MEASURE 7: ENERGY FLOWS AND ENERGY FUTURE

Total EUI (kBtu/sf/yr)
Total energy use by the facility including energy purchased from utilities and provided by on-site renewable sources.

- Per T24 UTIL-1R form (last sheet in the attachment I emailed), site energy data (proposed building):
  - CFA= 46,320 sf
  - natural gas= 5217 therms= 521,700 kBTU
  - electricity= 216,712- 75,884 (plug)- 84,988 (ltg)= 55,840 kWh= 190,526 kBTU
  - TOTAL = 712,226 kBTU/ 46,320 SF= 15.38 kBTU/sf/yr
  - --> *much lower the MF EUI= 50 per the table.*
  - ***Add back in ltg + plug loads:***
    - TOTAL= 1,261,121/ 46320= **27.2 kBTU/sf/yr = 46% reduction from 50**
  - **Note that the initial calc subtracted lighting & plug loads** to be consistent w/ modeling for lowrise, and to match how this is handled by green & incentives programs. But given how obviously low the resulting value was compared to baseline, I thought it best to add those nos. back in

Net EUI (kBtu/sf/yr)
Net purchased energy use (total energy use, less any energy generated on-site from renewable resources).

- [from SLP June '11]

  expected ANNUAL kWh power production with the modified PV system (modified by CO #1) is 7,866 + 38,925 = **46,791 kWh = 159,650 kBtu**

- **--> 159,650/ 1,261,121 = 12.7% reduction from total**
- **Net purchased= 1,101,471 kBtu/yr = 23.8 kBTU/sf/yr**

Percent Reduction from National Average EUI for Building Type
Use EPA's Target Finder to establish your baseline for percent reduction(window #3). If your building type isn't available in Target Finder, refer to AIA's 2030 Commitment Reporting Tool, available on the Call for Entries page, for national averages and alternate options.

- Multifamily 5 or more units: EUI= 50 kBTU/sf/yr
- See above: 27.2 kBTU/sf/yr = **46% reduction** from 50 **(or if using post-PV value of 23.8, 52% reduction)**

- **Lighting Power Density in (watts/sf)**
  Describe impact of lighting controls to be described in narrative
  - You may want to contact JG Engineers for input on this.
  - But, based on their elec. sheet E1.1 LTG-1C form (indoor lighting) worksheet:
    - installed watts= 9160, allowed= 14,904--> **39% reduction**
    - 21,047 sq.ft--> **.435W/sq.ft**
  - **NOTE** the above info only covers the non-res spaces (corridors, office, comm. room etc.) The units are covered under T24 mandatory measures.

Upload Energy Data Attachment
Options include: LEED EA Prerequisite 2 submittal, Title 24 report, or summary of energy modeling results **Remove all firm names from PDFs.**

- EnergySoft's Title 24 report (as revised for HMG/incentives program late 2010) attached

Beyond Efficiency Inc., Katy Hollbacher, P.E., Certified Passive House Consultant
LEED Homes Rater, GreenPoint Rater, Certified Energy Analyst
San Francisco Bay Area, CA | Jackson Hole, WY
Ph: 415.236.1333 | Cell: 415.999.1329 | Fax: 415.614.4545

BUILDING ENERGY ANALYSIS REPORT

PROJECT:

6th and Oak Street Apartments
609 Oak Street
Oakland, CA

Project Designer:

NAME REMOVED

Report Prepared by:

L. Chappell, CEPE R/NR
EnergySoft, LLC
1025 5th Street, Suite A
Novato, CA 94945
(415) 897-6400

Job Number:

09079

Date:

11/12/2010

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2008 Building Energy Efficiency Standards.

This program developed by EnergySoft, LLC – www.energysoft.com.

TABLE OF CONTENTS

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 1 of 3) PERF-1C

Project Name	Climate Zone	Total Cond. Floor Area	Addition Floor Area	Date
6th and Oak Street Apartments	*CA Climate Zone 03*	*46,320*	*n/a*	*11/12/2010*
Project Address: *609 Oak Street Oakland*				

GENERAL INFORMATION

Building Type:	☑ Nonresidential	☑ High-Rise Residential	☐ Hotel/Motel Guest Room
	☐ Relocatable - indicate	☐ specific climate zone	☐ all climates
Phase of Construction:	☑ New Construction	☐ Addition	☐ Alteration

STATEMENT OF COMPLIANCE

This certificate of compliance lists the building features and specifications needed to comply with Title 24, Parts 1 and 6 of the California Code of Regulations. This certificate applies only to a Building using the performance compliance approach.

The documentation author hereby certifies that the documentation is accurate and complete.

Documentation Author

Name	*L. Chappell, CEPE R/NR*	Signature	*Lou A. Chappell*
Company	*EnergySoft, LLC*	Date	*11/12/2010*
Address	*1025 5th Street, Suite A*	Phone	*(415) 897-6400*
City/State/Zip	*Novato, CA 94945*		

The Principal Designer hereby certifies that the proposed building design represented in this set of construction documents is consistent with the other compliance forms and worksheets, with the specifications, and with any other calculations submitted with this permit application. The proposed building has been designed to meet the energy efficiency requirements contained in sections 110, 116 through 118, and 140 through 149 of Title 24, Part 6. Please check one:

ENV.	LTG.	MECH.	
☐	☐	☐	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
☐	☐	☐	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
☐	☐	☐	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Principal Envelope Designer

Name		Signature	
Company		Date	
Address		License #	
City/State/Zip		Phone	

Principal Mechanical Designer

Name		Signature	
Company		Date	
Address		License #	
City/State/Zip ,		Phone	

Principal Lighting Designer

Name		Signature	
Company		Date	
Address		License #	
City/State/Zip ,		Phone	

INSTRUCTIONS TO APPLICANT COMPLIANCE & WORKSHEETS (check box if worksheets are included)

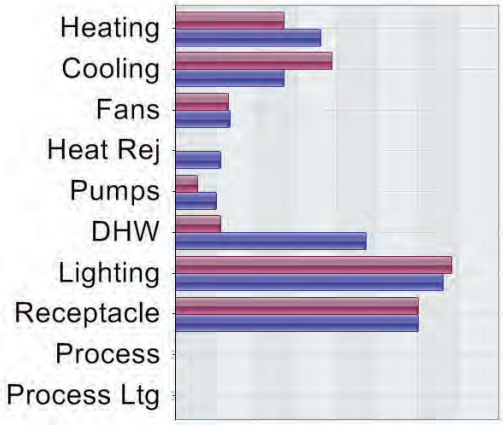
☑	ENV-1C	Certificate of Compliance. Required on plans.	☑	MECH-1C	Certificate of Compliance. Required on plans.
☑	LTG-1C	Certificate of Compliance. Required on plans.	☑	MECH-2C	Air/Water Side/Service Hot Water & Pool Requirements.
☑	LTG-2C	Lighting Controls Credit Worksheet.	☑	MECH-3C	Mechanical Ventilation and Reheat.
☐	LTG-3C	Indoor Lighting Power Allowance.	☑	MECH-5C	Mechanical Equipment Details.

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 2 of 3) PERF-1C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

ANNUAL TDV ENERGY USE SUMMARY (kBtu/sqft-yr)

Energy Component	Standard Design	Proposed Design	Compliance Margin
Space Heating	18.03	13.47	4.56
Space Cooling	13.48	19.41	-5.93
Indoor Fans	6.74	6.58	0.17
Heat Rejection	5.61	0.00	5.61
Pumps & Misc.	5.03	2.78	2.25
Domestic Hot Water	23.56	5.60	17.96
Lighting	33.14	34.21	-1.06
Receptacle	30.00	30.00	0.00
Process	0.00	0.00	0.00
Process Lighting	0.00	0.00	0.00
TOTALS	135.61	112.06	23.55
Percent better than Standard		17.4 %	(17.4 % excluding process)



BUILDING COMPLIES

GENERAL INFORMATION

Building Orientation	(SE) 150 deg	Conditioned Floor Area	46,320	sqft.
Number of Stories	6	Unconditioned Floor Area	0	sqft.
Number of Systems	150	Conditioned Footprint Area	9,702	sqft.
Number of Zones	34	Natural Gas Available On Site	Yes	

		Orientation	Gross Area		Glazing Area		Glazing Ratio
Front Elevation		(SE)	6,753	sqft.	2,451	sqft.	36.3 %
Left Elevation		(SW)	8,853	sqft.	3,910	sqft.	44.2 %
Rear Elevation		(NW)	6,030	sqft.	1,057	sqft.	17.5 %
Right Elevation		(NE)	8,893	sqft.	4,602	sqft.	51.7 %
	Total		30,530	sqft.	12,020	sqft.	39.4 %
Roof			8,989	sqft.	0	sqft.	0.0 %

	Standard		Proposed		
Prescriptive Lighting Power Density	0.798	W/sqft.	0.897	W/sqft.	Prescriptive Values for Comparison only. See LTG-1C for allowed LPD.
Prescriptive Envelope TDV Energy	1,206,402		1,194,085		

Remarks:

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 3 of 3) PERF-1C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)
FC-1.1, 1.2	L1 Commmunity Room	Convention/Conference/Mee	690	1.016	0.203			
FC-1.3	L1 Service Office	Office <= 250 sqft	144	1.292	0.258			
FC-2.1	L1 Management Office	Office > 250 sqft	541	0.817	0.069			
FC-2.2	L1 Conference Room	Convention/Conference/Mee	132	0.705	0.141			
FC-2.3	L1 Manager's Office	Office <= 250 sqft	242	0.769	0.154			
DS-1	Elevator Machine Room	Electrical, Mechanical Room	95	1.312				
L1 HP 1	L1 Entry Lobby	Lobby, Main Entry	528	1.515				
L1 HP 2	L1 Laundry	Laundry	282	0.830	0.166			
	L1 Unconditioned Area	Electrical, Mechanical Room	1,111	*0.700				
MU-1	L6 Corridor	Corridor/Restroom/Support	1,082	0.909	0.034			
	L5 Corridor	Corridor/Restroom/Support	1,082	0.909	0.034			
	L4 Corridor	Corridor/Restroom/Support	1,082	0.909	0.034			
	L3 Corridor	Corridor/Restroom/Support	1,082	0.909	0.034			
	L2 Corridor	Corridor/Restroom/Support	1,028	0.957	0.036			
L2 Wall Heater #201-214	L2 Room North Wing	High-Rise Residential Living	1,224	*0.500				
	L2 Room East Wing	High-Rise Residential Living	2,663	*0.500				
	L2 Room South Wing	High-Rise Residential Living	1,254	*0.500				
	L2 Room West Wing	High-Rise Residential Living	2,522	*0.500				
L3 Wall Heater #301-314	L3 BED North Wing	High-Rise Residential Living	1,224	*0.500				
	L3 BED East Wing	High-Rise Residential Living	2,665	*0.500				

Notes: 1. See LTG-1C (items marked with asterisk, see LTG-1-C by others) 2. See LTG-2C 3. See LTG-3C (by others) 4. See LTG-4C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justifications, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Multiple Dwelling Units are served by a common water heater. Verify DHW details.

Building has 70 Dwelling Units. This has been used in the Highrise Residential DHW calcs.

The DHW System Pennant Boiler B-1/B-2 includes a Solar Savings Fraction (73.0%) for solar thermal water heating as calculated from the equations in Re

The DHW System Pennant Boiler B-1/B-2 is a non-NAECA large storage gas water heater. Verify DHW details.

The HVAC System FC-2.2 includes Demand Control Ventilation per Standards Section 121.

The HVAC System MU-1 A Premium Efficiency 3.00 BHP Supply Fan Motor has been specified.

The Roof R-30 Metal Framed Reflectance = 0.61, Emittance = 0.85 shall be rated and labeled by the Cool Roof Rating Council in accordance with Section

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

PERFORMANCE CERTIFICATE OF COMPLIANCE (Part 3 of 3) PERF-1C

Project Name: *6th and Oak Street Apartments* | Date: *11/12/2010*

ZONE INFORMATION

System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf)[1]	Ctrl. Credits (W/sf)[2]	Allowed LPD Area (W/sf)[3]	Allowed LPD Tailored (W/sf)[4]	Proc. Loads (W/sf)
	L3 BED South Wing	*High-Rise Residential Living*	*1,252*	**0.500*				
	L3 BED West Wing	*High-Rise Residential Living*	*2,522*	**0.500*				
L4 Wall Heater #401-414	*L4 BED North Wing*	*High-Rise Residential Living*	*1,223*	**0.500*				
	L4 BED East Wing	*High-Rise Residential Living*	*2,662*	**0.500*				
	L4 BED South Wing	*High-Rise Residential Living*	*1,255*	**0.500*				
	L4 BED West Wing	*High-Rise Residential Living*	*2,522*	**0.500*				
L5 Wall Heater #501-514	*L5 BED North Wing*	*High-Rise Residential Living*	*1,224*	**0.500*				
	L5 BED East Wing	*High-Rise Residential Living*	*2,663*	**0.500*				
	L5 BED South Wing	*High-Rise Residential Living*	*1,254*	**0.500*				
	L5 BED West Wing	*High-Rise Residential Living*	*2,522*	**0.500*				
L6 Wall Heater #601-614	*L6 BED North Wing*	*High-Rise Residential Living*	*1,224*	**0.500*				
	L6 BED East Wing	*High-Rise Residential Living*	*2,662*	**0.500*				
	L6 BED South Wing	*High-Rise Residential Living*	*1,254*	**0.500*				
	L6 BED West Wing	*High-Rise Residential Living*	*2,522*	**0.500*				

Notes: 1. See LTG-1C (items marked with asterisk, see LTG-1-C by others) 2. See LTG-2C 3. See LTG-3C (by others) 4. See LTG-4C

Items above require special documentation

EXCEPTIONAL CONDITIONS COMPLIANCE CHECKLIST

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification to be used with the performance approach. The local enforcement agency determines the adequacy of the justifications, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

The exceptional features listed in this performance approach application have specifically been reviewed. Adequate written justification and documentation for their use have been provided by the applicant.

Authorized Signature or Stamp _____

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
1	*Wall*	*115*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
2	*Wall*	*53*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
3	*Wall*	*41*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
4	*Slab*	*690*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
5	*Slab*	*144*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
6	*Wall*	*88*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
7	*Wall*	*62*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
8	*Slab*	*421*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
1	*Window*	*4,351*	*(NE)*	*0.310*	*COG*	*0.380*	*COG*	☐	*New*	☐	☐
2	*Window*	*2,451*	*(SE)*	*0.310*	*COG*	*0.380*	*COG*	☐	*New*	☐	☐
3	*Window*	*3,862*	*(SW)*	*0.310*	*COG*	*0.380*	*COG*	☐	*New*	☐	☐
4	*Window*	*1,057*	*(NW)*	*0.310*	*COG*	*0.380*	*COG*	☐	*New*	☐	☐
5	*Window*	*25*	*(NE)*	*0.310*	*COG*	*0.380*	*COG*	☑	*New*	☐	☐
6	*Window*	*48*	*(SW)*	*0.310*	*COG*	*0.380*	*COG*	☑	*New*	☐	☐
7	*Window*	*75*	*(NE)*	*0.310*	*COG*	*0.380*	*COG*	☑	*New*	☐	☐
8	*Window*	*75*	*(NE)*	*0.310*	*COG*	*0.380*	*COG*	☑	*New*	☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
9	*Slab*	*120*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
10	*Wall*	*44*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
11	*Slab*	*132*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
12	*Wall*	*34*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
13	*Slab*	*242*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
14	*Slab*	*95*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
15	*Wall*	*117*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
16	*Wall*	*24*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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9	*Window*	*1*	*(NE)*	*0.310*	*COG*	*0.380*	*COG*	☑	*New*	☐	☐
10	*Window*	*75*	*(NE)*	*0.310*	*COG*	*0.380*	*COG*	☑	*New*	☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

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Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
17	*Slab*	*528*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
18	*Slab*	*170*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
19	*Wall*	*15*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
20	*Slab*	*112*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
21	*Slab*	*1,205*	*(N)*	*0.730*	*None*					*4.4.7-A1*	*New*	☐	☐
22	*Wall*	*32*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
23	*Wall*	*32*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
24	*Roof*	*1,327*	*(NW)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
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								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
25	*Wall*	*32*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
26	*Wall*	*32*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
27	*Wall*	*32*	*(NW)*	*0.063*	*R-13*	*6.0*	*None*			*4.3.1-A3*	*New*	☐	☐
28	*Wall*	*32*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
29	*Wall*	*32*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
30	*Wall*	*32*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
31	*Wall*	*32*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
32	*Wall*	*32*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
33	*Floor*	*575*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
34	*Wall*	*321*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
35	*Wall*	*56*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
36	*Wall*	*35*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
37	*Wall*	*134*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
38	*Floor*	*710*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
39	*Wall*	*305*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
40	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
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								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
41	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
42	*Wall*	*80*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
43	*Floor*	*514*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
44	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
45	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
46	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
47	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
48	*Wall*	*60*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
49	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
50	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
51	*Floor*	*578*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
52	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
53	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
54	*Floor*	*578*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
55	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
56	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
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								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

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☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
57	*Floor*	*578*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
58	*Wall*	*43*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
59	*Wall*	*143*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
60	*Wall*	*250*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
61	*Wall*	*65*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
62	*Wall*	*38*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
63	*Wall*	*208*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
64	*Wall*	*140*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

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☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
65	*Wall*	*30*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
66	*Wall*	*101*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
67	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
68	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
69	*Wall*	*101*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
70	*Wall*	*60*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
71	*Floor*	*605*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
72	*Wall*	*30*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

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Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

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Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
73	*Wall*	*93*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
74	*Wall*	*30*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
75	*Floor*	*496*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
76	*Wall*	*80*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
77	*Wall*	*103*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
78	*Wall*	*59*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
79	*Floor*	*604*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
80	*Wall*	*50*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
81	*Wall*	*103*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
82	*Wall*	*23*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
83	*Floor*	*605*	*(N)*	*0.084*	*R-8*	*1.0*	*None*			*4.4.6-A5*	*New*	☐	☐
84	*Wall*	*321*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
85	*Wall*	*134*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
86	*Wall*	*13*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
87	*Wall*	*56*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
88	*Wall*	*305*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
89	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
90	*Wall*	*110*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
91	*Wall*	*80*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
92	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
93	*Wall*	*60*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
94	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
95	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
96	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
97	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
98	*Wall*	*60*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
99	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
100	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
101	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
102	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
103	*Wall*	*13*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
104	*Wall*	*65*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
105	*Wall*	*250*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
106	*Wall*	*137*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
107	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
108	*Wall*	*41*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
109	*Wall*	*209*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
110	*Wall*	*30*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
111	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
112	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
113	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
114	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
115	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
116	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
117	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
118	*Wall*	*86*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
119	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
120	*Wall*	*118*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

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☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
121	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
122	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
123	*Wall*	*153*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
124	*Wall*	*321*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
125	*Wall*	*134*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
126	*Wall*	*13*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
127	*Wall*	*56*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
128	*Wall*	*305*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
129	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
130	*Wall*	*110*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
131	*Wall*	*80*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
132	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
133	*Wall*	*60*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
134	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
135	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
136	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
137	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
138	*Wall*	*60*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
139	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
140	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
141	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
142	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
143	*Wall*	*13*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
144	*Wall*	*65*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
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								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
145	*Wall*	*250*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
146	*Wall*	*137*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
147	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
148	*Wall*	*41*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
149	*Wall*	*209*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
150	*Wall*	*30*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
151	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
152	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
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1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
153	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
154	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
155	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
156	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
157	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
158	*Wall*	*86*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
159	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
160	*Wall*	*118*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
161	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
162	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
163	*Wall*	*153*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
164	*Wall*	*321*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
165	*Wall*	*134*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
166	*Wall*	*13*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
167	*Wall*	*56*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
168	*Wall*	*305*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
169	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
170	*Wall*	*110*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
171	*Wall*	*80*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
172	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
173	*Wall*	*60*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
174	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
175	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
176	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
177	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
178	*Wall*	*60*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
179	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
180	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
181	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
182	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
183	*Wall*	*13*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
184	*Wall*	*65*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
185	*Wall*	*250*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
186	*Wall*	*137*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
187	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
188	*Wall*	*41*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
189	*Wall*	*209*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
190	*Wall*	*30*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
191	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
192	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
193	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
194	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
195	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
196	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
197	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
198	*Wall*	*86*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
199	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
200	*Wall*	*118*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
201	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
202	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
203	*Wall*	*153*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
204	*Wall*	*321*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
205	*Wall*	*134*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
206	*Wall*	*13*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
207	*Wall*	*56*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
208	*Roof*	*710*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
209	*Wall*	*305*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
210	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
211	*Wall*	*110*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
212	*Wall*	*80*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
213	*Roof*	*514*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
214	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
215	*Wall*	*60*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
216	*Roof*	*532*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
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								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
217	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
218	*Wall*	*106*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
219	*Roof*	*532*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
220	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
221	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
222	*Wall*	*60*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
223	*Roof*	*532*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
224	*Wall*	*39*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

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☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
225	*Wall*	*108*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
226	*Roof*	*532*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
227	*Wall*	*38*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
228	*Wall*	*105*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
229	*Roof*	*532*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
230	*Wall*	*13*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
231	*Wall*	*65*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
232	*Wall*	*250*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

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FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
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CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

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☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
233	*Wall*	*137*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
234	*Roof*	*710*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
235	*Wall*	*39*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
236	*Wall*	*41*	*(NE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
237	*Wall*	*209*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
238	*Wall*	*30*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
239	*Roof*	*544*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
240	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
241	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
242	*Roof*	*517*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
243	*Wall*	*19*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
244	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
245	*Wall*	*116*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
246	*Roof*	*485*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
247	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
248	*Wall*	*40*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
249	*Wall*	*86*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
250	*Roof*	*431*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
251	*Wall*	*40*	*(NW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
252	*Wall*	*118*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
253	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
254	*Roof*	*521*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
255	*Wall*	*19*	*(SE)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
256	*Wall*	*153*	*(SW)*	*0.127*	*R-19*	*4.5*	*Metal*			*4.3.3-A7*	*New*	☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 1 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Project Address	Climate Zone	Total Cond. Floor Area	Addition Floor Area
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type: ☑ Nonresidential ☑ High-Rise Residential ☐ Hotel/Motel Guest Room

☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces

☐ Skylight Area for Large Enclosed Space ≥ 8000 ft^2 (If checked include the ENV-4C with submittal)

Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

Approach of Compliance: ☐ Component ☑ Overall Envelope ☐ Unconditioned (file affidavit)

Front Orientation: N, E, S, W or in Degrees: *150 deg*

FIELD INSPECTION ENERGY CHECKLIST

OPAQUE SURFACE DETAILS | **INSULATION**

Tag/ID[1]	Assembly Type[2]	Area (ft^2)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-Value	Exterior Furring[3]	Interior R-Value	Interior Furring[3]	Joint Appendix 4	Condition Status[4]	Pass	Fail[5]
257	*Roof*	*569*	*(N)*	*0.076*	*R-30*					*4.2.5-A14*	*New*	☐	☐
												☐	☐
												☐	☐
												☐	☐
												☐	☐
												☐	☐
												☐	☐
												☐	☐
												☐	☐
												☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail, then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. A fail does not meet compliance.

FENESTRATION SURFACE DETAILS

Tag/ID[1]	Fenestration Type[2]	Area (ft^2)	Orientation N, E, S, W	Max U-Factor	U-Factor Source[3]	Max (R)SHGC	SHGC Source[3]	Overhang	Conditions Status[4]	Pass	Fail[6]
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐
								☐		☐	☐

1. See Instructions in the Nonresidential Compliance Manual, page 3-96.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 2 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

ROOFING PRODUCT (COOL ROOFS)

(Note if the roofing product is not CRRC certified, this compliance approach cannot be used). Go to Overall Envelope Approach or Performance Approach.

CHECK APPLICABLE BOX BELOW IF EXEMPT FROM THE ROOFING PRODUCT "COOL ROOF" REQUIREMENTS:	Pass	Fail[1]	N/A
☐ Roofing compliance not required in Climate Zones 1 and16 with a Low-Sloped. 2:12 pitch or less.	☐	☐	☐
☐ Roofing compliance not required in Climate Zone 1 with a Steep-Sloped with less than 5 lb/ft^2. Greater than 2:12 pitch.	☐	☐	☐
☐ Low-sloped Wood framed roofs in Climate Zones 3 and 5 are exempted, solar reflectance and thermal emittance or SRI that have a U-factor of 0.039 or lower. See Opaque Surface Details roof assembly, Column H of ENV-2C.	☐	☐	☐
☐ Low-sloped Metal building roofs in Climate Zone 3 and 5 are exempted, solar relectance and thermal emittance or SRI that have a U-factor of 0.048 or lower. See Opaque Surface Details roof assembly below, Column H of ENV-2C.	☐	☐	☐
☐ The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels are exempted. Solar reflectance and thermal emittance or SRI, see spreadsheet calculator at www.energy.ca.gov/title24/	☐	☐	☐
☑ Roof constructions that have thermal mass over the roof membrane with a weight of at least 25 lb/ft^2 are exempt from the Cool Roof criteria below.	☐	☐	☐
☐ High-rise residential buildings and hotels and motels with low-sloped roofs in Climate Zones 1 through 9, 12 and 16 are exempted from the low-sloped roofing criteria.	☐	☐	☐

1. If Fail then describe on this page of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CRRC Product ID Number[1]	Roof Slope ≤ 2:12	Roof Slope > 2:12	Product Weight < 5lb/ft^2	Product Weight ≥ 5lb/ft^2	Product Type[2]	Aged Solar Reflectance[3]		Thermal Emmitance	SRI[5]	Pass	Fail[6]
R-30 Metal Framed	☑	☐	☐	☑		☐ [4]	*0.61*	*0.85*		☐	☐
	☐	☐	☐	☐		☐ [4]				☐	☐
	☐	☐	☐	☐		☐ [4]				☐	☐
	☐	☐	☐	☐		☐ [4]				☐	☐
	☐	☐	☐	☐		☐ [4]				☐	☐
	☐	☐	☐	☐		☐ [4]				☐	☐

1. The CRRC Product ID Number can be obtained from the Cool Roof Rating Council's Rated Product Directory at www.coolroofs.org/products/search.php
2. Indicate the type of product is being used for the roof top, i.e. single-ply roof, asphalt roof, metal roof, etc.
3. If the Aged Reflectance is not available in the Cool Roof Rating Council's Rated Product Directory then use the Initial Reflectance value from the same directory and use the equation $(0.2+0.7(\rho_{initial} - 0.2)$ to obtain a calculated aged value. Where **ρ** is the Initial Solar Reflectance from the Cool Roof Rating Council's Rated Product Directory.
4. Check box if the Aged Reflectance is a calculated value using the equation above.
5. The SRI value needs to be calculated from a spreadsheet calculator at http://www.energy.ca.gov/title24/
6. If Fail then describe on this page of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

To apply **Liquid Field Applied Coatings**, the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §118(i)4. Select the applicable coating:

☐ Aluminum-Pigmented Asphalt Roof Coating ☐ Cement-Based Roof Coating ☐ Other _____

Discrepancies:

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST

(Part 3 of 3) **ENV-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for Envelope Fenestrations system. The designer is required to check the acceptance tests and list all the fenestration products that require an acceptance test. If all the site-built fenestration of a certain type requires a test, list the different fenestration products and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately.

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or whenever new fenestration is installed in the building or space shall be certified as meeting the Acceptance Requirements.
The ENV-2A form is not considered a complete form and is not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the ENV-2A for each different fenestration product line must be provided to the owner of the building for their records.

Test Description		**ENV-2A**	**Test Performed By:**
Fenestration Products Name or ID Requiring Testing or Verification	Area of like Products	Building Envelope Acceptance Test	
PPG SOLARBAN 60 (2) Clear	*12,020*	☑	
		☐	
		☐	
		☐	
		☐	
		☐	
		☐	
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		☐	
		☐	

CERTIFICATE OF COMPLIANCE (Part 1 of 3) LTG-1C

Project Name: *6th and Oak Street Apartments* | Date: *11/12/2010*

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Installation Certificate, LTG-1- INST (Retain a copy and verify form is completed and signed.) **Field Inspector** ☐

Certificate of Acceptance, LTG-2A and LTG-3A (Retain a copy and verify form is completed and signed.) **Field Inspector** ☐

A separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces Installed Lighting Power listed on this Lighting Schedule is only for:

☑ **CONDITIONED SPACE** ☐ **UNCONDITIONED SPACE**

☑ The actual indoor lighting power listed below includes all installed permanent and portable lighting systems in accordance with §146(a).

☑ Only for offices: Up to the first 0.2 watts per square foot of portable lighting shall not be required to be included in the calculation of actual indoor lighting power density in accordance with the Exception to §146(a). All portable lighting in excess of 0.2 watts per square foot is totaled below.

	Luminaire (Type, Lamps, Ballasts)		Installed Watts					
A	B	C	D	E		F	G	H
				How wattage Was determined				Field Inspector[2]
None or Item Tag	Complete Luminaire Description[1] (i.e, 3 lamp fluorescent troffer, F32T8, one dimmable electronic ballasts)		Watts per Luminaire[1]	CEC Default From NA8	According To §130 (d or e)	Number of Luminaires	Installed Watts (D X F)	Pass / Fail
	A24		*62.0*	☑	☐	*2*	*124*	☐ ☐
A11	*A11*		*32.0*	☑	☐	*15*	*480*	☐ ☐
A12	*A12*		*32.0*	☑	☐	*14*	*448*	☐ ☐
A12A	*A12*		*32.0*	☑	☐	*20*	*640*	☐ ☐
A13	*A13*		*93.0*	☑	☐	*1*	*93*	☐ ☐
A14	*A14*		*93.0*	☑	☐	*9*	*837*	☐ ☐
A15	*A15*		*32.0*	☑	☐	*2*	*64*	☐ ☐
A16	*A16*		*32.0*	☑	☐	*30*	*960*	☐ ☐
A17	*A17*		*32.0*	☑	☐	*25*	*800*	☐ ☐
A24	*A24*		*62.0*	☑	☐	*20*	*1,240*	☐ ☐
A25	*A25*		*32.0*	☑	☐	*21*	*672*	☐ ☐
A26	*A26*		*32.0*	☑	☐	*1*	*32*	☐ ☐
A27	*A27*		*32.0*	☑	☐	*1*	*32*	☐ ☐
A29	*A29*		*32.0*	☑	☐	*1*	*32*	☐ ☐
A31	*A31*		*32.0*	☑	☐	*2*	*64*	☐ ☐
A6	*A6*		*16.0*	☑	☐	*70*	*1,120*	☐ ☐
A9	*A9*		*24.0*	☑	☐	*2*	*48*	☐ ☐
				☐	☐			☐ ☐
				☐	☐			☐ ☐
				☐	☐			☐ ☐
						Installed Watts Page Total:	*7,686*	

Building total number of pages:		Installed Watts Building Total (Sum of all pages)	*7,686*
		Enter into LTG-1C Page 4 of 4	

1. Wattage shall be determined according to Section 130 (d and e). Wattage shall be rating of light fixture, not rating of bulb.
2. If Fail then describe on Page 2 of the Inspection Checklist Form and take appropriate action to correct. Verify building plans if necessary.

CERTIFICATE OF COMPLIANCE (Part 2 of 3) LTG-1C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

INDOOR LIGHTING SCHEDULE and FIELD INSPECTION ENERGY CHECKLIST

Fill in controls for all spaces: a) area controls, b) multi-level controls, c) manual daylighting controls for daylit areas > 250 ft^2, automatic daylighting controls for daylit areas > 2,500 ft^2, d) shut-off controls, e) display lighting controls, f) tailored lighting controls – general lighting controlled separately from display, ornamental and display case lighting and g) demand responsive automatic controls for retail stores > 50,000 ft^2, in accordance with Section 131.

MANDATORY LIGHTING CONTROLS – FIELD INSPECTION ENERGY CHECKLIST

Type/ Description	Number of Units	Location in Building	Special Features	Field Inspector Pass	Field Inspector Fail
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
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			☐	☐	☐
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			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐
			☐	☐	☐

SPECIAL FEATURES INSPECTION CHECKLIST (See Page 2 of 4 of LTG-1C)

The local enforcement agency should pay special attention to the items specified in this checklist. These items require special written justification and documentation, and special verification. The local enforcement agency determines the adequacy of the justification, and may reject a building or design that otherwise complies based on the adequacy of the special justification and documentation submitted.

Field Inspector's Notes or Discrepancies:

CERTIFICATE OF COMPLIANCE (Part 3 of 3) LTG-1C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

CONDITIONED AND UNCONDITIONED SPACE LIGHTING MUST NOT BE COMBINED FOR COMPLIANCE

Indoor Lighting Power for Conditioned Spaces		Watts	Indoor Lighting Power for Unconditioned Spaces		Watts
Installed Lighting (from Conditioned LTG-1C, Page 2)		*7,686*	**Installed** Lighting (from Unconditioned LTG-1C, Page 2)		*0*
Lighting Control Credit Conditioned Spaces (from LTG-2C)	-	*503*	Lighting Control Credit Unconditioned Spaces (from LTG-2C)	-	*0*
Adjusted **Installed** Lighting Power	=	*7,183*	Adjusted **Installed** Lighting Power	=	*0*
Complies if **Installed** ≤ **Allowed**		↕	Complies if **Installed** ≤ **Allowed**		↕
Allowed Lighting Power Conditioned Spaces (from LTG-3C or PERF-1)		*7,183*	**Allowed** Lighting Power Unconditioned Spaces (from LTG-3C)		*0*

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for the Lighting system, **LTG-2A and LTG-3A**. The designer is required to check the acceptance tests and list all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting system or control of a certain type requires a test, list the different lighting and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately. **Forms can be grouped by type of Luminaire controlled.**

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when ever new lighting system with controls is installed in the building or space shall be certified as meeting the Acceptance Requirements.
The **LTG-2A and LTG-3A** forms are not considered complete forms and are not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the **LTG-2A and LTG-3A** for each different lighting luminaire control(s) must be provided to the owner of the building for their records.

Controls for Credits				LTG-2A and LTG-3A
Equipment Requiring Testing	Description	Number of Luminaire controls	Location	Controls and Sensors and Automatic Daylighting Controls Acceptance
Occ Sensor - Multi-Level	*A12*	*14*	*L1 Commmunity Room*	☑
Occ Sensor - Multi-Level	*A13*	*1*	*L1 Commmunity Room*	☑
Occ Sensor - Multi-Level	*A17*	*3*	*L1 Commmunity Room*	☑
Occ Sensor - Multi-Level	*A27*	*1*	*L1 Commmunity Room*	☑
Occ Sensor - Multi-Level	*A26*	*1*	*L1 Commmunity Room*	☑
Occ Sensor - Multi-Level	*A14*	*2*	*L1 Service Office*	☑
Occ Sensor - Multi-Level	*A14*	*2*	*L1 Work Room*	☑
Occ Sensor - Multi-Level	*A14*	*1*	*L1 Conference*	☑
Occ Sensor - Multi-Level	*A14*	*2*	*L1 Manager's Office*	☑
Occ Sensor - Multi-Level	*A14*	*2*	*L1 Laundry*	☑
Occ Sensor - Multi-Level	*A9*	*2*	*L1 Bathroom*	☑
Occ Sensor - Storage	*A24*	*4*	*L6 Corridor*	☑
Occ Sensor - Storage	*A24*	*4*	*L5 Corridor*	☑
Occ Sensor - Storage	*A24*	*4*	*L4 Corridor*	☑
Occ Sensor - Storage	*A24*	*4*	*L3 Corridor*	☑
				☐

CERTIFICATE OF COMPLIANCE (Part 3 of 3) LTG-1C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

CONDITIONED AND UNCONDITIONED SPACE LIGHTING MUST NOT BE COMBINED FOR COMPLIANCE

Indoor Lighting Power for Conditioned Spaces		Watts	Indoor Lighting Power for Unconditioned Spaces		Watts
Installed Lighting (from Conditioned LTG-1C, Page 2)		*7,686*	**Installed** Lighting (from Unconditioned LTG-1C, Page 2)		*0*
Lighting Control Credit Conditioned Spaces (from LTG-2C)	-	*503*	Lighting Control Credit Unconditioned Spaces (from LTG-2C)	-	*0*
Adjusted **Installed** Lighting Power	=	*7,183*	Adjusted **Installed** Lighting Power	=	*0*
Complies if **Installed ≤ Allowed**		↕	Complies if **Installed ≤ Allowed**		↕
Allowed Lighting Power Conditioned Spaces (from LTG-3C or PERF-1)		*7,183*	**Allowed** Lighting Power Unconditioned Spaces (from LTG-3C)		*0*

Required Acceptance Tests

Designer:

This form is to be used by the designer and attached to the plans. Listed below is the acceptance test for the Lighting system, **LTG-2A and LTG-3A**. The designer is required to check the acceptance tests and list all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance. If all the lighting system or control of a certain type requires a test, list the different lighting and the number of systems. The NA7 Section in the Appendix of the Nonresidential Reference Appendices Manual describes the test. Since this form will be part of the plans, completion of this section will allow the responsible party to budget for the scope of work appropriately. **Forms can be grouped by type of Luminaire controlled.**

Enforcement Agency:

Systems Acceptance. Before Occupancy Permit is granted for a newly constructed building or space or when ever new lighting system with controls is installed in the building or space shall be certified as meeting the Acceptance Requirements.
The **LTG-2A and LTG-3A** forms are not considered complete forms and are not to be accepted by the enforcement agency unless the boxes are checked and/or filled and signed. In addition, a Certificate of Acceptance forms shall be submitted to the enforcement agency that certifies plans, specifications, installation certificates, and operating and maintenance information meet the requirements of §10-103(b) of Title 24 Part 6. The field inspector must receive the properly filled out and signed forms before the building can receive final occupancy. A copy of the **LTG-2A and LTG-3A** for each different lighting luminaire control(s) must be provided to the owner of the building for their records.

Controls for Credits				LTG-2A and LTG-3A
Equipment Requiring Testing	Description	Number of Luminaire controls	Location	Controls and Sensors and Automatic Daylighting Controls Acceptance
Occ Sensor - Storage	*A24*	*4*	*L2 Corridor*	☑
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐
				☐

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐ Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)	
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*DHW Heater*	☐	☐
Equipment Type[3]:	*Gas Fired DHW Boiler*	☐	☐
Number of Systems	*2*	☐	☐
Max Allowed Heating Capacity[1]	*500,000 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*96 %*	☐	☐
Max Allowed Cooling Capacity[1]	*n/a*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*n/a*	☐	☐
Economizer	*n/a*	☐	☐
Thermostat	*n/a*	☐	☐
Fan Control	*n/a*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*FC-1.1, 1.2*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*2*	☐	☐
Max Allowed Heating Capacity[1]	*14,000 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*12,000 Btu/hr*	☐	☐
Cooling Efficiency[1]	*13.0 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐ Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)	
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*FC-1.3*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*11,000 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*9,500 Btu/hr*	☐	☐
Cooling Efficiency[1]	*13.0 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*FC-2.1*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*20,500 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*17,800 Btu/hr*	☐	☐
Cooling Efficiency[1]	*13.0 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐ Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)	
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*FC-2.2*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*11,000 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*9,500 Btu/hr*	☐	☐
Cooling Efficiency[1]	*13.0 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*FC-2.3*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*11,000 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*9,500 Btu/hr*	☐	☐
Cooling Efficiency[1]	*13.0 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐	Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

Equipment[2]	Inspection Criteria	FIELD INSPECTION ENERGY CHECKLIST Meets Criteria or Requirements: Pass	Fail – Describe Reason[2]
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*DS-1*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*0 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*8.80 HSPF*	☐	☐
Max Allowed Cooling Capacity[1]	*24,200 Btu/hr*	☐	☐
Cooling Efficiency[1]	*18.0 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

Equipment[2]	Inspection Criteria	FIELD INSPECTION ENERGY CHECKLIST Pass	Fail – Describe Reason[2]
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L1 HP 1*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*36,800 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*8.80 HSPF*	☐	☐
Max Allowed Cooling Capacity[1]	*32,300 Btu/hr*	☐	☐
Cooling Efficiency[1]	*14.5 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*Attic, Ceiling Ins, vented / 8.0*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐	Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L1 HP 2*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*37,300 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*8.80 HSPF*	☐	☐
Max Allowed Cooling Capacity[1]	*33,600 Btu/hr*	☐	☐
Cooling Efficiency[1]	*14.5 SEER / 10.0 EER*	☐	☐
Duct Location/ R-Value	*Attic, Ceiling Ins, vented / 8.0*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*MU-1*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*1*	☐	☐
Max Allowed Heating Capacity[1]	*200,000 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*78% AFUE*	☐	☐
Max Allowed Cooling Capacity[1]	*0 Btu/hr*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*Attic, Ceiling Ins, vented / 8.0*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*100% Outside Air*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐	Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L2 Wall Heater #201-214*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*28*	☐	☐
Max Allowed Heating Capacity[1]	*3,077 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*0 Btu/hr*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L3 Wall Heater #301-314*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*28*	☐	☐
Max Allowed Heating Capacity[1]	*3,077 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*0 Btu/hr*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐	Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L4 Wall Heater #401-414*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*28*	☐	☐
Max Allowed Heating Capacity[1]	*3,077 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*0 Btu/hr*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L5 Wall Heater #501-514*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*28*	☐	☐
Max Allowed Heating Capacity[1]	*3,077 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*0 Btu/hr*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 1 of 4) MECH-1C

Project Name			Date
6th and Oak Street Apartments			*11/12/2010*
Project Address	**Climate Zone**	**Total Cond. Floor Area**	**Addition Floor Area**
609 Oak Street Oakland	*3*	*46,320*	*n/a*

GENERAL INFORMATION

Building Type:	☑	Nonresidential	☑	High-Rise Residential	☐	Hotel/Motel Guest Room	
☐ Schools (Public School)	☐	Relocatable Public School Bldg.	☑	Conditioned Spaces	☐	Unconditioned Spaces (affidavit)	
Phase of Construction:	☑	New Construction	☐	Addition	☐	Alteration	
Approach of Compliance:	☐	Component	☐	Overall Envelope TDV Energy	☐	Unconditioned (file affidavit)	
Front Orientation: N, E, S, W or in Degrees:	*150 deg*						

HVAC SYSTEM DETAILS

		FIELD INSPECTION ENERGY CHECKLIST	
		Meets Criteria or Requirements	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	*L6 Wall Heater #601-614*	☐	☐
Equipment Type[3]:	*Split DX*	☐	☐
Number of Systems	*28*	☐	☐
Max Allowed Heating Capacity[1]	*3,077 Btu/hr*	☐	☐
Minimum Heating Efficiency[1]	*n/a*	☐	☐
Max Allowed Cooling Capacity[1]	*0 Btu/hr*	☐	☐
Cooling Efficiency[1]	*n/a*	☐	☐
Duct Location/ R-Value	*n/a*	☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**	*No*	☐	☐
Economizer	*No Economizer*	☐	☐
Thermostat	*Setback Required*	☐	☐
Fan Control	*Constant Volume*	☐	☐

		FIELD INSPECTION ENERGY CHECKLIST	
Equipment[2]	**Inspection Criteria**	**Pass**	**Fail – Describe Reason[2]**
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		☐	☐
Equipment Type[3]:		☐	☐
Number of Systems		☐	☐
Max Allowed Heating Capacity[1]		☐	☐
Minimum Heating Efficiency[1]		☐	☐
Max Allowed Cooling Capacity[1]		☐	☐
Cooling Efficiency[1]		☐	☐
Duct Location/ R-Value		☐	☐
When duct testing is required, submit **MECH-4A** & **MECH-4-HERS**		☐	☐
Economizer		☐	☐
Thermostat		☐	☐
Fan Control		☐	☐

1. If the Actual installed equipment performance efficiency and capacity is less than the Proposed (from the energy compliance submittal or from the building plans) the responsible party shall resubmit energy compliance to include the new changes.
2. For additional detailed discrepancy use Page 2 of the Inspection Checklist Form. Compliance fails if a Fail box is checked.
3. Indicate Equipment Type: Gas (Pkg or, Split), VAV, HP (Pkg or split), Hydronic, PTAC, or other.

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST	(Part 2 of 4)	**MECH-1C**

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Discrepancies:

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 3 of 4) MECH-1C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Required Acceptance Tests

Designer:

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

Building Departments:

Systems Acceptance: Before occupancy permit is granted for a newly constructed building or space, or a new space-conditioning system serving a building or space is operated for normal use, all control devices serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance.
Systems Acceptance: Before occupancy permit is granted. All newly installed HVAC equipment must be tested using the Acceptance Requirements.

The MECH-1C form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked. The equipment requiring testing, person performing the test (Example: HVAC installer, TAB contractor, controls contractor, PE in charge of project) and what Acceptance test must be conducted. The following checked-off forms are required for **ALL** newly installed equipment. In addition a Certificate of Acceptance forms shall be submitted to the building department that certifies plans, specifications, installation, certificates, and operating and maintenance information meet the requirements of §10-103(b) and Title-24 Part 6. The building inspector must receive the properly filled out and signed forms before the building can receive final occupancy.

TEST DESCRIPTION		MECH-2A	MECH-3A	MECH-4A	MECH-5A	MECH-6A	MECH-7A	MECH-8A	MECH-9A	MECH-10A	MECH-11A
Equipment Requiring Testing or Verification	Qty.	Outdoor Ventilation For VAV & CAV	Constant Volume & Single-Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Control Ventilation DCV	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
FC-1.1, 1.2	*2*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
FC-1.3	*1*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
FC-2.1	*1*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
FC-2.2	*1*	☑	☑	☐	☐	☑	☐	☐	☐	☐	☐
FC- 2.3	*1*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
DS-1	*1*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
HP #1	*1*	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐
HP #2	*1*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
MU-1	*1*	☑	☑	☐	☐	☐	☐	☐	☐	☐	☑
WH-1/WH-2	*140*	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

CERTIFICATE OF COMPLIANCE and FIELD INSPECTION ENERGY CHECKLIST (Part 4 of 4) MECH-1C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

TEST DESCRIPTION		MECH-12A	MECH-13A	MECH-14A	MECH-15A	
Equipment Requiring Testing	Qty.	Fault Detection & Diagnostics for DX Units	Automatic Fault Detection & Diagnostics for Air & Zone	Distributed Energy Storage DX AC Systems	Thermal Energy Storage (TES) Systems	Test Performed By:
FC-1.1, 1.2	*2*	☐	☐	☐	☐	
FC-1.3	*1*	☐	☐	☐	☐	
FC-2.1	*1*	☐	☐	☐	☐	
FC-2.2	*1*	☐	☐	☐	☐	
FC- 2.3	*1*	☐	☐	☐	☐	
DS-1	*1*	☐	☐	☐	☐	
HP #1	*1*	☐	☐	☐	☐	
HP #2	*1*	☐	☐	☐	☐	
MU-1	*1*	☐	☐	☐	☐	
WH-1/WH-2	*140*	☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
		☐	☐	☐	☐	
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		☐	☐	☐	☐	
		☐	☐	☐	☐	

LIGHTING CONTROLS CREDIT WORKSHEET (Part 1 of 2) LTG-2C

Project Name: *6th and Oak Street Apartments* | Date: *11/12/2010*

POWER ADJUSTMENT FACTORS (PAF) FOR NON-DAYLIGHT CONTROLS

A Separate PAF Worksheet Must Be Filled Out for Conditioned and Unconditioned Spaces. Control Credits listed on this schedule are only for:

☑ **CONDITIONED SPACES** ☐ **UNCONDITIONED SPACES**

A	B	C	D	E	F	G
Room # Zone ID Areas	Lighting Control Description[1]	Plan Reference	Room Area (ft^2)	Watts of Control Lighting	Power Adjustments Factor[2]	Control Credit Watts (E x F)
L1 Commmunity Ro	*Occ Sensor - Multi-Level*	*A12A*	*690*	*448*	*0.20*	*90*
L1 Commmunity Ro	*Occ Sensor - Multi-Level*	*A13*	*690*	*93*	*0.20*	*19*
L1 Commmunity Ro	*Occ Sensor - Multi-Level*	*A17*	*690*	*96*	*0.20*	*19*
L1 Commmunity Ro	*Occ Sensor - Multi-Level*	*A27*	*690*	*32*	*0.20*	*6*
L1 Commmunity Ro	*Occ Sensor - Multi-Level*	*A26*	*690*	*32*	*0.20*	*6*
L1 Service Office	*Occ Sensor - Multi-Level*	*A14*	*144*	*186*	*0.20*	*37*
L1 Work Room	*Occ Sensor - Multi-Level*	*A14*	*120*	*186*	*0.20*	*37*
L1 Conference	*Occ Sensor - Multi-Level*	*A14*	*132*	*93*	*0.20*	*19*
L1 Manager's Office	*Occ Sensor - Multi-Level*	*A14*	*242*	*186*	*0.20*	*37*
L1 Laundry	*Occ Sensor - Multi-Level*	*A14*	*170*	*186*	*0.20*	*37*
L1 Bathroom	*Occ Sensor - Multi-Level*	*A9*	*112*	*48*	*0.20*	*10*
L6 Corridor	*Occ Sensor - Storage*	*A24*	*1,082*	*248*	*0.15*	*37*
L5 Corridor	*Occ Sensor - Storage*	*A24*	*1,082*	*248*	*0.15*	*37*
L4 Corridor	*Occ Sensor - Storage*	*A24*	*1,082*	*248*	*0.15*	*37*
L3 Corridor	*Occ Sensor - Storage*	*A24*	*1,082*	*248*	*0.15*	*37*
L2 Corridor	*Occ Sensor - Storage*	*A24*	*1,028*	*248*	*0.15*	*37*
					PAGE TOTAL	*503*

Note: Conditioned and Unconditioned Space shall be separately totaled	Building total of non-daylight control credit watts for all pages of LTG-2C Page 1 of 2	
	Enter building total of all daylight controls credit watts from LTG-2C Page 2 of 2	*0*
	BUILDING TOTAL OF ALL CONTROL CREDIT WATTS (FOR BOTH NON-DAYLIGHT AND DAYLIGHT CONTROL CREDITS) Enter in LTG-1C; Page 4: Lighting Control Credit as appropriate for CONDITIONED or UNCONDITIONED Spaces	*503*

1. Description shall be consistent with Type of Control defined in Table 146-C
2. Power Adjustment Factor taken from Table 146-C

AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

Item or System Tags (i.e. AC-1, RTU-1, HP-1)		FC-1.1, 1.2	FC-1.3	FC-2.1
		Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc…)		
Number of Systems		2	1	1
		Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)		
MANDATORY MEASURES	**T-24 Sections**			
Heating Equipment Efficiency	112(a)	n/a	n/a	n/a
Cooling Equipment Efficiency	112(a)	13.0 SEER / 10.0 EER	13.0 SEER / 10.0 EER	13.0 SEER / 10.0 EER
HVAC Heat Pump Thermostat	112(b), 112(c)	n/a	n/a	n/a
Furnace Controls/Thermostat	112(c), 115(a)	n/a	n/a	n/a
Natural Ventilation	121(b)	No	No	No
Mechanical Ventilation	121(b)	345 cfm	22 cfm	81 cfm
VAV Minimum Position Control	121(c)	No	No	No
Demand Control Ventilation	121(c)	No	No	No
Time Control	122(e)	Programmable Switch	Programmable Switch	Programmable Switch
Setback and Setup Control	122(e)	Setback Required	Setback Required	Setback Required
Outdoor Damper Control	122(f)	Auto	Auto	Auto
Isolation Zones	122(g)	n/a	n/a	n/a
Pipe Insulation	123			
Duct Location/ R-value	124	n/a	n/a	n/a
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	n/a	n/a	n/a
Proposed Heating Capacity	144(a & b)	28,000 Btu/hr	11,000 Btu/hr	20,500 Btu/hr
Calculated Design Cooling Load	144(a & b)	n/a	n/a	n/a
Proposed Cooling Capacity	144(a & b)	23,682 Btu/hr	8,631 Btu/hr	16,104 Btu/hr
Fan Control	144(c)	Constant Volume	Constant Volume	Constant Volume
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	Yes	Yes	Yes
Simultaneous Heat/Cool	144(d)	No	No	No
Economizer	144(e)	No Economizer	No Economizer	No Economizer
Heat Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Cool Air Supply Reset	144(f)	Constant Temp	Constant Temp	Constant Temp
Electric Resistance Heating[1]	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	No	No	No

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Item or System Tags (i.e. AC-1, RTU-1, HP-1)		*FC-2.2*	*FC-2.3*	*DS-1*
		Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc…)		
Number of Systems		*1*	*1*	*1*
		Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)		
MANDATORY MEASURES	**T-24 Sections**			
Heating Equipment Efficiency	112(a)	*n/a*	*n/a*	*8.80 HSPF*
Cooling Equipment Efficiency	112(a)	*13.0 SEER / 10.0 EER*	*13.0 SEER / 10.0 EER*	*18.0 SEER / 10.0 EER*
HVAC Heat Pump Thermostat	112(b), 112(c)	*n/a*	*n/a*	*Yes*
Furnace Controls/Thermostat	112(c), 115(a)	*n/a*	*n/a*	*n/a*
Natural Ventilation	121(b)	*No*	*No*	*No*
Mechanical Ventilation	121(b)	*66 cfm*	*36 cfm*	*14 cfm*
VAV Minimum Position Control	121(c)	*No*	*No*	*No*
Demand Control Ventilation	121(c)	*Yes*	*No*	*No*
Time Control	122(e)	*Programmable Switch*	*Programmable Switch*	*Programmable Switch*
Setback and Setup Control	122(e)	*Setback Required*	*Setback Required*	*Setback Required*
Outdoor Damper Control	122(f)	*Auto*	*Auto*	*Auto*
Isolation Zones	122(g)	*n/a*	*n/a*	*n/a*
Pipe Insulation	123			
Duct Location/ R-value	124	*n/a*	*n/a*	*n/a*
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	*n/a*	*n/a*	*n/a*
Proposed Heating Capacity	144(a & b)	*11,000 Btu/hr*	*11,000 Btu/hr*	*0 Btu/hr*
Calculated Design Cooling Load	144(a & b)	*n/a*	*n/a*	*n/a*
Proposed Cooling Capacity	144(a & b)	*9,052 Btu/hr*	*8,850 Btu/hr*	*20,820 Btu/hr*
Fan Control	144(c)	*Constant Volume*	*Constant Volume*	*Constant Volume*
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	*Yes*	*Yes*	*Yes*
Simultaneous Heat/Cool	144(d)	*No*	*No*	*No*
Economizer	144(e)	*No Economizer*	*No Economizer*	*No Economizer*
Heat Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	*Constant Temp*
Cool Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	*Constant Temp*
Electric Resistance Heating[1]	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	*No*	*No*	*No*

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Item or System Tags (i.e. AC-1, RTU-1, HP-1)		*L1 HP 1*	*L1 HP 2*	*MU-1*
		Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc…)		
Number of Systems		*1*	*1*	*1*
		Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)		
MANDATORY MEASURES	**T-24 Sections**			
Heating Equipment Efficiency	112(a)	*8.80 HSPF*	*8.80 HSPF*	*78% AFUE*
Cooling Equipment Efficiency	112(a)	*14.5 SEER / 10.0 EER*	*14.5 SEER / 10.0 EER*	*n/a*
HVAC Heat Pump Thermostat	112(b), 112(c)	*Yes*	*Yes*	*n/a*
Furnace Controls/Thermostat	112(c), 115(a)	*n/a*	*n/a*	*n/a*
Natural Ventilation	121(b)	*Yes*	*No*	*No*
Mechanical Ventilation	121(b)	*79 cfm*	*42 cfm*	*5,125 cfm*
VAV Minimum Position Control	121(c)	*No*	*No*	*No*
Demand Control Ventilation	121(c)	*No*	*No*	*No*
Time Control	122(e)	*Programmable Switch*	*Programmable Switch*	*Programmable Switch*
Setback and Setup Control	122(e)	*Setback Required*	*Setback Required*	*Setback Required*
Outdoor Damper Control	122(f)	*Auto*	*Auto*	*Auto*
Isolation Zones	122(g)	*n/a*	*n/a*	*n/a*
Pipe Insulation	123			
Duct Location/ R-value	124	*Attic, Ceiling Ins, vented / 8.0*	*Attic, Ceiling Ins, vented / 8.0*	*Attic, Ceiling Ins, vented / 8.0*
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	*n/a*	*n/a*	*n/a*
Proposed Heating Capacity	144(a & b)	*26,838 Btu/hr*	*27,203 Btu/hr*	*200,000 Btu/hr*
Calculated Design Cooling Load	144(a & b)	*n/a*	*n/a*	*n/a*
Proposed Cooling Capacity	144(a & b)	*30,792 Btu/hr*	*31,006 Btu/hr*	*0 Btu/hr*
Fan Control	144(c)	*Constant Volume*	*Constant Volume*	*Constant Volume*
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	*Yes*	*Yes*	*Yes*
Simultaneous Heat/Cool	144(d)	*No*	*No*	*No*
Economizer	144(e)	*No Economizer*	*No Economizer*	*100% Outside Air*
Heat Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	*Constant Temp*
Cool Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	*Constant Temp*
Electric Resistance Heating[1]	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	*No*	*No*	*No*

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Item or System Tags (i.e. AC-1, RTU-1, HP-1)		*L2 Wall Heater #201-214*	*L3 Wall Heater #301-314*	*L4 Wall Heater #401-414*
		Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc…)		
Number of Systems		*28*	*28*	*28*
		Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)		
MANDATORY MEASURES	**T-24 Sections**			
Heating Equipment Efficiency	112(a)	*n/a*	*n/a*	*n/a*
Cooling Equipment Efficiency	112(a)	*n/a*	*n/a*	*n/a*
HVAC Heat Pump Thermostat	112(b), 112(c)	*n/a*	*n/a*	*n/a*
Furnace Controls/Thermostat	112(c), 115(a)	*n/a*	*n/a*	*n/a*
Natural Ventilation	121(b)	*Yes*	*Yes*	*Yes*
Mechanical Ventilation	121(b)	*1,149 cfm*	*1,149 cfm*	*1,149 cfm*
VAV Minimum Position Control	121(c)	*No*	*No*	*No*
Demand Control Ventilation	121(c)	*No*	*No*	*No*
Time Control	122(e)	*Programmable Switch*	*Programmable Switch*	*Programmable Switch*
Setback and Setup Control	122(e)	*Setback Required*	*Setback Required*	*Setback Required*
Outdoor Damper Control	122(f)	*Auto*	*Auto*	*Auto*
Isolation Zones	122(g)	*n/a*	*n/a*	*n/a*
Pipe Insulation	123			
Duct Location/ R-value	124	*n/a*	*n/a*	*n/a*
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	*n/a*	*n/a*	*n/a*
Proposed Heating Capacity	144(a & b)	*86,156 Btu/hr*	*86,156 Btu/hr*	*86,156 Btu/hr*
Calculated Design Cooling Load	144(a & b)	*n/a*	*n/a*	*n/a*
Proposed Cooling Capacity	144(a & b)	*0 Btu/hr*	*0 Btu/hr*	*0 Btu/hr*
Fan Control	144(c)	*Constant Volume*	*Constant Volume*	*Constant Volume*
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	*Yes*	*Yes*	*Yes*
Simultaneous Heat/Cool	144(d)	*No*	*No*	*No*
Economizer	144(e)	*No Economizer*	*No Economizer*	*No Economizer*
Heat Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	*Constant Temp*
Cool Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	*Constant Temp*
Electric Resistance Heating[1]	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	*No*	*No*	*No*

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

AIR SYSTEM REQUIREMENTS (Part 1 of 2) MECH-2C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Item or System Tags (i.e. AC-1, RTU-1, HP-1)		L5 Wall Heater #501-514	L6 Wall Heater #601-614	
		Indicate Air Systems Type (Central, Single Zone, Package, VAV, or etc…)		
Number of Systems		28	28	
		Indicate Page Reference on Plans or Schedule and indicate the applicable exception(s)		
MANDATORY MEASURES	**T-24 Sections**			
Heating Equipment Efficiency	112(a)	*n/a*	*n/a*	
Cooling Equipment Efficiency	112(a)	*n/a*	*n/a*	
HVAC Heat Pump Thermostat	112(b), 112(c)	*n/a*	*n/a*	
Furnace Controls/Thermostat	112(c), 115(a)	*n/a*	*n/a*	
Natural Ventilation	121(b)	*Yes*	*Yes*	
Mechanical Ventilation	121(b)	*1,149 cfm*	*1,149 cfm*	
VAV Minimum Position Control	121(c)	*No*	*No*	
Demand Control Ventilation	121(c)	*No*	*No*	
Time Control	122(e)	*Programmable Switch*	*Programmable Switch*	
Setback and Setup Control	122(e)	*Setback Required*	*Setback Required*	
Outdoor Damper Control	122(f)	*Auto*	*Auto*	
Isolation Zones	122(g)	*n/a*	*n/a*	
Pipe Insulation	123			
Duct Location/ R-value	124	*n/a*	*n/a*	
PRESCRIPTIVE MEASURES				
Calculated Design Heating Load	144(a & b)	*n/a*	*n/a*	
Proposed Heating Capacity	144(a & b)	*86,156 Btu/hr*	*86,156 Btu/hr*	
Calculated Design Cooling Load	144(a & b)	*n/a*	*n/a*	
Proposed Cooling Capacity	144(a & b)	*0 Btu/hr*	*0 Btu/hr*	
Fan Control	144(c)	*Constant Volume*	*Constant Volume*	
DP Sensor Location	144(c)			
Supply Pressure Reset (DDC only)	144(c)	*Yes*	*Yes*	
Simultaneous Heat/Cool	144(d)	*No*	*No*	
Economizer	144(e)	*No Economizer*	*No Economizer*	
Heat Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	
Cool Air Supply Reset	144(f)	*Constant Temp*	*Constant Temp*	
Electric Resistance Heating[1]	144(g)			
Air Cooled Chiller Limitation	144(i)			
Duct Leakage Sealing. If Yes, a MECH-4-A must be submitted	144(k)	*No*	*No*	

1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

WATER SIDE SYSTEM REQUIREMENTS (Part 2 of 2) MECH-2C

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

	WATER[2] SIDE SYSTEMS: Chillers, Towers, Boilers, Hydronic Loops			
Item or System Tags (i.e. AC-1, RTU-1, HP-1)[1]				
Number of Systems				
	Indicate Page Reference on Plans or Specification[2]			
MANDATORY MEASURES	**T-24 Sections**			
Equipment Efficiency	112(a)			
Pipe Insulation	123			
PRESCRIPTIVE MEASURES				
Cooling Tower Fan Controls	144(a & b)			
Cooling Tower Flow Controls	144(h)			
Variable Flow System Design	144(h)			
Chiller and Boiler Isolation	144(j)			
CHW and HHW Reset Controls	144(j)			
WLHP Isolation Valves	144(j)			
VSD on CHW, CW & WLHP Pumps>5HP	144(j)			
DP Sensor Location	144(j)			

1. The proposed equipment need to match the building plans schedule or specifications. If a requirement is not applicable, put "N/A" in the column next to applicable section.
2. For each chiller, cooling tower, boiler, and hydronic loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column next to applicable section.

	Service Hot Water, Pool Heating			
Item or System Tags (i.e. WH-1, WHP, DHW, etc…)[1]		*DHW Heater*		
Number of Systems		*2*		
	Indicate Page Reference on Plans or Schedule[2]			
MANDATORY MEASURES	**T-24 Sections**			
SERVICE HOT WATER				
Certified Water Heater	111, 113(a)	*Pennant Boiler B-1/B-2*		
Water Heater Efficiency	113(b)	*96 %*		
Service Water Heating Installation	113(c)	*Controls Req.*		
Pipe Insulation	123	*n/a*		
POOL AND SPA				
Pool and Spa Efficiency and Control	114(a)	*n/a*		
Pool and Spa Installation	114(b)	*n/a*		
Pool Heater – No Pilot Light	115(c)	*n/a*		
Spa Heater – No Pilot Light	115(d)	*n/a*		
Pipe Insulation	123	*Required*		

1. The Proposed equipment needs to match the building plans schedule or specifications. If a requirement is not applicable, put "N/A" in the column next to applicable section.
2. For each water heater, pool heater and domestic water loop (or groups of similar equipment) fill in the reference to sheet number and/or specification section and paragraph number where the required features are documented. If a requirement is not applicable, put "N/A" in the column.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

	MECHANICAL VENTILATION (§121(b)2)								REHEAT LIMITATION (§144(d))				
	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Zone/System	Condition Area (ft^2)	CFM per ft^2	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft^2	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
L1 Commmunity Room	*690*	*0.50*	*345*				*345*	*345*					
FC-1.1, 1.2						*Total*	*345*	*345*					
L1 Service Office	*144*	*0.15*	*22*				*22*	*22*					
FC-1.3						*Total*	*22*	*22*					
L1 Management Office	*541*	*0.15*	*81*	*5.4*	*15.0*	*81*	*81*	*81*					
FC-2.1						*Total*	*81*	*81*					
L1 Conference Room	*132*	*0.50*	*66*	*8.8*	*7.5*	*66*	*66*	*66*					
FC-2.2						*Total*	*66*	*66*					
L1 Manager's Office	*242*	*0.15*	*36*	*2.4*	*15.0*	*36*	*36*	*36*					
FC-2.3						*Total*	*36*	*36*					
Elevator Machine Room	*95*	*0.15*	*14*				*14*	*14*					
DS-1						*Total*	*14*	*14*					
L1 Entry Lobby	*528*	*0.15*	*79*	*5.3*	*15.0*	*79*	*79*	*79*					
L1 HP 1						*Total*	*79*	*79*					
L1 Laundry	*282*	*0.15*	*42*	*2.8*	*15.0*	*42*	*42*	*42*					
			Totals						Column I Total Design Ventilation Air				

C	Minimum ventilation rate per Section §121, Table 121-A.
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.
K	Condition area (ft^2) x 0.4 CFM / ft^2; or
L	Maximum of Columns H, J, K, or 300 CFM
M	This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.
N	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

	MECHANICAL VENTILATION (§121(b)2)								REHEAT LIMITATION (§144(d))				
	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Zone/System	Condition Area (ft^2)	CFM per ft^2	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft^2	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
L1 HP 2						*Total*	*42*	*42*					
L6 Corridor	*1,082*	*0.15*	*162*	*10.8*	*15.0*	*162*	*162*						
L5 Corridor	*1,082*	*0.15*	*162*	*10.8*	*15.0*	*162*	*162*						
L4 Corridor	*1,082*	*0.15*	*162*	*10.8*	*15.0*	*162*	*162*						
L3 Corridor	*1,082*	*0.15*	*162*	*10.8*	*15.0*	*162*	*162*						
L2 Corridor	*1,028*	*0.15*	*154*	*10.3*	*15.0*	*154*	*154*						
MU-1						*Total*	*803*	*5,125*		*100% OA*			
L2 Room North Wing	*1,224*	*0.15*	*184*	*6.1*	*30.0*	*184*	*184*	*184*					
L2 Room East Wing	*2,663*	*0.15*	*399*	*13.3*	*30.0*	*399*	*399*	*399*					
L2 Room South Wing	*1,254*	*0.15*	*188*	*6.3*	*30.0*	*188*	*188*	*188*					
L2 Room West Wing	*2,522*	*0.15*	*378*	*12.6*	*30.0*	*378*	*378*	*378*					
L2 Wall Heater #201-214						*Total*	*1,149*	*1,149*					
L3 BED North Wing	*1,224*	*0.15*	*184*	*6.1*	*30.0*	*184*	*184*	*184*					
L3 BED East Wing	*2,665*	*0.15*	*400*	*13.3*	*30.0*	*400*	*400*	*400*					
L3 BED South Wing	*1,252*	*0.15*	*188*	*6.3*	*30.0*	*188*	*188*	*188*					
			Totals						Column I Total Design Ventilation Air				

C	Minimum ventilation rate per Section §121, Table 121-A.
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.
K	Condition area (ft^2) x 0.4 CFM / ft^2; or
L	Maximum of Columns H, J, K, or 300 CFM
M	This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.
N	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

	MECHANICAL VENTILATION (§121(b)2)								REHEAT LIMITATION (§144(d))				
	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Zone/System	Condition Area (ft^2)	CFM per ft^2	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft^2	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
L3 BED West Wing	*2,522*	*0.15*	*378*	*12.6*	*30.0*	*378*	*378*	*378*					
L3 Wall Heater #301-314						*Total*	*1,149*	*1,149*					
L4 BED North Wing	*1,223*	*0.15*	*183*	*6.1*	*30.0*	*183*	*183*	*183*					
L4 BED East Wing	*2,662*	*0.15*	*399*	*13.3*	*30.0*	*399*	*399*	*399*					
L4 BED South Wing	*1,255*	*0.15*	*188*	*6.3*	*30.0*	*188*	*188*	*188*					
L4 BED West Wing	*2,522*	*0.15*	*378*	*12.6*	*30.0*	*378*	*378*	*378*					
L4 Wall Heater #401-414						*Total*	*1,149*	*1,149*					
L5 BED North Wing	*1,224*	*0.15*	*184*	*6.1*	*30.0*	*184*	*184*	*184*					
L5 BED East Wing	*2,663*	*0.15*	*399*	*13.3*	*30.0*	*399*	*399*	*399*					
L5 BED South Wing	*1,254*	*0.15*	*188*	*6.3*	*30.0*	*188*	*188*	*188*					
L5 BED West Wing	*2,522*	*0.15*	*378*	*12.6*	*30.0*	*378*	*378*	*378*					
L5 Wall Heater #501-514						*Total*	*1,149*	*1,149*					
L6 BED North Wing	*1,224*	*0.15*	*184*	*6.1*	*30.0*	*184*	*184*	*184*					
L6 BED East Wing	*2,662*	*0.15*	*399*	*13.3*	*30.0*	*399*	*399*	*399*					
L6 BED South Wing	*1,254*	*0.15*	*188*	*6.3*	*30.0*	*188*	*188*	*188*					
			Totals						Column I Total Design Ventilation Air				

C	Minimum ventilation rate per Section §121, Table 121-A.
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.
K	Condition area (ft^2) x 0.4 CFM / ft^2; or
L	Maximum of Columns H, J, K, or 300 CFM
M	This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.
N	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL VENTILATION AND REHEAT

MECH-3C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

	MECHANICAL VENTILATION (§121(b)2)								REHEAT LIMITATION (§144(d))				
	AREA BASIS			OCCUPANCY BASIS					VAV MINIMUM				
A	B	C	D	E	F	G	H	I	J	K	L	M	N
Zone/System	Condition Area (ft^2)	CFM per ft^2	Min CFM By Area B X C	Number Of People	CFM per Person	Min CFM by Occupant E X F	REQ'D V.A. Max of D or G	Design Ventilation Air CFM	50% of Design Zone Supply CFM	B X 0.4 CFM / ft^2	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
L6 BED West Wing	*2,522*	*0.15*	*378*	*12.6*	*30.0*	*378*	*378*	*378*					
L6 Wall Heater #601-614						*Total*	*1,149*	*1,149*					
			Totals						Column I Total Design Ventilation Air				

C	Minimum ventilation rate per Section §121, Table 121-A.
E	Based on fixed seat or the greater of the expected number of occupants and 50% of the CBC occupant load for egress purposes for spaces without fixed seating.
H	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D or G).
I	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.
J	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121.
K	Condition area (ft^2) x 0.4 CFM / ft^2; or
L	Maximum of Columns H, J, K, or 300 CFM
M	This must be less than or equal to Column L and greater than or equal to the sum of Columns H plus N.
N	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M.

MECHANICAL EQUIPMENT DETAILS (Part 1 of 2) MECH-5C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

CHILLER AND TOWER SUMMARY

					PUMPS				
Equipment Name	Type	Qty.	Efficiency	Tons	Qty.	GPM	BHP	Premium Eff. Motor	Pump Control
								☐	
								☐	
								☐	

DHW / BOILER SUMMARY

System Name	Type	Distribution	Qty.	Rated Input	Vol. (Gals).	Energy Factor or RE	Standby Loss or Pilot	Tank Ext. R-Value	Status
Pennant Boiler B-1/B-2	*Large Gas*	*Central System*	*2*	*500,000*	*0*	*0.96*	*0.00 %*	*0.0*	*New*

MULTI-FAMILY CENTRAL WATER HEATING DETAILS

Hot Water Pump				Hot Water Piping Length (ft)			
Control	Qty.	HP	Type	In Plenum	Outside	Buried	Add ½" Insulation
Temperature	*1*	*1.0*	*Premium*	*0*	*100*	*0*	☐
							☐
							☐

CENTRAL SYSTEM RATINGS

			HEATING			COOLING		
System Name	Type	Qty.	Output	Aux. kW	Efficiency	Output	Efficiency	Status
FC-1.1, 1.2	*Split DX*	*2*	*14,000*	*0.0*	*n/a*	*12,000*	*13.0 SEER / 10.0 EER*	*New*
FC-1.3	*Split DX*	*1*	*11,000*	*0.0*	*n/a*	*9,500*	*13.0 SEER / 10.0 EER*	*New*
FC-2.1	*Split DX*	*1*	*20,500*	*0.0*	*n/a*	*17,800*	*13.0 SEER / 10.0 EER*	*New*
FC-2.2	*Split DX*	*1*	*11,000*	*0.0*	*n/a*	*9,500*	*13.0 SEER / 10.0 EER*	*New*
FC- 2.3	*Split DX*	*1*	*11,000*	*0.0*	*n/a*	*9,500*	*13.0 SEER / 10.0 EER*	*New*
DS-1	*Split DX*	*1*	*0*	*0.0*	*8.80 HSPF*	*24,200*	*18.0 SEER / 10.0 EER*	*New*
HP #1	*Split DX*	*1*	*36,800*	*0.0*	*8.80 HSPF*	*32,300*	*14.5 SEER / 10.0 EER*	*New*

CENTRAL SYSTEM FAN SUMMARY

			SUPPLY FAN			RETURN FAN		
System Name	Fan Type	Economizer Type	CFM	BHP	Premium Eff. Motor	CFM	BHP	Premium Eff. Motor
FC-1.1, 1.2	*Constant Volume*	*No Economizer*	*312*	*0.03*	☐	*none*		☐
FC-1.3	*Constant Volume*	*No Economizer*	*271*	*0.03*	☐	*none*		☐
FC-2.1	*Constant Volume*	*No Economizer*	*347*	*0.04*	☐	*none*		☐
FC-2.2	*Constant Volume*	*No Economizer*	*271*	*0.03*	☐	*none*		☐
FC- 2.3	*Constant Volume*	*No Economizer*	*271*	*0.03*	☐	*none*		☐
DS-1	*Constant Volume*	*No Economizer*	*525*	*0.05*	☐	*none*		☐
HP #1	*Constant Volume*	*No Economizer*	*1,076*	*0.11*	☐	*none*		☐

MECHANICAL EQUIPMENT DETAILS (Part 1 of 2) MECH-5C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

CHILLER AND TOWER SUMMARY

					PUMPS				
Equipment Name	Type	Qty.	Efficiency	Tons	Qty.	GPM	BHP	Premium Eff. Motor	Pump Control
								☐	
								☐	
								☐	

DHW / BOILER SUMMARY

System Name	Type	Distribution	Qty.	Rated Input	Vol. (Gals).	Energy Factor or RE	Standby Loss or Pilot	Tank Ext. R-Value	Status

MULTI-FAMILY CENTRAL WATER HEATING DETAILS

Hot Water Pump				Hot Water Piping Length (ft)			
Control	Qty.	HP	Type	In Plenum	Outside	Buried	Add ½" Insulation
							☐
							☐
							☐

CENTRAL SYSTEM RATINGS

			HEATING			COOLING		
System Name	Type	Qty.	Output	Aux. kW	Efficiency	Output	Efficiency	Status
HP #2	*Split DX*	*1*	*37,300*	*0.0*	*8.80 HSPF*	*33,600*	*14.5 SEER / 10.0 EER*	*New*
MU-1	*Split DX*	*1*	*200,000*	*0.0*	*78% AFUE*	*0*	*n/a*	*New*
WH-1/WH-2	*Split DX*	*140*	*3,077*	*0.0*	*n/a*	*0*	*n/a*	*New*

CENTRAL SYSTEM FAN SUMMARY

			SUPPLY FAN			RETURN FAN		
System Name	Fan Type	Economizer Type	CFM	BHP	Premium Eff. Motor	CFM	BHP	Premium Eff. Motor
HP #2	*Constant Volume*	*No Economizer*	*1,076*	*0.01*	☐	*none*		☐
MU-1	*Constant Volume*	*100% Outside Air*	*5,125*	*3.00*	☑	*none*		☐
WH-1/WH-2	*Constant Volume*	*No Economizer*	*none*		☐	*none*		☐
					☐			☐
					☐			☐
					☐			☐
					☐			☐

MECHANICAL EQUIPMENT DETAILS (Part 2 of 2) MECH-5C

Project Name: *6th and Oak Street Apartments*

Date: *11/12/2010*

ZONE SYSTEM SUMMARY

		SYSTEM				VAV		Fan					
Zone Name	System Name	Type	Qty.	Heating	Cooling	Min CFM Ratio	Reheat Coil	CFM	BHP	Premium Eff. Motor	Fan Cycles	ECM Motor	Outside Air
L2 Room North Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L2 Room East Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L2 Room South Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L2 Room West Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L3 BED North Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L3 BED East Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L3 BED South Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L3 BED West Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L4 BED North Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L4 BED East Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L4 BED South Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L4 BED West Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L5 BED North Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L5 BED East Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L5 BED South Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L5 BED West Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L6 BED North Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L6 BED East Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L6 BED South Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	
L6 BED West Wing	*10 kBtu Baseboard*	*VAV Box*	*14*	*10,000*		*100 %*	*None*			☐	☐	☐	

EXHAUST FAN SUMMARY

EXHAUST FAN					EXHAUST FAN					EXHAUST FAN				
Room Name	Qty.	CFM	BHP	Premium Eff. Motor	Room Name	Qty.	CFM	BHP	Premium Eff. Motor	Room Name	Qty.	CFM	BHP	Premium Eff. Motor
				☐					☐					☐
				☐					☐					☐
				☐					☐					☐
				☐					☐					☐

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL ENV-MM

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

DESCRIPTION

Building Envelope Measures:

§118(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§118(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§118(f):	The opaque portions of framed demising walls in nonresidential buildings shall have insulation with an installed R-value of no less than R-13 between framing members.
§117(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§116(a) 1:	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.^{2} of window area, 0.3 cfm/ft.^{2} of door area for residential doors, 0.3 cfm/ft.^{2} of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.^{2} for nonresidential double doors (swinging).
§116(a) 2:	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§116(a) 3:	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§116(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).

LIGHTING MANDATORY MEASURES: NONRESIDENTIAL — LTG-MM

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Indoor Lighting Measures:

§131(d):	**Shut-off Controls**
1.	For every floor, all interior lighting systems shall be equipped with a separate automatic control to shut off the lighting. This automatic control shall meet the requirements of Section 119 and may be an occupancy sensor, automatic time switch, or other device capable of automatically shutting off the lighting.
2.	Override for Building Lighting Shut-off: The automatic building shut-off system is provided with a manual, accessible override switch in sight of the lights. The area of override is not to exceed 5,000 square feet.
§119(h):	Automatic Control Devices Certified: All automatic control devices specified are certified, all alternate equipment shall be certified and installed as directed by the manufacturer.
§111:	Fluorescent Ballast and Luminaires Certified: All fluorescent fixtures specified for the project are certified and listed in the Directory. All installed fixtures shall be certified.
§131(a):	Individual Room/Area Controls: Each room and area in this building is equipped with a separate switch or occupancy sensor device for each area with floor-to-ceiling walls.
§131(b):	Uniform Reduction for Individual Rooms: All rooms and areas greater than 100 square feet and more than 0.8 watts per square foot of lighting load shall be controlled with bi-level switching for uniform reduction of lighting within the room.
§131(c):	Daylight Area Control: All rooms with windows and skylights that are greater than 250 square feet and that allow for the effective use of daylight in the area shall have 50% of the lamps in each daylit area controlled by a separate switch; or the effective use of daylight cannot be accomplished because the windows are continuously shaded by a building on the adjacent lot. Diagram of shading during different times of the year is included on plans.
§131(c):	Display Lighting. Display lighting shall be separately switched on circuits that are 20 amps or less.6.

Outdoor Lighting Measures:

§130(c)1:	Mandatory lighting power determination for medium base sockets without permanently installed ballasts
§132(a):	All permanently installed luminaires with lamps rated over 100 Watts either have a lamp efficacy of at least 60 lumens per Watt or are controlled by a motion sensor.
§132(b):	All Luminaires with lamps rated greater than 175 Watts in hardscape area, including parking lots, building entrances, canopies, and all outdoor sales areas meet the Cutoff Requirements.
§132(c)1:	All permanently installed outdoor lighting meets the control requirements listed.
§132(c):	Building facades, parking lots, garages, canopies, and outdoor sales areas meet the Multi-Level Lighting Requirements listed.

MECHANICAL MANDATORY MEASURES: NONRESIDENTIAL — MECH-MM

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Equipment and System Efficiencies

§111:	Any appliance for which there is a California standard established in the Appliance Efficiency Regulations will comply with the applicable standard.
§115(a):	Fan type central furnaces shall not have a pilot light.
§123:	Piping, except that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC equipment, shall be insulated in accordance with Standards Section 123.
§124:	Air handling duct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of the CMC Standards.

Controls

§122(e):	Each space conditioning system shall be installed with one of the following:
1A.	Each space conditioning system serving building types such as offices and manufacturing facilities (and all others not explicitly exempt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an accessible manual override that allows operation of the system during off-hours for up to 4 hours. The time switch shall be capable of programming different schedules for weekdays and weekends and have program backup capabilities that prevent the loss of the device's program and time setting for at least 10 hours if power is interrupted; or
1B.	An occupancy sensor to control the operating period of the system; or
1C.	A 4-hour timer that can be manually operated to control the operating period of the system.
2.	Each space conditioning system shall be installed with controls that temporarily restart and temporarily operate the system as required to maintain a setback heating and/or a setup cooling thermostat setpoint.
§122(g):	Each space conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 square feet shall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided with isolation devices, such as valves or dampers that allow the supply of heating or cooling to be setback or shut off independently of other isolation areas; and shall be controlled by a time control device as described above.
§122(c):	Thermostats shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to authorized personnel.
§122(b):	Heat pumps shall be installed with controls to prevent electric resistance supplementary heater operation when the heating load can be met by the heat pump alone
§122(a&b):	Each space conditioning system shall be controlled by an individual thermostat that responds to temperature within the zone. Where used to control heating, the control shall be adjustable down to 55 degrees F or lower. For cooling, the control shall be adjustable up to 85 degrees F or higher. Where used for both heating and cooling, the control shall be capable of providing a deadband of at least 5 degrees F within which the supply of heating and cooling is shut off or reduced to a minimum.

Ventilation

§121(e):	Controls shall be provided to allow outside air dampers or devices to be operated at the ventilation rates as specified on these plans.
§122(f):	All gravity ventilating systems shall be provided with automatic or readily accessible manually operated dampers in all openings to the outside, except for combustion air openings.
§121(f):	Ventilation System Acceptance. Before an occupancy permit is granted for a newly constructed building or space, or a new ventilating system serving a building or space is operated for normal use, all ventilation systems serving the building or space shall be certified as meeting the Acceptance Requirements for Code Compliance

Service Water Heating Systems

§113(c)	Installation
3.	Temperature controls for public lavatories. The controls shall limit the outlet Temperature to 110° F.
2.	Circulating service water-heating systems shall have a control capable of automatically turning off the circulating pump when hot water is not required.

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
FC-1.1, 1.2	690

ENGINEERING CHECKS

Number of Systems	2
Heating System	
Output per System	14,000
Total Output (Btuh)	28,000
Output (Btuh/sqft)	40.6
Cooling System	
Output per System	12,000
Total Output (Btuh)	24,000
Total Output (Tons)	2.0
Total Output (Btuh/sqft)	34.8
Total Output (sqft/Ton)	345.0
Air System	
CFM per System	312
Airflow (cfm)	624
Airflow (cfm/sqft)	0.90
Airflow (cfm/Ton)	312.0
Outside Air (%)	55.3 %
Outside Air (cfm/sqft)	0.50
Note: values above given at ARI conditions	

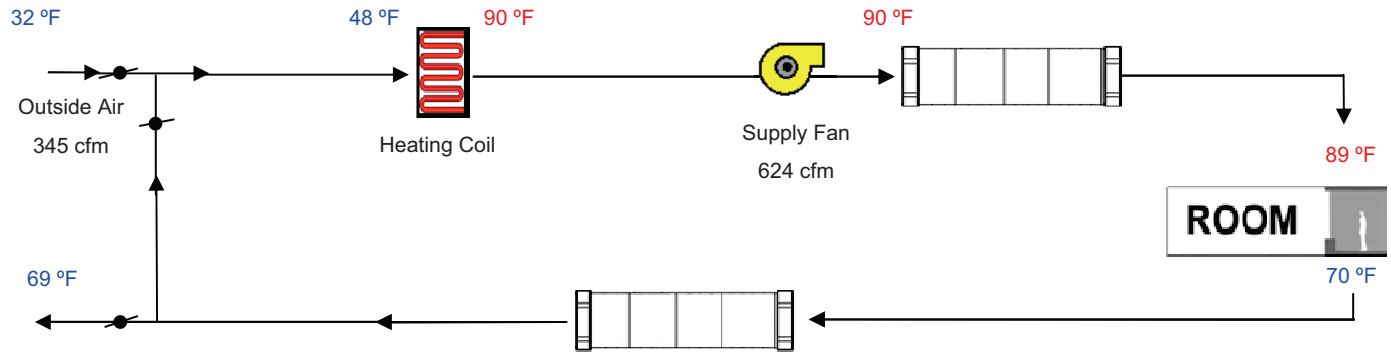
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	1,242	35,845	7,166	873	17,593
Return Vented Lighting		0			
Return Air Ducts		1,792			880
Return Fan		0			0
Ventilation	345	2,980	1,021	345	13,669
Supply Fan		0			0
Supply Air Ducts		1,792			880
TOTAL SYSTEM LOAD		42,410	8,186		33,022

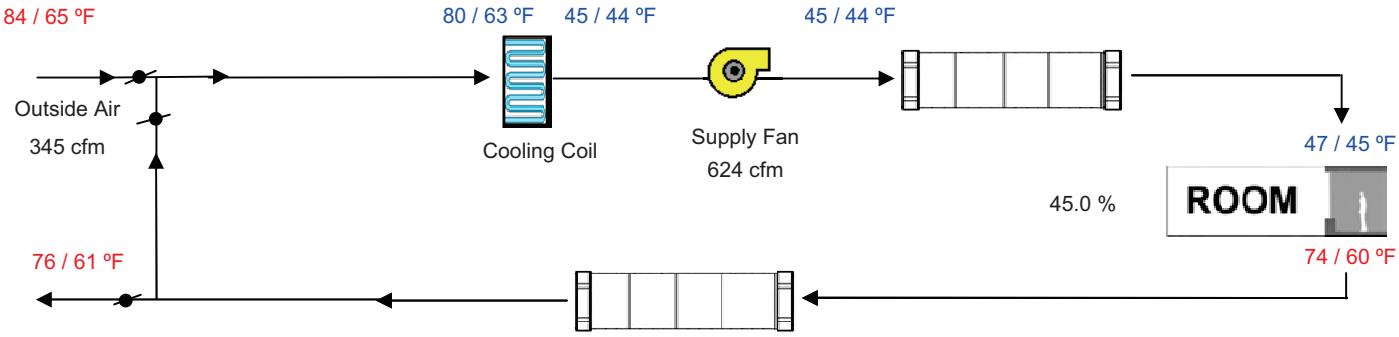
HVAC EQUIPMENT SELECTION

FC-1.1, 1.2	23,682	0		28,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	23,682	0		28,000
TIME OF SYSTEM PEAK	Jul 3 PM			Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
FC-1.3	144

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	11,000
Total Output (Btuh)	11,000
Output (Btuh/sqft)	76.4
Cooling System	
Output per System	9,500
Total Output (Btuh)	9,500
Total Output (Tons)	0.8
Total Output (Btuh/sqft)	66.0
Total Output (sqft/Ton)	181.9
Air System	
CFM per System	271
Airflow (cfm)	271
Airflow (cfm/sqft)	1.88
Airflow (cfm/Ton)	342.3
Outside Air (%)	8.0 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

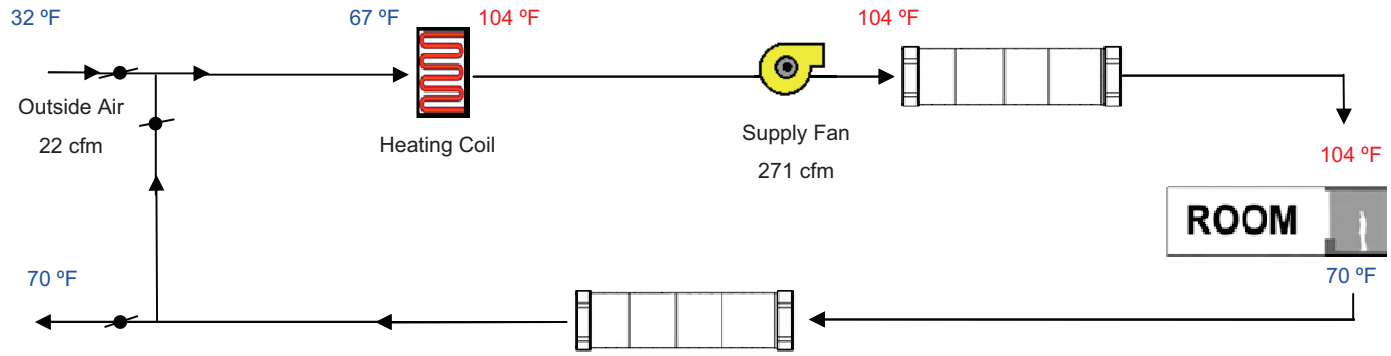
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	57	1,732	288	36	1,332
Return Vented Lighting		0			
Return Air Ducts		87			67
Return Fan		0			0
Ventilation	22	226	293	22	881
Supply Fan		0			0
Supply Air Ducts		87			67
TOTAL SYSTEM LOAD		2,131	581		2,346

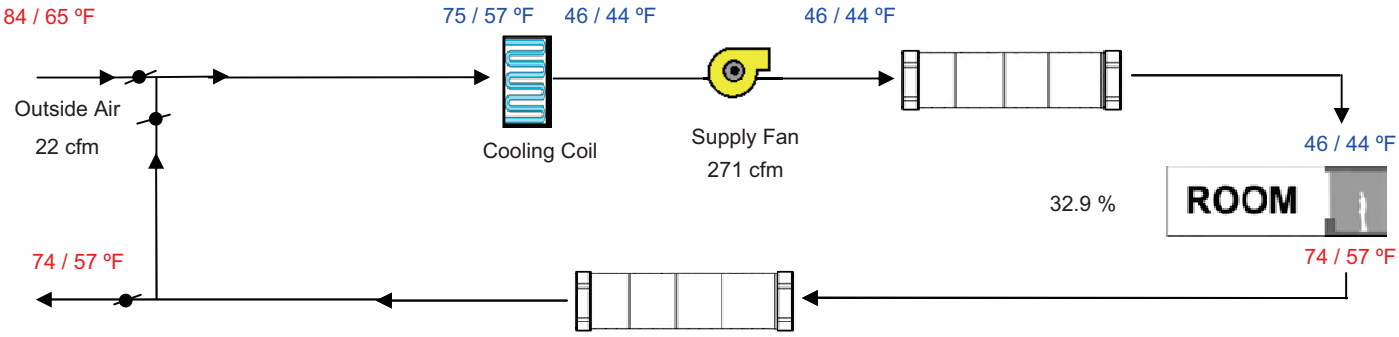
HVAC EQUIPMENT SELECTION

FC-1.3	8,631	0		11,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	8,631	0		11,000
TIME OF SYSTEM PEAK		Jan 10 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
FC-2.1	541

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	20,500
Total Output (Btuh)	20,500
Output (Btuh/sqft)	37.9
Cooling System	
Output per System	17,800
Total Output (Btuh)	17,800
Total Output (Tons)	1.5
Total Output (Btuh/sqft)	32.9
Total Output (sqft/Ton)	364.7
Air System	
CFM per System	347
Airflow (cfm)	347
Airflow (cfm/sqft)	0.64
Airflow (cfm/Ton)	233.9
Outside Air (%)	23.4 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

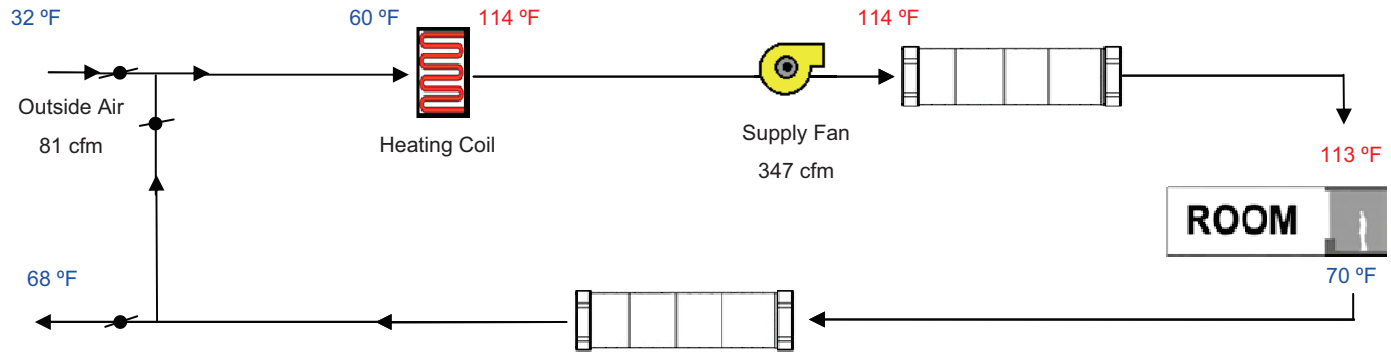
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	644	26,123	1,082	303	13,927
Return Vented Lighting		0			
Return Air Ducts		1,306			696
Return Fan		0			0
Ventilation	81	526	1,526	81	3,167
Supply Fan		0			0
Supply Air Ducts		1,306			696
TOTAL SYSTEM LOAD		29,261	2,608		18,486

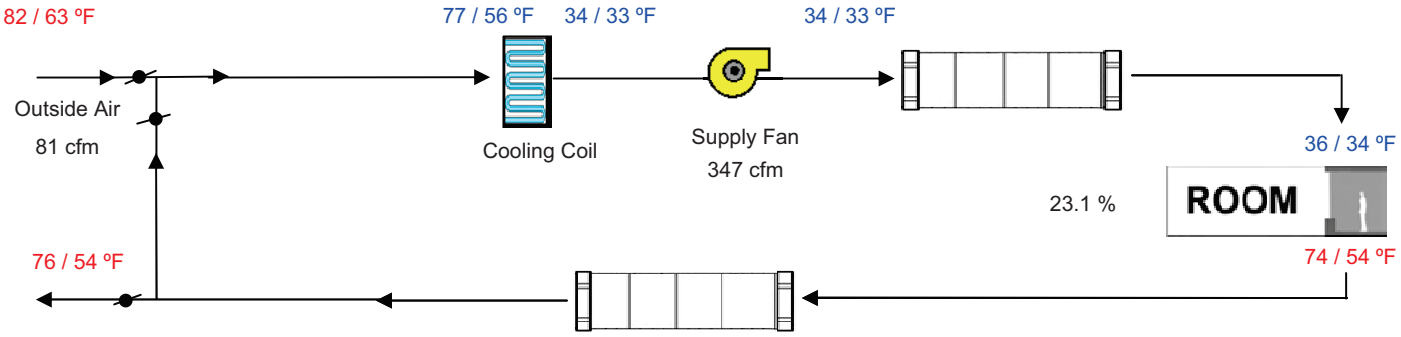
HVAC EQUIPMENT SELECTION

FC-2.1	16,104	0		20,500
Total Adjusted System Output (Adjusted for Peak Design conditions)	16,104	0		20,500
TIME OF SYSTEM PEAK		Oct 3 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
FC-2.2	132

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	11,000
Total Output (Btuh)	11,000
Output (Btuh/sqft)	83.3
Cooling System	
Output per System	9,500
Total Output (Btuh)	9,500
Total Output (Tons)	0.8
Total Output (Btuh/sqft)	72.0
Total Output (sqft/Ton)	166.7
Air System	
CFM per System	271
Airflow (cfm)	271
Airflow (cfm/sqft)	2.05
Airflow (cfm/Ton)	342.3
Outside Air (%)	24.4 %
Outside Air (cfm/sqft)	0.50
Note: values above given at ARI conditions	

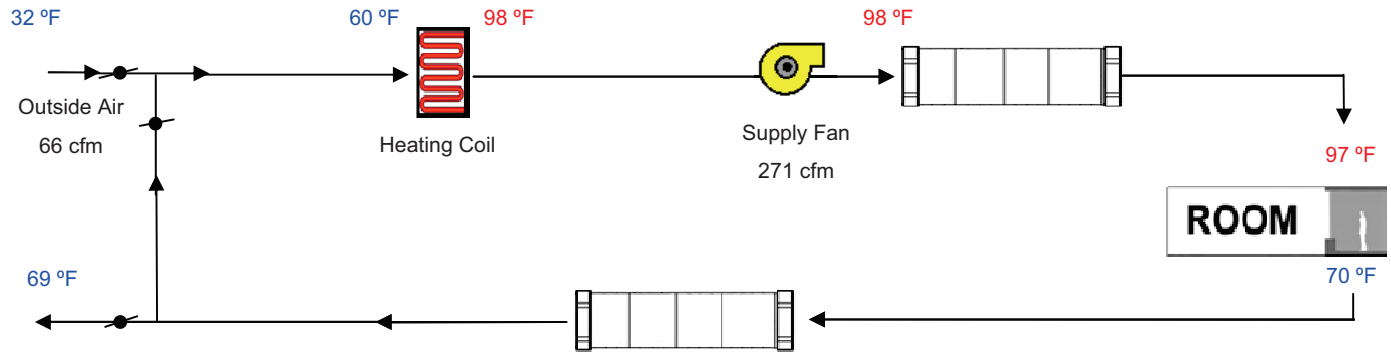
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	279	8,062	1,371	113	3,344
Return Vented Lighting		0			
Return Air Ducts		403			167
Return Fan		0			0
Ventilation	66	429	381	66	2,667
Supply Fan		0			0
Supply Air Ducts		403			167
TOTAL SYSTEM LOAD		9,297	1,752		6,346

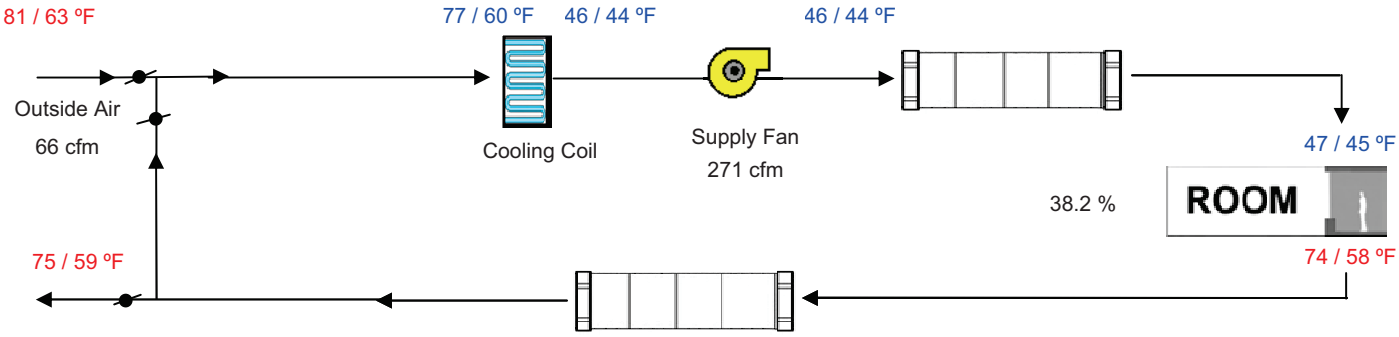
HVAC EQUIPMENT SELECTION

FC-2.2	9,052	0		11,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	9,052	0		11,000
TIME OF SYSTEM PEAK		Feb 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
FC-2.3	242

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	11,000
Total Output (Btuh)	11,000
Output (Btuh/sqft)	45.5
Cooling System	
Output per System	9,500
Total Output (Btuh)	9,500
Total Output (Tons)	0.8
Total Output (Btuh/sqft)	39.3
Total Output (sqft/Ton)	305.7
Air System	
CFM per System	271
Airflow (cfm)	271
Airflow (cfm/sqft)	1.12
Airflow (cfm/Ton)	342.3
Outside Air (%)	13.4 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

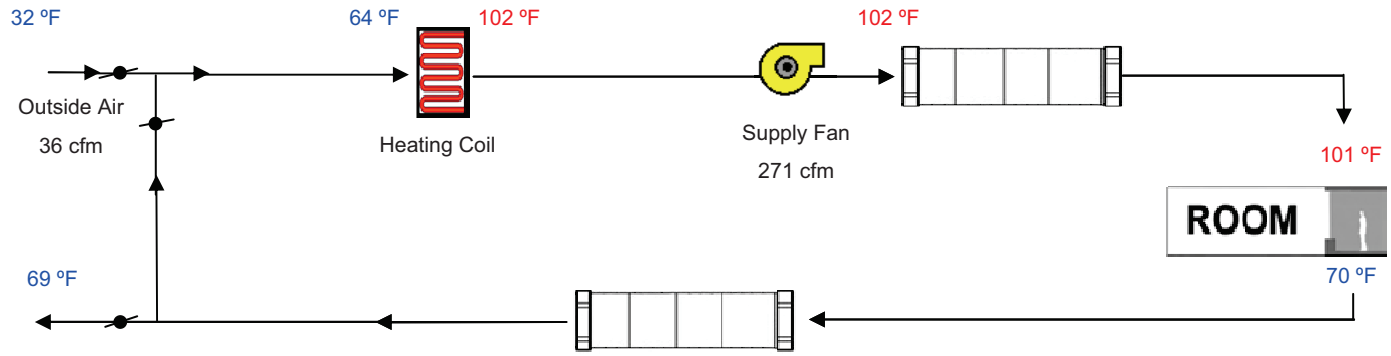
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	261	7,571	484	112	3,791
Return Vented Lighting		0			
Return Air Ducts		379			190
Return Fan		0			0
Ventilation	36	239	340	36	1,464
Supply Fan		0			0
Supply Air Ducts		379			190
TOTAL SYSTEM LOAD		8,567	824		5,634

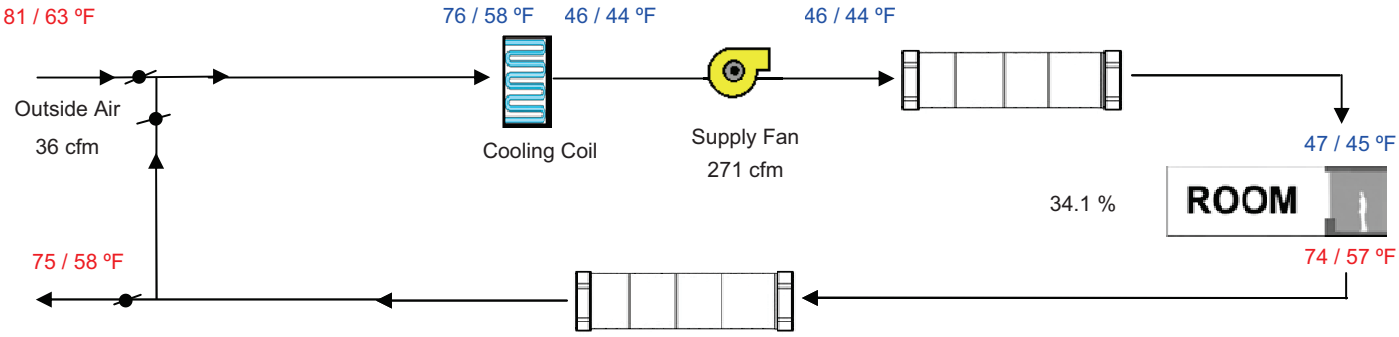
HVAC EQUIPMENT SELECTION

FC- 2.3	8,850	0		11,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	8,850	0		11,000
TIME OF SYSTEM PEAK		Feb 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
DS-1	95

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	0
Total Output (Btuh)	0
Output (Btuh/sqft)	0.0
Cooling System	
Output per System	24,200
Total Output (Btuh)	24,200
Total Output (Tons)	2.0
Total Output (Btuh/sqft)	256.1
Total Output (sqft/Ton)	46.9
Air System	
CFM per System	525
Airflow (cfm)	525
Airflow (cfm/sqft)	5.56
Airflow (cfm/Ton)	260.3
Outside Air (%)	2.7 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

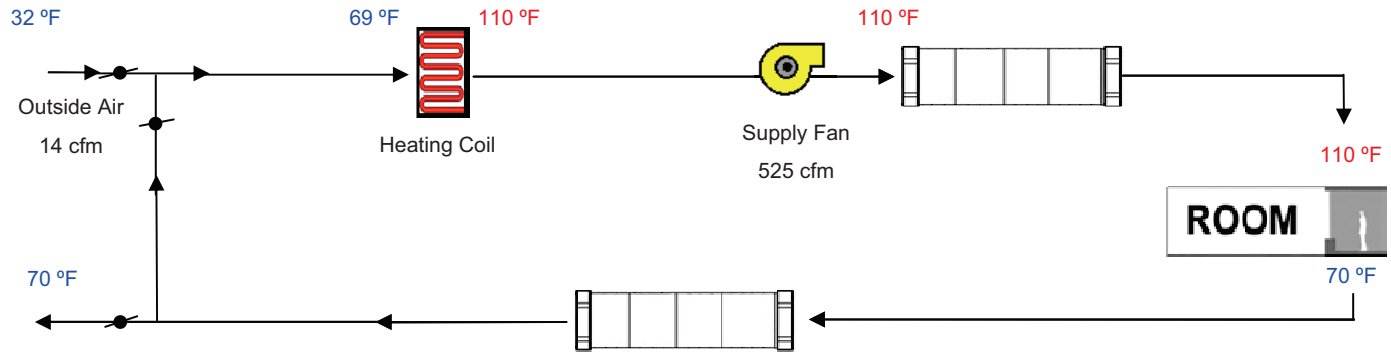
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	Sensible	Latent	CFM	Sensible
Total Room Loads	14	558	71	0	0
Return Vented Lighting		0			
Return Air Ducts		28			0
Return Fan		0			0
Ventilation	14	152	321	14	582
Supply Fan		0			0
Supply Air Ducts		28			0
TOTAL SYSTEM LOAD		767	392		582

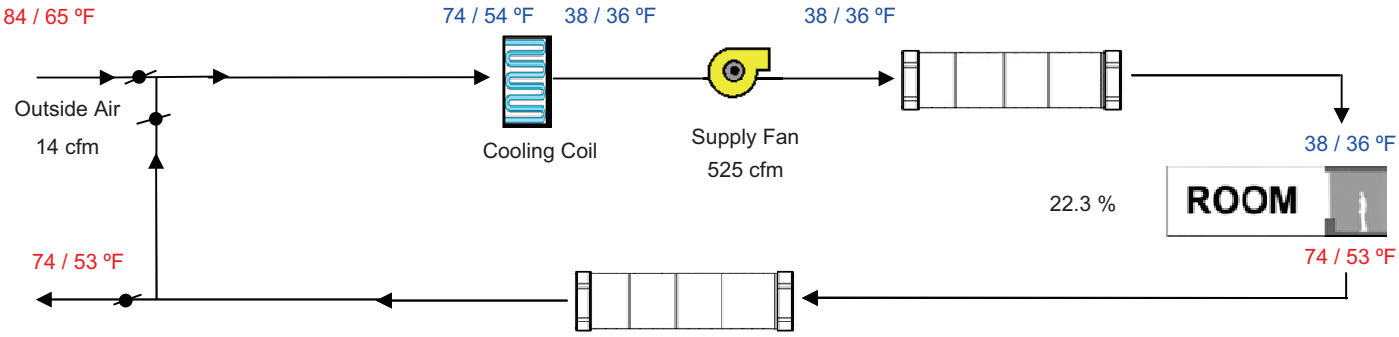
HVAC EQUIPMENT SELECTION

DS-1	20,820	0		0
Total Adjusted System Output (Adjusted for Peak Design conditions)	20,820	0		0
TIME OF SYSTEM PEAK		Jan 10 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L1 HP 1	528

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	36,800
Total Output (Btuh)	36,800
Output (Btuh/sqft)	69.7
Cooling System	
Output per System	32,300
Total Output (Btuh)	32,300
Total Output (Tons)	2.7
Total Output (Btuh/sqft)	61.2
Total Output (sqft/Ton)	196.2
Air System	
CFM per System	1,076
Airflow (cfm)	1,076
Airflow (cfm/sqft)	2.04
Airflow (cfm/Ton)	399.8
Outside Air (%)	7.4 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

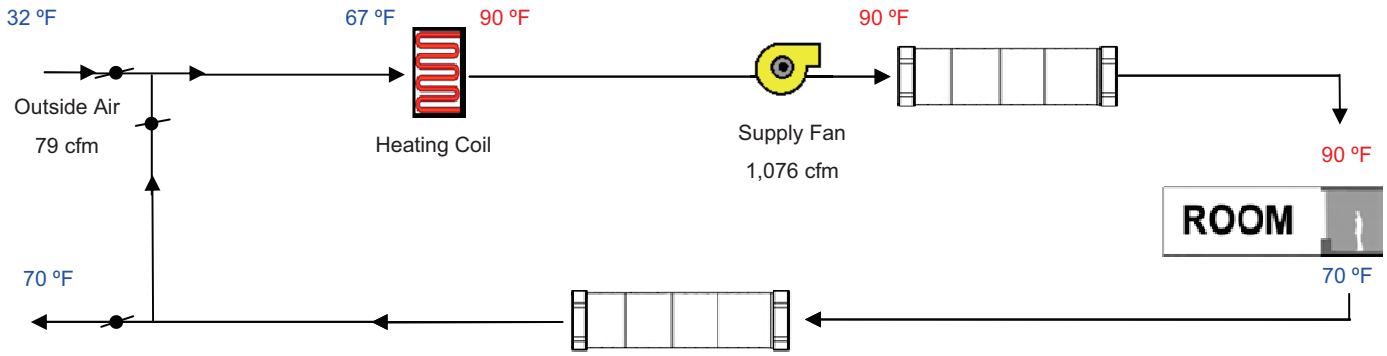
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	558	15,056	1,320	448	9,433
Return Vented Lighting		0			
Return Air Ducts		753			472
Return Fan		0			0
Ventilation	79	235	556	79	3,215
Supply Fan		0			0
Supply Air Ducts		753			472
TOTAL SYSTEM LOAD		16,797	1,876		13,591

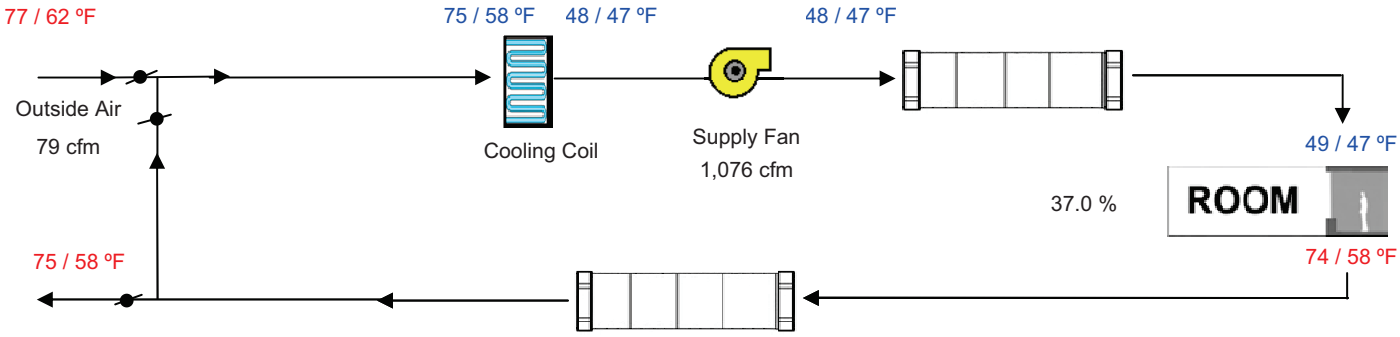
HVAC EQUIPMENT SELECTION

HP #1	30,792	0		26,838
Total Adjusted System Output (Adjusted for Peak Design conditions)	30,792	0		26,838
TIME OF SYSTEM PEAK		Sep 12 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L1 HP 2	282

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	37,300
Total Output (Btuh)	37,300
Output (Btuh/sqft)	132.3
Cooling System	
Output per System	33,600
Total Output (Btuh)	33,600
Total Output (Tons)	2.8
Total Output (Btuh/sqft)	119.1
Total Output (sqft/Ton)	100.7
Air System	
CFM per System	1,076
Airflow (cfm)	1,076
Airflow (cfm/sqft)	3.82
Airflow (cfm/Ton)	384.3
Outside Air (%)	3.9 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

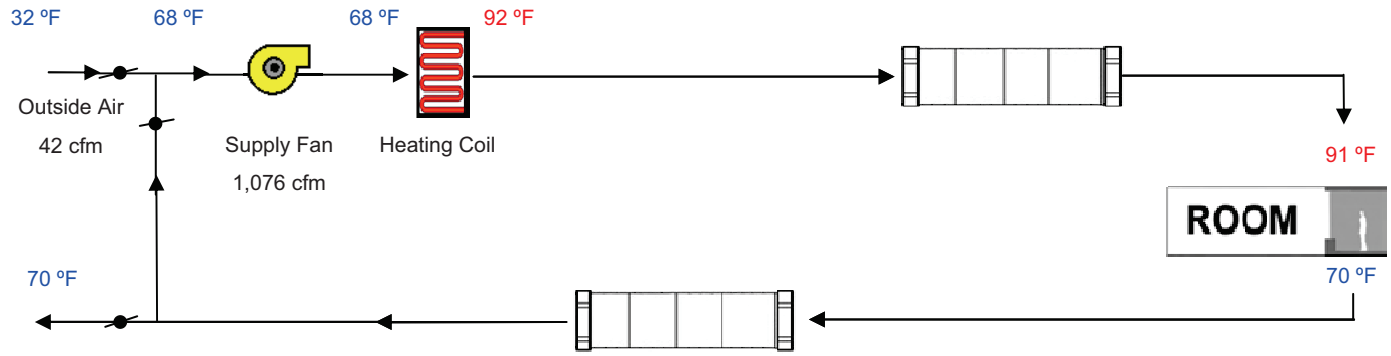
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	276	7,654	705	217	5,030
Return Vented Lighting		0			
Return Air Ducts		383			251
Return Fan		0			0
Ventilation	42	369	470	42	1,726
Supply Fan		0			0
Supply Air Ducts		383			251
TOTAL SYSTEM LOAD		8,788	1,175		7,258

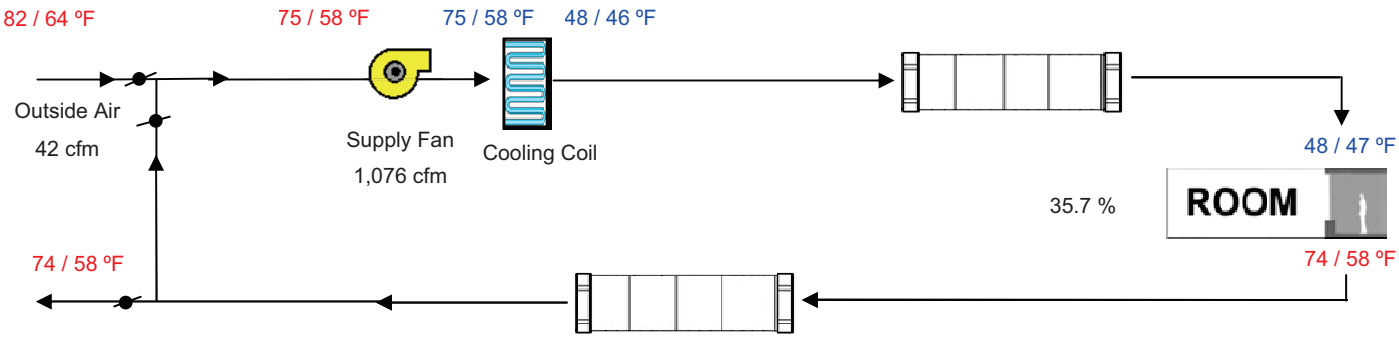
HVAC EQUIPMENT SELECTION

HP #2	31,006	0		27,203
Total Adjusted System Output (Adjusted for Peak Design conditions)	31,006	0		27,203
TIME OF SYSTEM PEAK		Jun 9 AM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
MU-1	5,356

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	200,000
Total Output (Btuh)	200,000
Output (Btuh/sqft)	37.3
Cooling System	
Output per System	0
Total Output (Btuh)	0
Total Output (Tons)	0.0
Total Output (Btuh/sqft)	0.0
Total Output (sqft/Ton)	0.0
Air System	
CFM per System	5,125
Airflow (cfm)	5,125
Airflow (cfm/sqft)	0.96
Airflow (cfm/Ton)	0.0
Outside Air (%)	100.0 %
Outside Air (cfm/sqft)	0.96
Note: values above given at ARI conditions	

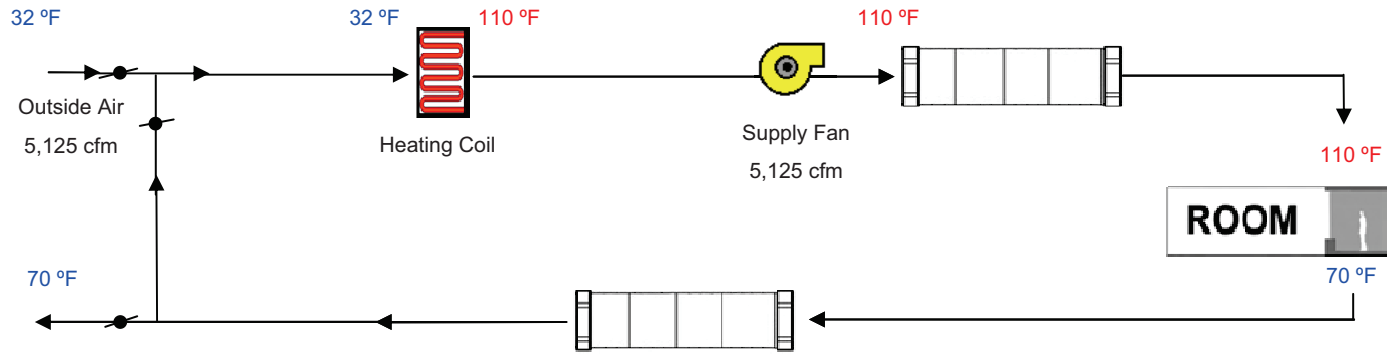
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	3,013	60,054	13,390	466	20,044
Return Vented Lighting		0			
Return Air Ducts		3,003			1,002
Return Fan		0			0
Ventilation	5,125	52,335	347	5,125	209,281
Supply Fan		0			0
Supply Air Ducts		3,003			1,002
TOTAL SYSTEM LOAD		118,395	13,737		231,330

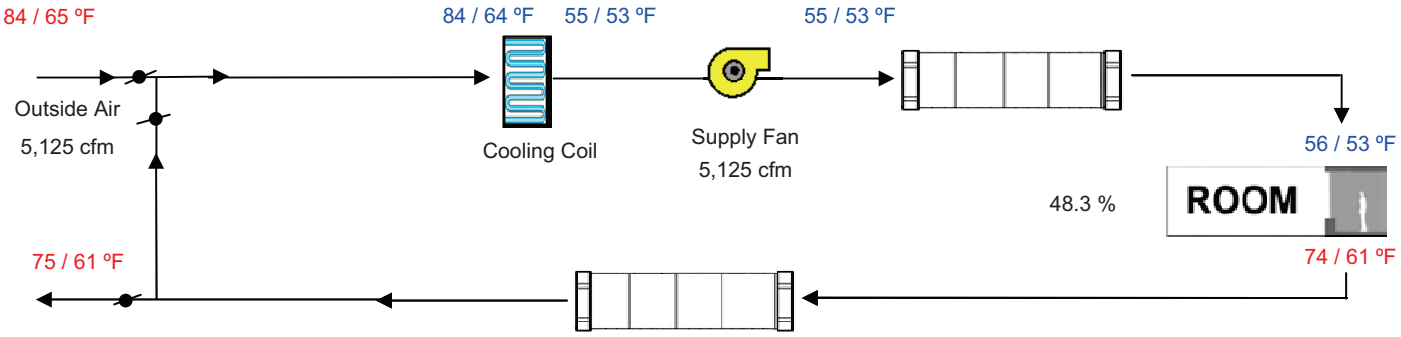
HVAC EQUIPMENT SELECTION

MU-1	0	0		200,000
Total Adjusted System Output (Adjusted for Peak Design conditions)	0	0		200,000
TIME OF SYSTEM PEAK		Jun 5 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L2 Wall Heater #201-214	7,662

ENGINEERING CHECKS

Number of Systems	28
Heating System	
Output per System	3,077
Total Output (Btuh)	86,156
Output (Btuh/sqft)	11.2
Cooling System	
Output per System	0
Total Output (Btuh)	0
Total Output (Tons)	0.0
Total Output (Btuh/sqft)	0.0
Total Output (sqft/Ton)	0.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

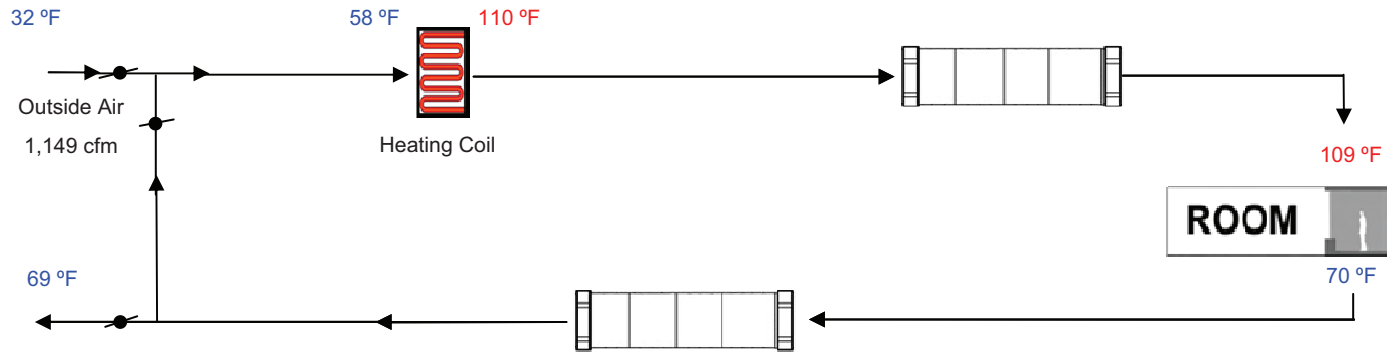
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	5,147	119,771	5,938	1,845	77,820
Return Vented Lighting		0			
Return Air Ducts		5,989			3,891
Return Fan		0			0
Ventilation	1,149	4,905	902	1,149	45,990
Supply Fan		0			0
Supply Air Ducts		5,989			3,891
TOTAL SYSTEM LOAD		136,653	6,840		131,592

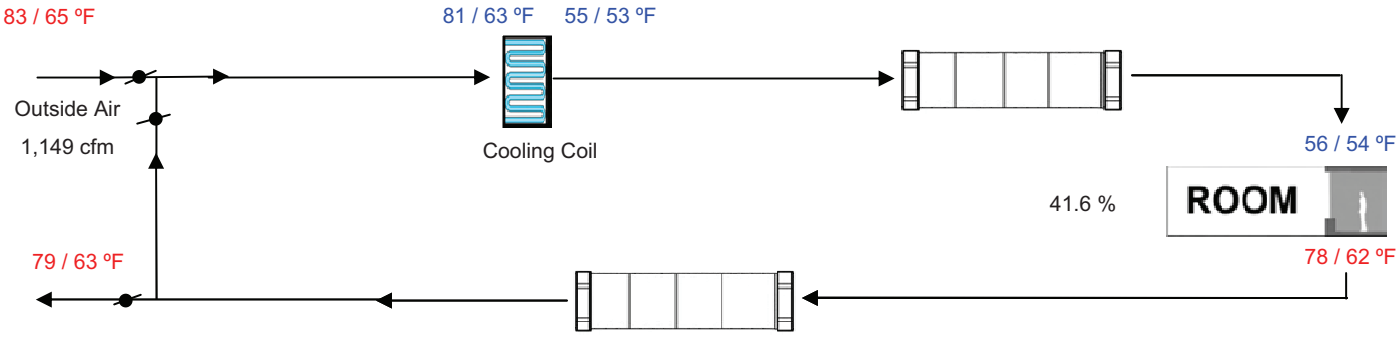
HVAC EQUIPMENT SELECTION

WH-1/WH-2	0	0		86,156
Total Adjusted System Output (Adjusted for Peak Design conditions)	0	0		86,156
TIME OF SYSTEM PEAK		Aug 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L3 Wall Heater #301-314	7,662

ENGINEERING CHECKS

Number of Systems	28
Heating System	
Output per System	3,077
Total Output (Btuh)	86,156
Output (Btuh/sqft)	11.2
Cooling System	
Output per System	0
Total Output (Btuh)	0
Total Output (Tons)	0.0
Total Output (Btuh/sqft)	0.0
Total Output (sqft/Ton)	0.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

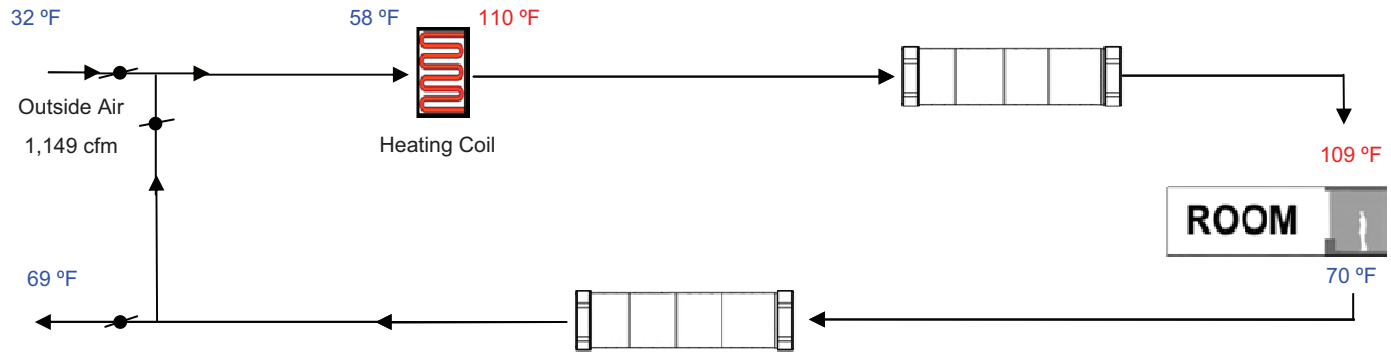
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	5,081	118,329	5,938	1,434	60,797
Return Vented Lighting		0			
Return Air Ducts		5,916			3,040
Return Fan		0			0
Ventilation	1,149	4,927	900	1,149	46,247
Supply Fan		0			0
Supply Air Ducts		5,916			3,040
TOTAL SYSTEM LOAD		135,089	6,838		113,124

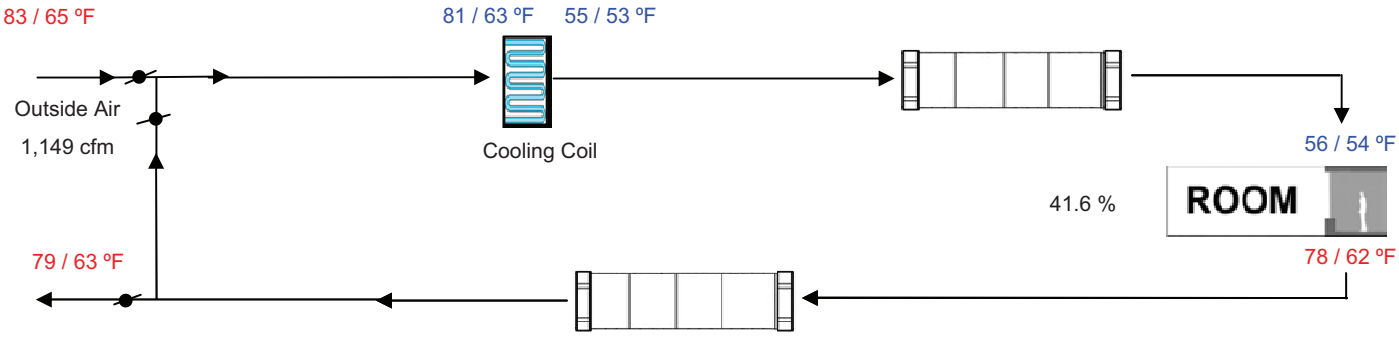
HVAC EQUIPMENT SELECTION

WH-1/WH-2	0	0		86,156
Total Adjusted System Output (Adjusted for Peak Design conditions)	0	0		86,156
TIME OF SYSTEM PEAK		Aug 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L4 Wall Heater #401-414	7,662

ENGINEERING CHECKS

Number of Systems	28
Heating System	
Output per System	3,077
Total Output (Btuh)	86,156
Output (Btuh/sqft)	11.2
Cooling System	
Output per System	0
Total Output (Btuh)	0
Total Output (Tons)	0.0
Total Output (Btuh/sqft)	0.0
Total Output (sqft/Ton)	0.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

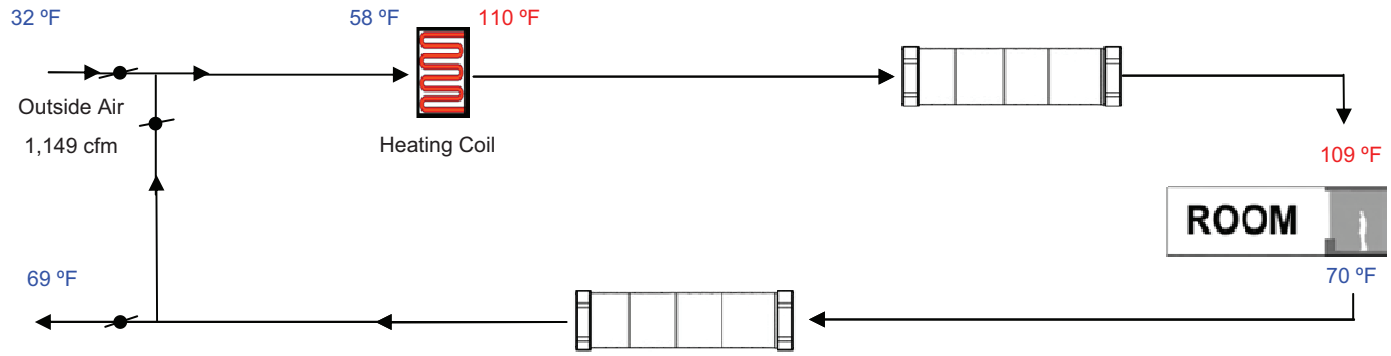
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	5,066	118,013	5,938	1,434	60,797
Return Vented Lighting		0			
Return Air Ducts		5,901			3,040
Return Fan		0			0
Ventilation	1,149	4,931	899	1,149	46,245
Supply Fan		0			0
Supply Air Ducts		5,901			3,040
TOTAL SYSTEM LOAD		134,745	6,837		113,122

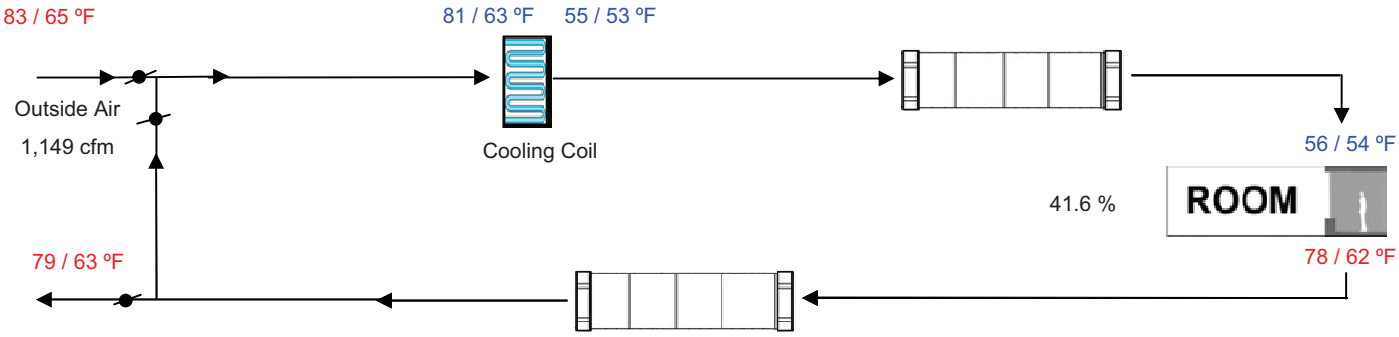
HVAC EQUIPMENT SELECTION

WH-1/WH-2	0	0		86,156
Total Adjusted System Output (Adjusted for Peak Design conditions)	0	0		86,156
TIME OF SYSTEM PEAK		Aug 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L5 Wall Heater #501-514	7,662

ENGINEERING CHECKS

Number of Systems	28
Heating System	
Output per System	3,077
Total Output (Btuh)	86,156
Output (Btuh/sqft)	11.2
Cooling System	
Output per System	0
Total Output (Btuh)	0
Total Output (Tons)	0.0
Total Output (Btuh/sqft)	0.0
Total Output (sqft/Ton)	0.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

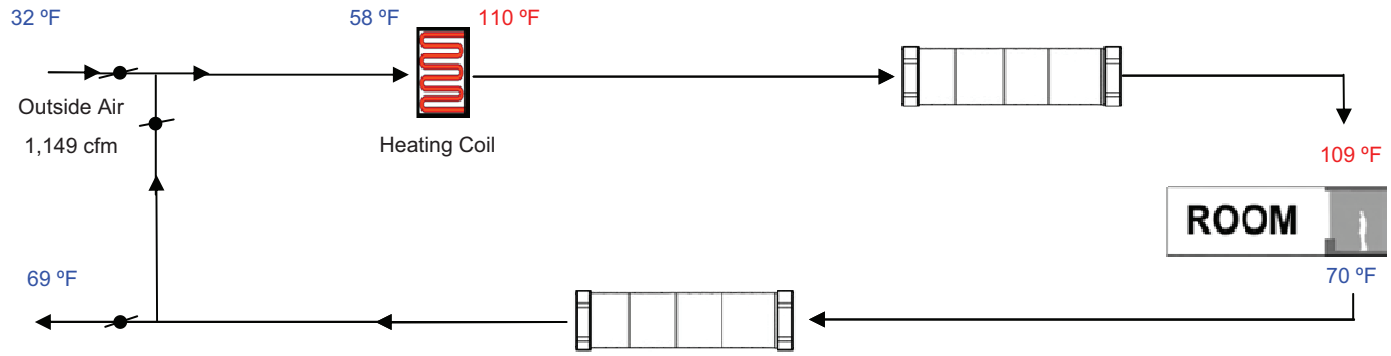
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	5,066	118,014	5,938	1,434	60,797
Return Vented Lighting		0			
Return Air Ducts		5,901			3,040
Return Fan		0			0
Ventilation	1,149	4,931	899	1,149	46,246
Supply Fan		0			0
Supply Air Ducts		5,901			3,040
TOTAL SYSTEM LOAD		134,746	6,838		113,123

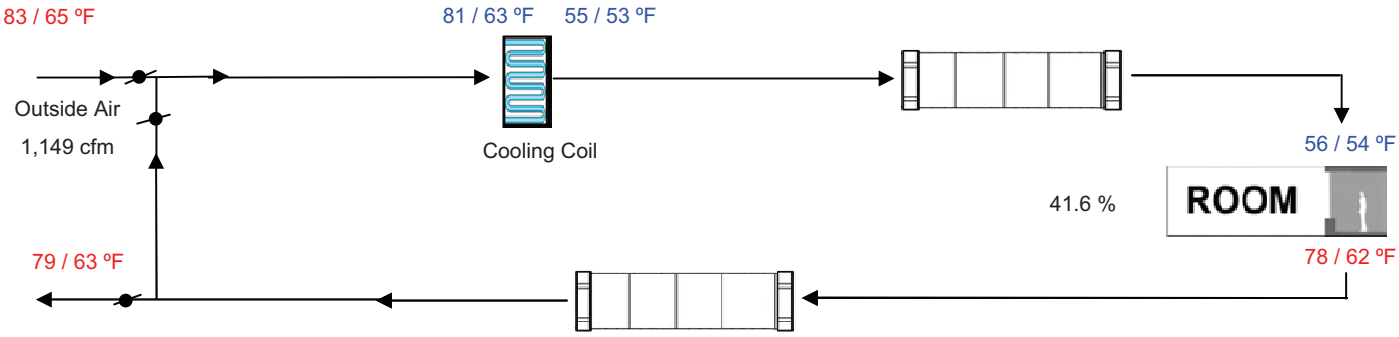
HVAC EQUIPMENT SELECTION

WH-1/WH-2	0	0		86,156
Total Adjusted System Output (Adjusted for Peak Design conditions)	0	0		86,156
TIME OF SYSTEM PEAK		Aug 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name	Date
6th and Oak Street Apartments	11/12/2010
System Name	**Floor Area**
L6 Wall Heater #601-614	7,662

ENGINEERING CHECKS

Number of Systems	28
Heating System	
Output per System	3,077
Total Output (Btuh)	86,156
Output (Btuh/sqft)	11.2
Cooling System	
Output per System	0
Total Output (Btuh)	0
Total Output (Tons)	0.0
Total Output (Btuh/sqft)	0.0
Total Output (sqft/Ton)	0.0
Air System	
CFM per System	0
Airflow (cfm)	0
Airflow (cfm/sqft)	0.00
Airflow (cfm/Ton)	0.0
Outside Air (%)	0.0 %
Outside Air (cfm/sqft)	0.15
Note: values above given at ARI conditions	

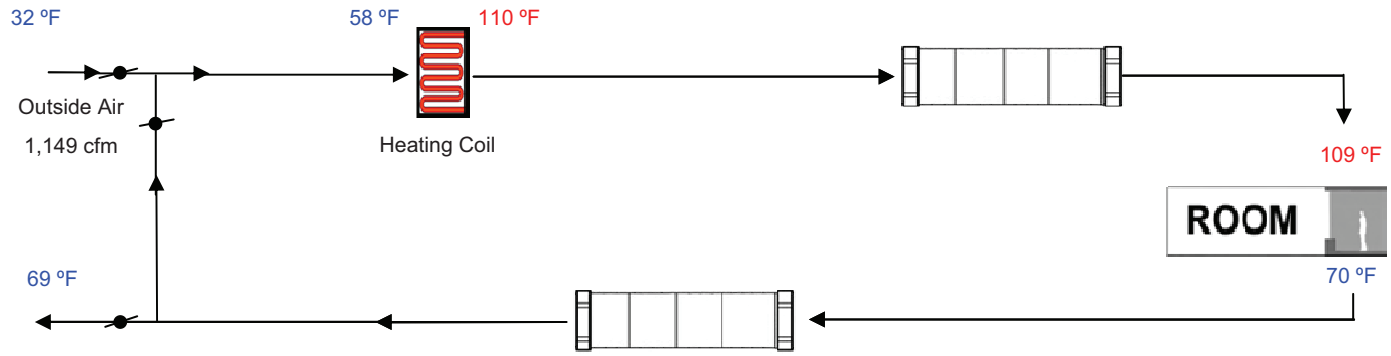
SYSTEM LOAD

	COIL COOLING PEAK			COIL HTG. PEAK	
	CFM	**Sensible**	**Latent**	**CFM**	**Sensible**
Total Room Loads	5,480	127,012	5,938	1,970	82,960
Return Vented Lighting		0			
Return Air Ducts		6,351			4,148
Return Fan		0			0
Ventilation	1,149	4,796	913	1,149	45,912
Supply Fan		0			0
Supply Air Ducts		6,351			4,148
TOTAL SYSTEM LOAD		144,509	6,851		137,168

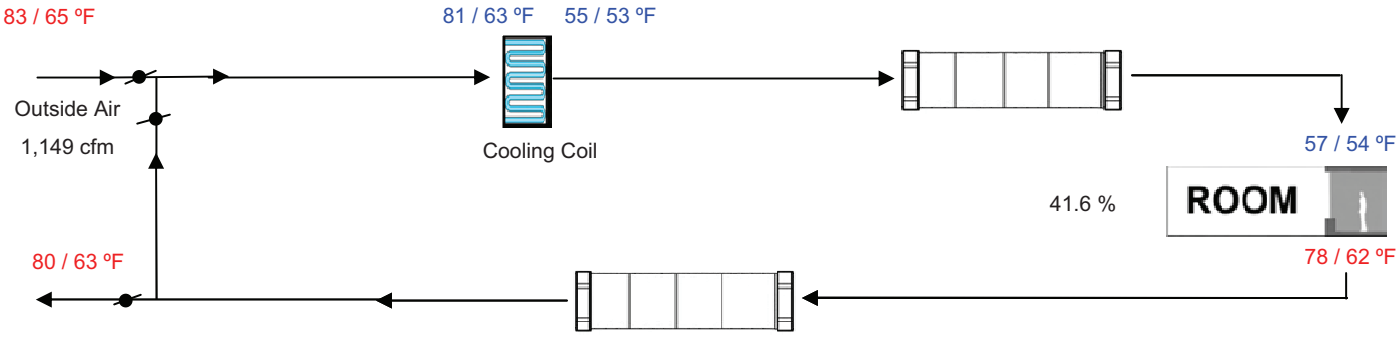
HVAC EQUIPMENT SELECTION

WH-1/WH-2	0	0		86,156
Total Adjusted System Output (Adjusted for Peak Design conditions)	0	0		86,156
TIME OF SYSTEM PEAK		Jul 4 PM		Jan 1 AM

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETICS (Airstream Temperatures at Time of Cooling Peak)



UTILITY INCENTIVE WORKSHEET — UTIL-1

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Step 1 — ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	18.03	13.47	4.56
Space Cooling	13.48	19.41	-5.93
Indoor Fans	6.74	6.58	0.17
Heat Rejection	5.61	0.00	5.61
Pumps	5.03	2.78	2.25
Domestic Hot Water	23.56	5.60	17.96
Lighting	33.14	34.21	-1.06
Receptacle	30.00	30.00	0.00
Process	0.00	0.00	0.00
Process Lighting	0.00	0.00	0.00
TOTALS:	135.61	112.06	23.55

Step 2 — PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
135.61	-	112.06	=	23.55

Margin		Standard Design		% Below Title 24*
23.55	/	135.61	=	17.4 %

Incentive Eligibility

	Yes	No
Owner Incentive (>=10%)	☑	☐

Conditioned Floor Area = 46,320.1 ft² **sq. ft.**

Step 3 — ANNUAL SITE ENERGY USE

	Standard	Proposed	Margin
Average 2pm - 5pm Peak Demand (kW)	59.3	63.3	-4.0

The values shown here are based upon the results of an EnergyPro Compliance energy analysis that uses Title 24 profiles as specified in the Alternative Calculation Method manual.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	0	4,860	304	3,630	-304	1,230
Space Cooling	22,458	0	33,184	0	-10,726	0
Indoor Fans	15,788	0	15,399	0	389	0
Heat Rejection	12,951	0	0	0	12,951	0
Pumps	12,109	0	6,954	0	5,156	0
Domestic Hot Water	0	6,676	0	1,588	0	5,088
Lighting	82,546	0	84,988	0	-2,442	0
Receptacle	75,884	0	75,884	0	0	0
Process	0	0	0	0	0	0
Process Lighting	0	0	0	0	0	0
TOTALS:	221,737	11,536	216,712	5,217	5,025	6,318

Step 4 — POTENTIAL OWNER INCENTIVE CALCULATION

Pacific Gas and Electric Company

	% Below Title-24* (from step 2)		Incentive Rate		Savings (from Step 3)		Subtotal
Electricity (kWh)	17.4 %	→	17.4 ¢/kWh	x	5,025 kWh	=	$874
Electricity (kW)		=	100.00 $/kW	x	0.0 kW	=	$0
Natural Gas		=	100.0 ¢/therm	x	6,318 therm	=	$6,318

Owner Incentive → **($500,000 max) =** $7,192

Potential incentives indicated on this report are available only through the Whole Building Approach Element of the Savings By Design Program for new construction and are NOT GUARANTEED. Projects MUST receive prior, written approval from The Utility during conceptual or early design development and must meet all other program requirements to qualify. Potential incentives are subject to program limitations based upon the incremental cost of the measures.

*% Below in this equation is limited to 30%.

UTILITY INCENTIVE WORKSHEET — UTIL-DT

Project Name	Date
6th and Oak Street Apartments	*11/12/2010*

Step 1 — ANNUAL TDV ENERGY USE (kBtu/sqft-yr)

ENERGY COMPONENT	Standard	Proposed	Margin
Space Heating	18.03	13.47	4.56
Space Cooling	13.48	19.41	-5.93
Indoor Fans	6.74	6.58	0.17
Heat Rejection	5.61	0.00	5.61
Pumps	5.03	2.78	2.25
Domestic Hot Water	23.56	5.60	17.96
Lighting	33.14	34.21	-1.06
Receptacle	30.00	30.00	0.00
Process	0.00	0.00	0.00
Process Lighting	0.00	0.00	0.00
TOTALS:	135.61	112.06	23.55

Step 2 — PERCENT BELOW TITLE 24

Adjusted TDV Energy Use
(Excludes Process Energy)

Standard Design		Proposed Design		Margin
135.61	-	112.06	=	23.55

Margin		Standard Design		% Below Title 24*
23.55	/	135.61	=	17.4 %

Incentive Eligibility

	Yes	No
Design Team Incentive (>=10%)	☑	☐

Conditioned Floor Area = 46,320 **sq. ft.**

Step 3 — ANNUAL SITE ENERGY USE

Average 2pm - 5pm Peak Demand (kW)	Standard	Proposed	Margin
	59.3	63.3	-4.0

The values shown here are based upon the results of an EnergyPro Compliance energy analysis that uses Title 24 profiles as specified in the Alternative Calculation Method manual.

ENERGY COMPONENT	Standard		Proposed		Margin	
	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)	Electricity (kWh)	Natural Gas (therms)
Space Heating	0	4,860	304	3,630	-304	1,230
Space Cooling	22,458	0	33,184	0	-10,726	0
Indoor Fans	15,788	0	15,399	0	389	0
Heat Rejection	12,951	0	0	0	12,951	0
Pumps	12,109	0	6,954	0	5,156	0
Domestic Hot Water	0	6,676	0	1,588	0	5,088
Lighting	82,546	0	84,988	0	-2,442	0
Receptacle	75,884	0	75,884	0	0	0
Process	0	0	0	0	0	0
Process Lighting	0	0	0	0	0	0
TOTALS:	221,737	11,536	216,712	5,217	5,025	6,318

Step 4 — POTENTIAL DESIGN TEAM INCENTIVE CALCULATION

	% Below Title-24* (from step 2)		Incentive Rate		Savings (from Step 3)		Subtotal
Electricity (kWh)	(17.4 % / 3)	→	5.8 ¢/kWh	x	5,025 kWh	=	$291
Electricity (kW)		=	33.33 $/kW	x	0.0 kW	=	$0
Natural Gas		=	33.3 ¢/therm	x	6,318 therm	=	$2,104

Design Team Incentive → **($50,000 max) =** $2,395

Potential incentives indicated on this report are available only through the Whole Building Approach-Design Team element of the Savings By Design Program for new construction and are NOT GUARANTEED. Projects MUST receive prior, written approval from The Utility during conceptual or early design development and must meet all other program requirements to qualify. Potential incentives are subject to program limitations based upon the incremental cost of the measures.

*% Below in this equation is limited to 30%.