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):
 - o CFA= 46,320 sf
 - natural gas= 5217 therms= 521,700 kBTU
 - o electricity= 216,712-75,884 (plug)- 84,988 (ltg)= 55,840 kWh= 190,526 kBTU
 - o TOTAL = 712,226 kBTU/ 46,320 SF= 15.38 kBTU/sf/yr
 - \circ --> much lower the MF EUI= 50 per the table.
 - Add back in Itg + 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.
- o 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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13 ID: 09079

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PERFORMANC	E CE	RTIFICATE OF CC)M	PLIA	NCE	(Part	1 of 3)	PERF-1C
Project Name								Date
6th and Oak Street A	oartme	ents						11/12/2010
Project Address				mate Zon			nd. Floor Area	Addition Floor Area
609 Oak Street Oak			(CA Clim	ate Zone 03	4	46,320	n/a
GENERAL INFORMAT		N I N I N I	_					<u> </u>
Building Type:		Nonresidential Relocatable - indicate			ise Residential climate zone		Hotel/Motel all climates	Guest Room
Phase of Construction:				Additio			Alteration	
STATEMENT OF CON								
comply with Title 24, Pa	arts 1 a	lists the building features a nd 6 of the California Code ilding using the performand	e of	Regulat	ons. This)		
		eby certifies that the docur	men	tation is	accurate and c	omplete).	
Documentation Aut	hor						ou	A. Chappell
Name L. Chappell,	CEPE R/	/NR			Signature			
Company EnergySoft,	LLC					Date	11/12/2010	
Address 1025 5th Stre	eet, Suite	A				Pho	ne <i>(415)</i> 897-64	00
City/State/Zip Novato, CA S	94945							
construction documents any other calculations	s is con submitte	v certifies that the proposed sistent with the other comp ed with this permit application ned in sections 110, 116 th	oliar ion.	nce form The pro	s and workshee posed building	ets, with has bee	the specification designed to	o meet the energy
	sign thi Califorr	y affirm that I am eligible under is document as the person res nia as a civil engineer, mecha that I am eligible under the pr	spor nica	sible for I enginee	its preparation; and r, electrical engine	nd that I leer, or I	am licensed in am a licensed	the State of architect.
	5537.2 contrac	or 6737.3 to sign this docume tor performing this work.	ent a	as the pe	rson responsible	for its pre	eparation; and t	that I am a licensed
	becaus	that I am eligible under Divisi e it pertains to a structure or t Sections 5537, 5538 and 6737	type					
Principal Envelope	Desig	ner						
Name					Signature			
Company						Date	•	
Address						Lice	nse #	
City/State/Zip						Pho	ne	
Principal Mechanica	al Desi	igner			Signature			
Company						Date	9	
Address						Lice	nse #	
City/State/Zip						Pho	ne	
Principal Lighting Des	signer							
Name	5				Signature			
Company						Date	•	
Address						Lice	nse #	
City/State/Zip						Pho	ne	
INSTRUCTIONS TO APP	LICAN	COMPLIANCE & WORKSH	IEE.	rs (chec	k box if workshe	ets are	included)	
 ENV-1C Certificate LTG-1C Certificate LTG-2C Lighting 0 	e of Com e of Com Controls (ghting Po	pliance. Required on plans. pliance. Required on plans. Credit Worksheet. wer Allowance.	2 2 2	MECH-1 MECH-2 MECH-3 MECH-5	C Certificate of C Air/Water Sid C Mechanical	[:] Compliar de/Service Ventilatior	nce. Required on Hot Water & Po and Reheat. t Details.	plans. ool Requirements. Page 3 of 89

		TE OF COM	APLIAN	ICE	(Part 2	of 3)	PERF-10
Project Name					•		Date
oth and Oak Street Ap							11/12/20
ANNUAL TDV ENERG							
Energy Component	Standard Design	Proposed Design	Compli Marg		Heating		
Space Heating	18.03	13.47		4.56			
Space Cooling	13.48	19.41		-5.93	Cooling		
ndoor Fans	6.74	6.58		0.17	Fans		
Heat Rejection	5.61	0.00		5.61	Heat Rej		
^o umps & Misc.	5.03	2.78		2.25	Pumps		
Domestic Hot Water	23.56	5.60		17.96	DHW		
_ighting	33.14	34.21		-1.06	Lighting		
Receptacle	30.00	30.00		0.00	Receptacle		
Process	0.00	0.00		0.00	Process		
Process Lighting	0.00	0.00		0.00	Process Ltg		
TOTALS	135.61	112.06		23.55			
Percent better than Star	ndard	17.4 %	(17.4	% exclud	ling process)		
		BUILDING		IPLIE	:5		
GENERAL INFORMAT	ION						
Building Orientation	(SE) 150 deg	Conditio	ned Floor	Area		46,320	sqft.
Number of Stories	6	Uncondi	tioned Flo	or Area		0	sqft.
Number of Systems	150	Conditio	ned Footp	orint Are	a	9,702	sqft.
Number of Zones	34	Natural (Gas Avail	able On	Site	Yes	
							-
	Orientati	ion Gross	Area		Glazing Area		Glazing Ratio
Front Elevation	(SE)			sqft.	2,451	sqft.	36.3 %
_eft Elevation	(SW)			sqft.	3,910	sqft.	44.2 %
Rear Elevation	(NW)			sqft.	1,057	sqft.	17.5 %
Right Elevation	(NE)			sqft.	4,602	sqft.	51.7 %
3 • • • • • •	Total			sqft.	12,020	sqft.	39.4 %
Roof				sqft.	0	sqft.	0.0 %
		k	0,000	oqn.	0		0.0 70
				_			
		Standard	ī	Prop	osed		otive Values for
Due e cuinti ce l'inlatin e De		0 700				Compa	rison only. See
Prescriptive Lighting Po			N/sqft.		0.897 W/sqft.		
Prescriptive Lighting Po Prescriptive Envelope T		0.798 V 1,206,402	V/sqft.		0.897 W/sqft. 1,194,085		
			N/sqft.				for allowed LPE

PERFORMAN	CE CERTIFICAT	E OF COMPLIAN	CE	(F	Part 3 c	of 3)	PER	<u>F-1C</u>
Project Name	Anartmanta						Date	2/201
6th and Oak Street . ZONE INFORMATIO							11/1	2/201
			Floor	Inst.	Ctrl.	Allow	ed LPD	Proc
			Area	LPD	Credits	Area (W/sf) ³	Tailored	Load
System Name	Zone Name	Occupancy Type	(sqft.)	(W/sf) ¹	(W/sf) ²	(W/st)*	(W/sf) ⁴	(W/s
=C-1.1, 1.2 =C-1.3	L1 Community Room	Convention/Conference/Mee	690	1.016	0.203			
	L1 Service Office	Office <= 250 sqft	144	1.292	0.258			
FC-2.1 FC-2.2	L1 Management Office	Office > 250 sqft	541	0.817	0.069			
	L1 Conference Room	Convention/Conference/Mee	132	0.705	0.141			
=C-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				
.1 HP 1	L1 Entry Lobby	Lobby, Main Entry	528	1.515	0.400			
.1 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			
.2 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				
Notes: 1. See LTG-1C	L3 BED East Wing	High-Rise Residential Living	2,665	*0.500				
	erisk, see LTG-1-C by others)	2. See LTG-2C 3. See LTG-30 (by others)	- 4. Se	e LTG-4C	Items ab	ove require	special docume	entation
	IDITIONS COMPLIANC							
justification and docume determines the adequacy	ntation, and special verifica	ttention to the items specified ation to be used with the perfe nay reject a building or design	ormance a	approach.	The local e	nforcemen	t agency	
Nultiple Dwelling Units are	served by a common water h	eater. Verify DHW details.						
Building has 70 Dwelling U	nits. This has been used in th	he Highrise Residential DHW ca	alcs.					
The DHW System Pennant	Boiler B-1/B-2 includes a So	lar Savings Fraction (73.0%) for	r solar the	rmal water l	neating as c	alculated fr	rom the equa	tions in
The DHW System Pennant	Boiler B-1/B-2 is a non-NAE	CA large storage gas water hea	ter. Verify	/ DHW deta	ils.			
		ntilation per Standards Section						
		P Supply Fan Motor has been s						
		ance = 0.85 shall be rated and i	-	the Cool R	oof Rating (Council in a	ccordance w	ith Secti
			abelea by		oor realing c			
	listed in this performance a use have been provided by	approach application have sp the applicant.	ecifically	been revie	wed. Adeq	uate writte	n justificatio	on and
Authorized Signature or	Stamp							

PERFORMANC	CE CERTIFICA	CE	(F	Part 3 d	of 3)	PER	F-1C	
Project Name 6th and Oak Street	1						Date 11/1	2/2010
ZONE INFORMATIO	N							
System Name	Zone Name	Occupancy Type	Floor Area (sqft.)	Inst. LPD (W/sf) ¹	Ctrl. Credits (W/sf) ²	Allowe Area (W/sf) ³	ed 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				
			2,022	0.000				
Notes: 1. See LTG-1C		2. See LTG-2C 3. See LTG-3C	C 4. See	e LTG-4C				
(items marked with asternation of the second	erisk, see LTG-1-C by others)	(by others)			items at	bove require s	special docume	entation
justification and docume	ntation, and special verifi of the justifications, and	attention to the items specified cation to be used with the perfo may reject a building or design	ormance a	approach.	The local e	nforcemen	t agency	
The exceptional features documentation for their u Authorized Signature or S	ise have been provided b		ecifically	been revie	wed. Adeq	uate writte	n justificatio	on and
EnergyPro 5.1 by EnergyS	oft User Number: 00	000 RunCode: 2010-11	-12712-45	•13 ID•0	9079		Par	ge 6 of 89

CERTIFICATE OF COMPLIANCE (Part 1 of 3) ENV-1C AND FIELD INSPECTION ENERGY CHECKLIST Date										1C				
														040
6th and Project Ad	Oak Street Apartme	nts			Т	Climate Zo	ne		Total (Cond	Floor A		$\frac{12}{2}$	
	k Street Oakland						3		Total	46,			n/a	71100
GENER	AL INFORMATION													
Building	Type:	Nonres	sidenti	al		🛛 Higł	n-Rise Res	sidential		Ho	otel/Mo	tel Guest Ro	oom	
🗖 Sch	ools (Public School)	Reloca Bldg.	table	Public S	School	☑ C	onditioned	d Spaces			🛛 Ur	nconditioned	l Spac	es
🗖 Sky	light Area for Large Enclos	<u> </u>	e ≥ 80	00 ft ² (I	f check	ed include	the ENV	-4C with s	submit	tal)				
Phase of	f Construction:	New C	onstru	iction		□ Add	ition			Alt	teratior	ı		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	ope		Ur	nconditi	ioned (file a	ffidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	D IN	SPEC	TION	NENER	GY CH	ECKLI	ST					
OPAQU	E SURFACE DETAILS	1			INSU	LATION								
Tag/ID ¹	Assembly Type ²	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-1	9 4.5	6 Metal			4.3.3	3-A7	New		
2	Wall	53	(SE)	0.127	R-1	9 4.5	Metal			4.3.3	3-A7	New		
3	Wall	41	(SW)	0.127	R-1	9 4.5	Metal			4.3.3	3-A7	New		
4	Slab	690	(N)	0.730	Non	е				4.4.7	7-A1	New		
5	Slab	144	(N)	0.730	Non	е				4.4.7	7-A1	New		
6	Wall	88	(SE)	0.127	R-1	9 4.5	Metal			4.3.3	3-A7	New		
7	Wall	62	(SW)	0.127	R-1	9 4.5	i Metal			4.3.3	3-A7	New		
8	Slab	421	(N)	0.730	Non	е				4.4.7	7-A1	New		
2. If Fail, 1	structions in the Nonresidentia then describe on Page 2 of th	ne Inspectio	on Che	nual, pa cklist Fo	ge 3-96 rm and	take approp	oriate actior	n to correc	t. A fai	l does	s not me	et complianc	e.	
FENES	TRATION SURFACE D	DETAILS							-				1	r
Tag/ID	Fenestratior	1		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ^³	Max (R)SHGC	SHGC	Source	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	Ø	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 Inc	See Instructions in the Nonresidential Compliance Manual, page 3-96.													
2. If Fail t	hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ding plar		-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		RunCo	de: 2010-1	1-12T12:45	5:13	ID: 090	79			Page 7	of 89

	TIFICATE OF CO				СН	ECKLI	ST	(Part	1 c	of 3)		ENV	-1C
Project Na	ame												Date	
	Oak Street Apartme	nts				Olimata Za			Tatal	Carad			11/12	
Project Ad 609 Oa	k Street Oakland					Climate Zor	3		Total	46,3	Floor A	Area Add	ition Flo <i>n/a</i>	or Area
	AL INFORMATION						-			,.				
Building	Type:	Nonres	sidenti	al		🛛 High	-Rise Re	sidential		Но	otel/Mo	tel Guest	Room	
	ools (Public School)		table	Public S	School	🗹 Co	onditioned	d Spaces		I	🛛 Ur	nconditio	ned Spa	ces
	light Area for Large Enclo	Bldg. sed Space	e ≥ 80	00 ft ² (l	f check			•	submit	tal)			•	
Phase of	f Construction:	New C	onstru	uction		Addi	tion			Alt	eratior	1		
Approac	h of Compliance:	Compo	onent		r	Ove	rall Envel	оре		Un	icondit	ioned (file	e affidav	∕it)
Front Or	ientation: N, E, S, W or in	•		50 deg										
		FIEL	D IN	SPEC		N ENER	GY CH	ECKLI	ST					
OPAQU	E SURFACE DETAILS				INSU	ILATION								
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring ³	Interior R- Value	Interior Furring ³	taio taio	Joint Appendix 4	Condition Status ⁴	Pass	Fail ⁵
9	Slab	120	(N)	0.730	Nor	ne				4.4.7	7-A1	New		
10	Wall	44	(SW)	0.127	R-1	19 4.5	Metal			4.3.3	3-A7	New		
11	Slab	132	(N)	0.730	Nor	ne				4.4.7	7-A1	New		
12	Wall	34	(SW)	0.127	R-1	4.5	Metal			4.3.3	3-A7	New		
13	Slab	242	(N)	0.730	Nor	ne				4.4.7	7-A1	New		
14	Slab	95	(N)	0.730	Nor	ne				4.4.7	7-A1	New		
15	Wall	117	(SE)	0.127	R-1	19 4.5	Metal			4.3.3	3-A7	New		
16	Wall	24	(NE)	0.127	R-1	19 4.5	Metal			4.3.3	3-A7	New		
2. If Fail, 1	structions in the Nonresidenti then describe on Page 2 of t	ne Inspectio	on Che				riate actior	n to correc	t. A fai	l does	not me	eet complia	ance.	
FENES	TRATION SURFACE I	DETAILS	; 						-					
Tag/ID	Fenestration	n		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ^³	Max (R)SHGC	SHGC	Source	Overhang	Conditions Status ⁴	Pass	Fail ⁶
9	Window			1	(NE)	0.310	COG	0.380)	COG	\checkmark	New		
10	Window			75	(NE)	0.310	COG	0.380)	COG	\checkmark	New		
1.0														
2. If Fail t	structions in the Nonresident hen describe on Page 2 of th	e Inspectio	n Cheo	klist For	m and t	take appropr			-		ling plai	ns if neces	-	0.000
EnergyPr	ro 5.1 by EnergySoft Us	er Number.	0000		кипСс	ode: 2010-11	1-12112:4	5:73	ID: 090	119			Page	8 of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECk		ST	(Part	1 of	3)	E	NV-	-1C
Project Na	ame				_								Da		
	Oak Street Apartme	nts								1	<u> </u>			1/12/2	
Project Ac	k Street Oakland					Clima	te Zor	ne 3		Iotal	Cond. F 46,32		rea Additio	n Flooi <i>n/a</i>	r Area
								0			10,02			n/a	
Building		Nonres	sidenti	al			High	-Rise Res	sidential		Hote	el/Mot	el Guest R	oom	
	ools (Public School)		table	Public S	School	V		nditioned	Spaces	:		Un	conditione	d Spac	es
	light Area for Large Enclos	Bidg.	e ≥ 80	00 ft ² (If	check				•					- opue	
Phase of	f Construction:	New C	onstru	iction			Addi	tion			Alte	ration			
Approac	h of Compliance:	Compo	onent			\checkmark	Over	all Envelo	оре		Unc	onditio	oned (file a	ffidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg											
		FIEL	d in	SPEC	TIOI	N EN	IER	GY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS				INSU	JLATI	ON						1		
Tag/ID ¹	Assembly Type ²	Area (ft²)	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	Nor	ne					4.4.7-4	41	New		
18	Slab	170	(N)	0.730	Nor	ne					4.4.7-4	41	New		
19	Wall	15	(NE)	0.127	R-1	19	4.5	Metal			4.3.3-4	47	New		
20	Slab	112	(N)	0.730	Nor	ne					4.4.7-4	41	New		
21	Slab	1,205	(N)	0.730	Nor	ne					4.4.7-4	41	New		
22	Wall	32	(NW)	0.127	R-1	19	4.5	Metal			4.3.3-A	47	New		
23	Wall	32	(SE)	0.127	R-1	19	4.5	Metal			4.3.3-4	47	New		
24	Roof	1,327	(NW)	0.076	R-3	30					4.2.5-4	414	New		
2. If Fail, 1	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take a	pprop	riate actior	n to correc	ct. A fai	l does n	not mee	et compliand	æ.	
FENES	TRATION SURFACE D	ETAILS													
Tag/ID	Fenestration			Area (ft ²)	Orientation N, E, S, W	Max II. Eastor	0-1 40101	U-Factor Source ³	Max (R)SHGC	SHGC	Source	Overhang	Conditions Status ⁴	Pass	Fail ⁶
										_					
										_					
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	take ap				-		ıg plan		-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		RunCo	ode: 20	10-11	-12T12:45	5:13	ID: 090	079			Page 9	of 89

	FIFICATE OF CO				СНІ	ECKLI	ST	(Part	1 of 3)		ENV	-1C
Project Na	ame				_	_	_					Date	
	Oak Street Apartme	nts				01 1 7			1			11/12/	
Project Ac	k Street Oakland					Climate Zo	ne 3		Iotal	Cond. Floor 46,320	Area Add	tion Floo <i>n/a</i>	r Area
							0			10,020		n/u	
Building		Nonres	sidenti	al		🛛 Higi	n-Rise Re	sidential		Hotel/Mo	otel Guest	Room	
	ools (Public School)		table	Public S	School		onditioned	Spaces	:	D U	nconditior	ed Spa	ces
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	⁻ check			•					
Phase of	f Construction:	New C	onstru	iction		Add	ition			Alteratio	n		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	оре		Uncondi	tioned (file	affidav	it)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	D IN	SPEC	TION		GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS	1			INSU	LATION	1		1		I		
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.5	Metal			4.3.3-A7	New		
26	Wall	32	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
27	Wall	32	(NW)	0.063	R-1	3 6.0	None			4.3.1-A3	New		
28	Wall	32	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
29	Wall	32	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
30	Wall	32	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
31	Wall	32	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
32	Wall	32	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	al Complia e Inspectio	nce Ma on Che	anual, pa cklist Fo	ge 3-96 rm and	i. take approp	oriate action	n to correc	ct. A fai	l does not m	eet complia	nce.	
FENES	TRATION SURFACE D	ETAILS	5								1		
Tag/ID ¹	Fenestration	I		Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ^³	Max (R)SHGC	SHGC	Source [°] Overhang	Conditions Status ⁴	Pass	Fail ⁶
									_				
									_				
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ans if neces	-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	: 0000		кипСо	de: 2010-1	1-12112:4	5:13	ID: 090	079		Page 1) of 89

	FIFICATE OF CO				СНІ	ECKLI	ST	(Part	1 of 3)	E	NV-	1C
Project Na	ame											Dat	-	
	Oak Street Apartme	nts									-		/12/2	
Project Ac	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor 46,320	Area	Addition	n Floor <i>n/a</i>	Area
							5			40,320			11/a	
Building		Nonres	sidenti	al		🛛 Hia	n-Rise Re	sidential		Hotel/M	otel Gu	est Ro	om	
	ools (Public School)	Reloca	table	Public S	School	-	onditioned				Jncondi			00
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	check			•				lioneu	opac	63
Phase of	f Construction:	New C	onstru	iction		□ Add	ition			Alteratio	on			
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	оре		Uncond	litioned	(file af	fidavit	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	D IN	SPEC	TION	NENEF	GY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS				INSU	LATION								
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.8	5 Metal			4.3.3-A7	New			
35	Wall	56	(NE)	0.127	R-1	9 4.3	6 Metal			4.3.3-A7	New			
36	Wall	35	(SE)	0.127	R-1	9 4.5	5 Metal			4.3.3-A7	New			
37	Wall	134	(SW)	0.127	R-1	9 4.3	6 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-1	9 4.3	6 Metal			4.3.3-A7	New			
40	Wall	108	(NE)	0.127	R-1	9 4.3	6 Metal			4.3.3-A7	New			
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	al Complia e Inspectio	nce Ma on Che	anual, pa cklist For	ge 3-96 rm and	take appro	oriate action	n to corre	ct. A fai	l does not n	neet com	npliance).	
FENES	TRATION SURFACE D	ETAILS											r	
Tag/ID ¹	Fenestration	I		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
											_			
									_					
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ans if ne			of 00
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		Runco	de: 2010-1	1-12112:4	J. I Š	ID: 09	119		Pa	iye 11	of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECKLI	ST	(Part	1 of 3)		ENV	-1C
Project Na	ame											Date	
	Oak Street Apartme	nts										11/12/	
Project Ac	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor 46,320	Area Addi	tion Floc <i>n/a</i>	r Area
							3			40,320		II/d	
	-	Nonres	sidenti	al		🛛 Hiał	-Rise Re	sidential		Hotel/Ma	otel Guest	Room	
Building	Type	Reloca		Public S	School	-							
	ools (Public School)	Biag.	e ≥ 80	00 ft ² (If	check		the ENV	•			ncondition	ed Spa	ces
	f Construction:					□ Add					n		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	ope		Uncondi	tioned (file	affidav	it)
	ientation: N, E, S, W or in			50 deg							,		,
	, , ,	-		0			GY CH	FCKI	IST				
OPAQU	E SURFACE DETAILS												
			<u>ح</u>			_				4			
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring ³	Interior R- Value	Interior Furring ³	Joint Appendix ²	Condition Status ⁴	Pass	Fail ⁵
41	Wall	39	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
42	Wall	80	(SW)	0.127	R-1	9 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-1	9 4.5	Metal			4.3.3-A7	New		
45	Wall	106	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
46	Wall	39	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
47	Wall	106	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
48	Wall	60	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
			, ,										
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of the	al Complia e Inspectio	nce Ma on Che	anual, pa cklist Fo	ge 3-96 rm and t	take approp	riate action	n to correc	ct. A fai	l does not m	eet complia	nce.	•
FENES	TRATION SURFACE D	ETAILS											
Tag/ID ¹	Fenestration	I		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ^³	Max (R)SHGC	SHGC	Source ⁵ Overhang	Conditions Status ⁴	Pass	Fail ⁶
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and ta	ake approp			-		ans if neces	-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	de: 2010-1	1-12112:45	5:13	ID: 090	079		Page 12	2 of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECKLI	ST	(Part	1 of 3)		ENV	-1C
Project Na	ame				_	_	_					Date	
	Oak Street Apartme	nts										11/12/	
Project Ac	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor 46,320	Area Add	ition Floc <i>n/a</i>	or Area
							0			40,020		n/a	
Building	-	Nonres	sidenti	al		🛛 High	-Rise Re	sidential		Hotel/Mo	otel Guest	Room	
	ools (Public School)		table	Public S	School	-	onditioned			D U	nconditior	ed Sna	200
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	check			•					
Phase of	f Construction:	New C	onstru	iction		D Add	ition			Alteratio	n		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	оре		Uncondi	tioned (file	affidav	it)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	D IN	SPEC	TION	NENER	GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS	-			INSU	LATION					-		
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.5	Metal			4.3.3-A7	New		
50	Wall	106	(NE)	0.127	R-1	9 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-1	9 4.5	Metal			4.3.3-A7	New		
53	Wall	106	(NE)	0.127	R-1	9 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-1	9 4.5	Metal			4.3.3-A7	New		
56	Wall	106	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	al Complia le Inspectio	nce Ma on Che	anual, pa cklist Fo	ge 3-96 rm and f	take approp	riate actio	n to correc	ct. A fai	l does not m	eet complia	nce.	
FENES	TRATION SURFACE	ETAILS											1
Tag/ID ¹	Fenestration	I		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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									_				
		<u>.</u>											
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and ta	ake approp			-		ans if neces	-	0 - (0 0
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		runCo	de: 2010-1	1-12112:4:	0.13	ID: 090	019		Page 1	5 OT 89

	TIFICATE OF CO FIELD INSPECT				СНІ	ECKL	IST	(Part	1 of 3)	E	NV-	1C
Project Na	ame				_	_	_					Dat	-	
	Oak Street Apartme	nts				0			1				/12/2	
Project Ac	k Street Oakland					Climate Z	one 3		lotal	Cond. Floo 46,320	r Area	Addition	n Floor <i>n/a</i>	Area
							0			10,020			n, a	
Building	-	Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/N	lotel Gu	uest Ro	om	
	ools (Public School)		table	Public S	School		Conditione	d Spaces	3		Jncond	litioned	Spac	es
	light Area for Large Enclos	Bidg.	e ≥ 80	00 ft ² (If	⁻ check			•					opuo	
Phase of	f Construction:	New C	onstru	iction		D Ad	dition			Alterati	on			
Approac	h of Compliance:	Compo	onent			Ov Ov	erall Enve	ope		Uncond	ditioned	(file af	fidavit	:)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	D IN	SPEC	TION	N ENER	RGY CH	IECKL	IST					
OPAQU	E SURFACE DETAILS				INSU	LATION							r	r
Tag/ID ¹	57 Floor 578 (N) 0.084 R-8 1.0 None 4.4.6-A5 New I I													
57		578	(N)	0.084	R-	·8 1.	0 None			4.4.6-A5	New	/		
58	Wall	43	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
59	Wall	143	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
60	Wall	250	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
61	Wall	65	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
62	Wall	38	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
63	Wall	208	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
64	Wall	140	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	/		
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	al Complian le Inspectio	nce Ma on Che	inual, pa cklist Foi	ge 3-96 rm and	i. take appro	priate actio	n to corre	ct. A fai	l does not r	neet cor	npliance).	
FENES	TRATION SURFACE D	ETAILS					I	1						
Tag/ID ¹	Fenestration	I		Area (ft ^ć)	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
									_		_			
											_			
									_					
		<u>.</u>												
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake appro			-		lans if ne			
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	de: 2010-	11-12T12:4	5:13	ID: 090)/9		Pa	age 14	of 89

	FIFICATE OF CO				СН	ECK		ST	(Part	1 0	of 3)		E	NV-	1C
Project Na	ame													Dat	-	
	Oak Street Apartme	nts													/12/2	
Project Ac	^{ddress} k Street Oakland					Climat	e Zor	ne 3		Total	Cond. 46,3	Floor A	rea A		n Floor <i>n/a</i>	Area
								3			40,0	520			11/a	
		Nonres	sidenti	al			Hiah	-Rise Res	sidential		Но	tel/Mot	tel Gue	est Bo	om	
Building	Type	Roloca		Public S	School											
	ools (Public School)	Bidg.	e ≥ 80	00 ft ² (If	check	ked inc		the ENV	•			🗆 Un	ncondit	ionea	Spac	es
Phase of	f Construction:	New C	onstru	iction			Addi	tion			Alt	eration	1			
Approac	h of Compliance:	Compo	onent			\checkmark	Over	all Envel	ope		Un	conditi	ioned (file af	fidavit	:)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg					-							
		FIEL		SPEC		N EN	ER	GY CH	ECKL	IST						
OPAQU	E SURFACE DETAILS					JLATIC										
		Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-	Value	Exterior Furring ³	Interior R- Value	Interior Furring ³	ţ	Appendix 4	Condition	atus ⁴	Pass	il
Tag/ID ¹	Assembly Type ²	Arc	δź	3	ъ З Ч	Ĕ	Va	뒷당	Int Va	Fu	-	Ap A	ပိ	Sta	Ра	Fail ⁵
65	Wall	30	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
66	Wall	101	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
67	Wall	39	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
68	Wall	39	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
69	Wall	101	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
70	Wall	60	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
71	Floor	605	(N)	0.084	R-	-8	1.0	None			4.4.6	6-A5	New			
72	Wall	30	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	8-A7	New			
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	al Complia e Inspectio	nce Ma on Che	inual, pa cklist Foi	ge 3-96 rm and	6. take ap	prop	riate actior	n to correc	ct. A fai	l does	not me	et com	oliance	Э.	
FENES	TRATION SURFACE D	ETAILS														1
Tag/ID ¹	Fenestration	I		Area (ft ²)	Orientation N, E, S, W	Max U-Factor		U-Factor Source ^³	Max (R)SHGC	SHGC	Source	Overhang	Conditions	Status	Pass	Fail ⁶
										_						
										_						
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	take ap				-		ing plar	ns if nec			
EnergyPr	o 5.1 by EnergySoft Use	er Number:	0000		кипСо	ode: 20	70-11	-12T12:45	5:13	ID: 090)79			Pa	age 15	ot 89

	TIFICATE OF CO FIELD INSPECT				СНІ	ECKLI	ST	(Part	1 of 3))	El	۷V-	1C
Project Na	ame											Date		
	Oak Street Apartme	nts											/12/2	
Project A	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor 46,320	Area Ad		Floor n/a	Area
							3			40,320		I	I/d	
		Nonres	sidenti	al		🛛 Hial	n-Rise Re	sidential		Hotel/M	otel Gues	st Ro	om	
Building	Type	Reloca		Public S	School	-								
	ools (Public School)	Biag.	e ≥ 80	00 ft ² (If	check		onditioned	•			Inconditio	oned	Spac	es
-	f Construction:						ition				n			
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	ope		Uncond	itioned (fi	le aff	idavit	:)
	ientation: N, E, S, W or in		1	50 deg										,
	, , ,	-		0			GY CH	FCKI	IST					
OPAQU	E SURFACE DETAILS					LATION								
			<u>ح</u>			_				4				
Tag/ID ¹	Assembly Type ²	Area (ft²)	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	olatus	Pass	Fail ⁵
73	Wall	93	(SW)	0.127	R-1	9 4.5	6 Metal			4.3.3-A7	New			
74	Wall	30	(SE)	0.127	R-1	9 4.5	6 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-1	9 4.5	6 Metal			4.3.3-A7	New			
77	Wall	103	(SW)	0.127	R-1	9 4.5	6 Metal			4.3.3-A7	New			
78	Wall	59	(SE)	0.127	R-1	9 4.5	6 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-1	9 4.5	5 Metal			4.3.3-A7	New			
			, ,											
1. See Ins 2. If Fail, 1	structions in the Nonresidentia then describe on Page 2 of the	al Complia e Inspectio	nce Ma on Che	anual, pa cklist Fo	ge 3-96 rm and	take approj	oriate action	n to correc	ct. A fai	l does not m	leet compl	liance		
FENES	TRATION SURFACE D	ETAILS									-			
Tag/ID	Fenestration	I		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ^³	Max (R)SHGC	SHGC	Source [°] Overhang	Conditions Status ⁴		Pass	Fail ⁶
									_					
2. If Fail t	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ans if nece	-		
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		RunCo	de: 2010-1	1-12T12:4	5:13	ID: 09	079		Pa	ge 16	of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECKLI	ST	(Part	1 of 3))	Ε	NV-	1C
Project Na	ame				_	_	_					Dat	-	
	Oak Street Apartme	nts											/12/2	
Project Ac	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor 46,320	Area A	Additior	n Floor <i>n/a</i>	Area
							0			40,020			11/4	
Building		Nonres	sidenti	al		🛛 Higi	n-Rise Re	sidential		Hotel/M	otel Gu	est Ro	om	
	ools (Public School)		table	Public S	School	-	onditioned			ο ι	Jncondi	tioned	Snac	es
	light Area for Large Enclos	Bidg.	e ≥ 80	00 ft ² (If	check			•					opuo	
Phase of	f Construction:	New C	onstru	iction		D Add	ition			Alteratio	on			
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	оре		Uncond	itioned	(file af	fidavit	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	d in	SPEC	TION	N ENER	GY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS	1			INSU	LATION					T			1
Tag/ID ¹	81 Wall 103 (SW) 0.127 R-19 4.5 Metal 4.3.3-A7 New D													
81		103	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
82	Wall	23	(SE)	0.127	R-1	9 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-1	9 4.5	Metal			4.3.3-A7	New			
85	Wall	134	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
86	Wall	13	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
87	Wall	56	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
88	Wall	305	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
2. If Fail, t	structions in the Nonresidentian the Nonresidentian the the scribe on Page 2 of the structure of the structu	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and t	take appror	priate action	n to correc	ct. A fai	l does not m	neet com	pliance).	
FENES	TRATION SURFACE D	DETAILS											1	
Tag/ID ¹	Fenestration	I		Area (ft²)	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
											<u> </u>			
									_					
									_					
		<u>.</u>												
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and ta	ake approp			-		ans if ne	-		
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	de: 2010-1	1-12112:4	5:13	ID: 090	079		Pa	age 17	of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECKL	IST		(Part	1 of 3)	E	NV-	1C
Project Na					••••							Dat	e	
	Oak Street Apartme	nts											/12/2	
Project Ac	ddress k Street Oakland					Climate Z	one 3		Total	Cond. Floo 46,320		Additio	n Floor <i>n/a</i>	Area
							3			40,320			II/a	
		Nonres	sidenti	al		🛛 Hio	h-Rise F	lesidentia		Hotel/N	/lotel G	iuest Ro	om	
Building	Type. –	Balaca		Public S	School	-								
	ools (Public School)	Bidg.	e ≥ 80	00 ft ² (If	check			ed Space			Uncon	ditioned	Spac	es
	f Construction:	•					dition			•	ion			
Approac	h of Compliance:	Compo	onent			Ø Ov	erall Env	elope		Uncon	ditione	d (file at	ffidavit	t)
	ientation: N, E, S, W or in	Degrees:	1	50 deg				•						
		-		0			RGY C	HECKI	IST					
OPAQU	E SURFACE DETAILS			<u>. </u>										
			۲ ۲			_				4				
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Value	Exterior Furring ³	Interior R- Value	Interior Furring ³	Joint Appendix ²		Condition Status ⁴	Pass	Fail ⁵
89	Wall	39	(SE)	0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	W		
90	Wall	110	(NE)	0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	W		
91	Wall	80		0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	W		
92	Wall	108	. ,	0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	W		
93	Wall	60	(SE)	0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	w		
94	Wall	39	. ,	0.127	R-1		5 Met	al		4.3.3-A7	Ne	w		
95	Wall	106	. ,	0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	w		
96	Wall	39	. ,	0.127	R-1	9 4	5 Met	al		4.3.3-A7	Ne	W		
			,											
1. See Ins 2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	al Complian le Inspectio	nce Ma on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appro	opriate act	ion to corr	ect. A fai	l does not	meet co	ompliance	ə.	1
FENES	TRATION SURFACE D	ETAILS												
Tag/ID ¹	Fenestratior	I		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ³	Max (R)SHGC	SHGC	Source ³ Overhang		Conditions Status⁴	Pass	Fail ⁶
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake appro	-		-		olans if r		-	-100
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	de: 2010-	11-12112	45:73	ID: 09	079		Pa	age 18	ot 89

	FIFICATE OF CO				СН	ЕСК	LIS	ST	(Part	10	of 3)		Ε	NV-	1C
Project Na	ame				_	_								Dat	-	
	Oak Street Apartme	nts				01	_				<u> </u>				/12/2	
Project Ac	k Street Oakland					Climate	e Zor	ie 3		Iotal	Cond. 46,3	Floor A	rea Ad		n Floor <i>n/a</i>	Area
								0			10,0	20			n, a	
Building	-	Nonres	sidenti	al			ligh	-Rise Res	sidential		Ho	tel/Mot	tel Gues	t Ro	om	
	ools (Public School)		table	Public S	School		Co	onditioned	d Spaces	;	0	⊐ Un	nconditio	ned	Spac	es
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	check	ked incl			•							
Phase of	f Construction:	New C	onstru	iction			Addit	tion			Alte	eration	1			
Approac	h of Compliance:	Compo	onent				Over	all Envel	ope		Un	conditi	ioned (fil	e af	fidavit)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg												
		FIEL	D IN	SPEC				<u>GY CH</u>	ECKL	IST	•					
OPAQU	E SURFACE DETAILS	1			INSU	ILATIO	N			1			1			
Tag/ID ¹	Production Assembly Type Image: Constraint of the second														Fail ⁵	
97		108	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
98	Wall	60	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
99	Wall	39	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
100	Wall	108	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
101	Wall	39	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
102	Wall	106	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
103	Wall	13	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
104	Wall	65	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
						_										
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	3. take ap	prop	riate actior	n to correc	ct. A fai	l does	not me	et compli	ance).	
FENES	TRATION SURFACE D	DETAILS														
Tag/ID ¹	Fenestration	I		Area (ft ²)	Orientation N, E, S, W	Max U-Factor		U-Factor Source ^³	Max (R)SHGC	SHGC	Source	Overhang	Conditions Status ⁴		Pass	Fail ⁶
										_						
							-+				-+					
											-+					
1 600 100		ol Complia			ao 0.00											
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the		n Cheo	klist For	m and t	take app	-			-		ing plar	ns if nece			of oo
LitergyPr	o 5.1 by EnergySoft Use	er inuttiber.	0000		Nunco	ue. 201	0-11	-12T12:45	.13	ID: 090	119			Ρĉ	age 19	01 09

	FIFICATE OF CO				СН	ECK	LIS	ST	(Part	1 0	f 3)		E	NV-	1C
Project Na	ame				_	_								Date	-	
	Oak Street Apartme	nts				01	-			1	<u> </u>				/12/2	
Project Ac	k Street Oakland					Climate	e Zor	ie 3		Iotal	46,3	Floor A ≩20	rea Ad		n Floor n∕a	Area
								0			10,0	20			<i>n</i> /u	
Building		Nonres	sidenti	al			ligh	-Rise Res	sidential		Hot	tel/Mot	tel Gues	st Ro	om	
	ools (Public School)		table	Public S	School		Со	onditioned	d Spaces	5	0	J Un	conditic	ned	Spac	es
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	check	ked incl			•							
Phase of	f Construction:	New C	onstru	iction			Addit	tion			Alte	eration	l			
Approac	h of Compliance:	Compo	onent				Dver	all Envelo	оре		Uno	conditi	oned (fi	le aff	idavit	:)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg												
		FIEL	D IN	SPEC				<u>GY CH</u>	ECKL	IST						
OPAQU	E SURFACE DETAILS				INSU	JLATIO	N			1			1			
Tag/ID ¹	Tag/ID Assembly Type Image: Constraint of the second seco														Fail ⁵	
105		250	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
106	Wall	137	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
107	Wall	39	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
108	Wall	41	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
109	Wall	209	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
110	Wall	30	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
111	Wall	19	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
112	Wall	116	(SW)	0.127	R-1	19	4.5	Metal			4.3.3-	-A7	New			
						_										
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take ap	prop	riate actior	n to correc	ct. A fai	l does	not me	et compl	iance		
FENES	TRATION SURFACE D	ETAILS														
Tag/ID	Fenestration			Area (ft²)	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
															<u> </u>	
							-+			_					<u> </u>	
							+									
							+									
							+									
1 See Inc	structions in the Nonresidentia	al Complia	nce Ma	nual na	ae 3-96	3						-				
2. If Fail th	hen describe on Page 2 of the		n Cheo	klist For	m and t	take app		iate action		t. Verify <i>ID: 090</i>		ing plar	ns if nece			of 89
Liidigyi I		, number.	5000				<i>v</i> 11	12112.40		. 030				10	90 20	51 00

	TIFICATE OF CO FIELD INSPECT				СНІ	ECKLI	ST	(Part	1 of 3)		El	NV-	1C
Project Na												Date	-	
6th and Project Ad	Oak Street Apartme	nts				Climate Zor			Total	Cond. Floor	Aroo Ar		/12/2	
	k Street Oakland					Climate Zor	3		Total	46,320	Area Ac		n/a	Area
	AL INFORMATION						•			,			., 61	
Building	Type:	Nonres	sidenti	al		🛛 High	-Rise Re	sidential		Hotel/M	otel Gues	st Ro	om	
□ Sch	ools (Public School)	Reloca Bldg.	table	Public S	School	🗹 Co	onditioned	d Spaces		D U	Inconditio	oned	Spac	es
□ Sky	light Area for Large Enclos	<u> </u>	e ≥ 80	00 ft ² (If	ⁱ check	ed include	the ENV	-4C with	submit	tal)				
Phase of	f Construction:	New C	onstru	iction		Addi	tion			Alteratio	n			
	h of Compliance:				1	Over	all Envel	ope		Uncond	itioned (f	le aff	idavit	:)
Front Or	ientation: N, E, S, W or in	-		50 deg										
		FIEL	D IN	SPEC			GY CH	ECKL	IST	1				
OPAQU	E SURFACE DETAILS	1			INSU	LATION								
Tag/ID Assembly type Image: Constraint of the second seco														Fail ⁵
113	Wall	19	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
114	Wall	40	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
115	Wall	116	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
116	Wall	40	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
117	Wall	40	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
118	Wall	86	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
119	Wall	40	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
120	Wall	118	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New			
2. If Fail, 1	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che				riate actior	n to correc	ct. A fai	l does not m	eet comp	liance	' -	
FENES	TRATION SURFACE D	ETAILS												
Tag/ID	Fenestration	1		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ³	Max (R)SHGC	SHGC	Source ⁵ Overhang	Conditions	2222	Pass	Fail ⁶
									_					
												-+		
									_			-+		
												-+		
1 See Inc	structions in the Nonresidentia	al Comolia	nce Ma	nual na	ne 3-96								u	
2. If Fail t	hen describe on Page 2 of the		n Cheo	klist For	m and t	ake appropr			t. Verify ID: 090	• •	ans if nece			of 00
EnergyPr	to 5.1 by EnergySoft Use	a inutiider.	0000		RUNCO	de: 2010-11	-12112:43	1.13	שו. ט90	119		Ра	ye 21	of 89

	FIFICATE OF CO				СН	ECKL	IST	(Part	1 of 3))	Ε	NV-	1C
Project Na	ame				_	_	_					Dat	-	
	Oak Street Apartme	nts				0			1				/12/2	
Project Ac	k Street Oakland					Climate Z	one 3		Iotal	Cond. Floor 46,320	Area A	Additior	n Floor <i>n/a</i>	Area
							0			10,020			n, u	
Building		Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/M	otel Gu	est Ro	om	
	ools (Public School)		table	Public S	School		Conditione	d Spaces	:	ι	Jncondit	tioned	Spac	es
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	⁻ check			•					opuo	
Phase of	f Construction:	New C	onstru	iction		D Add	dition			Alteratio	on			
Approac	h of Compliance:	Compo	onent			Ø Ov	erall Envel	ope		Uncond	itioned	(file af	fidavit	:)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	d in	SPEC	10IT;	N ENEF	RGY CH	IECKL	IST					
OPAQU	E SURFACE DETAILS				INSU	LATION								1
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.	5 Metal			4.3.3-A7	New			
122	Wall	19	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
123	Wall	153	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
124	Wall	321	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
125	Wall	134	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
126	Wall	13	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
127	Wall	56	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
128	Wall	305	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New			
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appro	priate actio	n to corre	ct. A fai	l does not m	neet com	pliance).	
FENES	TRATION SURFACE D	ETAILS						1						
Tag/ID ¹	Fenestration	I		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
									_					
									_					
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake appro			-		ans if neo	-		
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		RunCo	de: 2010-	11-12T12:4	5:13	ID: 090	079		Pa	age 22	of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECKL	ST	(Part	1 of 3)		ENV	-1C
Project Na	ame				_	_	-					Date	
	Oak Street Apartme	nts				01 1 7			1			11/12/	
Project Ac	k Street Oakland					Climate Zo	one 3		lotal	Cond. Floor 46,320	Area Add	lition Flo <i>n/a</i>	or Area
							0			10,020		11/4	
Building		Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/M	otel Guest	Room	
	ools (Public School)		table	Public S	School		onditione	d Spaces	3	D L	Inconditio	ned Spa	ces
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	ⁱ check			•					
Phase of	f Construction:	New C	onstru	iction		D Add	lition			Alteratio	'n		
Approac	h of Compliance:	Compo	onent			Ø Ove	erall Envel	ope		Uncond	itioned (file	e affidav	vit)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	d in	SPEC	10IT;	N ENEF	IGY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS				INSU	LATION		•	1				
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.	5 Metal			4.3.3-A7	New		
130	Wall	110	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
131	Wall	80	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
132	Wall	108	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
133	Wall	60	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
134	Wall	39	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
135	Wall	106	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
136	Wall	39	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New		
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appro	priate actio	n to correc	ct. A fai	l does not m	eet complia	ance.	
FENES	TRATION SURFACE D	ETAILS	_							1	1		
Tag/ID ¹	Fenestration			Area (ft²)	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
											-		
									_				
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ans if neces	-	
EnergyPr	o 5.1 by EnergySoft Use	er Number:	0000		кипСо	de: 2010-1	1-12T12:4	5:13	ID: 090	079		Page 2	3 of 89

	FIFICATE OF CO				СНІ	ECKLI	ST	(Part	1 of 3))	EN	IV-	1C
Project Na	ame				_	_	_					Date		
	Oak Street Apartme	nts												010
Project Ac	ddress k Street Oakland					Climate Zo	one 3		Total	Cond. Floor 46,320	Area Ad	dition F	-loor /a	Area
							0			40,020		11/	/4	
Building		Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/M	otel Gues	t Roo	m	
	ools (Public School)		table	Public S	School	-	onditioned			D U	Inconditio	ned S	Snace	e s
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	check			•					pact	
Phase of	f Construction:	New C	onstru	iction		Adc	lition			Alteratio	n			
Approac	h of Compliance:	Compo	onent			Ove	erall Envel	ope		Uncond	itioned (fi	le affic	davit)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	D IN	SPEC	TION	N ENEF	GY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS				INSU	LATION					_			
Tag/ID Assembly Type Image: Constraint of the second seco														Fail ⁵
		108	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
138	Wall	60	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
139	Wall	39	(SE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
140	Wall	108	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
141	Wall	39	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
142	Wall	106	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
143	Wall	13	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
144	Wall	65	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	i. take appro	oriate actio	n to correc	ct. A fai	l does not m	ieet compl	iance.		
FENES	TRATION SURFACE D	ETAILS												
Tag/ID ¹	Fenestration	I		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
											<u> </u>			
											-			
									_		-			
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ans if nece	-		
EnergyPr	o 5.1 by EnergySoft Use	er Number:	0000		кипСо	de: 2010-1	1-12T12:4	5:13	ID: 090	079		Pag	e 24	of 89

	FIFICATE OF CO				СН	ECK	LIS	ST	(Part	10	f 3)		Ε	NV-	1C
Project Na	ame				_	_								Dat	-	
	Oak Street Apartme	nts				01				1	<u> </u>				/12/2	
Project Ac	k Street Oakland					Climate	e Zor	ie 3		Iotal	Cond. 46,3	Floor A	area Ac		n Floor <i>n/a</i>	Area
								0			10,0	20			n/u	
Building		Nonres	sidenti	al			ligh	-Rise Res	sidential		Ho	tel/Mot	tel Gues	st Ro	om	
	ools (Public School)		table	Public S	School		Со	onditioned	Spaces	5		J Un	nconditio	oned	Spac	es
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	check	ked incl			•							
Phase of	f Construction:	New C	onstru	iction			Addit	tion			Alte	eration	1			
Approac	h of Compliance:	Compo	onent				Over	all Envel	ope		Un	conditi	ioned (fi	le af	fidavit	:)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg												
		FIEL	D IN	SPEC				<u>GY CH</u>	ECKL	IST						
OPAQU	E SURFACE DETAILS				INSU	ILATIO	N			1						
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-	Value	Exterior Furring ³	Interior R- Value	Interior Furring ³	.loint	Appendix 4	Condition	olalus	Pass	Fail ⁵
145	Wall	250	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
146	Wall	137	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
147	Wall	39	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
148	Wall	41	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
149	Wall	209	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
150	Wall	30	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
151	Wall	19	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
152	Wall	116	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
						_										
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	3. take ap	propi	riate actior	n to correc	ct. A fai	l does	not me	et comp	liance	9.	
FENES	TRATION SURFACE D	ETAILS	-												1	
Tag/ID	Fenestration			Area (ft²)	Orientation N, E, S, W	Max U-Factor		U-Factor Source ^³	Max (R)SHGC	SHGC	Source ³	Overhang	Conditions		Pass	Fail ⁶
										_						
										_						
1 Cooler	atructions in the Nerveside att	ol Complia	200 14-		00.2.00											
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the		n Cheo	klist For	m and t	take app				-		ing plar	ns if nece			of 00
LitergyPr	o 5.1 by EnergySoft Use	a indifibel.	0000		Nunco	ue. 201	0-11	-12T12:45	.13	ID: 090	519			Pa	age 25	01 09

	FIFICATE OF CO				СН	ECK		ST	(Part	1 0	f 3)		E	NV-	1C
Project Na	ame				_									Dat	-	
	Oak Street Apartme	nts				0	-			1	<u> </u>				/12/2	
Project Ac	k Street Oakland					Climate	Zon	ie 3		Iotal	46,3	Floor A	area Ad		n Floor <i>n/a</i>	Area
								0			10,0	20			<i>nii</i> u	
Building	Type:	Nonres	sidenti	al		Ø H	ligh	-Rise Re	sidential		Hot	tel/Mot	tel Gues	st Ro	om	
	ools (Public School)		table	Public S	School		Со	onditioned	d Spaces	;	0	J Un	nconditio	ned	Spac	es
	light Area for Large Enclos	Bldg. sed Space	e ≥ 80	00 ft ² (If	^f check	ked inclu			•		tal)				•	
Phase of	f Construction:	New C	onstru	iction			ddit	tion			Alte	eration	1			
Approac	h of Compliance:	Compo	onent				Ver	all Envelo	оре		Uno	conditi	ioned (fi	le af	fidavit)
Front Or	ientation: N, E, S, W or in	-		50 deg												
		FIEL	D IN	SPEC				<u>GY CH</u>	ECKL	IST						
OPAQU	E SURFACE DETAILS	1			INSU	ILATIO	N			1			1			
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R- Volue	value	Exterior Furring ³	Interior R- Value	Interior Furring ³	Joint	Appendix 4	Condition	oldius	Pass	Fail ⁵
153	Wall	19	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
154	Wall	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New					
155	Wall	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New				
156	Wall	40	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
157	Wall	40	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
158	Wall	86	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
159	Wall	40	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
160	Wall	118	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	inual, pa cklist Fo	ge 3-96 rm and	3. take app	propi	riate actior	n to correc	ct. A fai	l does	not me	et compl	iance).	
FENES	TRATION SURFACE D	ETAILS														
Tag/ID ¹	Fenestration	I		Area (ft²)	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
							+									
							+									
							+									
										_						
1.000 100		ol Com-li-			ao 0.00	2										
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	take app	-			-		ing plar	ns if nece			
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	oae: 201	v-11	-12T12:45	5:13	ID: 090	079			Pa	ige 26	of 89

	FIFICATE OF CO				СН	ECKL	ST	(Part	1 of 3))	EN	V-'	1C
Project Na	ame				_	_	_					Date		
	Oak Street Apartme	nts				01 1 7			1			11/1		
Project Ac	k Street Oakland					Climate Z	one 3		lotal	Cond. Floor 46,320	Area Ad	dition F /n		Area
							0			10,020		11/	u	
Building		Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/M	otel Gues	t Roon	n	
	ools (Public School)		table	Public S	School		onditione	d Spaces	3	D U	Inconditio	ned Si	oace	es
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	⁻ check			•					Juo	
Phase of	f Construction:	New C	onstru	iction		D Add	dition			Alteratio	n			
Approac	h of Compliance:	Compo	onent				erall Envel	ope		Uncond	itioned (fi	le affid	avit)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	D IN	SPEC	IOIT;	N ENEF	RGY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS				INSU	LATION								
Tag/ID1 Assembly Type (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) (3) (1) <td>Fail⁵</td>														Fail ⁵
161		19	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	I		
162	Wall	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	1				
163	Wall	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	l			
164	Wall	321	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	I		
165	Wall	134	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	I		
166	Wall	13	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	1		
167	Wall	56	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	1		
168	Wall	305	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	1		
												I		
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appro	priate actio	n to correc	ct. A fai	l does not m	ieet compl	iance.		
FENES	TRATION SURFACE D	ETAILS									1			
Tag/ID ¹	Fenestration			Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ³	Max (R)SHGC	SHGC	Source ⁵ Overhang	Conditions Status ⁴		Pass	Fail ⁶
												1		
									_					
2. If Fail th	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake appro			-		ans if nece	-		
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	de: 2010-:	1-12T12:4	5:13	ID: 090	079		Page	27	of 89

	FIFICATE OF CO				СН	ECKL	ST	(Part	1 of 3)		EN	/-10)
Project Na	ame				_	_	_					Date		
	Oak Street Apartme	nts				01 1 7			1			11/12		
Project Ac	k Street Oakland					Climate Zo	one 3		lotal	Cond. Floor 46,320	Area Ade	dition Flo n/a		за
							0			10,020		17/0		
Building	-	Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/M	otel Gues	t Room		
	ools (Public School)		table	Public S	School		onditione	d Spaces	3	D U	Inconditio	ned Sp	aces	
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	ⁱ check			•						
Phase of	f Construction:	New C	onstru	iction		D Add	dition			Alteratio	n			
Approac	h of Compliance:	Compo	onent				erall Envel	ope		Uncond	itioned (fil	e affida	vit)	
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg										
		FIEL	D IN	SPEC	10IT;	N ENEF	RGY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS	1			INSU	LATION	1		1					
Image: Status ⁴ of the st														
-		39	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C		ו
170	Wall	110	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C		נ
171	Wall	(SW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C		נ	
172	Wall	108	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C	1 🗆]
173	Wall	60	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C]
174	Wall	39	(NW)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C]
175	Wall	106	(NE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C		נ
176	Wall	39	(SE)	0.127	R-1	9 4.	5 Metal			4.3.3-A7	New	C		נ
												C		נ
												E		נ
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appro	priate actio	n to correc	ct. A fai	l does not m	eet compli	ance.		
FENES	TRATION SURFACE D	ETAILS												
Tag/ID	Fenestration	I		Area (ft²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ³	Max (R)SHGC	SHGC	Source ³ Overhang	Conditions Status ⁴	Dace	Fail ⁶	2
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	aligned to the bit of the state	-10 "				<u>, </u>								1
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake approp			-		ans if nece	-	00.1-	0.0
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	ae: 2010-1	1-12T12:4	5:73	ID: 090)/9		Page	28 of 8	39

	FIFICATE OF CO				СНІ	ECKLI	ST	(Part	1 of 3)		ENV	-1C
Project Na	ame				_	_	_					Date	
	Oak Street Apartme	nts				01 1 7			1			11/12/	
Project Ac	k Street Oakland					Climate Zo	one 3		lotal	Cond. Floor 46,320	Area Add	ition Floo <i>n/a</i>	or Area
							0			10,020		11/4	
Building		Nonres	sidenti	al		🛛 Hig	h-Rise Re	sidential		Hotel/Mo	otel Guest	Room	
	ools (Public School)		table	Public S	School	⊠ C	onditioned	d Spaces	5	D U	nconditior	ed Spa	ces
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	check			•					
Phase of	f Construction:	New C	onstru	iction		Adc	lition			Alteratio	n		
Approac	h of Compliance:	Compo	onent			Ove	erall Envel	ope		Uncondi	tioned (file	e affidav	it)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	D IN	SPEC		N ENEF	GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS	1			INSU	LATION			1		-		1
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.8	5 Metal			4.3.3-A7	New		
178	Wall	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New				
179	Wall	(SE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New			
180	Wall	108	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
181	Wall	39	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
182	Wall	106	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
183	Wall	13	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
184	Wall	65	(NE)	0.127	R-1	9 4.8	5 Metal			4.3.3-A7	New		
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appro	oriate actio	n to corre	ct. A fai	l does not m	eet complia	ince.	
FENES	TRATION SURFACE D	DETAILS							1				1
Tag/ID ¹	Fenestration	1		Area (ft²)	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 Inc	structions in the Nonresidentia	al Comolia	nce Ma	nual na	ne 3-96	3							
2. If Fail th	hen describe on Page 2 of the		n Cheo	klist For	m and t				t. Verify ID: 090		ans if neces	sary. Page 2	9 of 80
Liidigyi I		, number.	0000						. 030			i ugo z	0,00

	FIFICATE OF CO				СН	ECK	LIS	ST	(Part	10	f 3)		Ε	NV-	1C
Project Na	ame				_									Dat	-	
	Oak Street Apartme	nts				0	_				<u> </u>				/12/2	
Project Ac	k Street Oakland					Climate	e Zor	ie 3		Iotal	Cond. 46,3	Floor A	rea Ad		n Floor <i>n/a</i>	Area
								0			10,0	20			n, a	
Building		Nonres	sidenti	al			ligh	-Rise Res	sidential		Ho	tel/Mot	tel Gues	st Ro	om	
	ools (Public School)		table	Public S	School		Co	onditioned	Spaces		[J Un	conditio	ned	Spac	es
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	ⁱ check				•						opuo	
Phase of	f Construction:	New C	onstru	iction			Addit	tion			Alte	eration	1			
Approac	h of Compliance:	Compo	onent				Over	all Envel	оре		Un	conditi	oned (fi	le af	fidavit)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg												
		FIEL	d in	SPEC	IOIT	N EN	ER	GY CH	ECKL	IST						
OPAQU	E SURFACE DETAILS				INSU	JLATIO	N			1					1	1
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity R-Value	Exterior R-	Value	Exterior Furring ³	Interior R- Value	Interior Furring ³	loint	Appendix 4	Condition	Oldius	Pass	Fail ⁵
185	Wall	250	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
186	Wall	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New					
187	Wall	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New				
188	Wall	41	(NE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
189	Wall	209	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
190	Wall	30	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
191	Wall	19	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
192	Wall	116	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	3. take ap	prop	riate actior	n to correc	ct. A fai	l does	not me	et compl	iance).	
FENES	TRATION SURFACE D	ETAILS														
Tag/ID	Fenestration			Area (ft ²)	Orientation N, E, S, W	Max U-Factor		U-Factor Source ³	Max (R)SHGC	SHGC	Source	Overhang	Conditions Status ⁴		Pass	Fail ⁶
										_						
										_						
					_											
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	take app	-			-		ing plar	ns if nece			
EnergyPr	o 5.1 by EnergySoft Use	er Number:	0000		KUNCO	oae: 201	10-11	-12T12:45	5.73	ID: 090	119			Pa	age 30	or 89

	FIFICATE OF CO				СН	ECK	LIS	ST	(Part	10	f 3)		Ε	NV-	1C
Project Na	ame				_									Dat	-	
	Oak Street Apartme	nts					-			1	<u> </u>				/12/2	
Project Ac	k Street Oakland					Climate	e Zon	ie 3		Iotal	Cond. 46,3	Floor A	area A		n Floor <i>n/a</i>	Area
								0			10,0	20			<i>11/</i> u	
Building		Nonres	sidenti	al		Ø H	ligh	-Rise Res	sidential		Ho	tel/Mot	tel Gue	st Ro	om	
	ools (Public School)		table	Public S	School		Co	nditioned	Spaces	:	Г	J Un	nconditi	oned	Spac	es
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	^f check				•						opuo	
Phase of	f Construction:	New C	onstru	iction		D A	Addit	tion			Alte	eration	1			
Approac	h of Compliance:	Compo	onent				Dver	all Envelo	оре		Un	conditi	ioned (f	ile af	fidavit	:)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg												
		FIEL	D IN	SPEC	TIO	N ENE	ER	GY CH	ECKL	IST						
OPAQU	E SURFACE DETAILS	1			INSU	ILATIO	N			1					1	r
Lag Mail Mail														Pass	Fail ⁵	
193		19	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
194	Wall	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New					
195	Wall	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New				
196	Wall	40	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
197	Wall	40	(SE)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
198	Wall	86	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
199	Wall	40	(NW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
200	Wall	118	(SW)	0.127	R-1	19	4.5	Metal			4.3.3	-A7	New			
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	3. take app	propi	riate actior	n to correc	ct. A fai	l does	not me	et comp	liance	Э.	
FENES	TRATION SURFACE D	ETAILS														
Tag/ID ¹	Fenestration	I		Area (ft ²)	Orientation N, E, S, W	Max U-Factor		U-Factor Source ³	Max (R)SHGC	SHGC	Source ³	Overhang	Conditions	oldius	Pass	Fail ⁶
											-+					
				<u> </u>												
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	take app				-		ing plar	ns if nec			of 00
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		Runco	ode: 201	v-11	-12T12:45	0.13	ID: 090	519			Pa	age 31	01 89

	FIFICATE OF CO				СН	ECKL	.IS	бТ	(Part	1 of	3)	E	ENV-	1C
Project Na	ame				_	_							Da		
	Oak Street Apartme	nts				011 1 -	-							1/12/2	
Project Ac	k Street Oakland					Climate Z	Zone	e 3		Iotal	Cond. F 46,32		rea Additio	on Flooi <i>n/a</i>	r Area
								0			10,02			1 <i>1</i> / a	
Building		Nonres	sidenti	al		🛛 Hig	gh-l	Rise Res	sidential		Hote	el/Mot	el Guest R	oom	
	ools (Public School)		table	Public S	School		Cor	nditioned	Spaces			Un	conditione	d Spac	es
	light Area for Large Enclos	Bidg.	e ≥ 80	00 ft ² (If	⁻ check				•					- opue	
Phase of	f Construction:	New C	onstru	iction		D Ad	diti	ion			Alte	ration			
Approac	h of Compliance:	Compo	onent			Ø Ov	vera	all Envelo	ope		Unc	onditio	oned (file a	ıffidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg											
		FIEL	d in	SPEC	10IT;		RC	GY CH	ECKL	IST					
OPAQU	E SURFACE DETAILS	T			INSU	LATION				1			1		
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4	1.5	Metal			4.3.3-A	47	New		
202	Wall	0.127	R-1	9 4	1.5	Metal			4.3.3-A	47	New				
203	Wall	0.127	R-1	9 4	1.5	Metal			4.3.3-A	47	New				
204	Wall	321	. ,		R-1	9 4	1.5	Metal			4.3.3-A	47	New		
205	Wall	134	(SW)	0.127	R-1	9 4	1.5	Metal			4.3.3-A	47	New		
206	Wall	13	(SE)	0.127	R-1	9 4	1.5	Metal			4.3.3-A	47	New		
207	Wall	56	(NE)	0.127	R-1	9 4	1.5	Metal			4.3.3-4	47	New		
208	Roof	710	(N)	0.076	R-3	80					4.2.5-4	414	New		
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	6. take appr	opri	iate actior	to correc	ct. A fai	l does n	iot mee	et compliand	æ.	
FENES	TRATION SURFACE D	ETAILS					-								
Tag/ID	Fenestration	I		Area (ft²)	Orientation N, E, S, W	Max U-Factor		U-Factor Source ^³	Max (R)SHGC	SHGC	Source	Overhang	Conditions Status ⁴	Pass	Fail ⁶
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			-				+								
				<u> </u>											
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake appro	-			-		g plan		-	-6.00
⊏nergyPr	o 5.1 by EnergySoft Use	er Number.	0000		rtunu0	de: 2010-	-11-	12172:45	.15	ID: 090	19		ŀ	Page 32	01 89

	TIFICATE OF CO FIELD INSPECT				СНІ	ECKL	IST		Part	1 of 3)		ENV	-1C
Project Na	ame				_	_	_					ate	
	Oak Street Apartme	nts										1/12/2	
Project Ac	ddress k Street Oakland					Climate Z	one 3		Total	Cond. Floor / 46,320	Area Addit	ion Floo <i>n/a</i>	r Area
							0			40,020		n/a	
Building		Nonres	sidenti	al		🛛 Hig	h-Rise Re	esidential		Hotel/Mc	tel Guest I	Room	
	ools (Public School)		table	Public S	School	-	Conditione				nconditione	ed Snac	265
	light Area for Large Enclos	Blag.	e ≥ 80	00 ft ² (If	check			•					
Phase of	f Construction:	New C	onstru	iction		D Ad	dition			Alteration	n		
Approac	h of Compliance:	Compo	onent			Ø Ov	erall Enve	lope		Uncondit	tioned (file	affidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	D IN	SPEC	TION	N ENE	RGY CH	IECKL	IST				
OPAQU	E SURFACE DETAILS				INSU	LATION							
Lage Assembly Lybe Moli Moli													
-		305	(NW)	0.127	R-1	9 4.	5 Meta	1		4.3.3-A7	New		
210	Wall	0.127	R-1	9 4.	5 Meta	1		4.3.3-A7	New				
211	Wall	0.127	R-1	9 4.	5 Meta	1		4.3.3-A7	New				
212	Wall	80	(SW)	0.127	R-1	9 4.	5 Meta	1		4.3.3-A7	New		
213	Roof	514	(N)	0.076	R-3	0				4.2.5-A14	New		
214	Wall	108	(NE)	0.127	R-1	9 4.	5 Meta	1		4.3.3-A7	New		
215	Wall	60	(SE)	0.127	R-1	9 4.	5 Meta	1		4.3.3-A7	New		
216	Roof	532	(N)	0.076	R-3	0				4.2.5-A14	New		
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	i. take appro	priate action	on to corre	ct. A fai	I does not me	eet compliar	ice.	
FENES	TRATION SURFACE D	ETAILS											-
Tag/ID	Fenestration	I		Area (ft ²)	Orientation N, E, S, W	Max U-Factor	U-Factor Source ³	Max (R)SHGC	SHGC	Source [°] Overhang	Conditions Status ⁴	Pass	Fail ⁶
									_				
									_				
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake appro			-			-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		KUNCO	ae: 2010-	11-12T12:4	5:73	ID: 09	119		Page 33	s ot 89

	TIFICATE OF CO FIELD INSPECT				СНІ	ECKLI	ST	(Part	1 of 3)	E	ENV	-1C
Project Na	ame											ate	
	Oak Street Apartme	nts										1/12/2	
Project A	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor A 46,320	Area Additi	on Floo <i>n/a</i>	r Area
							5			40,320		11/a	
Building		Nonres	sidenti	al		🛛 Hial	n-Rise Re	sidential		Hotel/Mo	tel Guest F	loom	
	ools (Public School)	Reloca	table	Public S	School	-	onditioned				nconditione		200
	light Area for Large Enclos	Bidg.	e ≥ 80	00 ft ² (If	check			•				u opac	,63
Phase of	f Construction:	New C	onstru	iction		D Add	ition			Alteration	า		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	оре		Uncondit	ioned (file a	affidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	D IN	SPEC	TION		GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS				INSU	LATION							
Tag/ID1 Assembly Types 30 (MM) 0.102 <i>K</i> -10													
	Wall	39	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
218	Wall	0.127	R-1	9 4.5	Metal			4.3.3-A7	New				
219	Roof	0.076	R-3	0				4.2.5-A14	New				
220	Wall	39	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
221	Wall	108	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
222	Wall	60	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
223	Roof	532	(N)	0.076	R-3	0				4.2.5-A14	New		
224	Wall	39	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and	i. take approp	oriate action	n to correc	ct. A fai	l does not me	eet complian	ce.	
FENES	TRATION SURFACE D	DETAILS										-	
Tag/ID	Fenestration	I		Area (ft²)	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
									_				
2. If Fail t	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake approp			-			-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		кипСо	de: 2010-1	1-12112:4	5:13	ID: 090	079		Page 34	of 89

	TIFICATE OF CO FIELD INSPECT				СН	ECKLI	ST	(Part	1 of 3)	E	ENV-	-1C
Project Na	ame				_	_	_					ate	
	Oak Street Apartme	nts				01 1 7						1/12/2	
Project Ac	k Street Oakland					Climate Zor	ne 3		Iotal	Cond. Floor A 46,320	Area Additio	on Flooi <i>n/a</i>	r Area
							0			10,020		<i>11/</i> a	
Building		Nonres	sidenti	al		🛛 High	-Rise Res	sidential		Hotel/Mo	tel Guest R	oom	
	ools (Public School)		table	Public S	School		onditioned	Spaces		🗖 Ur	nconditione	d Spac	es
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	ⁱ check			•				- opue	
Phase of	f Construction:	New C	onstru	iction		D Addi	tion			Alteratior	ı		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	оре		Uncondit	ioned (file a	ffidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	d in	SPEC	TION	I ENER	GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS	T			INSU	LATION			1				
Tag/ID1 Assembly Type ² (i) (i) (i) (i) (i) (i) (i) (i) 225 Wall 108 (NE) 0.127 R-19 4.5 Metal 4.3.3-A7 New 0													
225		108	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
226	Roof	0.076	R-3	0				4.2.5-A14	New				
227	Wall	0.127	R-1	9 4.5	Metal			4.3.3-A7	New				
228	Wall	105	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
229	Roof	532	(N)	0.076	R-3	0				4.2.5-A14	New		
230	Wall	13	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
231	Wall	65	(NE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
232	Wall	250	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	anual, pa cklist Fo	ge 3-96 rm and t	take approp	riate actior	n to correc	ct. A fai	l does not me	et complian	ce.	
FENES	TRATION SURFACE D	ETAILS	5										
Tag/ID	Fenestration	I		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
			_						_				
									_				
		<u>.</u>											
2. If Fail t	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and ta	ake appropr			-			-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	: 0000		кипСо	de: 2010-11	1-12112:45	5:13	ID: 090	079	ŀ	Page 35	of 89
	TIFICATE OF CO FIELD INSPECT				СНІ	ECKLI	ST	(Part	1 of 3)	E	ENV	-1C
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Project Na	ame											ate	
	Oak Street Apartme	nts										1/12/2	
Project A	ddress k Street Oakland					Climate Zo	one 3		Total	Cond. Floor A 46,320	Area Additi	on Floo <i>n/a</i>	r Area
							5			40,320		11/a	
Building		Nonres	sidenti	al		🛛 Hia	h-Rise Re	sidential		Hotel/Mo	tel Guest F	loom	
	ools (Public School)		table	Public S	School	-	onditioned				nconditione		200
	light Area for Large Enclos	Biag.	e ≥ 80	00 ft ² (If	check			•				u opac	,63
Phase of	f Construction:	New C	onstru	iction		□ Add	lition			Alteration	า		
Approac	h of Compliance:	Compo	onent			Ove	erall Envel	оре		Uncondit	ioned (file a	affidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	DIN	SPEC	TION	N ENEF	GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS				INSU	LATION							
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.3	5 Metal			4.3.3-A7	New		
234	Roof	710	(N)	0.076	R-3	0				4.2.5-A14	New		
235	Wall	39	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
236	Wall	41	(NE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
237	Wall	209	(SE)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
238	Wall	30	(SW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
239	Roof	544	(N)	0.076	R-3	0				4.2.5-A14	New		
240	Wall	19	(NW)	0.127	R-1	9 4.3	5 Metal			4.3.3-A7	New		
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	inual, pa cklist Foi	ge 3-96 rm and	i. take appro	oriate action	n to corre	ct. A fai	l does not me	eet complian	ce.	
FENES	TRATION SURFACE D	ETAILS	;					-	-			-	1
Tag/ID	Fenestration	I		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
									_				
									_				
									_				
									_				
			<u> </u>	<u> </u>									
2. If Fail t	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake approp			-			-	-4.00
⊏nergyPr	o 5.1 by EnergySoft Use	er Number.	0000		rtunC0	ue: 2010-1	1-12T12:4	5.13	ID: 09	119	1	Page 36	01 89

AND	TIFICATE OF CO FIELD INSPECT				СНІ	ECKLI	ST	(Part	1 of 3)	E	ENV-	-1C
Project Na												ite	
6th and Project Ad	Oak Street Apartme	nts				Climate Zo	20		Total	Cond. Floor		1/12/2	
	k Street Oakland					Climate 20	3		Total	46,320	Area Addilli	<i>n/a</i>	Area
	AL INFORMATION						•			,			
Building	Type:	Nonres	sidenti	al		🛛 High	-Rise Re	sidential		Hotel/Mc	otel Guest F	oom	
□ Sch	ools (Public School)	Reloca Bldg.	table	Public S	School	C C	onditioned	d Spaces	;		nconditione	d Spac	es
□ Skyl	light Area for Large Enclos	0	e ≥ 80	00 ft ² (If	check	ed include	the ENV	-4C with	submit	tal)			
Phase of	f Construction:	New C	onstru	iction		D Add	tion			Alteration	n		
Approac	h of Compliance:	Compo	onent		1	Ove	rall Envel	ope		Uncondit	tioned (file a	affidavi	t)
Front Or	ientation: N, E, S, W or in	•		50 deg									
		FIEL	D IN	SPEC		N ENER	GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS				INSU	LATION			1				1
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.5	Metal			4.3.3-A7	New		
242	Roof	517	(N)	0.076	R-3	0				4.2.5-A14	New		
243	Wall	19	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
244	Wall	40	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
245	Wall	116	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
246	Roof	485	(N)	0.076	R-3	0				4.2.5-A14	New		
247	Wall	40	(NW)	0.127	R-1	9 4.5				4.3.3-A7	New		
248	Wall	40	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
2. If Fail, t	structions in the Nonresidentia then describe on Page 2 of the	e Inspectio	on Che	nual, pa cklist Fo	ge 3-96 rm and	take approp	riate actior	n to correc	ct. A fai	l does not me	eet complian	ce.	
FENES	TRATION SURFACE D	ETAILS											1
Tag/ID	Fenestration	I		Area (ft²)	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 Cooler		ol Complia	200 14-		00.2.00								
2. If Fail th	structions in the Nonresidentia hen describe on Page 2 of the	e Inspectio	n Cheo	klist For	m and t	ake approp			-	• •			
EnergyPr	ro 5.1 by EnergySoft Use	er Number.	0000		RunCo	de: 2010-1	1-12T12:4	5:13	ID: 090	079	ŀ	Page 37	of 89

	TIFICATE OF CO FIELD INSPECT				СНІ	ECKLI	ST	(Part	1 of 3)	E	ENV-	-1C
Project Na	ame											ate	
	Oak Street Apartme	nts										1/12/2	
Project A	ddress k Street Oakland					Climate Zo	ne 3		Total	Cond. Floor A 46,320	Area Additi	on Floo <i>n/a</i>	r Area
							5			40,320		1ı/a	
Building	-	Nonres	sidenti	al		🛛 Hia	n-Rise Re	sidential		Hotel/Mo	tel Guest F	oom	
	ools (Public School)	Reloca	table	Public S	School	-	onditioned				nconditione		200
	light Area for Large Enclos	Bidg.	e ≥ 80	00 ft ² (If	check			•				u opac	,63
Phase of	f Construction:	New C	onstru	iction		□ Add	ition			Alteration	า		
Approac	h of Compliance:	Compo	onent			Ove	rall Envel	ope		Uncondit	ioned (file a	affidavi	t)
Front Or	ientation: N, E, S, W or in	Degrees:	1	50 deg									
		FIEL	D IN	SPEC	TION		GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS				INSU	LATION							
Tag/ID ¹	Assembly Type ²	Area (ft²)	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-1	9 4.5	Metal			4.3.3-A7	New		
250	Roof	431	(N)	0.076	R-3	0				4.2.5-A14	New		
251	Wall	40	(NW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
252	Wall	118	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
253	Wall	19	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
254	Roof	521	(N)	0.076	R-3	0				4.2.5-A14	New		
255	Wall	19	(SE)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
256	Wall	153	(SW)	0.127	R-1	9 4.5	Metal			4.3.3-A7	New		
2. If Fail, f	structions in the Nonresidentia then describe on Page 2 of th	e Inspectio	on Che	inual, pa cklist Foi	ge 3-96 rm and	6. take appro	oriate action	n to correc	ct. A fai	I does not me	eet complian	ce.	
FENES	TRATION SURFACE D	ETAILS									1		
Tag/ID	Fenestration	I		Area (ft ^c)	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
		<u>.</u>											
2. If Fail t	structions in the Nonresidentia	e Inspectio	n Cheo	klist For	m and t	ake approp			-			-	
EnergyPr	o 5.1 by EnergySoft Use	er Number.	0000		RunCo	de: 2010-1	1-12T12:4	5:13	ID: 09	079	ŀ	Page 38	s of 89

	TIFICATE OF C FIELD INSPEC				СН	EC	KLI	ST	(Part	1 of 3)	E	NV-	10
Project Na												Da		
6th and Project Ad	Oak Street Apartme	ents				Clim	ate Zo	ne		Total (Cond. Floor A		1/12/2 on Floor	
	k Street Oakland							3		Total V	46,320		n/a	Alea
GENER	AL INFORMATION										-			
Building	Type:	Nonre					Higł	n-Rise Re	sidential		Hotel/Mo	tel Guest R	oom	
🗖 Sch	ools (Public School)	Reloca Blda.	atable	Public S	Schoo	 [Z C	onditioned	d Spaces		🗖 Ur	nconditione	d Spac	es
□ Sky	light Area for Large Encl	- 3	e ≥ 80	00 ft ² (I	f chec	ked ir	clude	the ENV	-4C with	submit	tal)			
Phase of	f Construction:	New C	Constru	uction			Add	ition			Alteration	l		
Approac	h of Compliance:	Comp	onent			\checkmark	Ove	rall Envel	ope		Uncondit	ioned (file a	ffidavi	t)
Front Or	ientation: N, E, S, W or i	n Degrees	: 1	50 deg										
		FIEL	D IN	SPEC	CIT	N EI	NER	GY CH	ECKL	IST				
OPAQU	E SURFACE DETAILS			1	INS	JLAT	ION		ľ	1				r
Tag/ID ¹	Assembly Type ²	Area (ft²)	Orientation N, E, S, W	U-Factor	Cavity P-Volue		схтегтог н- 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		
2. If Fail, f	structions in the Nonresiden then describe on Page 2 of	the Inspecti	on Che	anual, pa ecklist Fo	ge 3-9 rm and	6. I take :	approp	oriate action	n to correc	t. A fail	does not me	et compliant	æ.	
FENES	TRATION SURFACE	DETAILS	<u> </u>			1			-	-		[1	1
Tag/ID	Fenestratio	on		Area (ft²)	Orientation N, E, S, W	Max	U-Factor	U-Factor Source ³	Max (R)SHGC	SHGC	Source	Conditions Status ⁴	Pass	Fail ⁶
										_				
	I structions in the Nonresiden hen describe on Page 2 of t						pprop	riate actior	n to correct	t. Verify		ns if necessa		
EnergyPr	o 5.1 by EnergySoft U	ser Number	: 0000		RunC	ode: 2	010-1	1-12T12:4	5:13	ID: 090)79	F	Page 39	of 89

CERTIFICATE OF COMPLIANCE AND FIELD INSPECTION ENERGY CHECKLIST Project Name

(Part 2 of 3)

ENV-1C

Date
11/12/2010

-				
6th and	Oak	Street	Apa	rtme

Sth and Oak Street Apartments11/12/2010											
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											
								QUIREMENTS:		Fail ¹	N/A
					and16 with a Low-Sloped. 2:						
		-			ith a Steep-Sloped with less t nd 5 are exempted, solar refle			-			
SRI that have a	U-factor	r of 0.039	or lower. S	See Opaq	ue Surface Details roof asser	nbly, Co	lumn 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/											
the Cool Roof ci	riteria be	elow.									
High-rise reside exempted from					with low-sloped roofs in Clima	ate Zone	s 1 throug	h 9, 12 and 16 a	re 🛛		
	e on this	s page of	the Inspec	tion Chec	klist Form and take appropria				plans if ne	cessary.	
CRRC Product ID Number ¹		Slope > 2:12	Product < 5lb/ft ²		Product Type ²	Ageo Refle	d Solar ctance ³	Thermal Emmitance	SRI⁵	Pass	Fail ⁶
R-30 Metal Framed	\checkmark			\checkmark			0.61	0.85			
						\square^4					
						\square^4					
 If the Aged Reflect same directory and u Roof Rating Council's Check box if the A 5. The SRI value nee If Fail then describ To apply Liquid Field 	ance is i use the e s Rated ged Refl ds to be e on this d Applie	not availa equation (Product I lectance i calculate page of ed Coatin	able in the ((0.2+0.7(p _i)) Directory. is a calculated from a sthe Inspecent Ings , the co	Cool Roof nitial – 0.2) Ited value preadshe tion Chec ating mus	b, i.e. single-ply roof, asphalt is Rating Council's Rated Prod to obtain a calculated aged v using the equation above. et calculator at <u>http://www.enklist Form and take appropria</u> t be applied across the entire imum performance requirement.	uct Directalue. W ergy.ca. te action roof sur	ctory then 'here p is the gov/title24 n to corrected face and r	use the Initial Re he Initial Solar F / t. Verify building neet the dry mil	Reflectance I plans if new thickness of	cessary.	Cool
Aluminum-Pigmer					nent-Based Roof Coating		-	Other			
Discrepancies:											

(Part 3 of 3)

ENV-1C

Date 11/12/2010

Project Name

6th and Oak Street Apartments

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	Area of like	Building Envelope	
Requiring Testing or Verification	Products	Acceptance Test	
PG SOLARBAN 60 (2) Clear	12,020	\checkmark	
EnergyPro 5.1 by EnergySoft User Number: 0000	RunCode: 2010-11	I-12T12:45:13 ID: (09079 Page 41 of 8

	CERTIFICATE OF COMPLIANCE(Part 1 of 3)LTG-1C										
Project I 6th and	^{Name} d Oak Street Apartments						Date 11/	∍ ′12/2	010		
	OR LIGHTING SCHEDULE and FIELD INSPE	CTIC		GY CH	ECKLI	ST	11/	12/2	.010		
Installa	tion Certificate, LTG-1- INST (Retain a copy and verify form is co	mpleted	d and signed.)			Field In	spector	٢			
Certific	cate of Acceptance, LTG-2A and LTG-3A (Retain a copy and ve	erify forn	n is completed	and signe	d.)	Field In	spector				
A sepa	rate Lighting Schedule Must Be Filled Out for Conditioned and hting Schedule is only for:	Uncon	ditioned Spac	ces Instal	led Lightii	ng Power	listed or	1			
			JNCONDITIO	ONED SP	ACE						
Ø	The actual indoor lighting power listed below includes all inst with §146(a).	•		•	0 0						
	Only for offices: Up to the first 0.2 watts per square foot of por calculation of actual indoor lighting power density in accordan 0.2 watts per square foot is totaled below.	ortable nce wit	lighting shall h the Excepti	not be re ion to §14	quired to I6(a). All p	be includ portable l	led in the ighting in	exce	ess of		
	Luminaire (Type, Lamps, Ballasts)			Ins	talled W	atts					
Α	В	С	D		E	F	G		H		
					vattage termined				eld ector 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	<u> </u>			
A12A	A12		32.0			20	640				
A13 A14	A13 A14		93.0 93.0			1	93 837				
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	\checkmark		1	32				
A29	A29		32.0			1	32				
A31	A31		32.0			2	64	<u> </u>			
A6	A6		16.0			70	1,120				
A9	A9		24.0			2	48				
	1	1	l Ir		 /atts Page	e Total:	7,686				
	Building total number of pages:		Inst	alled Wa (S	tts Buildir Sum of all Gall Page	g Total pages)	7,686				
2. If Fail	ge shall be determined according to Section 130 (d and e). Wattage sh then describe on Page 2 of the Inspection Checklist Form and take ap Pro 5.1 by EnergySoft User Number: 0000 RunCode: 201	propriat	ating of light fix e action to cor	dure, not r	ating of bu building p	b.	-	ao 40	of 90		
спегдун	Pro 5.1 by EnergySoft User Number: 0000 RunCode: 201	0-11-12	.112.40.13	ID: 09	013		ra	ge 42	01 09		

CERTIFICATE OF COMPLIANCE

Project Name

6th and Oak Street Apartments

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 ft², automatic daylighting controls for daylit areas > 2,500 ft², 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 ft², in accordance with Section 131.

MANDATORY LIGHTING CONTROLS – FIELD INSPECTION ENERGY CHECKLIST									
Type/ Description	Number of Units	Location in Building	Special Features	Pass	Fail				

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:

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LTG-1C

Date

(Part 2 of 3)

11/12/2010

CERTIFICATE OF COMPLIANCE	1	(Part 3 of 3)	LTG-1C
Project Name			Date
6th and Oak Street Apartments			11/12/2010
CONDITIONED AND UNCONDITIONED SPAC	E LIGHTING N	IUST NOT BE COMBINED FOR COMPLIA	NCE
Indoor Lighting Power for Conditioned S	paces	Indoor Lighting Power for Uncondition	ed Spaces
	Watts		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 =	7,183	Adjusted Installed =	0
Complies if Installed ≤ Allowed	\uparrow	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	\checkmark
Occ Sensor - Multi-Level	A13	1	L1 Commmunity Room	\checkmark
Occ Sensor - Multi-Level	A17	3	L1 Commmunity Room	
Occ Sensor - Multi-Level	A27	1	L1 Commmunity Room	\checkmark
Occ Sensor - Multi-Level	A26	1	L1 Commmunity Room	\checkmark
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	V
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	\checkmark
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	
EnergyPro 5.1 by EnergySofi	User Number: 0000 R	unCode: 2010-11-12T12:45:13	B ID: 09079	Page 44 of 89

=	(Part 3 of 3)	LTG-1C
		Date
		11/12/2010
CE LIGHTING M	IUST NOT BE COMBINED FOR COMPL	ANCE
Spaces	Indoor Lighting Power for Unconditio	ned Spaces
Watts		Watts
7,686	Installed Lighting (from Unconditioned LTG-1C, Page 2)	0
503	Lighting Control Credit Unconditioned Spaces (from LTG-2C)	. 0
7,183	Adjusted Installed Lighting Power	= 0
\$	Complies if Installed ≤ Allowed	\$
7,183	Allowed Lighting Power Unconditioned Spaces (from LTG-3C)	0
	CE LIGHTING N Spaces Watts 7,686 503 7,183	CE LIGHTING MUST NOT BE COMBINED FOR COMPLI Spaces Indoor Lighting Power for Uncondition Watts Installed Lighting (from Unconditioned LTG-1C, Page 2) 503 Lighting Control Credit Unconditioned Spaces (from LTG-2C) 7,183 Adjusted Installed Lighting Power ↓ Complies if Installed ≤ Allowed 7,482 Allowed Lighting Power

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.

	Cont	rols for Credits			LTG-2A and LTG-3A
Equipment Requiring Testing	Descriptior	Number of Luminaire controls	Lo	ocation	Controls and Sensors and Automatic Daylighting Controls Acceptance
Occ Sensor - Storage	A24	4	L2	Corridor	
EnergyPro 5.1 by EnergySofi	User Number: 0000	RunCode: 2010-11-12T	12:45:13 ID:	09079	Page 45 of 89

(Part 1 of 4)

MECH-1C

			.131					
Project Name 6th and Oak Street Apartmer	oto							Date 11/12/2010
Project Address	115		Clima	ate Zone		Total Cond.	Floor Area	Addition Floor Area
609 Oak Street Oakland			Unite	3 alle 2011e		46,3		n/a
GENERAL INFORMATION		I		-		,	20	111 -
Building Type:	Non	residential	V	High-Rise Re	esidentia	al 🗖 Ho	tel/Motel G	iuest Room
□ Schools (Public School) □	Relo	ocatable Public School	Bldg	. 🗹 Cond	ditioned	Spaces	Uncon (affida)	ditioned Spaces vit)
Phase of Construction:	New	Construction		Addition			eration	
Approach of Compliance:	Com	ponent		Overall Enve Energy	elope TD	V 🗖 Ur	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in	Degree	es: 150 deg						
HVAC SYSTEM DETAILS						FIELD INSPEC	TION ENE	RGY CHECKLIST
						Meets C	riteria or R	equirements
Equipment ²		Inspect	ion C	riteria		Pass	Fail – D	escribe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		DHW Heater						
Equipment Type ³ :		Gas Fired DHW Bo	oiler					
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, subr MECH-4A & MECH-4-HERS	nit	n/a						
Economizer		n/a						
Thermostat		n/a						
Fan Control		n/a						
						FIELD INSPEC	TION ENE	RGY CHECKLIST
Equipment ²		Inspect	ion C	riteria		Pass	Fail – D	escribe 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 E	ER					
Duct Location/ R-Value		n/a						
When duct testing is required, subr MECH-4A & MECH-4-HERS	nit	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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

NEHGI CHECK				
				Date 11/12/2010
S	Climate Zone	Total Cond	Floor Area	Addition Floor Area
				n/a
	-	, -		• •
Nonresidential	High-Rise Residen	tial 🗖 Hot	tel/Motel G	uest Room
Relocatable Public School	ol Bldg. 🛛 Conditione	d Spaces C		ditioned Spaces <i>r</i> it)
New Construction	Addition		,	
Component	Overall Envelope T Energy	DV 🗖 Und	conditioned	d (file affidavit)
egrees: 150 deg				
		FIELD INSPEC	TION ENE	RGY CHECKLIST
		Meets Cr	iteria or R	equirements
Inspec	ction Criteria	Pass	Fail – D	escribe Reason ²
FC-1.3				
Split DX				
1				
11,000 Btu/hr				
n/a				
9,500 Btu/hr				
	EER			
n/a				
it No				
No Economizer				
Setback Required	1			
Constant Volume				
		FIELD INSPEC	TION ENE	RGY CHECKLIST
Inspec	ction Criteria	Pass	Fail – D	escribe Reason ²
FC-2.1				
Split DX				
1				
20,500 Btu/hr				
n/a				
17,800 Btu/hr				
13.0 SEER / 10.0	EER			
n/a				
it No				
No Economizer				
Setback Required	1			
Constant Volume				
	S Nonresidential Relocatable Public Scho New Construction Component agrees: 150 deg FC-1.3 Split DX 1 1 11,000 Btu/hr n/a 9,500 Btu/hr 13.0 SEER / 10.0 n/a t No No Economizer Setback Required Constant Volume FC-2.1 Split DX 1 20,500 Btu/hr 13.0 SEER / 10.0 Inspec FC-2.1 Split DX 1 20,500 Btu/hr 13.0 SEER / 10.0 n/a t No No Economizer Setback Required No No Economizer Split DX 1 20,500 Btu/hr 13.0 SEER / 10.0 n/a t No No Economizer Split DX 1 20,500 Btu/hr 13.0 SEER / 10.0 n/a t No No Economizer Split DX 1 No No Economizer No No Economizer No No Economizer No No Economizer Setback Required	Climate Zone 3 Nonresidential High-Rise Resident Relocatable Public School Bldg. Conditione New Construction Addition Component Overall Envelope Tenergy agrees: 150 deg Inspection Criteria FC-1.3 Split DX 1 11,000 Btu/hr n/a 9,500 Btu/hr 13.0 SEER / 10.0 EER n/a No No Economizer Setback Required Constant Volume Inspection Criteria FC-2.1 Split DX 1 13.0 SEER / 10.0 EER n/a No No Economizer Setback Required Constant Volume Inspection Criteria FC-2.1 Split DX 1 20,500 Btu/hr 13.0 SEER / 10.0 EER n/a 17,800 Btu/hr 13.0 SEER / 10.0 EER n/a No No Economizer No No Economizer Setback Required No No Economizer Setback Required	S Climate Zone 3 Total Cond. 46,3 A Nonresidential High-Rise Residential Ho Relocatable Public School Bldg. New Construction Addition Addi	S Climate Zone 3 Total Cond. Floor Area 46,320 Nonresidential High-Rise Residential Hotel/Motel G Relocatable Public School Bidg. Conditioned Spaces Unconditioned Spaces 150 deg FIELD INSPECTION ENE Meets Criteria or R Pass Fail - D FC-1.3 Split DX FC-1.3 Split DX FC-1.3 Split DX FC-1.0 EER No No Economizer Setback Required FIELD INSPECTION ENE FIELD INSPECTION EN

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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

TILLD INSPLCTION LIN	LHGI CHLCK				
Project Name					Date 11/12/2010
6th and Oak Street Apartments Project Address		Climate Zone	Total Cond.	Floor Area	Addition Floor Area
609 Oak Street Oakland		3	46,3		n/a
GENERAL INFORMATION		<u> </u>			
Building Type:	Ionresidential	High-Rise Residen	tial 🗖 Hot	tel/Motel G	uest Room
	Relocatable Public Schoo	ol Bldg. 🛛 Conditione	d Spaces E	Uncono (affida)	ditioned Spaces <i>v</i> it)
Phase of Construction:	lew Construction	Addition		eration	
Approach of Compliance:	Component	Overall Envelope T Energy	TDV 🗖 Und	conditioned	d (file affidavit)
Front Orientation: N, E, S, W or in Deg	grees: 150 deg				
HVAC SYSTEM DETAILS			FIELD INSPEC	TION ENE	RGY CHECKLIST
			Meets Cr		equirements
Equipment ²	Inspec	tion Criteria	Pass	Fail – D	escribe 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 INSPEC	TION ENE	RGY CHECKLIST
Equipment ²	Inspec	tion Criteria	Pass	Fail – D	escribe 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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

FIELD INSPECTION END						-
Project Name 6th and Oak Street Apartments						Date 11/12/2010
Project Address		Clima	ate Zone	Total Cond.	Floor Area	Addition Floor Area
609 Oak Street Oakland		Oiiiie	3	46,3		n/a
GENERAL INFORMATION			0	10,0	20	177 G
	nresidential	\checkmark	High-Rise Resident	tial 🗖 Ho	tel/Motel G	iuest Room
	locatable Public Schoo	l Bldg.	. 🗹 Conditioned	d Spaces	Uncon (affida)	ditioned Spaces
Phase of Construction:	w Construction		Addition	D Alt	eration	
Approach of Compliance: D Co	mponent		Overall Envelope T Energy	DV 🗖 Un	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in Degre	ees: 150 deg					
HVAC SYSTEM DETAILS				FIELD INSPEC	TION ENE	RGY CHECKLIST
				Meets Cr	riteria or R	equirements
Equipment ²	Inspec	tion C	riteria	Pass	Fail – D	escribe 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 I	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 INSPEC	TION ENE	RGY CHECKLIST
Equipment ²	Inspec	tion C	riteria	Pass Fail – Describe Re		escribe 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, v	<i>rentea</i>	1/8.0			
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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

FIELD INSPECTION			.131				
Project Name 6th and Oak Street Apartme	nto						Date 11/12/2010
Project Address	1118		Clima	ate Zone	Total Cond.	Floor Area	Addition Floor Area
609 Oak Street Oakland			Umit	3	46,3		n/a
GENERAL INFORMATION				-			• • •
Building Type:	Non	residential	V	High-Rise Resident	tial 🗖 Ho	tel/Motel G	luest Room
	I Relo	catable Public School	Bldg	. 🗹 Conditioned	d Spaces	Uncon (affida)	ditioned Spaces <i>v</i> it)
Phase of Construction:	1 New	Construction		Addition		eration	
Approach of Compliance:	Com	ponent		Overall Envelope T Energy	DV 🗖 Un	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in	Degree	es: 150 deg					
HVAC SYSTEM DETAILS					FIELD INSPEC	TION ENE	RGY CHECKLIST
					Meets Cr	iteria or R	equirements
Equipment ²		Inspect	ion C	riteria	Pass	Fail – D	escribe 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 E	ER				
Duct Location/ R-Value		Attic, Ceiling Ins, ve	entea	1/8.0			
When duct testing is required, sub MECH-4A & MECH-4-HERS	omit	No					
Economizer		No Economizer					
Thermostat		Setback Required					
Fan Control		Constant Volume					
	_		_		FIELD INSPEC		RGY CHECKLIST
Equipment ²		Inspect	ion C	riteria	Pass	Fail – D	escribe 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, ve	entec	1/8.0			
When duct testing is required, sub MECH-4A & MECH-4-HERS	omit	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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

TILLD INSPECTION LINE	NGT CHECK					
Project Name						Date 11/12/2010
6th and Oak Street Apartments Project Address		Climate	7000	Total Cond.		Addition Floor Area
609 Oak Street Oakland		Oinnais	3	46,3		n/a
GENERAL INFORMATION			-			
	residential	☑ H	ligh-Rise Resident	tial 🗖 Ho	tel/Motel G	luest Room
	ocatable Public School	l Bldg.	Conditioned	d Spaces	Uncon (affida)	ditioned Spaces <i>v</i> it)
Phase of Construction:	v Construction		ddition		eration	,
Approach of Compliance: Con	nponent		Overall Envelope T Energy	DV 🗖 Un	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in Degree	es: 150 deg					
HVAC SYSTEM DETAILS				FIELD INSPEC	TION ENE	RGY CHECKLIST
				Meets Cr	riteria or R	equirements
Equipment ²	Inspect	tion Crit	teria	Pass	Fail – D	escribe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	L2 Wall Heater #20	01-2 <u>1</u> 4				
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 INSPEC	TION ENE	RGY CHECKLIST
Equipment ²	Inspect	tion Crit	teria	Pass	Fail – D	escribe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	L3 Wall Heater #30	0 <u>1-3</u> 14				
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						

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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

FIELD INSPECTION E		IGT CHECKL	.131				
Project Name 6th and Oak Street Apartment							Date 11/12/2010
Project Address	S		Clima	ate Zone	Total Cond.	Floor Area	Addition Floor Area
609 Oak Street Oakland			Umit	3	46,3		n/a
GENERAL INFORMATION				-			• "
Building Type:	Nonre	esidential	V	High-Rise Resident	tial 🗖 Ho	tel/Motel G	luest Room
Schools (Public School)	Reloc	catable Public School	Bldg	. 🗹 Conditioned	d Spaces	Uncon (affida)	ditioned Spaces vit)
Phase of Construction:	New	Construction		Addition		eration	
Approach of Compliance:	Comp	ponent		Overall Envelope T Energy	DV 🗖 Un	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in D	egrees	s: 150 deg					
HVAC SYSTEM DETAILS					FIELD INSPEC	TION ENE	RGY CHECKLIST
					Meets Cr		equirements
Equipment ²		Inspect	ion C	criteria	Pass	Fail – D	escribe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	l	L4 Wall Heater #40)1-41	4			
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, subm MECH-4A & MECH-4-HERS	it	No					
Economizer	1	No Economizer					
Thermostat	ł	Setback Required					
Fan Control		Constant Volume					
					FIELD INSPEC	TION ENE	RGY CHECKLIST
Equipment ²		Inspect	ion C	riteria	Pass	Fail – D	escribe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		L5 Wall Heater #50)1-51	4			
Equipment Type ³ :		Split DX					
Number of Systems		28					
Max Allowed Heating Capacity ¹		3,077 Btu/hr					
Minimum Heating Efficiency ¹	I	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, subm MECH-4A & MECH-4-HERS	it	No					
Economizer	1	No Economizer					
Thermostat		Setback Required					
Fan Control	1	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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

(Part 1 of 4)

MECH-1C

FIELD INSPECTION ENE	NGT CHECK					
Project Name 6th and Oak Street Apartments						Date 11/12/2010
Project Address		Climate	7000	Total Cond.	Eloor Area	Addition Floor Area
609 Oak Street Oakland		Cillinate	3	46,3		n/a
GENERAL INFORMATION				10,0	20	11/0
	nresidential	Ø H	ligh-Rise Resident	ial 🗖 Hot	el/Motel G	uest Room
	ocatable Public Schoo	l Bldg.	Conditioned	d Spaces E	Uncon (affida)	ditioned Spaces
Phase of Construction:	v Construction		Addition	Alte	eration	
Approach of Compliance: Con	nponent		Dverall Envelope T Energy	DV 🗖 Und	conditione	d (file affidavit)
Front Orientation: N, E, S, W or in Degree	es: 150 deg					
HVAC SYSTEM DETAILS				FIELD INSPEC	TION ENE	RGY CHECKLIST
				Meets Cr	iteria or R	equirements
Equipment ²	Inspec	tion Crit	teria	Pass	Fail – D	escribe Reason ²
Item or System Tags (i.e. AC-1, RTU-1, HP-1)	L6 Wall Heater #60	01-614				
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 INSPEC	TION ENE	RGY CHECKLIST
Equipment ²	Inspec	tion Crit	teria	Pass	Fail – D	escribe 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.

EnergyPro 5.1 by EnergySoft User Number: 0000 RunCode: 2010-11-12T12:45:13

CERTIFICATE OF FIELD INSPECTION			(Part 2 of 4)	MECH-1C
Project Name 6th and Oak Street Apa	rtments			Date 11/12/2010
Discrepancies:				
EnergyPro 5.1 by EnergySoft	User Number: 0000	RunCode: 2010-11-12T12:4	5:13 ID: 09079	Page 54 of 89

Project Name <i>Etroited Name Oak Street Apartments Bequired Acceptance Tests In1/12/2010 In1/12/2010 In1/12/2010 In1/12/2010 In1/12/2010 Init 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.</i>	ied to the plan all equipmen es the Section ow the respon								Date 11/12	11/12/2010
Required Acceptance Tests Designer: This form is to be used by the designer and attacher boxes by all acceptance tests that apply and listed a the number of systems. The NA number designates part of the plans, completion of this section will allow	led to the plan I all equipmen es the Section ow the respon									
Designer: This form is to be used by the designer and attacher boxes by all acceptance tests that apply and listed a the number of systems. The NA number designates part of the plans, completion of this section will allow	led to the plan I all equipmen is the Section ow the respon									
		is. Listed belov it that requires in the Append sible party to t	w are all the a an acceptan aix of the Non oudget for the	acceptance te: ce test. If all e iresidential Re scope of wor	sts for mech quipment of iference App k appropriati	anical systen a certain typ endices Man ely.	is. The desiç e requires a ual that desc	gner is require test, list the e cribes the test	ed to check the quipment desc Since this for	applicable ription and m will be
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.	is granted for 3 or space sha is granted. All	a newly constr ill be certified i newly installe	ructed buildin as meeting th d HVAC equi	g or space, or le Acceptance pment must b	a new space Requirement e tested usin	e-conditionin tts for Code ig the Accept	g system sei Compliance. ance Requir	rving a buildir ements.	ig or space is c	perated for
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.	d form and is r ller, TAB contr alled equipme ing and maintr lding can rece	not to be accel actor, controls nt. In addition enance inform ive final occup	pted by the b s contractor, F a Certificate ation meet th vancy.	uilding departu DE in charge c of Acceptance e requirement	ment unless of project) an e forms shall ts of §10-103	the correct b d what Acce be submittec i(b) and Title	oxes are che otance test n 1 to the build -24 Part 6. T	acked. The ec must be condt ling departme he building in	luipment requir loted. The follo nt that certifies spector must r	ing testing, wing plans, sceive the
TEST DESCRIPTION	MECH-2A	MECH-3A	MECH-4A	MECH-5A	MECH-6A	MECH-7A	MECH-8A	MECH-9A	MECH-10A	MECH-11A
cation Qtv.	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
~~~	D									
FC-1.3 1										
FC-2.1 1										
FC-2.2 1										
FC- 2.3		Ø								
DS-1 1		۵								
HP #1 1		5								
HP #2										
MU-1										
МН-1/МН-2 140		5								
EnergyPro 5.1 by EnergySoft User Number: 0000	0000	Ru	nCode: 2010-	RunCode: 2010-11-12T12:45:13	~	ID: 09079	079		Ľ.	Page 55 of 89

CERTIFICATE OF COMPLIANCE and FIELD		CE and FI	_	ECTION E	<b>INSPECTION ENERGY CHECKLIST</b>	T (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		
		Fault Detection & Diagnostics	Automatic Fault Detection & Diagnostics for	Distributed Energy Storage DX AC	Thermal Energy Storage (TES)		
Equipment Requiring Testing	Qty.	for DX Units	Air & Zone	Systems	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						
EnergyPro 5.1 by EnergySoft Use	User Number: 0000	0000	Я	RunCode: 2010-11-12T12:45:13	<b>12T12:45:13</b> ID: 09079	179	Page 56 of 89

	Street Apartments					11/12/2010
	ISTMENT FACTORS (PAF) FO					
A Separate PAF schedule are or	Worksheet Must Be Filled Out for bly for:	or Conditioned an	d Unconditione	ed Spaces. Con	trol Credits list	ed on this
	IONED SPACES		UNCONDITI	ONED SPACES	;	
А	В	С	D	Е	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)
	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
	Γ				PAGE TOTAL	503
Note:	Building to	tal of non-daylight co	ntrol credit watts fo	or all pages of LTC	G-2C Page 1 of 2	
Conditioned and Unconditioned	Enter	building total of all da				0
Space shall be separately totaled	Enter in L	FOR BOTH NON (FOR BOTH NON) TG-1C; Page 4: Light		DAYLIGHT CON as appropriate for	TROL CREDITS)	503
	I be consistent with Type of Control defi ent Factor taken from Table 146-C	ned in Table 146-C				
EnergyPro 5.1 by I	EnergySoft User Number: 0000	RunCode: 2010-	11-12T12:45:13	ID: 09079		Page 57 of 89

## LIGHTING CONTROLS CREDIT WORKSHEET

Project Name

LTG-2C

(Part 1 of 2)

Date

<b>AIR SYSTEM REQUI</b>	REMENTS		(Part 1 of 2	2) <b>MECH-2C</b>
Project Name			•	Date
6th and Oak Street Apartme	ents			11/12/2010
Itom or System Taxa	Indic	ate Air Systems Type (Cei	ntral, Single Zone, Package	e, VAV, or etc…)
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		FC-1.1, 1.2	FC-1.3	FC-2.1
Number of Systems		2	1	1
	Indicate Pag	e Reference on Plans or S	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

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.

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<b>AIR SYSTEM REQUI</b>	REMENTS		(Part 1 of	2) <b>MECH-2C</b>
Project Name				Date
6th and Oak Street Apartme	ents			11/12/2010
Ham as Custom Taga	Indic	ate Air Systems Type (Cer	ntral, Single Zone, Package	e, VAV, or etc…)
Item or System Tags (i.e. AC-1, RTU-1, HP-1)		FC-2.2	FC-2.3	DS-1
Number of Systems		1	1	1
	Indicate Pag	e Reference on Plans or S	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

# 

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.

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<b>AIR SYSTEM REQUI</b>	REMENTS	5	(Part 1 of	2) MECH-2C
Project Name			,	Date
6th and Oak Street Apartme	ents			11/12/2010
Item or System Tags	India	cate Air Systems Type (Cer	ntral, Single Zone, Packag	e, VAV, or etc…)
(i.e. AC-1, RTU-1, HP-1)		L1 HP 1	L1 HP 2	MU-1
Number of Systems		1	1	1
	Indicate Pa	ge Reference on Plans or S	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.

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.

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<b>AIR SYSTEM REQUI</b>	REMENTS		(Part 1 of	2) <b>MECH-2C</b>
Project Name			L. L	Date
6th and Oak Street Apartme	nts			11/12/2010
Item or System Tags	Indic	ate Air Systems Type (Ce	ntral, Single Zone, Packag	e, VAV, or etc…)
(i.e. AC-1, RTU-1, HP-1)		L2 Wall Heater #201-214	L3 Wall Heater #301-314	L4 Wall Heater #401-414
Number of Systems		28	28	28
	Indicate Pag	ge Reference on Plans or S	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

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.

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<b>AIR SYSTEM REQUI</b>	REMENTS		(Part 1 of	2) <b>MECH-2C</b>
Project Name			Υ.	Date
6th and Oak Street Apartme	nts			11/12/2010
Item or System Tags	Indic	ate Air Systems Type (Ce	ntral, Single Zone, Packag	e, VAV, or etc…)
(i.e. AC-1, RTU-1, HP-1)		L5 Wall Heater #501-514	L6 Wall Heater #601-614	
Number of Systems		28	28	
	Indicate Pag	ge Reference on Plans or S	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	

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.

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### WATER SIDE SYSTEM REQUIREMENTS

144(j)

144(j)

144(j)

144(j)

User Number: 0000

N	IECH	-2C
Date		

(Part 2 of 2)

Project Name

6th and Oak Street Apartments

11/12/2010

WA	TER ² SIDE SYSTEMS: C	hillers, Towers, Boilers, H	lydronic Loops
	Indicate Page Refer	ence on Plans or Specific	cation ²
T-24 Sections			
112(a)			
123			
144(a & b)			
144(h)			
144(h)			
144(j)			
	T-24 Sections           112(a)           123           144(a & b)           144(h)           144(h)	Indicate Page Refer           T-24 Sections           112(a)           123           144(a & b)           144(h)           144(h)	112(a)       123       144(a & b)       144(h)       144(h)

CHW and HHW Reset Controls

WLHP Isolation Valves

VSD on CHW, CW & WLHP Pumps>5HP

DP Sensor Location

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.

 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 H	ot Water, Pool Heating	
ltem or System Tags (i.e. WH-1, WHP, DHW, etc) ¹		DHW Heater		
Number of Systems		2		
		Indicate Page Ret	ference on Plans or Sche	dule 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		
<ol> <li>The Proposed equipment needs to m next to applicable section.</li> <li>For each water heater, pool heater ar specification section and paragraph n column.</li> </ol>	nd domestic water l	oop (or groups of similar equ	uipment) fill in the reference to	sheet number and/or

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MECHA	<b>MECHANICAL VENTILATION AND REHEAT</b>	<b>ΥΤΙΙΔΤΙΟ</b>	N AND	REHE/	ΔT								MEC	MECH-3C
Project Name 6th and Oa	Project Name 6th and Oak Street Apartments	ments											Date 11/12/2010	2010
		MECH	HANICAL	MECHANICAL VENTILATION	ON (§121(b)2)	(c)				REHE	AT LIMITA	REHEAT LIMITATION (§144(d))	d))	
		AR	AREA BASIS		000	OCCUPANCY BASIS	3 ASIS				VAV MINIMUM	IMUM		
	٩	B	υ	0	ш	ш	ъ	т	_	7	¥	-	Σ	z
Zone	Zone/Svstem	Condition Area	CFM per	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 / ft²	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
L1 Commmunity Room	/ Room	069	0.50	345	) ) )			345	345				2	
FC-1.1, 1.2							Total	345	345					
L1 Service Office	Q	144	0.15	22				22	22					
FC-1.3							Total	22	22					
L1 Management Office	t Office	541	0.15	81	5.4	15.0	81	81	81					
FC-2.1							Total	81	81					
L1 Conference Room	Room	132	0.50	66	8.8	7.5	66	66	66					
FC-2.2							Total	66	66					
L1 Manager's Office	lffice	242	0.15	36	2.4	15.0	36	36	36					
FC-2.3							Total	36	36					
Elevator Machine Room	te 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	ıl Design Vent	ilation Air		
o	Minimum ventilation rate per Section §121, Table 121-A	ion rate per Section	on §121, Te	tble 121-A.										
Ш	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	sat or the greater	of the expec	sted number c	occupant:	s and 50% c	of the CBC oc	cupant load	for egress pu	rposes for space	es without fixe	ed seating.		
Н	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)	ion Air (REQ'D V	.A.) is the la	rger of the vei	Itilation rate	es calculate	d on an ARE≁	V BASIS or C	OCCUPANCY	' BASIS (Columi	n D or G).			
_	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference	han or equal to H	, or use Trai	nsfer Air (colu	mn N) to m	ake up the c	difference.							
ſ	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121	y CFM (Fan CFM	) x 50%; or t	he design zor	ie outdoor	airflow rate p	oer §121.							
¥	Condition area ( $ft^2$ ) x 0.4 CFM / $ft^2$ ; or	² ) × 0.4 CFM / ft ² ;	or											
_	Maximum of Columns H, J, K, or 300 CFM	imns H, J, K, or 3	00 CFM											
Σ	This must be less than or equal to Column L and greater than or	than or equal to	Column L a	nd greater tha	in or equal	to the sum c	equal to the sum of Columns H plus N	plus N.				-		
z	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.	be provided whe ence between th	ire the Requ	ired Ventilatio	n Air (Colui (Column F	mn H) is gre I) and the D	esign Minimu	Design Mini⊧ m Air (Colun	mum Air (Col nn M), Colum	umn M). Where n H minus M.	required, trar	ısfer air must i	be greater th	an or
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MECHA	<b>MECHANICAL VENTILATION AND REHEAT</b>	VTILATIO	N AND	REHE/	ÀT								MEC	MECH-3C
Project Name 6th and Oa	Project Name 6th and Oak Street Apartments	ments											Date 11/12/2010	2010
		MECH	HANICAL V	MECHANICAL VENTILATION	N (§121(b)2)	)2)				REHE		REHEAT LIMITATION (§144(d))	d))	
		AR	AREA BASIS		000	OCCUPANCY BASIS	3 ASIS				VAV MINIMUM	IMUM		
	A	B	c	D	ш	ш	9	н	-	ſ	У	L	Μ	z
Zone	Zone/Svstem	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	В Х 0.4 СЕМ / ft²	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setooint	Transfer Air
L1 HP 2			:		) ) )		Total	42	42				2	
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	Wing	1,224	0.15	184	6.1	30.0	184	184	184					
L2 Room East Wing	Ning	2,663	0.15	399	13.3	30.0	399	399	399					
L2 Room South Wing	Wing	1,254	0.15	188	6.3	30.0	188	188	188					
L2 Room West Wing	Wing	2,522	0.15	378	12.6	30.0	378	378	378					
L2 Wall Heater #201-214	r #201-214						Total	1,149	1,149					
L3 BED North Wing	Ving	1,224	0.15	184	6.1	30.0	184	184	184					
L3 BED East Wing	ing	2,665	0.15	400	13.3	30.0	400	400	400					
L3 BED South Wing	Ning	1,252	0.15	188	6.3	30.0	188	188	188					
				Totals						Column I Total Design Ventilation Air	l Design Vent	ilation Air		
o	Minimum ventilation rate per Section §121, Table 121-A	on rate per Sectic	n §121, Ta	ble 121-A.										
ш	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	at or the greater	of the expec	sted number o	f occupants	s and 50% c	of the CBC occ	supant load	for egress pu	rposes for space	es without fixe	ed seating.		
н	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)	ion Air (REQ'D V.	A.) is the la	rger of the ven	Itilation rate	s calculate	d on an AREA	BASIS or C	CCUPANCY	' BASIS (Columi	n D or G).			
_	Must be greater th	greater than or equal to H,	or use Tra	or use Transfer Air (column N) to make up the difference	mn N) to ma	ake up the c	lifference.							
ſ	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121	/ CFM (Fan CFM)	) x 50%; or t	he design zon	e outdoor ¿	airflow rate p	oer §121.							
У	Condition area (ft ² ) x 0.4 CFM / ft ² ;	² ) x 0.4 CFM / ft ² ;	or											
_	Maximum of Columns H, J, K, or 300 CFM	mns H, J, K, or 3	D0 CFM											
Ø	This must be less than or equal to Column L and greater than or	than or equal to	Column L a	nd greater tha	n or equal t	o the sum c	equal to the sum of Columns H plus N	plus N.			-			
z	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.	be provided whe ence between th	re the Requ e Required	ired Ventilatio	n Air (Colur (Column H	nn H) is gre I) and the D	ater than the esign Minimur	Design Mini n Air (Colun	mum Air (Colt <u>1n M), Colum</u>	umn M). Where n H minus M.	required, tran	ısfer air must⊤	be greater thi	an or
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MECHA	<b>MECHANICAL VENTILATION AND REHEAT</b>	VTILATIO	N AND	REHE/	٦T								MEC	MECH-3C
Project Name 6th and Oa	Project Name 6th and Oak Street Apartments	ments											Date 11/12/2010	2010
		MECH	IANICAL V	MECHANICAL VENTILATION	N (§121(b)2)	(c)(c				REHE	REHEAT LIMITATION (§144(d))	FION (§144(	())	
		AR	AREA BASIS		000	OCCUPANCY BASIS	3 ASIS				VAV MINIMUM	IMUM		
	A	۵	υ	٥	ш	ш	ъ	т	_	7	×	-	Σ	z
Zone	Zone/Svstem	Condition Area (ft²)	CFM per ft²	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	Ving	2,522	0.15	378	12.6	30.0	378	378	378				_	
L3 Wall Heater #301-314	r #301-314						Total	1,149	1,149					
L4 BED North Wing	Ving	1,223	0.15	183	6.1	30.0	183	183	183					
L4 BED East Wing	jug	2,662	0.15	399	13.3	30.0	399	399	399					
L4 BED South Wing	Ning	1,255	0.15	188	6.3	30.0	188	188	188					
L4 BED West Wing	Ving	2,522	0.15	378	12.6	30.0	378	378	378					
L4 Wall Heater #401-414	r #401-414						Total	1,149	1,149					
L5 BED North Wing	Ving	1,224	0.15	184	6.1	30.0	184	184	184					
L5 BED East Wing	ing	2,663	0.15	399	13.3	30.0	399	399	399					
L5 BED South Wing	Ving	1,254	0.15	188	6.3	30.0	188	188	188					
L5 BED West Wing	Ving	2,522	0.15	378	12.6	30.0	378	378	378					
L5 Wall Heater #501-514	r #501-514						Total	1,149	1,149					
L6 BED North Wing	Ving	1,224	0.15	184	6.1	30.0	184	184	184					
L6 BED East Wing	ing	2,662	0.15	399	13.3	30.0	399	399	399					
L6 BED South Wing	Ning	1,254	0.15	188	6.3	30.0	188	188	188					
				Totals						Column I Total Design Ventilation Air	l Design Vent	ilation Air		
O	Minimum ventilation rate per Section §121, Table 121-A	on rate per Sectic	nn §121, Te	tble 121-A.										
Ш	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	at or the greater	of the expec	sted number o	f occupants	s and 50% c	of the CBC oc	cupant load	for egress pu	rposes for space	es without fixe	d seating.		
Н	Required Ventilation Air (REQ'D V.A.) is the larger of the ventilation rates calculated on an AREA BASIS or OCCUPANCY BASIS (Column D	ion Air (REQ'D V.	A.) is the la	rger of the ver	Itilation rate	es calculate	d on an AREA	BASIS or C	CCUPANCY	BASIS (Columr	n D or G).			
_	Must be greater than or equal to H,	han or equal to H,		or use Transfer Air (column N) to make up the difference	nn N) to m	ake up the (	difference.							
٦	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121	/ CFM (Fan CFM)	1 x 50%; or 1	he design zon	e outdoor a	airflow rate	ber §121.							
¥	Condition area (ft ² ) $\times$ 0.4 CFM / ft ² ; or	² ) × 0.4 CFM / ft ² ;	or											
	Maximum of Columns H, J, K, or 300 CFM	imns H, J, K, or 3	00 CFM											
≥	This must be less than or equal to Column L and greater than or	than or equal to	Column L a	nd greater tha	n or equal t	to the sum o	equal to the sum of Columns H plus N.	plus N.			-		-	
z	I ranster Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Where required, transter 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.	ence between th	re the Kequ e Required	Irred Ventilatio	n Air (Colun (Column H	nn H) is gre I) and the D	eater than the esign Minimu	Design Minii n Air (Colun	mum Air (Coli nn M), Colum	umn M). Where n H minus M.	required, tran	ister air must⊤	be greater th	an or
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MECHA	<b>MECHANICAL VENTILATION AND REHEAT</b>	<b>ΥΤΙΙΑΤΙΟ</b>	N AND	REHE/	ÅΤ								MEC	MECH-3C
Project Name 6th and Oa	Project Name 6th and Oak Street Apartments	ments											Date 11/12/2010	2010
		MECH	HANICAL	MECHANICAL VENTILATION (§121(b)2)	N (§121(t	)2)				REHE	EAT LIMITA	REHEAT LIMITATION (§144(d))	((p)	
		AR	AREA BASIS		000	OCCUPANCY BASIS	3ASIS				VAV MINIMUM	MUMI		
	A	В	ပ	D	Е	ш	5	н	-	ſ	К	Г	W	z
Zone	Zone/Svstem	Condition Area (ff ² )	CFM per ft²	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 / ft²	Max. of Columns H, J, K, 300 CFM	Design Minimum Air Setpoint	Transfer Air
L6 BED West Wing	Ving	2,522	0.15	378	12.6	30.0	378		378				, , , , , ,	
L6 Wall Heater #601-614	r #601-614						Total	1,149	1,149					
				Totals						Column I Total Design Ventilation Air	al Design Ven	tilation Air		
O	Minimum ventilation rate per Section §121, Table 121-A.	on rate per Section	on §121, Te	tble 121-A.										
ш	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	eat or the greater	of the expe	cted number o	f occupants	and 50% c	of the CBC oc	cupant load	for egress pu	rposes for space	es without fixe	ed seating.		
Н	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)	ion Air (REQ'D V	.A.) is the la	rger of the ver	Itilation rate	s calculate	d on an AREA	V BASIS or C	<b>DCCUPANCY</b>	' BASIS (Columi	n D or G).			
_	Must be greater than or equal to H, or use Transfer Air (column N) to make up the difference.	han or equal to H	, or use Tra	nsfer Air (colui	nn N) to m	ake up the c	difference.							
٦	Design fan supply CFM (Fan CFM) x 50%; or the design zone outdoor airflow rate per §121	y CFM (Fan CFM	) x 50%; or 1	the design zon	ie outdoor a	iirflow rate p	oer §121.							
¥	Condition area ( $ft^2$ ) x 0.4 CFM / $ft^2$ ; or	² ) × 0.4 CFM / ft ² ;	or											
Ļ	Maximum of Columns H, J, K, or 300 CFM	imns H, J, K, or 3	00 CFM											
Μ	This must be less than or equal to Column L and greater than or	than or equal to	Column L a	nd greater tha	n or equal t	o the sum c	equal to the sum of Columns H plus N.	plus N.						
z	Transfer Air must be provided where the Required Ventilation Air (Column H) is greater than the Design Minimum Air (Column M). Whe equal to the difference between the Required Ventilation Air (Column H) and the Design Minimum Air (Column M), Column H minus M	t be provided whe ence between th	ire the Required	ired Ventilatio	n Air (Colur (Column H	nn H) is gre	esign Minimu	Design Mini. m Air (Colun	mum Air (Colt nn M), Colum	(Column H) is greater than the Design Minimum Air (Column M). Where required, transfer air must be greater than or umn H) and the Design Minimum Air (Column M), Column H minus M.	required, trar	nsfer air must	be greater th	an or
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		MECHANICAL EQUIPMENT DETAILS								(Part 1	1 of 2)		<b>MECH-5C</b>
Project Name 6th and Oak Street Apartments	S											Date 1	11/12/2010
CHILLER AND TOWER SUMMARY	ARY												
-						-					PUMPS	-	
Equipment Name	Τy	Type	Qty.	Effic	Efficiency	L L	Tons (	Qty.	GPM	внр	Premium Eff. Motor	<u> </u>	Pump Control
DHW / BOILER SUMMARY													
		_					Ν	Energ	Energy Factor	Standby Loce	000	Tank Evt	
System Name	Type		Distribution		Qty. R	Rated Input	(Gals).		or RE	or Pilot	y Luss llot	R-Value	Status
Pennant Boiler B-1/B-2	Large Gas		Centr	Central System 2		500,000		0	0.96		0.00 %	0.0	New
MULTI-FAMILY CENTRAL WATER HEATING DETAILS	TER HEATIN	<b>G DETAILS</b>											
	н	Hot Water Pump								Hot Water Piping Length (ft)	Piping L	ength (ft)	
Control	Qty.	<i>ч</i> . нр			Type			In Plenum		Outside	Buried		Add 1/2" Insulation
Temperature	1	1.0					Premium		0	10	100	0	
<b>CENTRAL SYSTEM RATINGS</b>													
					Ê	HEATING				COOLING	Q		
System Name	Ē	Type	Qty.	Output		Aux. kW	Efficiency	0	Output		Efficiency	cy	Status
FC-1.1, 1.2	Split DX		2	14,	14,000	0.0	-	n/a	12,000		13.0 SEEF	13.0 SEER / 10.0 EER	
FC-1.3	Split DX		1	11,	11,000	0.0	-	n/a	9,500		13.0 SEEF	13.0 SEER / 10.0 EER	New
FC-2.1	Split DX		1	20,	20,500	0.0	-	n/a	17,800		13.0 SEEF	13.0 SEER / 10.0 EER	New
FC-2.2	Split DX		1	11,	11,000	0.0	-	n/a	9,500		13.0 SEEF	13.0 SEER / 10.0 EER	New
FC- 2.3	Split DX		1	11,	11,000	0.0	-	n/a	9,500		13.0 SEEF	13.0 SEER / 10.0 EER	New
DS-1	Split DX		1		0	0.0	8.80 HSPF	PF	24,200		18.0 SEEF	18.0 SEER / 10.0 EER	New
HP #1	Split DX		1	36,	36,800	0.0	8.80 HSPF	PF	32,300		14.5 SEEF	14.5 SEER / 10.0 EER	New
<b>CENTRAL SYSTEM FAN SUMMARY</b>	MARY									-			
	_						JAANS	SUPPLY FAN				KEIUKN FAN	-
System Name	Far	Fan Type	Ec	Economizer Type	pe	CFM	<u>ם</u>	внр	Premium Eff. Motor		CFM	внр	Premium Eff. Motor
FC-1.1, 1.2	Constant Volume	ume	No Economizer	omizer			312	0.03			none	e	
FC-1.3	Constant Volume	ume	No Economizer	omizer			271	0.03			none	е	
FC-2.1	Constant Volume	ume	No Economizer	omizer			347	0.04			none	е	
FC-2.2	Constant Volume	ume	No Economizer	omizer			271	0.03			none	e	
FC- 2.3	Constant Volume	ume	No Economizer	omizer			271	0.03			none	е	
DS-1	Constant Volume	ume	No Economizer	omizer			525	0.05			none	θ	
HP #1	Constant Volume	ume	No Economizer	omizer		1,	1,076	0.11			none	е	
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MECHANICAL EQUIPMENT DETAILS	MENT I	DETAIL	S							(Par	(Part 1 of 2)		<b>MECH-5C</b>
Project Name 6th and Oak Street Apartments	ıts											Date 11/	11/12/2010
CHILLER AND TOWER SUMMARY	<b>IARY</b>												
											PUMPS		
Equipment Name		Type		Qty.	Efficiency	y	Tons	Qty.	GPM	внр	Premium Eff. Motor	-0	Pump Control
DHW / BOILER SUMMARY											I		
System Name	Type		Dis	Distribution	Qty.	Rated Input	Vol. out (Gals).		Energy Factor or RE		Standby Loss T or Pilot	Tank Ext. R-Value	Status
MULTI-FAMILY CENTRAL WATER HEATING DETAILS	<b>ATER HEAT</b>	<b>TING DETA</b>	ILS										
		t Water	dmn							Hot Wate	r Pipil		
Control		aty.	료		Ţ	Type		п Г	In Plenum	Outside	Buried		Add ½" Insulation
<b>CENTRAL SYSTEM RATINGS</b>	-											_	
						HEATING				COOLING	NG		
System Name		Type	-	Qty.	Output	Aux. kW	Efficiency	cy	Output		Efficiency		Status
HP #2	Split DX			1	37,300	0.0	8.80	8.80 HSPF	33,600	00	14.5 SEER / 10.0 EER	10.0 EER	New
MU-1	Split DX			1	200,000	0.0	78%	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	IMARY												
							INS	SUPPLY FAN			Ľ	<b>RETURN FAN</b>	
System Name		Fan Type		Econe	Economizer Type	CFM	M	ВНР	Premium Eff. Motor	n ja	CFM	ВНР	Premium Eff. Motor
HP #2	Constant Volume	Volume	Ň	No Economizer	zer		1,076		0.01		none		
MU-1	Constant Volume	Volume	10	100% Outside Air	de Air		5,125	3.	3.00		none		
WH-1/WH-2	Constant Volume	Volume	N	No Economizer	izer		none				none		
			+										
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MECHANICAL EQUIPMENT DETAILS	<b>QUIPMENT D</b>	ETAILS							(Part 2 of 2)	2 of	5)		MECH-5C	-5C
Project Name 6th and Oak Street Apartments	artments											Date 11	11/12/2010	0
ZONE SYSTEM SUMMARY	ARY													
			SYSTEM	W			VAV	Ű	Fan					
Zone Name	System Name	Type	Qtv.	Heating	Cooling	Min CFM Ratio	Reheat Coil	CFM	ВНР	Premium Eff. Moto	Cycles Cycles	Motor Motor	Outside Air	٥
L2 Room North Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 %	No							
L2 Room East Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 %								
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		% 001	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		% 001	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	None							
L5 BED West Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 % None	None							
L6 BED North Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 % None	None							
L6 BED East Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 %	100 % None							
L6 BED South Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 %	100 % None							
L6 BED West Wing	10 kBtu Baseboard	VAV Box	14	10,000		100 % None	None							
EXHAUST FAN SUMMARY	ARY													
EXHAUST FAN	ST FAN			EXHAUST FAN	r fan		ı.		EX	EXHAUST FAN	FAN			
Room Name	CTV. CFM BHP	ਰੋ Premium DotoM .11∃	Room Name	ame	Qtv.	CFM	<del>ت</del> Premium Eff. Moto	Roor	Room Name		Qty.	CFM	BHP	Premium Eff. Moto
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### **ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL**

ENV-MM

Project Name

6th and Oak Street Apartments

11/12/2010

Date

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

LTG-MM

Project Name

6th and Oak Street Apartments

11/12/2010

Date

Indoor Lighting Measures:					
§131(d): Sh	ut-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.				

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## MECHANICAL MANDATORY MEASURES: NONRESIDENTIAL

**MECH-MM** 

Project Name

Date 11/12/2010

6th and Oak Street Apartments

e for which there is a California standard established in the Appliance Efficiency Regulations will comply cable standard. tral furnaces shall not have a pilot light. tt that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC hall be insulated in accordance with Standards Section 123. tuct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of ndards. The system shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of ndards. The system shall be installed with one of the following: conditioning system serving building types such as offices and manufacturing facilities (and all others not mpt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an anual override that allows operation of the system during off-hours for up to 4 hours. The time switch ble of programming different schedules for weekdays and weekends and have program backup in the requirements of Section 112 (d) shall be installed with an automatic time switch with an anual override that allows operation of the system; or r that can be manually operated to control the operating period of the system. conditioning system shall be installed with controls that temporarily restart and temporarily operate the quired to maintain a setback heating and/or a setup cooling thermostat setpoint. conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 hall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided devices; and shall be controlled by a time control device as described above. shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to resonnel. shall be installed with controls to prevent electric resistance supplementary heater operation when the can be met by the heat pump alone conditioning system shall be controlled by an individual thermostat that resp
t that conveying fluids at temperatures between 60 and 105 degrees Fahrenheit, or within HVAC hall be insulated in accordance with Standards Section 123. duct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of ndards. conditioning system shall be installed with one of the following: conditioning system serving building types such as offices and manufacturing facilities (and all others not mpt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an anual override that allows operation of the system during off-hours for up to 4 hours. The time switch ble of programming different schedules for weekdays and weekends and have program backup nat prevent the loss of the device's program and time setting for at least 10 hours if power is interrupted; or y sensor to control the operating period of the system; or er that can be manually operated to control the operating period of the system. conditioning system shall be installed with controls that temporarily restart and temporarily operate the quired to maintain a setback heating and/or a setup cooling thermostat setpoint. conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 hall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided devices, such as valves or dampers that allow the supply of heating or cooling to be setback or shut off y of other isolation areas; and shall be controlled by a time control device as described above. shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to resonnel. shall be installed with controls to prevent electric resistance supplementary heater operation when the can be met by the heat pump alone conditioning system shall be controlled by an individual thermostat that responds to temperature within the used to control heating, the control stop an individual thermostat that responds to temperature within the
hall be insulated in accordance with Standards Section 123. duct systems shall be installed and insulated in compliance with Sections 601, 602, 603, 604, and 605 of ndards. conditioning system shall be installed with one of the following: conditioning system serving building types such as offices and manufacturing facilities (and all others not mpt from the requirements of Section 112 (d)) shall be installed with an automatic time switch with an anual override that allows operation of the system during off-hours for up to 4 hours. The time switch ble of programming different schedules for weekdays and weekends and have program backup hat prevent the loss of the device's program and time setting for at least 10 hours if power is interrupted; or y sensor to control the operating period of the system; or er that can be manually operated to control the operating period of the system. conditioning system shall be installed with controls that temporarily restart and temporarily operate the quired to maintain a setback heating and/or a setup cooling thermostat setpoint. conditioning system serving multiple zones with a combined conditioned floor area more than 25,000 hall be provided with isolation zones. Each zone: shall not exceed 25,000 square feet; shall be provided devices, such as valves or dampers that allow the supply of heating or cooling to be setback or shut off y of other isolation areas; and shall be controlled by a time control device as described above. shall have numeric setpoints in degrees Fahrenheit (F) and adjustable setpoint stops accessible only to arronnel. shall be installed with controls to prevent electric resistance supplementary heater operation when the conditioning system shall be controlled by an individual thermostat that responds to temperature within the used to control heating, the control shall be adjustable down to 55 degrees F or lower. For cooling, the
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used to control heating, the control shall be adjustable down to 55 degrees F or lower. For cooling, the
be adjustable up to 85 degrees F or higher. Where used for both heating and cooling, the control shall be oviding a deadband of at least 5 degrees F within which the supply of heating and cooling is shut off or minimum.
l be provided to allow outside air dampers or devices to be operated at the ventilation rates as specified is.
ntilating systems shall be provided with automatic or readily accessible manually operated dampers in all he outside, except for combustion air openings.
stem Acceptance. Before an occupancy permit is granted for a newly constructed building or space, or a g system serving a building or space is operated for normal use, all ventilation systems serving the ace shall be certified as meeting the Acceptance Requirements for Code Compliance
ing Systems
controls for public lavatories. The controls shall limit the outlet Temperature to 110°F.
ervice water-heating systems shall have a control capable of automatically turning off the circulating pump er is not required.





























UTIL-1

	U	4				Data				
Project Name Date 6th and Oak Street Apartments 11/12/2010										
Step 1         ANNUAL TDV ENERGY USE (kBtu/sqft-yr)         Step 2         PERCENT BELOW TITLE 24										
ENERGY COMPONENT	<b>Standard</b>	Proposed	Margin	in Adjusted TDV Energy Use						
Space Heating	18.03	13.47	4.56	(Excludes Process Energy)						
Space Cooling	13.48	19.41	-5.93	Standar Design		d Margin				
Indoor Fans	6.74	6.58	0.17	135.61 - 112.06 = 23						
Heat Rejection	5.61	0.00	5.61							
Pumps	5.03	2.78	2.25	Standard % Be Margin Design Title						
Domestic Hot Water	23.56	5.60	17.96	23	8.55 / 135.	61 = 17.4 %				
Lighting	33.14	34.21	-1.06	Incontivo El	Incentive Eligibility Yes No Owner Incentive (>=10%)					
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	Conditioned	l Floor Area =	46,320.1 ft² sq. ft.				
Step 3 ANNUAL SITE ENERGY USE The values shown here are based upon the results of an										
Average Jam Enm	Standard	Proposed	Margin			on the results of an is that uses Title 24				
Average 2pm - 5pm	59.3	63.3	4.0	profiles as specifie		Calculation Method				
ENERGY COMPONENT	Stanc Electricity	Electricity	pposed <u>Margin</u> Natural Gas Electricity Natural Gas							
	(kWh)	(therms)	(kWh)	(therms)	(kWh)	(therms)				
Space Heating	0	4,860	304	3,630	-304	1,230				
Space Cooling Indoor Fans	22,458 15,788	0	33,184 15,399	0	-10,726 389	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	0,004	1,588	0,100	5.088				
Lighting	82,546	0,070	84,988	0	-2.442	0,000				
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				
	IAL OWNER INC			0,211	0,020	0,010				
		% Be	elow Title-24*	Incent						
			om step 2)	Rate						
	Electricity (kWh	)	17.4 %	¢/kW		,025 = \$874				
Pacific Gas and Dece Electric Company				+,		0.0 - \$0				
	Electricity (KW)	Electricity (kW)			$= 100.00 \times 0.0 = 50$					
Natural Gas $= 100.0 \times 6,318 = $ \$6,31										
Natural Gas = $100.0$ X $6,318$ = $$6,318$ ¢/therm therm										
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 d										
to qualify. Potential incenti	ves are subject t	o program limi	tations based	upon the increi		equation is limited to 30%.				
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## UTILITY INCENTIVE WORKSHEET

UTIL-DT

		•								
Project Name Date 6th and Oak Street Apartments 11/12/2010										
6th and Oak Street Apartments       11/12/2010         Step 1       ANNUAL TDV ENERGY USE (kBtu/sqft-yr)       Step 2       PERCENT BELOW TITLE 24										
ENERGY COMPONENT	Energy Us									
Space Heating	<u>Standard</u> 18.03	Proposed 13.47	<u>Margin</u> 4.56	(Excludes I	Process En	ergy)				
	13.48	19.41	-5.93	Stand		Proposed				
Space Cooling				Desi		Design	Margin			
Indoor Fans	6.74	6.58	0.17		135.61	112.0	23.55 <b>=</b>			
Heat Rejection	5.61	0.00	5.61			Standard	% Below			
Pumps	5.03	2.78	2.25	Març	gin	Design	Title 24*			
Domestic Hot Water	23.56	5.60	17.96		23.55	135.6	51 <b>=</b> 17.4 %			
Lighting	33.14	34.21	-1.06	Incentive	Eliaibilit	v	Yes No			
Receptacle	30.00	30.00	0.00		-	Incentive (>=1	0%) 🛛 🗖			
Process	0.00	0.00	0.00							
Process Lighting	0.00	0.00	0.00							
TOTALS:	135.61	112.06	23.55	Condition	ned Floor	· Area =	^{46,320} sq. ft.			
Step 3 ANNUAL SITE ENERGY USE										
The values shown here are based upon the results of an Average 2pm 5pm Standard Proposed Margin EnergyPro Compliance energy analysis that uses Title 24										
Average 2pm - 5pm	Standard	Proposed	Margin				Calculation Method			
Peak Demand (kW)	59.3	63.3	-4.0	manual.			-			
ENERGY COMPONENT	Stand Electricity	lard Natural Gas	Proj Electricity	posed Natural Gas		Marc ectricity	jin Natural Gas			
	(kWh)	(therms)	(kWh)	(therms)		(kWh)	(therms)			
Space Heating	0	4,860	304	3,63	80	-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	1,58	88	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	5,21	7	5,025	6,318			
Step 4 POTENTI	AL DESIGN TE									
		% Below (from s	step 2)		entive ate	Savings (from Step				
	Electricity (kWh	· –	17.4%/3)	$\rightarrow$	5.8 X		025 = \$291			
Pacific Gas and				¢/	kWh	kWh				
Deer Electric Company	Electricity (kW)			=	33.33 X	(	0.0 = \$0			
				\$/	/kW	kW				
	Natural Gas			=	33.3 X	6,3	318 = \$2,104			
¢/therm therm										
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%.										
EnergyPro 5.1.3. by EnergySoft	User Number: 00	00 RunCoo	le: 2010-11-12T1	12:45:13 ID	: 09079		Page 89 of 89			