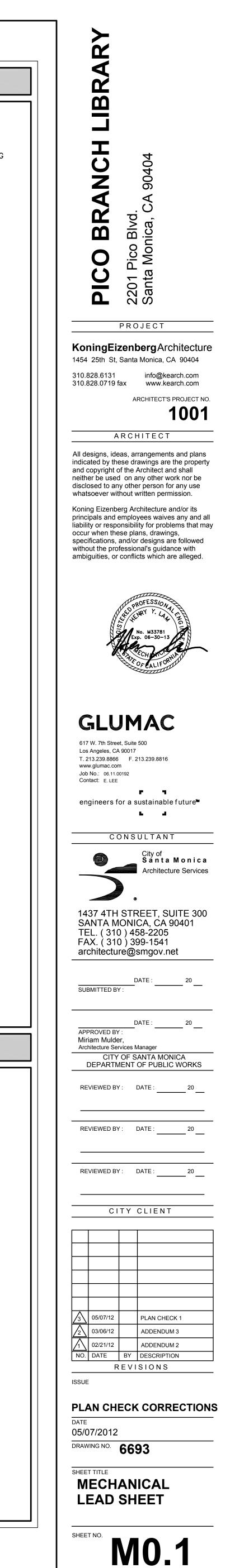


CTWORK	
SCRIPTION	SYMBOL (SINGLE LINE)
/ ACCESS PANEL	
ECTION	·⊀
RUNOUT TO DIFFUSER	; <b> </b> ~~~
TH x DEPTH)	, 12x6
BEAM PENETRATION	 ,,
RISE OR DROP)	$\begin{array}{c} & & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & $
۲	, , , , , , , , , , , , , , , , , , ,
	, I , FD <sub>R</sub> SD <sub>R</sub> FSD <sub>R</sub>
R FIRE/SMOKE DAMPER	, <u> </u>
JP	<b>≥</b> ;
DOWN	
UP	
DOWN	
JP	
OOWN	
OF SUPPLY DUCT	
OF EXHAUST AIR DUCT OF RETURN AIR DUCT	
OF ROUND DUCT	
ITH TURNING VANES	بر بر
DUCT ELBOW WITHOUT	َ ب
ING DUCT DIMENSION	12x6 \$===== <b>3</b>
	<u> </u>
IPER	
(WITH LINER)	□ □ E=====□ TD CFM
TO BOTTOM OF DUCT	,, ,, , ,, , , , , , ,
FLOOR DIFFUSOR	NECK SIZE-TAG-CFM
ARE CEILING SUPPLY DIFFUSER	NECK SIZE TAG-CFM
4–WAY THROW UNLESS RWISE. ARE CEILING EXHAUST REGISTER	
ARE CEILING RETURN REGISTER	NECK SIZE-TAG-CFM
	☑ NECK SIZE-TAG-CFM
ARE CEILING RETURN GRILLE	NECK SIZE-TAG-CFM
ARE CEILING RETURN GRILLE	NECK SIZE-TAG-CFM
ARE CEILING RETURN GRILLE	Seck SIZE-TAG-CFM
EGISTER	∽────────────────────────────────────
EGISTER	, land and a second sec
FFUSER )	
TECTOR	

	ABB	F
AAV ABV AC ACCEPT ACU AD ADD AF AFF AFMS AFUE AG AHJ AHU AMB A APPROX ARI AB BBD BDD BEL BHP BHT BMS BOD BEL BHP BHT BMS BOD BCP BFP BSMT BTUH BV BYV	AUTOMATIC AIR VENT ABOVE AIR CONDITIONING ACCEPTANCE AIR CONDITIONING UNIT ACCESS DOOR ADDITION AFTER FILTER ABOVE FINISHED FLOOR AIR FLOW MEASURING STATIO ANNUAL FUEL UTILIZATION EFFICIENCY AIR GAP AUTHORITY HAVING JURISDICT AIR HANDLING UNIT AMBIENT AMPERE ACCESS PANEL APPROXIMATELY ARCHITECT AMERICAN REFRIGERATION INSTITUTE AIR SEPARATOR AUTOMATIC AUXILIARY BOILER BOILER BLOW DOWN BACKDRAFT DAMPER BELOW BRAKE HORSEPOWER BASEBOARD HEATER BUILDING MANAGEMENT SYST BOTTOM OF DUCT BOTTOM OF DUCT BOTTOM OF DUCT BOTTOM OF PIPE BACKFLOW PREVENTER BASEMENT BRITISH THERMAL UNIT BTU PER HOUR BALL VALVE OR BALANCING Y	ΕN
CAP CAV CB CC CEG CER CFF CFM CFS CDWR CHWS CHWR CHWS CH CHV CL CLG CO COL COMP CONC COND CONT CONTR COP CPF CR CRR CRG CS CSD CTE	CHILLED WATER SUPPLY CHILLER CHECK VALVE CENTERLINE CEILING CLEANOUT COLUMN COMPRESSOR CONCRETE CONDENSATE CONNECTION CONTINUATION	CE
DEFL DIA DIFF DN DP DPT	DROP OR DRAIN DRY BULB TEMPERATURE DIRECT DIGITAL CONTROL DEFLECTION DIAMETER DIFFERENCE DOWN DIFFERENTIAL PRESSURE DEW POINT TEMPERATURE DUCT SMOKE DETECTOR DIAPHRAGM VALVE DRAWING(S) DIRECT EXPANSION	
EAD EAT EC ECON EDB EER EF EFF EJ EL ELEC EMS EQUIP ESP EWB EWT	ENTERING DRY BULB TEMPEF ENERGY EFFICIENCY RATING EXHAUST FAN EFFICIENCY EXPANSION JOINT ELEVATION	M
F FPB FC FCU FD FF FLR FO FPI FPM FPS FSD FT	FAHRENHEIT OR FILTER FAN POWERED BOX FLEXIBLE CONNECTION OR F/ FAN COIL UNIT FIRE DAMPER FINAL FILTER OR FINISHED F FLOOR FAIL OPEN FINS PER INCH FEET PER MINUTE FEET PER SECOND FIRE/SMOKE DAMPER FOOT OR FEET	
G GA GAL GALV GC GLV GN GPM GND GV	GAS GAUGE, GAGE GALLONS GALVANIZED GAS COCK OR GENERAL CON GLOBE VALVE GENERAL NOTE GALLONS PER MINUTE GROUND GATE VALVE	٩TF
HB HC HD HOR HP HP HP HPC	HEIGHT HOSE BIBB HEATING COIL HEAD HORIZONTAL HIGH PRESSURE HORSEPOWER HEAT PUMP HIGH PRESSURE CONDENSATI HIGH PRESSURE STEAM HOUR(S) HEAT RECOVERY UNIT HUMIDITY SENSOR HEATER HOSE VALVE HEATING, VENTILATING & AIR CONDITIONING HOT WATER HEATING WATER RETURN HEATING WATER RETURN HEATING WATER SUPPLY HEAT EXCHANGER FREQUENCY (HERTZ)	

CON	DITIONIN	IG
HOT WAT	ER	
HEATING	WATER	RETURN
HEATING	WATER	SUPPLY
HEAT EX		
FREQUEN	ICY (HE	RTZ)

BREVIA		1S	HVAC BASIS OF DESIGN
			1. CODES AND STANDARDS
	ID IN IPLV JB	INSIDE DIAMETER INCH(ES) INTEGRATED PART LOAD VALUE JUNCTION BOX	<ul> <li>A. AMERICANS WITH DISABILITIES ACT, (ADA)</li> <li>B. BUILDING CODES ENFORCED BY THE AUTHORITY HAVING JURISDICTION IN CALIFORNIA: <ol> <li>2010 CALIFORNIA BUILDING CODE (CBC) BASED ON 2009 INTERNATIONAL BUILDING CODE (IBC) WITH STATE AMENDMENTS.</li> <li>2010 CALIFORNIA MECHANICAL CODE (CMC) BASED 2009 UNIFORM MECHANICAL</li> </ol> </li> </ul>
ATION	KW KWH	KILOWATT KILOWATT HOUR	CODE (UMC) WITH STATE AMENDMENTS. 3. 2010 TITLE 24, PART 6 CALIFORNIA ENERGY EFFICIENCY STANDARDS FOR RESIDENTIAL AND NONRESIDENTIAL BUILDINGS
	L LAT LBS LDB	LENGTH LEAVING AIR TEMPERATURE POUNDS LEAVING DRY BULB	2. OUTDOOR DESIGN CONDITIONS A. SUMMER: 78°F DB/66°F WB (ASHRAE 0.5% SANTA MONICA, CA) B. WINTER: 44°F (ASHRAE 99%, SANTA MONICA, CA)
	LF LP LPC LPS	LINEAR FEET LOW PRESSURE LOW PRESSURE CONDENSATE LOW PRESSURE STEAM	C. ELEVATION: 15 FT. D. CALIFORNIA CLIMATE ZONE: 6 3. INDOOR DESIGN CONDITIONS
I	LWB LWT	LEAVING WET BULB LEAVING WATER TEMPERATURE	A. ALL AREAS: 1. COOLING 72°F $+/-2°F$ 2. HEATING 68°F $+/-2°F$
	M MA MAD MAX	MOTOR MIXED AIR MIXED AIR DAMPER MAXIMUM	<ul> <li>B. EXCEPTIONS:</li> <li>1. ELEC. ROOMS: EXHAUST ONLY, 10°F ABOVE PLENUM TEMP</li> <li>2. DATA ROOMS: COOLING ONLY, 72°F +/-2°F</li> <li>C. HUMIDITY CONTROL</li> </ul>
	MBH MC MCA MCC	THOUSAND BTU PER HOUR MECHANICAL CONTRACTOR MINIMUM CIRCUIT AMPACITY MOTOR CONTROL CENTER	<ol> <li>ALL OTHER AREAS: NONE</li> <li>VENTILATION CRITERIA:         <ul> <li>A. ALL AREAS: 15 CFM/PERSON AND 0.12 CFM/SQ.FT. MINIMUM</li> </ul> </li> </ol>
YSTEM	MD MECH MERV MFR	MOTORIZED DAMPER MECHANICAL MINIMUM EFFICIENCY RATING VALUE MANUFACTURER	5. EXHAUST TO OUTDOORS A. TOILET ROOMS: 10 AIR CHANGES PER HOUR
	MIN MOCP MPC	MINIMUM MAXIMUM OVER CURRENT PROTECTION MEDIUM PRESSURE CONDENSATE	6. BUILDING ENVELOPE A. GLAZING: GLASS/FRAME COMBINATION 1. TYPICAL VERTICAL: a.DESCRIPTION: DOUBLE PANE, LOW-E, THERMAL BREAK FRAME
NG VALVE	MPS MV	MEDIUM PRESSURE STEAM MANUAL AIR VENT	b.U = 0.27 BTU/hxft2xF (GLASS ONLY) c.U = 0.436 BTU/hxft2xF (WITH FRAME) d.SHADING COEFFICIENT = 0.32
OR CONDUIT	N/A NC NIC NO NOM	NOT APPLICABLE NORMALLY CLOSED NOT IN CONTRACT NUMBER OR NORMALLY OPEN NOMINAL	2. TYPICAL SKYLIGHT: a.DESCRIPTION: DOUBLE PANE, LOW-E, THERMAL BREAK FRAME b.U = 0.27 BTU/hxft2xF (GLASS ONLY) c.U = 0.5 BTU/hxft2xF (WITH FRAME) d.SHADING COEFFICIENT = 0.32
ROLS CONTRACTOR	NPSH NTS OAD	NET POSITIVE SUCTION HEAD NOT TO SCALE OUTSIDE AIR DAMPER	<ul> <li>B. WALL CONSTRUCTION:</li> <li>1. DESCRIPTION: STUCCO WITH R-19 BATT INSULATION</li> <li>2. OVERALL U-VALUE = 0.074 BTU/hxft2xF</li> </ul>
ER	OAT OBD OC OD	OUTSIDE AIR TEMPERATURE OPPOSED BLADE DAMPER ON CENTER OUTSIDE DIAMETER	C. ROOF: 1. DESCRIPTION: LIGHT COLORED MEMBRANE WITH R-30 INSULATION 2. OVERALL U-VALUE = 0.035 BTU/hxft2xF
IRN PLY	OFCI OFOI OPER	OWNER FURNISHED CONTRACTOR INSTALLED OWNER FURNISHED OWNER INSTALLED OPERATING	7. INTERNAL HEAT GAIN A. LIGHTING: 1. 1.2 W/SQ. FT. 2. 20% OF LIGHTING HEAT TO PLENUM
	OSA OV	OUTSIDE AIR OUTLET VELOCITY	B. RECEPTACLE POWER: 1. 1.0 W/SQ. FT. C. OCCUPANTS: 1. 245 BTU/H SENSIBLE/205 BTU/H LATENT
	P PC PD PF	PUMP OR PRESSURE OR POLE PUMPED CONDENSATE PRESSURE DROP PREFILTER	D. ELECTRICAL TRANSFORMERS: 3% LOSS/50% DIVERSITY E. IDF ROOM: SERVER+IT EQUIPMENT:10.000 BTU/H
	PG PH PHC PLBG	PIPE GUIDE OR PRESSURE GAUGE PHASE (ELECTRICAL) PREHEAT COIL PLUMBING POINT OF CONNECTION	8. OCCUPANCY CRITERIA: A. OFFICE: 1 PERSON/100 SQ. FT. B. CONFERENCE ROOM: 1 PERSON/15 SQ. FT.
MANCE IDENSATE PUMP	POC PRESS PRV PS	POINT OF CONNECTION PRESSURE PRESSURE REDUCING VALVE PRESSURE SENSOR	C. COMMUNITY CENTER: 1 PERSON/15 SQ. FT. D. LIBRARY: 1 PERSON/50 SQ. FT. 9. DUCTWORK DESIGN CRITERIA
R	PSI PSIA PSIG PV	POUNDS PER SQUARE INCH PSI ABSOLUTE PSI GAUGE PLUG VALVE	A. ALL DUCTWORK: 0.08" W.G./100 FT. MAX B. MEDIUM PRESSURE SUPPLY 1. 1500 FPM MAX ABOVE CEILING 2. 2000 FPM MAX IN SHAFT
ONTROL VALVE	QTY R	QUANTITY RISERS, RELOCATE OR RISE	C. RETURN VELOCITY: 1500 FPM MAX D. EXHAUST VELOCITY: 1500 FPM MAX. 10. PIPE DESIGN CRITERIA
	RA RAD RD REF REFRIG	RETURN AIR RETURN AIR DAMPER REFRIGERANT DISCHARGE OR ROOF DRAIN ROOFTOP EXHAUST FAN REFRIGERATION	A. MAX PRESSURE DROP: 4 FT. W.G./100 FT. B. MAX VELOCITY: 1. 8 FT/SEC MAX IN OCCUPIED AREAS 2. 10 FT/SEC MAX IN MECHANICAL ROOMS
Ξ	REJ REQ'D REV RF RH	REJECTION REQUIRED REVISE, REVISION OR REVOLUTIONS RETURN FAN RELATIVE HUMIDITY	
	RHC RHT RM RPM	REHEAT COIL RADIANT HEATER ROOM REVOLUTIONS PER MINUTE	
	RS RTU	REFRIGERANT SUCTION ROOFTOP UNIT	
JRE IPERATURE	S SA SCFM SD	SUPPLY OR SLOPE SUPPLY AIR CFM, STANDARD CONDITIONS SMOKE DAMPER	
NG	SEER SEN SF	SEASONAL ENERGY EFFICIENCY RATING SENSIBLE SUPPLY FAN OR SQUARE FEET	
'STEM	SHC SN SP SPD	SQUARE HEAD COCK SHEET NOTE STATIC PRESSURE SPLITTER DAMPER	HVAC DRAWING LIST
JRE IPERATURE ATURE	SPEC SQ IN ST STD	SPECIFICATIONS SQUARE INCH STRAINER OR SOUND TRAP STANDARD	
	STRUCT SV	STRUCTURAL STEAM VENT THERMOMETER OR THERMOSTAT	MO.1 MECHANICAL LEAD SHEET MO.2 MECHANICAL TITLE 24
R FAIL CLOSED	TCP TDH TEMP TI	TERMOMETER OR THERMOSTAT TEMPERATURE CONTROL PANEL TOTAL DYNAMIC HEAD TEMPERATURE TENANT IMPROVEMENT	M0.3 MECHANICAL TITLE 24 M0.4 MECHANICAL TITLE 24
D FLOOR	TRG TS TSP TT	TRANSFER GRILLE TEMPERATURE SENSOR TOTAL STATIC PRESSURE TEST TAP OR TEST TEE	M0.5 MECHANICAL TITLE 24 M1.0 MECHANICAL UNIT SCHEDULES
	TXV (TYP)	THERMAL EXPANSION VALVE TYPICAL	M2.0 MECHANICAL FLOOR PLAN M2.1 MECHANICAL FLOOR PLAN (UNDERFLOOR)
	U UG UH UON	HEAT TRANSFER COEFFICIENT UNDERGROUND UNIT HEATER UNLESS OTHERWISE NOTED	M2.2 MECHANICAL ROOF PLAN M4.0 MECHANICAL DETAILS
CONTRACTOR	V VAV VB	VENT OR VOLT OR VELOCITY VARIABLE AIR VOLUME VACUUM BREAKER	
	VD VEL VERT VFD	VOLUME DAMPER VELOCITY VERTICAL VARIABLE FREQUENCY DRIVE	
	VFM VOL VTR	VENTURI FLOW METER VOLUME VENT THROUGH ROOF	
	W W/ W/O WB	WASTE OR WIDTH OR WATTS WITH WITHOUT WET BULB TEMPERATURE	
ISATE	WD WC WEG WG WP	WATER COLUMN WALL EXHAUST GRILLE WATER GAUGE WORKING PRESSURE	
ΔIP	WP WPD WRR WSHP WSR	WATER PRESSURE DROP WALL RETURN REGISTER WATER-SOURCE HEAT PUMP WALL SUPPLY REGISTER	
AIR	WT XFMR	WEIGHT TRANSFORMER	
	Z	ZONE	



	E CERTIFICATE OF		(Part 1 of 3)	PERF-1
Project Name			<u>()</u>	Date
Pico Branch Library				5/3/2012
Project Address		Climate Zone	Total Cond. Floor Area	Addition Floor Are
Virginia Avenue Park		CA Climate Zone 06	7,369	n/a
GENERAL INFORMAT	-			<u> </u>
Building Type:	<ul> <li>Nonresidential</li> <li>Relocatable - indicat</li> </ul>	<ul> <li>High-Rise Residenti</li> <li>specific climate zone</li> </ul>		Guest Room
Phase of Construction:	New Construction	Addition	Alteration	
STATEMENT OF COM				
comply with Title 24, Pa certificate applies only t	arts 1 and 6 of the California to a Building using the perfo	rmance compliance approach.		-
		documentation is accurate and	d complete.	7
Documentation Aut	nor	Cimeters	Illen Va	
Name Henry Lam		Signature	The M	
Company Glumac			Date 5/3/2012	
Address 617 W7th Str			Phone 213.239.8866	6
City/State/Zip Los Angeles,	CA 90017			
Principal Envelope	contractor performing this work I affirm that I am eligible under because it pertains to a structu Code Sections 5537, 5538 and	Division 3 of the Business and Pure or type of work described as e	rofessions Code to sign thi	s document
Name Jennifer Rios	-	Signature		
Company	berg Architecture	1	Date	
Address 1454 25th St	-		1.1.0.0.0.0.17	
	- CA 90404		License #	
City/State/Zip Santa Monica	2, ON 30707			h
Sama women			Phone 310-828-613	<i>p</i>
Principal Mechanica		Signature		<b>h</b>
Principal Mechanica		Signature	Phone 310-828-613	
Principal Mechanica Name Henry Lam	al Designer	Signature	Phone 310-828-613	2012
Principal Mechanica           Name         Henry Lam           Company         Glumac           Address         617 W. 7th S	al Designer t., Suite 500	Signature	Phone 310-828-613 Phone 310-828-613 Date 5/3/	2012 5781
Principal Mechanica           Name         Henry Lam           Company         Glumac           Address         617 W. 7th S	al Designer t., Suite 500 CA 90017	Signature	Phone 310-828-613 Date 5/3/ Licente # M-33	2012 5781
Principal Mechanica           Name         Henry Lam           Company         Głumac           Address         617 W. 7th S           City/State/Zip         Los Angeles,	al Designer t., Suite 500 CA 90017 Signer	Signature	Phone 310-828-613 Date 5/3/ Licente # M-33	2012 5781
Principal Mechanica       Name     Henry Lam       Company     Glumac       Address     617 W. 7th S       City/State/Zip     Los Angeles,       Principal Lighting Des       Name     Jennifer Rios	al Designer t., Suite 500 CA 90017 Signer		Phone 310-828-613 Date 5/3/ Licente # M-33	2012 5781
Principal Mechanica       Name     Henry Lam       Company     Glumac       Address     617 W. 7th S       City/State/Zip     Los Angeles,       Principal Lighting Des       Name     Jennifer Rios	al Designer t., Suite 500 CA 90017 Signer Siberg Architecture		Phone 310-828-613 Date 5/3/ Licente # M-33 Phone 213,239,8866	2012 5781
Principal     Mechanical       Name     Henry Lam       Company     Glumac       Address     617 W. 7th S       City/State/Zip     Los Angeles,       Principal Lighting Des       Name     Jenntfer Rios       Company     Koning Elzen       Address     1454 25th St	al Designer t., Suite 500 CA 90017 Signer Siberg Architecture		Phone 310-828-613 Date 5/3/ Licente # M-33 Phone 213.239.8866 Date	2012 5781 3
Principal     Mechanical       Name     Henry Lam       Company     Glumac       Address     617 W. 7th S       City/State/Zip     Los Angeles,       Principal Lighting Des       Name     Jennifer Rios       Company     Koning Eizen       Address     1454 25th Str       City/State/Zip     Santa Monical	al Designer t., Suite 500 CA 90017 signer siberg Architecture reet a, Santa Monica 90404		Phone 310-828-613 Date 5/3/ Licente # M-33 Phone 213,239,8866 Date License # Phone 310-828-613	2012 5781 3

		E OF COMPLIA	NCE	(	Part 3	of 3)	PER	-
Project Name Pico Branch Library							Date 5/3	/2012
ONE INFORMATION			Floor	Inst.	Ctrl.	Allow	ed LPD	Proc
System Name	Zone Name	Occupancy Type	Area (sqft.)	LPD (W/sf) <sup>1</sup>	Credits (W/sf) <sup>2</sup>	Area (W/sf) <sup>3</sup>	Tailored (W/sf) <sup>4</sup>	Load (W/si
otes: 1. See LTG-1C (items marked with asteri	sk, see LTG-1-C by others)	2. See LTG-2C 3. See LTG- (by others)	3C 4. Se	e LTG-4C	ltems a	bove require :	special docume	entation
he local enforcement age istification and document etermines the adequacy o pecial justification and do	ation, and special verifications, and mo of the justifications, and mo ocumentation submitted.	ion to the items specific ion to be used with the per ay reject a building or desi udes an Economizer. This s	formance on that oth	approach. erwise cor	The local end	enforcement and on the ad	t agency dequacy of t	the
					· · ·			
he exceptional features li	sted in this performance a	pproach application have s	pecifically	been revie	ewed. Adeo	uate writte	n justificatio	on and
a annual anna an Aran Marahara	e have been provided by t	ne applicant.					-	
ocumentation for their us uthorized Signature or St	amp							

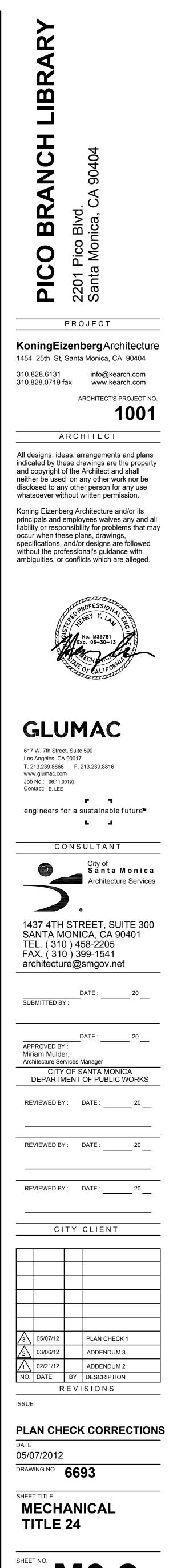
Project Name Pico Branch Library						Date 5/3/2012
ANNUAL TOV ENERGY						
Francisco Companya	Standard	Proposed	Compliance			
Energy Component Space Heating	Design	Design	Margin	Heating		
Space Realing Space Cooling	4.58	1	3.2	Cooling		
Indoor Fans	114.81 54.32		64.7	- Eans		
Heat Rejection	0.00		21.5	Heat Dai		-
Pumps & Misc.	0.86	1	0.8	Pumpe		
Domestic Hot Water	14.24		5.4	DUW		
Lighting	95.42	1 1	48.6	Limber and		
Receptacle	91.62	1 1		Decenteria		
Process	70.85		0.0		-	
Process Lighting	0.00	1 1	0.0			
TOTALS	446.71		144.3	-		
Percent better than Star	ıdard	32.3 %	( 38.4 % exc	⊔ luding process)		
		BUILDING		<b>.</b>		
		BUILDING		IEƏ		
GENERAL INFORMATI						
Building Orientation	(N) 348 deg	Conditio	ned Floor Area		7,36	9 sqft.
Number of Stories	1		tioned Floor An		1,07	
Number of Systems	7		ned Footprint A		7,36	
Number of Zones	13		Gas Available (		Ye	- ·
		I				
	Oriental	tion Gross	٨٢٥٥	Glazing Area		Glazing Ratio
			2,039 sqft.		so saft.	12.7 %
Front Elevation	(19				24 soft.	45.6 %
Front Elevation Left Elevation	(F)		1.149 saft.			
Left Elevation	(E) (S)		1,149 sqft. 1.909 sqft.			
Left Elevation Rear Elevation	(S)		1,909 sqft.	8	54 saft.	44.7 %
Left Elevation Rear Elevation Right Elevation	(S) (W)		1,909 sqft. 728 sqft.	8	54 saft. 13 saft.	44.7 % 33.4 %
Left Elevation Rear Elevation Right Elevation	(S)		1,909 sqft. 728 sqft. 5,824 sqft.	84 24 1,84	54 saft. 13 saft. 31 saft.	44.7 % 33.4 % 32.3 %
Left Elevation Rear Elevation Right Elevation	(S) (W)		1,909 sqft. 728 sqft.	84 24 1,84	54 saft. 13 saft.	44.7 % 33.4 %
Left Elevation Rear Elevation Right Elevation	(S) (W)		1,909 sqft. 728 sqft. 5,824 sqft. 7,369 sqft.	8: 24 1,88	54 saft. 13 saft. 31 saft.	44.7 % 33.4 % 32.3 %
Left Elevation Rear Elevation Right Elevation Roof	(S) (W) Total	Standard	1,909 sqft. 728 sqft. 5,824 sqft. 7,369 sqft. Pi	24 1,84 70posed	94 saft. 13 saft. 14 saft. 14 saft.	44.7 % 33.4 % 32.3 % 0.2 %
Left Elevation Rear Elevation Right Elevation Roof Prescriptive Lighting Por	(S) (W) Total	1.362 V	1,909 sqft. 728 sqft. 5,824 sqft. 7,369 sqft.	roposed 0.668 W/sqf	54 sqft. 13 sqft. 14 sqft. Presci	44.7 % 33.4 % 32.3 % 0.2 %
Left Elevation Rear Elevation Right Elevation Roof	(S) (W) Total		1,909 sqft. 728 sqft. 5,824 sqft. 7,369 sqft. Pi	24 1,84 70posed	54 sqft. 13 sqft. 14 sqft. Presci	44.7 % 33.4 % 32.3 % 0.2 %
Left Elevation Rear Elevation Right Elevation Roof Prescriptive Lighting Por	(S) (W) Total	1.362 V	1,909 sqft. 728 sqft. 5,824 sqft. 7,369 sqft. Pi	roposed 0.668 W/sqf	54 sqft. 13 sqft. 14 sqft. Presci	44.7 % 33.4 % 32.3 % 0.2 %

PERFORMA	NCE CERTIFICATE	E OF COMPLIAN	CE	(F	Part 3 o	of 3)	PER	F-1C
Project Name Pico Branch Libr	,						Date 5/3	/2012
ZONE INFORMA			Floor	Inst.	Ctrl.	Allow	ed LPD	Proc.
			Area	LPD	Credits	Area	Tailored	Loads
System Name	Zone Name	Occupancy Type	(sqft.)	(W/sf) <sup>1</sup>	(W/sf) <sup>2</sup>	(W/sf) <sup>3</sup>	(W/sf) <sup>4</sup>	(W/sf)
RTU-1	Zone 1 - Entry/Children's Lit		1,501	0.953	0.305			0.50
RTU-2	Zone 2 - Branch Manager	Office <= 250 sqft	135	0.800	0.160			0.500
	Zone 2 - Restrooms / storag	Corridor/Restroom/Support	642	0.294	0.044			
	Zone 2 - Group Study Room	Library, Reading Area	377	0.645	0.129			
	Zone 2 - Staff Lounge	Kitchen, Food Preparation	171	0.632	0.126			0.50
RTU-3	Zone 3 - Computer Commor	Library, Reading Area	2,303	0.807	0.242			2.00
RTU-4	Zone 4 - Collections & Seati	Library, Stacks	1,200	0.712				0.50
RTU-5	Zone 5 - Community Room	Convention/Conference/Mee	870	1.031				0.50
	Zone 5 - Pantry	Kitchen, Food Preparation	120	0.900	0.180			0.50
	Zone 5 - Restrooms / Janito	Corridor/Restroom/Support	238	0.794	0.119			
	Zone 5 - Electrical Room	Corridor/Restroom/Support	77	1.429	0.214			1.00
CU-1 & FC-1	Zone 6 - Workroom	Library, Stacks	705	0.811	0.122			0.50
CU-2 & FC-2	Zone 7 - IT Room	Electrical, Mechanical Room	107	0.523	0.079			10.00
EXCEPTIONAL O	h asterisk, see LTG-1-C by others) CONDITIONS COMPLIANCI nt agency should pay special atte	ention to the items specified	In this c	e LTG-4C hecklist. Th	ese Items	require sp	special docum	
determines the adeq special justification The HVAC System RT	umentation, and special verificat uacy of the justifications, and ma and documentation submitted. U-1 includes Demand Control Vent try/Children's Library/Popular Mater	ay reject a building or design ilation per Standards Section	n that oth 121.	erwise com	plies base	nforcemen d on the a	It agency dequacy of t	he
The Zone Zone 2 - Bra	nch Manager has a North/East/Sou	ith Display Perimeter Credit of	f 21 ft.					
The Zone Zone 2 - Gro	oup Study Rooms has a North/East	South Display Perimeter Crec	lit of 58 ft.					
The Zone Zone 2 - Sta	ff Lounge has a North/East/South L	Display Perimeter Credit of 21	ft.					
The HVAC System RT	U-3 includes Demand Control Vent	ilation per Standards Section	121.					
The Zone Zone 3 - Co	mputer Commons/Customer Servic	e has a North/East/South Disp	olay Perim	eter Credit (	of 6 ft.			
The HVAC System RT	U-4 includes Demand Control Vent	ilation per Standards Section	121.					
The Zone Zone 4 - Co	llections & Seating has a North/Eas	t/South Display Perimeter Cre	dit of 21 ft	<u>.</u>				
The HVAC System R1	U-5 includes Demand Control Vent	ilation per Standards Section	121.					
The Zone Zone 5 - Co	mmunity Room has a North/East/So	outh Display Perimeter Credit	of 21 ft.					
	-1 & FC-1 includes Demand Contro	d Ventilation per Standards Se	ection 121					
The HVAC System CL	I-1 & FC-1 incorporates HERS veril	ied Duct Leakage. Target leak	age is cal	culated and	documente	d on the M	ECH-4-A.	
•	ures listed in this performance a	proach application have sp	ecifically	been revie	wed. Adeq	uate writte	en justificatio	on and
The HVAC System CL The exceptional feat		ne applicant.						
The HVAC System CL The exceptional feat	eir use have been provided by th	ie applicant.						

-	FIFICATE OF C FIELD INSPEC	-	-				ет	(F	Part 1	of 3)	1	ENV	10
Project N			INCI	191	СП		31				0	ate	
	anch Library											5/3/20	
Project An Virginia	<sup>ddress</sup> A Avenue Park San	ta Monice	-			Climate Zo	one 6		Total Cor 7	nd. Floor <b>7,369</b>	Area Addit	ion Flooi <i>n/a</i>	r Are
-	A Venue Park San	la MOINCe	3				0		/	,309		n/a	
		Nonres	identia	al		🗆 Hia	h-Rise Rea	sidential		Hotel/M	otel Guest	Room	
Building	туре.	Reloca			School				-				
		– Bidg.		7			onditioned				Incondition	eo spac	es
	light Area for Large Encl				f check			-4C with s					
				ction			lition			Alteratio			
		Compo			1	<b>1</b> Ove	erall Envelo	ope		Uncond	itioned (file	affidavi	t)
Front Or	ientation: N, E, S, W or i	-		8 deg									
		FIEL	D INS	SPEC	-		IGY CH	ECKLIS	ST				
JPAQU	E SURFACE DETAILS				INSU	LATION	1 1						1
Tag/ID	Assembly Type	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring <sup>3</sup>	Interior R- Value	Interior Furring <sup>3</sup>	Joint Appendix 4	Condition Status	Pass	Fail <sup>2</sup>
1	Wall	34	(N)	0.074	R-1	9			4,	3.1-A5	New		Ľ
2	Door	24	(N)	1.450	Non	e			4.	5.1-A1	New		
3	Roof	1,491	(N)	0.035	5 R-3	0			4.	2.2-A17	New		
ļ	Slab	1,501	(N)	0.730	Non	e			4.	4.7-A1	New		E
ī	Wall	440	(W)	0.074	R-1	19		4.	3.1-A5	New			
<u> </u>	Wall	295	(S)	0.074	R-1	9			4.	3.1-A5	New		C
7	Door	64	(S)	1.450					4.	5.1-A1	New		
3	Roof	135	(NW)	0.035	6 R-3	0			4.	2.2-A17	New		
9	Slab	135	(N)	0.730	Non	e			4.	4.7-A1	New		
0	Wall	113	(N)	0.074		-			4.	3.1-A5	New		
1. See Ins 2. If Fail 1	structions in the Nonresiden then describe on Page 2 of	tial Compliar	nce Mar an Chec	nual, pa klist Eo	ige 3-96 rm and	i. take a <b>nn</b> ro	oriate action	1 to correct	A fail do	oes not n	eet complia	nce	
										555 HO( II	ioot oompila		
		DEIMEO			-								
Tag/ID	Fenestratio Type	n	Avas (#2	Area (IL )	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	Source	Overhang	Conditions Status	Pass	Fail <sup>2</sup>
	Window		<u> </u>	169	(N)	0.270	COG	0.320	co		New		Ľ
	Skylight			10	(N)	0.270	COG	0.320	co		New		Ľ
}	Window			243	(W)	0.270	COG	0.320			New		C
!	Window		<u> </u>	832	(S)	0.270	COG	0.320			New		E
i	Window			27	(N)	0.270	COG	0.320			New		E
	Skylight			4	(N)	0.270	COG	0.320	CO		New		
•	Window			497	(E)	0.270	COG	0.320	co		New		
	Window			64	(N)	0.270	COG	0.320	00		New		
	Window			27	(E)	0.270	COG	0.320			New		
0	Window			23	(S)	0.270	COG	0.320	CO	G 🗆	New		
Cooles	structions in the Nonresiden	tial Compliar											
	hen describe on Page 2 of t	he Inspectio	n Check	dist For	m and t	ake appror	riate action	to correct	Verify b	uildina pl	ans if necess	arv.	

AND FIELD INSPEC	TION ENERG	Y CH	ECKL	ST					1-			FIELD INSPEC	TION ENI	RGY C	HECK	LIST					1_	_
roject Name Pico Branch Library								Da	ie 5/3/2(	012	Project N Pico Bi	ame ranch Library								Da	те 5/3/20	012
roject Address	/ 1.7 .		Climate Zo					vrea Additio		r Area	Project A				Climat	Zone				rea Additio		r Ar
<i>irginia Avenue Park San</i> ENERAL INFORMATION	ta Monica			6		1	7,369		n/a		-	a Avenue Park Sant	a Monica			6		7,	369		n/a	
	Nonresidential		🗖 Hia	h-Rise Re	sidential		Hotel/Mo	tel Guest R	oom		Building	_	Nonresider	tial		High-Rise F	esidential		-lotel/Moi	tel Guest R	oom	
	Relocatable Public	School		onditioned				conditione		200		nools (Public School)	Polocatobl	Public Sch		Condition				conditioned		
Skylight Area for Large Encl	— Bidg.	/lf.ahook						ioonanione,	, opac			light Area for Large Enclo	- Bidg.	000 ft <sup>2</sup> /lf ob			•			ioonomono e	, opuo	
	New Construction				-+0 wiui		/ Alteratior	1					New Const			Addition	19-40 With 5		Alteration	1		
	Component			arall Envel	ope			ioned (file a	ffidavi	t)			Componen			Overall Env	elope			oned (file a	ffidavit	it)
ront Orientation: N, E, S, W or i		,			-1	_				- ,		rientation: N, E, S, W or in		348 deg								-,
	FIELD INSPE	CTION	N ENEF	<b>IGY CH</b>	ECKL	IST							FIELD II	ISPECTI	ON EN	ERGY C	HECKL	ST				
PAQUE SURFACE DETAILS		INSU	ILATION								OPAQU	E SURFACE DETAILS		IN	SULATIC	N						_
Tag/ID Assembly Type	Area (ft <sup>2</sup> ) Orientation N, E, S, W U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring <sup>3</sup>	Interior <del>II.</del> Value	Interior Furring <sup>3</sup>	Joint Appendix 4	Condition Status	Pass	Fail <sup>z</sup>	Tag/ID	Assembly Type	Area (ft <sup>2</sup> ) Orientation M E & W	U-Factor	R-Value Exterior R-	Value Exterior Furring <sup>3</sup>	Interior R- Value	Interior Furring <sup>3</sup>	Joint Appendix 4	Condition Status	Pass	T
Roof	377 (N) 0.0	35 R-3	30			4.	.2.2-A17	New			21	Slab	1,200 (N	0.730	None			4.4	1.7-A1	New		
2 Slab	377 (N) 0.7		ne				4.7-A1	New			22	Wall	40 (S		R-19			4.3	3.1-A5	New		
3 Wall	273 (N) 0.0	74 R-1	19			4.	.3.1-A5	New			23	Wall	210 (E,	0.074	R-19			4.3	3.1-A5	New		
Roof	171 (NW) 0.0	35 R-3	30			4.	.2.2-A17	New			24	Wall	163 (N	0.074	R-19			4.3	8.1-A5	New		
Slab	171 (N) 0.7	_	ne			4.	.4.7 <b>-</b> A1	New			25	Roof	870 (N		R-30				2.2-A17	New		
i Wall	113 (N) 0.0						.3.1 <b>-</b> A5	New			26	Wall	325 (N		R-19				8. <b>1-</b> A5	New		
7 Roof	2,299 (N) 0.0						.2.2-A17	New			27	Door	54 (N)		None				5.1-A2	New		
3 Slab Wall	2,303 (N) 0.73 595 (N) 0.01						.4.7-A1 .3.1-A5	New New			28 29	Wall Wall	416 (E, 221 (S,	1 1	R-19 R-19				3.1-A5 3.1-A5	New New		
Roof	1,200 (N) 0.0	-					.2.2-A17	New			30	Slab	870 (N		None				1.7-A1	New		_
See Instructions in the Nonresider	tial Compliance Manual,	Dage 3-96	6.			11			1		1. See In		1 3									
<ol> <li>If Fail, then describe on Page 2 of</li> </ol>	the Inspection Checklist F	orm and	take appro	priate actio	n to correc	t. A fail de	oes not me	et compliance	æ.			structions in the Nonresident then describe on Page 2 of t		ecklist Form a	and take ap	propriate act	ion to correc	t. A fail doe	es not me	et complianc	e.	
ENESTRATION SURFACE	DETAILS	1				1			1	1	FENES		DETAILS						<u> </u>		<u> </u>	
Fenestrati Tag/ID Type	area (tř <sup>2</sup> )	Orientation N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	Fail <sup>2</sup>	Tag/ID	Fenestratio	n	Area (ft²) Orientation	N, E, S, W Max U-Factor	U-Factor Source	Max (R)SHGC	SHGC Source	Overhang	Conditions Status	Pass	
																						-
						<u> </u>										_						_
																						_
																						+
		+																				
																						_
	tial Compliance Manual. (	bage 3-96	ŝ.						1		1. See In	structions in the Nonresident	ial Compliance N	lanual, page (	3-96.	1	1	1			1 1	<u> </u>
See Instructions in the Nonresider If Fail then describe on Page 2 of	iner a studenerie unwittenerij l											then describe on Page 2 of th										

PERFORMANC	<u>E CERTIFICAT</u>	E OF COMPLIA	NCE	(	Part 3 o	of <u>3)</u>	PER	<u>F-1C</u>
Project Name Pico Branch Library							Date 5/3	/2012
ZONE INFORMATIO	N				-	-		
			Floor	Inst. LPD	Ctrl.	_	ed LPD	Proc.
System Name	Zone Name	Occupancy Type	Area (soft.)	(W/sf) <sup>1</sup>	Credits (W/sf) <sup>2</sup>	Area (W/sf) <sup>3</sup>	Tailored (W/sf) <sup>4</sup>	Loads (W/sf
-,			3- 4.00	,,	<u>,</u>	<u>,</u>	,,	
				-				
				1 20 10				
Notes: 1. See LTG-1C (items marked with aste	risk, see LTG-1-C by others)	2. See LTG-2C 3. See LTG- (by others)	3C 4.56	e LTG-4C	ltems al	ove require	special docum	entation
	DITIONS COMPLIANC							
justification and docume	ntation, and special verifica	tention to the items specific ation to be used with the pe	formance	approach.	The local e	nforcemen	it agency	
determines the adequacy special justification and o	of the justifications, and n	nay reject a building or desi	gn that oth	erwise cor	nplies base	ed on the a	dequacy of t	he
		isplay Perimeter Credit of 50 i	7					
		ified Duct Leakage. Target le		lculated and	i documente	ed on the M	FCH-4-A	
-		olume Baseline for spaces wi	-					
		riable Speed Drive on the Fai		00001120003	110/000/10/	njo i rosjon or	1101103.	
		conomizer. This system has		utnut < 75 (	00 Plub or	a europhy off	m < 2500	
				ифи ~ 10,0	OU DIUN OF	а заррну сп	// < 2000.	
		riable Speed Drive on the Fa		utment ~ 75 /	NO Ptute ar	n normales als	~ ~ 2500	
-		conomizer. This system has	-	ири < 75,0	100 Blun or	a supply cit	n < 2000.	
		riable Speed Drive on the Fa			000 B/ /			
-		conomizer. This system has		utput < 75,0	00 Blun or	а ѕирріу сті	n < 2500.	
_		riable Speed Drive on the Fa						
The HVAC System RTU-4 -	AAON RQ003 includes an E	conomizer. This system has	a cooling o	utput < 75,(	000 Btuh or	a supply cfr	n < 2500.	
The HVAC System RTU-5 -	AAON RQ003 includes a Va	riable Speed Drive on the Fa	7.					
		conomizer. This system has	-					
	isted in this performance a se have been provided by	approach application have s the applicant.	pecnically		weu. Adeq		n justnicatio	лі апо
	-							
Authorized Signature or §	Stamp							



SHEET NO. MO.2

	TIFICATE OF CO FIELD INSPEC				CHE		ST	(	Part	1 oʻ	f 3)		ENV	-1(				
Project N	ame												Date					
	ranch Library					Climate Zo	14 A		Tatal	Cond I		امام الممع	5/3/20					
Project A Virginia	a Avenue Park Sant	a Monici	э			Jimale Zo	ne 6		Iotali	7,36	Floor A 69	rea Add	nion Fioo <i>n/a</i>	r Ar				
-							-			.,								
Building		Nonre:	sidenti	ial		🛛 Higi	1-Rise Re	sidential		Hot	el/Mot	el Guest	Room					
□ Sch	nools (Public School)	Bldg.		Public S			onditione	•			J Un	condition	ed Spac	ces				
Sky	light Area for Large Enclo	sed Spac	ə ≥ 80	$00  ext{ ft}^2 (II)$	f checke	ed include	the ENV	-4C with	submit	tal)								
Phase o	f Construction:	New C	onstru	uction		Add	ition			Alte	eration							
	•	Compo				Ove	rall Envel	ope		Und	conditi	oned (file	e affidavi	t)				
Front Or	rientation: N, E, S, W or in	-		848 deg														
		FIEL	D IN	SPEC	TION		GY CH	ECKL	ST									
OPAQU	E SURFACE DETAILS	1			INSUL			1				1						
Tag/ID	Assembly Type	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring <sup>3</sup>	Interior R- Value	Interior Furring <sup>3</sup>	Joint	Appendix 4	Condition Status	Pass	5 1 1				
Roof		705			R-30	7					A17	New		I				
32	Slab	705	(N)	0.730	None	þ				4.4.7-	A1	New		I				
33	Wall	435	(S)	0.074	R-19	9				4.3.1-A5		4.3.1-A5		New				
34	Wall	45	(W)	0.074	R-19	ð				4.3.1-A5		4.3.1-A5		4.3.1-A5		New		
35	Roof	107	(N)	0.035	R-30	7				4.2.2-A17		New						
36	Slab	107	(N)	0.730	None	9				4.4.7-	A1	New						
37	Wall	88	(N)	0.074	R-19	9				4.3.1-	A5	New		I				
	structions in the Nonresident																	
	then describe on Page 2 of t	DETAILS			Uniterination N, E, S, W N, E, S, W	Max U-Factor	U-Factor Source	Nax Max (R)SHGC	t. A fai		overhang	complia Conditions Status						
Tag/ID	Fenestratio	11		An	δź	E -	Ч S	E E	<del>.</del>	ຮິ	ð	ರ್ ಭ	Pass	Î				
~									1									
-																		
														I				
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									1									
														_				

CERTIFICATE OF COMP FIELD INSPECTION ENE			Part 1 of 4)		MECH-1C
FIELD INSPECTION END Project Name		51			Date
Pico Branch Library					5/3/2012
Project Address		Climate Zone	Total Cond. I 7,36		Addition Floor Are
	ginia Avenue Park Santa Monica 6				nla
GENERAL INFORMATION					
Building Type: 🛛 🗹 No	nresidential	High-Rise Resider	tial 🗖 Hot		uest Room
Schools (Public School)	locatable Public School I	3ldg. 🗹 Conditione	d Spaces	l Uncon (affida)	ditioned Spaces vit)
Phase of Construction:  2 Ne	w Construction	Addition	Alte	ration	
Approach of Compliance:	mponent	Overall Envelope	TDV 🗖 Und	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in Degr	-	Energy			х У
HVAC SYSTEM DETAILS	5+5 dcg				RGY CHECKLIST
					equirements
Equipment <sup>2</sup>	Inepactiv	on Criteria	Pass		escribe Reason <sup>2</sup>
Item or System Tags		on ontena		1 an - D	
(i.ə. AC-1, RTU-1, HP-1)	RTU-2				
Equipment Type <sup>3</sup> :	Packaged VAV				
Number of Systems	1				
Max Allowed Heating Capacity <sup>1</sup>	49,000 Btu/hr				
Minimum Heating Efficiency <sup>1</sup>	81% AFUE				
Max Allowed Cooling Capacity <sup>1</sup>	37,000 Btu/hr				
Cooling Efficiency <sup>1</sup>	15.7 SEER / 13.6 El	ER			
Duct Location/ R-Value Attic, Ceiling		nted / 8.0			
When duct testing is required, submit MECH-4A & MECH-4-HERS	Yes				
Economizer	Diff. Enth (Integrated	d)			
Thermostat	Setback Required				
Fan Control	Variable Speed				
			FIELD INSPEC	TION ENE	RGY CHECKLIST
Equipment <sup>2</sup>	Inspectio	on Criteria	Pass	Fail – D	escribe Reason <sup>3</sup>
Item or System Tags	RTU-3				
(i.e. AC-1, RTU-1, HP-1) Equipment Type <sup>3</sup> :	Packaged VAV				
Number of Systems	1				
Max Allowed Heating Capacity <sup>1</sup>	80 Btu/hr				
Minimum Heating Efficiency <sup>1</sup>	81% AFUE				
Max Allowed Cooling Capacity <sup>1</sup>	39,000 Btu/hr				
Cooling Efficiency <sup>1</sup>	15.7 SEER / 13.6 E	FR			
Duct Location/ R-Value	Attic, Ceiling Ins, ve				
When duct testing is required, submit	Yes				
MECH-4A & MECH-4-HERS Economizer	Diff. Enth (Integrated	r/)			
Thermostat	Setback Required				
Fan Control	Variable Speed				
<ol> <li>If the Actual installed equipment performant the building plans) the responsible party sl</li> <li>For additional detailed discrepancy use Patholic and the property of the p</li></ol>	ice efficiency and capacity is nall resubmit energy complia ge 2 of the Inspection Chec	ince to include the new cha klist Form. Compliance fail	inges.		bmittal or from

AND	TIFICATE OF FIELD INSPE					CHE		ST	(	Part	10	of 3)		ENV-	10
Project N	lame	_	-		-		-	-						Date	14.0
Project A	ranch Library						Climate Zo	ne		Total (	Cond.	Floor A	rea Add	5/3/20 ition Floor	
•	a Avenue Park Sa	anta I	Monica	3				6			7,3			n/a	
ENER	AL INFORMATION														
Building	Туре:	Ľ	Nonres				High	n-Rise Re	sidential		Но	tel/Mo	tel Guest	Room	
⊐ Sch	nools (Public School)		Reloca Bldg.	table	Public S	School	C 🛛	onditioned	d Spaces	i	[	🛛 Ur	condition	ed Spac	es
🗆 Sky	light Area for Large Er	nclose	d Space	) ≥ 80	00 ft <sup>2</sup> (If	checke	ed include	e the ENV	-4C with	submiti	tal)				
hase o	of Construction:	Ľ	New C	onstru	uction		Add	lition			Alt	eratior	1		
Approac	ch of Compliance:		Compo	nent			🗹 Ove	rall Envel	ope		Un	conditi	ioned (file	affidavi	t)
Front O	rientation: N, E, S, W o	or in D	-		48 deg										
			FIEL	D IN	SPEC			GY CH	IECKL	IST	1				
)PAQU	E SURFACE DETAIL	S				INSUL		-					1	-	
			Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring <sup>3</sup>	Interior R- Value	Interior Furring <sup>3</sup>	tulo t	Appendix 4	Condition Status	Pass	Fail <sup>2</sup>
Tag/ID	Assembly Type		-		_										
31	Roof Slab		705	(N)	0.035 0.730	R-30					4.2.2 4.4.7	-A17	New New		
32 33	Siab Wall		705 435	(N) (S)	0.730	None R-19					4.4.7		New		
34	Wall	_	430 45	(0) (W)	0.074	R-19					4.3.1		New		
35	Roof		107	(N)	0.035	R-30	-					-A17	New		
36	Slab		107	(N)	0.730	None					4.4.7		New		
37	Wall		88	(N)	0.074	R-19					4.3.1	-A5	New		C
															C
															C
	then describe on Page 2 TRATION SURFAC Fenestra Type	CE DE				N, E, S, W	Max U-Factor	U-Factor Source	Max (R)SHGC	SHCC		Overhang	Conditions Status	ance.	Fail <sup>2</sup>
Tag/II															
Tag/II															Ľ
Tag/II															_
Tag/II															
Tag/II															
Tag/IC															
Tag/II															
Tag/II															
Tag/II															
Tag/IC															

### CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

### Project Name Pico Branch Library Required Acceptance Tests

## Designer:

This form is to be used by the designer and attached to the plans. Listed bel Fenestrations system. The designer is required to check the acceptance test require an acceptance test. If all the site-built fenestration of a certain type rec products and the number of systems. The NA7 Section in the Appendix of the Manual describes the test. Since this form will be part of the plans, completion party to budget for the scope of work appropriately.

Enforcement Agency: Systems Acceptance. Before Occupancy Permit is granted for a newly const fenestration is installed in the building or space shall be certified as meeting th The ENV-2A form is not considered a complete form and is not to be accepted boxes are checked and/or filled and signed. In addition, a Certificate of Acce enforcement agency that certifies plans, specifications, installation certificate information meet the requirements of §10-103(b) of Title 24 Part 6. The field out and signed forms before the building can receive final occupancy. A cop fenestration product line must be provided to the owner of the building for the

Test Description					
Fenestration Products Name or ID Requiring Testing or Verification	Area of like Products	Buildi Acce			
Pico Window PPG SOLARBAN 60 (2) Clear	1,881				
Pico Skylight PPG SOLARBAN 60 (2) Clear	14				
Energy Dro Ed by Energy Roft Hoar Mumber 7000	BunCaday 2012 Al	00744			
EnergyPro 5.1 by EnergySoft User Number: 7306	RunCode: 2012-05	5-03T14			

CERTIFICATE OF				Part 1 of 4	)	MECH-1C
Project Name						Date
Pico Branch Library			•			5/3/2012
Project Address	who blow		Climate Zone	Total Cond.		Addition Floor Area
Virginia Avenue Park Sa	anta Moni	ca	6	7,3	69	nla
GENERAL INFORMATION			E High Disc Desider			De con
Building Type:	🗹 Non	residential	High-Rise Resider			iuest Room ditioned Spaces
Schools (Public School)	Relation	catable Public Schoo	l Bldg. 🗹 Conditione	ed Spaces	(affida)	vit)
Phase of Construction:	🗹 New	Construction	Addition		eration	
Approach of Compliance:	D Com	iponent	Overall Envelope Energy	TDV 🗖 Un	conditione	d (file affidavit)
Front Orientation: N, E, S, W o	r in Degree	s: 348 deg				
HVAC SYSTEM DETAIL	S			FIELD INSPEC	TION ENE	RGY CHECKLIST
				Meets C	riteria or R	lequirements
Equipment <sup>2</sup>		Inspec	tion Criteria	Pass	Fail – D	escribe Reason <sup>2</sup>
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		RTU-4				
Equipment Type <sup>3</sup> :		Packaged VAV				
Number of Systems		1				
Max Allowed Heating Capacity	,1	49,000 Btu/hr				0
Minimum Heating Efficiency <sup>1</sup>		81% AFUE				
Max Allowed Cooling Capacity	t.	38,000 Btu/hr				
Cooling Efficiency <sup>1</sup>						
Duct Location/ R-Value	Attic, Ceiling Ins, v	ttic, Ceiling Ins, vented / 8.0				
When duct testing is required, MECH-4A & MECH-4-HERS	submit	Yes				
Economizer		Diff. Enth (Integrat	ed)			
Thermostat		Setback Required	<i>y</i>			
Fan Control		Variable Speed				
				FIELD INSPEC	TION ENE	RGY CHECKLIST
Equipment <sup>2</sup>		Inspec	tion Criteria	Pass		escribe Reason <sup>2</sup>
Item or System Tags		RTU-5				
(i.e. AC-1, RTU-1, HP-1) Equipment Type <sup>3</sup> :		Packaged VAV				
		1				
Number of Systems Max Allowed Heating Capacity	,1	, 49,000 Btu/hr				
Minimum Heating Efficiency <sup>1</sup>		81% AFUE				
Max Allowed Cooling Capacity	1	39,000 Btu/hr				
Cooling Efficiency <sup>1</sup>		15.7 SEER / 13.6	FFR			
Duct Location/ R-Value		Attic, Ceiling Ins, v				
When duct testing is required, MECH-4A & MECH-4-HERS	submit	Yes	0.1100 / 0.0			0
Economizer		Diff. Enth (Integrat	ed)			
Thermostat		Setback Required				
Fan Control		Variable Speed				
<ol> <li>If the Actual installed equipment the building plans) the responsit</li> <li>For additional detailed discrepant</li> <li>Indicate Equipment Type: Gas (</li> </ol>	ole party sha ncy use Pag	Il resubmit energy comp e 2 of the Inspection Ch	liance to include the new ch ecklist Form. Compliance fai	anges.	•	Ibmittal or from
EnergyPro 5.1 by EnergySoft U	ser Number.	7306 RunCode	: 2012-05-03T14:52:47	ID: 06.11.00	192	Page 21 of 4

FIELD INSPECTIO	N ENE	RGY CHECK	LIST			Date
Pico Branch Library						5/3/2012
Project Address	nto Man	inn	Climate Zone	Total Cond.		
Virginia Avenue Park Sa GENERAL INFORMATION	та моп	ica	6	7,3	09	nla
Building Type:	🗹 Non	residential	High-Rise Reside	ntial 🗖 Hoi	tel/Motel G	auest Room
Schools (Public School)	Rel	ocatable Public Schoo			Uncon	ditioned Spaces
Phase of Construction:	New	Construction	Addition		anua eration	AIÚ
Approach of Compliance:	🗖 Con	nponent	Overall Envelope Energy		conditione	d (file affidavit)
Front Orientation: N, E, S, W o	r in Degree	es: 348 deg	chergy			
HVAC SYSTEM DETAIL	-	212.203		FIELD INSPEC	TION ENE	RGY CHECKLIST
				Meets Cr	iteria or F	Requirements
Equipment <sup>2</sup>		Inspec	ction Criteria	Pass	Fail – D	escribe Reason <sup>2</sup>
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		CU-1 & FC-1				
Equipment Type <sup>3</sup> :		Split DX				
Number of Systems		1				
Max Allowed Heating Capacity	1	24,000 Btu/hr				D
Minimum Heating Efficiency <sup>1</sup>		9.30 HSPF				
Max Allowed Cooling Capacity	ooling Capacity <sup>1</sup> 24,190 Btu/hr					 
Cooling Efficiency <sup>1</sup>		19.1 SEER / 14.7				
Duct Location/ R-Value When duct testing is required,	Attic, Ceiling Ins		vented / 8.0			
MECH-4A & MECH-4-HERS						
Economizer		Fixed Enth (Non-li	Enth (Non-Integ)			
Thermostat		Setback Required	back Required			
Fan Control		Constant Volume				
_				FIELD INSPEC	TION ENE	RGY CHECKLIST
Equipment <sup>2</sup> Item or System Tags		Inspec	ction Criteria	Pass	Fail – D	escribe Reason <sup>2</sup>
(i.e. AC-1, RTU-1, HP-1)		CU-2 & FC-2				
Equipment Type <sup>3</sup> :		Split DX				
Number of Systems		1				
Max Allowed Heating Capacity	1	48,000 Btu/hr				
Minimum Heating Efficiency <sup>1</sup>		n/a				
Max Allowed Cooling Capacity	1	25,000 Btu/hr				
Cooling Efficiency <sup>1</sup>		16.7 SEER / 9.1 E	ER			
Duct Location/ R-Value When duct testing is required,	submit	n/a				
MECH-4A & MECH-4-HERS	Gabrint	Yes				
Economizer		No Economizer	-			
Thermostat		Setback Required	1			
Fan Control		Constant Volume				
<ol> <li>If the Actual installed equipmeni the building plans) the responsit</li> <li>For additional detailed discrepance</li> </ol>	ble party sha ncy use Pag	all resubmit energy com	pliance to include the new ch necklist Form. Compliance fa	langes.	•	ıbmittal or from

(Part 3 of 3)       ENV-1C         Date       5/3/2012         Delow is the acceptance test for Envelope         ests and list all the fenestration products that e requires a test, list the different fenestration of the Nonresidential Reference Appendices         point of this section will allow the responsible         Donstructed building or space or whenever new g the Acceptance Requirements.         pied by the enforcement agency unless the cceptance forms shall be submitted to the ates, and operating and maintenance id inspector must receive the properly filled opy of the ENV-2A for each different their records.         ENV-2A       Test Performed By:         mg Envelope			
below is the acceptance test for Envelope asts and list all the fenestration products that a requires a test, list the different fenestration if the Nonresidential Reference Appendices ation of this section will allow the responsible boostructed building or space or whenever new g the Acceptance Requirements. pred by the enforcement agency unless the boceptance forms shall be submitted to the ates, and operating and maintenance id inspector must receive the properly filled opy of the ENV-2A for each different their records. ENV-2A Test Performed By: mg Envelope plance Test D D D D D D D D D D D D D D D D D D D	(Parl	: 3 of 3)	ENV-1C
ests and list all the fenestration products that e requires a test, list the different fenestration if the Nonresidential Reference Appendices stion of this section will allow the responsible onstructed building or space or whenever new ig the Acceptance Requirements. pted by the enforcement agency unless the cceptance forms shall be submitted to the ates, and operating and maintenance id inspector must receive the properly filled opy of the ENV-2A for each different their records. ENV-2A Test Performed By: ng Envelope ptance Test D D D D D D D D D D D D D			
ag the Acceptance Requirements.         pted by the enforcement agency unless the sceptance forms shall be submitted to the ates, and operating and maintenance         Id inspector must receive the properly filled opy of the ENV-2A for each different their records.         Image: Envelope plance Test         Image: Image	ests and list a e requires a te f the Nonresio	Il the fenestrati est, list the diffe lential Referen	ion products that erent fenestration ice Appendices
Image Envelope       Image Envelope         Image Description       Image Description         Image Descrint       Image Description	g the Accepta pted by the el cceptance forn ates, and ope Id inspector n opy of the EN	ance Requirem nforcement age ms shall be sub erating and mail nust receive the	nents. ency unless the bmitted to the intenance e properly filled
Image Envelope       Image Provide ProvideProvide Provide Provide ProvideProvide Provi	ENV-2A	Test Perform	ned By:
	ng Envelope		<u>*</u>
	<u> </u>		
vz.++ 10.00.11.00172 Page 13 01 43		14 00102	Down 19 of 19
	5 <b>2:47</b> ID: (	16.11.00192	Page 13 of 43

CERTIFICATE OF COMF FIELD INSPECTION ENE		(Part 1 of 4)	MECH-1C	
Project Name			Date	
Pico Branch Library			5/3/2012	
Project Address	Climate Zone	Total Cond. Floor Are		
Virginia Avenue Park Santa Mol GENERAL INFORMATION	nica 6	7,369	n/a	
	nresidential 🗖 High-Rise Re	sidential 🛛 Hotel/Mote	l Guest Room	
Danang Typo.	-	Unc	onditioned Spaces	
* *	-	्या।	davit)	
	w Construction  Addition Coverall Envel	Alteration		
Approach of Compliance: Co	mponent Defension Energy		ned (file affidavit)	
Front Orientation: N, E, S, W or in Degree	es: 348 deg			
HVAC SYSTEM DETAILS		FIELD INSPECTION E	NERGY CHECKLIST	
_		Meets Criteria o		
Equipment <sup>2</sup>	Inspection Criteria	Pass Fail -	- Describe Reason <sup>2</sup>	
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	DHW Heater			
Equipment Type <sup>3</sup> :	Gas Firəd DHW Boiler			
Number of Systems	2			
Max Allowed Heating Capacity <sup>1</sup>	199,000 Btu/hr			
Minimum Heating Efficiency <sup>1</sup>	1.00 EF			
Max Allowed Cooling Capacity <sup>1</sup>	nla			
Cooling Efficiency <sup>1</sup>	n/a			
Duct Location/ R-Value	nla			
When duct testing is required, submit MECH-4A & MECH-4-HERS	nla			
Economizer	n/a			
Thermostat	nla			
Fan Control	nla			
		FIELD INSPECTION E	NERGY CHECKLIST	
Equipment <sup>2</sup>	Inspection Criteria	Pass Fail -	- Describe Reason <sup>2</sup>	
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	RTU-1			
Equipment Type <sup>3</sup> :	Packaged VAV			
Number of Systems	1			
Max Allowed Heating Capacity <sup>1</sup>	80 Btu/hr			
Minimum Heating Efficiency <sup>1</sup>	81% AFUE			
Max Allowed Cooling Capacity <sup>1</sup>	58,000 Btulhr			
Cooling Efficiency <sup>1</sup>	14.3 SEER / 12.5 EER	0	۵	
Duct Location/ R-Value	n/ R-Value Attic, Ceiling Ins, unvented / 8.0			
When duct testing is required, submit MECH-4A & MECH-4-HERS	Yes			
Economizer	Diff. Enth (Integrated)			
Thermostat	Setback Required			
Fan Control	Variable Speed			
<ol> <li>If the Actual installed equipment performar the building plans) the responsible party sh</li> <li>For additional detailed discrepancy use Pa</li> </ol>	ace efficiency and capacity is less than the Propo nall resubmit energy compliance to include the ne ge 2 of the Inspection Checklist Form. Complian it), VAV, HP (Pkg or split), Hydronic, PTAC, or o	ew changes. ce fails if a Fail box is checked.	submittal or from	
واجر (ید 10)، با میدید به مالا د در دارد. در ۱	A second s			

FIELD INSPECTION ENERGY CHECKLIST	Date 5/3/2012
	5/3/2012
EnergyPro 5.1 by EnergySoft User Number: 7306 <b>RunCode: 2012-05-03T14:52:47</b> ID: 05.11.001	



CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST	(Part 3 of 4)	MECH-1C
Project Name		Date
Pico Branch Library		5/3/2012
Required Acceptance Tests		

Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for mechanical systems. The designer is required to check the applicable boxes by all acceptance tests that apply and listed all equipment that requires an acceptance test. If all equipment of a certain type requires a test, list the equipment description and the number of systems. The NA number designates the Section in the Appendix of the Nonresidential Reference Appendices Manual that describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Building Departments: Systems Acceptance: Before occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. Systems Acceptance: Before occupancy permit is granted. All newly installed HVAC equipment must be tested using the Acceptance Requirements. The MECH-1C form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked. The equipment requiring testing, person performing the test (Example: HVAC installer, TAB contractor, controls contractor, PE in charge of project) and what Acceptance test must be conducted. The following checked-off forms are required for ALL newly installed equipment. In addition a Certificate of Acceptance forms shall be submitted to the building department that certifies plans, specifications, installation, certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title-24 Part 6. The building inspector must receive the properly filled out and signed forms before the building can receive final occupancy.

TEST DESCRIPTION		MECH-2A	MECH-3A	MECH-4A	MECH-5A	MECH-6A	MECH-7A	MECH-8A	MECH-9A	MECH-10A	MECH-11A
Equipment Requiring Testing or Verification	Qty.	Outdoor Ventilation For VAV & CAV	Constant Volume & Single-Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Control Ventilation DCV	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
RTU-1 - AAON RN006	1	P		N	P	P					L
RTU-2 - AAON RQ003	1	Z		N	K		Ø				Y
RTU-3 - AAON RQ003	1	Y		N	R	Ŋ	N				N
RTU-4 - AAON RQ003	1	Z		Ŋ	K	Ŋ	Ø				Ŋ
RTU-5 - AAON RQ003	1			M	K	N	N				N
Carrier 25VNA024 & FE4ANF002	1	V	V	N	K	V					Y
Carrier RAVKR024	1			N				П			R
EnergyPro 5.1 by EnergySoft Use	Number	: 7306	R	unCode: 2012-	05-03T14:52:4	7	ID: 06	3.11.00192			Page 24 of 4

	IREMENTS	i	(Part 1 of 2)	
Project Name Pico Branch Library				Date 5/3/2012
	Indic	ate Air Systems Type (Cei	ntral, Single Zone, Package, M	/AV, or etc)
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		RTU-4	RTU-5	CU-1 & FC-1
Number of Systems		1	1	1
	Indicate Pag	ge Reference on Plans or S	Schedule and Indicate the app	plicable exception(s)
MANDATORY MEASURES	T-24 Sections			
Heating Equipment Efficiency	112(a)	81% AFUE	81% AFUE	9.30 HSPF
Cooling Equipment Efficiency	112(a)	15.7 SEER / 13.6 EER	15.7 SEER / 13.6 EER	19.1 SEER / 14.7 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	nla	nla	Yes
Furnace Controls/Thermostat	112(c), 115(a)	n/a	nla	n/a
Natural Ventilation	121(b)	No	Yes	No
Mechanical Ventilation	121(b)	180 cfm	870 cfm	106 cfm
VAV Minimum Position Control	121(c)	No	No	No
	1011	Yes	Yes	Yes
Demand Control Ventilation	121(c)			
Demand Control Ventilation Time Control	121(C) 122(9)	Programmable Switch	Programmable Switch	Programmable Switch
		Programmable Switch Setback Required	Programmable Switch Setback Required	Programmable Switch Setback Required
Time Control	122(0)			5
Time Control Setback and Setup Control	122(e) 122(e)	Setback Required	Setback Required	Setback Required
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation	122(e) 122(e) 122(f)	Setback Required Auto nia	Setback Required Auto	Setback Required Auto nia
Time Control Setback and Setup Control Outdoor Damper Control	122(e) 122(e) 122(f) 122(g) 123 124	Setback Required Auto nia	Setback Required Auto nla	Setback Required Auto nia
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value	122(e) 122(e) 122(f) 122(g) 123 124	Setback Required Auto nia	Setback Required Auto nla	Setback Required Auto nia
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value PRESCRIPTIVE MEASURES	122( <del>0</del> ) 122( <del>0</del> ) 122( <del>1</del> ) 122( <u>3</u> ) 123 124	Setback Required Auto nia Attic, Ceiling Ins, vented   8.0	Setback Required Auto n/a Attic, Ceiling Ins, vented / 8.0 Attic	Setback Required Auto n/a tic, Celling Ins, vented I &
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load	122(e) 122(f) 122(f) 122(g) 123 124 124	Setback Required Auto n/a Attic, Ceiling Ins, vented / 8.0 n/a	Setback Required Auto n/a Attic, Celling Ins, vented / 8.0 Att	Setback Required Auto nia tic, Ceiling Ins, vented i &
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity	122(e) 122(f) 122(g) 123 124 144(a & b) 144(a & b)	Setback Required Auto nia Attic, Ceiling Ins, vented i 8.0 nia 1/8 49,000 Btu/hr	Setback Required Auto N/a Attic, Ceiling Ins, vented / 8.0 Att Attic, 49,000 Btu/hr	Setback Required Auto nla tic, Ceiling Ins, vented I & nla 25,185 Btulhr
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load	122(e) 122(f) 122(g) 123 124 144(a & b) 144(a & b) 144(a & b)	Setback Required Auto n/a Attic, Ceiling Ins, vented / 8.0 n/a 49,000 Btu/hr n/a	Setback Required Auto Auto n/a Attic, Ceiling Ins, vented I 8.0 Att Attic, Gelling Ins, vented I 8.0 Att Attic, Ceiling In	Setback Required Auto n/a tic, Cetiling Ins, vented / & n/a 25,185 Btu/hr n/a
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity	122(e) 122(f) 122(g) 123 124 144(a & b) 144(a & b) 144(a & b) 144(a & b)	Setback Required Auto nia Attic, Ceiling Ins, vented   8.0 Attic, Ceiling Ins, vented   8.0 nia 49,000 Btu/hr nia 29,765 Btu/hr	Setback Required Auto Auto nla Attic, Ceiling Ins, vented / 8.0 Attic 49,000 Btu/hr n/a 34,575 Btu/hr	Setback Required Auto nIa tic, Cetting Ins, vented I & 25,185 Btulhr nIa 22,583 Btulhr
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control	122(e) 122(c) 122(f) 122(g) 123 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(a & b)	Setback Required Auto nia Attic, Ceiling Ins, vented   8.0 Attic, Ceiling Ins, vented   8.0 nia 49,000 Btu/hr nia 29,765 Btu/hr	Setback Required Auto Auto nla Attic, Ceiling Ins, vented / 8.0 Attic 49,000 Btu/hr n/a 34,575 Btu/hr	Setback Required Auto nIa tic, Cetting Ins, vented I & 25,185 Btulhr nIa 22,583 Btulhr
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location	122(e) 122(f) 122(f) 122(g) 123 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c)	Setback Required Auto nia Attic, Ceiling Ins, vented / 8.0 nia 49,000 Btu/hr nia 29,765 Btu/hr Variable Speed	Setback Required Auto Auto nla Attic, Ceiling Ins, vented / 8.0 Att Attic, Ceiling Ins, vented I 8.0 Att Attic, Ceiling In	Setback Required Auto nla tic, Cetting Ins, vented I & 25,185 Btulhr nla 22,583 Btulhr Constant Volume
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only)	122(e) 122(f) 122(g) 123 123 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c)	Setback Required Auto nla Attic, Ceiling Ins, vented   8.0 Attic, Ceiling Ins, vented   8.0 nla 49,000 Btu/hr nla 29,765 Btu/hr Variable Speed Yes	Setback Required Auto Auto n/a Attic, Ceiling Ins, vented / 8.0 Attic, Ceiling Ins, vented / 8.0 Attic Attic, Ceiling Ins, vented / 8.0 Attic Attic, Ceiling Ins, vented / 8.0 Attic	Setback Required Auto nla lic, Ceiling Ins, vented I & 26,185 Btulhr nla 22,583 Btulhr Constant Volume Yes No Fixed Enth (Non-Integ)
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool	122(e) 122(f) 122(f) 122(g) 123 124 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(d)	Setback Required Auto n/a Attic, Ceiling Ins, vented / 8.0 n/a 49,000 Btu/hr n/a 29,765 Btu/hr Variable Speed Yes No	Setback Required Auto Auto n/a Attic, Ceiling Ins, vented / 8.0 Attic, Ceiling Ins, vented / 8.0 Attic, Ceiling Ins, vented / 8.0 Attic Attic, Ceiling Ins, vented / 8.0 Attic	Setback Required Auto n/a itic, Ceiling Ins, vented / & 1/2 25,185 Btu/hr n/a 22,583 Btu/hr Constant Volume Yes No Fixed Enth (Non-Integ) Constant Temp
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer Heat Air Supply Reset	122(e) 122(f) 122(g) 123 123 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c)	Setback Required Auto n/a Attic, Celling Ins, vented / 8.0 Attic, Celling Ins, vented / 8.0 n/a 49,000 Btu/hr n/a 29,765 Btu/hr Variable Speed Yes No Diff. Enth (Integrated)	Setback Required Auto Auto n/a Attic, Ceiling Ins, vented / 8.0 Attic, Ceiling Ins, vented / 8.0 Attic Attic, Ceiling Ins, vented / 8.0 Attic Attic, Ceiling Ins, vented / 8.0 Attic	Setback Required Auto nla lic, Ceiling Ins, vented I & 25,185 Btu/hr nla 22,583 Btu/hr Constant Volume Yes No Fixed Enth (Non-Integ)
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer	122(e) 122(f) 122(f) 122(g) 123 124 124 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 14(c) 14(c) 14(c) 14(c) 14(c) 14(c) 14(c) 14(c) 14	Setback Required Auto n/a Attic, Ceiling Ins, vented 1 8.0 Attic, Ceiling Ins, vented 1 8.0 n/a 49,000 Btu/hr n/a 29,765 Btu/hr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone	Setback Required         Auto         Auto         n/a         Attic, Ceiling Ins, vented I 8.0         Attic, Ceiling Ins, vented 18.0	Setback Required Auto n/a itic, Ceiling Ins, vented / & 1/2 25,185 Btu/hr n/a 22,583 Btu/hr Constant Volume Yes No Fixed Enth (Non-Integ) Constant Temp
Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value <b>PRESCRIPTIVE MEASURES</b> Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer Heat Air Supply Reset Cool Air Supply Reset	122(e) 122(f) 122(f) 122(g) 123 124 124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(f) 144(f)	Setback Required Auto n/a Attic, Ceiling Ins, vented 1 8.0 Attic, Ceiling Ins, vented 1 8.0 n/a 49,000 Btu/hr n/a 29,765 Btu/hr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone	Setback Required         Auto         Auto         n/a         Attic, Ceiling Ins, vented I 8.0         Attic, Ceiling Ins, vented 18.0	Setback Required Auto n/a itic, Ceiling Ins, vented / & 1/2 25,185 Btu/hr n/a 22,583 Btu/hr Constant Volume Yes No Fixed Enth (Non-Integ) Constant Temp

### **AIR SYSTEM** Project Name Pico Branch Librar Item or System Tags (i.e. AC-1, RTU-1, HP-1) Number of Systems

MANDATORY MEA Heating Equipment Efficie Cooling Equipment Efficient HVAC Heat Pump Thermo Furnace Controls/Thermo Natural Ventilation Mechanical Ventilation VAV Minimum Position Demand Control Ventilation Time Control Setback and Setup Control Outdoor Damper Control Isolation Zones Pipe Insulation Duct Location/ R-value

PRESCRIPTIVE N
Calculated Design Hea
Proposed Heating Cap
Calculated Design Cod
Proposed Cooling Cap
Fan Control
DP Sensor Location
Supply Pressure Reset
Simultaneous Heat/Co
Economizer
Heat Air Supply Reset
Cool Air Supply Reset
Electric Resistance He
Air Cooled Chiller Limit Duct Leakage Sealing. MECH-4-A must be su

Total installed capaci explain which excepti

EnergyPro 5.1 by Energy

CERTIFICATE OF COM	<b>IPLIAN</b>	ICE and F	IELD INSP	ECTION E	NERGY CH	ECKLIST (Part 4 of 4)	MECH-10
Project Name							Date
Pico Branch Library		<b>T</b>	7	1	1		5/3/2012
TEST DESCRIPTION		MECH-12A Fault	MECH-13A Automatic Fault	MECH-14A Distributed	MECH-15A		
Equipment Requiring Testing	Qty.	Detection & Diagnostics for DX Units	Detection & Diagnostics for Air & Zone	Energy Storage DX AC Systems	Thermal Energy Storage (TES) Systems	Test Performed I	2
RTU-1 - AAON RN006	1					Test Pendimed I	<i></i>
RTU-2 - AAON RQ003	1						
RTU-3 - AAON RQ003	4	e					
RTU-4 - AAON RQ003	4	 2					
RTU-5 - AAON RQ003	4						
Carrier 25VNA024 & FE4ANF002	1						
Carrier RAVKR024 & FE4ANF002	1		2				
EnergyPro 5.1 by EnergySoft L	Jser Number			□ RunCode: 2012-05-		ID: 06.11.00192	Page 25 p

	REMENTS		(Part 1 of 2)	MECH-20
				Date 5/3/2012
	Indica	ate Air Systems Type (Centra	l, Single Zone, Package, VA	V, or etc)
		CU-2 & FC-2		
		1		
	Indicate Pag	e Reference on Plans or Sch	edule and indicate the appli	cable exception(s)
URES	T-24 Sections			<u> </u>
юу	112(a)	n/a		
су	112(a)	16.7 SEER / 9.1 EER		
stat	112(b), 112(c)	nla		
tat	112(c), 115(a)	n/a		
	121(b)	No		
	121(b)	6 cfm		
ntrol	121(c)	No		
n	121(c)	No		
	122(e)	Programmable Switch		
I	122(e)	Setback Required		
	122(f)	Auto		
	122(g)	nla		
	123			
	124	nla		
ASURES	124	n/a		
Load	124			
Load V	124	nia		
Load / Load	124 144(a & b) 144(a & b)	nia 0 Btulhr		
Load / Load	124 144(a & b) 144(a & b) 144(a & b)	nia O Btulhr nia		
	124 144(a & b) 144(a & b) 144(a & b) 144(a & b)	n/a 0 Btu/hr n/a 21,214 Btu/hr		
y Load y	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c)	n/a 0 Btu/hr n/a 21,214 Btu/hr		
Load Y Load	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume		
Load Y Load	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c)	n/a 0 Btulhr n/a 21,214 Btulhr Constant Volume Yes		
Load / Load /	124         144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No		
Load Y Load	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No No No Economizer		
Load y Load y DC only)	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 1	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No No No Economizer Constant Temp		
Load / Load / DC only) g <sup>1</sup>	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(f) 144(f)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No No No Economizer Constant Temp		
JLoad y Load y DC only) g <sup>1</sup> rs, a	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(f) 144(f) 144(g) 144(j) 144(j)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No No No Economizer Constant Temp		
Load / Load / DC only) g <sup>1</sup> n es, a	124 144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(c) 144(d) 144(f) 144(f) 144(g)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No No Economizer Constant Temp Constant Temp		
y Load y DC only) g <sup>1</sup> n ies, a ited	124         144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)         144(f)         144(g)         144(k)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume Yes No No Economizer Constant Temp Constant Temp	uxiliary heat for heat pumps. If e	lectric heat is used
I Load y Load y DC only) g <sup>1</sup> n 'es, a tted ty (MBtu/hi on(s) to §1	124         144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)         144(f)         144(g)         144(k)	n/a 0 Btu/hr n/a 21,214 Btu/hr Constant Volume  Yes No No No Economizer Constant Temp Constant Temp Yes Yes		lectric heat is used

Project Name	REQUIRE	MEN 15	(Part 2 of 2)	MECH-2C
Pico Branch Library				5/3/2012
	WA	TER <sup>2</sup> SIDE SYSTEMS: Ch	illers, Towers, Boilers, Hy	dronic Loops
Item or System Tags (i.e. AC-1, RTU-1, HP-1) <sup>1</sup>				
Number of Systems				
		Indicate Page Refere	ence on Plans or Specifica	tion <sup>2</sup>
MANDATORY MEASURES	T-24 Sections			
Equipment Efficiency	112(a)			
Pipe Insulation	123			
PRESCRIPTIVE MEASURES				
Cooling Tower Fan Controls	144(a & b)			
Cooling Tower Flow Controls	144(h)			
Variable Flow System Design	144(h)			
Chiller and Boiler Isolation	144(j)			
CHW and HHW Reset Controls	144(j)			
WLHP Isolation Valves	144(j)			
VSD on CHW, CW & WLHP Pumps>5HP	144(j)			
DP Sensor Location	144(j)			
next to applicable section.	and hydronic loop	(or groups of similar equipme res are documented. If a requi	nt) fill in the reference to sheet rement is not applicable, put "N	number and/or specification
<ol> <li>next to applicable section.</li> <li>For each chiller, cooling tower, boiler, section and paragraph number where applicable section.</li> </ol>	and hydronic loop	(or groups of similar equipmentes are documented. If a requisition of a requisition of a service Hoto	nt) fill in the reference to sheet	number and/or specification
<ul> <li>next to applicable section.</li> <li>For each chiller, cooling tower, boiler, section and paragraph number where applicable section.</li> <li>Item or System Tags <ul> <li>(i.e. WH-1, WHP, DHW, etc)<sup>1</sup></li> </ul> </li> </ul>	and hydronic loop	(or groups of similar equipmentes are documented. If a requipmented of the service Hore DHW Heater	nt) fill in the reference to sheet rement is not applicable, put "N	number and/or specification
<ul> <li>next to applicable section.</li> <li>For each chiller, cooling tower, boiler, section and paragraph number where applicable section.</li> <li>Item or System Tags <ul> <li>(i.e. WH-1, WHP, DHW, etc)<sup>1</sup></li> </ul> </li> </ul>	and hydronic loop	(or groups of similar equipmentes are documented. If a requipmented of a requipmented of a requipmente of a requipmente of a requipment of a requirment of a requipment of a requirment of a r	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. Item or System Tags (I.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems	and hydronic loop the required featu	(or groups of similar equipmentes are documented. If a requipmented of a requipmented of a requipmente of a requipmente of a requipment of a requirment of a requipment of a requirment of a r	nt) fill in the reference to sheet rement is not applicable, put "N	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. Item or System Tags (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems MANDATORY MEASURES	and hydronic loop	(or groups of similar equipmentes are documented. If a requipmented of a requipmented of a requipmente of a requipmente of a requipment of a requirment of a requipment of a requirment of a r	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. Item or System Tags (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems MANDATORY MEASURES SERVICE HOT WATER	and hydronic loop the required featu T-24 Sections	(or groups of similar equipmentes are documented. If a requipmented of a requipmented of a requipmente of a requipmente of a requipment of a requirment of a requipment of a requirment of a r	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. Item or System Tags (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems MANDATORY MEASURES SERVICE HOT WATER Certified Water Heater	and hydronic loop the required featu T-24 Sections	(or groups of similar equipme) res are documented. If a requi Service Hot DHW Heater 2 Indicate Page Refe	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. Item or System Tags (I.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems MANDATORY MEASURES SERVICE HOT WATER Certified Water Heater Water Heater Efficiency	and hydronic loop the required featu T-24 Sections	(or groups of similar equipmeres are documented. If a requires are documented. If a requiremented of the service How DHW Heater 2 Indicate Page Reference Noritz NC-199-OD 1.00 EF	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. <b>Item or System Tags</b> (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems <b>MANDATORY MEASURES</b> SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation	T-24 Sections	(or groups of similar equipmentes are documented. If a requiremented of the service Hot DHW Heater 2 Indicate Page Reference Noritz NC-199-OD	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. <b>Item or System Tags</b> (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems <b>MANDATORY MEASURES</b> SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation Pipe Insulation	and hydronic loop the required featu T-24 Sections	(or groups of similar equipmentes are documented. If a requiremented of the service Hot DHW Heater 2 Indicate Page Reference Noritz NC-199-OD 1.00 EF Controls Req.	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. <b>Item or System Tags</b> (I.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems <b>MANDATORY MEASURES</b> SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation Pipe Insulation POOL AND SPA	T-24 Sections	(or groups of similar equipmentes are documented. If a requiremented of the service Hot DHW Heater 2 Indicate Page Reference Noritz NC-199-OD 1.00 EF Controls Req.	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. Item or System Tags (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems MANDATORY MEASURES SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation Pipe Insulation POOL AND SPA Pool and Spa Efficiency and Control	T-24 Sections	(or groups of similar equipmer res are documented. If a requi DHW Heater 2 Indicate Page Refe Noritz NC-199-OD 1.00 EF Controls Req. Required	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. <b>Item or System Tags</b> (I.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems <b>MANDATORY MEASURES</b> SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation Pipe Insulation POOL AND SPA Pool and Spa Efficiency and Control Pool and Spa Installation	and hydronic loop the required featu <b>T-24 Sections</b> 111, 113(a) 113(b) 113(c) 123 114(a)	(or groups of similar equipmer res are documented. If a requi DHW Heater 2 Indicate Page Refe Noritz NC-199-OD 1.00 EF Controls Req. Required	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
next to applicable section. 2. For each chiller, cooling tower, boiler, section and paragraph number where applicable section. <b>Item or System Tags</b> (i.e. WH-1, WHP, DHW, etc) <sup>1</sup> Number of Systems <b>MANDATORY MEASURES</b> SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation Pipe Insulation POOL AND SPA Pool and Spa Efficiency and Control Pool and Spa Installation Pool Heater – No Pilot Light	and hydronic loop the required feature T-24 Sections 111, 113(a) 113(b) 113(c) 123 114(a) 114(b)	(or groups of similar equipmer res are documented. If a requi DHW Heater 2 Indicate Page Refe Noritz NC-199-OD 1.00 EF Controls Req. Required n/a n/a	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
<ul> <li>next to applicable section.</li> <li>For each chiller, cooling tower, boiler, section and paragraph number where applicable section.</li> <li>Item or System Tags (I.e. WH-1, WHP, DHW, etc)<sup>1</sup></li> <li>Number of Systems</li> </ul>	and hydronic loop the required featu <b>T-24 Sections</b> 111, 113(a) 113(b) 113(c) 123 114(a) 114(b) 115(c)	(or groups of similar equipmer res are documented. If a requi DHW Heater 2 Indicate Page Refe Noritz NC-199-OD 1.00 EF Controls Req. Required n/a n/a n/a	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating	number and/or specification /A" in the column next to
<ul> <li>next to applicable section.</li> <li>For each chiller, cooling tower, boiler, section and paragraph number where applicable section.</li> <li>Item or System Tags (I.e. WH-1, WHP, DHW, etc)<sup>1</sup></li> <li>Number of Systems</li> <li>MANDATORY MEASURES</li> <li>SERVICE HOT WATER</li> <li>Certified Water Heater</li> <li>Water Heater Efficiency</li> <li>Service Water Heating Installation</li> <li>Pipe Insulation</li> <li>POOL AND SPA</li> <li>Pool and Spa Efficiency and Control</li> <li>Pool and Spa Installation</li> <li>Pioel Heater – No Pilot Light</li> <li>Spa Heater – No Pilot Light</li> <li>Pipe Insulation</li> <li>1. The Proposed equipment needs to man ext to applicable section.</li> </ul>	and hydronic loop         the required feature         T-24 Sections         111, 113(a)         113(b)         113(c)         123         114(a)         115(c)         115(d)         123	(or groups of similar equipmer res are documented. If a requi DHW Heater 2 Indicate Page Refe Noritz NC-199-OD 1.00 EF Controls Req. Required n/a n/a n/a n/a n/a n/a n/a n/a	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating rence on Plans or Schedu	humber and/or specification /A" in the column next to //A" in the column next to //A" in the column //A" in the column
<ul> <li>next to applicable section.</li> <li>For each chiller, cooling tower, boiler, section and paragraph number where applicable section.</li> <li>Item or System Tags (i.e. WH-1, WHP, DHW, etc)<sup>1</sup> Number of Systems</li> <li>MANDATORY MEASURES SERVICE HOT WATER Certified Water Heater Water Heater Efficiency Service Water Heating Installation Pipe Insulation POOL AND SPA Pool and Spa Efficiency and Control Pool Heater – No Pilot Light Spa Heater – No Pilot Light Pipe Insulation 1. The Proposed equipment needs to ma </li> </ul>	T-24 Sections T-24 Sections T-24 Sections T111, 113(a) 113(b) 113(c) 123 114(a) 114(b) 115(c) 115(d) 123 atch the building p at domestic water	(or groups of similar equipmer res are documented. If a requi DHW Heater 2 Indicate Page Refe Noritz NC-199-OD 1.00 EF Controls Req. Required n/a n/a n/a n/a n/a n/a a kans schedule or specifications	nt) fill in the reference to sheet rement is not applicable, put "N t Water, Pool Heating rence on Plans or Schedu rence	number and/or specification /A" in the column next to

Dina Dranah Library				Date 5/3/2012
Pico Branch Library	India	ata Air Sustama Tuna (Ca	ntral Single Zone Backer	
Item or System Tags	India	cate Air Systems Type (Cel RTU-1	RTU-2	RTU-3
(i.e. AC-1, RTU-1, HP-1) Number of Systems		1	1	1
Number of Systems	Indicate Pa	ge Reference on Plans or \$		
MANDATORY MEASURES	T-24 Sections			
Heating Equipment Efficiency	112(a)	81% AFUE	81% AFUE	81% AFUE
Cooling Equipment Efficiency	112(a)	14.3 SEER / 12.5 EER	15.7 SEER / 13.6 EER	15.7 SEER / 13.6 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	nla	nļa
Furnace Controls/Thermostat	112(c), 115(a)	n/a	nla	nia
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	225 cfm	397 cim	531 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	Yes	No	Yes
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	nia
Pipe Insulation	123			
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	nia oo bu ii	nia	nia
Calculated Design Heating Load Proposed Heating Capacity	144(a & b) 144(a & b)	80 Btulhr	49,000 Btu/hr	80 Btulhr
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load	144(a & b) 144(a & b) 144(a & b)	80 Btulhr nia	49,000 Btulhr nia	80 Btulhr nla
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity	144(a & b) 144(a & b) 144(a & b) 144(a & b)	80 Btu/hr n/a 54,216 Btu/hr	49,000 Bluihr nia 30,472 Bluihr	80 Btulhr nIa 36,400 Btulhr
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control	144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c)	80 Btulhr nia	49,000 Btulhr nia	80 Btulhr nla
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location	144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c)	80 Btulhr n/a 54,216 Btulhr Variable Speed	49,000 Bluihr nia 30,472 Bluihr Variable Speed	80 Btulhr nla 36,400 Btulhr Variable Speed
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only)	144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c)	80 Btu/hr n/a 54,216 Btu/hr Variable Speed Yes	49,000 Btulhr nia 30,472 Btulhr Variable Speed Yes	80 Btulhr nla 36,400 Btulhr Variable Speed Yes
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool	144(a & b) 144(a & b) 144(a & b) 144(a & b) 144(c) 144(c) 144(c) 144(c) 144(d)	80 Btulhr nla 54,216 Btulhr Variable Speed Yes No	49,000 Btulhr nia 30,472 Btulhr Variable Speed Yes No	80 Btulhr nla 36,400 Btulhr Variable Speed Yes No
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer	144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)	80 Btu/hr n/a 54,216 Btu/hr Variable Speed Yes No Diff. Enth (Integrated)	49,000 Bluihr nia 30,472 Bluihr Variable Speed Yes No Diff. Enth (Integrated)	80 Btulhr nla 36,400 Btulhr Variable Speed Yes No Diff. Enth (Integrated)
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer Heat Air Supply Reset	144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)         144(d)         144(e)         144(f)	80 Btulhr nla 54,216 Btulhr Variable Speed Yes No Diff. Enth (Integrated) Coidest Zone	49,000 Btuihr nia 30,472 Btuihr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone	80 Btulhr nla 36,400 Btulhr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer Heat Air Supply Reset Cool Air Supply Reset	144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)         144(d)         144(f)         144(f)	80 Btu/hr n/a 54,216 Btu/hr Variable Speed Yes No Diff. Enth (Integrated)	49,000 Bluihr nia 30,472 Bluihr Variable Speed Yes No Diff. Enth (Integrated)	80 Btulhr nla 36,400 Btulhr Variable Speed Yes No Diff. Enth (Integrated)
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer Heat Air Supply Reset Cool Air Supply Reset Electric Resistance Heating <sup>1</sup>	144(a & b)         144(c)         144(f)         144(f)         144(g)	80 Btulhr nla 54,216 Btulhr Variable Speed Yes No Diff. Enth (Integrated) Coidest Zone	49,000 Btuihr nia 30,472 Btuihr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone	80 Btulhr nla 36,400 Btulhr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone
Calculated Design Heating Load Proposed Heating Capacity Calculated Design Cooling Load Proposed Cooling Capacity Fan Control DP Sensor Location Supply Pressure Reset (DDC only) Simultaneous Heat/Cool Economizer Heat Air Supply Reset Cool Air Supply Reset	144(a & b)         144(a & b)         144(a & b)         144(a & b)         144(c)         144(d)         144(f)         144(f)	80 Btulhr nla 54,216 Btulhr Variable Speed Yes No Diff. Enth (Integrated) Coidest Zone	49,000 Btuihr nia 30,472 Btuihr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone	80 Btulhr nla 36,400 Btulhr Variable Speed Yes No Diff. Enth (Integrated) Coldest Zone

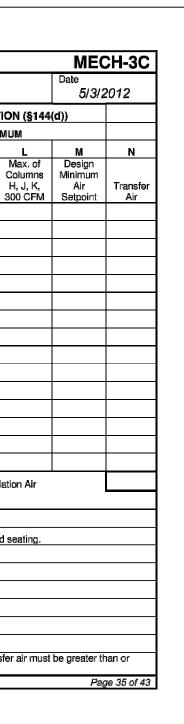
Project Name	ANICAL VEN • ch Library												Date 5/3/2	2012
	-	MECH		VENTILATI	ON (§121(	b)2)				REHE	AT LIMITA	TION (§144	(d))	
	[		EA BASIS				BASIS				VAV MIN		<u>,-<i>n</i></u>	
	Α	в	С	D	E	F	G	н	1	J	к	L	м	N
Zor	ne/System	Condition Area (ft <sup>2</sup> )	CFM per ft <sup>2</sup>	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft <sup>2</sup>	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfe Air
Zone 1 - Entry	//Children's Library/Po	1,501	0.15	225	15.0	15.0	225	225	225					
RTU-1							Total	225	225					
Zone 2 - Bran	ch Manager	135	0.15	20	1.9	15.0	29	29	29					
	p Study Rooms	377	0.15	57	12.6	15.0	189		189			<b> </b>		
Zone 2 - Staff	Lounge	171	0.15	26	4.0	15.0	60	60	180					
RTU-2							Total	277	397					
	puter Commons/Cust	2,303	0.15	345	35.4	15.0	531	531	531					
RTU-3	- Kana 1 Ozakian	4 000	0.45	400	40.0	45.0	Total	531	531 180					
Cone 4 - Cone RTU-4	ections & Seating	1,200	0.15	180	12.0	15.0	180 Total	180 180	180					
	munity Room	870	0.50	435	58.0	15.0	870	870	870					
RTU-5		010	0.00	400		73.0	Total	870	870					
Zone 6 - Work	monm	705	0.15	106	7.1	15.0	106	106	106					
CU-1 & FC-1							Total	106	106					
Zone 7 - IT Ro	от	107	0.15	16	0.4	15.0	б	16	6					3
		I		Totals						Column I Total	Design Ven	tilation Air		
С	Minimum ventilatio	n rate per Sectio	on <b>8121</b> . Ta	able 121-A.										
Е	Based on fixed sea	•			of occupant	s and 50% (	of the CBC oc	cupant load	for earess pu	rposes for space	es without fixe	ed seating.		
Н	Required Ventilatio		•					•		•		<b>v</b>		
	Must be greater that													
J	Design fan supply	CFM (Fan CFM	) x 50%; or	the design zo	ne outdoor	airflow rate	per §121.							
к	Condition area (ft <sup>2</sup> )	x 0.4 CFM / ft2;	or											
L	Maximum of Colum	nns H, J, K, or 3	00 CFM											
М	This must be less t													
Ν	Transfer Air must b equal to the differe										required, trar	nsfer air must	be greater th	nan or



		MEC	HANICAL	VENTILATI	ON (§121(	b)2)				REHE	AT LIMITA <sup>.</sup>	<b>FION</b>
		A	REA BASIS	3	oc	CUPANCY	BASIS				VAV MIN	IMUM
	Α	В	c	D	E	F	G	н	-	J	к	
Zor	ne/System	Condition Area (ft <sup>2</sup> )	CFM per ft <sup>2</sup>	Min CFM By Area B X C	Number Of People	CFM pər Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft <sup>2</sup>	Ma Col H, 300
CU-2 & FC-2	?						Total	16	6			
			1									
				Totals						Column I Total	Design Vent	ilatior
						8	I					
С	Minimum ventila	tion rate per Sect	ion §121, 1	able 121-A.								
Е	Based on fixed s	eat or the greate	r of the exp	ected number	of occupant	s and 50%	of the CBC oc	cupant load	for egress pu	rposes for space	es without fixe	d sea
Н	Required Ventila	tion Air (REQ'D \	/.A.) is the l	arger of the ve	entilation rat	es calculate	ed on an AREA	BASIS or	OCCUPANCY	BASIS (Column	D or G).	
I	Must be greater	than or equal to H	l. or use Tr	ansfer Air (coli	umn N) to m	ake up the	difference.			*	÷	
J		V CFM (Fan CFN										
к	~	t <sup>2</sup> ) x 0.4 CFM / ft <sup>2</sup>					por 3121.					
L	· · · · · · · · · · · · · · · · · · ·	umns H, J, K, or :										
 M				الاستحماد الموه		4a 4ba	of Columna 11	nhua Ni				
191	Transfer Air mus	s than or equal to t be provided what	o Column L	ano greater th wired Ventilati	an or equal on Air (Colu	to the sum mn H) is an	eater than the	pius N. Decion Min	imum Air (Coli	umin M) Wibere I	equired trac	efer :

<u>n'</u>	9		BURES: NONRESIDE		ENV-MM Date
	ch Library				5/3/2012
DESCRI					
	Envelope Measu		een certified by the manufacturer	to comply with the Californ	ia Quality
§118(a):	Standards for ins	ulating material, Title 2	0 Chapter 4, Article 3.		-
§118(c):	Sections 2602 ar	nd 707 of Title 24, Part		-	
§118(f):	of no less than R	-13 between framing m			
§117(a):		s and openings in the b or otherwise sealed.	uilding that are observable source	es of air leakage shall be ca	aulked, gasketed,
§116(a) 1:	window area, 0.3	6 cfm/ft.2 of door area fo	l exterior doors shall have air infilt r residential doors, 0.3 cfm/ft.² of o or nonresidential double doors (sw	door area for nonresidentia	0.3 cfm/ft.² of I single doors
§116(a) 2:	Fenestration U-fa	actor shall be rated in a	ccordance with NFRC 100, or the	applicable default U-factor	
§116(a) 3:	Fenestration SHC applicable defaul		cordance with NFRC 200, or NFR	C 100 for site-built fenestra	tlon, or the
§116(b):	Site Constructed weatherstripped	Doors, Windows and S (except for unframed g	Skylights shall be caulked betweer lass doors and fire doors).	n the unit and the building,	and shall be

## MECHANICAL VENTILATION AND REHEAT



<b>MECHANICAL EQUIP</b>	'MENI	DET	AILS									(Part 1	of 2	2)	Λ	IECH-50
Project Name															Date _	1010010
Pico Branch Library															5	/3/2012
CHILLER AND TOWER SUM	MARY															
	1												PUMP	S		Pump
Equipment Name		Туре		Qty.		Efficie	ency	Тс	ons	Qty.	GP	РМ	BHP			Control
DHW / BOILER SUMMARY																
	_		_						Vol.	Energy Fa	ctor	Standby I		Tank		
System Name	Тур			Distributio		Qty.	Rated Inpl		Gals).	or RE	4.00	or Pilo		R-Va		Status
Noritz NC-199-OD	Instant	Gas		Kitchen	Pipe Ins :	2	199,0	00	0		1.00		nla		nla	N
							-									
MULTI-FAMILY CENTRAL WA		TING														
MULTI-FAMILI CENTRAL W			Vater Pump									Hot Water P	inina l	enath (	(ተ)	
Control		Qty.	HP			Ту	)e			In Plenum		Outside		ried		1/2" Insulation
						21										
CENTRAL SYSTEM RATINGS	3															
CENTRAL SYSTEM RATINGS	3			<u> </u>			HEATING					COOLING	à			
CENTRAL SYSTEM RATINGS System Name	3	Туре		Qty.	Outpi	ut	HEATING Aux. kW	Effic	ciency	Outpu	ut		à Efficiel	ncy		Status
		<b>Type</b> ged VAV		Qty.	Outpi	ut 80			ciency 1% AFUE		ut 58,000		Efficie	ncy R / 12.5	i EER	-
System Name	Packaç						Aux. kW	8		= .		) 14	Efficiei 1.3 SEE			Status
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003	Packag Packag	ed VAV		1		80	Aux. kW 6.0	8 8	1% AFUE	E 4	58,000	) 14 ) 15	Efficier 1.3 SEE 5.7 SEE	R / 12.5	EER	Status New
System Name RTU-1 - AAON RN006	Packag Packag Packag	jed VAV jed VAV		1	8	80 49,000	Aux. kW 6.0 6.0	8 8 8	1% AFUE 1% AFUE		58,000 37,000	) 14 ) 15 ) 15	Efficiei .3 SEE 5.7 SEE 5.7 SEE	R / 12.5 R / 13.6	EER	Status New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003	Packag Packag Packag Packag	jed VAV jed VAV jed VAV		1 1 1	4	80 49,000 80	Aux. kW 6.0 6.0 6.0	8 8 8 8	1% AFUE 1% AFUE 1% AFUE		58,000 37,000 39,000	) 14 ) 15 ) 15 ) 15	Efficiei .3 SEE .7 SEE .7 SEE .7 SEE	R / 12.5 R / 13.6 R / 13.6	EER EER	Status New New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003	Packag Packag Packag Packag	ged VAV ged VAV ged VAV ged VAV ged VAV		1 1 1 1		80 49,000 80 49,000	Aux. kW 6.0 6.0 6.0 6.0	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE		58,000 37,000 39,000 38,000	) 14 ) 15 ) 15 ) 15 ) 15	Efficiei .3 SEE .7 SEE .7 SEE .7 SEE .7 SEE	R / 12.5 R / 13.6 R / 13.6 R / 13.6	5 EER 5 EER 5 EER 5 EER	Status New New New New New
<b>System Name</b> RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002 Carrier RAVKR024	Packag Packag Packag Packag Packag Packag Split D. Split D.	ged VAV ged VAV ged VAV ged VAV ged VAV		1 1 1 1 1		80 49,000 80 49,000 49,000	Aux. kW 6.0 6.0 6.0 6.0 6.0	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE		58,000 37,000 39,000 38,000 39,000	) 14 ) 15 ) 15 ) 15 ) 15 ) 16 ) 16	Efficier 3.3 SEE 5.7 SEE 5.7 SEE 5.7 SEE 5.7 SEE 5.1 SEE	R / 12.5 R / 13.6 R / 13.6 R / 13.6 R / 13.6	) EER ) EER ) EER ) EER ' EER	
<b>System Name</b> RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002	Packag Packag Packag Packag Packag Packag Split D. Split D.	ged VAV ged VAV ged VAV ged VAV ged VAV		1 1 1 1 1 1 1 1		80 49,000 80 49,000 49,000	Aux. kW 6.0 6.0 6.0 6.0 6.0 1.6	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI		58,000 37,000 39,000 38,000 39,000 24,190 25,000	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 19 ) 19	Efficier 3.3 SEE 5.7 SEE 5.7 SEE 5.7 SEE 5.7 SEE 5.1 SEE	R / 12.5 R / 13.6 R / 13.6 R / 13.6 R / 13.6 R / 13.6 R / 14.7	) EER ) EER ) EER ) EER ' EER ' EER	Status New New New New New New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002 Carrier RAVKR024 CENTRAL SYSTEM FAN SUN	Packag Packag Packag Packag Packag Packag Split D. Split D.	ged VAV ged VAV ged VAV ged VAV ged VAV		1 1 1 1 1 1 1		80 49,000 80 49,000 49,000 24,000	Aux. kW 6.0 6.0 6.0 6.0 6.0 1.6 6.0	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 38,000 39,000 24,190 25,000	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 19	Efficier 3.3 SEE 5.7 SEE 5.7 SEE 5.7 SEE 5.7 SEE 5.1 SEE	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	) EER ) EER ) EER ) EER ' EER	Status New New New New New New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002 Carrier RAVKR024 CENTRAL SYSTEM FAN SUN System Name	Packag Packag Packag Packag Packag Packag Split D. Split D.	ged VAV ged VAV ged VAV ged VAV ged VAV X	Fan Type	1 1 1 1 1 1 1		80 49,000 80 49,000 24,000 24,000 Econo	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 1.6	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E SUPPLY SUPPLY	58,000 37,000 39,000 38,000 29,000 24,190 25,000 <b>Y FAN</b>	)         14           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           BHP         10	Efficien .3 SEE .7 SEE .7 SEE .7 SEE .7 SEE .1 SEE 6.7 SE	R / 12.5 R / 13.6 R / 13.6 R / 13.6 R / 13.6 R / 13.6 R / 14.7	EER EER EER EER EER EER	Status New New New New New New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002 Carrier RAVKR024 CENTRAL SYSTEM FAN SUN System Name RTU-1 - AAON RN006	Packag Packag Packag Packag Packag Packag Split D. Split D.	red VAV red VAV red VAV red VAV red VAV X X Varial	Fan Type Speed	1 1 1 1 1 1 1	Diff. Enth	80 49,000 80 49,000 24,000 24,000 Econo (Integra	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 1.6 6.0 mlzer Type ted)	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 38,000 24,190 25,000 Y FAN	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15	Efficier .3 SEE .7 SEE .7 SEE .7 SEE .7 SEE .1 SEE 6.7 SE	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	EER	Status New New New New New New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002 Carrier RAVKR024 CENTRAL SYSTEM FAN SUN System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003	Packag Packag Packag Packag Packag Packag Split D. Split D.	ied VAV ied VAV ied VAV ied VAV ied VAV X X Varial Varial	Fan Type	1 1 1 1 1 1 1	Diff. Enth	80 49,000 80 49,000 24,000 24,000 Econo (Integra (Integra	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 1.6 6.0 mizer Type ted)	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 38,000 29,000 24,190 25,000 <b>Y FAN</b>	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15	Efficier .3 SEE .7 SEE .7 SEE .7 SEE .7 SEE .1 SEE 6.7 SE 6.7 SE 1 5	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	EER EER EER EER EER EER ETURN	Status New New New New New New New
System Name           RTU-1 - AAON RN006           RTU-2 - AAON RQ003           RTU-3 - AAON RQ003           RTU-4 - AAON RQ003           RTU-5 - AAON RQ003           Carrier 25VNA024 & FE4ANF002           Carrier RAVKR024           CENTRAL SYSTEM FAN SUN           System Name           RTU-1 - AAON RQ003           RTU-2 - AAON RQ003           RTU-1 - AAON R0006           RTU-2 - AAON RQ003           RTU-3 - AAON RQ003	Packag Packag Packag Packag Packag Packag Split D. Split D.	ied VAV ied VAV ied VAV ied VAV ied VAV X X Varial Varial Varial Varial	Fan Type ble Speed ble Speed ble Speed	1 1 1 1 1 1 1	Diff. Enth Diff. Enth	80 49,000 80 49,000 24,000 24,000 24,000 (Integra (Integra (Integra (Integra	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 38,000 24,190 25,000 Y FAN	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15	Efficien .3 SEE .7 SEE .7 SEE .7 SEE .7 SEE .1 SEE 6.7 SE 6.7 SE 1 5 7	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	EER EER EER EER EER EER ETURN	Status New New New New New New New
System Name           RTU-1 - AAON RN006           RTU-2 - AAON RQ003           RTU-3 - AAON RQ003           RTU-4 - AAON RQ003           RTU-5 - AAON RQ003           Carrier 25VNA024 & FE4ANF002           Carrier RAVKR024           CENTRAL SYSTEM FAN SUN           System Name           RTU-1 - AAON RQ003           RTU-2 - AAON RQ003           RTU-1 - AAON RQ003           RTU-2 - AAON RQ003           RTU-3 - AAON RQ003           RTU-4 - AAON RQ003	Packag Packag Packag Packag Packag Packag Split D. Split D.	ied VAV ied VAV ied VAV ied VAV ied VAV X X X Varial Varial Varial Varial Varial	Fan Type ble Speed ble Speed ble Speed ble Speed ble Speed	1 1 1 1 1 1 1	Diff. Enth Diff. Enth Diff. Enth Diff. Enth	80 49,000 80 49,000 24,000 24,000 24,000 24,000 (Integra (Integra (Integra (Integra (Integra (Integra	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 1.6 6.0 mizer Type ted) ted) ted)	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 38,000 39,000 24,190 25,000 Y FAN	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 16 ) 19 ) 19 ) 19 ) 19 ) 19 ) 19 ) 19 (0.5: 1.6: (0.5: 1.7; 1.9;	Efficien .3 SEE .7 SEE .7 SEE .7 SEE .7 SEE .1 S	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	EER EER EER EER EER EER ETURN none none none	Status New New New New New New New
System Name           RTU-1 - AAON RN006           RTU-2 - AAON RQ003           RTU-3 - AAON RQ003           RTU-4 - AAON RQ003           RTU-5 - AAON RQ003           Carrier 25VNA024 & FE4ANF002           Carrier RAVKR024           CENTRAL SYSTEM FAN SUN           System Name           RTU-1 - AAON RN006           RTU-2 - AAON RQ003           RTU-2 - AAON RQ003           RTU-3 - AAON RQ003           RTU-4 - AAON RQ003           RTU-4 - AAON RQ003           RTU-5 - AAON RQ003           RTU-5 - AAON RQ003	Packag Packag Packag Packag Packag Packag Split D. Split D.	ied VAV ied VAV ied VAV ied VAV ied VAV X X Variai Variai Variai Variai Variai Variai Variai	Fan Type ble Speed ble Speed ble Speed ble Speed ble Speed ble Speed	1 1 1 1 1 1 1	Diff. Enth Diff. Enth Diff. Enth Diff. Enth Diff. Enth Diff. Enth	80 49,000 80 49,000 24,000 24,000 24,000 (Integra (Integra (Integra (Integra (Integra (Integra (Integra (Integra	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 1.6 6.0 mizer Type ted) ted) ted) ted) ted)	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 38,000 39,000 24,190 25,000 <b>Y FAN</b>	)         14           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           )         15           BHP         1.6           0.53         1.7           1.9         1.9	Efficien 3 SEE 7 SEE 7 SEE 7 SEE 7 SEE 6.7 SEE 6.7 SEE 6.7 SE 7 7 2 2	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	EER EER EER EER EER EER EER None none none none	Status New New New New New New New
System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003 RTU-5 - AAON RQ003 Carrier 25VNA024 & FE4ANF002 Carrier RAVKR024 CENTRAL SYSTEM FAN SUN System Name RTU-1 - AAON RN006 RTU-2 - AAON RQ003 RTU-3 - AAON RQ003 RTU-4 - AAON RQ003	Packag Packag Packag Packag Packag Packag Split D. Split D.	ied VAV ied VAV ied VAV ied VAV ied VAV X X Varial Varial Varial Varial Varial Varial Varial Const	Fan Type ble Speed ble Speed ble Speed ble Speed ble Speed	1 1 1 1 1 1 1	Diff. Enth Diff. Enth Diff. Enth Diff. Enth	80 49,000 80 49,000 24,000 24,000 24,000 (Integra (Integra (Integra (Integra (Integra (Integra (Integra (Integra (Integra (Integra	Aux. kW 6.0 6.0 6.0 6.0 1.6 6.0 1.6 6.0 mizer Type ted) ted) ted) ted) ted)	8 8 8 8 8	1% AFUE 1% AFUE 1% AFUE 1% AFUE 1% AFUE .30 HSPI nla	E	58,000 37,000 39,000 39,000 39,000 24,190 25,000 <b>Y FAN</b>	) 14 ) 15 ) 15 ) 15 ) 15 ) 15 ) 15 ) 16 ) 19 ) 19 ) 19 ) 19 ) 19 ) 19 ) 19 (0.5: 1.6: (0.5: 1.7; 1.9;	Efficien 3 SEE 7 SEE 7 SEE 7 SEE 1 SEE 6.7 SEE 6.7 SEE 6.7 SEE 7 SEE 1 SEE 7 SEE 1 SEE	ER / 12.5 ER / 13.6 ER / 13.6 ER / 13.6 ER / 13.6 ER / 14.7 ER / 9.1	EER EER EER EER EER EER ETURN none none none	Status New New New New New New New

-	G MANDATORY MEASURES: NONRESIDENTIAL	LTG-MM
Project Name Pico Branci	h Library	Date 5/3/2012
	ghting Measures:	
	ut-off Controls	
1.	For every floor, all interior lighting systems shall be equipped with a separate automatic contro This automatic control shall meet the requirements of Section 119 and may be an occupancy s switch, or other device capable of automatically shutting off the lighting.	sensor, automatic time
2.	Override for Building Lighting Shut-off: The automatic building shut-off system is provided with override switch in sight of the lights. The area of override is not to exceed 5,000 square feet.	a manual, accessible
§119(h):	Automatic Control Devices Certified: All automatic control devices specified are certified, all al be certified and installed as directed by the manufacturer.	ternate equipment shall
§111:	Fluorescent Ballast and Luminaires Certified: All fluorescent fixtures specified for the project are of Directory. All installed fixtures shall be certified.	ertified and listed in the
§131(a):	Individual Room/Area Controls: Each room and area in this building is equipped with a separa sensor device for each area with floor-to-ceiling walls.	te switch or occupancy
§131(b):	Uniform Reduction for Individual Rooms: All rooms and areas greater than 100 square feet an per square foot of lighting load shall be controlled with bi-level switching for uniform reduction or room.	d more than 0.8 watts of lighting within the
§131(c):	Daylight Area Control: All rooms with windows and skylights that are greater than 250 square the effective use of daylight in the area shall have 50% of the lamps in each daylit area control or the effective use of daylight cannot be accomplished because the windows are continuously the adjacent lot. Diagram of shading during different times of the year is included on plans.	led by a separate switch;
§131(c):	Display Lighting. Display lighting shall be separately switched on circuits that are 20 amps or I	ess.6.
Dutdoor I	ighting Measures:	
§130(c)1:	Mandatory lighting power determination for medium base sockets without permanently installed	d ballasts
§132(a):	All permanently installed luminaires with lamps rated over 100 Watts either have a lamp efficace per Watt or are controlled by a motion sensor.	cy of at least 60 lumens
§132(b):	All Luminaires with lamps rated greater than 175 Watts in hardscape area, including parking lo canopies, and all outdoor sales areas meet the Cutoff Requirements.	ts, building entrances,
§132(c)1:	All permanently installed outdoor lighting meets the control requirements listed.	
§132(c):	Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level listed.	el Lighting Requirements
	by EnergySoft User Number: 7306 <b>RunCode: 2012-05-03T14:52:47</b> ID: 06.11.00192	Page 39 of 4

Project Name	NICAL MANDATORY MEASURES: NONRESIDENTIAL	Date
Pico Branc	h Library	5/3/2012
Equipme	nt and System Efficiencies	
§111:	Any appliance for which there is a California standard established in the Appliance Efficiency Re with the applicable standard.	egulations will comply
§115(a):	Fan type central furnaces shall not have a pilot light.	
§123:	Piping, except that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or equipment, shall be insulated in accordance with Standards Section 123.	or within HVAC
§124:	Air handling duct systems shall be installed and insulated in compliance with Sections 601, 602 the CMC Standards.	, 603, 604, and 605 of
Controls		
§122(e):	Each space conditioning system shall be installed with one of the following:	
1 <b>A</b> .	Each space conditioning system serving building types such as offices and manufacturing facilit explicitly exempt from the requirements of Section 112 (d)) shall be installed with an automatic tracessible manual override that allows operation of the system during off-hours for up to 4 hour shall be capable of programming different schedules for weekdays and weekends and have proceapabilities that prevent the loss of the device's program and time setting for at least 10 hours if	time switch with an s. The time switch gram backup
	An occupancy sensor to control the operating period of the system; or	
1C.	A 4-hour timer that can be manually operated to control the operating period of the system.	
2.	Each space conditioning system shall be installed with controls that temporarily restart and temp system as required to maintain a setback heating and/or a setup cooling thermostat setpoint.	
§122(g):	Each space conditioning system serving multiple zones with a combined conditioned floor area square feet shall be provided with isolation zones. Each zone: shall not exceed 25,000 square with isolation devices, such as valves or dampers that allow the supply of heating or cooling to be independently of other isolation areas; and shall be controlled by a time control device as described and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device of the supervised and shall be controlled by a time control device and the supervised and shall be controlled by a time control device and the supervised and t	feet; shall be provided be setback or shut off
§122(c):	Thermostats shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint sto authorized personnel.	ps accessible only to
§122(b):	Heat pumps shall be installed with controls to prevent electric resistance supplementary heater heating load can be met by the heat pump alone	-
§122(a&b):	Each space conditioning system shall be controlled by an individual thermostat that responds to zone. Where used to control heating, the control shall be adjustable down to 55 degrees F or lo control shall be adjustable up to 85 degrees F or higher. Where used for both heating and cool capable of providing a deadband of at least 5 degrees F within which the supply of heating and reduced to a minimum.	ower. For cooling, the ing, the control shall be
Ventilatio		
§121(e):	Controls shall be provided to allow outside air dampers or devices to be operated at the ventilat on these plans.	ion rates as specified
§122(f):	All gravity ventilating systems shall be provided with automatic or readily accessible manually o openings to the outside, except for combustion air openings.	perated dampers in all
§121(f):	Ventilation System Acceptance. Before an occupancy permit is granted for a newly constructed new ventilating system serving a building or space is operated for normal use, all ventilation sys building or space shall be certified as meeting the Acceptance Requirements for Code Complia	stems serving the
Service V	Vater Heating Systems	
§113(c)	Installation	
	Temperature controls for public lavatories. The controls shall limit the outlet Temperature to 11	0°F.
2.	Circulating service water-heating systems shall have a control capable of automatically turning when hot water is not required.	off the circulating pump
2. EnergyPro 5.1	when hot water is not required.	off the circulating pump Page 40 of 4

				3							(17)	art 2 o	12)	Date		CH-5
Project Name Pico Branch Library														Date	• 5/3/2(	012
ZONE SYSTEM SUMM	ARY														0,0,2	
			Ī		SYSTE	EM			VAV		Fa	n				
Zone Name	System N	lame	т	vpe	Qtv.	Heating	Cooling	Min CFM Ratio	Reheat	Coil	CFM	внр	Fan Cycles	ECM Motor		tside Air
Zone 1 - Entry/Children's Libra	· · · · ·			~ ·	1	0			None		none					
Zone 2 - Branch Manager	Displacement \	/entilation	VAV Diffu	iser	1	0			None		none					
Zone 2 - Group Study Rooms	Displacement \		VAV Diffi	Iser	1	0			None		none					
Zone 2 - Staff Lounge	Displacement V	/entilation	VAV Difft	Iser	1	0			None		none					
Zone 3 - Computer Commons/	1		VAV Difft	Iser	1	0			None		none					
Zone 4 - Collections & Seating	Displacement \	/entilation	VAV Diffi	iser	1	0			None		none					
Zone 5 - Community Room	Displacement V	/entilation	VAV Difft	iser	1	0			None		none					
Zone 6 - Workroom	Ceiling Supply		VAV Box		1	0		30 %	None							
Zone 7 - IT Room	Ceiling Supply		VAV Box		1	0		30 %	None							
EXHAUST FAN SUMM	ARY															
EXHAUST FAN	<u> </u>			EXHAUS	ST FAN			<b>I</b> 1		EXHA	UST FAN					
Deem News	0	0EM	внр		Daam N	lama	0	CEM	внр		Deem No			<b></b>	<b>CEN</b>	внр
Room Name Restrooms	Qty. 1.0	CFM 640	0.10	132 Electric	Room N		Qty. 1.0	CFM 150	8HP 0.05		Room Na	me		Qty.	CFM	внр
118 Staff Lounge	1.0	040 180	0.10	132 EIBCIM	sai RUON	/1	1.0	130	0.03							
125 Pantry	1.0	130	0.04													
Restrooms	1.0	70	0.03													
EnergyPro 5.1 by EnergySoft		70 Number: 7				Buncada	: 2012-05-03	T44.59.47		10.00	11.00192				Dec	e 37 of •



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SHEET	

	PACKAGED ROOFTOP UNIT SCHEDULE (NATURAL GAS)																							
MFR & NOM.				NOM.		SUPPLY						COOLING				HEATING			ELECTRICAL		-	UNIT OPER.		
TAG	MODEL	LOCATION	AREA SERVED	CAP. (TONS)	AIRFLOW (CFM)	MIN OSA (CFM)	ESP (IN.WG.)	BHP	HP	EER	SEER	TOTAL (MBH)	SENS (MBH)	EAT DB/WB (*F)	LAT DB/WB (*F)	INTPUT (MBH)	OUTPUT (MBH)	FILTER TYPE	V/PH	MCA (A)	MOCP (A)	SIZE (L"xW"xH")	WT. (LBS)	NOTES
RTU-1	AAON RN006	ROOF	CHILDREN'S LIBRARY/POP MATERIAL	6	2,800	400	2.26	1.61	2	12.5	14.3	58.0	56.0	76.3/63.4	57.6/56.4	90.0	73	MERV 13	208/3/60	_	_	83x79x44	1300	1,2,3,4,5,6,7,8,9,10,11
RTU-2	AAON RQ003	ROOF	MANAGER RM/STAFF/GROUP STUDY	3	800	350	2.07	0.55	1	13.55	15.7	37.0	26.0	81/66.2	51.1/49.4	60.0	49	MERV 13	208/3/60	_	_	83x45x45	800	1,2,3,4,5,6,8,9,10,11
RTU-3	AAON RQ003	ROOF	COMPUTER COMMONS	3	2,000	600	2.94	1.77	2	13.55	15.7	39.0	39.0	78.8/64.9	60.6/58.5	60.0	49	MERV 13	208/3/60	_	_	83x45x45	900	1,2,3,4,5,6,7,8,9,10,11
RTU-4	AAON RQ003	ROOF	COLLECTION & SEATING	3	2,200	300	3.06	1.92	2	13.55	15.7	38.0	38.0	76.3/63.4	59.7/57.4	60.0	49	MERV 13	208/3/60	_	_	83x45x45	900	1,2,3,4,5,6,7,8,9,10,11
RTU-5	AAON RQ005	ROOF	COMMUNITY ROOM	3	2,200	740	3.06	2	2	13.55	15.7	39.0	39.0	78.6/64.8	61.2/58.6	60.0	49	MERV 13	208/3/60	_	_	83x45x45	900	1,2,3,4,5,6,7,8,9,10,11,12
NOTES																								

1. FUSED DISCONNECT PROVIDED BY ELEC CONTRACTOR.

2. SEE PLUMBING PLAN FOR GAS LINE AND CONDENSATE DRAIN LINE. 3. PROVIDE 14" PRE-FABRICATED ROOF CURB WITH SPRING ISOLATORS.

4. VERTICAL DISCHARGES FOR SUPPLY AIR AND RETURN AIR.

5. PROVIDE ENVIRONMENTAL PROTECTIVE PAINT ON COILS.

6. PROVIDE MANUFACTURER THERMOSTAT THAT IS CAPABLE TO CONNECT TO BMS SYSTEM. RTU SHOULD BE CONTROLLED BY BMS. 7. PROVIDE CO2 SENSOR TO MODULATE THE OUTSIDE AIR INTAKE TO MEET THE CODE REQUIREMENT.

8. PROVIDE ECONOMIZER WITH POWER EXHAUST FAN.

9. REFRIGERANT TYPE R-410A. 10. PROVIDE CONVENIENCE POWER OUTLET.

FAN SCHEDULE														
UNIT NO.	MANUFACTURER & MODEL NO.	LOCATION	AREA SERVED	TYPE	C.F.M.	E.S.P. (IN.)	FAN R.P.M.	DRIVE	BHP	ELECT VOLTAGE V./PH./HZ	RICAL HP	DIMENSION LxWxH (IN)	OPER. WT. (LBS.)	REMARKS
$\left\langle \frac{EF}{1} \right\rangle$	COOK 100 ACE-B	ROOF	MAIN RESTROOMS	CENTRIFUGAL	640	0.35	1424	BELT	0.100	120/1/60	0.167	24x24x22	30	1,2,4
EF 2	COOK 90 ACE-D	WALL	LOUNGE	CENTRIFUGAL	180	0.25	1125	DIRECT	-	120/1/60	0.04	19x19x17	28	1,2
$\left\langle \frac{EF}{3} \right\rangle$	COOK 70 ACE-D	ROOF	PANTRY	CENTRIFUGAL	130	0.15	1550	DIRECT	-	120/1/60	0.05	14x14x14	25	1,2,4
EF 4	COOK 70 ACE-D	ROOF	COMMUNITY RESTROOMS	CENTRIFUGAL	70	0.15	2107	DIRECT	-	120/1/60	0.04	14x14x14	25	1,2,4
EF 5	COOK 70 ACE-D	ROOF	ELECTRICAL ROOM	CENTRIFUGAL	130	0.20	1700	DIRECT	-	120/1/60	0.05	14x14x14	25	2,3,4
	COOK 8 PR	ROOF	AV ROOM	GRAVITY	20	0.15	_	_	-	_	_	19X19X8	_	4

NOTES

1. PROVIDE PROGRAMMABLE CONTROL TO TURN ON THE FAN DURING OPERATING HOURS BY BMS SYSTEM.

2. EXHAUST AIR DISCHARGE MUST BE 10' AWAY FROM ANY FRESH AIR INTAKE.

3. EXHAUST FAN SHOULD BE ON BY ROOM THERMOSTAT WHEN ROOM TEMPERATURE IS HIGHER THAN 85'F. SYSTEM SHOULD BE MONITORED BY BMS SYSTEM. 4. PROVIDE MANUFACTURED ROOF CURB.

							FAN COI		CHEDU	JLE							
	MFR &	LOCATION /	AREA	SUPPLY AIR	OSA	ESP	COOLING COIL	HEATING COIL		ELECT	RICAL			OUTDOOR	UNIT	OPER.	
TAG	MODEL	MOUNTING	SERVED	(CFM)	(CFM)	(IN.WG.)	TOTAL COOLING	TOTAL HEATING	V/PH		MOTOR		SEER	UNIT	SIZE	WT.	
							(MBH)	(MBH)		MCA	FLA	FUSE			(L"xW"xH")	(LBS)	
FC-1	CARRIER FE4ANF002000	CEILING CONCEALED	WORK ROOM	600	190	0.65	25.0	24.0	208/1	5.4	4.3	15.0	19.1	CU-1	22x18x43	135	1,2,3,4,5
FC-2	CARRIER RAV-SP240KRT-UL	WALL MOUNTED	IT ROOM	560	0	0.25	25.0	N/A	208/1	N/A	N/A	N/A	16.7	CU-2	9x41x13	31	1,2,3

NOTES:

1. FUSE DISCONNECT BY ELECTRICAL CONTRACTOR

2. SIZE REFRIGERANT PIPES PER MANUFACTURER'S INSTALLATION MANUAL AND ACTUAL CONSTRUCTION CONDITIONS.

3. INSULATE REFRIGERANT PIPES PER MANUFACTURER'S RECOMMENDATIONS 4. PROVIDE FLEXIBLE SA & RA DUCT CONNECTIONS.

5. PROVIDE CEILING ACCESS PANEL FOR UNIT MAINTENANCE.

	AIR-COOLED CONDENSER UNIT SCHEDULE														
	MFR &		EQUIP.	NOM.		SEER			ELECTRICAL			OPER.			
TAG	MODEL	LOCATION	SERVED	CAP.	EER		REFRIG	V/PH	MCA	MOCP		WT.	NOTES		
				(TONS)					(A)	(A)	(L"XW"xH")	(LBS)			
CU-1	CARRIER 25VNA024A003	ROOF	FC-1	2.0	14.7	19.1	R-410	208/1	23.5	30	36x39x50	367	1,2,3,4,5		
CU-2	CARRIER RAV-SP240AT2-UL	ROOF	FC-2	2.0	9.1	16.7	R-410	208/1	24.0	40.0	13x35x35	135	1,2,3,4,5		

NOTES 1. FUSED DISCONNECT PROVIDED BY ELEC CONTRACTOR.

2. CAPACITY RATED AT ARI STANDARD CONDITIONS.

3. INSULATE REFRIGERANT PIPES PER MANUFACTURER'S RECOMMENDATIONS

4. SIZE REFRIGERANT PIPES PER UNIT MANUFACTURER'S INSTALLATION MANUAL AND ACTUAL CONSTRUCTION CONDITIONS.

5. MOUNT ON LEVELED PLATFORM WITH NEOPRENE PAD. THE SHALLOW SIDE OF THE PLATFORM MUST BE MIN. 4" ABOVE THE ROOF.

	DIFFUSER AND GRILLE SCHEDULE													
TAG	MFR	MODEL	DESCRIPTION	FACE TYPE	FACE SIZE	COLOR / FINISH	MATERIAL	OBD	NOTES					
					(IN.)									
A	KRUEGER	FPDFR-R	RAISED FLOOR DIFFUSOR	CURVED SLOT	9 3/4'	PER ARCHITECT	POLYCARBONATE	NO	1,2,3,4,5,8					
В	TITUS	PAR-AA	CEILING RETURN/EXHAUST GRILLE	SURFACE MOUNT	12"x12"	PER ARCHITECT	ALUMINUM	NO	1,2,3,4,5					
С	TITUS	3FL	SIDEWALL RETURN/EXHAUST GRILLE	SURFACE MOUNT	DUCT SIZE + 3"	PER ARCHITECT	ALUMINUM	NO	1,2,3,4,5					
D	TITUS	ML-39	SLOT SUPPLY	(2) 1" SLOTS	48" X 4" SLOT	PER ARCHITECT	ALUMINUM	NO	1,2,3,4,5					
E	TITUS	MLR-39	SLOT RETURN	(4) 1" SLOTS	48" X 8" SLOT	PER ARCHITECT	ALUMINUM	NO	1,2,3,4,5,7					
F	TITUS	MLR-39	SLOT RETURN	(2) 1" SLOTS	48" × 4" SLOT	PER ARCHITECT	ALUMINUM	NO	1,2,3,4,6,7					
G	TITUS	PAR-AA	CEILING RETURN/EXHAUST GRILLE	SURFACE MOUNT	24"×24"	PER ARCHITECT	ALUMINUM	NO	1,2,3,4,5					

### NOTES

1. MAXIMUM TOTAL PRESSURE DROP SHALL BE 0.1" WG.

2. MAXIMUM NC LEVEL SHALL BE 35. 3. ALL VISIBLE SURFACES AND DUCTWORK BEHIND FACE SHALL BE PAINTED FLAT BLACK.

4. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR BORDER TYPES.

5. NECK SIZE AND CFM SHOWN ON PLANS (E.G. 12x12-A-400 REFERS TO TAG "A" WITH 12x12 NECK AND 400 CFM). 6. PLENUM CONNECTION SIZE, SLOT LENGTH, AND CFM SHOWN ON PLANS (E.G. 8-120-A-2000 REFERS TO TAG "A" WITH 8" ROUND CONNECTION(S), 120" CONTINUOUS SLOT LENGTH AND 2000 CFM).

7. PROVIDE MANUFACTURER'S INSULATED PLENUM.

8. PROVIDE DIRT RECEPTACLE WITH VOLUME DAMPER OF ROTATNG FACE.

11. FRESH AIR INTAKE MUST BE MIN. 10' AWAY FROM ANY EXHAUST AIR OR VENT.

12. PROVIDE DOOR SWITCHES AT THE SLIDING DOORS. WHEN ANY SLIDING DOOR IS OPEN, THE HVAC UNIT SHOULD BE TURN OFF.

# **ROOFTOP UNIT - SEQUENCE OF OPERATION**

1. <u>GENERAL NOTES:</u>

- A. PROVIDE ALL NECESSARY HARDWARE AND SOFTWARE INCLUDING, BUT NOT LIMITED TO, CONTACTS, INSTRUMENTATION, WIRING
- AIR CONDITIONING SYSTEM UNLESS OTHERWISE NOTED ON THE DRAWINGS AND SPECIFIED ELSEWHERE. B. ALL CONTROL SET POINTS SHALL BE ADJUSTABLE.

2. <u>ROOFTOP PACKAGE UNITS:</u>

- A. ROOFTOP UNITS SHOULD BE CONTROLLED AND MONITORED BY THE BMS. UNITS SHOULD BE ON DURING THE OPERATING HOURS.
- C. SUPPLY ROOM TEMPERATURE SHOULD BE PRE-SET AT THE BMS SYSTEM. ROOM THERMOSTAT SHOULD ALLOW THE ROOM OCCUPANTS TO ADJUST THE ROOM TEMPERATURE BY +/- 2°F.
- D. PRESSURE SENSOR IN THE UNDERFLOOR AIR PLENUM SHOULD ADJUST THE SUPPLY FAN TO INCREASE/DECREASE THE SUPPLY AIR VOLUME. PRESSURE IN THE UNDERFLOOR AIR PLENUM WILL BE CHANGED BASED ON THE DIFFUSER AIR
- VOLUME ADJUSTMENT ON THE RAISED FLOOR. E. CO2 SENSOR IN THE ROOM TO MODULATE THE OUTSIDE AIR DAMPER OF RTU TO MEET THE MINIMUM AIR QUALITY REQUIREMENTS.
- F. ECONOMIZER CONTROLLER SHALL CONTROL THE RETURN AND OUTDOOR AIR DAMPERS AND POWER EXHAUST FAN FOR MAXIMUM FREE COOLING. ENTHALPY ECONOMIZER CONTROLS SHALL BE PROVIDED. ECONOMIZER SHOULD OVERRIDE THE CO2 CONTROL. 1. WHEN OUTDOOR ENTHALPY IS ABOVE THE RETURN AIR ENTHALPY, SYSTEM SHALL OPERATE WITH MINIMUM OUTSIDE AIR
- AIR DUCT SHALL MODULATE THE OUTSIDE AIR DAMPER TO MAINTAIN THE DESIGN MINIMUM OUTDOOR VENTILATION FOR THE SYSTEM
- THE DISCHARGE DUCT TEMPERATURE SETPOINT, OSA ECONOMIZER DAMPER WITH THE MINIMUM OSA DAMPER SHALL BE POSITIONED FOR 100% OUTSIDE AIR. ANY ADDITIONAL COOLING WILL BE PROVIDED BY CHILLED WATER COILS.
- MAINTAINED.
- G. DOOR IS OPENED.

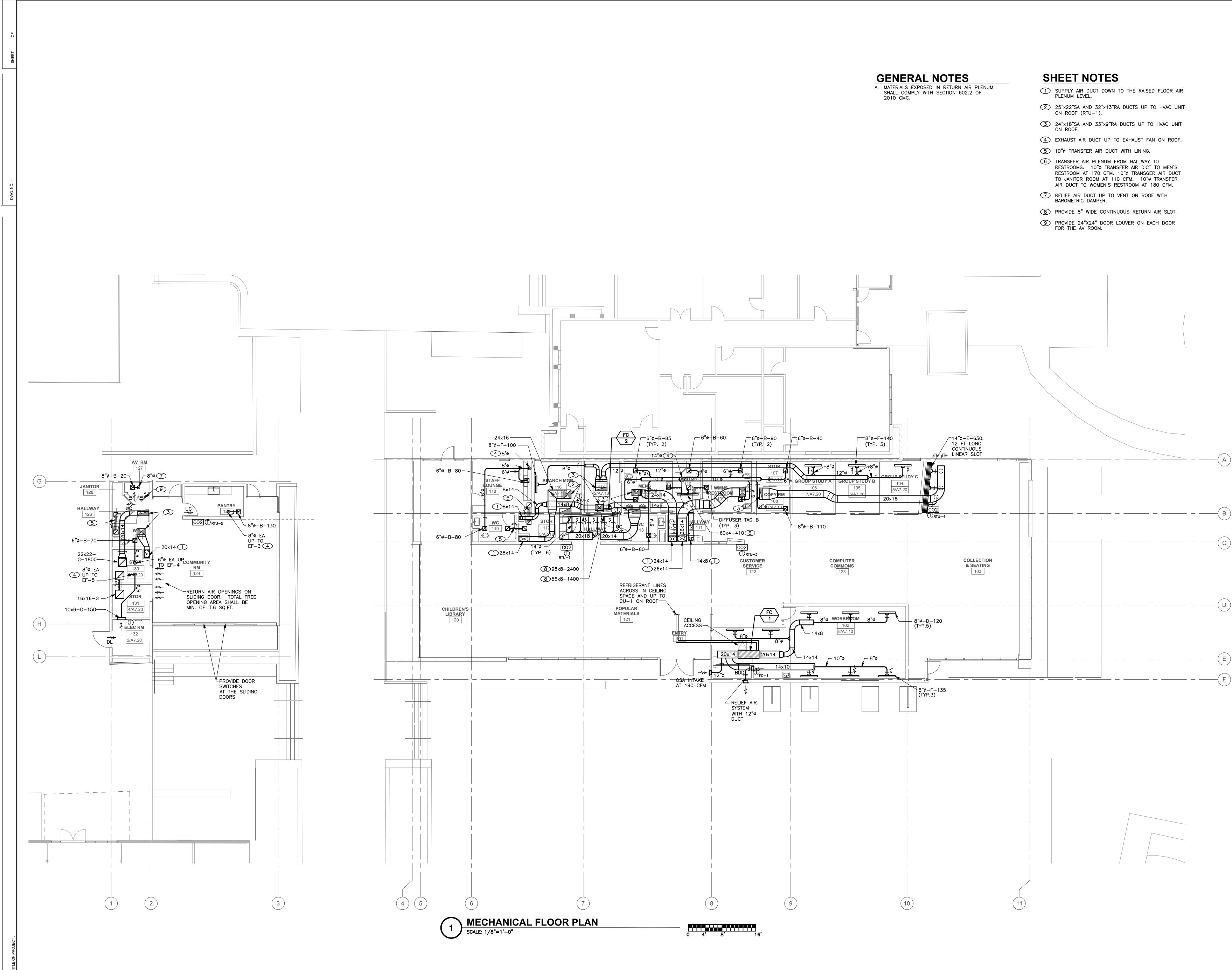
AND CONDUITS TO ACCOMPLISH THE FOLLOWING CONTROL AND CONTROL SEQUENCE FOR THE HEATING, VENTILATING AND

B. DUCT SMOKE DETECTOR IN THE MAIN SUPPLY AIR DUCT SHOULD TURN OFF RTU, WHEN SMOKE IS DETECTED. REQUIRED FOR VENTILATION. OSA ECONOMIZER DAMPER SHALL BE CLOSE AND THE FLOW METER AT MINIMUM OUTSIDE 2. WHEN THE OUTDOOR AIR ENTHALPY IS BELOW THE RETURN AIR ENTHALPY AND THE OUTDOOR TEMPERATURE IS ABOVE 3. WHEN THE OUTDOOR AIR TEMPERATURE IS BELOW THE SUPPLY DUCT TEMPERATURE SETPOINT, ECONOMIZER DAMPERS SHALL BE MODULATED TO MIX RETURN AIR AND OUTSIDE AIR SO THAT THE DISCHARGE DUCT TEMPERATURE SETPOINT IS FOR THE COMMUNITY ROOM, SLIDING DOOR SWITCH SHOULD TURN OFF THE ROOFTOP UNIT WHEN ANY OF THE SLIDING

NOTES

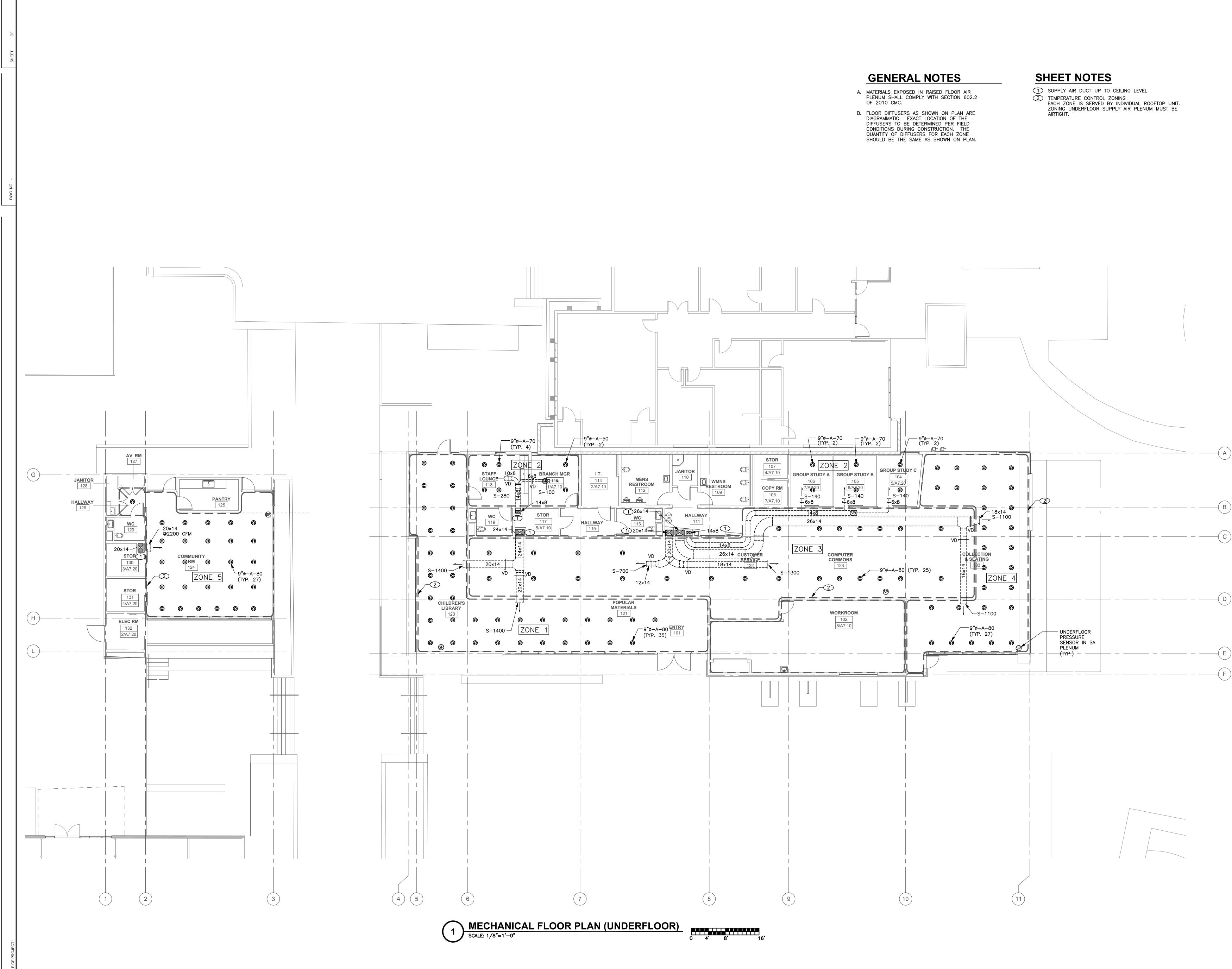


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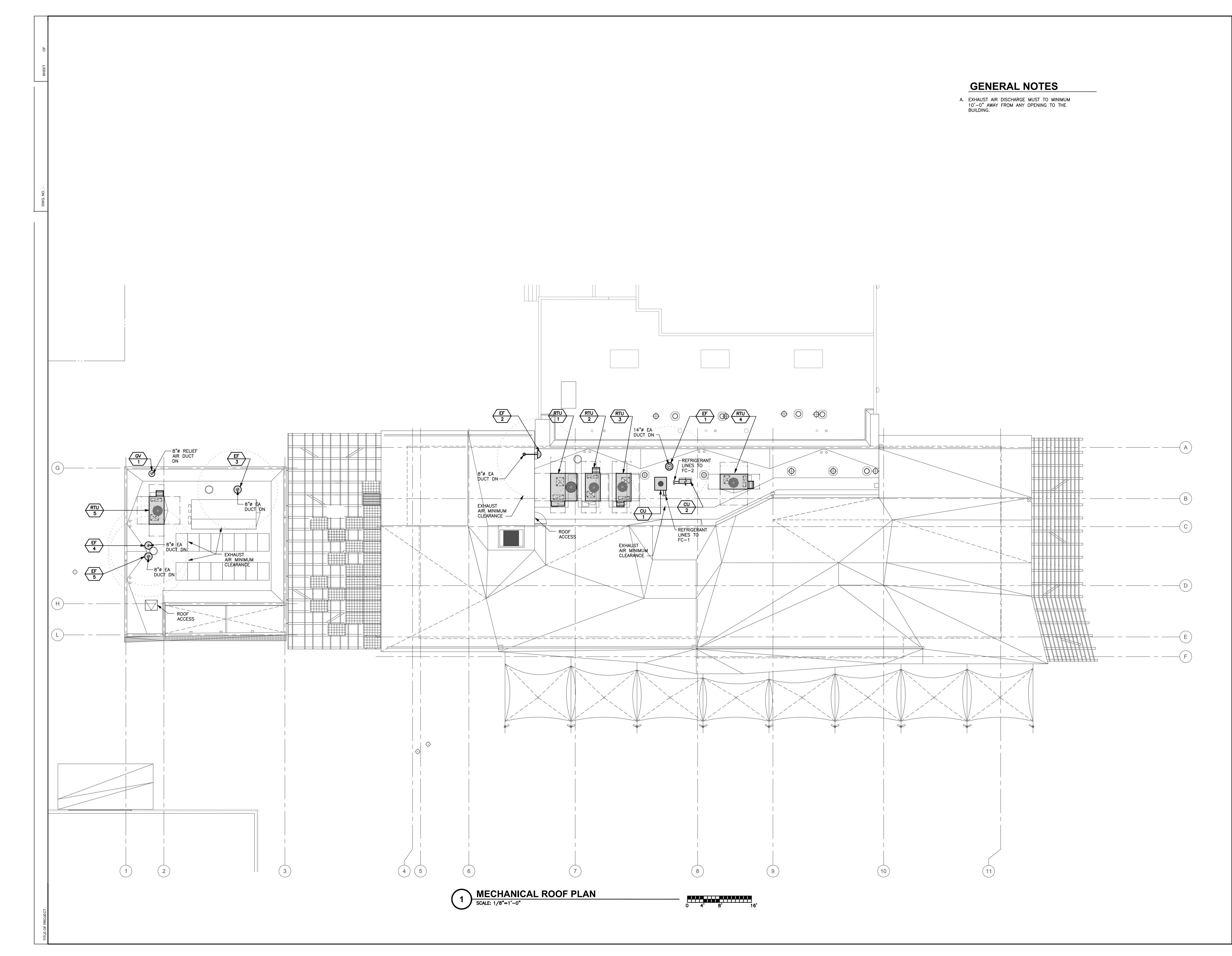


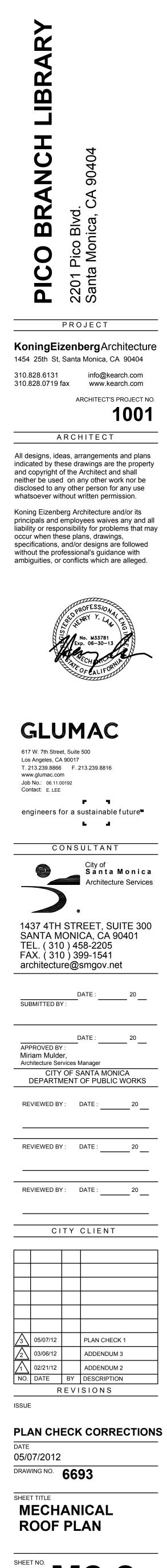
R LIBRAI Т ANCI BR σ B 0 0 a Pic PIC 4 - 4 20 N N PROJECT \_\_\_\_\_ KoningEizenbergArchitecture 1454 25th St, Santa Monica, CA 90404 310.828.6131 info@kearch.com 310.828.0719 fax www.kearch.com ARCHITECT'S PROJECT NO. 1001 ARCHITECT All designs, ideas, arrangements and plans indicated by these drawings are the property and copyright of the Architect and shall neither be used on any other work nor be disclosed to any other person for any use whatsoever without written permission. Koning Eizenberg Architecture and/or its principals and employees waives any and all liability or responsibility for problems that may occur when these plans, drawings, specifications, and/or designs are followed without the professional's guidance with ambiguities, or conflicts which are alleged. GLUMAC 617 W. 7th Street, Suite 500 Los Angeles, CA 90017 T. 213.239.8866 F. 213.239.8816 www.glumac.com Job No.: 06.11.00192 Contact: E. LEE F 7 engineers for a sustainable future™ L J CONSULTANT City of **Santa Monica** Architecture Services 1437 4TH STREET, SUITE 300 SANTA MONICA, CA 90401 TEL. (310) 458-2205 FAX. ( 310 ) 399-1541 architecture@smgov.net DATE : \_\_\_\_\_ SUBMITTED BY : \_\_\_\_\_ APPROVED BY : Miriam Mulder, Architecture Services Manager CITY OF SANTA MONICA DEPARTMENT OF PUBLIC WORKS REVIEWED BY : DATE : \_\_\_\_\_ 20 \_\_\_\_ REVIEWED BY : DATE : 20 REVIEWED BY : DATE : CITY CLIENT 3 05/07/12 2 03/06/12 PLAN CHECK 1 ADDENDUM 3 220000012NEDERDOMING102/21/12ADDENDUM 2NO.DATEBYDESCRIPTION REVISIONS ISSUE PLAN CHECK CORRECTIONS <sup>DATE</sup> 05/07/2012 DRAWING NO. 6693 SHEET TITLE MECHANICAL FLOOR PLAN

sheet no. **M2.0** 









SHEET NO. **M2.2** 

