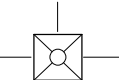
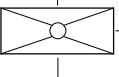
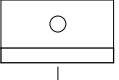
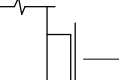

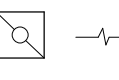
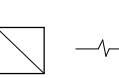
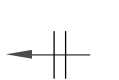


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ENERGY RECOVERY VENTILATOR SCHEDULE.								
MARK	MFR	MODEL NO	AIRFLOW	ESP	MOP (A)	MCA (A)	WEIGHT	REMARKS
ERV 1-1	DAIKIN	VAM470GVJU	470 CFM	0.73 in-wg	15	3.9	121.00 lb	1-5
REMARKS: 1. HEAT RECOVERY VENTILATION UNIT 2. PROVIDE WITH CONTROL INTERFACE 3. AIR TO AIR TOTAL HEAT EXCHANGER 4. TEMPERATURE RECOVER EFFICIENCY: 80% 5. ENTHALPHY RECOVERY EFFICIENCY: 64% COOLING, 50% HEATING								

AIR TERMINAL SCHEDULE				MANUFACTURER:TITUS (EXCEPT AS NOTED)
CD-1		CEILING DIFFUSER	TDC - COMPLETE WITH EQUALIZING GRID, THROW-REDUCING VANES, STEEL CONSTRUCTION	
CD-2		CRITICAL AREA DIFFUSER	TnTec - SUPPLY HIGH, VOLUME LOW-VELOCITY	
CD-3		LINEAR DIFFUSER	FLOW BAR, FL-25 - 2 SLOTS 2 1/2" WIDE JET TROW WITH ENGINEERING PLENIM	
WSR		EXPOSED SUPPLY DIFFUSER	300RL - STEEL CONSTRUCTION, DOUBLE DEFLECTION HORIZONTAL BLADES, EQUALIZING GRID	
WRG		WALL RETURN GRILLE	355R - LOUVERS ON 1/2" CENTERS, STEEL CONSTRUCTION, LOUVERS PARALLEL WITH LONG DIMENSION	
CR		CEILING RETURN	SAME AS CD EXCEPT NO EQUALIZING GRID	
EG		EXHAUST GRILLE CEILING RETURN	50F5 - 1/2" x 1/2" x 1/2" EGGRATE, ALUMINUM GRID	
DL		DOOR LOUVER	T700 - STEEL CONSTRUCTION WITH FLANGED AND AUXILIARY FRAME	
NOTES: 1. ADAPTER NEEDED FOR TRANSITION FROM SQUARE NECK TO ROUND DUCT. 2. SIZE (NECK/FACE) TYPE FACE SIZE FOR T-BAR CEILING ONLY CFM (NO. OF THROW)				

LIST OF APPLICABLE CODES AND STANDARDS:		PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:	
TITLE 24, PART 2: 2016 CALIFORNIA BUILDING CODE (VOLUMES 1 & 2) TITLE 24, PART 3: 2016 CALIFORNIA ELECTRICAL CODE TITLE 24, PART 4: 2016 CALIFORNIA MECHANICAL CODE TITLE 24, PART 5: 2016 CALIFORNIA PLUMBING CODE TITLE 24, PART 6: 2016 CALIFORNIA ENERGY CODE TITLE 24, PART 9: 2016 CALIFORNIA FIRE CODE TITLE 24, PART 12: 2016 CALIFORNIA REFERENCED STANDARDS CODE		PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25, AND 1616A.1.26. THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEMS ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON PRE-APPROVED INSTALLATION GUIDE (e.g. SMACNA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEM. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS. <input checked="" type="checkbox"/> MECHANICAL/PLUMBING/DUCTS M <input type="checkbox"/> PP <input type="checkbox"/> D <input type="checkbox"/> -OPTION 1: <input type="checkbox"/> DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. M <input checked="" type="checkbox"/> PP <input type="checkbox"/> D <input checked="" type="checkbox"/> -OPTION 2: <input checked="" type="checkbox"/> SHALL COMPLY WITH THE OSHPD PRE-APPROVAL (OPM #) # 0043-13 M <input type="checkbox"/> PP <input type="checkbox"/> D <input type="checkbox"/> -OPTION 3: <input type="checkbox"/> SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA, FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT APPLICABLE SEISMIC HAZARD LEVEL ____ AND CONNECTIONS LEVEL ____ FOR THE PROJECT AND CONDITIONS.	
MEP COMPONENT ANCHORAGE NOTE: ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26, AND 30. 1. ALL PERMANENT EQUIPMENT AND COMPONENTS. 2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. 3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS. THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT. B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL. FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.			

EXHAUST FAN SCHEDULE (EF)											
MARK	MFR	MODEL NO	AIRFLOW	FAN RPM	INLET SONES	ELECTRICAL DATA			WEIGHT	SERVICE	REMARKS
						MOTOR HP	OPER. HP	WATTS	V-Ø-Hz		
EF 1	PANASONIC	FV-11VK1	110 CFM	931	0.3			6 W	120-1-60	10.00 lb	TOILET 105 1, 2
EF 2	PANASONIC	FV-30VQ3	225 CFM	877	2			6 W	120-1-60	10.00 lb	MEN'S 109 1, 2
EF 3	PANASONIC	FV-30VQ3	225 CFM	877	2			6 W	120-1-60	10.00 lb	WOMEN'S 110 1, 2
REMARKS: 1. SEE G/M-010 FOR MOUNTING DETAIL. 2. INTERLOCK WITH LIGHT SWITCH (BY ELEC.)											

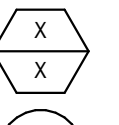
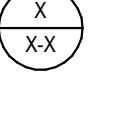
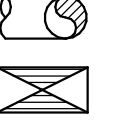

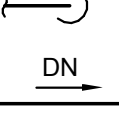
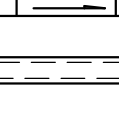
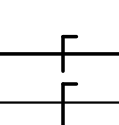
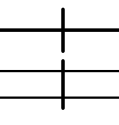
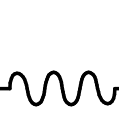
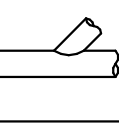

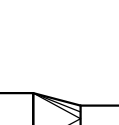
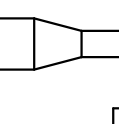
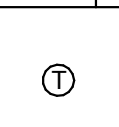
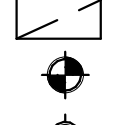











PACKAGE UNIT (AC)														
MARK	MODEL NO	UNIT SIZE	ESP	SUPPLY FAN RPM	AIRFLOW	TOTAL COOLING (BTU/HR)	SENSIBLE COOLING (BTU/HR)	EER	ELECTRICAL DATA			WEIGHT	LOCATION	REMARKS
									V-Ø-Hz	MCA	MOCP			
AC-1	50HCQ09	09	1.00 in-wg	872	3400 CFM	102000.0	97000.0	12.20	460-3-60	22.0	25	1060 lb	MECHANICAL YARD	1,3,4,5,6,7,8,9,10
AC-2	50HCQ09	09	1.00 in-wg	872	3400 CFM	102000.0	97000.0	12.20	460-3-60	22.0	25	1060 lb	MECHANICAL YARD	1,3,4,5,6,7,8,9,10
AC-3	50HCQ09	09	1.00 in-wg	872	3400 CFM	102000.0	97000.0	12.20	460-3-60	22.0	25	1400 lb	ROOF	1,2,3,4,5,6,7,8,9,10
REMARKS: 1. HORIZONTAL DUCT CONFIGURATION. 2. FACTORY FABRICATED ROOF CURB, 14" HIGH. 3. MERV-13 2" PLEATED FILTER. 4. PROVIDE FACTORY BASE ELECTROMECHANICAL CONTROLS. 5. CO2 ROOM SENSOR FOR DEMAND CONTROL VENTILATION. 6. PROVIDE FACTORY ECONOMIZER WITH INTEGRATED DIFFERENTIAL TEMPERATURE CONTROL AND BAROMETRIC RELIEF. 7. PROVIDE WITH PELICAN THERMOSTATS AND ALL CONTROLS INTERFACE MODULES AND VOLTAGE TRANSFORMERS AS REQUIRED 8. PROVIDE FACTORY FUSED DISCONNECT WITH THRU THE BASE CONDUIT ENTRY 9. MEDIUM STATIC BELT DRIVE WITH VFD CONTROLLER & MEDIUM STATIC BELT DRIVE WITH VFD CONTROLLER & DISPLAY. 10. PROVIDE FIELD INSTALLED DUCT SMOKE DETCTOR PER CMC 608.														

SPLIT SYSTEM INDOOR UNIT (FC)													
MARK	MFR	MODEL	AIRFLOW	Rated Cooling Capacity (Btu/hr)	Sensible Capacity (Btu/hr)	Rated Heating Capacity (Btu/hr)	ELECTRICAL DATA			FILTER	WEIGHT	SERVICE	REMARKS
							V-Ø-HZ	MCA	MOCP				
FC-1	DAIKIN	FXHQ12MVJU	410 CFM	12000	9400	13500	208-230-1-60	0.8	15	WASHABLE	55 lb	ELECTRICAL ROOM	
FC-2	DAIKIN	FXHQ24MVJU	710 CFM	24000	17100	27000	208-230-1-60	1	15	WASHABLE	80 lb	ELECTRICAL ROOM	
FC-3	DAIKIN	FXHQ12MVJU	410 CFM	12000	9400	13500	208-230-1-60	0.8	15	WASHABLE	55 lb	ELECTRICAL ROOM	
FC-4	DAIKIN	FAXQ12PVJU	290 CFM	12000	8900	13500	208-230-1-60	0.4	15	WASHABLE	26 lb	CONTROL ROOM	
FC-5	DAIKIN	FXZQ18TAVJU	498 CFM	18000	13000	20000	208-230-1-60	0.6	15	WASHABLE	41 lb	CLASSROOM	
FC-6	DAIKIN	FXZQ18TAVJU	498 CFM	18000	13000	20000	208-230-1-60	0.6	15	WASHABLE	41 lb	CLASSROOM	
FC-7	DAIKIN	FXZQ18TAVJU	498 CFM	18000	13000	20000	208-230-1-60	0.6	15	WASHABLE	41 lb	LOBBY	
FC-8	DAIKIN	FXAQ09PVJU	280 CFM	9500	7300	10500	208-230-1-60	0.4	15	WASHABLE	26 lb	TICKET BOOTH	
REMARKS: 1. PROVIDE WITH FAN RELAY FOR SUPPLY FAN INTERLOCK. 2. PROVIDE WITH WIRED T-STAT.													

HEAT PUMP UNIT (HP)											
MARK	MFR.	MODEL NO.	UNIT CAPACITIES (MBH)		EER	ELECTRICAL DATA			WEIGHT	SERVICE	REMARKS
			HEATING	COOLING		V-Ø-HZ	MCA	MOCP			
HP-1	DAIKIN	RXTQ60TAVJU	57.0	57.5	9.8	208-230-1-60	29.1	35	225	FC-1,FC-2, FC-3, FC-4	
HP-2	DAIKIN	RXTQ36TAVJU9	37.0	34.2	12	208-230-1-60	16.5	25	172	FC-7, FC-8	
HP-3	DAIKIN	RXTQ36TAVJU9	37.0	34.2	12	208-230-1-60	16.5	25	172	FC-5, FC-6	
REMARKS:											
1. CITY MULTI R2-SERIES, HEAT RECOVERY SYSTEM.											

DUCT SILENCER SCHEDULE													
MARK	MODEL NO	DUTY	POSITION	AIRFLOW	WxHxL	SOUND POWER (db)							
						63 HZ	125 HZ	250 HZ	500 HZ	1 HZ	2 KHZ	4 KHZ	8 KHZ
DS-1	IAC 5LFL	AC 1: SUPPLY	HORIZONTAL	3400 CFM	36x24x60	6	10	17	24	25	14	12	11
DS-2	IAC 5LFL	AC 1: RETURN	HORIZONTAL	3400 CFM	36x24x60	6	10	17	24	25	14	12	11
DS-3	IAC 5LFL	AC 2: SUPPLY	HORIZONTAL	3400 CFM	36x24x60	6	10	17	24	25	14	12	11
DS-4	IAC 5LFL	AC 2: RETURN	HORIZONTAL	3400 CFM	36x24x60	6	10	17	24	25	14	12	11
DS-5	IAC 5LFL	AC 3: RETURN	HORIZONTAL	3400 CFM	36x24x60	6	10	17	24	25	14	12	11
DS-6	IAC 5LFL	AC 3: SUPPLY	HORIZONTAL	3400 CFM	36x24x60	6	10	17	24	25	14	12	11


SUPPLY FAN SCHEDULE (SF)								
MARK	MFR	MODEL NO	AIRFLOW	V-Ø-HZ	WATTS	AMPS	WEIGHT	REMARKS
SF-1	PANASONIC	FV-15NLF51	50 CFM	120-1-60	8 W	0.1 A	13 lb	1, 2
REMARKS: 1. PROVIDE WITH MERV 8 FILTERS. 2. INTERLOCK WITH LIGHTING OCCUPANCY CONTROLS.								

SYMBOL	ABBREVIATION	DESCRIPTION
		EQUIPMENT TYPE EQUIPMENT NUMBER
		DETAIL / DRAWING NUMBER SHEET NUMBER
	SA OR OA	SECTION THRU SUPPLY AIR OR OUTSIDE AIR DUCT
	RA OR EA	SECTION THRU RETURN AIR OR EXHAUST AIR DUCT
		ROUND DUCT DOWN
	DN OR UP	SLOPE DUCT DOWN OR UP IN DIRECTION OF FLOW
	AL	ACOUSTICAL LINING
	FC	FLEXIBLE DUCT CONNECTION
	VD	VOLUME DAMPER
	FD	FIRE DAMPER
	TV	TURNING VANES
		FLEXIBLE DUCT
		45° ROUND DUCT TAKE-OFF
		45° RECTANGULAR DUCT TAKE-OFF
		90° TURN - ROUND DUCT
		90° RADIUS TURN - ROUND OR RECTANGULAR DUCT
		SQUARE TO ROUND DUCT TRANSITION
		DUCT TRANSITION
		RECTANGULAR DUCT 90° SPLIT
		THERMOSTAT @ 48" AFF
	AP	ACCESS PANEL
	POC	POINT OF CONNECTION
	POD	POINT OF DEMOLITION
	BHP	BRAKE HORSEPOWER
	HP	HORSEPOWER
	SAD	SEE ARCHITECTURAL DRAWINGS
	SSD	SEE STRUCTURAL DRAWINGS
	SCD	SEE CIVIL DRAWINGS




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SAN MARIN
HIGH SCHOOL

PERFORMING
ARTS BUILDING

15 SAN MARIN DR
NOVATO, CA. 94945

NOVATO UNIFIED
SCHOOL DISTRICT

ARCH PROJECT NO: 1700.02
DRAWING BY: Author
DRAWING SCALE: 12" = 1'-0"
PTN: 65417-138

100% CD
APRIL 26, 2019
SHEET TITLE

MECHANICAL
SCHEDULES &
LEGENDS

SHEET NUMBER

M-1.1