALANCING. CONTROL OF THE RETURN FANS IS ALSO BASED ON BUILDING PRESSURE BUILDING PRESSURE IS SENSED ON THE 1ST FLOOR FOR THE UNITS WHICH SERVE THAT AREA AND ON THE 9TH FLOOR FOR UNITS THAT SERVE THOSE AREAS. THE UNIT FOLLOWS ITS FACTORY CONTROL SEQUENCE AT THIS POINT. ALL UNITS ARE CAPABLE OF GAS HEATING, DX COOLING, FREE COOLING W/ ENTHALPY CONTROLS, AND SUPPLY AIR RESET BASED ON OUTSIDE AIR TEMPERATURE. DUCT SMOKE DETECTOR (INSTALLED IN THE SUPPLY AND RETURN DUCTWORK) MONITOR FOR SMOKE IN THE DUCT. SHOULD A SMOKE EVENT OCCR ALL FUNCTIONS OF THE UNITS WILL BE DISABLED EITHER DIRECTORY OR INDIRECTLY BY COMMAND FROM THE FIRE ALARM PANEL.

6. THE CONTROLS CONTRACTOR SHALL WARRANT THE SYSTEM FOR 24 MONTHS AFTER SUBSTANTIAL COMPLETION. DURING THE WARRANTY PERIOD, THE BUILDING SYSTEM CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY REVISIONS TO THE SOFTWARE AS REQUIRED TO PROVIDE A COMPLETE AND WORKABLE SYSTEM CONSISTENT WITH THE LETTER AND INTENT OF THE SEQUENCE OF OPERATION SECTION OF THE SPECIFICATION.

6. INSULATE REFRIGERANT PIPING LINES WITH 1-1/2" THICK CLOSED CELL ELASTOMERIC FOAM INSULATION WITH SELF-SEALING SEAM. ARMACELL - AP ARMAFLEX SS INSULATION. PAINT CLOSED CELL INSULATION OUTDOORS WITH TWO COATS OF UV RESISTANT PAINT PER MANUFACTURER'S RECOMMENDATIONS. USE PRE-MOLDED COVERS OVER FITTINGS, VALVES, ELBOWS AND CONTROL DEVICES SEALED VAPOR TIGHT.

7. INSULATION SHALL BE OMITTED FROM HOT SYSTEM VALVE BODIES STRAINERS AND UNIONS. SYSTEMS OPERATING BELOW AMBIENT TEMPERATURE SHALL HAVE ALL VALVE BODIES AND PIPING SPECIALTIES FULLY INSULATED. ALL GLYCOL AND CITY WATER PIPING SHALL BE COVERED SAME AS HOT WATER PIPING. ALL VALVE BODIES, STRAINERS, UNIONS, PUMP CASING, WATER SEPARATORS, ETC. IN COLD PIPING SHALL BE COVERED SAME AS PIPING SYSTEM. PIPE HANGERS ON INSULATED PIPE SHALL BE OUTSIDE OF THE INSULATION, SIZED ACCORDINGLY AND WITH SADDLE INSERT SUFFICIENT TO PROTECT INSULATION FROM CRUSHING.

8. ALL INSULATION TO BE APPLIED IN FULL ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALL INSULATION SHALL COMPLY WITH 25/50 FLAME AND SMOKE HAZARD RATINGS PER ASTM E-84, NFPA 255 AND UL 723.

9. PROVIDE REMOVABLE INSULATION SECTIONS TO COVER PARTS OF EQUIPMENT WHICH MUST BE OPENED PERIODICALLY FOR MAINTENANCE; INCLUDE METAL VESSEL COVERS, FASTENERS, FLANGES, CHILLED WATER PUMPS, FRAMES AND ACCESSORIES.

10. REPLACE DAMAGED INSULATION WHICH CANNOT BE REPAIRED SATISFACTORILY, INCLUDING UNITS WITH VAPOR BARRIER DAMAGE AND MOISTURE SATURATED UNITS.

1. MAKE ALL FINAL EQUIPMENT CONNECTIONS AND PROVIDE THE NECESSARY ADAPTORS, FITTINGS, VALVES, DEVICES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM. PROVIDE COMPLETE WITH BASES, ISOLATORS, SUPPORTS AND OTHER REQUIRED ACCESSORIES.

2. EQUIPMENT SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURER'S DATA AND INSTALLATION INSTRUCTIONS, INCLUDING CLEARANCES; LUBRICATE AND ADJUST AS REQUIRED. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO CHECK AND CONFORM TO THESE REQUIREMENTS PRIOR TO STARTING WORK. FURNISH AND INSTALL CLEAN SET OF FILTERS PRIOR TO BALANCING.

3. THE CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS OF ALL MECHANICAL EQUIPMENT PRIOR TO ORDERING OF EQUIPMENT. COORDINATE REQUIREMENT FOR PROVISION OF MOTOR STARTERS, DISCONNECTS, CONTACTORS, CONTROL WIRING, ETC. AS REQUIRED FOR PROPER FUNCTIONING SYSTEM WITH ELECTRICAL CONTRACTOR. NO ADDITIONAL PAYMENT WILL BE MADE FOR LACK OF CONTRACTOR COORDINATION OF ELECTRICAL CHARACTERISTICS.

4. ALL FLOOR MOUNTED EQUIPMENT SHALL BE INSTALLED ON CONCRETE HOUSEKEEPING PADS. MINIMUM PAD THICKNESS SHALL BE NOMINAL 4". PAD SHALL EXTEND BEYOND THE EQUIPMENT A MINIMUM OF 4" ON EACH SIDE. CONCRETE PADS SHALL BE PROVIDED BY THIS CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE THIS CONTRACTOR TO COORDINATE THE SIZE AND LOCATION OF THE CONCRETE HOUSEKEEPING PADS WITH THE GENERAL CONTRACTOR.

5. ALL EQUIPMENT SHALL BE MOUNTED ON VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF VIBRATION AND MECHANICALLY TRANSMITTED SOUND TO THE BUILDING STRUCTURE.

6. ISOLATION EQUIPMENT SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER, AND SHALL BE DESIGNED SPECIFICALLY FOR THE APPLICATION REQUIRED. THIS INCLUDES, BUT IS NOT LIMITED TO, PIPING DUCTWORK, PUMPS, COMPRESSORS. VIBRATION ISOLATORS SHALL BE RATED FOR THE WEIGHT AND SPACING REQUIRED FOR THE EQUIPMENT REQUIRING ISOLATION.

7. PROVIDE CURBS FOR ALL ROOF OPENINGS FOR DUCTS, FLUES, PIPING AND EQUIPMENT. CURBS SHALL BE FURNISHED AS ACCESSORIES TO THE EQUIPMENT OR 8" HIGH PATE OR EQUAL EQUIPMENT SUPPORTS SPANNING STRUCTURE AND FLASHED INTO ROOFING. ALL CUTTING, FLASHING, AND PATCHING OF ROOF SHALL BE BY OWNER'S ROOFING CONTRACTOR AND PAID FOR BY MECHANICAL

CONTROL SYSTEM HAS BEEN INSTALLED (CARRIER I-VUE) AND CONSISTS OF THE FOLLOWING ESSENTIAL DEVICES; OR BY FLOOR COMMUNICATION LOOPS, INCLUDING BACNET ROUTERS, TERMINAL DEVICE CONTROLLERS, NETWORK CONTROL NG.

F LEVEL COMMUNICATION LOOP, INCLUDING BACNET ROUTER, UNIT CONTROLLERS (FOR PACKAGED RTU'S) NETWORK CONTROL

TRAL HYDRONIC SYSTEM CONTROL, INCLUDING HEATING CONTROLLERS, SENSORS, BOILER AND PUMP CONTROLS, AND VORK WIRING

1.4. BUILDING STATIC PRESSURE CONTROL.

2. EXISTING BASE BUILDING SYSTEM SEQUENCE OF OPERATIONS (FOR REFERENCE)

RONIC HEATING SYSTEM (EXISTING BOILERS & PUMPING)

THE BOILERS ARE SET UP TO RUN AS LEAD/LAG WITH BOILER B-1 BEING THE LEAD BOILER. ROTATION TO THE LAG BOILER WILL ONLY OCCUR IF THE LEAD BOILER IS BEING SERVICED OR IF THERE IS A CRITICAL FAILURE TO B-1 RESULTING IN A LOSS OF HEAT PRODUCTION. THE BAS WILL ENABLE THE LEAD BOILER ONCE THE OUTSIDE AIR TEMPERATURE FALLS BELOW 60°F AND STATUS S PROVEN FROM EITHER HOT WATER HEATING PUMP. ONCE ENABLED THE ONBOARD CONTROLS OF THE BOILER WILL ENABLE TS ASSOCIATED PUMP. CONTROL OF THE PUMP IS FROM THE THE BOILER ON BOARD CONTROLLER. THE BAS MONITORS THE STATUS, SPEED, AND ALARM CONTACTS OF THE PUMP. ONCE ALL SAFETY CRITERIA ARE SATISFIED, THE BOILER WILL FIRE. THE ONBOARD CONROLLER AND ALERT VIA EMAIL SHOULD A CONDITION ARISE THAT RESULTS IN A LOSS OF HEAT PRODUCTION. IN THE EVENT THAT THE LAG BOILERS NEEDS TO BECOME THE LEAD BOILER, BOILER B-1 WILL ENABLE THE SECOND BOILER AS THE LEAD UNTIL THE RESULT FAILURE CONDITIONS IS RESOLVED. ONCE ENABLED THE ONBOARD CONTROLS OF THE BOILER WILL ENALBED ITS ASSOCIATED BOILER PUMP. AFTER ALL SAFETY CRITERIA ARE SATISFIED, THE BOILER WILL FIRE. ONCE THE SECOND BOILER IS ESTABLISHED AS THE LEAD BOILER, THE HOT WATER RESET WILL BE DISABLED AND THE SECOND BOILER WILL MAINTAIN A HOT WATER TEMPERATURE OF 160°F. A THERMOSTATIC 3-WAY VALVE WILL MAINTAIN 140°F WATER SET POINT AT THE BOILER INLET.

3. PROVIDE COMPLETE TEMPERATURE CONTROLS FOR ALL HVAC SYSTEMS. PROVIDE NEW CONTROL DEVICES INCLUDING DAMPER OPERATORS, TEMPERATURE SENSORS, STAGING RELAYS AND OTHER REQUIRED DEVICES TO PROVIDE A COMPLETE OPERATIONAL SYSTEM PER THE FOLLOWING OPERATING SEQUENCE. MOUNT ALL CONTROLS FURNISHED AS ACCESSORIES TO EQUIPMENT AND PROVIDE ALL CONTROL WIRING REQUIRED FOR PROPER OPERATION WHERE NOT SPECIFICALLY SHOWN ON ELECTRICAL PLANS. ALL WIRING SHALL BE IN CONDUIT OR PER N.E.C. AND LOCAL CODE REQUIREMENTS. STANDARD MOUNTING HEIGHT TO TOP OF THERMOSTAT IS 48" ABOVE FINISHED FLOOR OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS. DO NOT INSTALL THERMOSTATS NEAR DIMMER SWITCHES. WIRING OF ALL MOTORIZED OPERATORS AND THERMOSTATS (REGARDLESS OF VOLTAGE) ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

4. THE CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE, WEB-BASED, NATIVE BACNET-INTEGRATED BUILDING AUTOMATION SYSTEM (BAS) INCLUDING ALL NECESSARY HARDWARE, ALL OPERATING AND APPLICATIONS SOFTWARE NECESSARY TO PERFORM THE HVAC CONTROL SEQUENCES OF OPERATION AS CALLED FOR IN THIS SPECIFICATION OR AS SHOWN ON THE DRAWINGS. BAS CONTRACTOR SHALL FURNISH AND INSTALL ALL RELATED SOFTWARE AND HVAC-DDC CONTROLS AS SPECIFIED WITHIN THIS SPECIFICATION. IT SHALL BE THE RESPONSIBILITY OF THE BAS CONTRACTOR TO COORDINATE THIS WORK WITH THE GENERAL CONTRACTOR, MECHANICAL CONTRACTOR, AND THE ELECTRICAL CONTRACTOR AS IT RELATES TO THE INSTALLATION AND WIRING OF ALL RELATED HVAC SYSTEMS.

5. IT SHALL BE THE RESPONSIBILITY OF THE BAS CONTRACTOR TO PROVIDE ALL THE REQUIRED LABOR AND PROGRAMMING TO SEAMLESSLY INTEGRATE THE NEW BAS BACNET SYSTEM AND ITS DDC POINTS, GRAPHICS, ALARMS, ETC. INTO AN EXISTING BAS IF PRESENT.



3. BUILDING AUTOMATION SYSTEM SHALL INTEGRATE WITH EXISTING CORE AND SHELL CONTROL SYSTEM. THE BAS MANUFACTURER SHALL HAVE FACTORY TRAINED AND CERTIFIED PERSONNEL PROVIDING ALL ENGINEERING, SERVICE, STARTUP, AND COMMISSIONING FIELD LABOR FOR THE PROJECT FROM THEIR LOCAL OFFICE LOCATION. BAS MANUFACTURER SHALL BE ABLE TO PROVIDE TRAINING CERTIFICATIONS FOR ALL LOCAL OFFICE PERSONNEL UPON REQUEST. 

9. THE FOLLOWING ARE THE APPROVED BAS MANUFACTURERS:

### TRANE

- CARRIER I-VUE (BASE BUILDING INSTALL)
- JCI PITTSBURGH BRANCH OFFICE
- SIEMENS PITTSBURGH
- OR APPROVED EQUAL  $\sim$
- 2. CONTROL SEQUENCE SHALL BE AS FOLLOWS: 2.1. VARIABLE AIR VOLUME BOXES W/O REHEAT
- AND COOLING SETPOINTS
- SETPOINT.
- 2.1.5. PROVIDE WIRELESS THERMOSTATS/CONTROLLERS.

2.2. VARIABLE AIR VOLUME BOXES W/ REHEAT

2.2.1.	A WALL MOUNTED TEMPERATURE SENSO
2.2.2.	THE CONTROLLER WILL STORE BOTH OC THE CONTROLLER WILL MONITOR THE PF FROM ITS MINIMUM CFM SETPOINT TO ITS
2.2.3.	IF HEAT IS REQUIRED AND THE PRIMARY NORMALLY CLOSED MODULATING TWO W
2.2.4.	THE CONTROLLER WILL MONITOR THE DI EXCEED THE MAXIMUM HEATING SUPPLY
2.2.5.	DURING HEATING THE CONTROLLER WILL
2.2.6.	PROVIDE WIRELESS THERMOSTATS/CON
3. ∖	ARIABLE AIR VOLUME BOXES W/ REHEAT & 1

2.3.1.	A WALL MOUNTED THERMOSTAT WILL BE POINT.
	POINT.

2.3.2.	THE THERMAL DIFFUSER CONTROLLER V
	LINKAGE CONTROL, THE CONTROLLER W
	THERMOSTAT AND SHALL MODULATE TH
	SPACE TEMPERATURE SETPOINT.
2.3.3.	THE VAV CONTROLLER SHALL MODULATE

- GREATER THAN .25" WC DOWNSTREAM OF THE VAV BOX.
- VALVE TO MEET SPACE DEMAND. EXCEED THE MAXIMUM HEATING SUPPLY AIR TEMPERATURE SETPOINT OF 95°F.

2.4.	FAN	POWERED VAV BOXES WITH REHEAT
2.4	.1.	A WALL MOUNTED TEMPERATURE SENSO
2.4	.2.	THE CONTROLLER WILL STORE BOTH OC THE CONTROLLER WILL MONITOR THE PI DAMPER FORM ITS MINIMUM CFM SET PC HEATING AND COOLING SETPOINTS.
2.4	.3.	IF COOLING IS REQUIRED AND THE PRIMA FROM ITS MINIMUM CFM SETPOINT TO ITS
2.4	.4.	IF HEAT IS REQUIRED AND THE PRIMARY CONFIGURABLE LENGTH OF TIME IN ORD
2.4	.5.	IF THE DEMAND IS STILL PRESENT, THE C MEET SPACE DEMAND.
2.4	.6.	THE CONTROLLER WILL MONITOR THE DI EXCEED THE MAXIMUM SUPPLY AIR SETF CONFIGURED AUXILIARY HEATING CFM S
2.4	.7.	PROVIDE WIRELESS THERMOSTATS/CON

2.5. DUCTLESS SPLIT SYSTEM

2.5.1. A WALL MOUNTED SENSOR WILL BE USED AS THE CONTROL POINT FOR THE SYSTEM. THE UNIT WILL BE COOLING ONLY AND WILL MAINTAIN THE SPACE AT 70°F (ADJ.) AT THE WALL SENSOR.

### HANGERS AND SUPPORTS (230529)

- NO. 400, COPPER TUBING = MODEL NO. 102-A.
- FOR ALL INSULATED PIPING.
- LIMITED.
- BE MANUFACTURED BY PENTAIR, MODEL 300 OR APPROVED EQUAL
- ENGINEER'S APPROVAL PRIOR TO INSTALLING THOSE SUPPORTS.

7. SYSTEM SHALL BE FULLY INTEGRATED AND COORDINATED WITH MECHANICAL EQUIPMENT DDC CONTROLLERS FURNISHED AND INSTALLED IN THE EQUIPMENT MANUFACTURER'S FACTORY. THE INTENT OF THE BUILDING AUTOMATION SYSTEM IS TO INTEGRATE ALL EXISTING MECHANICAL EQUIPMENT INTO ONE SYSTEM FOR GLOBAL MONITORING, CONTROL, AND ALARMING ASSOCIATED WITH THE BUILDING. IT IS THE BAS MANUFACTURER'S RESPONSIBILITY TO PROVIDE ALL THE DESIGN, ENGINEERING, AND FIELD COORDINATION REQUIRED TO ENSURE ALL EQUIPMENT SEQUENCE OF OPERATIONS ARE MET AS SPECIFIED AND THE DESIGNATED BAS OPERATORS HAVE THE CAPABILITY OF MANAGING THE BUILDING MECHANICAL SYSTEM TO ENSURE OCCUPANT COMFORT WHILE MAINTAINING ENERGY 

2.1.1. A WALL MOUNTED TEMPERATURE SENSOR WILL BE USED BY THE VAV BOX CONTROLLER FOR ITS CONTROL LOGIC POINT.

2.1.2. THE CONTROLLER WILL STORE BOTH OCCUPIED AND UNOCCUPIED SCHEDULES AND SET POINTS THROUGH LINKAGE CONTROL, THE CONTROLLER WILL MONITOR THE PRIMARY AIR TEMPERATURE TO THE VAV BOX AND MODULATE THE PRIMARY AIR DAMPER FROM ITS MINIMUM CFM SET POINT TO ITS MAXIMUM CFM SET POINT IN ORDER TO MAINTAIN THE SPACE WITHIN THE HEATING

2.1.3. SINCE HEAT IS UNAVAILABLE THE CONTROLLER WILL COMPARE THE PRIMARY AIR TEMPERATURE TO THE SPACE TEMPERATURE AND DETERMINE IF THE THE AIR IS SUITABLE FOR MEETING SPACE DEMANDS.

2.1.4. IF THE AIR IS NOT SUITABLE, THE PRIMARY AIR DAMPER CFM WILL BE MAINTAINED AT ITS OCCUPIED MINIMUM AIRFLOW

OR WILL BE USED BY THE VAV BOX CONTROLLER FOR ITS CONTROL LOGIC POINT. CCUPIED AND UNOCCUPIED SCHEDULES AND SET POINTS THROUGH LINKAGE CONTROL, RIMARY AIR TEMPERATURE TO THE VAV BOX AND MODULATE THE PRIMARY AIR DAMPER S MAXIMUM CFM SETPOINT TO SATISFY ITS DEMAND.

AIR DAMPER IS NOT SUITABLE FOR HEATING, THE CONTROLLER WILL OPERATE ITS NAY VALVE TO MEET SPACE DEMAND.

ISCHARGE AIR TEMPERATURE AFTER THE COIL AND WILL NOT ALLOW THE AIR TO AIR TEMPERATURE SETPOINT OF 95°F.

. MAINTAIN THE CONFIGURED AUXILIARY HEATING CFM SET POINT. ITROLLERS.

HERMAL DIFFUSERS

USED BY EACH MASTER THERMAL DIFFUSER CONTROLLER FOR ITS CONTROL LOGIC

WILL STORE BOTH OCCUPIED AND UNOCCUPIED SCHEDULES AND SET POINTS THROUGH WILL MONITOR THE SPACE TEMPERATURE AS MEASURED BY THE WALL MOUNTED HE DIFFUSER'S INTERNAL DAMPER OPEN AND CLOSED AS NECESSARY TO MEET THE

FE THE VAV BOX AIRFLOW DAMPER VIA A DUCT STATIC PRESSURE SENSOR LOCATED INSTREAM OF THE VAV BOX. THE DAMPER SHALL MODULATE VIA THE CONTROLLER TO MAINTAIN A STATIC PRESSURE OF NO

2.3.4. IF HEAT IS REQUIRED AND THE PRIMARY AIR TEMPERATURE IS NOT SUITABLE FOR HEATING, THE VAV CONTROLLER SHALL COMMUNICATE WITH THE THERMAL DIFFUSER CONTROLLER AND WILL OPERATE ITS NORMALLY CLOSED MODULATING TWO WAY

2.3.5. THE VAV CONTROLLER WILL MONITOR THE DISCHARGE AIR TEMPERATURE AFTER THE COIL AND WILL NOT ALLOW THE AIR TO

2.3.6. DURING HEATING THE VAV CONTROLLER WILL MAINTAIN THE CONFIGURED AUXILIARY HEATING CFM SET POINT.

OR WILL BE USED BY THE CARRIER CONTROLLER FOR ITS CONTROL LOGIC POINT. CCUPIED AND UNOCCUPIED SCHEDULES AND SET POINTS THROUGH LINKAGE CONTROL, PRIMARY AIR TEMPERATURE TO THE FPVAV BOX AND MODULATE THE PRIMARY AIR OINT TO ITS MAXIMUM CFM SET POINT IN ORDER TO MAINTAIN THE SPACE WITHIN THE

IARY AIR IS SUITABLE FOR COOLING. THE CONTROLLER WILL MODULATE ITS DAMPER IS MAXIMUM CFM SETPOINT TO SATISFY THE DEMAND.

AIR IS NOT SUITABLE FOR HEATING, TEH CONTROLLER WILL ENERGIZE THE FAN FOR A DER TO UTILIZE THE PLENUM AIR TO SATISFY THE HEATING DEMAND. CONTROLLER WILL MODULATE ITS NORMALLY CLOSED MODULATING TWO WAY VALVE TO

DISCHARGE AIR TEMPERATURE AFTER THE COIL AND WILL NOT ALLOW THE AIR TO POIINT OF 95°F. DURING HEATING SEASON. THE CONTROLLER WILL MAINTAIN THE SETPOINT. NTROLLERS.

1. SUPPORT ALL PIPING FROM STRUCTURE WITH UL LISTED HANGERS AND SUPPORTS SUITABLE FOR THE INTENDED INSTALLATION. DESIGN, SELECTION, SPACING, AND APPLICATION OF HANGERS AND SUPPORTS SHALL COMPLY WITH ANSI B31.1 AND MSS SP-69. HANGERS SHALL BE MANUFACTURED BY PENTAIR., OR APPROVED EQUAL. BLACK OR GALVANIZED STEEL PIPE = MODEL NO. 100, CAST IRON PIPE = MODEL

2. CONTRACTOR SHALL PROVIDE INSULATION HANGER WITH PROTECTIVE SHIELDS, SUCH AS PENTAIR, MODEL NO. 125, OR APPROVED EQUAL

3. CONTRACTOR SHALL PROVIDE RISER CLAMPS FOR VERTICAL PIPING AT EACH LEVEL. RISER CLAPS SHALL BE PENTAIR MODEL NO. 510 FOR STEEL PIPING AND MODEL NO. 511 FOR COPPER TUBING OR APPROVED EQUAL. USE "SHORT-END" RISER CLAMPS WHERE SPACE IS

4. CONTRACTOR SHALL PROVIDE SIDE BEAM CLAMPS FOR SUPPORTING PIPING FROM STRUCTURAL STEEL MEMBERS. BEAM CLAMPS SHALL

5. WHERE OTHER MEANS OF SUPPORT PIPING ARE REQUIRED OR DESIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE

6. HANGERS AND SUPPORTS SHALL BE SPACED AT INTERVALS WHICH WILL PREVENT SAGGING AND REDUCE STRAIN ON VALVES AND SPECIALTIES. HANGER SPACING SHALL BE NO GREATER AND ROD SIZE SHALL BE NO SMALLER THAN THAT SHOWN IN THE FOLLOWING TABLE. HANGERS SHALL ALLOW FOR EXPANSION AND CONTRACTION. HANGER SHALL BE PROVIDED AT EACH CHANGE OF DIRECTION.

7. RISER CLAMPS SHALL BE INSTALLED ABOVE THE FLOOR AT EACH LEVEL. RISER CLAMPS MAY BE SUSPENDED BELOW FLOOR LEVEL, WITH HANGER RODS AND INSERTS, WHERE THE INSTALLATION OF ESCUTCHEON PLATES IS REQUIRED.

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6         ADDENDUM #6         02/10/20           6         ADDENDUM #6         02/10/20           5         100% CONSTRUCTION DOCUMENTS REVISION #3         09/03/20           4         100% CONSTRUCTION DOCUMENTS REVISION #2         07/30/20           3         100% CONSTRUCTION DOCUMENTS REVISION #1         07/09/20           2         100% CONSTRUCTION DOCUMENTS REVISION #1         07/09/20           2         100% CONSTRUCTION DOCUMENTS REVISION #1         05/22/20           1         100% DESIGN DEVELOPMENT DESCRIPTION         01/23/20           #         DESCRIPTION         DATE           PROJECT ISSUANCE         PROJECT ISSUANCE









1 6TH FLOOR MECHANICAL PLAN - DEMOLITION M-103 1/8" = 1'-0"



![](_page_23_Figure_0.jpeg)

![](_page_23_Figure_1.jpeg)

![](_page_23_Picture_3.jpeg)

MECHANICAL DEMOLITION GENERAL NOTES:

- 1. MC SHALL VERIFY ALL EXISTING EQUIPMENT, PIPING, DUCTWORK, AND APPURTENANCE SIZES AND LOCATION IN FIELD PRIOR TO BID.
- 2. MC SHALL VERIFY ALL EQUIPMENT TO REMAIN IS FUNCTIONING PROPERLY AND IS IN GOOD WORKING CONDITION.
- 3. MC SHALL PROVIDE NEW ISOLATION VALVES AT ANY PIPING CAP AS A RESULT OF DEMOLITION OF PORTION OF HYDRONIC SYSTEM .
- 4. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK TO REMAIN. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.
- 5. ALL EXISTING HOT WATER SUPPLY AND RETURN PIPING ASSOCIATED WITH MECHANICAL HEATING SYSTEM, AS WELL AS ALL HANGERS, INSULATION AND OTHER APPURTENANCES, SHALL BE DEMOLISHED ON FLOOR. VERIFY SIZE, LOCATION AND QUANTITY IN FIELD.
- 6. ALL EXISTING FAN POWERED VAV BOXES AND SINGLE DUCT VAY BOXES, AS WELL AS ALL APPURTENANCES, PIPING AND DUCTWORK CONNECT TO UNITS, SHALL BE DEMOLISHED. VERIFY QUANTITY, SIZE, AND LOCATION IN FIELD.

MECHANICAL DEMOLITION KEY NOTES: (#)

- 1. EXISTING SUPPLY DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING MOTORIZED DAMPER AND COMBINATION FIRE/SMOKE DAMPER TO REMAIN.
- 2. EXISTING RETURN DUCTWORK INTO CHASE TO REMAIN. MC TO VERIFY SIZE AND EXACT LOCATION OF DUCTWORK IN FIELD. EXISTING COMBINATION FIRE/SMOKE DAMPER TO REMAIN. MC TO VERIFY PRESENCE OF BIRDSCREEN AT DUCT STUB. MC TO PROVIDE BIRDSCREEN IF NOT CURRENTLY INSTALLED.
- 3. EXISTING HOT WATER UNIT HEATER AND ALL ASSOCIATED APPURTENANCES TO BE DISCONNECTED AND RETURNED TO OWNER IN GOOD CONDITION. VERIFY LOCATION IN FIELD.
- 4. EXISTING TRANSFER GRILLES AND DUCTWORK FOR BATHROOMS TO REMAIN. VERIFY SIZE AND LOCATION IN FIELD.
- 5. EXISTING HOT WATER SUPPLY AND RETURN RISERS IN SHAFT TO REMAIN.
- 6. EXISTING HOT WATER SUPPLY AND RETURN PIPING FROM SHAFT INTO FUTURE TENANT SPACE TO BE CAPPED NO LESS THAN 3 FEET FROM SHAFT FOR FUTURE CONNECTION. MC TO PROVIDE MANUAL ISOLATION VALVES ON SUPPLY AND RETURN PIPING IF NOT CURRENTLY INSTALLED.
- 7. EXISTING HOT WATER SUPPLY AND RETURN PIPING AND ALL ASSOCIATED APPURTENANCES TO BE DEMOLISHED. MC TO VERIFY EXACT ROUTING AND LOCATION OF PIPING IN FIELD.

![](_page_24_Figure_0.jpeg)

### MECHANICAL GENERAL NOTES:

- 1. PROVIDE MERV 13 FILTERS AT ALL PARELLEL PAN POWERED BOX RETURN OPENINGS.
- 2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
- 3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
- 4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
- 5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT.
- 6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.
- 7. INLET AND OUTLET OF FAN POWERED BOXES AND SINGLE DUCT VAV BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION REQUIREMENTS.
- 8. NEW MECHANICAL EQUIPMENT SHALL BE INSTALLED NO LESS THAN 10 FEET FROM THE ROOF EDGE OR PARAPET. ANY MECHANICAL EQUIPMENT INSTALLED WITHIN 10 FEET OF ROOF EDGE SHALL BE PROVIDED WITH PROTECTIVE SERVICE RAILING FOR PROPER SERVICE AND MAINTENANCE OF EQUIPMENT.
- 9. MC TO PROVIDE PIPE SUPPORT STANDS ON ROOF FOR REFRIGERANT LINESETS. PIPE SUPPORTS SHALL BE PROVIDED EVERY 5'-0" OF HORIZONTAL RUN.
- 10.NEW SPLIT SYSTEM CONDENSING UNITS SHALL BE MOUNTED ON THE MANUFACTURER'S 18" UNIT STANDS WITH VIBRATION ISOLATION PADS.

### ME<u>CHANICAL KEY NOTES:</u> $\langle \# \rangle$

- FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 3. 5/8" SUCTION AND 3/8" LIQUID REFRIGERANT LINE SET SHALL BE ROUTED THROUGH OPEN CEILING SPACE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON LOW ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT PENETRATIONS THROUGH FIRE RATED ENCLOSURES. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
- 4. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT NEW SAFEWASTE CONNECTION (BY P.C.) IN EXISTING RESTROOM AT LAVATORY SINK. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
- 5. MEDIUM PRESSURE SUPPLY BRANCH CONNECTS TO EXISTING SUPPLY MAIN. MC TO VERIFY SIZE AND LOCATION OF EXISTING SUPPLY AIR DUCT IN FIELD AND PROVIDE TRANSITIONS AS NECESSARY FOR DUCT CONNECTION.
- 6. HOT WATER SUPPLY AND RETURN PIPING SHALL CONNECTS TO EXISTING HOT WATER PIPING. MC TO VERIFY LOCATION AND SIZE OF EXISTING PIPING IN FIELD.
- TRANSFER GRILLE TO BE INSTALLED AT PARTITION WALL IN CORRIDOR AND SHALL BE DUCTED INTO RETURN CEILING PLENUM ABOVE RESTROOM.
- 8. CONDENSING UNIT TO BE INSTALLED ON OVERHANG ABOVE RAISED CONCRETE PATIO AT FIRST FLOOR. SUCTION AND LIQUID LINESET SHALL BE ROUTED TO AHU1-1. COORDINATE ROUTING IN FIELD. PROVIDE LONG LINE KIT APPLICATION FOR ALL REFRIGERANT LINESETS EXCEEDING 80 FEET. ACCESS TO MECHANICAL EQUIPMENT SHALL BE VIA TEMPORARY LADDER FROM PATIO LANDING, AS DISTANCE FROM LOW ROOF LEVEL TO LANDING IS LESS THAN 16 FEET. PROVIDE MANUFACTURER PROVIDED 12" MINIMUM HEAT PUMP STANDS WITH VIBRATION -ISOLATION/PADE: MC-SHALL/VERIFY-ROOK/WARRANFY-IS-MOT-VOIDED BY INSTALLATION OF HEAT PUMP STANDS. MC SHALL COORDINATE WITH GC TO PROVIDE MECHANICAL SCREENING AROUND CONDENSING UNIT IN ACCORDANCE WITH DISCRETION OF ZONING ADMINISTRATOR. GC SHALL PROVIDE MECHANICAL SCREEN AND MC SHALL COORDINATE FINAL LOCATION OF EQUIPMENT.
- 9. INSTALL ONICON SYSTEM-40 BTU METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING.
- 10. LINEAR SLOT DIFFUSER TO BE INSTALLED IN RECESSED MODULAR LINEAR LIGHTING TRACK SYSTEM. DIFFUSER AND ENGINEERED PLENUM BOX TO BE HUNG FROM CEILING OR STRUCTURE ABOVE. FINAL LOCATION OF DIFFUSER SHALL BE COORDINATED WITH ARCHITECTURAL REFLECTED CEILING PLAN. BRANCH DUCTWORK CONNECTING TO DIFFUSER SHALL TRANSITION AND SHALL BE ROUTED AS NECESSARY TO AVOID STRUCTURAL BEAMS, EXISTING DUCTWORK AND PIPING.
- 11. EXISTING PARALLEL FAN POWERED VAV BOX AND ALL ASSOCIATED APPURTENANCES TO BE RELOCATED TO THIS LOCATION. HOT WATER SUPPLY AND RETURN PIPING SHALL BE RECONNECTED TO FAN POWERED BOX. EXTEND PIPING AS NECESSARY. VERIFY EXISTING SIZE AND LOCATION IN FIELD.
- 12. NEW SUPPLY DUCTWORK SHALL CONNECT TO RELOCATED FAN POWERED BOX. TRANSITION NEW DUCTWORK UP TO EXISTING ELEVATION OF SUPPLY DUCTWORK CONCEALED ABOVE DROPPED CEILING IN RECEPTION SPACE 102. MAKE TRANSITIONS AS NECESSARY TO CONNECT TO EXISTING DUCTWORK.

![](_page_24_Picture_27.jpeg)

![](_page_25_Figure_0.jpeg)

# 1 5TH FLOOR MECHANICAL PLAN M-202 1/8" = 1'-0"

## MECHANICAL GENERAL NOTES:

- 1. PROVIDE MERV 8 FILTERS AT ALL PARELLEL FAN POWERED BOX RETURN OPENINGS.
- 2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
- 3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
- 4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
- 5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT UNLESS EQUIPPED WITH CONDENSATE PUMP.
- 6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

MECHANICAL KEY NOTES: (#)

- 1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 66X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 3. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 94X12 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 4. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 66X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 5. 1/2" SUCTION AND 1/4" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
- 6. PROVIDE 1/2" UNDERCUT OF DOOR.
- 7. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT EXISTING JANITOR'S SINK IN EXISTING JANITOR'S CLOSET. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
- 8. 2" HOT WATER SUPPLY AND RETURN CONNECT TO EXISTING RISER STACK AT CHASE. MC TO VERIFY EXISTING LOCATION OF RISER IN FIELD PRIOR TO BID AND SHALL LENGTHEN PIPING AS NECESSARY TO MAKE CONNECTION. PROVIDE FIRESTOPPING AT CHASE PENETRATION WASCORDANCE WITH THE IBC. INSTALL ONICON SYSTEM-40 BTU-METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING. PROVIDE ISOLATION MANUAL SHUTOFF VALVES AT RISER IF NOT EXISTING.
- 9. PRICE PRODIGY PPM POWER MODULE TO BE INSTALLED ABOVE CEILING. EC TO PROVIDE 120V ELECTRICAL CONNECTION TO MODULE. 96 VA 115/24 VAC TRANSFORMER AND DISCONNECT TO BE INTEGRAL WITH POWER MODULE.

![](_page_25_Picture_20.jpeg)

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![](_page_26_Figure_0.jpeg)

<u>}6TH FLOOR MECHANICAL PLAN</u> M-203/ 1/8" = 1'-0"

### MECHANICAL GENERAL NOTES:

- 1. PROVIDE MERV 8 FILTERS AT ALL PARELLEL FAN POWERED BOX RETURN OPENINGS.
- 2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
- 3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
- 4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
- 5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT UNLESS EQUIPPED WITH CONDENSATE PUMP.
- 6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO SIXTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

MECHANICAL KEY NOTES: (#)

- 1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT RUNS TO GRILLE AT WALL PARTITION. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 3. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY.94X12 RETURN AIR DUCT STUBS INTO OPEN OFFICE SPACE. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 4. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT, CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 5. 3/8" SUCTION AND 1/4" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
- 6. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT EXISTING JANITOR'S SINK IN EXISTING JANITOR'S CLOSET. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
- 7. 2" HOT WATER SUPPLY AND RETURN CONNECT TO EXISTING RISER STACK AT CHASE. MC TO VERIFY EXISTING LOCATION OF RISER IN FIELD PRIOR TO BID AND SHALL LENGTHEN PIPING AS NECESSARY TO MAKE CONNECTION. PROVIDE FIRESTOPPING AT CHASE PENETRATION ACCORDANCE WITH THE IBC. INSTALL ONICON SYSTEM 40 BTU METERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA
- LOGGING. PROVIDE ISOLATION MANUAL SHUTOFF VALVES AT RISER IF NOT EXISTING.
- 8. PRICE PRODIGY PPM POWER MODULE TO BE INSTALLED ABOVE CEILING. EC TO PROVIDE 120V ELECTRICAL CONNECTION TO MODULE. 96 VA 115/24 VAC TRANSFORMER AND DISCONNECT TO BE INTEGRAL WITH POWER MODULE.
- 9. EXHAUST DUCTWORK TRANSITIONS TO 12"X6" DUCT STUBS INTO PLENUM SPACE ABOVE ACOUSTIC TILE CEILING.

![](_page_26_Picture_21.jpeg)

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![](_page_27_Figure_0.jpeg)

## 7TH FLOOR MECHANICAL PLAN M-204/ 1/8" = 1'-0"

### MECHANICAL GENERAL NOTES:

- 1. PROVIDE MERV 8 FILTERS AT ALL PARELLEL FAN POWERED BOX RETURN OPENINGS.
- 2. THERMOSTATS SHALL BE COMPATIBLE WITH THE EXISTING BAS CONTROLS. MC SHALL VERIFY EXISTING CONTROLS SYSTEM IN BUILDING PRIOR TO BID.
- 3. THERMOSTATS SHALL BE INSTALLED AT 44" ABOVE FINISHED FLOOR.
- 4. PROVIDE CONDENSATE PUMP FOR INDOOR SPLIT SYSTEM COOLING ONLY AIR HANDLING UNIT.
- 5. ALL CONDENSATE PIPING SHALL SLOPE NO LESS THAN 1/4" PER FOOT TOWARDS TERMINATION POINT UNLESS EQUIPPED WITH CONDENSATE PUMP.
- 6. VERIFY EXISTING BACNET ROUTER INSTALLED IN PREVIOUS WORK. HVAC CONTROLS ON THIS FLOOR SHALL BE ROUTED TO FIFTH FLOOR BACNET ROUTER UNLESS OTHERWISE NOTED.

MECHANICAL KEY NOTES:  $\langle \# \rangle$ 

- 1. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 68X20 RETURN AIR DUCT STUBS INTO PLENUM CEILING. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 2. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 3. FIELD CONFIRM SIZE AND LOCATION OF RETURN AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 94X14 RETURN AIR DUCT STUBS INTO OPEN OFFICE SPACE. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING SHALL BE EXISTING TO REMAIN. PROVIDE BIRDSCREEN AT DUCT OPENING.
- 4. FIELD CONFIRM SIZE AND LOCATION OF SUPPLY AIR OPENING INTO SHAFT. CREATE NEW OPENING AS NECESSARY. 58X12 SUPPLY AIR DUCT CONNECTS TO EXISTING DUCT RISER IN MECHANICAL SHAFT. VERTICAL COMBINATION FIRE/SMOKE DAMPER (FSD) AT SHAFT OPENING AND MOTORIZED DAMPER DOWNSTREAM OF FSD SHALL BE EXISTING TO REMAIN. MOTORIZED DAMPER SHALL BE REPROGRAMMED TO BE CONTROLLED BY THE OWNER AND SHALL BE NORMALLY OPEN.
- 5. 3/8" SUCTION AND 1/4" LIQUID REFRIGERANT LINE SET UP IN MECHANICAL CHASE TO ASSOCIATED OUTDOOR SPLIT SYSTEM CONDENSING UNIT ON ROOF. PROVIDE FIRESTOPPING AROUND PIPING AT SHAFT PENETRATION. COORDINATE ROUTING IN FIELD WITH EXISTING CONDITIONS.
- 6. 5/8" CONDENSATE DRAIN SHALL BE ROUTED TO AND TERMINATE AT EXISTING JANITOR'S SINK IN EXISTING JANITOR'S CLOSET. MC SHALL COORDINATE FINAL INDIRECT CONNECTION WITH PC.
- 7. 2" HOT WATER SUPPLY AND RETURN CONNECT TO EXISTING RISER STACK AT CHASE. MC TO VERIFY EXISTING LOCATION OF RISER IN FIELD PRIOR TO BID AND SHALL LENGTHEN PIPING AS NECESSARY TO MAKE CONNECTION. PROVIDE FIRESTOPPING AT CHASE PENEFRATION IN ACCORDANCE WITH
- THE IBC. INSTALL ONICON SXSTEM 40 BT TERING SYSTEM ON HOT WATER LINES ENTERING TENANT SPACE CONSISTING OF (2) TEMPERATURE SENSORS, (1) FLOW SENSOR, AND LOCAL DISPLAY. SYSTEM SHALL INCLUDE BACNET MSTP INTERFACE FOR DATA LOGGING. PROVIDE ISOLATION MANUAL SHUTOFF VALVES AT RISER IF NOT EXISTING.
- 8. PRICE PRODIGY PPM POWER MODULE TO BE INSTALLED ABOVE CEILING. EC TO PROVIDE 120V ELECTRICAL CONNECTION TO MODULE. 96 VA 115/24 VAC TRANSFORMER AND DISCONNECT TO BE INTEGRAL WITH POWER MODULE.
- 9. PARALLEL FAN POWERED BOX OR SINGLE DUCT VAV BOX SHALL BE INSTALLED IN BETWEEN STRUCTURAL MEMBERS SUCH THAT EQUIPMENT FITS ABOVE CEILING HEIGHT DENOTED IN ARCHITECT'S REFLECTED CEILING PLANS. PROVIDE DUCT TRANSITIONS AS NECESSARY FROM SUPPLY MAIN TO EQUIPMENT AND FROM DISCHARGE OUTLET TO ASSOCIATED DIFFUSERS AND GRILLES SUCH THAT CEILING HEIGHT IS MAINTAINED.

![](_page_27_Picture_21.jpeg)

![](_page_28_Figure_0.jpeg)

MECHANICAL GENERAL NOTES:

- 1. VERIFY LOCATION OF ALL EXISTING EQUIPMENT, DUCTWORK, AND PIPING ON ROOF PRIOR TO BID. COORDINATE LOCATION OF NEW EQUIPMENT WITH EXISTING CONDITIONS.
- 2. NEW MECHANICAL EQUIPMENT SHALL BE INSTALLED NO LESS THAN 10 FEET FROM THE ROOF EDGE OR PARAPET. ANY MECHANICAL EQUIPMENT INSTALLED WITHIN 10 FEET OF ROOF EDGE SHALL BE PROVIDED WITH PROTECTIVE SERVICE RAILING FOR PROPER SERVICE AND MAINTENANCE OF EQUIPMENT.
- 3. MC TO PROVIDE INSULATED PIPE PORTAL FOR EACH NEW REFRIGERANT LINESET. COORDINATE FINAL LOCATION OF PIPE PORTAL WITH EXISTING EQUIPMENT ON ROOF AND STRUCTURE BELOW.
- 4. MC TO PROVIDE PIPE SUPPORT STANDS ON ROOF FOR REFRIGERANT LINESETS. PIPE SUPPORTS SHALL BE PROVIDED EVERY 5'-0" OF HORIZONTAL RUN.
- 5. NEW SPLIT SYSTEM CONDENSING UNITS SHALL BE MOUNTED ON THE MANUFACTURER'S 18" UNIT STANDS WITH VIBRATION ISOLATION PADS.
- 6. MC SHALL COORDINATE WITH GC TO PROVIDE MECHANICAL SCREENING AROUND CONDENSING UNIT IN ACCORDANCE WITH DISCRETION OF ZONING ADMINISTRATOR. GC SHALL PROVIDE MECHANICAL SCREEN AND MC SHALL COORDINATE FINAL LOCATION OF EQUIPMENT.

MECHANICAL KEY NOTES:  $\langle \# \rangle$ 

 $\sim$ 

1. 1/4" SUCTION AND 1/2" LIQUID REFRIGERANT LINESET DN IN INSULATED PIPE PORTAL TO CHASE BELOW. COORDINATE FINAL LOCATION OF PIPE PORTAL WITH EXISTING DUCTWORK, PIPES, AND STRUCTURE WITHIN CHASE. (TYPICAL OF 3)

![](_page_28_Picture_11.jpeg)

THERMAL INSULATION SCHEDULE										
SYSTEM	YSTEM SYSTEM-LOCATION		MATERIAL	TYPE	THICKNESS IN.S	DENSITY LB/CU. FT.	INSTALLED "R" VALUE/ CONDUCTIVITY	JACKET	REMARKS	
DUCT	SUPPLY AIR DUCT - INDOOR CONCEALED, ACCESSIBLE	40-120	MINERAL-FIBER	BLANKET	2.0"	0.75	5.0	FSK	1, 5	
DUCT	SUPPLY AIR DUCT - INDOOR CONCEALED, INACCESSIBLE	40-120	MINERAL-FIBER	BOARD	1.5 "	2.25	6.5	FSK	2	
DUCT	SUPPLY AIR DUCT - INDOOR EXPOSED	40-120	MINERAL-FIBER	BOARD	1.0	2.25	5.0	ASJ	1, 5	
DUCT	SUPPLY, RETURN, RELIEF, EXHAUST DUCT - OUTDOORS AND UNCONDITIONED	40-120	*	*	*	*	12	FSK	7	
DUCT	EXHAUST DUCT WITHIN 10 FEET OF EXTERIOR OPENING - INDOOR	40-120	MINERAL-FIBER	BOARD	1.0 "	2.25	4.3	FSK		
PIPING	HEATING WATER SUPPLY AND RETURN	120-200	MINERAL-FIBER	PRE-MOLDED	ASJ+SS REFER TO PIPING INSULATION THICKNESS SCHEDULE ASJ+SS ASJ+SS		ASJ+SSL	6		
PIPING	CHILLED WATER/REFRIGEANT/ GLYCOL - CONDITIONED SPACE	40-60	MINERAL-FIBER	PRE-MOLDED			ASJ+SSL	6		
PIPING	CHILLED WATER/REFRIGERANT/ GLYCOL - UNCONDITIONED SPACE	40-60	MINERAL-FIBER WICKING	PRE-MOLDED			ASJ+SSL	6		
PIPING	COLD CONDENSATE DRAIN - INDOOR, ONLY ON METAL PIPE	40-60	MINERAL-FIBER	PRE-MOLDED			ASJ+SSL	7		
PIPING	OUTDOOR PIPING EXPOSED TO FREEZING (HEAT TRACED PIPE)	40-100	MINERAL-FIBER	PRE-MOLDED	ALUI			ALUM.		

NOTES: 1. CONCEALED, ACCESSIBLE LOCATIONS - ABOVE LAY-IN OR ACCESSIBLE CEILINGS, ACCESSIBLE MECHANICAL SHAFTS. 1. CONCEALED, ACCESSIBLE LOCATIONS - ABOVE LAY-IN OR ACCESSIBLE CEILINGS, ACCESSIBLE MECHANICAL SHAFTS. 1. CONCEALED, ACCESSIBLE LOCATIONS - ABOVE LAY-IN OR ACCESSIBLE CEILINGS, ACCESSIBLE MECHANICAL SHAFTS. 1. CONCEALED, ACCESSIBLE LOCATIONS - ABOVE LAY-IN OR ACCESSIBLE CEILINGS, ACCESSIBLE MECHANICAL SHAFTS.

2. CONCEALED, INACCESSIBLE LOCATIONS - ABOVE HARD CEILINGS, (DRY WALL, PLASTER), MECHANICAL SHAFTS, BEHIND WALLS. 3. FOR DUCTS LOCATED OUTDOORS PROVIDE WATERPROOF CONSTRUCTION WITH WATER & UV RESISTANT MASTIC ON ALL JOINTS. INTERNALLY LINE WITH ACOUSTICAL DUCT LINER. CROSS-BREAK TOP TO SHED WATER. 4. CONSTRUCT PER NFPA 96 STANDARDS FOR KITCHEN EXHAUST. WHERE LOCATED WITH 3" OF COMBUSTIBLE PROTECT COMBUSTIBLE MATERIALS, WRAP EXTERIOR WITH FIRE RESISTANT INSULATION.

5. DO NOT INSULATE: - MAKE-UP AIR DUCTWORK OPERATING AT SURROUNDING AMBIENT CONDITIONS

- RETURN AND EXHAUST AIR DUCTWORK LOCATED INDOORS.

- TRANSFER AIR DUCTWORK (ACOUSTICALLY LINE DUCT)

- EXPOSED SUPPLY DUCTWORK LOCATED IN CONDITIONED SPACE. (DOES NOT INCLUDE RETURN AIR PLENUM)

6. COVER ALL EXPOSED PIPING LOCATED BELOW 7' 0" ABOVE FINISHED FLOOR WITH PVC JACKET.

7. MULTIPLE INSULATION METHODS MAY BE USED TO ACHIEVE THE TOTAL REQUIRED R. VALUE. 8. DUCTWORK SHALL BE PAINTED WHERE EXPOSED OR VISIBLE TO OCCUPANT 6. COLOR TO BE SELECTED BY ARCHITECT. PAINTING SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. 

SPLIT SYSTEM AIR-COOLED A/C UNIT SCHEDULE															
EVAPORATOR					CONDENSER										
TAG	NOMINAL TONS	TOTAL CAPACITY MBH	SENS. CAPACITY MBH	CFM (DRY COIL)	MCA/MFS	ELECTRICAL VOLTS/PH.	MANUF./ EVAPORATOR MODEL	TAG	EAT COOL/ HTG	SEER	MCA/MOCP	ELECTRICAL VOLTS/PH.	MANUF./ CONDENSER MODEL	WEIGHT	REMARKS
AC 1-1	2.0	24.0	18.0	635- 775	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A24HA7	CU 1-1	95.0 / 5.0	21.4	19.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A24NKA7	151 LBS.	1,2,3,4,5,6,7,8,9,10
AC 5-1	1.0	12.0	9.0	320- 425	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A12HA7	CU 5-1	95.0 / 5.0	20.8	12.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A12NKA7	92 LBS.	1,2,3,4,5,6,7,8,9,10
AC 6-1	1.0	12.0	9.0	320- 425	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A12HA7	CU 6-1	95.0 / 5.0	20.8	12.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A12NKA7	92 LBS.	1,2,3,4,5,6,7,8,9,10
AC 7-1	1.0	12.0	9.0	320- 425	1.0A/SERVED FROM CONDENSER	208 V/1Ø	MITSUBISHI PKA-A12HA7	CU 7-1	95.0 / 5.0	20.8	12.0/30 A.	208 V/1Ø	MITSUBISHI PUY-A12NKA7	92 LBS.	1,2,3,4,5,6,7,8,9,10

NOTES: 1. CAPACITY BASED ON 80 DEG. F. DB/67 DEG. F. WB EAT ON EVAPORATOR

2. UNIT SHALL BE EQUIPPED WITH A WIND BAFFLE FOR OPERATION DOWN TO 0 DEG.S F.

3. PROVIDE DISCONNECT AT EACH OUTDOOR AND INDOOR UNITS. 4. PROVIDE INTEGRAL UNIT CONTROLS AND A WALL MOUNTED THERMOSTAT/CONTROLLER MODEL.

5. PROVIDE LOW AMBIENT KIT ACCESSORY.

6. PROVIDE CONDENSATE PUMP WITH RESERVOIR AND SENSOR THAT SHALL SHUT UNIT DOWN UPON ALARM OF SENSOR.

7. DDC CONTROLS COMPATIBLE WITH BUILDING CONTROL SYSTEM.

8. PROVIDE 18" UNIT STANDS FOR CONDENSING UNIT WITH VIBRATION ISOLATION PADS.

9. RATED VERTICAL HEIGHT DIFFERENCE BETWEEN EVAPORATOR AND CONDENSER SHALL BE 100 FEET. PROVIDE LONG LINE APPLICATIONS FOR ALL LINESETS EXCEEDING 80 FEET IN LENGTH. 10. POWER FROM CONDENSER TO INDOOR FAN COIL UNIT SHALL BE PROVIDED AND COORDINATED WITH EC.

PIPE INSULATION THICKNESS SCHEDULE									
FLUID OPERATING TEMPERATURE AND USAGE (°F)	INSULATION	CONDUCTIVITY	NOMINAL PIPE OR TUBE SIZE (IN)						
	CONDUCTIVITY BTU·IN.(h·ft ² ·°F)	MEAN RATING TEMPERATURE (°F)	< 1	1 to < 1 ¹ / ₂	1 <del>1</del> < 4	4 to < 8	≥ 8		
> 350	0.32 - 0.34	250	4.5	5.0	5.0	5.0	5.0		
251 - 350	0.29 - 0.32	200	3.0	4.0	4.5	4.5	4.5		
201 - 250	0.27 - 0.30	150	2.5	2.5	2.5	3.0	3.0		
141 - 200	0.25 - 0.29	125	1.5	1.5	2.0	2.0	2.0		
105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5		
40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0		
40	0.20 - 0.26	50	0.5	1.0	1.0	1.0	1.5		

REMARKS:

PIPING SERVING AS PART OF A HEATING OR COOLING SYSTEM SHALL BE THERMALLY INSULATED IN ACCORDANCE WITH TABLE ABOVE (IECC 2015 TABLE C403.2.10) WITH THE FOLLOWING EXCEPTIONS: 1. FACTORY-INSTALLED PIPING WITHIN HVAC EQUIPMENT TESTED AND RATED IN ACCORDANCE WITH A TEST PROCEDURE REFERENCED BY THIS CODE.

2. FACTORY-INSTALLED PIPING WITHIN ROOM FAN-COILS AND UNIT VENTILATORS TESTED AND RATED ACCORDING TO AHRI 330 (EXCEPT THAT THE SAMPLING AND VARIATION PROVISIONS OF SECTION 6.5 SHALL NOT APPLY) AND AHRI 840, RESPECTIVELY. 3. PIPING THAT CONVEYS FLUIDS THAT HAVE A DESIGN OPERATING TEMPERATURE RANGE BETWEEN 60°F AND 105°F.

4. PIPING THAT CONVEYS FLUIDS THAT HAVE NOT BEEN HEATED OR COOLED THROUGH THE USE OF FOSSIL FUELS OR ELECTRIC POWER. 5. STRAINERS, CONTROL VALVES, AND BALANCE VALVES ASSOCIATED WITH PIPING 1 INCH OR LESS IN DIAMETER. 6. DIRECT BURIED PIPING THAT CONVEYS FLUIDS AT OR BELOW 60°F.

TRANSFER AIR DUCT SCHEDULE						
DESIGNATION	DUCT SIZE	CFM RANGE	DETAIL			
T1	24 x 12	0-1200	#1/M301			
T2	24 x 12	0-1200	#12/M301			
Т3	24 x 12	0-1200	-			
T4	36 x 12	1201-2400	-			
T5	48 x 12	2401-3600	-			

NOTES: 1. SIZING BASED ON 0.05"/100 FT. P.D. ~ 700 FPM

2. REFER TO DETAIL FOR DUCT CONFIGURATION. 3. PROVIDE 1" THICK ACOUSTICAL LINER.

EXHAUST FAN SCHEDULE											
		VES TYPE BASIS OF DESIGN (GREENHECK) CFM SP IN WC RPM SON (INLE					MAX	WALL/	MOTOR		
MARK	SERVES		SONES (INLET)	OPENING SIZE	HP (WATT)	VOLTS/ PH	REMARKS				
EF 6-1	205 RESTROOM	CABINET	QTXE080	75	0.3	950	0.3	6"Ø	(23.3)	120/1	1,2,3,4

EMARKS 1. PROVIDE INTEGRAL BACKDRAFT DAMPER.

2. PROVIDE DISCONNECT SWITCH. 3. FAN SHALL BE CONTROLLED VIA WALL MOUNTED THERMOSTAT SET TO MAINTAIN A SPACE TEMPERATURE SETPOINT OF NO GREATER THAN 80 DEGREES FAHRENHEIT.

4. PROVIDE SPRING VIBRATION ISOLATION HANGERS.

![](_page_29_Picture_34.jpeg)

![](_page_30_Figure_0.jpeg)

POWER	KEY	NOT	ES:	$\langle \# \rangle$

- 1. ELECTRICAL CONTRACTOR SHALL PROVIDE NLIGHT MPP20 PL PLUG LOAD CONTROL PACK FOR THIS RECEPTACLE.
- 2. THESE (3) DEVICES ARE IN THE DEMOUNTABLE PARTITION AND MOUNTED PER DWG AV0.01. COORDINATE FINAL LOCATION WITH ARCHITECT.
- PROVIDE A (3) GANG LOW VOLTAGE OPEN ROUGH-IN WITH (2) 2" CONDUITS UP TIGHT TO ABOVE CLOUD CEILING. PROVIDE PULL STRING.

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CLIENT: Housing Authority of the City of Pittsburgh 200 Ross St, Pittsburgh, PA 15219 (412) 456-5000 hacp.org	/
HACP - Housing Authority of the City of Pittsburgh 412 Boulevard of the Allies, Pittsburgh, PA 15219	
Image: Construction documents         02/10/202           Image: Construction documents         02/10/202           Image: Construction documents         09/03/202           Image: Construction documents         07/30/202           Image: Construction documents         07/09/202           Image: Construction documents         07/09/202           Image: Construction documents         05/22/202           Image: Construction documents         05/22/202 <th></th>	
SHEET NAME: 5TH FLOOR POWER PLAN SHEET NO: E-302R	н Н Н

![](_page_30_Figure_8.jpeg)

![](_page_31_Figure_0.jpeg)

![](_page_31_Picture_1.jpeg)

ALL BRANCH CIRCUITING RACEWAY, MC CABLE AND BRANCH CIRCUITING SHALL BE ROUTED IN A NEAT, ORGANIZED AND ORDERLY FASHION, TIGHT TO BUILDING STRUCTURE AND AT 90 DEGREE BENDS.

POWER KEY NOTES: $\langle \# \rangle$	

- ELECTRICAL CONTRACTOR SHALL PROVIDE NLIGHT MPP20 PL PLUG LOAD CONTROL PACK FOR THIS RECEPTACLE.
- 2. THESE (3) DEVICES ARE IN THE DEMOUNTABLE PARTITION AND MOUNTED PER DWG. AV0.01. COORDINATE FINAL LOCATION WITH ARCHITECT.

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CONSULTANT: Allen & 700 H	CONSULTANT: Allen & Shariff DESIGN I BUILD I MANAGE Allen & Shariff Engineering, LLC 700 River Avenue, Suite 600 Pittsburgh, PA 15212 Tel: 412.322.9280							
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	HACP - Housing Authority of the City of Pittsburgh	412 Boulevard of the Allies, Pittsburgh, PA 15219						
6 5 100% CO 4 100% CO 3 100% CO 2 100% CO 1 100% # PROJECT NO: 190427.00 SHEET NAME:	ADDENDUM NSTRUCTION REVISION NSTRUCTION REVISION NSTRUCTION NSTRUCTION DESIGN DEVE DESCRIPTI PROJECT	1 #6 DOCUMEI #3 DOCUMEI #2 DOCUMEI #1 DOCUMEI ELOPMENT ON ISSUANC	02/10/2021           NTS         09/03/2020           NTS         07/30/2020           NTS         07/09/2020           NTS         05/22/2020           DATE         01/23/2020           DATE         DEB					
	.00R P 304	<u>owe</u> 4R						

![](_page_31_Figure_9.jpeg)