Florida Building Code, Seventh Edition (2020) - Energy Conservation

EnergyGauge Summit® Fla/Com-2020, Effective Date: Dec 31, 2020 C402.1.1: ASHRAE Energy Cost Budget Option

	Check List									
Applications for compliance with the Florida Building Code, Energy Conservation shall include:										
	This Checklist									
	The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.									
	The compliance report must include the full input report generated by the software as contigous part of the compliance report.									
	Boxes appropriately checked in the Mandatory Section of the complaince report.									

PROJECT SUMMARY

Short Desc: OAS-BT1C Description: Oasis at Surfside Building BT

Owner: Zimmer Development Company

Address1: SW 21st Ave. City: Cape Coral

Address2: State: FL

Zip: 34239

Type: Multi-Family Class: New Finished building

Jurisdiction: CAPE CORAL, LEE COUNTY, FL (461100)

Conditioned Area: 75801 SF

No of Stories: 4

Conditioned & UnConditioned Area: 75801 SF

Area entered from Plans 80876 SF

Permit No: 0 Max Tonnage 2

If different, write in: __

Building Rotation: 180 Deg Clockwise. Walls & windows will be rotated accordingly

Compliance Summary									
Component	Design	Criteria	Result						
Gross Energy Cost (in \$)	28,199.0	34,981.0	PASSED						
LIGHTING CONTROLS			PASSES						
EXTERNAL LIGHTING			PASSES						
HVAC SYSTEM			PASSES						
PLANT			No Entry						
WATER HEATING SYSTEMS			Not Checked						
PIPING SYSTEMS			PASSES						
Met all required compliance from Check List?			Yes/No/NA						

IMPORTANT MESSAGE

Info 5009 -- -- An input report of this design building must be submitted along with this Compliance Report

CERTIFICATIONS

		hereby certify that the plans and specifications cover- lorida Energy Code
	Building Official:	Prepared By:
	Date:	Date:
	orida Energy Efficiency Code	certify that this building is in compliance with the FL
	Date:	Owner Agent:
with the Florida Ener	system design is in compliance with	Required by Florida law, I hereby certify (*) that the fficiency Code
	Reg No:	Architect:
	Reg 110	
	C	Electrical Designer:
	Reg No:	Electrical Designer:
	Reg No:	-

Project: OAS-BT1C

Title: Oasis at Surfside Building BT1C

Type: Multi-Family

(WEA File: FL_FORT_MYERS_PAGE_FIELD.tm3)

Buil	ding	End	Uses
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	1) Proposed	2) Baseline
	1,932.40	2,426.50
	\$28,199	\$34,981
ELECTRICITY(MBtu/kWh/\$)	1,932.40	2,426.50
	566251	710987
	\$28,199	<i>\$34,981</i>
AREA LIGHTS	142.60	323.00
	41788	94629
	\$2,081	\$4,656
MISC EQUIPMT	424.40	424.40
	124359	124359
	<i>\$6,193</i>	\$6,118
PUMPS & MISC	0.00	0.10
	13	36
	<i>\$1</i>	\$2
SPACE COOL	812.80	1,253.70
	238159	367328
	\$11,860	\$18,073
SPACE HEAT	124.40	54.00
-	36456	15831
	\$1,816	<i>\$779</i>
VENT FANS	428.20	371.30
-	125476	108804
	\$6,249	\$5,353

Credits Applied: None

Passing Criteria = 34981

Design (including any credits) = 28199

Passing requires Proposed Building cost to be at most 100% of

Baseline cost. This Proposed Building is at 80.6%

PASSES

Project: OAS-BT10 Title: Oasis at Surfs Type: Multi-Family (WEA File: FL_FO	side Building BT1C RT_MYERS_PAGE_FIEL	.D.tm3) nal Lighting (Compliar	nce		
Description	Category	Tradable?		Area or Length or No. of Units (Sqft or ft)		CLP (W)
Ext Light 1	Other (doors) than m	nain entries Yes	21.00	192.0	4,032	960
All External Lig	ces: 960 (W) Allowance ghting: 960 (W) eck includes a excess/B			W)	PASS	SES

Project: OAS-BT1C Title: Oasis at Surfside Building BT1C

Type: Multi-Family

(WEA File: FL_FORT_MYERS_PAGE_FIELD.tm3)

Lighting Controls Compliance

Acronym	Ashrae ID	e Description	Area (sq.ft)	Design CP	Min CP	Compliance
UT3	16,001	Private Living Space	1,376	1	1	PASSES
UT2	16,001	Private Living Space	1,100	1	1	PASSES
UT2.1	16,001	Private Living Space	1,131	1	1	PASSES
UT2.1	16,001	Private Living Space	1,131	1	1	PASSES
UT2	16,001	Private Living Space	1,100	1	1	PASSES
UT1	16,001	Private Living Space	763	1	1	PASSES
UT3	16,001	Private Living Space	1,376	1	1	PASSES
UT3	16,001	Private Living Space	1,376	1	1	PASSES
UT2.2	16,001	Private Living Space	1,491	1	1	PASSES
UT2	16,001	Private Living Space	1,100	1	1	PASSES
UT1	16,001	Private Living Space	763	1	1	PASSES
UT3		Private Living Space	1,376	1	1	PASSES
UT3	16,001	Private Living Space	1,376	1	1	PASSES
UT2		Private Living Space	1,100	1	1	PASSES
UT2.1	16,001	Private Living Space	1,131	1	1	PASSES
UT2	16,001	Private Living Space	1,100	1	1	PASSES
UT1	16,001	Private Living Space	763	1	1	PASSES
UT3	16,001	Private Living Space	1,376	1	1	PASSES
UT3	16,001	Private Living Space	1,376	1	1	PASSES
UT2.1	16,001	Private Living Space	1,131	1	1	PASSES
UT2.2		Private Living Space	1,491	1	1	PASSES
UT1		Private Living Space	763	1	1	PASSES
UT2		Private Living Space	1,100	1	1	PASSES
UT3		Private Living Space	1,376	1	1	PASSES
UT3		Private Living Space	1,376	1	1	PASSES
UT2		Private Living Space	1,100	1	1	PASSES
UT2.1		Private Living Space	1,131	1	1	PASSES
UT2.1		Private Living Space	1,131	1	1	PASSES
UT2		Private Living Space	1,100	1	1	PASSES
UT1		Private Living Space	763	1	1	PASSES
UT3		Private Living Space	1,376	1	1	PASSES
UT3		Private Living Space	1,376	1	1	PASSES
UT1		Private Living Space	763	1	1	PASSES
UT2.2		Private Living Space	1,491	1	1	PASSES
UT1		Private Living Space	763	1	1	PASSES
UT3		Private Living Space	1,376	1	1	PASSES
Pr0Zo40Sp1		Electrical Mechanical Equipment Room - General	51	1	1	PASSES
Pr0Zo41Sp1	1	Electrical Mechanical Equipment Room - General	27	1	1	PASSES
Pr0Zo41Sp1	1	Electrical Mechanical Equipment Room - General	16	1	1	PASSES

Project: OAS-BT1C

Title: Oasis at Surfside Building BT1C

Type: Multi-Family

(WEA File: FL_FORT_MYERS_PAGE_FIELD.tm3)

System Report Compliance

AHU1 AHU 1

Constant Volume Air Cooled No. of Units Split System < 65000 Btu/hr 24

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	17200	14.00	13.00	8.00		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	17200	8.50	8.20			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	600	0.50	0.82			Not Required
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
Air Distribution System (Ret)	Not in Check list - Compliance Ignored		6.00	6.00			N/A

AHU2 AHU 2

Constant Volume Air Cooled No. of Units Split System < 65000 Btu/hr 24

Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	17200	14.00	13.00	8.00		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	17200	8.50	8.20			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	600	0.50	0.82			Not Required
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
Air Distribution System (Ret)	Not in Check list - Compliance Ignored		6.00	6.00			N/A

AHU3 A	HU 3			onstant Vol lit System			No. of Units 20
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	Air Conditioners Air Cooled Split System < 65000 Btu/h Cooling Capacity	22800	14.00	13.00	8.00		PASSES
Heating System	Heat Pumps Air Cooled (Heating Mode) Split System < 65000 Btu/h Cooling Capacity	23200	8.50	8.20			PASSES
Air Handling System -Supply	Air Handler (Supply) - Constant Volume	800	0.50	0.82			Not Require
Air Distribution System (Sup)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
Air Distribution System (Ret)	Not in Check list - Compliance Ignored		6.00	6.00			N/A
AH-10 A			riable refr stem	igerant F	low	No. of Units	
Component	Category	Capacity	Design Eff	Eff Criteria	Design IPLV	IPLV Criteria	Comp- liance
Cooling System	VRF Air Conditioners Air Cooled 0 to 65000 Btu/h Cooling Capacity	24000	17.00	13.00	8.00		PASSES
							D. CCEC
Heating System	Heat Pumps Air Cooled (Heating Mode) < 65000	26000	3.00	2.34			PASSES
Heating System Air Handling System -Supply	Heat Pumps Air Cooled	26000 775	3.00 0.40	0.82			PASSES Not Required
Air Handling System -Supply	Heat Pumps Air Cooled (Heating Mode) < 65000 Btu/h Cooling Capacity Air Handler (Supply) -		0.40 C o				
Air Handling System -Supply	Heat Pumps Air Cooled (Heating Mode) < 65000 Btu/h Cooling Capacity Air Handler (Supply) - Constant Volume		0.40 Co Sp	0.82			Not Required
Air Handling System -Supply AH11 A	Heat Pumps Air Cooled (Heating Mode) < 65000 Btu/h Cooling Capacity Air Handler (Supply) - Constant Volume H-11	775	0.40 Co Sp Design	0.82 onstant Vol lit System Eff	< 65000 l	Btu/hr IPLV	No. of Units 4 Comp-

PASSES

Plant Compliance										
Description	Installed No	Size	Design Eff	Min Eff	Design IPLV	Min IPLV	Category		Comp liance	
								None		

Project: OAS-BT1C

Title: Oasis at Surfside Building BT1C

Type: Multi-Family

(WEA File: FL_FORT_MYERS_PAGE_FIELD.tm3)

Water Heater Compliance

Description	Туре	Category	Design Eff	Min Eff	Design Loss	Max Loss	Comp liance
Water Heater 2	Electric Storage water heater	Unknown	0.92				Not Checked

Not Checked

Project: OAS-BT1C

Title: Oasis at Surfside Building BT1C

Type: Multi-Family

(WEA File: FL_FORT_MYERS_PAGE_FIELD.tm3)

Piping System Compliance

Category	Pipe Dia [inches]	Is Runout?		Ins Cond [Btu-in/hr .SF.F]		Req Ins Thick [in]	
Domestic and Service Hot Water Systems	0.50	False	110.00	0.28	1.00	0.50	PASSES

PASSES

Mandatory Requirements (as applicable)

Requirements compiled by US Department of Energy and Pacific Northwest National Laboratory. Adopted for FBC with permission. Not all may be applicable

Topic	Section	Componen	t Description	Yes	N/A	Exempt
	1. To b	e checked b	y Designer or Engineer			
Insulation	5.8.1.2	Envelope	Below-grade wall insulation installed per manufacturer's instructions.			
Insulation	5.8.1.2	Envelope	Slab edge insulation installed per manufacturer's instructions. $ \\$			
Insulation	5.5.3.5	Envelope	Slab edge insulation depth/length.			
Insulation	6.4.4.1.5	Envelope	Bottom surface of floor structures incorporating radiant heating insulated to >=R-3.5.			
SYSTEM_SPECIFIC	6.5.1, 6.5.1.1, 6.5.1.3, 6.5.1.4	Mechanical	Air economizers provided where required (and no exempted), meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.			
SYSTEM_SPECIFIC	6.5.1, 6.5.1.2, 6.5.1.2.1, 6.5.1.3	Mechanical	Water economizers provided where required, meet the requirements for design capacity, maximum pressure drop and integrated economizer control. Capable if providing 100% of the expected system cooling load when outdoor air <= 50F.			
SYSTEM_SPECIFIC	6.5.1.5	Mechanical	Economizer operation will not increase heating energy use during normal operation.			
SYSTEM_SPECIFIC	6.5.2.2.1	Mechanical	Three-pipe hydronic systems using a common return for hot and chilled water are not used.			
SYSTEM_SPECIFIC	6.5.2.2.3	Mechanical	Hydronic heat pump systems connected to a common water loop meet heat rejection and heat			
SYSTEM_SPECIFIC	6.5.1.6	Mechanical	addition requirements. Water economizer specified on hydronic cooling and humidification systems designed to maintain inside humidity at >35 °F dewpoint if an			
SYSTEM_SPECIFIC	6.5.3.1.1	Mechanical	economizer is required. HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp			
SYSTEM_SPECIFIC	6.5.3.1.2	Mechanical	or fan system bhp. HVAC fan motors not larger than the first available motor size greater than the bhp.	е		
HVAC	6.5.6.1	Mechanical	Exhaust air energy recovery on systems meeting Tables 6.5.6.1-1, and 6.5.6.1-2.			
SYSTEM_SPECIFIC	7.4.2	Mechanical	Service water heating equipment meets efficiency requirements.			
SYSTEM_SPECIFIC	7.5.2	Mechanical	Service water heating equipment used for space heating complies with the service water heating equipment requirements.			
Insulation	5.8.1.2	Envelope	Above-grade wall insulation installed per manufacturer's instructions.			
Insulation	5.8.1.2	Envelope	Floor insulation installed per manufacturer's instructions.			
Controls	10.4.3	Mechanical	Elevators are designed with the proper lighting, ventilation power, and standby mode.			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7a	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=40.2 gpm/hp .			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7b	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=20.0 gpm/hp.			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7c	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=16.1 gpm/hp.			

SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7d	Mechanical	Heat Rejection Equipment: Minimum Efficiency	$\overline{}$		$\overline{}$
_	6.4.1.1, 6.6.1-7u	Mechanical	Requirement >=7.0 gpm/hp	Ц	Ш	
SYSTEM_SPECIFIC	6.5.5.3	Mechanical	Centrifugal fan open-circuit cooling towers having combined rated capacity >= 1100 gpm meets minimum efficiency requirement: >=38.2 gpm/hp.			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7e	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=176 kBtu/h-hp			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7f	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=157 kBtu/h-hp w/ R-507A test fluid.			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7g	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=134 kBtu/h-hp w/ Ammonia test fluid			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7h	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=135 kBtu/h-hp w/ R-507A test fluid.			
SYSTEM_SPECIFIC	6.4.1.1, 6.8.1-7i	Mechanical	Heat Rejection Equipment: Minimum Efficiency Requirement >=110 kBtu/h-hp w/ Ammonia test fluid.			
SYSTEM_SPECIFIC	7.5.3	Mechanical	Gas-fired water-heating equipment installed in new buildings: where a singular piece of water-heating equipment >= 1,000 kBtu/h serves the entire building, thermal efficiency must be >= 90 Et. Where multiple pieces of water-heating equipment serve the building with combined rating is >= 1,000 kBtu/h, the combined input-capacity-weighted-average thermal efficiency, thermal efficiency must be >= 90 Et. Exclude input rating of equipment in individual dwelling units and equipment <= 100 kBtu/h.			
SYSTEM_SPECIFIC	6.5.3.2.4	Mechanical	Return and relief fans used to meet Section 6.5.1.1.5 have relief air rate controlled to maintain building pressure through differential supply-return airflow tracking. Systems with supply fans allowed to control the relief system based on oudoor air damper position. Fans have variable speed control or other devices for managing total return/relief fan system demand per section threshold.			
HVAC	6.5.2.6	Mechanical	Units that provide ventilation air to multiple zones and operate in conjunction with zone heating and cooling systems are prevented from using heating or heat recovery to warm supply air above 60°F when representative building loads or outdoor air temperature indicate that most zones demand cooling.			
HVAC	6.5.4.7	Mechanical	Chilled-water cooling coils provide a 15°F or higher temperature difference between leaving and entering water temperatures and a minimum of 57°F leaving water temperature at design conditions			
SYSTEM_SPECIFIC	6.5.3.4	Mechanical	Parallel-flow fan-powered VAV air terminals have automatic controls to a) turn off the terminal fan except when space heating is required or if required for ventilation; b) turn on the terminal fan as the first stage of heating before the heating coil is activated; and c) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or reverse the terminal damper logic and provide heating from the central air handler through primary air.			

SYSTEM_SPECIFIC HVAC	6.5.3.7 6.8.1-15, 6.8.1-16	Mechanical Mechanical	Required minimum outdoor air rate is the larger of minimum outdoor air rate or minimum exhaust air rate required by Standard 62.1, Standard 170, or applicable codes or accreditation standards. Outdoor air ventilation systems shall comply with one of the following: a) design minimum system outdoor air provided < 135% of the required minimum outdoor air rate, b) dampers, ductwork, and controls allow the system to supply <= the required minimum outdoor air rate with a single set-point adjustment., or c) system includes exhaust air energy recovery complying with Section 6.5.6.1.		П
	0.0.1 10, 0.0.1 10	Westanioa	requirements per Tables 6.8.1-15 or 6.8.1-16.		
	2. T	o be check	ed by Plan Reviewer		
Plan Review	4.2.2, 5.4.3.1.1, 5.7	Envelope	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.		
Plan Review	4.2.2, 6.4.4.2.1, 6.7.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.		
Plan Review	4.2.2, 7.7.1, 10.4.2	Mechanical	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.		
Plan Review	4.2.2, 8.4.1.1, 8.4.1.2, 8.7	Project	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the electrical systems and equipment and document where exceptions are claimed. Feeder connectors sized in accordance with approved plans and branch circuits sized for maximum drop of 3%.		
Plan Review	4.2.2, 9.4.3, 9.7	Interior Lighting	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.		
Plan Review	9.7	Exterior Lighting			
Insulation	5.8.1.7.3	Envelope	Insulation in contact with the ground has <=0.3% water absorption rate per ASTM C272.		
Air Leakage	5.4.3.4	Envelope	Vestibules are installed where building entrances separate conditioned space from the exterior, and meet exterior envelope requirements. Doors have self-closing devices, and are >=7 ft apart (>= 16 ft apart for adjoinging floor area >= 40000 sq.ft.). Vestibule floor area <=7 50 sq.ft. or 2 percent of the adjoining conditioned floor area.		

Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces	П	$\overline{\Box}$	
			directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights	_		
Plan Review	5.5.4.2.3	Envelope	have a measured haze value > 90 percent. In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.			
Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.			
Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent.			

Plan Review	5.5.4.2.3	Envelope	In buildings > 2,500 ft2, any enclosed spaces		
Plan Review	5.5.4.2.3	Envelope	directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40 or (b) the minimum skylight effective aperture >= 1 percent. The skylights have a measured haze value > 90 percent. In buildings > 2,500 ft2, any enclosed spaces directly under a roof with ceiling heights > 15 ft. and used as an office, lobby, atrium, concourse, corridor, storage (including nonrefrigerated warehouse), gymnasium, fitness/exercise area, playing area, gymnasium seating area, convention exhibit/event space, courtroom, automotive service, fire station engine room, manufacturing corridor/transition and bay areas, retail, library reading and stack areas, distribution/sorting area, transportation baggage and seating areas, or workshop, the following requirements apply: The daylight zone under skylights is >= half the floor area and (a) the skylight VT >= 0.40 or (b) the minimum skylight a skylight VT >= 0.40 or (b) the minimum skylights have a measured haze value > 90 percent.		
HVAC	6.4.3.4.4	Mechanical	Ventilation fans >0.75 hp have automatic controls to shut off fan when not required.		
HVAC	6.4.3.8	Mechanical	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper		
HVAC	6.4.4.1.4	Mechanical	control, or design airflow >3,000 cfm. Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.		
HVAC	6.5.2.3	Mechanical	Dehumidification controls provided to prevent reheating, recooling, mixing of hot and cold airstreams or concurrent heating and cooling of the same airstream.		
SYSTEM_SPECIFIC	6.5.3.1.3	Mechanical	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.		
SYSTEM_SPECIFIC	6.5.3.6	Mechanical	Motors for fans >= 1/12 hp and < 1 hp are electronically-commutated motors or have a minimum motor efficiency of 70%. These motors are also speed adjustable for either balancing or remote control.		
SYSTEM_SPECIFIC	6.4.3.10	Mechanical	DDC system installed and capable of and configured to provide control logic including monitoring zone and system demand for fan pressure, pump pressure, heating, and cooling; transferring zone and system demand information from zones to air distribution system controllers and from air distribution systems to heating and cooling plant controllers; automatically detecting and alerting system operator when zones and systems excessively drive the reset logic; allow operator removal of zone(s) from the reset algorithm; AND capable of trending and graphically displaying input and output points.		

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SYSTEM_SPECIFIC	6.5.3.2.3	Mechanical	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure. Controls provide: zone damper monitoring or indicator of static pressure need; autodetection, alarm, and		Ц
			operator override of zones excessively triggering		
SYSTEM_SPECIFIC	6.5.3.3	Mechanical	reset logic. Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset		
SYSTEM_SPECIFIC	6.5.3.5	Mechanical	controls. Multiple zone HVAC systems have supply air temperature reset controls.		
SYSTEM_SPECIFIC	6.5.4.1	Mechanical	System turndown requirement met through multiple single-input boilers, one or more modulating boilers, or a combination of single-input and modulating boilers. Boiler input between 1.0 MBtu/h and 5 MBtu/h has 3:1 turndown ratio, boiler input between 5.0 MBtu/h and 10 MBtu/h has 4:1 turndown ratio, boiler input > 10.0 MBtu/h has 5:1 turndown ratio.		
HVAC	6.5.4.2	Mechanical	HVAC pumping systems with >= 3 control values designed for variable fluid flow (see section		
SYSTEM_SPECIFIC	6.5.4.3, 6.5.4.3.1, 6.5.4.3.2	Mechanical	details). Fluid flow shutdown in pumping systems to multiple chillers or boilers when systems are shut		
SYSTEM_SPECIFIC	6.5.4.4	Mechanical	down. Temperature reset by representative building loads in pumping systems >10 hp for chiller and bailer systems - 200 000 Ptu/b		
SYSTEM_SPECIFIC	6.5.4.5.1	Mechanical	boiler systems >300,000 Btu/h. Two-position automatic valve interlocked to shut off water flow when hydronic heat pump with		
SYSTEM_SPECIFIC	6.5.4.5.2	Mechanical	pumping system >10 hp is off. Hydronic heat pumps and water-cooled unitary air conditioners with pump systems >5 hp have controls or devices to reduce pump motor		
SYSTEM_SPECIFIC	6.5.5.2.1	Mechanical	demand. Fan systems with motors or array of motors (inlcuding the motor service factor) with connected power totaling >=5 hp associated with heat rejection equipment to have controls and/or devises that result in fanmotor demand of <= 30% of design wattage at 50% of design airflow and automatically modulates fan speed to control the leaving fluid temperature or condensing temp/pressure of heat rejection device.		
SYSTEM_SPECIFIC	6.5.5.2.2	Mechanical	Multicell heat rejection equipment with variable-speed fan drives installed that operate the maximum number of fans allowed that comply with manufacturers specs and control all fans to the same fan speed required for the instantaneous cooling duty.		
SYSTEM_SPECIFIC	6.5.7.1	Mechanical	Conditioned supply air to space with mechanical exhaust <= the greater of criteria of supply flow, required ventilation rate, exhaust flow minu the		
HVAC	6.5.7.2.1	Mechanical	available transffer air (see section details). Kitchen hoods >5,000 cfm have make up air >=50% of exhaust air volume.		
SYSTEM_SPECIFIC	6.5.7.2.2	Mechanical	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation system, or energy recovery requirements shown in Table 6.5.7.1.3.		
SYSTEM_SPECIFIC	6.5.7.2.3	Mechanical	Kitchen hoods with a total exhaust airflow rate >5000 cfm meet replacement air, ventilation		
HVAC	6.5.7.2	Mechanical	system, or energy recovery requirements. Fume hoods exhaust systems >=5,000 cfm have VAV hood exhaust and supply systems, direct		
HVAC	6.5.8.1	Mechanical	make-up air or heat recovery. Unenclosed spaces that are heated use only radiant heat.		

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SYSTEM_SPECIFIC	7.5.1	Mechanical	Combined space and water heating system not allowed unless standby loss less than calculated maximum. AHJ has approved or combined			
Other Equipment	10.4.1	Mechanical	connected load <150 kBtu/h. Electric motors meet requirements where applicable.			
HVAC	6.4.3.3.2	Mechanical	Setback controls allow automatic restart and temporary operation as required for maintenance.			
SYSTEM_SPECIFIC	6.4.3.3.3	Mechanical	Systems with setback controls and DDC include optimum start controls. Optimum start algorithm considers mass radiant slab floor temperature.			
SYSTEM_SPECIFIC	6.4.3.3.4	Mechanical	Zone isolation devices and controls.			
Wattage	9.4.2	Exterior Lighting	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.			
Controls	9.4.1.4d	Exterior Lighting	Outdoor parking area luminaires >= 78W and <= 24 ft height controlled to reduce wattage by 50% when area unoccupied over 15 minutes.			
Controls	9.4.1.2a	Interior Lighting	Controlled power limited to <= 1500W. Parking garage lighting is equipped with automatic shutoff controls per Section 9.4.1.1(i).			
Controls	9.4.1.2b	Interior Lighting	Parking garage luminarie power is automatically reduced by >= 30% when zone < 3600 ft2 has no			
Controls	9.4.1.2c	Interior Lighting	occupancy after 20 minutes. Parking garage luminaries in or around covered entrances/exits between building and garage automatically reduced by >= 50% from sunset to			
Controls	9.4.1.2d	Interior Lighting	sunrise. Parking garage: Power to luminaires <= 20 ft of any perimeter wall that has a net opening-to-wall ratio >=40% and no exterior obstructions within 20 ft, is 100%			
Other Equipment	6.8.1-14	Mechanical	in response to daylight >= 50%. Vapor compression based indoor pool dehumidifiers (single package (indoor air/water cooled or w/out air-cooled condenser) or split system (indoor air-cooled) have a minimum 3.5			
Controls	6.4.3.3.5	Mechanical	MRE efficiency rating. Hotels/motel w/ > 50 guest rooms have automatic controls for the HVAC equipment serving each room configured per Section 6.4.3.3.5 subsections 1-3.			
	3	. To be che	cked by Inspector			
Insulation	5.8.1.7	Envelope	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and			
HVAC	6.4.3.7	Mechanical	equipment maintenance activities. Freeze protection and snow/ice melting system sensors for future connection to controls.			
Air Leakage	5.4.3.1	Envelope	Continuous air barrier is wrapped, sealed, caulked, gasketed, and/or taped in an approved manner, except in semiheated spaces in climate zones 1-6.			
Air Leakage	5.4.3.2	Envelope	Factory-built and site-assembled fenestration and doors are labeled or certified as meeting air			
Fenestration	5.8.2.1, 5.8.2.3, 5.8.2.4, 5.8.2.5	Envelope	leakage requirements. Fenestration products rated (U-factor, SHGC, and VT) in accordance with NFRC or energy code			
Fenestration	5.8.2.2	Envelope	defaults are used. Fenestration and door products are labeled, or a signed and dated certificate listing the U-factor, SHGC, VT, and air leakage rate has been			
SYSTEM_SPECIFIC	7.4.4.1	Mechanical	provided by the manufacturer. Temperature controls installed on service water heating systems (<=120°F to maximum temperature for intended use).			

SYSTEM_SPECIFIC	7.4.4.2	Mechanical	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.		
SYSTEM_SPECIFIC	7.4.6	Mechanical	Heat traps installed on non-circulating storage water tanks.		
HVAC	6.4.1.4, 6.4.1.5	Mechanical	HVAC equipment efficiency verified. Non-NAECA HVAC equipment labeled as meeting 90.1.		
SYSTEM_SPECIFIC	6.4.1.5.2	Mechanical	PTAC and PTHP with sleeves 16 in. by 42 in. labeled for replacement only.		
HVAC	6.4.3.4.1	Mechanical	Stair and elevator shaft vents have motorized dampers that automatically close.		
HVAC	6.4.3.4.2, 6.4.3.4.3	Mechanical	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.		
HVAC	6.4.3.4.5	Mechanical	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design		
HVAC	6.5.3.2.1	Mechanical	capacity. DX cooling systems >= 75 kBtu/h (>= 65 kBtu/h effective 1/2016) and chilled-water and evaporative cooling fan motor hp >= 1/4 designed		
HVAC	6.4.4.1.1	Mechanical	to vary supply fan airflow as a function of load and comply with operational requirements. Insulation exposed to weather protected from damage. Insulation outside of the conditioned space and associated with cooling systems is		
HVAC	6.4.4.1.2	Mechanical	vapor retardant. HVAC ducts and plenums insulated per Table 6.8.2. Where ducts or plenums are installed in or under a slab, verification may need to occur		
HVAC	6.4.4.1.3	Mechanical	during Foundation Inspection. HVAC piping insulation thickness. Where piping is installed in or under a slab, verification may need to occur during Foundation Inspection.		
HVAC	6.4.4.2.1	Mechanical	Ducts and plenums having pressure class ratings are Seal Class A construction.		
SYSTEM_SPECIFIC	6.4.4.2.2	Mechanical	Ductwork operating >3 in. water column requires air leakage testing.		
SYSTEM_SPECIFIC	6.5.2.1	Mechanical	Zone controls can limit reheating, recooling, simultaneous heating and cooling and sequence		
SYSTEM_SPECIFIC	6.4.3.11.1	Mechanical	heating and cooling to each zone. Electric motor driven chilled-water plants have measurement devices installed and measure the		
SYSTEM_SPECIFIC	6.4.3.11.2	Mechanical	electricity use and efficiency Electricity use and efficiency are trended every 15 minutes and graphically displayed, including hourly, daily, monthly, and annual data. Data are		
SYSTEM_SPECIFIC	6.5.2.2.2	Mechanical	preserved for 36 months or more. Two-pipe hydronic systems using a common distribution system have controls to allow a deadband >=15 °F, allow operation in one mode for at least 4 hrs before changeover, and have rest controls to limit heating and cooling supply temperature to <=30 °F.		
HVAC	6.5.2.4.1	Mechanical	Humidifiers with airstream mounted preheating jackets have preheat auto-shutoff value set to activate when humidification is not required.		
HVAC	6.5.2.4.2	Mechanical	Humidification system dispersion tube hot surfaces in the airstreams of ducts or air-handling units insulated >= R-0.5.		
HVAC	6.5.2.5	Mechanical	Preheat coils controlled to stop heat output whenever mechanical cooling, including economizer operation, is active.		
SYSTEM_SPECIFIC	6.5.3.2.2	Mechanical	VAV fans have static pressure sensors positioned so setpoint <=1.2 in. w.c. design pressure.		
SYSTEM_SPECIFIC	6.5.4.6	Mechanical	Chilled-water and condenser water piping sized according to design flow rate and total annual hours of operation (Table 6.5.4.6).		

SYSTEM_SPECIFIC	6.5.6.2	Mechanical	Condenser heat recovery system that can heat	П	П	П
			water to 85 °F or provide 60% of peak heat rejection is installed for preheating of service hot water.			
HVAC	6.5.7.2.4	Mechanical	Approved field test used to evaluate design air flow rates and demonstrate proper capture and containment of kitchen exhaust systems.			
SYSTEM_SPECIFIC	6.5.9	Mechanical	Hot gas bypass limited to: <=240 kBtu/h - 15% >240 kBtu/h - 10%			
HVAC	6.4.3.9	Mechanical	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.			
Controls	6.5.10	Mechanical	Doors separating conditioned space from the outdoors have controls that disable/reset heating and cooling system when open.			
Controls	9.4.1.1 except(g)	Interior Lighting	Automatic control requirements prescribed in Table 9.6.1, for the appropriate space type, are installed. Mandatory lighting controls (labeled as 'REQ') and optional choice controls (labeled as 'ADD1' and 'ADD2') are implemented.			
Controls	9.4.1.1 except(g)	Interior Lighting	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.			
Controls	9.4.1.1f	Interior Lighting	Daylight areas under skylights and roof monitors that have more than 150 W combined input power for general lighting are controlled by photocontrols.			
Controls	9.4.1.4	Exterior Lighting	Automatic lighting controls for exterior lighting installed.			
Controls	9.4.1.3	Interior Lighting	Separate lighting control devices for specific uses installed per approved lighting plans.			
Wattage	9.6.2	Interior Lighting	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.			
Wattage	9.6.4	Interior Lighting	Where space LPD requirements are adjusted based on room cavity ratios, dimensions are consistent with approved plans.			
Insulation	4.2.4	Envelope	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during			
Insulation	5.8.1.2, 5.8.1.3	Envelope	Framing Inspection. Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is instructions.			
Insulation	5.8.1.1	Envelope	is installed only where the ceiling slope is <= 3:12. Building envelope insulation is labeled with R-value or insulation certificate has been provided lieting R value and other relevant data.			
Insulation	5.8.1.9	Envelope	listing R-value and other relevant data. Building envelope insulation extends over the full area of the component at the proposed rated R or			
Insulation	5.8.1.4	Envelope	U value. Eaves are baffled to deflect air to above the insulation.			
Insulation	5.8.1.5	Envelope	Insulation is installed in substantial contact with the inside surface separating conditioned space from unconditional space.			
Insulation	5.8.1.6	Envelope	Recessed equipment installed in building envelope assemblies does not compress the adjacent insulation.			
Insulation	5.8.1.7.1	Envelope	Attics and mechanical rooms have insulation protected where adjacent to attic or equipment access.			
Insulation	5.8.1.7.2	Envelope	Foundation vents do not interfere with insulation.			

requirements cannot be installed on top of a suspended celling. Mark this requirement complaint it insulation is installed accordingly. SYSTEM_SPECIFIC 6.4.3.1.1 Mechanical at thermostal control. HVAC 6.4.3.1.2 Mechanical Temperature controls have setpoint overlap the set of the strictions. HVAC 6.4.3.2 Mechanical Temperature controls have setpoint overlap the set of the strictions. HVAC 8.4.3.3.1 Mechanical Temperature controls have setpoint overlap the set of the strictions. SYSTEM_SPECIFIC 6.4.3.3.1 Mechanical HVAC systems equipped with at least one automatic shufdown control. SYSTEM_SPECIFIC 6.4.3.12 Mechanical Heat guinp controls provent supplemental electric resistance heat from coming on when not needed. HVAC 8.4.3.6 Mechanical Mechanical Heat guinp controls provent supplemental electric resistance heat from coming on when not needed. HVAC 8.4.3.6 Mechanical When humidification and dehumidification are provided to a zone, simulation and operational requirements). HVAC 8.4.3.6 Mechanical When humidification and dehumidification are provided to a zone, simulation and operational requirements. HVAC 9.5.1 Mechanical Humidification and dehumidification are provided to a zone, simulation and operation is prohibited. Humidity control prohibits the use of fossil flue of electricity to produce RH+ 30% in the warmest zone humidified and RH+ 60% in the warmest zone provided for heated pools and position proper installed to maintain temperature of a storage land minum temperature. SYSTEM_SPECIFIC 7.4.3 Mechanical Interior Lighting Interior Lighting plane							
SYSTEM_SPECIFIC 6.4.3.1.1 Mechanical compliant if insulation is installed accordingly. HARC 6.4.3.1.2 Mechanical Thermostat control. HARC 6.4.3.1.2 Mechanical Thermostat control. HARC 6.4.3.1 Mechanical Temperature controls have setpoint overlap cational control in the set of the stational control in the set of the set of the stational control in the set of the	Insulation	5.8.1.8	Envelope	requirements cannot be installed on top of a			
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HVAC 6.4.3.5.1 Mechanical Heat pump controls prevent supplemental electric automatic shutdown control. SYSTEM_SPECIFIC 6.4.3.5 Mechanical Heat pump controls prevent supplemental electric automatic shutdown control. SYSTEM_SPECIFIC 6.4.3.12 Mechanical Air economizer has a fault defection and diagnostics (FDI) system (see details for configuration and operational requirements). HVAC 6.4.3.6 Mechanical Pump controls prevent supplemental electric configuration and operational requirements. HVAC 6.4.3.6 Mechanical Pump controls prevent supplemental electric configuration and operational requirements. HVAC 6.4.3.6 Mechanical Pump controls prevent supplemental electric configuration and operational requirements. HVAC 6.4.3.6 Mechanical Pump controls prevent supplemental electric controls are installed to a supplemental electric control and dehumicified. SYSTEM_SPECIFIC 7.4.4.3 Mechanical Pump controls are installed that limit the operation of a control system of the codest zone dehumicified. SYSTEM_SPECIFIC 7.4.5.1 Mechanical Pump controls are installed that limit the operation of a control system of the codest zone dehumicified. SYSTEM_SPECIFIC 7.4.5.2 Mechanical Pump controls are installed that limit the operation of a control system of the code system control system of the code system acceptance of the code system of the code system acceptance of the cod	HVAC	6.4.3.1.2	Mechanical	Thermostatic controls have a 5 °F deadband.			
SYSTEM_SPECIFIC 6.4.3.5 Mechanical mechanical provided for heater some control of the system of the	HVAC	6.4.3.2	Mechanical				
resistance heat from coming on when not needed. After committer has a fault detection and diagnostics (FDD) system (see details for configuration and perational requirements). HVAC	HVAC	6.4.3.3.1	Mechanical				
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SYSTEM_SPECIFIC 7.4.4.4 Mechanical Public lavatory faucet water temperature <=110°F.	HVAC	6.4.3.6	Mechanical	When humidification and dehumidification are provided to a zone, simultaneous operation is prohibited. Humidity control prohibits the use of fossil fuel or electricity to produce RH > 30% in the warmest zone humidified and RH < 60% in			
recirculation pump installed to maintain temperature of a storage tank. SYSTEM_SPECIFIC 7.4.5.1 Mechanical Pool covers are provided for heated pools and pools heated to >90°F have a cover >=R-12. SYSTEM_SPECIFIC 7.4.5.3 Mechanical Time switches are equipped with on/off switch and pools heated to >90°F have a cover >=R-12. SYSTEM_SPECIFIC 7.4.5.3 Mechanical Time switches are installed on all pool heaters and pumps. Wattage 9.2.2.3 Interior Lighting Interior installed amp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts. SYSTEM_SPECIFIC 7.4.3 Mechanical First 8 ft of outlet piping in nonrecirculating storage system, or branch piping connected to recirculated, heat traced, or impredance heated piping is insulated. SYSTEM_SPECIFIC 7.4.3 Mechanical All heat traced or externally heated piping insulated. Wattage 9.4.4 Interior Lighting At least 75% of all permanently installed lighting fixtures in dwelling units have >= 55 lm/W efficacy or a >= 45 lm/W total luminaire efficacy. 4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy Plan Review 6.7.2.4 Mechanical Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >= 50,000 ftz. Plan Review 6.7.2.1 Mechanical Function of the plans or specifications for projects >= 50,000 ftz. Prost Construction 6.7.2.2 Mechanical Functional Prior do system acceptance. Post Construction 6.7.2.3 Mechanical Functional Prior do system acceptance. Post Construction 6.7.2.3 Mechanical Functional Prior projects >= 50,000 ftz. Fundamental Prior Project System Seventing ones >5,5000 mice. Fundamental Prior Pr	SYSTEM_SPECIFIC	7.4.4.3	Mechanical				
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SYSTEM_SPECIFIC 7.4.3 Mechanical All piping in recirculating system insulated	Wattage	9.2.2.3	Interior Lighting	consistent with what is shown on the approved lighting plans, demonstrating proposed watts are			
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SYSTEM_SPECIFIC 7.4.3 Mechanical All heat traced or externally heated piping insulated	SYSTEM_SPECIFIC	7.4.3	Mechanical	storage system, or branch piping connected to recirculated, heat traced, or impredance heated			
### Fixtures in dwelling units have >= 55 Im/W efficacy or a >= 45 Im/W total luminaire efficacy. ### 4. To be checked by Inspector at Project Completion and Prior to Issuance of Certificate of Occupancy ### Plan Review	SYSTEM_SPECIFIC	7.4.3	Mechanical	All heat traced or externally heated piping			
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Plan Review 6.7.2.4 Mechanical Detailed instructions for HVAC systems commissioning included on the plans or specifications for projects >=50,000 ft2. Post Construction 6.7.2.1 Mechanical Furnished HVAC as-built drawings submitted within 90 days of system acceptance. Post Construction 6.7.2.2 Mechanical Furnished O&M manuals for HVAC systems within 90 days of system acceptance. Post Construction 6.7.2.3 Mechanical An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000	Plan Review	6.7.2.4	Mechanical	commissioning included on the plans or			
Post Construction 6.7.2.1 Mechanical Furnished HVAC as-built drawings submitted within 90 days of system acceptance. Post Construction 6.7.2.2 Mechanical Furnished O&M manuals for HVAC systems within 90 days of system acceptance. Post Construction 6.7.2.3 Mechanical An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000	Plan Review	6.7.2.4	Mechanical	Detailed instructions for HVAC systems commissioning included on the plans or			
within 90 days of system acceptance. Post Construction 6.7.2.3 Mechanical An air and/or hydronic system balancing report is provided for HVAC systems serving zones >5,000	Post Construction	6.7.2.1	Mechanical	Furnished HVAC as-built drawings submitted			
provided for HVAC systems serving zones >5,000	Post Construction	6.7.2.2	Mechanical				
	Post Construction	6.7.2.3	Mechanical	provided for HVAC systems serving zones >5,000			

HVAC	6.7.2.4	Mechanical	HVAC control systems have been tested to ensure proper operation, calibration and		
Post Construction	8.7.1	Interior Lighting	adjustment of controls. Furnished as-built drawings for electric power systems within 30 days of system acceptance.		
Post Construction	8.7.2	Interior Lighting	Furnished O&M instructions for systems and equipment to the building owner or designated representative.		

Input Data Report

Project Information

Address: SW 21st Ave. **State:** FL **Zip:** 34239

Owner: Zimmer Development Company

Building Type: Multi-Family Building Classification: New Finished building

No.of Stories: 4 GrossArea (SF): 75,801

Bldg. Rotation: 180 Deg Clockwise. Walls & Windows will be rotated accordingly

			Zones				
No	Acronym	Description	Туре	Area [sf]	Multi	Total Area [sf]	1
1	1UT3-S	Unit Type 3 First Floor	CONDITIONED	1376.0	1	1376.0	
2	1UT2-I-S	Unit Type 2 Interior First Floor	CONDITIONED	1100.0	2	2200.0	
3	1UT2.1S	Unit Type 2.1 First Floor	CONDITIONED	1131.0	1	1131.0	
4	1UT2.1W	Unit Type 2.1N First Floor	CONDITIONED	1131.0	1	1131.0	
5	1UT2-I-W	Unit Type 2 Interior First Floor	CONDITIONED	1100.0	2	2200.0	
6	1UT1-I-S	Unit Type 2 Interior First Floor	CONDITIONED	763.0	2	1526.0	
7	1UT3-E	Unit Type 3 First Floor	CONDITIONED	1376.0	1	1376.0	П
8	1UT3-W	Unit Type 3 End First	CONDITIONED	1376.0	1	1376.0	
9	1UT2.2	Floor Unit Type 2.2 Interior	CONDITIONED	1491.0	1	1491.0	
10	1UT2-I-N	First Floor Unit Type 2	CONDITIONED	1100.0	2	2200.0	
11	1UT1-I-N	Unit Type 2 Interior First	CONDITIONED	763.0	2	1526.0	Ħ
11	1011111	Floor	CONDITIONED	703.0	2	1320.0	Ш
12	1UT3-N	Unit Type 3 First Floor	CONDITIONED	1376.0	1	1376.0	
13	4UT3-S	Unit Type 3 Fourth Floor	CONDITIONED	1376.0	1	1376.0	
14	4UT2-I-S	Unit Type 2 Interior Fourth Floor	CONDITIONED	1100.0	2	2200.0	
15	4UT2.1S	Unit Type 2.1 Fourth Floor	CONDITIONED	1131.0	1	1131.0	
16	4UT2-I-W	Unit Type 2 Interior Fourth Floor	CONDITIONED	1100.0	2	2200.0	
17	4UT1-I-S	Unit Type 1 Interior Fourth Floor	CONDITIONED	763.0	2	1526.0	
18	4UT3-E	Unit Type 3 Fourth Floor	CONDITIONED	1376.0	1	1376.0	
19	4UT3-W	Unit Type 3 End Fourth Floor	CONDITIONED	1376.0	1	1376.0	
20	4UT2.1-S	Unit Type 2.1 Interior Fourth Floor	CONDITIONED	1131.0	1	1131.0	
21	4UT2.2	Unit Type 2.2	CONDITIONED	1491.0	1	1491.0	
22	4UT1-I-N	Unit Type 2 Interior Fourth Floor	CONDITIONED	763.0	2	1526.0	
23	4UT2-I-N	Unit Type 2 End Fourth Floor	CONDITIONED	1100.0	2	2200.0	
24	4UT3-N	Unit Type 3 N Fourth Floor	CONDITIONED	1376.0	2	2752.0	
25	23UT3-S	Unit Type 3 Second and Third Floor	CONDITIONED	1376.0	2	2752.0	
26	23UT2-I-S	Unit Type 2 Interior Second and Third Floor	CONDITIONED	1100.0	4	4400.0	
27	23UT2.1S	Unit Type 2.1 Second and Third Floor	CONDITIONED	1131.0	2	2262.0	
28	23UT2.1W	Unit Type 2.1 W Second and Third Floor	CONDITIONED	1131.0	2	2262.0	
29	23UT2-I-W	Unit Type 2 Interior W Second and Third Floor	CONDITIONED	1100.0	4	4400.0	
30	23UT1-I-S	Unit Type 2 Interior Second and Third Floor	CONDITIONED	763.0	4	3052.0	

31	23UT3-E	Unit Type 3 Second and Third Floor	CONDITIONED	1376.0	2	2752.0	
32	23UT3-W	Unit Type 3-W Second and Third Floor	CONDITIONED	1376.0	2	2752.0	
33	23UT1-I-S	Unit Type 2 Interior Second and Third Floor	CONDITIONED	763.0	4	3052.0	
34	23 UT2.2	Unit Type 2.2	CONDITIONED	1491.0	2	2982.0	П
35	23UT1-I-N	Unit Type 2 Interior Second and Third Floor	CONDITIONED	763.0	4	3052.0	
36	23UT3-N	Unit Type 3 Second and Third Floor	CONDITIONED	1376.0	2	2752.0	
37	EER	Elevator Equipment Rm	CONDITIONED	51.0	1	51.0	
38	TC1	Telcom-1	CONDITIONED	27.0	2	54.0	
39	TC2	Telcom-2	CONDITIONED	16.0	2	32.0	П

	Spaces											
No Acronym	Description	Туре	Depth [ft]	Width [ft]	Heigh [ft]	t Mult	Total Area [sf]	Total Vol[cf]				
In Zone: 1U	T3-S Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 1U 1 UT2	T2-I-S Unit Type 2	Private Living Space	1100.00	1.00	9.00	1	1100.0	9900.0				
In Zone: 1U 1 UT2.1	T2.1S Unit Type 2.1	Private Living Space	1131.00	1.00	9.00	1	1131.0	10179.0				
In Zone: 1U 1 UT2.1	T2.1W Unit Type 2.1	Private Living Space	1131.00	1.00	9.00	1	1131.0	10179.0				
In Zone: 1U 1 UT2	T2-I-W Unit Type 2	Private Living Space	1100.00	1.00	9.00	1	1100.0	9900.0				
In Zone: 1U	T1-I-S Unit Type 1	Private Living Space	763.00	1.00	9.00	1	763.0	6867.0				
In Zone: 1U	T3-E Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 1U 1 UT3	T3-W Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 1U 1 UT2.2	T2.2 Living Unit Type 2.2	Private Living Space	1491.00	1.00	9.00	1	1491.0	13419.0				
In Zone: 1U 1 UT2	T2-I-N Unit Type 2	Private Living Space	1100.00	1.00	9.00	1	1100.0	9900.0				
In Zone: 1U 1 UT1	T1-I-N Unit Type 1	Private Living Space	763.00	1.00	9.00	1	763.0	6867.0				
In Zone: 1U 1 UT3	T3-N Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 4U 1 UT3	T3-S Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 4U 1 UT2	T2-I-S Unit Type 2	Private Living Space	1100.00	1.00	9.00	1	1100.0	9900.0				
In Zone: 4U 1 UT2.1	T2.1S Unit Type 2.1	Private Living Space	1131.00	1.00	9.00	1	1131.0	10179.0				
In Zone: 4U 1 UT2	T2-I-W Unit Type 2	Private Living Space	1100.00	1.00	9.00	1	1100.0	9900.0				
In Zone: 4U	T1-I-S Unit Type 1	Private Living Space	763.00	1.00	9.00	1	763.0	6867.0				
In Zone: 4U	T3-E Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 4U	T3-W Unit Type 3	Private Living Space	1376.00	1.00	9.00	1	1376.0	12384.0				
In Zone: 4U 1 UT2.1	T2.1-S Unit Type 2.1	Private Living Space	1131.00	1.00	9.00	1	1131.0	10179.0				

In Zone: 4UT1-I-N	
1 UT1	19.0
In Zone: 4UT3-N 1 UT3	7.0
In Zone: 23UT2-I-W 1 UT2 Unit Type 2 Private Living Space 11376.00 1.00 9.00 1 1376.0 122 In Zone: 23UT2-IS 1 UT2 Unit Type 2 Private Living Space 1100.00 1.00 9.00 1 1100.0 99 In Zone: 23UT2-IS 1 UT2.1 Unit Type 2.1 Private Living Space 1131.00 1.00 9.00 1 1131.0 10. In Zone: 23UT2-IW 1 UT2.1 Unit Type 2.1 Private Living Space 1131.00 1.00 9.00 1 1131.0 10. In Zone: 23UT2-I-W 1 UT2.1 Unit Type 2 Private Living Space 1100.00 1.00 9.00 1 1100.0 99 In Zone: 23UT2-I-W 1 UT2 Unit Type 2 Private Living Space 1100.00 1.00 9.00 1 1100.0 99 In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-E 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 122 In Zone: 23UT3-W 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 122 In Zone: 23UT1-I-S 1 UT1 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 122 In Zone: 23UT1-I-S 1 UT1 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 122 In Zone: 23UT1-I-S 1 UT1 Unit Type 3 Private Living Space 1491.00 1.00 9.00 1 1491.0 13- In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 1491.00 1.00 9.00 1 1491.0 13- In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-N	0.0
In Zone: 23UT2-I-S 1 UT2	84.0
In Zone: 23UT2.1S 1 UT2.1 Unit Type 2.1 Private Living Space 1131.00 1.00 9.00 1 1131.0 10. In Zone: 23UT2.1W 1 UT2.1 Unit Type 2.1 Private Living Space 1131.00 1.00 9.00 1 1131.0 10. In Zone: 23UT2.1W 1 UT2.1 Unit Type 2.1 Private Living Space 1131.00 1.00 9.00 1 1131.0 10. In Zone: 23UT2-I-W 1 UT2 Unit Type 2 Private Living Space 1100.00 1.00 9.00 1 1100.0 99. In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68. In Zone: 23UT3-E 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 12. In Zone: 23UT3-W 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 12. In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68. In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68. In Zone: 23 UT2.2 1 UT2.2 Living Unit Type 2.2 Private Living Space 1491.00 1.00 9.00 1 1491.0 134. In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68. In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68. In Zone: 23UT3-N	84.0
1 UT2.1	0.0
1 UT2.1 Unit Type 2.1 Private Living Space 1131.00 1.00 9.00 1 1131.0 10 In Zone: 23UT2-I-W 1 UT2 Unit Type 2 Private Living Space 1100.00 1.00 9.00 1 1100.0 99 In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-E 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23UT1-I-S 1 UT1 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23 UT2-2 1 UT1 Private Living Space 763.00 1.00 9.00 1 1491.0 134 In Zone: 23 UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT3-N Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT3-N Private Living Space 76	79.0
In Zone: 23UT1-I-S 1 UT1	79.0
1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-E 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23UT3-W 1 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT2.2 1 UT2.2 Living Unit Type 2.2 Private Living Space 1491.00 1.00 9.00 1 1491.0 134 In Zone: 23 UT1-I-N 1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT3-N 23 UT3-N 1 1.00 9.00 1 763.0 68	0.0
1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23UT3-W 1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23UT1-I-S 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT2.2 1 UT2.2 Living Unit Type 2.2 Private Living Space 1491.00 1.00 9.00 1 1491.0 134 In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-N	7.0
1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123 In Zone: 23 UT1-I-S 23 UT2.2 23 UT2.2 24 UT2.2 25 UT2.2 25 UT2.2 25 UT2.2 25 UT2.2 25 UT2.2 27 U	84.0
1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT2.2 1 UT2.2 Living Unit Type 2.2 Private Living Space 1491.00 1.00 9.00 1 1491.0 134 In Zone: 23 UT1-I-N 1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23 UT3-N	84.0
1 UT2.2 Living Unit Type 2.2 Private Living Space 1491.00 1.00 9.00 1 1491.0 134 In Zone: 23UT1-I-N 1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-N	7.0
1 UT1 Unit Type 1 Private Living Space 763.00 1.00 9.00 1 763.0 68 In Zone: 23UT3-N	19.0
	7.0
1 UT3 Unit Type 3 Private Living Space 1376.00 1.00 9.00 1 1376.0 123	84.0
In Zone: EER 1 Pr0Zo40Sp1 Zo0Sp1 Electrical Mechanical 51.00 1.00 9.00 1 51.0 45 Equipment Room - General	9.0
In Zone: TC1	3.0
In Zone: TC2	4.0

		Li	ghting				
No Type	Category	No. of Luminaires	Watts per Luminaire	Power [W]	Control Type	No. Ctrl	
In Zone: 1UT3-S In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT2-I-S In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT2.1S In Space: UT2.1 1 Compact Fluorescent	General Lighting	8	25	200	Manual On/Off	1	
In Zone: 1UT2.1W In Space: UT2.1 1 Compact Fluorescent	General Lighting	8	25	200	Manual On/Off	1	
In Zone: 1UT2-I-W In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT1-I-S In Space: UT1 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT3-E In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT3-W In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT2.2 In Space: UT2.2 1 Compact Fluorescent	General Lighting	10	25	250	Manual On/Off	1	
In Zone: 1UT2-I-N In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT1-I-N In Space: UT1 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 1UT3-N In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 4UT3-S In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 4UT2-I-S In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	

In Zone: 4UT2.1S In Space: UT2.1 1 Compact Fluorescent	General Lighting	8	25	200	Manual On/Off	1	
In Zone: 4UT2-I-W In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 4UT1-I-S In Space: UT1 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 4UT3-E In Space: UT3	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 4UT3-W In Space: UT3							
In Zone: 4UT2.1-S In Space: UT2.1	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 4UT2.2 In Space: UT2.2	General Lighting	8	25	200	Manual On/Off	1	
1 Compact Fluorescent In Zone: 4UT1-I-N	General Lighting	10	25	250	Manual On/Off	1	
In Space: UT1 1 LED In Zone: 4UT2-I-N	General Lighting	7	25	175	Manual On/Off	1	
In Space: UT2 1 LED In Zone: 4UT3-N	General Lighting	7	25	175	Manual On/Off	1	
In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT3-S In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT2-I-S In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT2.1S In Space: UT2.1 1 Compact Fluorescent	General Lighting	8	25	200	Manual On/Off	1	
In Zone: 23UT2.1W In Space: UT2.1 1 Compact Fluorescent	General Lighting	8	25	200	Manual On/Off	1	
In Zone: 23UT2-I-W In Space: UT2 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT1-I-S In Space: UT1 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT3-E In Space: UT3		•					<u> </u>

1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT3-W In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT1-I-S In Space: UT1 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23 UT2.2 In Space: UT2.2 1 Compact Fluorescent	General Lighting	10	25	250	Manual On/Off	1	
In Zone: 23UT1-I-N In Space: UT1 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: 23UT3-N In Space: UT3 1 LED	General Lighting	7	25	175	Manual On/Off	1	
In Zone: EER In Space: Pr0Zo40Sp1 1 LED	General Lighting	2	26	52	Manual On/Off	1	
In Zone: TC1 In Space: Pr0Zo41Sp1 1 LED	General Lighting	1	26	26	Manual On/Off	1	
In Zone: TC2 In Space: Pr0Zo41Sp1 1 LED	General Lighting	1	26	26	Manual On/Off	1	

No	Description	Walls will be ro	Width	H (Effec) Multi	Area	Orient	Cond-	Heat	Dens.		alue
			[ft]	[ft]	plier	[sf]	ation	uctance [Btu/h.sf	e Capacity .F] [Btu/sf.F]		[h.sf.I	'/Btu]
In 2	Zone: 1UT3-S East Wall	Wall-Metal Frame,	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
2	North Wall	R-19 Insulation Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	South	0.0364			27.5	
3	West Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	East	0.0364			27.5	
4	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	North	0.0364			27.5	
5	Southeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	North West	0.0364			27.5	
In Z	Zone: 1UT2-I-S											
1	North Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	34.00	9.00	1	306.0	South	0.0364			27.5	
2	South Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	34.00	9.00	1	306.0	North	0.0364			27.5	
3	Northeast Wall	Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	South West	0.0364			27.5	
In 7	Zone: 1UT2.1S	Fiber Cement Siding										
1	North Wall	Wall-Exterior, Frame R-20 insulation,	32.38	9.00	1	291.4	South	0.0364			27.5	
2	East Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	3.00	9.00	1	27.0	South	0.0364			27.5	
3	Pr0Zo6Wa3	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	16.00	9.00	1	144.0	South East	0.0364			27.5	
4	Southwest Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	33.20	9.00	1	298.8	North East	0.0364			27.5	
5	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	21.10	9.00	1	189.9	North	0.0364			27.5	
In 7	Zone: 1UT2.1W	1 loci Cement Sturing										
1	West Wall	Wall-Exterior, Frame R-20 insulation,	35.38	9.00	1	318.4	East	0.0364			27.5	
2	Northeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	16.00	9.00	1	144.0	South West	0.0364			27.5	
3	Southeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	33.20	9.00	1	298.8	North West	0.0364			27.5	

4	East Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	21.10	9.00	1	189.9	West	0.0364			27.5	
In 7	Zone: 1UT2-I-W	Tibel Cellient Staining										
111 2	West Wall	Wall-Exterior, Frame	24.00	9.00	1	306.0	Foot	0.0364			27.5	
1	west wan	R-20 insulation, Fiber Cement Siding	34.00	9.00	1	300.0	East	0.0304			21.3	Ш
2	East Wall	Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	West	0.0364			27.5	
		Fiber Cement Siding										
3	Northwest Wall	Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	South East	0.0364			27.5	
		Fiber Cement Siding										
	Zone: 1UT1-I-S											_
1	South Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	North	0.0364			27.5	Ш
2	North Wall	R-20 insulation, Fiber Cement Siding Wall-Exterior, Frame	34.00	9.00	1	306.0	South	0.0364			27.5	
		R-20 insulation, Fiber Cement Siding										
3	Southwest Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	North East	0.0364			27.5	
In Z	Zone: 1UT3-E											
1	South Wall	Wall-Metal Frame, R-19 Insulation	35.80	9.00	1	322.2	North	0.0514	0.682	9.99	19.5	
2	West Wall	Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	East	0.0364			27.5	
3	West Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	South	0.0364			27.5	
4	East Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	West	0.0364			27.5	
5	Southwest Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	North East	0.0364			27.5	
T., 77	7 11JF2 3V	Fiber Cement Siding										
	Zone: 1UT3-W	WHE E	4.00	0.00		2.0		0.0264			25.5	
1	Northeast Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	South West	0.0364			27.5	Ш
2	West Wall	Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	East	0.0364			27.5	
3	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	North	0.0364			27.5	
4	East Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	West	0.0364			27.5	
5	North Wall	Fiber Cement Siding Wall-Metal Frame, R-19 Insulation	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
In 7	Zone: 1UT2.2	1. 17 Insulation										
111 Z	North Wall	Wall-Exterior, Frame	34.00	9.00	1	306 O	South	0.0364			27.5	
1	TAOTHI AAGII	R-20 insulation, Fiber Cement Siding	34.00	7.UU	1	306.0	South	0.0304			21.3	
2	Northwest Wall	Wall-Exterior, Frame R-20 insulation,	14.00	9.00	1	126.0	South East	0.0364			27.5	
3	West Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	37.00	9.00	1	333.0	East	0.0364			27.5	
		Fiber Cement Siding										

4	East Wall	Wall-Exterior, Frame	8.00	9.00	1	72.0	West	0.0364			27.5	
		R-20 insulation, Fiber Cement Siding										
5	Southeast Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	11.80	9.00	1	106.2	North West	0.0364			27.5	
6	South Wall	Wall-Exterior, Frame R-20 insulation,	8.00	9.00	1	72.0	North	0.0364			27.5	
In 7	Zomos 11 ITO I N	Fiber Cement Siding										
in Z	North Wall		24.00	0.00		206.0	0 4	0.0364			27.5	
1	North Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	34.00	9.00	1	306.0	South	0.0364			27.5	
2	South Wall	Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	North	0.0364			27.5	
3	Northeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	South West	0.0364			27.5	
In Z	Zone: 1UT1-I-N											
1	South Wall	Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	North	0.0364			27.5	
2	North Wall	Fiber Cement Siding Wall-Exterior, Frame	34.00	9.00	1	306.0	South	0.0364			27.5	
		R-20 insulation,										
3	Southeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	North West	0.0364			27.5	
		Fiber Cement Siding										
In Z	Zone: 1UT3-N	C										
1	East Wall	Wall-Metal Frame, R-19 Insulation	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
2	North Wall	Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	South	0.0364			27.5	
3	West Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	East	0.0364			27.5	
4	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	North	0.0364			27.5	
5	Northeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	South West	0.0364			27.5	
	ATTEM C	Fiber Cement Siding										
In Z	Cone: 4UT3-S East Wall	Wall-Metal Frame,	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
2	North Wall	R-19 Insulation Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	South	0.0364			27.5	
3	West Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	East	0.0364			27.5	
4	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	North	0.0364			27.5	
5	Northeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	South West	0.0364			27.5	
T. 73	ATIMA TO	Fiber Cement Siding										
In Z	North Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	34.00	9.00	1	306.0	South	0.0364			27.5	

2	South Wall	Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	North	0.0364			27.5	
		Fiber Cement Siding										_
3	Northeast Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	South	0.0364			27.5	Ш
		R-20 insulation,					West					
		Fiber Cement Siding										
In Z	Zone: 4UT2.1S											
1	North Wall	Wall-Exterior, Frame	32.38	9.00	1	291.4	South	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										
2	East Wall	Wall-Exterior, Frame	3.00	9.00	1	27.0	South	0.0364			27.5	Ш
		R-20 insulation,										
		Fiber Cement Siding										_
3	Pr0Zo6Wa3	Wall-Exterior, Frame	16.00	9.00	1	144.0	South	0.0364			27.5	Ш
		R-20 insulation,					East					
		Fiber Cement Siding										
4	Southwest Wall	Wall-Exterior, Frame	33.20	9.00	1	298.8	North	0.0364			27.5	Ш
		R-20 insulation,					East					
_	0 4 17 11	Fiber Cement Siding	• • • •	0.00		4000		0.0264			27.5	
5	South Wall	Wall-Exterior, Frame	21.10	9.00	1	189.9	North	0.0364			27.5	ш
		R-20 insulation,										
<i>7</i>	411T3 1 XX	Fiber Cement Siding										
	Zone: 4UT2-I-W	W.11.E	24.00	0.00		2010	_	0.0264			25.5	_
1	West Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	East	0.0364			27.5	Ш
		R-20 insulation,										
2	F (W)	Fiber Cement Siding	24.00	0.00	1	206.0	337	0.0264			27.5	
2	East Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	West	0.0364			27.5	ш
		R-20 insulation,										
3	Southeast Wall	Fiber Cement Siding	4.00	9.00	1	26.0	NI41-	0.0364			27.5	\Box
3	Southeast wan	Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	North	0.0304			21.3	ш
		Fiber Cement Siding					West					
n 7	Zone: 4UT1-I-S	Their Cement Sturing										
1	South Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	North	0.0364			27.5	
1	South Wall	R-20 insulation,	34.00	9.00	1	300.0	North	0.0304			21.3	ш
		Fiber Cement Siding										
2	North Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	South	0.0364			27.5	\Box
_	North Wan	R-20 insulation,	34.00	9.00	1	300.0	South	0.0304			21.3	ш
		Fiber Cement Siding										
3	Southwest Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	North	0.0364			27.5	П
5	Southwest Wall	R-20 insulation,	4.00	9.00	1	30.0	East	0.0304			21.3	ш
		Fiber Cement Siding					Last					
n 7	Zone: 4UT3-E	Ther cement blumg										
1	South Wall	Wall-Metal Frame,	35.80	9.00	1	322.2	North	0.0514	0.682	9.99	19.5	\Box
1	South Wan	R-19 Insulation	33.00	7.00	1	322.2	North	0.0514	0.002	7.77	17.5	ш
2	West Wall	Wall-Exterior, Frame	42.65	9.00	1	383.9	East	0.0364			27.5	П
_	West Wall	R-20 insulation,	42.03	2.00	1	303.9	Last	0.0501			27.3	ш
		Fiber Cement Siding										
3	West Wall	Wall-Exterior, Frame	5.30	9.00	1	47.7	South	0.0364			27.5	П
3	West Wall	R-20 insulation,	3.30	2.00	1	77.7	South	0.0501			27.3	
		Fiber Cement Siding										
4	East Wall	Wall-Exterior, Frame	42.80	9.00	1	385.2	West	0.0364			27.5	П
•	Last Wall	R-20 insulation,	12.00	7.00		303.2	11030	0.0501			27.3	
		Fiber Cement Siding										
5	Southwest Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	North	0.0364			27.5	
_		R-20 insulation,			•	20.0	East	2.0201				
		Fiber Cement Siding					2400					
n 7	Zone: 4UT3-W											
1	Northeast Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	South	0.0364			27.5	
•	1,0101000t truii	R-20 insulation,	1.00	2.00	1	50.0	West	0.0507			21.3	ш
		Fiber Cement Siding					******					
		- 1001 Connoin Bluing										

2	West Wall	Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	East	0.0364			27.5	
		Fiber Cement Siding										_
3	South Wall	Wall-Exterior, Frame	5.30	9.00	1	47.7	North	0.0364			27.5	Ш
		R-20 insulation,										
		Fiber Cement Siding										
4	East Wall	Wall-Exterior, Frame	42.65	9.00	1	383.9	West	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										
5	North Wall	Wall-Metal Frame,	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
		R-19 Insulation	22.00		•	022.2	Boun					
In Z	one: 4UT2.1-S											
1	North Wall	Wall-Exterior, Frame	32.38	9.00	1	291.4	South	0.0364			27.5	
1	North Wall	R-20 insulation,	32.30	7.00	1	291. 4	South	0.0504			21.5	ш
2	E 4WH	Fiber Cement Siding	2.00	0.00	1	27.0	G .1	0.0264			27.5	
2	East Wall	Wall-Exterior, Frame	3.00	9.00	1	27.0	South	0.0364			27.5	ш
		R-20 insulation,										
_	- o- o-	Fiber Cement Siding						0.0064				_
3	Pr0Zo6Wa3	Wall-Exterior, Frame	16.00	9.00	1	144.0	South	0.0364			27.5	Ш
		R-20 insulation,					East					
		Fiber Cement Siding										_
4	Southwest Wall	Wall-Exterior, Frame	33.20	9.00	1	298.8	North	0.0364			27.5	Ш
		R-20 insulation,					East					
		Fiber Cement Siding										
5	South Wall	Wall-Exterior, Frame	21.10	9.00	1	189.9	North	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										
In Z	one: 4UT2.2	Č										
1	North Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	South	0.0364			27.5	
•	Troitii viuii	R-20 insulation,	34.00	7.00	1	300.0	South	0.0501			27.5	
		Fiber Cement Siding										
2	Northwest Wall	Wall-Exterior, Frame	14.00	9.00	1	126.0	South	0.0364			27.5	
2	Northwest wan	R-20 insulation,	14.00	9.00	1	120.0		0.0304			21.3	ш
							East					
2	W/4 W/-11	Fiber Cement Siding	27.00	0.00	1	222.0	Б.	0.0264			27.5	
3	West Wall	Wall-Exterior, Frame	37.00	9.00	1	333.0	East	0.0364			27.5	ш
		R-20 insulation,										
		Fiber Cement Siding										_
4	East Wall	Wall-Exterior, Frame	8.00	9.00	1	72.0	West	0.0364			27.5	Ш
		R-20 insulation,										
		Fiber Cement Siding										
5	Southeast Wall	Wall-Exterior, Frame	11.80	9.00	1	106.2	North	0.0364			27.5	Ш
		R-20 insulation,					West					
		Fiber Cement Siding										
6	South Wall	Wall-Exterior, Frame	8.00	9.00	1	72.0	North	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										
In Z	one: 4UT1-I-N	Ü										
1	South Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	North	0.0364			27.5	П
1	South Huil	R-20 insulation,	21.00	7.00	1	500.0	1 101111	0.050 f			27.5	
		Fiber Cement Siding										
2	North Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	South	0.0364			27.5	
2	North Wall		34.00	9.00	1	300.0	South	0.0304			21.3	ш
		R-20 insulation,										
2	C4b4 W/ 11	Fiber Cement Siding	4.00	0.00	1	26.0	NT -1	0.0264			27.5	
3	Southeast Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	North	0.0364			27.5	Ш
		R-20 insulation,					West					
	4***** * = =	Fiber Cement Siding										
In Z												
1	North Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	South	0.0364			27.5	Ш
		R-20 insulation,										
		Fiber Cement Siding										
2	South Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	North	0.0364			27.5	
		R-20 insulation,			-							
		Fiber Cement Siding										
		Fiber Cement Siding										

3	Northwest Wall	Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	South East	0.0364			27.5	
4	East Wall	Fiber Cement Siding Wall-Metal Frame, R-19 Insulation	35.80	9.00	1	322.2	West	0.0514	0.682	9.99	19.5	
In Z	Zone: 4UT3-	·N										
1	East Wall	Wall-Metal Frame,	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	П
		R-19 Insulation										
2	North Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	42.65	9.00	1	383.9	South	0.0364			27.5	
3	West Wall	Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	East	0.0364			27.5	
4	South Wall	Fiber Cement Siding Wall-Exterior, Frame	42.80	9.00	1	385.2	North	0.0364			27.5	
5	Northeast Wall	R-20 insulation, Fiber Cement Siding	4.00	0.00	1	26.0	C41-	0.0264			27.5	
5	Northeast Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	South West	0.0364			27.5	
In 7	Zone: 23UT											
1	East Wall	Wall-Metal Frame, R-19 Insulation	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
2	North Wall	Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	South	0.0364			27.5	
3	West Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	East	0.0364			27.5	
4	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	North	0.0364			27.5	
5	Northeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	South West	0.0364			27.5	
I., 7	Zone: 23UTZ	Fiber Cement Siding										
111 Z	North Wall	Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	South	0.0364			27.5	
2	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	North	0.0364			27.5	
3	Northeast Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	South West	0.0364			27.5	
In 7	Zone: 23UTZ											
1	North Wall	Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	32.38	9.00	1	291.4	South	0.0364			27.5	
2	East Wall	Wall-Exterior, Frame R-20 insulation,	3.00	9.00	1	27.0	South	0.0364			27.5	
3	Pr0Zo6Wa3	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	16.00	9.00	1	144.0	South East	0.0364			27.5	
4	Southwest Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	33.20	9.00	1	298.8	North East	0.0364			27.5	
5	South Wall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	21.10	9.00	1	189.9	North	0.0364			27.5	
_	_	Fiber Cement Siding										
In Z	Zone: 23UT	2.1W										

1	East Wall	Wall-Exterior, Frame	32.38	9.00	1	291.4	West	0.0364			27.5	
		R-20 insulation,										
•	F . W. II	Fiber Cement Siding		0.00				0.0264			25.5	
2	East Wall	Wall-Exterior, Frame	3.00	9.00	1	27.0	West	0.0364			27.5	Ш
		R-20 insulation,										
2	N1 W. 11	Fiber Cement Siding	16.00	0.00		1440	G .1	0.0264			27.5	_
3	Northeast Wall	Wall-Exterior, Frame	16.00	9.00	1	144.0	South	0.0364			27.5	Ш
		R-20 insulation,					West					
4	Southeast Wall	Fiber Cement Siding	22.20	0.00		200.0	NT d	0.0264			27.5	
4	Southeast wall	Wall-Exterior, Frame R-20 insulation.	33.20	9.00	1	298.8	North	0.0364			27.5	ш
		Fiber Cement Siding					West					
5	West Wall	Wall-Exterior, Frame	21.10	9.00	1	189.9	North	0.0364			27.5	
3	west wan	R-20 insulation,	21.10	9.00	1	189.9	North	0.0304			21.3	ш
		Fiber Cement Siding										
In Z	Zone: 23UT2-I-V											
111 22	West Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	East	0.0364			27.5	
1	west wan	R-20 insulation,	34.00	9.00	1	300.0	East	0.0304			21.3	ш
		Fiber Cement Siding										
2	East Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	West	0.0364			27.5	
-	East Wall	R-20 insulation,	34.00	7.00	1	300.0	West	0.0501			27.5	
		Fiber Cement Siding										
3	Southeast Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	North	0.0364			27.5	
		R-20 insulation,					West					
		Fiber Cement Siding										
In Z	Zone: 23UT1-I-S											
1	South Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	North	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										
2	East Wall	Wall-Exterior, Frame	34.00	9.00	1	306.0	West	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										
3	Southeast Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	North	0.0364			27.5	Ш
		R-20 insulation,					West					
		Fiber Cement Siding										
	Zone: 23UT3-E											_
1	South Wall	Wall-Metal Frame,	35.80	9.00	1	322.2	North	0.0514	0.682	9.99	19.5	Ш
_		R-19 Insulation										_
2	West Wall	Wall-Exterior, Frame	42.65	9.00	1	383.9	East	0.0364			27.5	Ш
		R-20 insulation,										
2	337 4337 11	Fiber Cement Siding	5.20	0.00		47.7	G .1	0.0264			27.5	
3	West Wall	Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	South	0.0364			27.5	ш
4	East Wall	Fiber Cement Siding Wall-Exterior, Frame	42.00	9.00	1	205.2	W4	0.0364			27.5	
4	East Wall	R-20 insulation,	42.80	9.00	1	385.2	West	0.0304			21.3	ш
		Fiber Cement Siding										
5	Southwest Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	North	0.0364			27.5	
3	Southwest wan	R-20 insulation,	4.00	9.00	1	30.0	East	0.0304			21.3	ш
		Fiber Cement Siding					Last					
In Z	Zone: 23UT3-W	Their Cement Blaing										
111 22	Northeast Wall	Wall-Exterior, Frame	4.00	9.00	1	36.0	South	0.0364			27.5	П
•		R-20 insulation,	1.00	2.00	1	20.0	West	0.0501			27.5	
		Fiber Cement Siding					.,,,,,,					
2	West Wall	Wall-Exterior, Frame	42.80	9.00	1	385.2	East	0.0364			27.5	
		R-20 insulation,			-							
		Fiber Cement Siding										
3	South Wall	Wall-Exterior, Frame	5.30	9.00	1	47.7	North	0.0364			27.5	
		R-20 insulation,										-
		Fiber Cement Siding										
4	East Wall	Wall-Exterior, Frame	42.65	9.00	1	383.9	West	0.0364			27.5	
		R-20 insulation,										
		Fiber Cement Siding										

5	North Wall		Wall-Metal Frame,	35.80	9.00	1	322.2	South	0.0514	0.682	9.99	19.5	
			R-19 Insulation										
In Z		23UT1-I-S											
1	South Wall		Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	North	0.0364			27.5	
2	North Wall		Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	South	0.0364			27.5	
3	Southeast W	all	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	North West	0.0364			27.5	
In 7 .	one:	23 UT2.2	Tiber cement blumg										
1	North Wall	23 0 12.2	Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	South	0.0364			27.5	
2	Northwest W	Vall	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	14.00	9.00	1	126.0	South East	0.0364			27.5	
3	West Wall		Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	37.00	9.00	1	333.0	East	0.0364			27.5	
4	East Wall		Fiber Cement Siding Wall-Exterior, Frame	8.00	9.00	1	72.0	West	0.0364			27.5	
5	Southeast W	all	R-20 insulation, Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	11.80	9.00	1	106.2	North West	0.0364			27.5	
6	South Wall		Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	8.00	9.00	1	72.0	North	0.0364			27.5	
			Fiber Cement Siding										
In Z	one:	23UT1-I-N	Č										
1	North Wall		Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	South	0.0364			27.5	
2	South Wall		Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	34.00	9.00	1	306.0	North	0.0364			27.5	
3	Southeast W	all	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	4.00	9.00	1	36.0	North West	0.0364			27.5	
- 7		2211T2 N	Fiber Cement Siding										
	one: East Wall	23UT3-N	Wall Matal Frama	25.00	9.00	1	222.2	C4l-	0.0514	0.682	9.99	10.5	г
1	East Wall		Wall-Metal Frame, R-19 Insulation	35.80	9.00	1	322.2	South	0.0514	0.082	9.99	19.5	
2	North Wall		Wall-Exterior, Frame R-20 insulation,	42.65	9.00	1	383.9	South	0.0364			27.5	
3	West Wall		Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	5.30	9.00	1	47.7	East	0.0364			27.5	
4	South Wall		Fiber Cement Siding Wall-Exterior, Frame R-20 insulation,	42.80	9.00	1	385.2	North	0.0364			27.5	
5	Northeast W	all	Fiber Cement Siding Wall-Exterior, Frame R-20 insulation, Fiber Cement Siding	4.00	9.00	1	36.0	South West	0.0364			27.5	

No	Description	Orientation	Shaded	U [Btu/hr sf F]	SHGC	Vis.Tra	W [ft]	H (Effec) [ft]	Multi plier	Total Area [sf]	
In Zo	one: 1UT1-I-N n Wall: S-W										
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2 In Z o	French Doors one: 1UT1-I-S	North	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
1	n Wall: S-W Double A Type	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	Window French Doors	North	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	Г
In Zo	n Wall: N-W										
1	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	L
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
3	Double A Type Window n Wall: NW-W	South	Yes	0.6500	0.33	0.76	2.70	3.70	2	20.0	
1	Double A Type Window	SouthEast	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
In Zo											
1	Double A Type Window	SouthWest	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	n Wall: W-W	.	*7	0.6500	0.22	0.76	c 1 c	7 00		20.0	_
1	Double A Type Window	East	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	L
2	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	L
3	Single C Type Window	East	Yes	0.6500	0.33	0.76	3.00	5.00	1	15.0	
In Zo	one: 1UT2.2 n Wall: E-W										
1	Double A Type Window	West	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
1	n Wall: SE-W French Doors n Wall: S-W	NorthWest	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
In Zo											
1	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
In Zo	ne: 1UT2-I-S n Wall: N-W										
1	Pr0Zo3Wa5Wi1	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	Ī

In Zo	ne: 1UT2-I-W										
Iı	n Wall: W-W										
1	Double A Type	East	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	Window	F .	37	0.6500	0.22	0.76	6.00	7.00		42.0	
2	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	ne: 1UT3-E										
1	Wall: S-W Single D Type	North	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
1	Window	North	168	0.0300	0.55	0.70	2.33	4.90	1	11.0	<u> </u>
2	Double A Type	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										
Iı	n Wall: W-W										
1	Double A Window	East	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	ne: 1UT3-N										_
Iı	n Wall: E-W										_
1	Single D Type	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	L
2	Window	0 4	37	0.6500	0.22	0.76	6.16	5.00		20.0	_
2	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
T,	window										
1	Double A Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	H
In Zo		South	103	0.0300	0.55	0.70	0.00	7.00	1	72.0	
	ne. 1013-3 n Wall: E-W										
1	Single D Type	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	Г
	Window										<u> </u>
3	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										
	n Wall: N-W										_
1	Double A Window		Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	ne: 1UT3-W										
	n Wall: E-W	Wast	V	0.6500	0.22	0.76	6.16	5.00	2	61.6	
1	Double A Window		Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	West	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	n Wall: N-W	Court	V	0.6500	0.22	0.76	2 22	1.06	1	11 6	_
1	Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
2	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
_	Window	South	103	0.0500	0.33	0.70	0.10	3.00	1	30.0	<u> </u>
In Zo											
	n Wall: E-W										
1	Double A Type	West	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										
	wall: SE-W	NT 4 777 .	X 7	0.6500	0.22	0.76	6.00	7.00		42.0	-
1	French Doors	NorthWest	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	n Wall: S-W	Nouth	V	0.6500	0.22	0.76	C 16	5.00	1	20.0	_
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
In Zo	ne: 23UT1-I-N										
	n Wall: N-W										
1	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										_
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	

	one: 23UT1-I-S In Wall: S-W										
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	French Doors	North	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	French Doors	North	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	П
	one: 23UT2.1S In Wall: N-W										
1	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	French Doors In Wall: NW-W	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
1	Double A Type Window	SouthEast	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
In Z	one: 23UT2.1W										
1	In Wall: E-W Double A Type	West	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	Window French Doors	West	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
3	Single C Type	West	Yes	0.6500	0.33	0.76	3.00	5.00	1	15.0	
	Window In Wall: NE-W	West	103	0.0500	0.55	0.70	3.00	3.00	1	13.0	Ш
1	Double A Type Window	SouthWest	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	one: 23UT2-I-S										
1	In Wall: N-W Pr0Zo3Wa5Wi1	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	one: 23UT2-I-W In Wall: W-W										
1	Double A Type Window	East	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	one: 23UT3-E										
1	In Wall: S-W Single D Type Window	North	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
2	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
]	In Wall: W-W										
1	Double A Window	East	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
In Z											
1	In Wall: E-W Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
2	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
1	Window In Wall: N-W										
1	Double A Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	

In Zo											
	In Wall: E-W										
1	Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	Ш
2	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
]	In Wall: N-W										
1	Double A Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	П
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	Ħ
In Za	one: 23UT3-W										
	In Wall: E-W										
1	Double A Window	West	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	West	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	ĦI
1	In Wall: N-W										
1	Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
2	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
In Zo											
	In Wall: S-W										
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	French Doors	North	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	one: 4UT1-I-S	TVOTUI	105	0.0500	0.55	0.70	0.00	7.00	1	12.0	ш
	In Wall: S-W										
1	Double A Type Window	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
2	French Doors	North	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	one: 4UT2.1S	North	103	0.0300	0.55	0.70	0.00	7.00	1	72.0	Ш
	In Wall: N-W										
1	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
3	Double A Type	South	Yes	0.6500	0.33	0.76	2.70	3.70	2	20.0	H
	Window	Soun	168	0.0300	0.55	0.70	2.70	3.70	2	20.0	Ш
] J	In Wall: NW-W	CouthFoot	Vac	0.6500	0.22	0.76	6 16	5.00	1	20.9	
1	Double A Type	SouthEast	Yes	0.6300	0.33	0.76	6.16	5.00	1	30.8	Ш
In Zo	Window one: 4UT2.1-S										
	In Wall: N-W										
1	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	П
	Window	50441	100	0.0200	0.00	0.70	0.10	2.00	_	0110	ш
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
3	Double A Type	South	Yes	0.6500	0.33	0.76	2.70	3.70	2	20.0	H
	Window				'	: - -					니
]]	In Wall: NW-W										
1	Double A Type	SouthEast	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										-
	one: 4UT2.2										
	In Wall: E-W	XX	37	0.6500	0.22	0.76	C 1 C	5.00		20.0	
1	Double A Type	West	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	\sqcup
	Window										
1	In Wall: SE-W French Doors	NorthWest	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
		1 TOT HI WEST	108	0.0500	0.55	0.70	0.00	7.00	1	72.0	니
1	In Wall: S-W Double A Type	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window	NOILII	108	0.0300	0.55	0.70	0.10	5.00	1	50.0	Ш

In Zo											
	n Wall: E-W	West	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
1	Single D Type Window	west	res	0.6300	0.33	0.76	2.33	4.96	1	11.0	Ш
2	Double A Type	West	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
_	Window	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100	0.000	0.00	0.70	0.10	2.00	-	20.0	
I	n Wall: N-W										
1	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
_	Window	G 1	***	0.6700	0.00	0.56	6.00	7 00		40.0	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	<u> </u>
3	Double A Type	South	Yes	0.6500	0.33	0.76	2.70	3.70	2	20.0	
70	Window one: 4UT2-I-S										
	n Wall: N-W										
1	Pr0Zo3Wa5Wi1	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	F
Zo	ne: 4UT2-I-W										Ь
	n Wall: W-W										
1	Double A Type	East	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
_	Window	_		0.6700						4- 0	_
2_	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	ne: 4UT3-E										
1 1	n Wall: S-W Single D Type	North	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
1	Window	North	168	0.0300	0.55	0.70	2.33	4.90	1	11.0	
2	Double A Type	North	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										<u> </u>
I	n Wall: W-W										
1	Double A Window	East	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	L
2	French Doors	East	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
	ne: 4UT3-N										
	n Wall: E-W	G 4	X 7	0.6500	0.22	0.76	2.22	1.06	4	11.6	_
1	Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	L
2	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
_	Window	South	103	0.0500	0.55	0.70	0.10	3.00	1	30.0	
I	n Wall: N-W										
1	Double A Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
Zo	ne: 4UT3-S										
	n Wall: E-W										
1	Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
2	Double A Type	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	
	Window										
	n Wall: N-W	G 4	**	0.6700	0.22	0.54		F 00			_
1	Double A Window		Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	L
2	French Doors	South	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	L

In Zo	one: 4UT3-W In Wall: E-W										
1	Double A Window	West	Yes	0.6500	0.33	0.76	6.16	5.00	2	61.6	
2	French Doors	West	Yes	0.6500	0.33	0.76	6.00	7.00	1	42.0	
1 1	In Wall: N-W Single D Type Window	South	Yes	0.6500	0.33	0.76	2.33	4.96	1	11.6	
2	Double A Type Window	South	Yes	0.6500	0.33	0.76	6.16	5.00	1	30.8	

					Doors							
No	Description	Туре	Shade?	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/h.sf.F]	Dens.		sf. [h	R a.sf.F/ Btu]
In Zone	e: 1UT3-S											
1	In Wall: S-W Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	e: 1UT2-I-S In Wall: S-W											
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	e: 1UT2.1S In Wall: S-W Pr0Zo6Wa5Dr1	Door, Polystyrene	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone		core (18 ga steel) 1										
1	In Wall: E-W Pr0Zo7Wa5Dr1	Door, Polystyrene	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone		core (18 ga steel) 1										
1	In Wall: E-W Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	In Wall: N-W											
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	Ш
In Zone	e: 1UT3-E In Wall: E-W Pr0Zo3Wa8Dr1	Door, Polystyrene	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	In Wall: W-W	core (18 ga steel) 1										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	Ш
In Zone	e: 1UT2-I-N In Wall: S-W Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	e: 1UT1-I-N In Wall: N-W Pr0Zo3Wa8Dr1	Door, Polystyrene	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone		core (18 ga steel) 1	110	2.00		-		002	3.00	0.00	2.01	
1	In Wall: S-W Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	e: 4UT3-S In Wall: S-W	(8- 000)										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	
In Zone	e: 4UT2-I-S In Wall: S-W	5010 (10 ga 51001) 1										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01	

In Zone: 4UT2.1S										
In Wall: S-W 1 Pr0Zo6Wa5Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT2-I-W										
In Wall: E-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT1-I-S	, and a great ,									
In Wall: N-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT3-E	core (18 ga steel) 1									
In Wall: E-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT3-W	eere (10 ga steer) 1									
In Wall: W-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT2.1-S	core (16 ga sicer) 1									
In Wall: S-W 1 Pr0Zo6Wa5Dr1	Door, Polystyrene	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT1-I-N	core (18 ga steel) 1									
In Wall: N-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT2-I-N In Wall: S-W	core (10 ga steer) 1									
1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 4UT3-N In Wall: S-W										
1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT3-S	, ,									
In Wall: S-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT2-I-S	, ,									
In Wall: S-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT2.1S										
In Wall: S-W 1 Pr0Zo6Wa5Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT2.1W	, ,									
In Wall: W-W 1 Pr0Zo7Wa5Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT2-I-W	core (10 ga steer) 1									
In Wall: E-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT1-I-S	(- 6) 1									
In Wall: E-W 1 Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone: 23UT3-E In Wall: E-W	(-0 80 0000) 1									

1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone	e: 23UT3-W										
	In Wall: W-W										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone	e: 23UT1-I-S										
	In Wall: N-W										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone	e: 23UT1-I-N										
	In Wall: S-W										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01
In Zone	e: 23UT3-N										
	In Wall: S-W										
1	Pr0Zo3Wa8Dr1	Door, Polystyrene core (18 ga steel) 1	No	3.00	7.00	1	21.0	0.4982	0.00	0.00	2.01

				Ro	ofs							
No	Description	Туре	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Tilt [deg]	Cond. [Btu/h.Sf. F]		t Cap Dens. /sf. F] [lb/cf]		
In Zo												
1	Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1376.00	1	1376.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT2-I-S Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1100.00	1	1100.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT2.1S Pr0Zo6Rf1	Ceiling, Partition R-19	1.00	1131.00	1	1131.0	0.00	0.0296	11.51	25.48	33.8	
In Zo i		Roof, Built up roofing w/ R-19 insulation	1.00	1100.00	1	1100.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT1-I-S Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	763.00	1	763.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i 1	ne: 4UT3-E Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1376.00	1	1376.0	0.00	0.0517	0.79	5.19	19.3	
In Z oi	ne: 4UT3-W Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1376.00	1	1376.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT2.1-S Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1131.00	1	1131.0	0.00	0.0517	0.79	5.19	19.3	
I n Zo i	ne: 4UT2.2 Pr0Zo13Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1491.00	1	1491.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT1-I-N Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	763.00	1	763.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT2-I-N Pr0Zo3Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	1100.00	1	1100.0	0.00	0.0517	0.79	5.19	19.3	
In Zo i	ne: 4UT3-N Pr0Zo6Rf1	Ceiling, Partition R-19	1.00	1376.00	1	1376.0	0.00	0.0296	11.51	25.48	33.8	П
	ne: EER Pr0Zo40Rf1	Roof, Built up roofing w/ R-19 insulation	1.00	51.00	1	51.0	0.00		0.79	5.19	19.3	

Skylights											
No Description	Туре	U [Btu/hr sf F]	SHGC	Vis.Trans	W [ft]	H (Effec) [ft]	Multi- plier	Area [Sf]	Total Area [Sf]	_	
In Zone: In Roof:]		

				Floor	S					
No	Description	Туре	Width [ft]	H (Effec) [ft]	Multi plier	Area [sf]	Cond. [Btu/h.sf.F	Heat Cap. [Btu/sf. F]		
In Zone	: 1UT3-S									_
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1376.00	1	1376.0	0.4000	34.00	113.33	2.50
In Zone		C								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1100.00	1	1100.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT2.1S									
1	Pr0Zo6Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1131.00	1	1131.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT2.1W	noor covering								
1	Pr0Zo6Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1131.00	1	1131.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT2-I-W	noor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1100.00	1	1100.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT1-I-S	noor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	763.00	1	763.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT3-E									
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1376.00	1	1376.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT3-W	noor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1376.00	1	1376.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT2.2	noor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	1491.00	1	1491.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT2-I-N	noor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any	1.00	1100.00	1	1100.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT1-I-N	floor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any	1.00	763.00	1	763.0	0.4000	34.00	113.33	2.50
In Zone	: 1UT3-N	floor covering								
1	Pr0Zo3Fl1	Floor, 1 ft. soil, concrete floor, any	1.00	1376.00	1	1376.0	0.4000	34.00	113.33	2.50
In Zone	: TC1	floor covering								
1	Pr0Zo41Fl1	Floor, 1 ft. soil, concrete floor, any floor covering	1.00	27.00	1	27.0	0.4000	34.00	113.33	2.50

In Zone: TC2

1 Pr0Zo43Fl1 Floor, 1 ft. soil, 1.00 16.00 1 16.0 0.4000 34.00 113.33 2.50 ☐ concrete floor, any floor covering

		Syste	ems				
AHU1	AHU 1		Constant Volume Air Cooled Split System < 65000 Btu/hr				
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	17200.00	14.00	8.00			
2	Heating System	17200.00	8.50				
3	Air Handling System -Supply	600.00	0.50				
4	Air Distribution System (Sup)		6.00				
5	Air Distribution System (Ret)		6.00				
AHU2	AHU 2		astant Volume Ai t System < 6500		No. Of Units		
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	17200.00	14.00	8.00			
2	Heating System	17200.00	8.50				
3	Air Handling System -Supply	600.00	0.50				
4	Air Distribution System (Sup)		6.00				
5	Air Distribution System (Ret)		6.00				
AHU3	AHU 3		stant Volume Ai it System < 6500		No. Of Units		
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	22800.00	14.00	8.00			
2	Heating System	23200.00	8.50				
3	Air Handling System -Supply	800.00	0.50				
4	Air Distribution System (Sup)		6.00				
5	Air Distribution System (Ret)		6.00				
AH-10	AH-10	Vari Syst	iable refrigerant tem	Flow	No. Of Units		
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	24000.00	17.00	8.00			
2	Heating System	26000.00	3.00				
3	Air Handling System -Supply	775.00	0.40				
AH11	АН-11		astant Volume Ai t System < 6500		No. Of Units		
Component	Category	Capacity	Efficiency	IPLV			
1	Cooling System	9000.00	16.00	8.00			
2	Heating System	10000.00	1.00				
3	Air Handling System -Supply	300.00	0.40				

Equipment Category Size Inst.NcEff. IPLV									
W-Heater Description Capacity Cap.Unit I/P Rt. Efficiency Loss 1 Electric Storage water heater 38 [Gal] 5 [kW] 0.9200 [Ef] [Btu/h] [Ext-Lighting Description Category No. of Luminaires No. of Luminaires Area/Len/No Type [W] 1 Ext Light 1 Other (doors) than main entries 64 15 192.00 Photo Sensor control #####			Plan	t					
W-Heater Description Capacity Cap.Unit I/P Rt. Efficiency Loss 1 Electric Storage water heater 38 [Gal] 5 [kW] 0.9200 [Ef] [Btu/h] Ext-Lighting	Equipment	Category		Size		Inst.NÆff.		IPLV	
W-Heater Description Capacity Cap.Unit I/P Rt. Efficiency Loss 1 Electric Storage water heater 38 [Gal] 5 [kW] 0.9200 [Ef] [Btu/h] Ext-Lighting									
Ext-Lighting Ext-Lighting Ext-Lighting Ext-Lighting			V	Vater H	leaters	5	Control Type		
Description Category No. of Lumin- Lumin- Indicate Lumin- Indicate Lumin- Indicate Lumin- Indicate Indicate Lumin- Indicate Indicate	W-Heater Description	Capacity	Cap.Unit	I/P Rt.		Efficiency	Loss [Btu/h] Control Wattag Type [W] hoto Sensor contro ###	oss	
Description Category No. of Luminaires Luminaires 1 Ext Light 1 Other (doors) than main entries No. of Luminaires No. of Luminaires Luminaires Area/Len/No Control Wattage [sf/ft/No] Type [W] 1 15 192.00 Photo Sensor control **** **** *** *** *** *** *** *** ***	1 Electric Storage water heater	38 [Gal]		5 [kW]]	0.9200 [Ef]		[Btu/h]	
Luminaires Luminaire [sf/ft/No] Type [W] 1 Ext Light 1 Other (doors) than main entries 64 15 192.00 Photo Sensor control ######			Ext-l	ightin	g				
entries	Description	Category		Lumin-	Lumin-			_	
Piping	2		nain	64	15	192.00 Pho	oto Sensor con	ntrc	‡ <u> </u>
			P	iping					
No Type Temp Conductivity Diameter Thickness Runor	No Type	Te	emp	Conducti	ivity	Diameter	Thickness		
1 Domestic and Service Hot Water 110.00 0.28 0.50 1.00 No Systems		Hot Water	110.00	0.2	8	0.50	1.00	No	

		Fenes	stration Used	1		
Name	Glass Type	No. of Panes	Glass Conductance [Btu/h.sf.F]	SHGC	VLT	
Double Pane Glass	User Defined	2	0.6500	0.3300	0.7600	

		Mat	erials	Used				
Mat No	Acronym	Description	Only R-Value Used	RValue [h.sf.F/Btu]	Thick [ft]	Cond- uctivity [Btu/h.ft.F	Density [lb/cf]	Sp. Heat [Btu/lb.F]
264	Matl264	ALUMINUM, 1/16 IN	No	0.0002	0.0050	26.0000	480.00	0.1000
187	Matl187	GYP OR PLAS BOARD,1/2IN	No	0.4533	0.0417	0.0920	50.00	0.2000
265	Matl265	Soil, 1 ft	No	2.0000	1.0000	0.5000	100.00	0.2000
48	Matl48	6 in. Heavyweight concrete	No	0.5000	0.5000	1.0000	140.00	0.2000
284	Matl284	Polystyrene core (18 ga steel)	Yes	2.0071				
94	Matl94	BUILT-UP ROOFING, 3/8IN	No	0.3366	0.0313	0.0930	70.00	0.3500
407	Matl407	R-19 Generic Insulation	No	19.0000	0.4147	0.0218	0.30	0.2000
245	Matl245	PLYWOOD, 5/8IN	No	9.4697	0.6250	0.0660	34.00	0.2900
1002	ApLbMat1002	BUILDING WRAP	Yes	0.0600				
1022	ApLbMat1022	Fiber Cement Siding	Yes	0.5000				
1023	ApLbMat1023	R-20 Generic Insulation	No	19.0229	0.4147	0.0218	0.30	0.2000
1024	ApLbMat1024	4 in. Wood	No	4.7571	0.3330	0.0700	37.00	0.3900
1025	ApLbMat1025	2x6 Wood	No	6.5429	0.4580	0.0700	37.00	0.3900
1026	ApLbMat1026	GYP OR PLAS BOARD,5/8IN	No	0.5663	0.0521	0.0920	50.00	0.2000

			(Constr	ucts Us	sed				
No	Name			Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]		
1003	Ceiling, Partition	n R-19		No	No	0.03	11.51	25.48	RValue [h.sf.F/Bt 2.5 RValue [h.sf.F/Bt 2.0	
	Layer	Material No.	Material			Thick		Framing Factor		
	1	245	PLYWOO	D, 5/8IN		0.625	60	0.000		
	2	407	R-19 Gene	eric Insulation	n	0.414	7	0.000		
	3	1024	4 in. Wood	i		0.333	0	0.000		
	4	1026	GYP OR I	PLAS BOAR	D,5/8IN	0.052	21	0.000		
No	Name			Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]		
1005	Floor, 1 ft. soil, floor covering	concrete floo	or, any	No	No	0.40	34.00	113.33	2.5	
	Layer	Material No.	Material			Thick: [ft]		Framing Factor		
	1	265	Soil, 1 ft			1.000	00	0.000		
	2	48	6 in. Heav	yweight conc	erete	0.500	00	0.000		
No	Name			Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]		
1033	Door, Polystyres	ne core (18 g	a steel)	No	Yes	0.50		25.48 Framing Factor	2.0	
	Layer	Material No.	Material			Thick [ft]		_		
	1	284	Polystyren	e core (18 ga	steel) 1			0.000	RValue [h.sf.F/Bt] 2.5 RValue [h.sf.F/Bt] 2.0	
No	Name			Simple Construct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	•		
1076	Wall-Metal Fran	ne, R-19 Inst	ılation	No	No	0.05	0.68	9.99	19.5	
	Layer	Material No.	Material			Thick				
	1	264	ALUMIN	UM, 1/16 IN		0.005	60	0.000		
	2	407	R-19 Gene	eric Insulation	n	0.414	7	0.000		
	3	187	GYP OR I	PLAS BOAR	D,1/2IN	0.041	.7	0.000		

No	Name			Simple onstruct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]		
1084	Roof, Built up reinsulation	oofing w/ R-	19	No	No	0.05	0.79	5.19	19.3	
	Layer	Material No.	Material			Thickr [ft]		Framing Factor		
	1	94	BUILT-UP RO	OOFING,	3/8IN	0.031	3	0.000		
	2	407	R-19 Generic	Insulation	n	0.414	7	0.000		
No	Name			Simple onstruct	Massless Construct	Conductance [Btu/h.sf.F]	Heat Cap [Btu/sf.F]	Density [lb/cf]		
1096	Wall-Exterior, Finsulation, Fiber		ing	No	Yes	0.04			RValue [h.sf.F/Btu] 27.5	
	Layer	Material No.	Material			Thickr [ft]		Framing Factor		
	1	1022	Fiber Cement	Siding				0.000		
	2	1002	BUILDING V	VRAP				0.000		
	3	245	PLYWOOD,	5/8IN		0.052	1	0.000		
			D 20 C	Insulation	1	0.414	7	0.000		
	4	1023	R-20 Generic	msuration	-					
	4 5	1023 1025	2x6 Wood	msulation	-	0.458	0	0.000		