



## **Sea-Tac International Airport**

Facilities and Infrastructure System  
Mechanical System Standards

### **APPENDIX D**

Mechanical Equipment Schedules

*Revised January 22, 2020*

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AIR HANDLING UNITS																																								
EQUIP ID	LOCATION	SERVES	SUPPLY FAN													RETURN FAN											OUTDOOR VENTILATION	COILS		FILTERS		OPER WEIGHT	BASIS OF DESIGN		REMARKS					
			TYPE	BLADE TYPE	FLOW: CFM	TSP: IN. WG	ESP: WG	IN. [1]	FAN TYPE	SPEED: RPM	WHEEL DIA: IN	MAX BHP	MOTOR HP	VOLTS/ PHASE	VIBRATION ISOLATION	FAN MODULATION	TYPE	BLADE TYPE	FLOW: CFM	TSP: IN. WG	ESP: WG	IN. [1]	FAN TYPE	SPEED: RPM	WHEEL DIA: IN	MAX BHP	MOTOR HP	VOLTS/ PHASE	VIBRATION ISOLATION	FAN MODULATION	MIN FLOW: CFM	COOLING [2]	HEATING [2]	PRE [3] FILTER		FINAL[3] FILTER	MAX LBS	MANU-FACTUER	MODEL	
* ** OPERATING CONDITIONS	''	''							''		''		''	''	''	''							''		''		''	''	''								''	''		
* ** OPERATING CONDITIONS	''	''							''		''		''	''	''	''							''		''		''	''	''								''	''		
* ** OPERATING CONDITIONS	''	''							''		''		''	''	''	''							''		''		''	''	''								''	''		
* ** OPERATING CONDITIONS	''	''							''		''		''	''	''	''							''		''		''	''	''								''	''		
GENERAL NOTES: *AIR HANDLING EQUIPMENT SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **AIR HANDLING EQUIPMENT SHALL BE SET TO OPERATING CONDITIONS. ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.																																								
NOTES: 1. STATIC PRESSURE EXTERNAL TO THE UNIT. DOES NOT INCLUDE ALLOWANCE FOR FILTER LOADING. 2. SEE COIL SCHEDULES 3. SEE FILTER SCHEDULE																																								

AIR HANDLING UNIT FILTER																									
AIR HANDLING UNIT EQUIP ID	PRE-FILTER								FINAL FILTER								GAS PHASE FILTER								REMARKS
	TYPE	MANU- FACTURER	CLEAN PD: IN. WG	FINAL PD: IN. WG	EFF: %	MERV	MAX FACE VEL: FPM	QTY/SIZE	TYPE	MANU- FACTURER	CLEAN PD: IN. WG	FINAL PD: IN. WG	EFF: %	MERV	MAX FACE VEL: FPM	QTY/SIZE	TYPE	MANU- FACTURER	CLEAN PD: IN. WG	EFF: %	MERV	MAX FACE VEL: FPM	FILTER: QTY/SIZE		
* **OPERATING CONDITIONS	''	''			''	''		''	''	''			''	''		''	''	''		''	''		''		
* **OPERATING CONDITIONS	''	''			''	''		''	''	''			''	''		''	''	''		''	''		''		
* **OPERATING CONDITIONS	''	''			''	''		''	''	''			''	''		''	''	''		''	''		''		
* **OPERATING CONDITIONS	''	''			''	''		''	''	''			''	''		''	''	''		''	''		''		
* **OPERATING CONDITIONS	''	''			''	''		''	''	''			''	''		''	''	''		''	''		''		
* **OPERATING CONDITIONS	''	''			''	''		''	''	''			''	''		''	''	''		''	''		''		
GENERAL NOTES: *FILTERS SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **FILTERS SHALL BE SET TO OPERATING CONDITIONS. FILTERS SHALL BE CLASSIFIED BY U.L. MINIMUM EFFICIENCY REPORTING VALUE (MERV) IN ACCORDANCE WITH ASHRAE STANDARD 52.2 FILTERS WITH MERV 1 TO MERV 4 SHALL ALSO BE TESTED IN ACCORDANCE WITH ASHRAE STANDARD 52.1																									
NOTES:																									

AIR HANDLING UNIT - COOLING COIL															
AIR HANDLING UNIT EQUIP ID	AIR								WATER					REMARKS	
	FLOW: CFM	MIN OA: CFM	EAT: DB F	EAT WB: F	LAT DB: F	LAT WB: F	MAX PD: IN. WG	MAX FACE VEL: FPM	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	ROWS		
* **OPERATING CONDITIONS			''	''			''	''			''	''	''		
* **OPERATING CONDITIONS			''	''			''	''			''	''	''		
* **OPERATING CONDITIONS			''	''			''	''			''	''	''		
* **OPERATING CONDITIONS			''	''			''	''			''	''	''		
* **OPERATING CONDITIONS			''	''			''	''			''	''	''		
* **OPERATING CONDITIONS			''	''			''	''			''	''	''		
GENERAL NOTES: *COILS SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **COILS SHALL BE SET TO OPERATING CONDITIONS.															
NOTES: .															

AIR HANDLING UNIT - HEATING COIL														
AIR HANDLING UNIT EQUIP ID	AIR						WATER						REMARKS	
	FLOW: CFM	MIN OA: CFM	EAT: DB F	LAT: DB F	MAX PD IN. WG	MAX FACE VEL: FPM	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	ROWS	MAX FINS PER INCH		
*			''		''	''			''		''	''		
**OPERATING CONDITIONS														
*			''		''	''			''		''	''		
**OPERATING CONDITIONS														
*			''		''	''			''		''	''		
**OPERATING CONDITIONS														
*			''		''	''			''		''	''		
**OPERATING CONDITIONS														
*			''		''	''			''		''	''		
**OPERATING CONDITIONS														
GENERAL NOTES:														
*COILS SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED.														
**COILS SHALL BE SET TO OPERATING CONDITIONS.														
NOTES:														

FANS																			
EQUIP ID	LOCATION	SERVES	FAN													OPER WEIGHT	BASIS OF DESIGN		REMARKS
			FAN TYPE	DRIVE TYPE	BLADE TYPE	FLOW: CFM	INLET AIR TEMP *F	TSP: IN. WG	SPEED: RPM	MAX BHP	MOTOR HP	ENCLOSURE TYPE	VOLT/ PHASE	VIBRATION ISOLATION	FAN MODULATION	MAX LBS	MANU— FACTURER	MODEL	
* **OPERATING CONDITIONS	''	''	''	''								''	''	''	''	''	''	''	
* **OPERATING CONDITIONS	''	''	''	''								''	''	''	''	''	''	''	
GENERAL NOTES: *FAN EQUIPMENT (MAIN EXHAUST, RETURN AND PRESSURIZATION FANS) SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **FAN EQUIPMENT SHALL BE SET TO OPERATING CONDITIONS. ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.																			
NOTES: .																			

## VAV FAN TERMINAL UNIT

[illegible]

## SINGLE DUCT VAV AND CV TERMINAL UNIT

[illegible]

FAN COIL UNIT
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[illegible]

## AIR CONDITIONING UNIT

[illegible]

## SOUND ATTENUATOR

[illegible]

HOT WATER UNIT HEATER

[illegible]

## DIFFUSERS AND GRILLES

[illegible]

DWG. TITLE:

## MECHANICAL EQUIPMENT SCHEDULES

DATE: Jan, 2014

LAST REVISION: 1

DIAG. NO.

SCH-10.3

## CENTRIFUGAL WATER CHILLERS

[illegible]

## COOLING TOWERS

			CAPACITY		TYPE			CONDENSER WATER				FAN								PIPE CONNECTIONS PER CELL (INCHES)						BASIS OF DESIGN		REMARKS			
EQUIP ID	LOCATION	SERVES	TONS (CHILLER CAPACITY)	AMBIENT WB: F	NO. OF CELLS	AIRFLOW: CFM	DISCHARGE ORIENTATION	EWI: F	LWT: F	FLOW: GPM	MAX HDR PD: FT [1]	TYPE	MARK	NO. FANS	AIRFLOW: CFM	TSP: IN. WG	FAN DIA: FT.	MAX BHP	HP	VOLT/ PHASE	FAN MODULATION	SUPPLY: NPS	RETURN: NPS	MAKE-UP: NPS	EQUALIZING: NPS	DRAIN: NPS	OVERFLOW: NPS		MANU- FACTURER	MODEL	
<b>GENERAL NOTES:</b> ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.																															
<b>NOTES:</b> 1. HEADER (HDR) PRESSURE DROP INCLUDES MAIN AND DISTRIBUTION PIPING AND SPRAY NOZZLES.																															

## PUMPS

EQUIP ID	LOCATION	SERVES	CAPACITY					TYPE										PUMP MODULATION	VIBRATION ISOLATION	OPER WEIGHT	BASIS OF DESIGN		REMARKS
			FLOW: GPM	TDH: FT	EFF: %	NPSH REQUIRED FT	NPSH AVAILABLE FT	DESCRIPTION	SPEED: RPM	MAX BHP	MOTOR HP	VOLT/ PHASE	SUCT CONN: IN	DISCH CONN: IN	IMP DIA: IN.	BASE TYPE	SUCT DIFFUSER				TYPE	TYPE	
*																							
**OPERATING CONDITIONS	11	12						13	14		15	16	17		18	19	20	21	22	23	24		
*																							
**OPERATING CONDITIONS	11	12						13	14		15	16	17		18	19	20	21	22	23	24		
GENERAL NOTES:																							
*PUMPING EQUIPMENT (MAIN CHILLED WATER AND HEATING WATER SYSTEM PUMPS) SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED.																							
**PUMPING EQUIPMENT SHALL BE SET TO OPERATING CONDITIONS.																							
ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.																							
NOTES:																							

## AIR SEPARATORS

[illegible]

## PLATE FRAME HEAT EXCHANGER

EQUIP ID	LOCATION	SERVES	CAPACITY		COOL FLUID				WARM FLUID				OPER WEIGHT	BASIS OF DESIGN		REMARKS
			MBH	HTG SURF: SQ FT.	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	FLOW: GPM	EWT: F	LWT: F	MAX PD: FT	MAX LBS	MANU-FACTURER	MODEL	
*																
**OPERATING CONDITIONS	11	11				11		11		11		11	11	11	11	
*																
**OPERATING CONDITIONS	11	11				11		11		11		11	11	11	11	
*																
**OPERATING CONDITIONS	11	11				11		11		11		11	11	11	11	
*																
**OPERATING CONDITIONS	11	11				11		11		11		11	11	11	11	
*																
**OPERATING CONDITIONS	11	11				11		11		11		11	11	11	11	

**GENERAL NOTES:**

\*PLATE FRAME HEAT EXCHANGER SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED (EXCEPTION: INSTALL HEATING SURFACE AREA FOR OPERATING CONDITIONS).

\*\*PLATE FRAME HEAT EXCHANGER SHALL BE SET TO OPERATING CONDITIONS.

PLATE FRAME HEAT EXCHANGERS SHALL BE ASME LABELED.

**NOTES:**

## EXPANSION TANKS

[illegible]

## STEAM BOILERS

[illegible]

## CONDENSATE PUMPS & RECEIVER

[illegible]

## STEAM TRAPS

EQUIP ID	LOCATION	SERVES	TYPE						BASIS OF DESIGN		REMARKS
			DESCRIPTION	CAPACITY: LBS/HR	STM PRESS: PSI	DIFF PRESS: PSI	ORIFICE: IN.	PIPE CONN: IN.	MANU- FACTURER	MODEL	

NOTES:

## ECONOMIZER

[illegible]

## HEAT EXCHANGER: STEAM TO WATER

EQUIP ID	LOCATION	SERVES	CAPACITY	STEAM		WATER					DIMENSIONS		OPER WEIGHT	BASIS OF DESIGN		REMARKS
			MBH	PRESSURE: PSIG	CAPACITY: LB/HR	EWI: F	LWT: F	FLOW: GPM	SCALE FACTOR	MAX PD: FT	DIA. IN.	LENGTH FT	MAX LBS	MANU—FACTORER	MODEL	
*																
**OPERATING CONDITIONS	22	22		22		22	22		22	22	22	22	22	22	22	
*																
**OPERATING CONDITIONS	22	22		22		22	22		22	22	22	22	22	22	22	
*																
**OPERATING CONDITIONS	22	22		22		22	22		22	22	22	22	22	22	22	
*																
**OPERATING CONDITIONS	22	22		22		22	22		22	22	22	22	22	22	22	
*																
**OPERATING CONDITIONS	22	22		22		22	22		22	22	22	22	22	22	22	
<b>GENERAL NOTES:</b> *HEAT EXCHANGER SHALL BE PROVIDED AND INSTALLED TO MEET THE FUTURE PARAMETERS INDICATED. **HEAT EXCHANGER SHALL BE SET TO OPERATING CONDITIONS. HEAT EXCHANGERS SHALL BE ASME LABELED.																
<b>NOTES:</b> .																

## STEAM PRESSURE REDUCING STATION

EQUIP ID	LOCATION	SERVES	CAPACITY	1ST STAGE			2ND STAGE			BASIS OF DESIGN		REMARKS
			LBS/HR	INLET PRESS	OUTLET PRESS	VALVE DIA: INCHES	INLET PRESS	OUTLET PRESS	VALVE DIA: INCHES	MANU-FACTURER	MODEL	

NOTES:

PLUMBING DRAINS									
MARK	LOCATION	TYPE	OUTLET	TRIM			BASIS OF DESIGN		REMARKS
		DESCRIPTION	SIZE: IN	STRAINER	STRAINER MATL	TRAP PRIMER	MANU—FACTURER	MODEL	
NOTES:									

PLUMBING FIXTURE CONNECTION							
MARK	DESCRIPTION	SERVICE SIZE CONNECTIONS (INCHES)					REMARKS
		COLD WATER	HOT WATER	TEMPERED WATER	WASTE	VENT	
NOTES:							

AIR COMPRESSOR												
EQUIP ID	LOCATION	SERVES	DESCRIPTION					VIBRATION ISOLATION	OPER WEIGHT	BASIS OF DESIGN		REMARKS
			TYPE	NOMINAL CAPACITY: SCFM	MIN DELIVERY PRESS: PSIG	COMPRESSOR MOTOR: HP	VOLT/ PHASE	TYPE	MAX LBS	MANU—FACTURER	MODEL	
GENERAL NOTES: RECEIVER TANK SHALL BE ASME LABELED. BELT GUARD SHALL BE OHSA APPROVED. ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED.												
NOTES:												

WATER HEATERS: STEAM TO WATER												
EQUIP ID	LOCATION	SERVES	CAPACITY	STEAM		WATER			OPER WEIGHT	BASIS OF DESIGN		REMARKS
			MBH	PRESSURE: PSIG	CAPACITY: LB/HR	ENT TEMP: F	LVG TEMP: F	FLOW: GPM	MAX LBS	MANU—FACTURER	MODEL	
GENERAL NOTES:												
DOMESTIC HOT WATER HEATERS: DOUBLE WALL INSTANTANEOUS WATER HEATER.												
NOTES:												

DESICCANT AIR DRYER											
EQUIP ID	LOCATION	SERVES	CAPACITY						BASIS OF DESIGN		REMARKS
			AIR FLOW: SCFM	COMPRESSED AIR PRESS: PSIG	INLET PRESS DEW POINT: F	OUTLET PRESS DEW POINT: F	MAX PRESS DROP: PSI	VOLT/ PHASE	MANU-FACTURER	MODEL	
GENERAL NOTES: ELECTRICAL EQUIPMENT AND ASSEMBLIES SHALL BE U.L. LISTED. PROVIDE WITH SINGLE POINT ELECTRICAL CONNECTION											
NOTES:											